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KEITH MORGAN,
CEO OF BRITISH BUSINESS BANK

A vibrant and healthy equity finance market is key to enabling smaller ambitious businesses to fulfil their growth potential and help build a successful economy in the UK.

For start-up businesses, or those planning to grow quickly, equity funding remains an important option. Often accompanied by expertise and guidance, equity can catalyse rapid growth for companies seeking to diversify, expand or enter new markets.

Our Small Business Equity Tracker provides a unique and comprehensive picture of UK equity finance markets for smaller businesses. As the government’s centre of expertise on SME finance, such research and analysis helps us identify market imperfections, and design ways to rectify them.

This year’s report finds that the overall UK equity finance market remains strong. A record £6.7bn of equity finance was invested into UK smaller businesses in 2018, continuing a growth trend since 2016. The market has grown 72% in just two years, and last year was the second consecutive year the market totalled over £6bn.

While the funding value at each business stage has increased – seed by 4%, venture by 10% and growth by 2% - this is tempered by a drop in deal numbers (6%) in 2018, mainly due to a significant reduction at the seed stage (12%). The outcome is that the recent trend of increasing average deal sizes since 2013 continues, with a rise of 11% in 2018 to £4.5m.

This report therefore points to a maturing market for equity finance in the UK, with larger deals further down the pipeline increasing the overall value of investment.

It’s also encouraging to see trends, both internationally and within the UK, that indicate improving conditions for this type of finance.

Recent growth of the UK VC market has outperformed that of the US – and since 2016 the UK has had a higher number of deals relative to GDP. Although deal sizes still tend to be larger in the US, UK VC-backed companies now receive a similar number of follow-on rounds to their US counterparts.

Within the UK, an increasing share of equity finance is invested outside of London - although it remains the largest market by region - with 41% of 2018’s equity investment value invested in other regions, up from 34% in 2017.

Encouragingly, the report provides growing evidence that the British Business Bank is improving UK equity finance markets in a number of ways. It remains important, however, for us to continue such interventions to maximise the chances of success for growing UK smaller businesses:

- **Seed and venture stage deals we support through our Enterprise Capital Funds programme, Angel CoFund investment and Regional Angels programme tend to be smaller than the wider market, addressing the lack of availability of smaller deals.**

- **At the other end of the scale, growth stage deals through funds we support are larger than the wider PE/VC market, enabling scale-up companies to be better capitalised at later stages. Indeed, three of the 10 largest UK SME equity deals in 2018 involved funds we support.**

- **Our dedicated regional funds are also beginning to make an impact, with the Midlands Engine and Northern Powerhouse Investment Funds contributing to 20% and 16% of equity deals in their respective regions.**

The comprehensive picture of smaller business equity markets this report provides will inform our ongoing policy discussions with Government, business and the finance industry, while helping us refine our programmes further so they focus on the parts of the market where UK smaller businesses can benefit most from our support.
A record £6.7bn of equity finance was invested into UK SMEs in 2018, showing the strength of the UK equity ecosystem in supporting scale-up companies.

Equity deal sizes have increased every year since 2013 and continued to do so in 2018, increasing 11% to £4.5m. This is despite fewer ‘megadeals’ showing the market is supporting a greater range of scale-up businesses than before. UK VC-backed companies are now just as likely to receive follow on funding rounds as their US counterparts.

An increasing share of equity finance is going to regions outside of London. Although London is still the largest market, 41% of 2018’s equity investment was invested in companies outside of London, up from 34% in 2017. Equity investment in areas outside of London increased by £616m (29%) in 2018, driven by larger deals.

Strong investment values were offset by a decline in equity deal numbers, which fell 6% in 2018. The UK VC market is showing similar trends to the US and wider European VC markets with fewer deals especially at early stages, but overall increases in funding due to larger deals.

This is the fifth annual British Business Bank Equity Tracker Report examining equity deals in UK SME’s. In addition to the usual review of trends in UK equity finance using data from Beauhurst, this year’s report summarises new British Business Bank research on the capabilities of UK VC fund managers exploring issues around talent diversity and professional development. The report also provides in-depth analysis of the UK patient capital ecosystem, drawing detailed comparisons to the US VC market.

### Table 1

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td>Number of deals</td>
<td>1,524</td>
<td>1,711</td>
<td>1,603</td>
</tr>
<tr>
<td>London</td>
<td>764</td>
<td>809</td>
<td>742</td>
</tr>
<tr>
<td>Non-London</td>
<td>760</td>
<td>902</td>
<td>861</td>
</tr>
<tr>
<td>% outside London</td>
<td>50%</td>
<td>53%</td>
<td>54%</td>
</tr>
<tr>
<td>Investment value (£bn)</td>
<td>£3.9</td>
<td>£6.4</td>
<td>£6.7</td>
</tr>
<tr>
<td>London</td>
<td>£2.1</td>
<td>£4.2</td>
<td>£3.9</td>
</tr>
<tr>
<td>Non-London</td>
<td>£1.7</td>
<td>£2.2</td>
<td>£2.8</td>
</tr>
<tr>
<td>% outside London</td>
<td>45%</td>
<td>34%</td>
<td>41%</td>
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Source: British Business Bank analysis of Beauhurst
KEY FINDINGS

1. EQUITY INVESTMENT INCREASED 5% IN 2018, REACHING RECORD LEVELS

£6.7bn of equity was invested into UK SMEs in 2018, the highest amount recorded. Equity investment into UK SME’s was therefore above £6bn for the second year running, with 2018 investment levels 72% higher than in 2016.

Technology companies remain the key sectoral focus of equity investors, with 44% of investment going to companies in this sector. Equity investment in technology increased by 24% in 2018 with £3bn invested, the highest amount to date, mirroring wider equity market trends.

Beauhurst classifies businesses into three distinct stages; seed, venture and growth. All three business stages have seen increases in investment values compared to 2017, with venture stage investment increasing by 10%, and seed and growth stage increased by 4% and 2% respectively.

2. THE OVERALL NUMBER OF EQUITY DEALS FELL 6% IN 2018, WITH THE GREATEST DECLINE SEEN AT THE SEED STAGE

The number of equity deals declined by 6% in 2018 to 1,603 deals. Equity deal numbers had grown in 2017 following a weaker 2016, so the recent 2018 decline partially reverses some of the recent recovery. A weak second half of 2018 contributed to the decline in deal numbers, although initial data suggests deal numbers have stabilised in the first quarter of 2019.

The decline in the number of deals was seen across the main investor types with PE/VC funds declining 9% in 2018 compared to 2017, business angels 19% and angel networks 28%. Only crowdfunding platforms and Government funds showed increased deal activity in 2018.

The decline in deal numbers was most acute at the seed stage with a large (12%) decline but the number of venture stage deals also declined slightly (2%). The number of growth stage deals remained relatively constant compared to 2017.

The number of equity deals in companies raising equity finance for the first time has declined every year since 2015. 2018 was the first year where there was a higher number of equity deals completed as follow on rounds rather than initial deals in companies raising their first equity round. This shows the importance of the Bank’s Enterprise Capital Fund (ECF) programme in supporting early stage companies seeking smaller equity deals.

3. OVERALL INVESTMENT GREW IN 2018 DESPITE FEWER ‘MEGADEALS’, SHOWING THE MARKET IS MORE DIVERSE AND SUPPORTING A GREATER RANGE OF BUSINESSES

Average deal sizes have been trending upwards since 2013 and continued to do so in 2018 with the overall deal size increasing by 11% to £4.5m. This was driven by large increases at both the seed and venture stages, but average size of growth deals shrank by 5% for the first time since 2013.

A reduction in the size of the very largest deals is the main reason average growth stage deal size declined in 2018. Beauhurst terms deals in excess of £100m as ‘megadeals’. The combined value of the ten largest equity deals in 2018 equalled £1.2bn (forming 18% of the market), which is lower than the ten largest deals in 2017 which totalled £1.7bn (26% of the market).

Although ‘megadeals’ are important in establishing world-leading ‘unicorn’ companies, the fact that UK equity investment remained strong in 2018 despite lacking these very largest deals is a positive development as more capital is being provided to a greater range of scale-up businesses than before.

Funds supported by the British Business Bank were involved in three of the ten largest UK SME equity deals in 2018, including the largest two deals in ‘unicorn’ companies Revolut and Graphcore. This highlights the progress British Business Bank equity programmes, especially British Patient Capital, are making in supporting the UK scale-up ecosystem.

4. DEAL SIZES ARE STILL MUCH SMALLER IN THE UK THAN THE US, WITH THE GAP IN DEAL NUMBERS CLOSING OVER RECENT YEARS

The US VC market was 1.7 times larger than the UK overall on a relative basis between 2016 and 2018. The difference was most pronounced at the later VC stage where the US VC market is nearly twice as large.

The UK VC ecosystem has grown more quickly than the US over the last few years, so that since 2016 the UK had a higher number of VC deals relative to GDP than the US. Between 2016 and 2018, the UK had 570 VC deals per £trn of GDP, which is 18% higher than the US which had 462 deals.

The VC investment gap between the UK and US is therefore driven by differences in deal sizes rather than the number of firms receiving investment. UK VC-backed companies now receive similar rates of follow on funding as US companies, but deal sizes are smaller at all funding rounds. This is especially noticeable for later stage VC deals. On average US initial VC funding rounds are around 1.5 times larger than initial VC funding rounds in UK companies, however this difference increases to 2.4 times by the 5th funding round.
5. EQUITY INVESTMENT IN AREAS OUTSIDE OF LONDON INCREASED £616M IN 2018, DRIVEN BY LARGER DEALS

In 2018, 41% of equity investment was invested in companies located outside of London, up from 34% in 2017. This is due to increases in investment in companies outside of London, which increased by 29% (£616m) in 2018 to £2.8bn. The growth in investment values outside of London was driven by increases in deal sizes, especially at the seed and growth stage. The East of England, North East and West Midlands were the key regions driving this increase, increasing by 118%, 115% and 81% respectively.

The amount of equity finance invested into companies based in London fell £310m (7%) in 2018 following 2017’s strong year, with decreases seen at both the seed and growth stage.

6. THE SHARE OF DEALS GOING TO COMPANIES OUTSIDE OF LONDON ALSO INCREASED FROM 53% TO 54% IN 2018

London continues to be the focal point for equity finance in the UK. Deal numbers in London declined by 8% in 2018 compared to 2017, a larger decline than the 5% decline in the rest of the UK, which contributed to London’s share of deals falling from 47% to 46%. London’s dominance has been declining since 2016 across a range of equity deal concentration measures.

Whilst the number of equity deals in the UK fell overall in 2018, many areas saw increases. The number of deals increased the most in the North East, which increased by 65%, followed by Yorkshire and Humber (15%) and Wales (11%). East of England and East Midlands also experienced smaller increases in equity deal numbers.

7. BRITISH BUSINESS BANK’S EQUITY PROGRAMMES ARE MAKING A SIGNIFICANT CONTRIBUTION TO UK SME EQUITY FINANCE

Beauhurst captures equity deals made by British Business Bank supported funds within its dataset. British Business Bank programmes are estimated to have supported 9% of UK equity deals between 2016 and 2018, with these deals forming 13% of the overall invested equity amount.

