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The *Rise* of **Venture Debt** in Europe

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Foreword

Venture capital, perhaps now more than ever, can play a key role in driving economic development and fostering innovation. As a source of finance for high-growth early-stage companies, venture capital is the lifeblood of the entrepreneurial eco-system.

There are currently more than 25,000 businesses in Europe that are backed by venture capital, employing around two million people. In the past decade, €116bn has been invested into 62,000 start-ups. Adjusted for size, the VC industry in Europe has had three times as many 10x returns on investments than the US, and is significantly more capital efficient: on average a US$100m exit in Europe has received US$40m of VC financing compared to US$70m in the US. The European venture capital industry has played a role in the emergence of companies like Skype, Last.fm, Cambridge Silicon Radio and MySQL.

Yet despite these impressive statistics, the asset class struggles to attract investment. According to Dow Jones, European venture fundraising fell 63% to €2.8bn across 41 funds in 2009 from €7.8bn in 102 funds in 2008.

Just €2.6bn of venture capital money was invested last year in 979 deals, both figures the lowest for several years. By way of comparison, the US saw €17.2bn invested in 2,562 companies. This lack of capital means that VC firms struggle to provide the follow-on-funding needed to see a young portfolio company through to profitability.

This is where venture debt can perform a crucial role. An import from the USA, it arrived on European shores in 1998 and has gone on to establish itself as an important source of funding for start-ups across the Continent. Indeed, over 10% of venture money invested in 2007 came from venture debt lenders.

Venture debt has come of age, and this timely report sheds light on an area which is still unknown to some – over 50% of venture firms that participated in this survey had not heard of venture debt until sometime over the last ten years. At a time when the European economy needs innovation and high-growth more than ever, venture debt can play an important part in creating the champions of tomorrow.

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There are dozens of other people who have contributed by making introductions or providing me with anecdotal evidence for this report. Thank you. I hope that this report will shed further light on the growing venture ecosystem in Europe.

Executive Summary

Europe represents one of the largest and most mature venture capital markets in the world. Home to world class businesses and an increasing number of successful serial entrepreneurs, it is a leader in technological and medical innovation.

Despite this, start-up companies continue to struggle to raise finance as demand outstrips supply, putting many businesses with high-growth potential at risk. This situation has been exacerbated by the economic downturn, with the very future of European innovation under threat from a lack of funding.

In the background of the growth of the venture capital industry in Europe, there has been a silent player investing hundreds of millions of dollars every year alongside some of the best known venture capitalists. Venture debt has been around in one guise or another in the US since the 1960s and reached a maturity in the lead up to the dotcom boom. Since its first introduction in London in the late 1990s, it has invested close to £1 billion across British, European and Israeli venture capital-backed companies.

Given the significant role that venture debt plays in the venture ecosystem, we set out to discover exactly how venture capital and venture debt firms interact and the impact that they have on high-growth companies. Investment details were collected on close to 400 deals across Europe in conjunction with a survey of European venture capitalists. Through one of the very first quantitative studies on venture debt in Europe we found that from 1999 to the end of 2009:

- The amount of venture debt investment peaked in 2007 at £309m invested in 123 deals. Venture debt as a percentage of venture capital was 10.2% in the UK and 5.8% in Europe in the same year, its highest on record.
- Close to 400 companies have received venture debt from UK venture lenders with £425m invested into UK companies, £362m into European companies and £199m into the rest of the world (mostly in Israel).
- The average size of a venture loan is £2.1m with a range of £860,000 to £9m. Companies in the internet, biotech and semiconductor sectors had the highest average loan size.
- Companies raising their second round of equity were the number one recipient of venture debt. Only 18 investments have been in a first round.
- 33% of companies in one venture lenders portfolio had a turnover of less than €1m at the time of receiving a loan whereas another 41% had a turnover greater than €5m.

In a survey sent to venture capital (VC) firms across Europe and Israel, we discovered:

- The average amount of funds under management for VC firms that use venture debt is £409m and tend to be firms that have been established in Europe the longest.
- Half of responding VCs currently have up to 40% of their portfolios using venture debt.
- VCs use venture debt namely to extend the cash runway of their portfolio companies and to supplement their reserves for follow-on investment.
- The vast majority of VCs have had a positive experience using venture debt and will continue using it about the same amount over the next one to two years.

1. Introduction

The venture debt industry was officially launched in 1998 with the arrival of European Venture Partners.[1] With the tech boom approaching its zenith, the market was ripe for another investment avenue open to start-up companies. Venture debt has been established in the US since the 1980s and the venture debt market in Europe has grown at an extremely rapid pace since its beginnings in the late 1990s. It has invested close to £1 billion into venture capital (VC) backed businesses since its emergence in Europe. The symbiotic relationship between entrepreneurs, venture capitalists (VCs) and venture lenders (VLs) allows venture debt to act as an efficient source of capital when the only real alternative is equity and is thus, less dilutive for all current stakeholders.

Simply put, venture debt provides working capital allowing early stage companies to extend their financial runways in order to hit the next milestone and improve the company's valuation for their next round of equity funding. For VCs, venture debt is attractive because it decreases the amount of money that needs to be invested into a company and can help to generate better returns on exit due to less dilution and the effect of leverage. Though the use of debt financing to fund company growth is an accepted strategy in many well established industries, venture debt is still less perceptible amongst some parties in European venture.

According to one estimate, two-thirds of all start-ups in the US employ venture debt, though this seems to be slightly on the high side.[2] Concrete figures are hard to come by, but practitioners estimate between $2bn and $3bn of venture debt is invested every year into VC-backed companies in the US. The motivation of start-ups and their equity backers to take on debt requires much further analysis since conventional wisdom is that "debt and start-ups don't mix".[3]

The two have certainly mixed over the last two years, as entrepreneurs have struggled to raise venture capital. The median amount of VC invested per round has dropped across Europe from £2.9m in 2008 to £2.1m in 2009[4] meaning that companies are constrained by the small amounts of equity that they are raising. Across developed VC markets time between financing rounds is also becoming longer meaning that companies have to conserve cash and keep a close eye on their burn rates.

Fortunately, for some VC-backed companies, there is a healthy venture debt market in Europe, which has been able to provide an alternative source of finance allowing companies to buy extra time between rounds and conserve their equity stake (and their VCs' reserves for follow-on investments). In 2009, the amount of VC invested in Europe reached an all time low for the decade, and the first quarter of 2010 was down 10% on the same quarter in 2009 according to Dow Jones VentureSource. As we will highlight below, venture lenders mirror the activity in the VC market which meant that in 2009 their level of investing was down as well.

Yet, venture debt is playing an increasingly important role amongst start-ups in the time that investors need to stay with companies prior to exits. If a company takes on multiple loans over the course of time and if they are raising money at a better valuation by having used the debt to achieve key milestones, the result is that the company can be built with less equity and less dilution. However, it must be noted that venture debt is not the solution to every company's financing issues as it can severely encumber a young company's cash position.

1 European Venture Partners (EVP) changed its name to Kreos Capital in 2007.
2 Sormani, A. (2004) 'Venture Finance: Enhancing Growth.' London: EVCJ.
3 Ibrahim, T. (2009) 'Debt as Venture Capital'. University of Wisconsin.
4 Dow Jones Venture Source (2009).

2. Methodology

This report is the first attempt to capture the overall size of the venture debt industry across Europe and is only the first step towards investigating this subject in more depth. Very little analysis has been conducted on the venture debt industry (especially in the UK and Europe) or the types of companies that are more likely to take on debt, the stages of these companies or their geographic dispersion which means there was very little existing literature on which to base this report (Ibrahim, 2009).

Using a new dataset of investments collected from three of Europe's leading venture debt firms (ETV Capital, Kreos Capital and Noble Venture Finance) this report is able to answer some of these outstanding questions.[5] Data on 389 investments has been made available on 280 early stage companies across the UK, Europe, Israel and North America. These 389 deals make up 72% of these three major investors' investments made to date. The remaining deals that we were unable to get data on were from one of the firm's earlier funds which covered deals up until 2004, so much of the analysis in the report covers the years 2005-2009. In addition to these three lenders' deals, we also managed to get data on various deals completed by Orix and SVB in Europe. With these deals, it is estimated that we have captured between 75% and 80% of all of the deals completed to date and close to 90-95% of deals between 2005 and the end of 2009. The missing deals in this sample are from US venture lenders' investments and hedge funds, the latter of which have not been active investors in venture debt in Europe since the latest economic crisis began.

Running in parallel to the data collected by these three firms, more evidence was gathered from a survey of European and Israeli venture capitalists on their views and uses of venture debt. Of the VCs that responded to the survey (of which there were 40 firms which corresponds to a response rate of 19%), 53% were based in the UK, 16% were based in Israel, and the remaining firms were scattered across Europe.

This report is organised as follows. In the next section, section 3, we explain the different types of debt financings that are available for early stage companies and section 4 tells the history of venture debt. Section 5 presents the findings from the unique set of investments collected by the three venture lenders which cover the years 1999 to the end of 2009. Finally, section 6 highlights the findings from a survey sent to VCs asking them about their experiences with venture debt and their opinion on how beneficial it has been to their portfolio companies.

5 See appendix 2 for a full set of venture debt providers across Europe and Israel.

3. What is Venture Debt?

Venture debt, also known as venture lending, is a term that broadly covers loans to early stage VC-backed companies. In return for the loan, the venture lenders receive principal and interest payments together with warrants and sometimes, depending upon the contract, the right to invest in a future round. Lending to early stage companies can broadly take two forms, venture leasing and venture debt. The first resembles leasing in the traditional sense, where specific assets are leased and the title of these assets belongs to the lessor. The latter, better known as venture debt, or as a venture loan, is where a loan is provided and backed by a senior lien on substantially all assets of the company including intellectual property (IP). Venture debt is generally any form of debt financing (including overdraft facilities and/or invoice discounting) provided to a company that is still dependent on VC financing to fund its operations.

There is a symbiotic relationship between portfolio company founders/management, venture lenders and VCs as the lenders are invited to co-invest with VCs into deals, but relying on the VCs track records and due diligence to determine the merit of a particular deal, especially in the early stage. Within early stage deals (typically Series A and B), venture lenders will be assessing which partner sits on the board; where that company fits into their VC fund; what the metrics are that the VC is using for company progress and valuation; and how much capital has been reserved for that particular deal. The venture lender will also analyse the company's growth to see how likely it will be to get to the next funding round. In the instance where a venture lender is investing at a very early stage, it is lending against the fact that the company will be able to easily reach their milestones and get to a second round of financing. It must be noted that to date, most of the European venture debt lenders have not invested in the seed stage and only a minority would ever invest in a Series A deal. To invest into a Series A financing round, the company must already be backed by a very strong syndicate of well-known VCs. When venture lenders are investing into a later stage company, it is still important to conduct due diligence on the VC firm, but it is much more important in this case to assess the financials of the portfolio company to ensure that venture debt makes sense for them. Finally, the lender will need to assess how a particular company will fit into its own portfolio to ensure that they are fully diversified into different sectors, stages and geographies.

There are two main kinds of venture lending described in detail in the next section: venture leasing and venture debt.

3.1 Venture Leasing

Venture leasing for equipment purposes is not as prominent as it has been over the last few decades as it has become more flexible for companies to use the loan for general working capital. The way venture leasing works is a venture lessor buys the equipment and leases it to the start-up firm with payments typically over a 36 month life. The start-up repays the principal plus interest and would grant warrants to the lessor based on the value of the equipment. After the repayment of principal and interest, the company could purchase the equipment at its residual value. If the company was acquired or issued an initial public offering, the lessor could exercise its warrants. The least risky project might have an implicit return (assuming the payment of all lease and purchase payments) of 9% to 10% and contain no warrants, while the riskiest might run as high as 17% with warrant coverage of 25% to 40%.[6]

3.2 Venture Debt

Venture debt, on the other hand, is used much more often today and is at the core secured financing for start-up companies. Venture debt became more prominent than venture leasing because VCs started investing into companies that were less capital intensive than they were in the past. A large demand was created by VC-backed companies who wanted a loan for working capital and therefore drove the growth of venture debt products.

Borrowers are typically required to have certain qualifying characteristics. Firstly, the company must have already received or be in the process of receiving their first round of VC financing and have a financing plan that will meet the repayments of the loan. Typically, the venture debt lenders are looking for companies that have at least 9-12 months of cash runway as this will give them time to reach the next key milestones and increase the enterprise value. The lenders must understand the company's financing risk in 9 months time when the company will expect to be raising its next round of equity. Lenders also require the companies to have an experienced management team and to be operating in a sector that is regarded by VCs as having high growth potential. The company will need to purchase core assets or increase their working capital. Finally, the company will wish to avoid excessive dilution of equity which would occur via further VC funding.

The typical uses of venture debt include financing equipment, financing revenue growth, bridging between equity rounds and pre-IPO (initial public offering) financing. The real value proposition is leveraging equity capital in order to increase valuations between equity rounds, reduce dilution and enhance investor return. It also enhances the appearance of financial stability to prospective and existing customers and it allows firms to unlock restricted cash.

Figure 1: Typical venture debt transaction

Typical term	3 Years
Average annual interest rate	10–15%
Typical size of a loan	£1–5 million
Warrant size (% of the size of a loan)	10–20%

Warrants give the lenders the right to purchase shares or stock at a stated price at a certain point in time. The price is typically the per-share price from the most recent round of financing and the time period is typically within 5 to 10 years. A warrant coverage of 15% on a loan worth £1m

6 Josh Lerner, *Venture Capital & Private Equity: A Casebook*, 1st edition, (John Wiley & Sons, NY, NY, 2000), p.294.

gives the lender the right to buy shares worth 15% of £1m, or £150,000 if exercised within the allowed timeframe. If the most recent round of financing had set a price of £10.00 per share, the warrant would allow the purchase of 15,000 shares of stock (£150,000/£10).

Debt finance can raise questions with new investors in the next funding round who may object to some of their money being used to pay it off. However, for start-ups the valuation proposition is generally more important than the cost of capital because if the debt can bring a higher valuation then most would consider it to be a worthwhile investment. Debt can also be helpful for later stage companies who either need another round of finance or who need more cash to strengthen their balance sheet. After a number of rounds, raising additional equity is often difficult among several series of investors, so venture debt can perform a service by not forcing these investors to go through a difficult negotiation. In these circumstances, the venture debt provider will more than likely be providing a better alternative; capital at a lower cost than raising more equity.

Throughout the rest of the report, the term venture debt or venture loan will be referred to as VL and will be used to cover both venture leasing and venture debt. VL also represents the firms who make the loans, the Venture Lenders.