The seed stage received the highest proportion of deals completed by British Business Bank supported funds forming 46% of deals, in line with the wider equity market. British Business Bank supported funds completed slightly fewer deals than the overall equity market at the venture stage (35% of deals compared to 37%), but slightly more at the growth stage (19% of deals compared to 17%). This shows the contribution British Patient Capital (BPC) is having, as the programme focuses on later stage venture and growth capital.

The concentration of deals in London completed by British Business Bank supported funds has reduced since 2016, from 70% in 2016 to 43% in 2018. This shows NPIF and MEIF are already making a difference. NPIF began investing in 2017, with MEIF following in 2018. Beauhurst identified 55 deals completed by these two regionally focussed programmes in 2018, with MEIF and NPIF contributing 20% and 16% of equity deals in the Midlands and North in 2018 respectively.

Deals undertaken by British Business Bank supported funds at the seed and venture stage are generally smaller than the wider PE/VC market showing the Bank’s programmes are tackling market failures for businesses seeking smaller amounts of equity finance. However, growth stage deals for British Business Bank supported funds are larger than the wider PE/VC market. This shows the Bank’s programmes, especially BPC, are beginning to address the funding gap affecting scale-up businesses, enabling larger deals so that scale-up companies are better capitalised.
New British Business Bank research included in this report shows that the UK VC ecosystem has reached a level of maturity with a high degree of collective experience amongst senior professionals. 61% of General Partners (GPs) and 43% of Partners have over ten years of VC experience, with considerable variety in their careers before they entered VC and international exposure. However, junior venture capitalists\(^2\) have less experience in VC and less variety in their pre-VC careers compared to their seniors but also compared to previous cohorts of juniors.

Training and other professional development can help juniors develop new capabilities. In their careers to date, a significant positive impact is cited by 74% for mentorship, 58% for apprenticeship and 56% for self-taught training. But only 4-in-10 have experienced such professional development since entering VC.

Professional and personal networks are a core feature of the UK VC ecosystem but may be limiting diversity of talent. 34% of VC Analysts and Associates entered the industry through a referral via a personal or professional network, as did 52% of Principals and above, increasing the likelihood of repeatedly hiring people with similar backgrounds and experiences. Development may also be suffering as a result of networks: those entering the industry without a referral report less access to mentoring.

The high and increasing cost of personal commitment for new GPs may be preventing talented fund managers from launching new funds. Over 60% of surveyed GPs invested more than £100,000 personally into their first fund and the average personal commitment size is even higher for GPs who started their first fund in the last ten years. There is a role for GPs and Limited Partners (LPs) to ensure that the path to becoming a GP becomes more accessible.

Increasing the diversity of UK VC fund managers could lead to new investment strategies and approaches. These investors could then access a wider set of sectors, technologies and companies than currently invested in. This greater diversity in the venture capital ecosystem could thus support deployment of more capital without inflating valuations.
This is the fifth annual Equity Tracker report exploring trends in (private) equity finance for UK smaller companies. The British Business Bank first collaborated with Beauhurst in 2015 to produce an Equity Tracker report, in response to the then lack of reliable and comprehensive data on the number and value of equity deals into UK companies. Beauhurst identifies and records equity deals made by the full range of equity investors from large multi-million growth stage deals by Private Equity funds, to smaller deals in early stage companies by angel investors and equity crowdfunding platforms.

This year’s report continues to provide an overview of recent trends in SME equity finance in chapter 1 using deal level data from Beauhurst. Improvements in Beauhurst methodology means for the first time we can explore trends in female founders, valuations and also the impact of overseas investors making investments into UK companies. Chapter 2 of the report provides an overview of deals made by British Business Bank supported equity funds in order to make comparisons to the wider UK equity market. This year chapter 3 of the report looks at the strength and weaknesses of the UK patient capital ecosystem by making international comparisons using data from PitchBook.

This year’s report also includes findings from new research the British Business Bank has undertaken with UK fund managers to explore their backgrounds and identify issues around increasing talent diversity and professional development in the Venture Capital (VC) industry.

BEAUHURST DATA

A full description of the data collection and methodology is given in the appendix. Beauhurst’s dataset is built from the bottom-up, identifying each individual business receiving equity investment. This focus enables the data to be analysed by company stage, sector and location, or according to the type of investor and equity deal size.

In this report ‘equity investment’ includes any form of external equity finance, excluding transactions on public equity markets, buyouts and family and friends rounds which do not involve outside investors. The definition therefore captures the activity of business angels, equity crowdfunding, venture capital funds, corporate venturing and private equity funds.

The investments reported in the Equity Tracker are all publicly announced deals, which includes deals that are publicly announced via government regulatory organisations, confirmed with the investee or investor or via a press release or news source. Beauhurst also tracks unannounced deals using share allotment filings.

Only a small proportion of equity deals are announced, showing UK equity finance is much larger in practice than these deal and investment figures show. For instance, Beauhurst’s own analysis shows there were 3,999 unannounced equity deals in 2018 worth a total of £3.33bn.

By number these unannounced deals made up 70% of all equity deals in 2018 and contributed 31% of the total value invested.
Whilst it is desirable to include as many deals as possible in the analysis, less information is available on these unannounced deals. In many cases it is difficult to identify the type of investor in unannounced deals, and in some cases, this will include investment from friends and family. This report therefore focuses on announced equity deal activity only.

There are likely to be differences in the willingness of investors to make their deals publicly known. For instance, angel and private investors could be less likely to formally announce their investments than Private Equity/ Venture Capital investors. The larger the equity deal, the more likely it is to be announced.

For the purpose of this report, Beauhurst applies an ‘SME filter’ so only companies that were SMEs at the time of receiving funding are included. Companies classed as ‘large’ under the European Commission definition are excluded from the figures. The SME filter is applied to the accounts filed closest to the date of the equity investment. The data published by Beauhurst in ‘The Deal’ publication does not have an SME filter applied, which explains some of the differences in the figures quoted between these two publications.

This year’s report builds on the previous 2018 Equity Tracker Report and figures published in the 2018/19 Small Business Finance Markets Report. There have been some refinements to the underlying dataset to ensure that this year’s report is the most accurate and complete view of the UK SME finance market to date. The figures in this latest report should be considered to supersede those previously quoted, and comparisons between figures in this year’s report and last year’s report is not recommended.

It is important to acknowledge that other data sources exist which also cover equity deals, including the British Venture Capital Association (BVCA) and Invest Europe. These predominantly measure the investment activities of their members, which are mainly comprised of Private Equity and Venture Capital funds. There are also other commercial data providers which gather data through a combination of technology (e.g. web-scrapers), analyst research and self-disclosure by fund managers.

The data sources therefore have different coverage of investors and are not always consistent with one another. Whilst the Beaufurst dataset has good coverage of equity deals involving institutional investors, business angels are less likely to seek publicity on completed investments and are therefore less likely to be captured in the investment numbers. The UK Business Angel Association (UKBAA), which covers 16,000 investors investing through 60 groups, confirms that no robust statistics exist on the annual number of equity deals undertaken by angel investors in the UK. The British Business Bank, in collaboration with the UK Business Angel Association, undertook a survey of angel investors in 2017 to provide an insight into angel investment in the UK.
CHAPTER 1: RECENT TRENDS IN SME EQUITY FINANCE

1.1 TOTAL INVESTMENT

Equity deal numbers and investment values in UK SMEs consistently increased year on year from 2011 to 2015, but 2016 marked the first year in which they both declined as a result of a global slowdown in equity activity. UK SME equity finance then recovered in 2017 with increases in both number of deals and investment amounts.

The picture for 2018 is now more mixed. Equity investment in UK SMEs increased by 5% in 2018 to £6.7bn, the highest amount recorded since the Beauhurst data series began. This shows how the UK equity ecosystem has matured over the last few years and is now successfully supporting scale-up companies.

In contrast, equity deal numbers declined 6% in 2018 to 1,603 deals. Whilst equity investment values have grown by 72% since 2016, equity deal numbers have remained relatively flat since 2015 and are now only 5% higher than 2016.

The UK showed similar trends in 2018 to global VC markets with fewer but larger deals being undertaken on average. This is shown in Table 2. VC markets are interconnected, and the UK market is shaped by wider global trends. KMPG's 'Venture Pulse Q4 2018' highlighted 'Over the past year, many VC firms acted more like PE with respect to their investments, focusing on fewer but bigger deals'.9 Published PitchBook data for the US shows investment values increasing by 59% between 2017 and 2018 but the number of deals declined by 2%.10 PitchBook figures for Europe overall shows 4% increase in investment value in 2018 but 26% decline in the number of VC deals between 2017 and 2018. The number of European angel and seed deals also fell much more sharply at 38%, but European VC deal sizes increased by 83% overall.12

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>2017-2018 PERCENTAGE CHANGE IN VC DEAL NUMBERS AND INVESTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of deals</td>
<td>Investment value</td>
</tr>
<tr>
<td>UK (Beauhurst)</td>
<td>-6%    +5%</td>
</tr>
<tr>
<td>UK (PitchBook)</td>
<td>-8%    +15%</td>
</tr>
<tr>
<td>Europe overall</td>
<td>-26%   +4%</td>
</tr>
<tr>
<td>US</td>
<td>-2%    +59%</td>
</tr>
</tbody>
</table>

Source: PitchBook, British Business Bank analysis of Beauhurst
There are a couple of different factors contributing to increasing deal sizes. Firstly, VC funds have been increasing in size across the globe in recent years, and bigger funds have been shown to make bigger deals on average. Secondly it is a consequence of the UK equity market maturing, with companies who previously raised equity finance moving through the pipeline. Larger deal sizes are not just seen in the UK but also globally. PitchBook notes “The sustained climb of median deal size displays both the competition for deals and the maturation of the (European) VC ecosystem.” Section 1.3 analyses deal size trends in more detail.

FIG 1.1
NUMBER AND VALUE OF EQUITY DEALS BY YEAR
Source: British Business Bank analysis of Beauhurst
Quarterly figures are more volatile than yearly figures so care is needed in interpreting trends, especially for investment values where a small number of very large deals can have a substantial impact. The trend in quarterly investment value seen in 2018 was very similar to 2017, with Q2 being the strongest quarter in both years. Quarterly investment value peaked in Q2 2018 at £2.1bn, slightly higher than the 2017 peak.

The overall slowdown in deal numbers in 2018 was due to a relatively weak second half of the year, with deal numbers declining 9% compared to the first half 2018. Q3 2018 was particularly poor with only 364 SME equity deals being completed, the lowest quarterly number of deals reported since Q1 2016.

Figure 1.2 decomposes the investment value increase in 2018 into its constituent parts, deal number changes and deal size changes. The investment value increase was primarily driven by larger seed and venture deal sizes in 2018 compared to 2017. Contracting deal numbers at the seed and venture stages negatively contributed to the change in investment value. However, increases in deal numbers at the growth stage more than offset this decline and were key drivers of the investment value increase in 2018. This may seem counter-intuitive, as the number of growth stage deal numbers only increased by 1% overall (see section 1.2). However, the increase in investment value is driven by the number of growth deals with a disclosed investment value which increased by 7% compared to 2017.