Figure 2: Venture Debt Products[7]

Debt Finance Products and their Use
Equipment loan Equipment loans enable a company to finance specific assets in a cost-effective manner. These loans generally have 36-month terms with the principal amortized monthly. The loans are secured by the equipment itself.
Growth capital loan / term loan / working capital loan Growth capital loans are used to fund general corporate and operations needs. These covenant friendly, nonrestrictive loans provide start-ups with runway and flexibility and are structured to fit the specific needs of a company. (Covenant friendly meaning they have flexible covenant structures suitable or adjusted for growth stage and VC backed companies). They are usually much more flexible than a bank equivalent.
Line of credit A line of credit is a loan facility which is also referred to as an accounts receivable line, a formula line or a receivables line. It can be drawn down as the need arises or not touched at all and saved for emergencies.
Bridge loan A bridge loan is a short-term secured loan that is used until a company can arrange a more comprehensive longer-term financing. The need for a bridge loan arises when a company wants additional flexibility whilst arranging a longer-term equity or debt facility.
Pre-IPO loan A pre-IPO loan would be similar to mezzanine, would be slightly larger than other deals, and would reach maturity after one or two years.
Account receivable facilities Accounts receivable facilities are tailored for companies that have reached a threshold of sales volume and therefore could be financed with additional capital. This product is not offered widely amongst European venture lenders.
Subordinated debt In some cases, a start-up wants to further delay its next round of financing even though the company already had some debt on its balance sheet. These loans are generally secured by a second lien on the assets of the company and are free of covenants, providing runway or cushion to the start-ups next equity financing. This product is not offered widely amongst European venture lenders.
Convertible debt Convertible debt allows a company to convert all or a portion of its outstanding loan into equity at a certain point in the future, usually structured at the outset. This hybrid instrument allows a company to get the benefits of a loan while also enabling it to convert into equity. This product is not offered widely amongst European venture lenders.
M&A Financing There are various financing products that can be tailored to the needs of companies that are contemplating mergers, acquisitions, or specialized financial transactions. These products are generally structured to provide maximum flexibility with respect to size, timing, and option value. Structure options enable a company to match its financing needs with its business objectives.

7 Some of the product descriptions were taken and slightly amended for the purposes of this study from US based Venture Lender Pinnacle Ventures website http://www.pinnacleven.com/products.html. The remaining products or uses that loans can be made available for were included for the purpose of this study.

8 The J-curve refers to the way cash flows flow in and out of funds. In the early years of a fund, they will show low or negative returns because of management fees and under-performing investments. The investment gains usually come in the later years as the companies mature and, with the help of the general partner, increase in value. The effect of this timing on the fund's interim results is known as the J-curve effect.

3.3 Comparison of returns – venture debt vs. venture capital

VL funds vary in size and structure across the US and Europe as some operate within commercial banks (SVB, Comerica, Orix, and Square 1 Bank), some are structured by holding lines of credit from investment banks (ETV), some operate similarly to VC partnerships by raising their money from limited partners (LPs) (Kreos, Noble, Gold Hill, Lighthouse and Pinnacle) and finally there is one in the US which is publicly listed, Hercules.

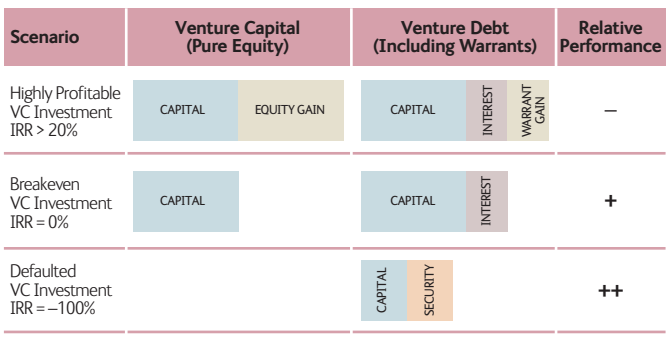
For those VLs who operate a limited partnership fund, they will typically charge a management fee of 2% of the capital committed and will receive between 15-30% of the profits from the fund after a minimum hurdle rate is first met. These funds are usually only received after the LPs have received their initial investment back. One component of VL funds is that funds are recycled back into the fund as the debt is repaid by the borrowers. This means that they generate funds from lease payments almost immediately and they will typically pay out distributions quarterly, beginning in the first year of operations. With VLs generating cash more quickly from the lease payments, they have a much shorter J-Curve[8] to get to breakeven on the fund.

VLs typically target a 12-18% IRR over the life of one of their funds which classifies them in their own sub-asset class within private equity and venture capital. Venture debt is characterised by a unique risk/reward profile as it combines both the features of VC returns as well as the stable cash flows from the debt. They target debt yields in the region of 12-15% and the lenders benefit from the upside potential through the exercise of warrants. Some funds are able to recycle cash in the fund and some funds have recycled the size of a fund three times. Therefore, a fund of £100m could actually lend £300m over the life of the fund if they did not lose any money on any of the earlier investments. In this instance, venture debt firms would want to put money to work as quickly as they can in order to start collecting interest on the loans.

Venture debt funds can be expected to accrue total warrants for around 40% of the amount invested throughout its life. There is the potential for further gains through the sale of the underlying assets but there is also the downside protection from the senior ranking in the capital structure. VL fund performance is very dependent upon individual deal level returns achieved by VCs. The VL fund performance will increase with higher VC returns as a result of larger warrant gains.

When comparing the return profile of VC with those of VL, three main scenarios can be examined – highly profitable, breakeven and default. The diagram below shows these 3 scenarios and the performance of VL relative to VC in each scenario.

Figure 3: Return Profile: Venture Capital and Venture Debt



4. A Short History of Venture Debt

Venture debt has been around in its many various forms since the 1960s when it was first introduced in the United States as venture leasing for specific assets.[9] Venture leasing, as discussed earlier, is a financing product whereby lenders provide funding for specific physical assets or equipment, secured by the assets themselves, to early-stage companies. At the end of the lease, the company has the option to purchase the equipment. West Coast US venture capital firms were the first to lease equipment to start-up firms as venture capital financing in that decade slowed. With a limited supply of venture capital, start-up firms were turning to banks to finance major equipment purchases with debt. Similar to today, banks had little interest in lending to companies with little or no operating revenues. Several transactions were completed in this time period but the reduced capital commitments to venture capital funds during the 1970s led to a retrenchment in the venture debt market.

The revival in venture leasing was spawned by the resurgence of venture capital funds flowing into the semiconductor sector in the early 1980s. The success of the earliest funds led to more competition in the sector from real estate syndicators, investment banks, and equipment leasing firms. The expansion from equipment leasing to life science and IT lending occurred in the early 1990s. Life science and technology start-ups began approaching lenders not for loans to buy equipment but because they needed more cash on their balance sheets, often to show prospective acquirers or strategic partners that they had some staying power. This resulted in lenders providing loans to these companies that were effectively cash collateralised.[10]

Venture debt (including equipment leasing) made its first appearance in Europe in 1998 with EVP which is today known as Kreos, about 15 years after the very first venture capital firms investing into high tech companies emerged in the UK (3i, Apax, Advent Partners, Alta Berkeley and MTI were amongst some of the first high-tech investors in Europe). Interestingly, every major venture debt provider that lends to companies across Europe is located in London (ETV, Kreos, Noble, Lloyds and SVB) and now many of these firms have expanded into having offices in the Nordics and Germany. EVP/Kreos also opened an office in Israel in 1999 and ETV did the same shortly thereafter. A few other lenders including GE came to the market in 2003 and completed one deal and left and then Noble Venture Finance, formed by the founder of EVP, started a dedicated venture debt fund in 2004. Whilst SVB had always had a strong presence in Europe, they did not start their European venture debt operations until 2005. SVB also started actively investing in Israel in 2008.

European commercial banks are very similar to their American counterparts as they do not take any real risk in the financing of technology companies. Until venture debt came into existence in Europe, most tech companies with any measure of risk had to be fully equity financed. VLs in Europe have been instrumental since their inception in providing early stage companies with cash runways to gain real traction and therefore play a critical role in ensuring the continuing development and success of the European SME sector.

Loans to early stage companies across Europe grew from virtually zero in the mid-1990s to almost £125 million over the boom years of 1999-2001. Then venture debt activity came to a halt between 2002-2004 as venture capitalists and venture debt firms felt the aftershock of the dotcom crash.