**FIG 1.2**
DECOMPOSITION OF GROWTH IN TOTAL EQUITY INVESTMENT (2017-2018 COMPARISON)

*Source: British Business Bank analysis of Beauhurst*
The latest Q1 2019 data suggests the decline in deal numbers has stabilised with 407 equity deals, slightly higher than the 400 reported in Q4 2018. Equity investment values remain high in Q1 2019 with £1.6bn invested. Although Q1 2019 investment value fell 7% from Q4 2018, it is 36% higher than the £1.2bn invested in the same quarter a year ago.

The British Business Bank continues to monitor equity market conditions and will report market changes, alongside insights from our interaction with the market, in the quarterly updates published on the British Business Bank website.

![Figure 1.3](image-url)
1.2 BUSINESS STAGE

Beauhurst have historically classified deals into three stages; seed, venture and growth, reflecting the company’s underlying position in terms of product development, commercialisation, sales and profitability. Beauhurst have recently introduced the ‘established’ company category, a subset of the original growth stage which reflects more mature companies. Beauhurst define the established category as ‘companies that may well be experiencing significant growth but are doing so from a position of greater commercial security than a company at the seed, venture or growth stages’. For consistency with previous Equity Tracker reports, we are not currently using the established category in this report, therefore our deal stage analysis will differ to Beauhurst’s own reporting in the Deal publication.16

The seed stage generally encompasses young companies being set up or whom have been in business for a short time but have not yet made any commercial sales. The venture stage covers companies that have been in existence for a few years and are in the process of gaining market traction with sales growing rapidly. The venture stage does not solely correspond to funding by venture capitalists, as other investor types also provide funding to venture stage companies. Growth stage businesses are more developed with multiple offices or branches and substantial revenue streams (some of which may be profitable). The growth stage includes later stage VC-backed companies seeking to grow their core market, expand into new markets or create new products/services.

All three business stages saw increases in investment values in 2018 compared to 2017. Different trends were seen across the deal stages in the number of equity deals, with a large decline in seed stage deals seen in 2018. The number of venture stage deals declined slightly, and the number of growth stage deals continues to remain relatively flat.

• **Seed stage:** The amount of equity investment going to seed stage companies has increased every year since 2011 and was £865m in 2018, a 4% increase compared to 2017. The number of seed stage deals declined to 684 in 2018, a 12% reduction. The decline in seed stage deal numbers is explored in more detail in Box 1.

• **Venture stage:** 642 venture stage deals were completed in 2018, which is 2% lower than in 2017. £2.3bn was invested in venture stage companies in 2018, 10% higher than a year ago. The venture stage has historically been the most volatile of the three business stages in terms of investment value. A decline in deal numbers relative to 2017 but increases in investment value suggests an increase in average deal sizes in this category.

• **Growth stage:** The number of growth stage deals has been relatively flat over the last few years. There were 277 growth stage equity deals undertaken in 2018, 1% higher than 2017 but below the number of deals made in 2014. Investment values have been extremely strong in the last two years, growing from £2.1bn in 2016 to £3.5bn in 2018. Growth stage investment increased 2% in 2018 despite lacking the very large ‘megadeals’ experienced in 2017.
FIG 1.4
NUMBER AND VALUE OF EQUITY DEALS BY STAGE
Source: British Business Bank analysis of Beauhurst

<table>
<thead>
<tr>
<th>Year</th>
<th>SEED Value (£m)</th>
<th>SEED Deals</th>
<th>VENTURE Value (£m)</th>
<th>VENTURE Deals</th>
<th>GROWTH Value (£m)</th>
<th>GROWTH Deals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>£0.00</td>
<td>0</td>
<td>£0.00</td>
<td>0</td>
<td>£0.00</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>£0.50</td>
<td>30</td>
<td>£1.00</td>
<td>100</td>
<td>£2.00</td>
<td>200</td>
</tr>
<tr>
<td>2013</td>
<td>£1.00</td>
<td>200</td>
<td>£1.50</td>
<td>150</td>
<td>£3.00</td>
<td>200</td>
</tr>
<tr>
<td>2014</td>
<td>£1.50</td>
<td>300</td>
<td>£2.00</td>
<td>200</td>
<td>£3.50</td>
<td>250</td>
</tr>
<tr>
<td>2015</td>
<td>£2.00</td>
<td>400</td>
<td>£2.50</td>
<td>300</td>
<td>£4.00</td>
<td>300</td>
</tr>
<tr>
<td>2016</td>
<td>£2.50</td>
<td>500</td>
<td>£3.00</td>
<td>400</td>
<td>£3.50</td>
<td>400</td>
</tr>
<tr>
<td>2017</td>
<td>£3.00</td>
<td>600</td>
<td>£3.50</td>
<td>500</td>
<td>£3.00</td>
<td>500</td>
</tr>
<tr>
<td>2018</td>
<td>£3.50</td>
<td>700</td>
<td>£4.00</td>
<td>600</td>
<td>£2.50</td>
<td>600</td>
</tr>
</tbody>
</table>

Legend: black bar = investment value (£m), red line = number of deals.
Figure 1.5 and Figure 1.6 show the proportion of equity deals and investment value going to each business stage over time. The seed stage continues to make up the largest proportion of deal numbers, however the proportion of deals going to seed stage companies has been shrinking over time from 49% in 2016 to 43% in 2018. The number of seed stage deals fell below the number of venture stage deals in Q3 2018 for the first time since 2012. The proportion of deals going to venture stage companies has increased over the same period, from 33% of all deals in 2016 to 40% in 2018. The proportion of deals going to growth stage companies has remained around 17% since 2016.

Growth stage investment makes up the largest proportion of UK SME equity investment, with 53% of all investment in 2018 going to growth stage companies. This is due to growth stage deals being larger than seed or venture stage deals. This proportion has been slowly decreasing over time as deal sizes at the earlier funding stages have increased. Despite shrinking as a share of deal numbers, the proportion of overall investment value going to seed stage companies remained at 13% in 2018, unchanged from the previous two years. This implies that deal sizes are continuing to increase at the seed stage, and this is explored in more detail in section 1.3.
Section 1.2 highlighted that seed stage deal numbers declined by 12% in 2018, and the proportion of UK equity deals going to seed stage companies has been declining since 2016. This trend cannot be explained solely by a changing investor environment. Although deals involving business angels fell sharply (see section 1.4), 2018 marked the year with the highest number of crowdfunding deals to date (historically the investor type that was most focused on making seed stage deals).

Figure 1.7 looks how the investment preferences, in terms of deal stage, of different investor types have changed over time. The proportion of crowdfunding deals going to seed stage companies has greatly declined since 2013 from 82% to 53%. In 2018 the proportion of deals going to seed stage companies (out of all deals made) fell across the three main investor types:

- **PE/VC**: 35% to 30%
- **Business angels**: 49% to 46%
- **Crowdfunding**: 57% to 53%

Crowdfunding platforms have grown rapidly over the last few years. As crowdfunding platforms have become established, investors have become more confident in using them to deploy larger amounts of funding into later stage companies. There is also a pipeline of companies that have previously raised funding from crowdfunding platforms, but are are now looking to raise follow on funding rounds. This has led to a lower proportion of crowdfunding deals going to seed stage companies.
1.3 DEAL SIZES

Average deal sizes have been trending upwards since 2013 and continued to do so in 2018 with the overall mean average deal size increasing by 11% to £4.5m. This was driven by large increases at both the seed and venture stages, increasing 16% and 14% in 2018 respectively. The average size of growth stage deals declined by 5% in 2018, the first-time average deal size has declined for this category since 2013. This is due to 2018 lacking the large £300m+ deal experienced in 2017, which is reflected in the median size of growth stage deals increasing by 26% despite a reduction in the mean.

Median deal sizes increased substantially in 2018 across all three business stages; by 39%, 23% and 26% across the seed, venture and growth stages respectively. Overall median deal size increased by 33%. The fact that the median size of equity deals in UK SME’s is growing at a quicker rate than the mean is certainly a positive development in the UK ecosystem as it shows the market is becoming less reliant on large deals at the very top end, with more capital being provided to a greater range of businesses than before.
FIG 1.9
MEDIAN DEAL SIZE OVER TIME BY BUSINESS STAGE
Source: British Business Bank analysis of Beauhurst

FIG 1.10
NUMBER OF DEALS BY DEAL SIZE CATEGORY
Source: British Business Bank analysis of Beauhurst
Figure 1.10 shows 2018 marked the third year in a row in which the number of deals below £499k reduced. This decline was not limited only to the very smallest deals as deals between £500k–£999k and £1m–£1.99m also reduced in 2018, by 2% and 7% respectively. Deal numbers across all three of the smallest deal size ranges therefore experienced a decline last year, which may have negative consequences for very early stage companies trying to raise equity finance. A strong funding environment for companies at the very earliest stage is important for the health of the overall equity finance ecosystem as it creates the pipeline of companies that will go on to raise larger rounds at later stages. If the pre-seed/seed stage financing market is not functioning correctly it inhibits equity markets in the future as investment opportunities for venture and growth stage investors will become more limited.

Conversely, deal numbers increased across the upper three deal size brackets (£2m–£4.99m, £5m–£9.99m and £10m+) by 10%, 17% and 25% respectively. Whilst some of the movement through deal size categories will be due to inflation, it does reflect a change in the behaviour of UK equity investors with more of a focus on larger deals in larger companies, which are inherently less risky. In addition, as identified in Smaller Business Finance Markets 2018/19,17 fund sizes in the UK and globally have been increasing in recent years which enables investors to undertake larger deals.

Movement away from smaller deals is not just a consequence of the reduction in deals at the seed stage. Figure 1.11, Figure 1.12, and Figure 1.13 show that even within the business stages there has been upwards movement through deal size categories. In 2014, 83% of seed stage deals were under £499k in size, by 2018 this had fallen to just 54%.18 Similarly, at the growth stage, deals above £10m made up just 17% of deals in 2014 but by 2018 this had increased to 39%. The composition of venture stage deal sizes has changed the least since 2011, but the proportion of deals in the very smallest categories has declined since 2014.
FIG 1.12
PROPORTION OF VENTURE STAGE EQUITY DEALS BY DEAL SIZE CATEGORY
Source: British Business Bank analysis of Beauhurst

FIG 1.13
PROPORTION OF GROWTH STAGE EQUITY DEALS BY DEAL SIZE CATEGORY
Source: British Business Bank analysis of Beauhurst
Although the number of deals greater than £10m in size increased in 2018, both in raw terms and as a proportion of overall deals, the proportion of total investment value coming from these deals fell slightly from 67% to 66%. There were seven SME deals in excess of £100m in 2018 and 15 further deals in excess of £50m. The ten largest deals in 2018 were equal to £1.2bn and formed 18% of the market, lower than in 2017 when they were worth £1.7bn and formed 26% of the market.

This suggests a reduction in the size of the very largest equity deals in 2018. The largest ten UK SME equity deals in 2018 were on average 27% smaller than in 2017, with the largest deal in 2017 being £389m compared to £180m in 2018. The size of the very large deals in 2017 could be considered unusual, with Beaudhurst defining 2017 as ‘year of the megadeal’. Although ‘megadeals’ are certainly important in establishing world-leading ‘unicorn’ companies, the fact that UK equity investment remained strong in 2018 despite lacking these deals can be seen as evidence of a deeper market forming. A similar trend is seen in the wider European data, as PitchBook notes the increase in investment value is not driven by a few outlier deals, but larger numbers of European companies accessing larger deals.
Funds supported by the British Business Bank were involved in three of the ten largest UK SME equity deals in 2018, including the largest two deals in ‘unicorn’ companies Revolut and Graphcore. Ezbob was previously funded by the Angel Cofund. This highlights the success British Business Bank equity programmes, especially British Patient Capital, are having in supporting the UK scale-up ecosystem. Atom Bank is also supported by the British Business Bank, as a delivery partner through the Investment Programme.