The rebirth of venture debt in Europe was fuelled by the growth in venture capital investing. Venture debt as a percentage of venture capital investing in the UK reached a peak in 2007 at 10.2% and across all of Europe (including the UK) it was 5.8%.

Case Study – Venture debt in the US

In one of the largest venture lending deals in history, Facebook borrowed $100m in 2008 from venture lender TriplePoint Capital to be spent on new servers. Prior to that deal, TriplePoint had provided $30m in debt financing to Facebook. In all, Facebook had raised in excess of $300m including $240m from Microsoft and $100m from Li Ka-Shing ahead of their $100m debt finance from TriplePoint.

Other high profile firms in the US which have used venture debt include YouTube, A123 Systems, Cavium Networks, Infinera, Netezza, Ancestry.com, Green Dot, Kayak, Cooking.com,

9 This background section is based primarily on Josh Lerner's, "A Note on the Venture Leasing Industry," HBS #9-294-069, November 2001.

10 Levin, S. *Venture Debt: Device Financing Lifeline or Anchor?*, Windhover Information Inc., 2008.

5. Venture Debt in Europe 1999–2009

This section analyses investments made by three of Europe's largest venture debt providers: ETV Capital, Kreos Capital and Noble Venture Finance. In total it captures 389 separate investments into 280 early stage companies across the UK, Europe, Israel and North America. The venture debt firms were asked to provide details on specific deals made including the company's name, the date of the transaction, the country where it is headquarted, venture capital investors in the deal, the funding round/stage, the amount invested and the sector.

Due to the difficulty of reviewing every single loan document, not all of the data requested was made available. Where it was possible, data was filled in using commercial databases (Dow Jones VentureSource) and from VC firms. The aggregate statistics supplied by these three firms' total investments over the 11 year period 1999-2009, represent around 70% of all of their investments to date. The dataset from 2005 to 2009 represents around 95% of VL investments over this period of time as it includes some of Orix and SVBs European deals.

In aggregate, we know that from 1999 to 2009, almost £1 billion has been lent in 538 early stage deals across Europe and Israel (see Figure 4) with almost half going into the UK (see Figure 5). The reason that so few deals were completed during 2002-2004 is because the two prominent VL firms that were around at this point in time were fundraising and were not making many new investments. The £8m invested in 2004 jumped up to £119m in 2005 once new funds had been structured but also because Noble Venture Finance entered the market in 2004. What is notable about these figures is that the VL sector as a proportion of the VC sector has grown almost tenfold in the last 5 years and London has become the centre of choice for this area of activity.

Figure 4: Number of deals 1999 – 2009

	UK	Europe	ROW	Total
1999	5	6	2	13
2000	11	4	9	24
2001	12	5	10	27
2002	6	7	5	18
2003	5	2	0	7
2004	5	3	0	8
2005	29	38	9	76
2006	34	42	11	87
2007	51	45	27	123
2008	48	57	22	127
2009	14	11	3	28
Total	**212**	**215**	**99**	**538**

Source: BVCA analysis on ETV Capital, Kreos Capital and Noble Venture Finance

Figure 5: Amount invested 1999 – 2009

	UK	Europe	ROW	Total
1999	£16,573,194	£7,895,393	£5,476,072	£29,944,660
2000	£38,030,125	£2,393,856	£13,462,149	£53,886,130
2001	£16,750,589	£4,861,107	£18,224,722	£39,836,418
2002	£6,377,570	£9,055,873	£8,474,041	£23,907,484
2003	£5,739,266	£1,724,133	£0	£7,463,400
2004	£5,079,096	£3,223,208	£0	£8,302,304
2005	£38,832,990	£60,615,381	£19,553,589	£119,001,960
2006	£54,640,430	£39,228,355	£20,918,381	£114,787,166
2007	£136,710,264	£105,285,502	£67,242,104	£309,237,870
2008	£86,990,347	£101,859,985	£43,016,719	£231,867,051
2009	£19,000,000	£26,180,553	£2,964,529	£48,145,082
Total	**£424,723,872**	**£362,323,346**	**£199,332,307**	**£986,379,525**

Source: BVCA analysis on ETV Capital, Kreos Capital and Noble Venture Finance

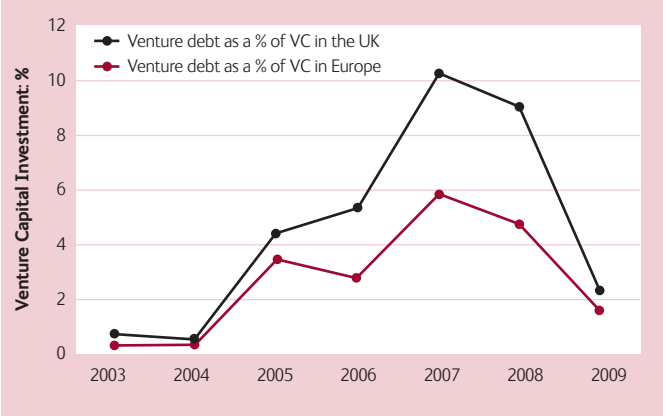
5.1 Loans by Country

The companies in this particular sample that received a venture loan were predominately based in the UK and Continental Europe, although investments into Israeli companies have started to increase since the mid 2000's. One hypothesis is that VLs, like the VCs they work with, invest locally. Given that all three VLs are based in London, the hub of the European VC industry, it is not surprising to see that the majority of loans go to UK based companies. It takes several years to build up a reputation and VLs are reluctant to work with VC firms that they have never worked with before.

When we look at the concentration of VL as a percentage of VC, we find statistics that show the UK for a short period of time was on par with the anecdotal evidence on the US market that venture debt made up around 10-20% of the amount invested in total VC.

The total amount invested by VLs peaked in 2007 (see Figure 5) when £309m was invested globally through 123 investments (£137m was invested into the UK, £105m across the rest of Europe, £39m into Israel and £28m across the rest of the world). In the UK and Europe, VL as a % of VC peaked in 2007 at 10.2% and 5.8% respectively.

Figure 8: Venture Debt as a Percentage of the Amount of Venture Capital Investment



Source: BVCA

Case study - Venture debt in Israel

The Israeli venture capital industry was transformed from a non-existent industry in the early 1990s to one of the most thriving high-tech clusters worldwide in the late 1990s thanks mostly to government interventions including the Yozma initiative plus the high proportion of scientists and engineers. The venture debt industry in Israel got started in 1999 with the formation of EVP/Kreos and in 2000 with the Israeli firm Plenus Venture Lending. Plenus is now on their third Israeli VL fund and has completed over 60 deals of over $260m in credit facilities. There were a handful of banks that were making loans to start-ups following the growth of venture investing in the late 1990's in Israel, but then they all took a big hit as the internet bubble came crashing down. Plenus and EVP/Kreos were the only VLs in Israel until 2005 when other European and American VL firms started to invest into Israeli start-ups including ETV and Hercules. It is estimated that the size of the venture debt industry in Israel is about the same as the UK with an average of around 10% of the amount of VC invested every year.

Some practitioners based in Israel have explained how the industry is more flexible than the US market where venture debt is viewed more as a commodity with standard terms - 36 month repayment period, 8-12% interest and a 6 month grace period. In Israel, they are able to give a two year grace period plus two years of payments. For larger and later stage VC-backed companies, they are also able to provide lines of credit.

The motivations for VC-backed companies are similar to those in Europe. Israeli VC funds are much smaller in size to the typical funds in the US which means there is only so much for follow-on investment, making venture debt a very attractive product. VCs in Israel seem to understand that a VL can help their portfolio companies get to the next funding round with a higher valuation and increase the overall IRR of the investment.

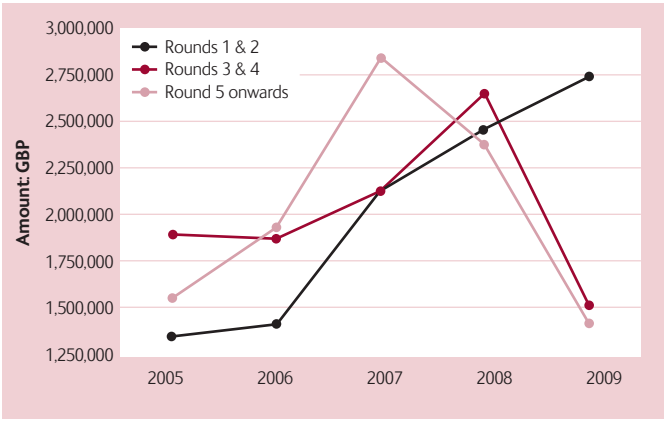
According to the dataset that was collected for the purpose of this study, there have been 50 investments into 44 Israel companies worth £95.2m over the period 2005-2009. The average amount invested is smaller than for the wider sample of all deals at £1.9m. The majority of the deals completed are in later stage companies (71%) with a median funding round of 3. The volume of deals collapsed in 2009 to only two completed deals from 14 in 2008 (but it must be noted that these statistics do not include Plenus' deals or any other US VL investments into Israel).

5.2 Size of Loans

The average loan in this sample is £2.1 million with a range of £860,000 to £9m. As few deals were reported before 2005, we calculated the average size of a loan over time and found that they are getting larger despite the median VC investment getting smaller. VLs may be moving to later stage companies which are more developed and can take on a loan for a merger or acquisition for example. Also, with most of the banks withdrawing from lending to small and medium sized enterprises VLs are filling the gap. The only rounds which recorded growth in size in 2009 were loans in the first and second rounds (see Figure 9).

As with VC investing, it requires as much effort to complete a deal of £1m as it does to do a deal worth £50m. One explanation on why deals are becoming larger is that VCs are waiting longer in between rounds to inject further rounds of equity. Thus, they are relying more upon debt to finance the business through key milestones to increase the valuation of the company before releasing more equity.

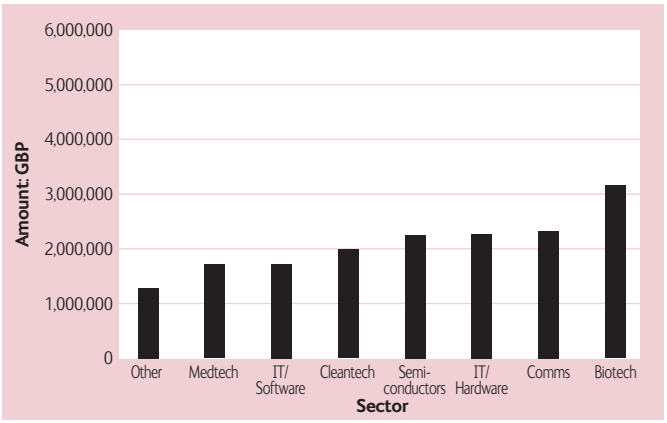
Figure 9: Average Size Venture Debt Investment by Round and Year



Source: BVCA

Biotech loans had the highest average with just overt £3m per investment and deals in the IT/Software sector had the smallest average with £1.6m per investment. Software deals require generally less investment through its early growth phases because they are much less capital intensive compared to a biotech or semiconductor deal.

Figure 10: Average Size of Venture Debt Investment by Sector



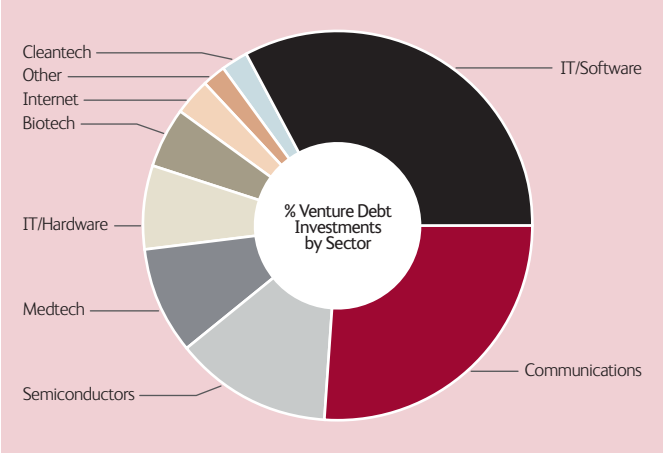
Source: BVCA

5.3 Loans by Sector

Firms in the IT/Software sector (121 investments into 97 companies) and communications sector (95 investments into 70 companies) account for 60% of all venture loans over this period of time. Biotech companies accounted for the least number of loans, £60m through 19 investments. There is a small sample of medtech companies in this sample which seem to be especially well suited to using this type of financing. Their development paths are typically marked by a clearly defined set of technological, clinical and regulatory milestones.

Fewer than 20 biotech companies received any investment from VLs in this sample and when we looked closer at the reasons for this it has more to do with the size of the loan that they would like and the lenders willingness to take the risk of having any one fund dominated by large loans. Biotech firms typically look for loans around $5m because of the high costs associated with their various trials. If debt allows a biotech company to assess whether or not they will reach the next phase of their trial then it could be a more cost-effective way for VCs to see how successful their investee companies are. On the other hand, VLs are unlikely to have more than a handful of large investments into biotech companies because of the risk associated with having larger loans in their portfolio which may get written off meaning they not only lose that up-front investment but also the money they could have earned recycling that investment into more companies from the fund.

Figure 11: Number of Venture Debt Investments by Sector



Source: BVCA

Within this sample of companies, 51 (18%) have received 2 loans, 10 have received 3 loans, 3 have received 4 loans, and one medtech firm received a total of 5 loans.

5.4 Loans by Financing Round

Where we have details on the financing round, 28% of all investments were made in the early stage of a firms lifecycle (here early stage is defined as the first or second financing round which typically follows an initial seed round).[11] For the other loans, 65% were made in the 3rd round onwards with the remaining 7% unknown.

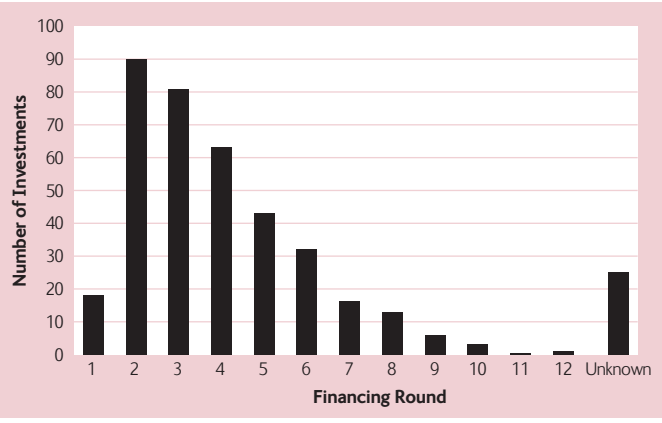
No details were made available on the companies and the levels of revenue being generated. In most cases, the VLs require minimum levels of revenue or at the very least, the company must have revenues in sight. VCs would be very reluctant to allow a portfolio company to take a loan as they would be paying the interest from the latest round of VC finance raised.

Internal analysis from one of the VL firms found that 41% of their companies at the time of receiving a loan had a turnover of more than €5m whilst another 33% only had a turnover of €1m or less. It found that 81% of the companies had been trading for more than 3 years with another 15% trading for 2-3 years. 85% of the companies in this sample found it difficult to source finance through banks or other institutional investors prior to securing a venture lease.