**TABLE 3**
THE TEN LARGEST EQUITY DEALS IN UK SMES IN 2018

<table>
<thead>
<tr>
<th>Company name</th>
<th>Deal size</th>
<th>Stage</th>
<th>Sector</th>
<th>HQ Location</th>
<th>BBB programme involved in deal</th>
<th>BBB programme previously funded company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revolut</td>
<td>£180m</td>
<td>Growth</td>
<td>Fintech</td>
<td>London</td>
<td>BPC</td>
<td>UKIIF/BPC</td>
</tr>
<tr>
<td>Graphcore</td>
<td>£158m</td>
<td>Growth</td>
<td>Hardware</td>
<td>Bristol</td>
<td>BPC</td>
<td>ECF/BPC</td>
</tr>
<tr>
<td>Atom</td>
<td>£149m</td>
<td>Growth</td>
<td>Fintech</td>
<td>Durham</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nested</td>
<td>£120m</td>
<td>Growth</td>
<td>Proptech</td>
<td>London</td>
<td>ECF/BPC</td>
<td>ECF/BPC</td>
</tr>
<tr>
<td>Orchard Therapeutics</td>
<td>£118m</td>
<td>Venture</td>
<td>Life sciences</td>
<td>London</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moonbug</td>
<td>£115m</td>
<td>Venture</td>
<td>Media</td>
<td>London</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAD CAM Automotive</td>
<td>£100m</td>
<td>Growth</td>
<td>Automotive</td>
<td>Coventry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ezbob</td>
<td>£100m</td>
<td>Growth</td>
<td>Fintech</td>
<td>London</td>
<td></td>
<td>ACF</td>
</tr>
<tr>
<td>Freeline Therapeutics</td>
<td>£88m</td>
<td>Growth</td>
<td>Life sciences</td>
<td>Stevenage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monzo</td>
<td>£85m</td>
<td>Growth</td>
<td>Fintech</td>
<td>London</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: British Business Bank analysis of Beauhurst*
1.4 INVESTORS

Figure 1.15 shows the number of equity deals over time by equity investor type. PE/VC funds remain the most active type of equity investor in UK SME finance and were involved in 631 deals last year, down from 691 in 2017. This was mostly due to a large reduction in the number of seed stage deals completed by PE/VC funds, falling from 242 deals in 2017 to 187 deals in 2018 (a 23% reduction). PE/VC investors were involved in 39% of deals last year, a similar proportion as in 2017 (40%).

Crowdfunding platforms were the next most active type of equity investor involved in 383 deals in 2018. The number of deals involving crowdfunding platforms continues to grow, increasing by 7% compared to 2017, despite declining deal numbers amongst other types of equity investor. Crowdfunding platforms were involved in the most seed stage deals in 2018, overtaking PE/VC funds as the most frequent funder of seed stage businesses after falling behind in 2017. In 2018 30% of deals at the seed stage involved a crowdfunding platform.

Government funds were the third most prevalent type of equity investor in the UK in 2018 with involvement in 289 deals (a 6% increase relative to 2017). Government deals include deals made by the devolved administrations (Scottish Enterprise and Finance Wales), as well as JEREMIE backed funds and other local government funds. Beauhurst includes some of the British Business Bank’s programmes within its definition of government funds (e.g. some NPIF/MEIF deals) however it excludes private sector funds supported by the British Business Bank through our ECF, BPC and UKIIF programmes. Deals involving Government funds formed 18% of all equity deals in 2018, slightly higher than 16% in 2017, but as previous Equity Tracker reports show, there are large differences between different regions and devolved administrations. See Chapter 2 for more detailed analysis of deals involving funds supported by the British Business Bank.

Business angel / angel network deal activity was lower in 2018 with deal numbers falling 19% to 241 for business angels and 28% to 127 for angel networks, a trend identified in Beauhurst’s ‘The Deal 2018’. Whilst deals involving business angels are less likely to be announced than other equity investors and there may be longer delays in identifying these deals, Beauhurst suggested wider macroeconomic uncertainty may be leading to lower deal activity. This is because business angels are the ‘investors with the greatest flexibility to adjust their investment preferences on an ad hoc basis as political events develop. These are the investors most likely to be deferring investment until there is greater clarity on what will happen next.’

22
23
24
**FIG 1.15**
NUMBER OF EQUITY DEALS PER YEAR BY INVESTOR TYPE
Source: British Business Bank analysis of Beauhurst

**FIG 1.16**
PROPORTION OF EQUITY DEALS PER YEAR BY INVESTOR TYPE
Source: British Business Bank analysis of Beauhurst
1.5 SECTORS AND TECHNOLOGY SUB-SECTORS

Technology/IP-based businesses continued to attract both the largest number of deals and most investment in 2018. There were 623 deals in technology/IP-based companies in 2018 (£3bn by value), an 8% reduction (24% increase) relative to 2017. This is the first annual decline in the number of deals in the technology/IP-based business sector, although investment values remain at a historical high level.

Despite the fall in deal numbers, the proportion of overall deals going to technology/IP-based companies remained stable at 39% (the same percentage as 2017) and has been around 40% since 2012. In terms of value, investment in technology/IP-based companies increased as a proportion of overall investment from 38% in 2017 to 44% in 2018. This 2018 figure is in line with the proportions seen in 2015 and 2016.

Business and professional services formed the next largest sector by both number of deals (379) and investment value (£1.9bn), followed by industrials (253 deals, £654m investment value). Investment in industrials increased in 88% in 2018 due to a several large deals in this sector. For instance, CAD CAM received an equity deal of £100m and E-leather an equity deal of £70m. The latter deal involved funds supported by the Bank’s UKIIF programme.

FIG 1.17
NUMBER AND VALUE OF EQUITY DEALS BY SECTOR
Source: British Business Bank analysis of Beauhurst
Beauhurst subdivides technology/IP-based businesses into eight technology sub-sectors which reflect the underlying activities of the companies. Two sub-sectors form the majority of technology/IP-based business sector:

- **Software continues to attract the most deals and investment out of the technology sub-sectors, with 361 deals in 2018 worth £1.6bn. Software deal numbers were down 9% relative to 2017, a key driver of the overall decline in technology deal numbers. Investment in software continued to grow and was up 23%.

- **Life sciences was the second largest technology sub-sector in terms of both deal numbers and investment values in 2018, with 86 deals worth £746m. Investment in Life sciences was up 22% relative to 2017 whilst deal numbers were flat. Life science deals tend to be larger than software deals due to the capital-intensive nature of the industry.
1.6 FOLLOW ON FUNDING ENVIRONMENT

Analysing trends in overall equity deals and investment is useful in giving a high-level overview of the UK equity market. The British Business Bank has identified first time deals in companies that have not previously raised equity finance before (new companies) and follow on funding deals in companies whom had previously raised a round of equity finance. The funding environment for new companies raising equity finance is essential as it creates the pipeline of companies for equity investors to invest in the future.

Figure 1.19 shows that the number of deals in new companies has declined every year since 2015 from 999 to 786 in 2018, with more deals completed in follow on rounds than in new companies for the first time in 2018. The slowdown in the growth of UK equity deals over the last few years has therefore been mostly a result of a weakening funding environment for companies seeking to raise their first round of equity finance. This is also seen in KPMG analysis of PitchBook data for Europe where the number of companies raising initial funding rounds peaked in 2014 and has declined in every subsequent year since.26

The trend in investment value going to new companies is perhaps even more striking. The total value invested in companies raising their first equity round has been relatively flat since the Beauhurst dataset began in 2011. The huge growth in overall UK SME equity investment value since 2011 has been therefore been almost solely concentrated in follow on rounds of funding.

FIG 1.19 NUMBER OF UK SME EQUITY DEALS (INITIAL AND FOLLOW ON DEALS)
Source: British Business Bank analysis of Beauhurst

![Number of UK SME Equity Deals](image_url)
The success of early stage VC-backed companies is dependent on them raising multiple rounds of equity finance, or ‘follow on funding’, to fund continued growth. This is because these firms are inherently high growth and often loss-making during the initial years, and therefore rely on external capital to finance their expansion. Although there are some outlier cases of companies bootstrapping their way to huge valuations, in practice most companies achieved ‘unicorn status’ through multiple rounds of equity finance.

The next section looks at the extent to which companies can raise follow on funding by assessing differences between investor types and sectors.

**INVESTORS**

Figure 1.20 uses a cohort of companies that received initial funding at the seed stage between 2011 and 2013 and shows the proportion of companies securing a second round of funding by initial investor type.

- Companies initially funded by business angels were the most likely to raise a second round of equity finance, with 56% of companies managing to do so relative to 48% of the overall cohort.
- Companies initially funded by crowdfunding platforms were the least likely to raise a second round of funding at only 37%. The average size of the first funding round differs greatly with crowdfunding-backed companies raising only £96k in the first round on average compared to £510k for the overall cohort, and £1.1m for companies funded by PE/VC funds.
SECTORS

Figure 1.21 examines the same cohort of companies whom received initial funding at the seed stage between 2011 and 2013. For this cohort, the graph shows the proportion of companies within each sector (with technology/IP-based businesses broken down into sub-sectors where possible) successfully raising a second round of equity funding. There is a clear sectoral theme when looking at the proportion of companies raising at least one follow on funding round. The five ‘sectors’ most successful in raising a second funding round were all technology sub-sectors:

- Medical tech and life science companies were the most likely to raise a second funding round, with 65% and 60% of companies in the cohort raising a second round respectively.
- Companies in the leisure and entertainment sector are the least likely to secure a second round of equity funding, with only 38% of companies in the sector managing to do so relative to 48% of the overall cohort.

The fact that technology companies are the most successful in raising follow on funding is unsurprising. Most VC funds have a technology focus and therefore technology companies will likely have a large pool of potential investors to choose from.

FIG 1.21
PROPORTION OF COMPANIES RAISING A SECOND ROUND OF EQUITY FUNDING, BY SECTOR
Source: British Business Bank analysis of Beauhurst

[Bar chart showing the proportion of companies raising a second round of equity funding by sector, with medical tech and life sciences leading at 65% and 60% respectively, and leisure and entertainment at 38%]
1.7 VALUATIONS

The Beauhurst dataset now includes pre-money valuations, allowing analysis of valuation trends to be undertaken.

Figure 1.22 shows the trend in average pre-money valuation of companies receiving equity finance since 2011, by stage. The trends in pre-money valuation differ widely by company stage:

- **Seed**: Average pre-money seed stage valuation fell from £1.4m in 2011 to £1.1m in 2014, before increasing rapidly over the next few years to £3.8m in 2018.
- **Venture**: Average pre-money venture stage valuation fell from £10.6m in 2011 to £5.8m in 2013 and didn’t recover to 2011 levels until 2017, before increasing to £14.3m in 2018. Pre-money valuation at the venture stage has grown less than the other business stages over the period.
- **Growth**: The growth stage is the only stage for which pre-money valuations trended upwards between 2011 and 2018, from £22.6m in 2011 to £75.2m in 2018.

One consistent feature across all three stages is the considerable increase in the average pre-money valuation in 2018 relative to 2017:

- 60% increase at the seed stage
- 22% increase at the venture stage
- 55% increase at the growth stage

This is a trend that can be seen across global VC markets including the US, and may be a result of strong VC fundraising conditions over the last few years. High levels of VC fundraising has resulted in more capital in the market and therefore increased competition for deals between VC funds, potentially leading to larger company valuations. The proportion of ‘Up’ rounds in the UK has increased from 91% of rounds in 2011 to 96% of rounds in 2018.
Beauhurst have also updated their dataset to include information about the location of the investors participating in UK SME equity deals. Figure 1.23 outlines trends in UK equity deal numbers based on investor location. It is not possible to quantify the amount of funding overseas investors contribute to each equity deal and the investment values mentioned in this section relate to equity deal size overall.

The number of UK SME equity deals involving an overseas investor has increased every year since 2011, from 88 (with an investment value of £719m) in 2011 to 329 (£3.7bn) in 2018. The depreciation of the Pound since 2016 has likely increased the attractiveness of the UK VC market to overseas investors. As a proportion of UK SME equity deals, deals including an overseas investor fell from 24% in 2011 to 17% in 2014 before increasing to 30% in 2018. Increased overseas investment in the UK equity market is a positive development as it increases the pool of capital available to UK SMEs.

In terms of investment value, most equity investment in UK SME’s in 2017 and 2018 came from deals involving at least one overseas investor. Overseas investors are much more likely to invest at a later stage, with 32% of deals involving an overseas investor in 2018 going to growth stage companies compared to 17% of overall equity deals. Overseas investors are also more likely to invest in London than the wider investor population, with 63% of overseas investor deals in 2018 going to companies located in London (compared to 46% of overall equity deals).

Deals involving only UK investors have been trending downwards since 2015 due to two key factors:

- Deal sizes have increased over the last few years (see Section 1.3). Larger deals are more likely to involve a larger number of investors, and therefore less likely to include UK only investors.
- There has been a movement away from seed stage deals which are the deal type most likely to involve UK only investors (47% of UK only investor deals in 2018 were at the seed stage).
1.9
FEMALE FOUNDERS

Earlier this year the British Business Bank, in collaboration with Diversity VC and the BVCA, published a report identifying that female founders were underrepresented in VC markets.\textsuperscript{35} PitchBook data showed that only 17% of UK VC deals (11% by value) in 2017 went to companies with at least one female on the founding team.\textsuperscript{36}

The Beauhurst dataset now includes data on the gender composition of the founding team for the UK companies they track. As shown in Figure 1.24, Beauhurst data confirms that female founders are underrepresented in UK equity finance, with 20% of deals and 12% of investment in 2017 going to companies with at least one female founder. This is consistent with the findings using PitchBook data.

Using the Beauhurst dataset allows analysis of how investment in female founders differs across investor types, as well as the inclusion of the 2018 data. Despite the UK VC & Female Founders report establishing that the proportion of VC deals going to female founders was gradually improving over time, the addition of the 2018 data changes the story slightly.

In both 2017 and 2018 the proportion of UK equity deals going to companies with at least one female founder reduced, from 21% of UK equity deals in 2016 to 18% in 2018. The picture is even worse by investment value. The proportion of UK equity investment going to companies with at least one female founder has been trending downwards since 2016, from 16% to 10%. Companies with an all-female founding team comprised only 6% of deals (2% of investment value) in 2018. This is substantially lower than the 82% of deals (90% of investment value) going to all-male teams.

The Beauhurst data confirms that female founders are more likely to get funded at the seed stage with 24% of seed stage deals between 2016 and 2018 going to female founders, and less likely to get funded at the growth stage (12% of deals). Fewer seed stage deals in 2018 may therefore partly explain the overall reduction in the proportion of deals going to companies with at least one female founder.

Female founders forming a higher proportion of seed stage deals compared to the growth stage may be an indication that this will improve going forward, but this is likely to take time. We may see a higher proportion of venture and growth stage deals going to female founded companies in the future as these seed stage companies mature.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig124.png}
\caption{PROPORTION OF UK SME EQUITY DEALS AND INVESTMENT GOING TO BUSINESSES WITH AT LEAST ONE FEMALE FOUNDER}
\footnotesize{Source: British Business Bank analysis of Beauhurst}
\end{figure}
Figure 1.25 shows that the proportion of deals going to female founders differs across investor types. Crowdfunding platforms had the highest proportion of deals in companies with at least one female founder between 2016 and 2018 (25%), whilst PE/VC funds had a considerably lower proportion at only 17%. This could be linked to investors on crowdfunding platforms comprising of individuals with a more diverse background than the VC/PE industry, and therefore more likely to invest across different founder types. Differences between the investor types in their sector focus may also explain these trends.
1.10
DEAL GEOGRAPHY

London continues to be the focal point for equity deals in the UK. In 2018, 46% of UK deals and 59% of investment value were concentrated in the capital. These proportions are much higher than London’s 19% share of the SME population and 20% share of high growth businesses. This means that London has a far greater investment rate than the rest of the UK.

This is set out in Table 4, which shows that London had 6.8 deals per 10,000 SMEs and 28.1 deals per 100 High Growth Business (HGB) relative to 1.9 and 8.2 in the rest of the UK. London also received £35.7m of investment per 10,000 SMEs and £148m per 100 HGB in comparison with £6.1m and £26.3m in the rest of the UK.

### Table 4
**EQUITY INVESTMENT AND BUSINESS POPULATION SHARES**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>46%</td>
<td>59%</td>
<td>19%</td>
<td>20%</td>
<td>28.1</td>
<td>6.8</td>
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<tr>
<td>South East</td>
<td>9%</td>
<td>8%</td>
<td>15%</td>
<td>15%</td>
<td>7.3</td>
<td>1.6</td>
</tr>
<tr>
<td>South West</td>
<td>4%</td>
<td>5%</td>
<td>10%</td>
<td>8%</td>
<td>6.2</td>
<td>1.2</td>
</tr>
<tr>
<td>East Midlands</td>
<td>1%</td>
<td>1%</td>
<td>6%</td>
<td>6%</td>
<td>2.7</td>
<td>0.6</td>
</tr>
<tr>
<td>West Midlands</td>
<td>3%</td>
<td>3%</td>
<td>8%</td>
<td>8%</td>
<td>4.1</td>
<td>0.9</td>
</tr>
<tr>
<td>East of England</td>
<td>7%</td>
<td>12%</td>
<td>10%</td>
<td>10%</td>
<td>9.6</td>
<td>2.1</td>
</tr>
<tr>
<td>Yorkshire and Humberside</td>
<td>4%</td>
<td>2%</td>
<td>7%</td>
<td>8%</td>
<td>6.0</td>
<td>1.5</td>
</tr>
<tr>
<td>North East</td>
<td>3%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>13.4</td>
<td>3.1</td>
</tr>
<tr>
<td>North West</td>
<td>6%</td>
<td>3%</td>
<td>10%</td>
<td>10%</td>
<td>7.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>1%</td>
<td>0%</td>
<td>2%</td>
<td>2%</td>
<td>6.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Wales</td>
<td>4%</td>
<td>1%</td>
<td>4%</td>
<td>4%</td>
<td>14.3</td>
<td>3.6</td>
</tr>
<tr>
<td>Scotland</td>
<td>10%</td>
<td>3%</td>
<td>6%</td>
<td>6%</td>
<td>19.8</td>
<td>5.0</td>
</tr>
<tr>
<td>UK Excluding London</td>
<td>54%</td>
<td>41%</td>
<td>81%</td>
<td>80%</td>
<td>8.2</td>
<td>1.9</td>
</tr>
<tr>
<td>UK Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>12.1</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Source: ONS, BEIS, British Business Bank analysis of Beauhurst
London continues to be the focal point for equity finance in the UK. Deal numbers in London declined by 8% in 2018 compared to 2017, a larger decline than the 5% decline in the rest of the UK, which contributed to London’s share of deals falling from 47% to 46%.

Whilst the number of equity deals in the UK fell overall in 2018, many areas saw increases. The number of deals increased the most in the North East, which increased by 65%, followed by Yorkshire and Humber (15%) and Wales (11%). East of England and East Midlands also experienced smaller increases in equity deal numbers.

Investment values in London also fell in 2018, declining by 7% following a strong 2017. Outside of London, investment value increased by £616m (29%) to £2.8bn. This was driven by increases in deal sizes, especially at the growth stage and by large increases in investment values in the East of England (118%), the North East (115%) and the West Midlands (81%). These changes resulted in London’s share of investment value dropping from 66% to 59%.

In addition to unevenness in equity activity across the regions and devolved administrations, there is considerable unevenness within regions too. For example, the City of London received 19% of London equity investment in 2018, more than triple the 5% share of investment received by the 20 Outer London boroughs combined. This is despite the combined Outer London boroughs having over ten times as many SMEs as the City of London.

Alongside unevenness within regions, it is important to acknowledge that equity clusters cross over administrative boundaries whether these are for Local Authorities, regions or countries. Figure 1.27 attempts to reflect these issues by aggregating deal volumes using a superimposed grid of identically sized hexagons. It is clear to see, for example, that the London equity cluster spans well beyond the boundary of Greater London and likewise many within-region hotspots are visible. This provides support for geographic programmes like the Northern Powerhouse and Midlands Engine Investment Funds that are targeted at broader geographic areas rather than narrow geographic areas.
FIG 1.27
UK EQUITY DEALS IN 2018
Source: British Business Bank analysis of Beauhurst