Some VLs take the view that early stage companies carry less funding risk because of the likelihood that VCs will invest in at least one more round. However, early stage companies carry a greater technological risk that the product will fail or that a market does not exist for the product or service. At this stage, with little or no residual value in the company, it makes it more risky for the VL (especially for software companies which have very little residual value if the service fails). Looking at later stage companies, more invested capital would have already been spent by VCs so they run an increased funding risk meaning if they stumble at that point, the VC syndicate may not continue to support the company. But at this stage of a company's lifecycle there will probably be more residual value in the company in terms of technology and intellectual property (IP) which would protect the downside for a VL.

As VLs rely on VCs' ability to choose good companies and on their willingness to support the company with future funding, they try to maintain good relationships with the VCs who are able to raise fresh funds from LPs and from those who are able to demonstrate the largest exits. To further reduce risk, VLs are usually closed just after a major equity infusion to increase the possibility that the debt would be paid off before the company runs out of cash. As was discussed earlier, VLs typically look at the potential enterprise value of the company vs the risk that will be taken to reach that valuation and then make a decision on whether to invest. It is not possible to decipher exactly when each loan was deployed, if it was part of an existing financing round, right after the round or much later in between rounds.

Figure 12: Venture Debt Investments by Financing Round



Source: BVCA

11 In the next section of the report we review the findings from the survey sent to VCs who have used venture debt in at least one portfolio company and we find that the most typical stages of using a loan are later stage (67%), in the second round (58%) and in between rounds (55%).

6. What Venture Capitalists Think About Venture Debt

In the summer of 2009, surveys were sent to 210 venture capital firms across the UK, Europe and Israel requesting that they complete a survey on venture debt. This generated a response rate of 19% (40 firms). Of the 40 respondents to the survey, 32 (80%) have used venture debt in at least one portfolio company before. Of the VC firms that responded to the survey 53% were based in the UK, 16% were based in Israel and the remaining firms were scattered across Europe (see appendix 3 for charts and graphs from the survey).

The average amount of funds under management (defined as undrawn capital plus amount invested at cost) of the VC firms that responded to the survey and had used venture debt at least once, was £409m (median £280m). The largest firm had funds under management in excess of £3bn and the smallest firm only had £20m. The sample of VL users included the more established European VC firms who have been in existence for at least ten years. The funds in the sample are also mostly pan-European investors or at the very least firms that will invest outside of their home country.

For the eight VC firms that answered the survey but had never used a venture loan, we found that their funds under management were much smaller with an average of £99m and had not been in existence as long as the other firms. A few of the responses on why they had not yet used venture debt were because:

> *"We weren't aware of its existence over the last couple of years."*
>
> *"It is not the right circumstances yet because our portfolio is too young."*
>
> *"In the one company where we looked at venture debt as a funding solution and received terms from a provider, we decided against taking it up because we felt there was too much uncertainty in the company's cash flows to meet the repayment schedule offered."*
>
> *"We are an early stage investor and therefore it is inappropriate."*

We asked VCs when they were first made aware of venture debt and the overwhelming response was in the early 2000s. As this sample has some of Europe's more established firms it is not surprising then that many of them had heard of venture debt in the 1990s when the European tech industry first really started to reach any kind of scale.

Similar to our findings earlier in the report drawn from the three main VLs in Europe looking at the average size of a loan, VCs reported that the average size of a VL that their portfolio companies would take is in the range of £1 to £3m.

It is possible to track the growth and importance of the venture debt industry by the current size of VCs portfolios with existing debt. Of the VC firms that had used a VL, 40% had used them in at least 0 to 20% of their historical portfolio and 37% had used them in at 21 to 40% of their historical portfolio. There seem to be a higher number of companies that currently have a VL as 46% of the VC firms responded that 21 to 40% of their current portfolio has a VL today. What is not clear is why there are more companies currently that have a VL than historically. It could be that more firms now know about the positive effects of venture debt and have built up relationships with the VLs. Another explanation could be that with the current fundraising drought since the start of the latest global economic crisis, VCs have been reserving cash to use in their current portfolio companies and are taking on loans to ensure that they will continue operating through the current downturn (this will be explored more in the next section).

The VCs reported that they would typically use venture debt in later stages or in between rounds. Only 10% of VCs would use a VL in the seed/start-up phase and 22% would use it in the first round of financing. This mirrors the findings from the previous section.

Nearly 20% of VCs reported that the CEO, CFO, VCs and the board were all responsbile for making the decision to raise venture debt. Another 40% said that it was the decision of the board, but in many cases the board will be represented by at least one VC and possibly a member of the executive team.

The results were varied on how VCs decide who to raise venture debt from. Nearly 60% of VCs run a process to get the best commercial rates with 30% of VCs prefering to raise money from a firm that they have worked with on previous transactions. Another 10% decide using other means.

The results were again varied on why VCs use venture debt, but the overwhelming majority (75%) use it to extend the cash runway of the company. They also use it to supplement VC reserves (55%), for insurance purposes (35%) but also to finance an acquisition, for CAPEX and as a 'last throw of the dice'.

Over 40% of VCs view VLs mainly as trusted providers of finance and over 30% of VCs view VLs as a symbiotic partner. Only about 15% of VCs view them as a provider of a commodity. We wanted to know if VCs thought VLs added any value beyond the capital they invest and many of them thought that they did. Some of the top ranking value add activities VLs bring to a company are their good perspectives on the market; great connections and introductions to potential customers and other investors; they are able to bring credibility to companies; they force the management team to focus on financials, cash burn and cash generation.

7. Conclusion

Venture debt has come of age in Europe, reaching 10% of the amount of VC investment in 2007 in the UK. It has helped more than 500 innovation intensive businesses with their financing needs and have helped founders/ management as well as VCs from having to raise further rounds of finance and risk getting diluted.

In the market turmoil of 2008, venture debt was in great demand. VLs focused on companies that could either get to profitability quickly or on those with supportive venture syndicates. In 2009, the pace of VC investment across Europe slowed meaning that loans to VC-backed businesses also slowed. Given that loans from retail banks to small and medium sized enterprises has dried up, venture debt could have a more important role to play with more mature later stage companies for some time to come.

While the UK is presently the European centre for this type of specialist lending and is likely to maintain this status given the maturity of the market, new players are starting to emerge in Europe. There are more venture debt firms lending to start-up companies today than there were a decade ago highlighting the significant growth in this industry. There is also more choice for VC-backed businesses on who they can bank with and the kinds of products that they require.

But there are still many unanswered questions around venture debt and its characteristics. Further research could be conducted to assess where companies are in their product stage when they receive a loan. It would also be useful to know the percentage of companies that default or need to restructure a VL and the most important variables leading this event. A deal level analysis looking into the actual runway extension as well as valuation increase could shed further light on the benefits of start-ups taking on debt. Finally, a more thorough analysis on behalf of the limited partner community could look at VL funds and their returns by focus, geography and vintage.

Appendix 1: Case Studies

Stokes Bio

Stokes Bio was a 2008 venture debt investment of ETV's. ETV funded a €700,000 loan alongside a € 400,000 investment from the equity investors in October 2008, shortly after the Lehman crisis. The company was able to use the runway given by the venture loan to secure a major technology deal with Monsanto, which allowed the shareholders and founders to increase the enterprise value of Stokes significantly with far less dilution than if an all equity round had occurred.

The company recently sold to Life Technologies for $44m. All the investors received a high multiple on their investment, substantially higher than if venture debt had not been used.

LOVEFiLM

LOVEFiLM is one of Europe's largest home entertainment subscription services having operations in the UK, Germany and the Nordics. The business achieved operational profitability in 2008 and, in early 2009, signed up its one millionth paying subscriber. With ambitious plans for the future, the business required funding to repay an existing venture debt facility and invest in new on-demand technologies.