Deal count 2018

No Deals
1 to 5 Deals
6 to 10 Deals
11 to 20 Deals
21 to 50 Deals
51 to 100 Deals
More than 100 Deals
Table 5 lists the 25 Local Authority Districts (LAD’s) with the highest number of announced equity deals in 2018.11 11 of the top 25, and eight of the top ten LAD’s with the most equity deals in 2018 were in London. Cambridge and Oxford were also on the list (9th and joint 16th respectively) due to the established communities of angel investors and VC funds that have developed around the universities. Cities including Edinburgh, Manchester, Glasgow, Bristol, Leeds, Newcastle and Birmingham are also important equity hotspots where deals are clustered.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Local Authority District</th>
<th>Number of deals (2018)</th>
<th>Sector with highest number of deals</th>
<th>Sector with second highest number of deals</th>
<th>Number of deals (2017)</th>
<th>Rank (2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Westminster City Council</td>
<td>112</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>108</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>City of London</td>
<td>105</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>101</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Hackney London Borough Council</td>
<td>94</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>105</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Camden London Borough Council</td>
<td>92</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>99</td>
<td>4</td>
</tr>
<tr>
<td>5=</td>
<td>Islington London Borough Council</td>
<td>71</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>93</td>
<td>5</td>
</tr>
<tr>
<td>5=</td>
<td>Edinburgh City Council</td>
<td>71</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>91</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Tower Hamlets London Borough Council</td>
<td>53</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>44</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>Lambeth London Borough Council</td>
<td>48</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>43</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>Cambridge City Council</td>
<td>39</td>
<td>Software</td>
<td>Life Sciences</td>
<td>37</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>Southwark London Borough Council</td>
<td>36</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>51</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>Cardiff Council</td>
<td>30</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>32</td>
<td>13</td>
</tr>
<tr>
<td>12</td>
<td>Hammersmith and Fulham London Borough Council</td>
<td>29</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>31</td>
<td>14</td>
</tr>
<tr>
<td>13</td>
<td>Manchester City Council</td>
<td>28</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>39</td>
<td>11</td>
</tr>
<tr>
<td>Rank</td>
<td>Local Authority District</td>
<td>Number of deals (2018)</td>
<td>Sector with highest number of deals</td>
<td>Sector with second highest number of deals</td>
<td>Number of deals (2017)</td>
<td>Rank (2017)</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------</td>
<td>------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------------</td>
<td>-----------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>14</td>
<td>Glasgow City Council</td>
<td>27</td>
<td>Life Sciences</td>
<td>Software</td>
<td>43</td>
<td>9</td>
</tr>
<tr>
<td>15</td>
<td>Bristol City Council</td>
<td>26</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td>16</td>
<td>Kensington and Chelsea Royal Borough Council</td>
<td>21</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>17=</td>
<td>Oxford City Council</td>
<td>20</td>
<td>Life Sciences</td>
<td>Software</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>17=</td>
<td>Leeds City Council</td>
<td>20</td>
<td>Business and Professional Services</td>
<td>Software</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>19=</td>
<td>Newcastle upon Tyne City Council</td>
<td>19</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>9</td>
<td>33</td>
</tr>
<tr>
<td>19=</td>
<td>Wandsworth Borough Council</td>
<td>19</td>
<td>Industrials</td>
<td>Software</td>
<td>29</td>
<td>15</td>
</tr>
<tr>
<td>21</td>
<td>South Cambridgeshire District Council</td>
<td>15</td>
<td>Software</td>
<td>Medical Technology</td>
<td>10</td>
<td>29</td>
</tr>
<tr>
<td>22=</td>
<td>Cheshire East Council</td>
<td>14</td>
<td>Life Sciences</td>
<td>Business and Professional Services</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>22=</td>
<td>North Lanarkshire Council</td>
<td>14</td>
<td>Life Sciences</td>
<td>Other Technology</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>22=</td>
<td>Birmingham City Council</td>
<td>14</td>
<td>Software</td>
<td>Business and Professional Services</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>22=</td>
<td>Durham County Council</td>
<td>14</td>
<td>Industrials</td>
<td>Material Technology</td>
<td>7</td>
<td>39</td>
</tr>
</tbody>
</table>

Source: British Business Bank analysis of Beauhurst
The complex picture of clustering means that assessing the concentration of equity activity purely using the share of deals or investment value in London will not tell the whole story. Consequently, the table below sets out a range of different measures of concentration for equity deal volumes. The CR4 measure records the deal share in the top four locations while the Herfindahl-Hirschman Index is derived from the shares of deals in all locations. Both measures range from 0 to 1 with larger values indicating higher levels of concentration.

**TABLE 6**  
**ALTERNATIVE MEASURES OF DEAL CONCENTRATION**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional-Level</td>
<td>CR4 Index</td>
<td>0.63</td>
<td>0.67</td>
<td>0.66</td>
<td>0.71</td>
<td>0.74</td>
<td>0.76</td>
<td>0.75</td>
<td>0.73</td>
</tr>
<tr>
<td>Herfindahl-Hirschman Index</td>
<td>0.16</td>
<td>0.18</td>
<td>0.18</td>
<td>0.24</td>
<td>0.28</td>
<td>0.28</td>
<td>0.26</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>CR4 Index</td>
<td>0.63</td>
<td>0.67</td>
<td>0.66</td>
<td>0.71</td>
<td>0.74</td>
<td>0.76</td>
<td>0.75</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>Local Authority-Level</td>
<td>Herfindahl-Hirschman Index</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>CR4 Index</td>
<td>0.21</td>
<td>0.19</td>
<td>0.21</td>
<td>0.24</td>
<td>0.26</td>
<td>0.25</td>
<td>0.24</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Grid-Level</td>
<td>Herfindahl-Hirschman Index</td>
<td>0.06</td>
<td>0.07</td>
<td>0.07</td>
<td>0.11</td>
<td>0.14</td>
<td>0.16</td>
<td>0.13</td>
<td>0.13</td>
</tr>
<tr>
<td>CR4 Index</td>
<td>0.06</td>
<td>0.06</td>
<td>0.06</td>
<td>0.11</td>
<td>0.14</td>
<td>0.15</td>
<td>0.13</td>
<td>0.13</td>
<td></td>
</tr>
</tbody>
</table>

*Source: British Business Bank analysis of Beauhurst*
Across all measures, ranging from those defined at the regional level to those using the same grid system as Figure 1.27, concentration appears to have peaked in 2015-2016 before declining in the last two years to varying degrees.41 One factor that may have supported this decreasing concentration is an increase in the number of VC firms with offices outside of London. Data is only available for 2015-2016 before declining in the last two years to 2017 but shows since then, eight of the 11 non-London areas have seen increases in active VC investors present in the area (Table 7).

### Table 7
**NUMBER OF UNIQUE EQUITY INVESTORS PER AREA (EXCLUDING GOVERNMENT INVESTORS)**

<table>
<thead>
<tr>
<th>Area</th>
<th>VC Listed as one investment strategy</th>
<th>VC Listed as primary investment strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2017</td>
<td>2019</td>
</tr>
<tr>
<td>London</td>
<td>532</td>
<td>735</td>
</tr>
<tr>
<td>South East</td>
<td>42</td>
<td>44</td>
</tr>
<tr>
<td>South West</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>East Midlands</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>West Midlands</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>East of England</td>
<td>34</td>
<td>42</td>
</tr>
<tr>
<td>Yorkshire and Humberside</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>North East</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>North West</td>
<td>27</td>
<td>39</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Wales</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Scotland</td>
<td>33</td>
<td>49</td>
</tr>
</tbody>
</table>

*Source: British Business Bank analysis of PitchBook*
Looking at the increases in total investment value in 2018 compared to 2017 provides further explanation for the decreasing concentration of equity activity with non-London areas having a key role in the increase in total investment values.

Figure 1.28 sets this out in detail, showing the impact of changes in deal numbers and average sizes on total investment value. This chart decomposes value growth by first looking at the impact of changing deal numbers, holding average values fixed, and then by looking at the impact of changes in average values, using the level of deals seen. The sum of all components of the decomposition add up to the total value change. Green bars show a positive contribution to the total, whilst red bars show a negative impact on the total.

In London, investment value is down on 2017, driven primarily by decreasing growth deal sizes which is not unexpected given 2017 saw several very large growth stage deals occurring in London. The reduction in London, however, is more than offset by an increase in the amount invested outside of London which stems from larger seed stage deals as well as increases in the average size and number of growth stage deals outside of London.
The net increase in investment value outside of London is just over £0.6bn and the regions that have made the largest contributions to this growth in 2018 are the East of England, the North East and the West Midlands. All three of these regions have experienced large increases in growth stage investment in 2018 with total values driven by some very large deals.

In the West Midlands for example, one growth stage equity deal was worth £100m of the £149m growth stage total in that region. The story in the North East is similar with one deal making up £149m of £210m total at growth stage. In the East of England, the largest deal accounts for a smaller share of the growth stage total, £88m of £354m, but still plays a role in average growth stage deal sizes more than doubling in the region from £8.5m in 2017 to £20.8m in 2018.

Section 1.3 provides further details on these large 2018 deals, all of which were companies that had successfully raised equity funds prior to their 2018 deals highlighting the importance of follow on funding to successful scale-ups.

Despite these examples of recent regional success stories, historic analysis of companies receiving multiple rounds of funding inside and out of London provides a more complex picture. For the cohort of seed stage companies that received their first equity deal between 2011 and 2013, the ratio of deals over the next five years to companies in the initial cohort is quite similar for London and non-London companies (Figure 1.29).

Subsequent investment values per company in the cohort, however, is markedly different for those outside the capital. Figure 1.30 shows that in London, investment value per company increases after the first investment, reflecting successful, surviving companies raising larger amounts of money as they progress. Outside of London, investment per company never reaches its initial level over the five subsequent years for companies in the 2011-13 cohort.

The presence of a sharp regional divergence in follow on deal sizes, which is not seen in deal volumes, could perhaps suggest Non-London businesses in this 2011-13 cohort have been experiencing some of the effects of the negative equilibrium outlined in the 2018/19 Small Business Finance Markets report. In such a scenario, underfunded companies underperform in their growth and fail to generate strong returns for their investors, reinforcing the negative feedback loop.

The British Business Bank’s programmes, including our Regional Funds; the Northern Powerhouse Investment Fund (NPIF), the Midlands Engine Investment Fund (MEIF) and the Cornwall and Isles of Scilly Investment Fund (CIOSIF), as well as Regional Angel Programme should help address these ongoing regional issues by providing additional funding to help reduce regional imbalances.

These funds are already having an impact with 16 per cent of Northern deals in 2018 involving NPIF and 20 per cent of Midlands deals in 2018 involving MEIF. The Cornwall and Isles of Scilly Fund has started to make investments. We expect our regional funds to continue helping address imbalances in 2019.
2.1 INTRODUCTION

This chapter explores the characteristics of equity deals completed by funds supported by the British Business Bank’s equity programmes, with comparisons made against the wider UK equity market.

As a government owned financial institution, the British Business Bank has the stated objective of increasing the supply of finance to smaller businesses in areas of the market that are not working as effectively as they could be. The British Business Bank also has a new objective from 2018 to reduce regional imbalances in access to finance. The Bank’s equity programmes are designed to address market failures in small business finance markets.

The Bank mainly does this by investing in VC funds as a Limited Partner (LP) through the ECF, BPC and UKIIF programmes. The Bank has also established three region-specific programmes which make both debt and equity investments to reduce geographic imbalances in the availability of finance in these areas:

- Northern Powerhouse Investment Fund (NPIF)
- Midlands Engine Investment Fund (MEIF)
- Cornwall and Isles of Scilly Investment Fund (C IoSIF)
<table>
<thead>
<tr>
<th>British Business Bank Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPC (British Patient Capital)</td>
<td>British Patient Capital is a new £2.5bn programme designed to enable long-term investment in high growth potential companies across the UK. Investing alongside the private sector, British Patient Capital will support £7.5bn of investment for British businesses. BPC was seeded with the VC Catalyst programme, which was itself established in 2013 to invest in commercially viable venture capital funds that might otherwise fail to reach a satisfactory “first close”. The programme was retargeted in 2016 to target the later stage VC funding gap and is now part of BPC.</td>
</tr>
<tr>
<td>Managed Funds Programme</td>
<td>The Managed Funds Programme is part of the Government’s response to the Patient Capital Review and helps address the UK’s patient capital funding gap. The programme makes additional cornerstone investments in a number of large-scale, private sector managed funds of funds that invest in venture and growth capital funds.</td>
</tr>
<tr>
<td>NPIF (Northern Powerhouse Investment Fund)</td>
<td>NPIF is a £400m programme launched in February 2017 in collaboration between the British Business Bank and ten LEPs in the North West, Yorkshire and Humber and Tees Valley.</td>
</tr>
<tr>
<td>MEIF (Midlands Engine Investment Fund)</td>
<td>MEIF is a £250m programme that is a collaboration between the British Business Bank and 10 LEPs in the East and South East Midlands and West Midlands</td>
</tr>
<tr>
<td>CIoSIF (Cornwall and Isle of Scilly Investment Fund)</td>
<td>The Bank has established the CIoSIF in partnership with the Cornwall &amp; Isles of Scilly LEP. The £40m investment Fund supports access to finance for SMEs in the area.</td>
</tr>
<tr>
<td>ECF (Enterprise Capital Fund)</td>
<td>The ECF programme was established in 2006 as a rolling programme of funds to increase the supply of equity finance to high growth potential businesses that would otherwise have faced difficulties raising finance due to a lack of supply within the “equity gap”.</td>
</tr>
<tr>
<td>ACF (Angel CoFund)</td>
<td>The British Business Bank supported Angel CoFund was established in 2011 to increase the supply of business angel finance available to viable small businesses with growth potential, and to improve the quality of angel investment through setting high standards for due diligence and scrutiny of deals.</td>
</tr>
<tr>
<td>UKIIF (UK Innovation Investment Fund)</td>
<td>UKIIF was established as a fund of funds in 2009 to increase the supply of equity finance to viable growing technology businesses in strategically important sectors such digital technologies, life sciences, clean technology and advanced manufacturing.</td>
</tr>
<tr>
<td>Regional Angels Programme</td>
<td>The £100m Regional Angels Programme is being established to help reduce regional imbalances in access to early stage equity finance for smaller businesses across the UK.</td>
</tr>
</tbody>
</table>
Deals completed by British Business Bank supported funds are matched to deals in the Beauhurst dataset using their Company Registration Number (CRN) first, or by company name if the CRN is not available. Deals are then only classed as being backed by a British Business Bank equity programme if the name of the fund manager associated with the company is listed in the named investors for that specific deal. This will likely underestimate the actual coverage of deals involving British Business Bank supported funds as not all deals have complete investor information, however this approach minimises the chance of misclassification.

Beauhurst also includes deals made by other Government funds including ERDF backed JEREMIE funds, as well as funds delivered by the devolved administrations including Finance Wales and Scottish Investment Bank and also local government funds. British Business Bank funds delivered by private sector fund managers involving private sector sources of capital, such as the ECF and BPC programmes, are not included in Beauhurst’s definition of government funds. This chapter assesses deals made by British Business Bank supported funds overall, but it is important to recognise the wider contribution government funds make to local equity markets. For instance, in 2018 72% of all announced equity deals in Wales and 62% in Scotland in 2018 involved a government fund.

Between 2011 and 2018 there were 756 visible equity deals undertaken by funds supported by the Bank’s equity programmes in the Beauhurst dataset (henceforth British Business Bank supported deals). This relates to £3.2bn of investment in 499 unique companies. Table 9 outlines the number of unique companies invested in by British Business Bank programme, as well as the Beauhurst coverage for each programme.

<table>
<thead>
<tr>
<th>Programme</th>
<th>Number of unique companies</th>
<th>Company population</th>
<th>Relative coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACF/ Aspire</td>
<td>74</td>
<td>94</td>
<td>79%</td>
</tr>
<tr>
<td>BPC</td>
<td>80</td>
<td>166</td>
<td>48%</td>
</tr>
<tr>
<td>ECF</td>
<td>250</td>
<td>500</td>
<td>50%</td>
</tr>
<tr>
<td>MEIF</td>
<td>20</td>
<td>23</td>
<td>87%</td>
</tr>
<tr>
<td>NPIF</td>
<td>46</td>
<td>59</td>
<td>78%</td>
</tr>
<tr>
<td>UKIIF</td>
<td>68</td>
<td>133</td>
<td>51%</td>
</tr>
<tr>
<td>Overall</td>
<td>499</td>
<td>904</td>
<td>55%</td>
</tr>
</tbody>
</table>

Source: British Business Bank analysis of Mi data and Beauhurst

Beauhurst captures at least one deal for 55% of companies that have received equity finance from a fund supported by the Bank, with coverage varying by programme.
2.2 MARKET SHARE

Figure 2.1 shows the number of British Business Bank supported deals over time as identified in the Beauhurst dataset. The number of identified British Business Bank supported deals has increased over time from 26 in 2011 to 164 in 2017, before slightly declining to 152 in 2018. This 2018 figure should be treated as preliminary, as Beauhurst will continue to identify deals and investors as more information is announced. The ECF programme has made the most deals over the last three years, followed by BPC through the VC Catalyst programme. Note that these figures only include deals identified in the Beauhurst dataset and therefore differ from those on the British Business Bank Management Information system, which has full coverage.

British Business Bank programmes are estimated to have supported 9% of UK equity deals between 2016 and 2018, with these deals forming 13% of the overall invested equity amount in that period. There are slight differences by stage, with British Business Bank supported funds involved in:

- 10% of seed stage deals (9% by value)
- 9% of venture stage deals (13% by value)
- 11% of growth stage deals (15% by value)
2.3 BUSINESS STAGE

Figure 2.2 shows that the stage distribution of deals completed by British Business Bank supported funds between 2016 and 2018 was similar to the wider equity market. Although British Business Bank programmes mostly operate through VC funds, some of these funds are classified as non-PE/VC investor types. For example, the ECF programme has invested in Entrepreneur First, which is categorised as an accelerator by Beauhurst. In light of these developments and the large number of deals funded through this non-PE/VC investor category, it now makes sense to compare deals supported by the Bank’s equity programmes with the overall equity market.

The seed stage received the highest proportion of deals completed by British Business Bank supported funds with 46% of deals going to seed stage companies, in line with the wider equity market. British Business Bank supported funds completed slightly fewer deals than the overall equity market at the venture stage (35% of deals compared to 37%), and slightly more at the growth stage (19% of deals compared to 17%).

In terms of investment value, most British Business Bank supported fund investment between 2016 and 2018 (60%) was in growth stage companies, slightly higher than both the overall equity market (54%) and PE/VC investors (57%). The Bank has slightly less investment in seed (9% of investment compared to 13%) and venture (31% of investment compared to 33%) stage companies compared to the wider equity market. The large amount of investment by British Business Bank supported funds at the growth stage is driven primarily by BPC, with 61% of British Business Bank growth stage investment between 2016 and 2018 coming from funds supported by the BPC programme.

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**FIG 2.2**

PROPORTION OF DEALS BY BUSINESS STAGE (2016-2018)

*Source: Analysis of British Business Bank MI data and Beauhurst*
As demonstrated by Figure 2.3, the stage composition of British Business Bank supported fund deals is volatile and has changed over time. Between 2011 and 2014 there was a shift away from deals at the seed stage to venture/growth stage deals, with seed stage deals falling from 38% of all British Business Bank deals in 2011 to 14% in 2014. Conversely, the proportion of British Business Bank supported fund deals at the venture stage increased from 35% in 2011 to 56% in 2014.

Between 2014 and 2016 there was a large shift back towards seed stage investment, with the proportion of British Business Bank fund deals in seed stage companies increasing from 14% in 2014 to 53% in 2016. This transition was largely due to the ECF programme investing in Entrepreneur First in 2016, an accelerator fund backing a relatively high number of early stage businesses. The number of British Business Bank fund investments at the seed stage increased from 17 in 2015 to 76 in 2016, with Entrepreneur First involved in 61 of the 2016 deals. Despite falling as a proportion of all British Business Bank supported fund deals between 2014 and 2016, both venture and growth stage deal numbers remained relatively stable over the period, with the proportional trend driven by increases at the seed stage.

Since 2016 there has again been movement away from deals at the seed stage, falling from 53% of all British Business Bank supported fund deals in 2016 to 36% in 2018. This is due to a combination of Entrepreneur First reaching the end of its investment period, causing the number of seed stage deals completed by British Business Bank supported funds to fall, but also growth and especially venture stage deal numbers increasing. This is a result of the Bank focusing on supporting the UK patient capital ecosystem following the 2017 Patient Capital Review. Nevertheless, the Bank’s Enterprise Capital Fund programme continues to address market failures affecting smaller deal sizes at the earlier funding stages.

In 2018 there was a large increase in growth stage investment completed by funds backed by the British Business Bank’s programmes with £770m of announced investment in growth stage companies. The increase in investment was primarily due to large deals in UK unicorns such as Revolut and Graphcore. This shows the success of the Bank’s programmes, especially BPC, in supporting the UK ecosystem.

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**FIG 2.3**

PROPORTION OF BRITISH BUSINESS BANK SUPPORTED FUND DEALS BY BUSINESS STAGE OVER TIME

*Source: Analysis of British Business Bank Mi data and Beauhurst*
The average size of deals completed by British Business Bank supported funds varies widely by stage:

- **Seed**: The average size of British Business Bank supported fund seed stage deals between 2016 and 2018 was £943k, compared to £1.0m and £2.0m for the overall equity and PE/VC markets respectively. This is partly due to the small ticket sizes of investors such as Entrepreneur First (when removing Entrepreneur First investments from the cohort the average deal size is £1.6m).

- **Venture**: The average size of British Business Bank supported fund venture stage deals between 2016 and 2018 was £4.5m, compared to £3.3m and £5.1m for overall equity and PE/VC markets respectively. The size of venture stage deals completed is therefore largely in line with the PE/VC market, which is as to be expected since most of the Bank’s supported fund deals at this stage are completed by VC funds.

- **Growth**: The average size of British Business Bank supported fund growth stage deals between 2016 and 2018 was £16.5m, compared to £13.2m and £15.2m for overall equity and PE/VC markets respectively. The average size of growth stage deals completed by funds supported by the Bank’s programmes is therefore larger than the wider PE/VC market. The average size of the Bank’s deals even within this short three-year time frame has increased sharply from £9.4m in 2016, £12.1m in 2017 and then £26.6m in 2018. The success of the BPC programme in supporting UK scale-ups in 2018 is a major driver of this increase.

### Table 10

**AVERAGE DEAL SIZE (2016-18)**

<table>
<thead>
<tr>
<th>Deal Stage</th>
<th>British Business Bank</th>
<th>Overall market</th>
<th>PE/VC market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>£943k</td>
<td>£1.0m</td>
<td>£2.0m</td>
</tr>
<tr>
<td>Venture</td>
<td>£4.5m</td>
<td>£3.3m</td>
<td>£5.1m</td>
</tr>
<tr>
<td>Growth</td>
<td>£16.5m</td>
<td>£13.2m</td>
<td>£15.2m</td>
</tr>
</tbody>
</table>

**Source:** British Business Bank analysis of MI data and Beauhurst
Funds supported by the British Business Bank are more likely to invest in technology/IP-based businesses than the overall equity market, with 50% of British Business Bank supported deals in this sector compared to 39% of the wider market. The same holds for investment value, with 53% of investment by the Bank’s supported funds going to technology/IP-based companies, compared to 42% of overall equity market investment. The second highest sector in terms of deal proportions was business and professional services (forming 27% of all British Business Bank supported deals), followed by industrials (8%). These rankings follow the wider market, although industrials make up a higher proportion of overall equity market deals (14%).