LOVEFiLM is backed by (amongst others) Index Ventures, Balderton Capital and DFJ Esprit with Amazon holding a significant stake post the acquisition by LOVEFiLM of Amazon's DVD rental business in 2008. In addition to VC equity, the business had been financed by a venture debt facility as it had historically not generated sufficient cash to take on conventional senior bank debt.

On a look forward basis however, the business was forecasting sufficient cash generation to service a more traditional debt structure with a more back ended repayment profile. Having worked with the bank since the business was set up in 2003, LOVEFiLM turned to Lloyds TSB Corporate Markets. The bank brought in its specialist Growth Finance Team which worked closely with the business to provide £10.5 million of growth funding in addition to working capital facilities giving LOVEFiLM the right financial foundations for continued growth and success. The financing structure was tailored to forecast company cash flows. Key benefits to LOVEFiLM included:

- **Flexibility** - as cash was released from the venture debt monthly repayments to enable investment in the business
- **Pricing** - as this was more reflective of a cash generating company and
- **Banking relationship** - to support the company as it moved to its next growth stage

Appendix 2: Venture lenders in Europe

Venture debt firms active in Europe	Year lending commenced in Europe	Overview
ETV Capital	1999	ETV provides a variety of products structured to meet the needs of individual companies, available from early-stage series A through to pre-IPO. They offer venture loans, equipment loans and growth capital (examples of growth capital loans are working capital facilities governed by receivables or contracted revenues). Loan sizes vary from €1.0 million to €8.0 million, with larger loans potentially available on a syndicated basis. ETV has made close to 200 investments across Europe and Israel. They have offices in Germany, Israel and the UK.
Frog Capital	2010	Frog is a growth stage investor focused in the cleantech and IT space providing both equity and debt investment.
Kreos Capital	1998	Kreos has completed close to 250 transactions in 12 countries across Europe and Israel. Kreos provides entrepreneurial companies with debt financing and growth capital from inception to later stage – typically investing €150m - €200m annually across the portfolio with individual deals from €750,000 to more than €15 million. They are currently on their third fund launched in 2007 and have offices in Israel, Sweden and the UK.
Lloyds Growth Finance		Lloyds Growth Finance is primarily focused on development, acquisition funding and refinancing. They typically invest into companies with turnover of greater than £15m and turnover growth greater than 10%. They offer a coordinated and specialist approach, providing access to the complete offering of the Lloyds TSB Group. They are active across the UK.
Noble Venture Finance	2004	Noble finance existing equipment or provide working capital usually by secured loan and can provide a line of credit for future equipment purchases or working capital needs. They can provide facilities from €1 million to €10 million and are able to syndicate larger amounts through their extensive connections. They have invested across the whole of Europe.
Silicon Valley Bank	2005	SVB Financial Group UK Ltd. offers access, but is not limited to, specialized financial services for technology, life science and private equity firms. They provide access to sources of diverse debt capital including venture debt, acquisition financing, working capital, capital call lines, growth capital and capex financing.

Appendix 3: Graphs from the 2009 Venture Debt Survey

Figure 1: VC Firm Respondents Location

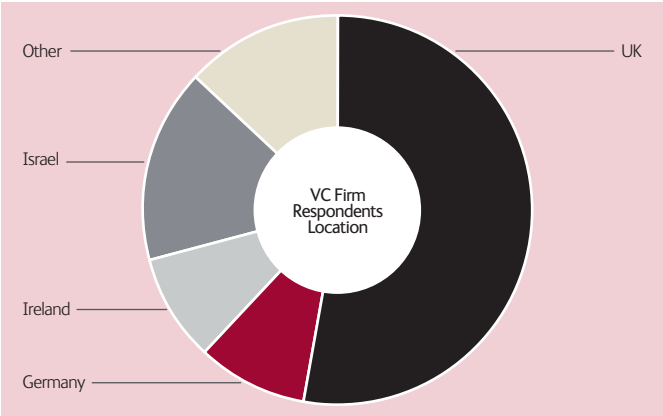


Figure 2: When the VC firm first became aware of the concept of venture debt

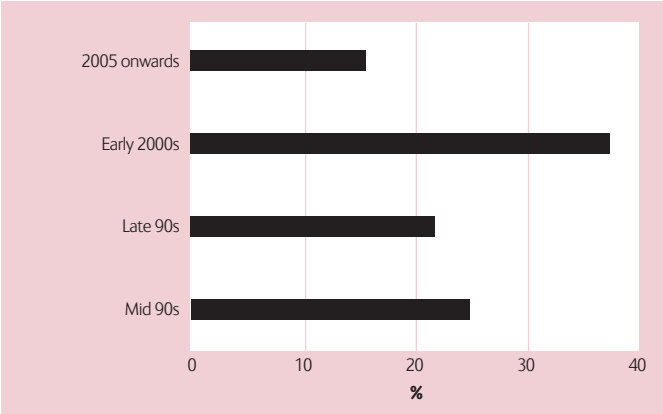


Figure 3: Average size of venture loans portfolio companies take

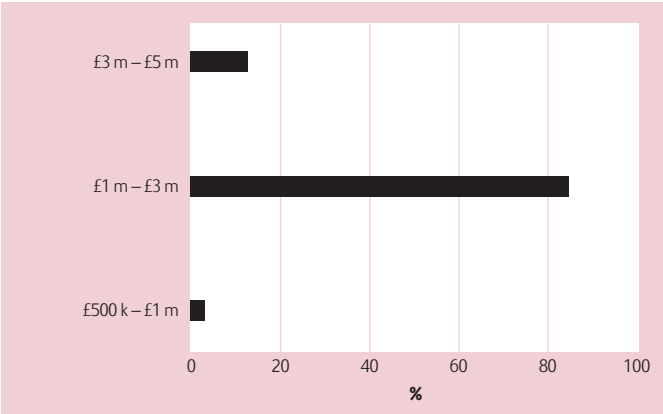


Figure 4: Historical portfolio companies that used venture debt

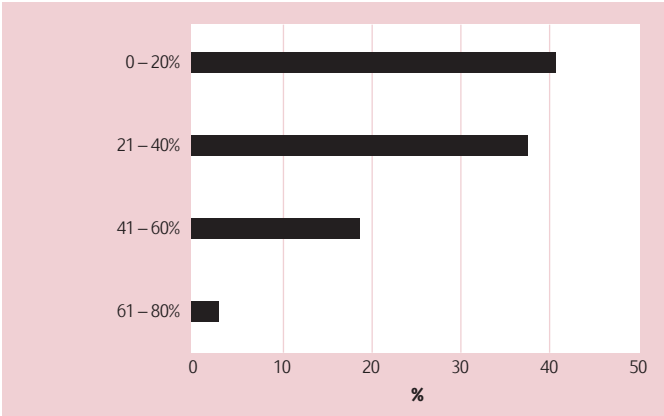


Figure 5: Current portfolio companies with venture debt

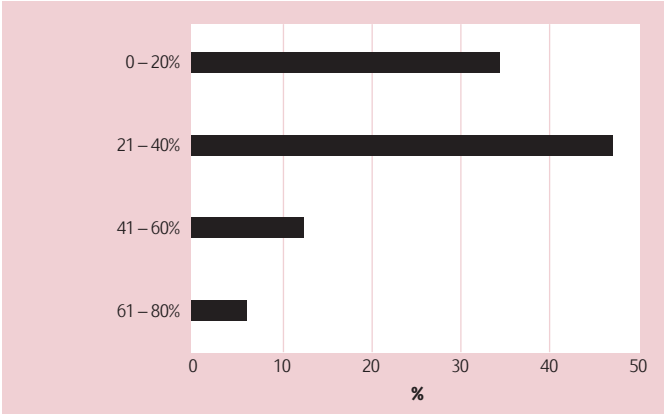


Figure 6: Typical stage of using venture debt

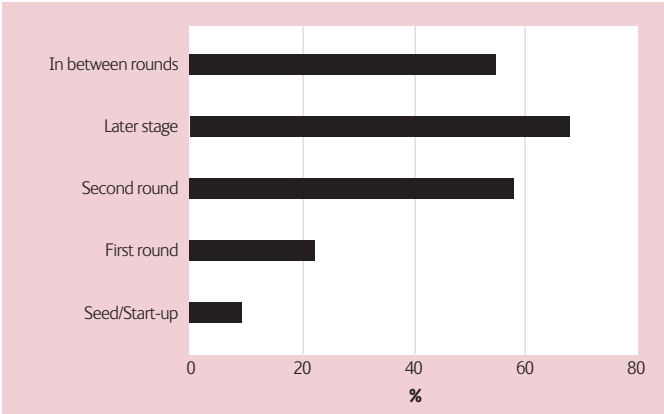


Figure 7: Typical sectors where venture debt is used

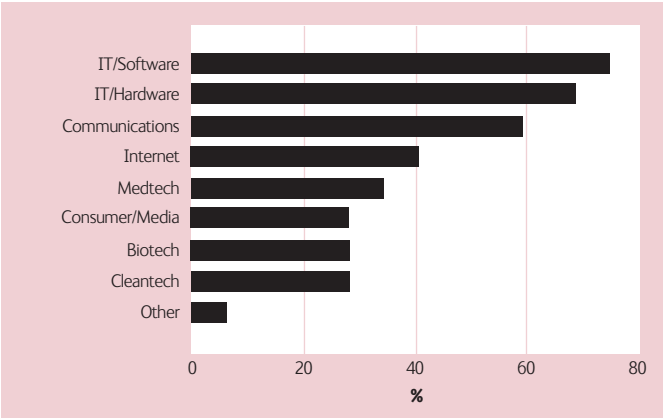


Figure 8: Decision makers for raising venture debt

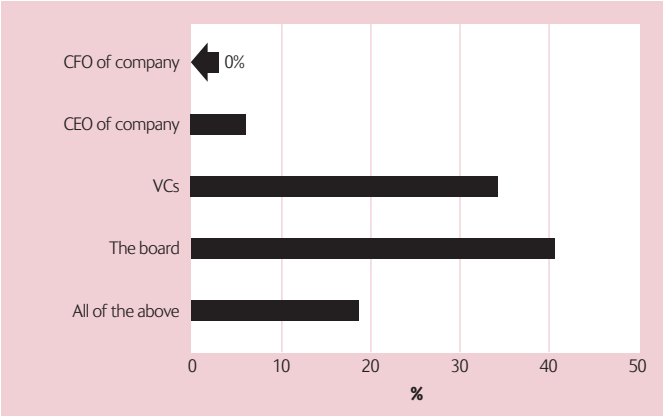


Figure 9: Why VCs use venture debt

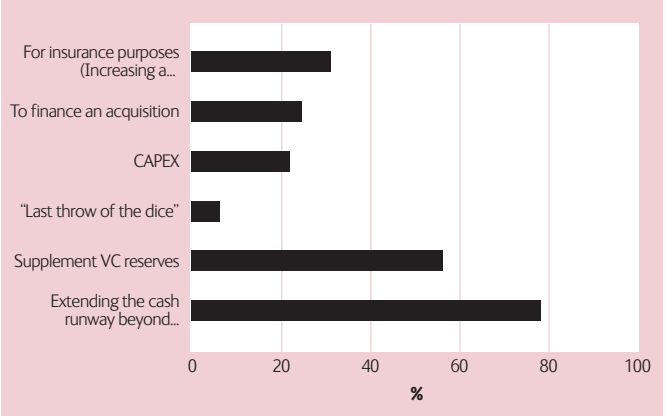


Figure 10: How venture debt fits into the VC ecosystem

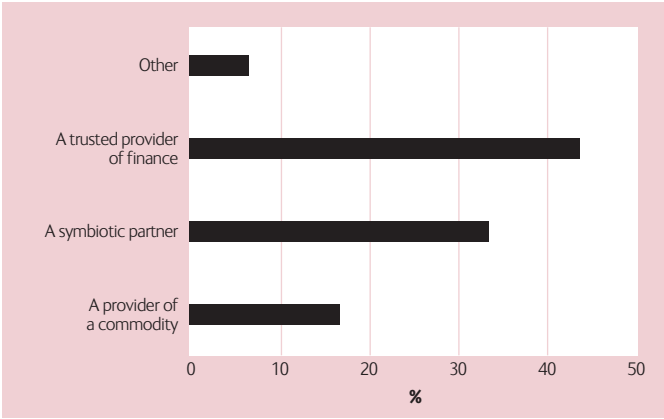


Figure 11: VC firms' experiences of using venture debt

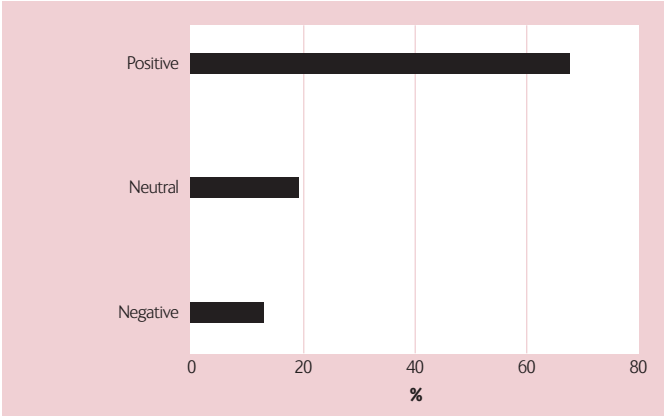
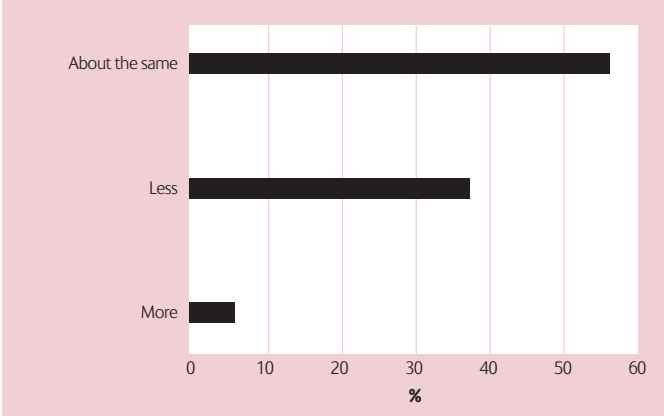


Figure 12: Anticipated use of venture debt over the next 1–2 years



The British Private Equity and Venture Capital Association (BVCA)

The BVCA is the industry body and public policy advocate for the private equity and venture capital industry in the UK. Our members come from venture capital, through mid-market, to private equity/large buy-out houses from all over Britain.

Our voice is one of authority when speaking for, or negotiating on behalf of, the UK industry. Our aim is to aid understanding, clarity and transparency around the activities of our members, promoting our industry to entrepreneurs and investors—as well as Government, trade unions, the media and the general public.

We provide a growing list of services and best practice standards for our members across a spectrum of activities covering a network of interconnected committees, which focus on segment-led, legal, technical, regulatory, investor-led and service-led needs. We also provide networking opportunities, training courses, research, publications, public affairs and communications on behalf of the industry.

With a membership of over 450 firms, we represent the vast majority of all UK-based private equity and venture capital firms and their advisors. The benefits of becoming a member—whether full or associate—are wide-ranging and only briefly described above.

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