The proportion of British Business Bank deals/investment in technology/IP-based businesses is higher than for PE/VC investors where 42% of deals (46% by value) went to the sector between 2016 and 2018.

Of the 231 deals completed by British Business Bank supported funds in technology/IP-based businesses between 2016 and 2018, 62% were in software and 11% were in life sciences which is largely in line with the overall equity market. In terms of value, 65% of the investment by the Bank’s supported funds was in software, compared to 52% for the wider market, with investment in life sciences forming 14% of British Business Bank investment compared to 27% of wider market investment. Going forward, the British Business Bank is likely be more aligned with the wider equity market in terms of life sciences investment, with BPC already having made investments in life science funds such as the Dementia Discovery Fund.
2.5 ENGLISH REGIONS AND DEVOLVED ADMINISTRATIONS

Figure 2.5 shows that the concentration of deals undertaken in London by British Business Bank supported funds has reduced sharply over the last couple of years, from 70% in 2016 to 43% in 2018. Deals completed by British Business Bank supported funds are now more likely than the wider market to be outside of London.

There are two key drivers of this reduction:

- NPIF and MEIF: NPIF began investing in 2017, with MEIF following in 2018. Beauhurst identified 55 deals completed by these two regionally-focussed funds in 2018, with MEIF and NPIF contributing 20% and 16% of equity deals in the Midlands and North respectively.

- Entrepreneur First: Entrepreneur First, an investor within the ECF programme, has come to the end of its initial investment period. Beauhurst recorded ten Entrepreneur First investments in 2018 down from 61 in 2016. Entrepreneur First was a key driver of the concentration of British Business Bank supported fund deals in London previously due to its high number of deals. For instance, Entrepreneur First formed 43% of British Business Bank supported fund deals in 2016, with 89% of these deals occurring in London.

When considering the value of investment, the British Business Bank is in line with the wider equity market, with 61% of investment by the Bank’s supported funds between 2016 and 2018 going to companies located in the capital. This is the same as the proportion of overall equity investment going to London-based companies.
CHAPTER 3: PATIENT CAPITAL ECOSYSTEM

3.1 INTRODUCTION

The UK equity ecosystem has developed over the last decade and is now better able to support high growth companies at all stages of their development from start-up, scale-up to eventual exit through an IPO or trade sale. This chapter builds on the analysis presented in British Business Bank 2018/19 Small Business Finance Markets report by providing international comparisons on the strengths and weaknesses of Patient Capital ecosystem for scale-up businesses.

The chapter also provides more detailed information on UK VC to Gross Domestic Product (GDP) ratios by providing a comparison to the US based on different VC stages. The characteristics of UK VC fundraising are then explored.

Comparisons are largely made to the US due to the US VC market being widely recognised as being the most developed since its inception in the 1950’s.46 It is therefore the market most likely to be working effectively. However, imperfect information affecting smaller deal sizes and concentration of deal activity across a small number of geographic clusters are also features of the US VC market. UK comparisons to the US are therefore made on overall VC levels, fund sizes and follow on funding rounds. It should be recognised that over the last few years there has been strong growth in VC activity in Asia, especially China, and in time comparisons could also be made to these markets.
3.2 HIGH GROWTH BUSINESSES

The terms ‘high growth’ and ‘scale-up’ are often used to refer to businesses that have either grown or have the potential to grow rapidly. High growth businesses are important contributors to employment and wealth creation.

The financing needs of high growth firms are likely to be more complex than those businesses with average growth, with equity finance being an important source of funding for high growth businesses. Small Business Finance markets report 2018/19 presented recent evidence from Beauhurst and ScaleUp Institute that showed the use of equity finance is correlated with higher turnover and employment growth rates amongst scale-up businesses. 42% of scale-up businesses that grew their annual turnover by more than 100% used equity finance, compared with 17% amongst businesses that grew their annual turnover by 20 to 40%. The more equity finance a scale-up company raises, the more likely it is to increase its annual turnover by over 100% a year. This demonstrates equity finance can positively contribute to growth.

It is difficult to make cross-country comparisons in the incidences of high growth businesses due to differences in definition of high growth and difference in coverage of the business population. The OECD define a high growth enterprise as having an average annualised growth in the number of employees greater than 20% or more over a three-year period, with ten or more employees at the beginning of the observation period. The European Union uses a different definition of high growth. This definition includes all enterprises with an average annualised growth in the number of employees greater than 10% per annum over a three-year period and with at least ten employees at the beginning of their growth period.

A recent OECD publication suggests there are considerable variations across countries in the proportion of businesses that are high growth. High growth businesses make up a larger share of UK sectors than most other European countries. However, within countries high growth rates are generally aligned between sectors, suggesting that the drivers of high growth are influenced by the underlying business environment.

The Office of National Statistics estimates there were 13,165 high growth enterprises in the UK in 2017 (using the OECD definition of high growth). This is up from 12,495 in 2013. The most comparable figure for the US suggests there were 36,210 high growth businesses in 2012. This suggests that the UK has a relatively high incidence of high growth businesses compared to the US once differences in size of the two countries’ economies are considered.

![Google charts](https://example.com/google-charts.png)
3.3 SIZE OF VC MARKETS

Historically, the US VC market was over twice as large as the UK’s once differences in the size of the two countries’ economies were accounted for. The recent British Business Bank Small Business Finance Markets 2018/19 report revealed the UK has recently closed some of the gap with the US, with the US VC market being 1.5 times larger than the UK market in 2017. This is due to the UK venture capital market having grown faster than the US over the last decade.

New British Business Bank analysis of PitchBook for VC deals made between 2016 and 2018\(^\text{12}\) shows there are differences by business stage. Whilst the US VC market was 1.7 times larger than the UK overall between 2016 and 2018, the difference was most acute at the later VC stage where the US VC market was nearly twice as large. The differences at the seed and early VC stage were much smaller at 1.3 times and 1.4 times respectively.

**FIG 3.2**
VC INVESTMENT AS A PROPORTION OF GDP BY BUSINESS STAGE (2016-18)

Source: British Business Bank analysis of World Bank and PitchBook
Due to improvements in the UK VC market ecosystem over the last decade the UK has been ahead of the US in terms of GDP-weighted VC deal numbers since 2016. Between 2016 and 2018, the UK had 570 VC deals per £trn of GDP, which is 18% higher than the US with 482 deals per £trn of GDP. This is due to the number of VC deals increasing more quickly in the UK than the US.\textsuperscript{52}

The UK now has a higher number of seed and early stage VC deals relative to GDP, but the number of later stage VC deals is now largely in line with the US. This is a positive development and shows the success of the wider UK ecosystem in supporting companies at all stages of their development.

At the aggregate level, this suggests the gap with the US relates to deal sizes rather than the number of firms receiving investment. Table 11 shows the UK has lower mean average deal sizes, with US seed stage deals 1.5 times larger than the UK, early stage VC deals are 1.9 times larger and later stage deals being 1.7 times larger in the US. A similar picture is also shown by median deal size across stages, confirming the comparison is not distorted by the very largest deals. The larger size of the US market may explain some of the difference in deal sizes (as larger amount of capital is required to scale the business), but not all.

The evidence therefore suggests that UK companies receive less funding than their US counterparts, so that they are less capitalised. Raising a financing round is time consuming and is estimated to take six to nine months on average, or much longer in some cases.\textsuperscript{53} Time spent fundraising has an opportunity cost as it diverts the time of the CEO and other senior managers away from activities that potentially add value to the company, such as generating sales or developing new product ideas. UK companies will require more funding rounds than their US counterparts to raise an equivalent amount of funding, or they can remain less capitalised. Both outcomes may reduce the probability of success and lead to lower growth rates.

TABLE 11
MEAN AVERAGE DEAL SIZE BY STAGE, UK COMPARED TO US (2016-18)

<table>
<thead>
<tr>
<th></th>
<th>Seed VC</th>
<th>Early stage VC</th>
<th>Later stage VC</th>
<th>Overall VC</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>£1.1m</td>
<td>£4.5m</td>
<td>£13.1m</td>
<td>£5.5m</td>
</tr>
<tr>
<td>US</td>
<td>£1.7m</td>
<td>£8.7m</td>
<td>£22.7m</td>
<td>£10.6m</td>
</tr>
</tbody>
</table>

Source: British Business Bank analysis of PitchBook
3.4 FOLLOW ON FUNDING

Growing from a start-up company to a unicorn status company valued at over $1bn usually involves numerous VC rounds and large amounts of equity funding over a sustained time period. This requires a strong ecosystem with different equity investors along the way that can support the company at all stages of its development. Looking at the extent companies receive follow on funding and the amount of follow on funding they receive can be useful to assess the strength of the overall market.

For a cohort of companies whom received their first round of venture funding between 2011 and 2012, 57% of US companies received a second round of funding compared to 55% in the UK. There is therefore very little difference in follow on funding rates between the US and the UK at each funding round. This differs to previous British Business Bank analysis on companies that first received a funding round between 2008 and 2010 which showed UK VC-backed companies were less likely to get follow on funding than their US counterparts. The change may provide supporting evidence showing the UK VC market is improving, although it could also be due to change in the data source used.54

FIG 3.4
COHORT ANALYSIS OF COMPANIES RECEIVING INITIAL VC FUNDING IN 2011-2012
Source: British Business Bank analysis of PitchBook

COMPANIES WITH SUBSEQUENT FUNDING ROUNDS
Figure 3.5 shows the relative difference between the UK and US in terms of the average size of funding rounds received within the VC pipeline. On average US initial funding rounds are around 1.5 times larger than initial funding rounds in UK companies, however this difference increases to 2.4 times by the 5th funding round. This is consistent with earlier presented deal stage analysis showing that the relative deal size difference between the US and UK is more pronounced for early/ later stage VC than for seed stage investment. The findings provide further evidence that current differences between the UK and US VC investment levels are driven by differences in equity deal sizes rather than the number of deals.

FIG 3.5
COHORT ANALYSIS OF COMPANIES RECEIVING INITIAL VC FUNDING IN 2011-2012
Source: British Business Bank analysis of Pitchbook

AVERAGE DEAL SIZE BY FUNDING ROUND

- **Round 1**: £1.2m (UK), £1.8m (US)
- **Round 2**: £1.9m (UK), £4m (US)
- **Round 3**: £3.4m (UK), £7.8m (US)
- **Round 4**: £5.1m (UK), £12.2m (US)
- **Round 5**: £9.0m (UK), £21.7m (US)
- **Round 6**: £22.0m (UK), £36.3m (US)
- **Round 7**: £23.3m (UK), £66.7m (US)
3.5 UNICORN BUSINESSES

There are several different definitions and data sources measuring the number of unicorn businesses. British Business Bank defines a unicorn business as a privately held, VC-backed company valued at more than $1 billion-
dollars.\textsuperscript{55} When a unicorn investment is exited,\textsuperscript{56} the company no longer retains unicorn status but can still be considered a successful scale-up business. This definition concentrates on high growth firms supported by venture capitalists, which is the focus of the British Business Bank.\textsuperscript{57}

As of 7\textsuperscript{th} May 2019, the UK had 14 unicorn status businesses. The names of these companies are shown in Table 12. Europe overall has 32 Unicorn status businesses, meaning 44\% of European unicorns are in the UK. This shows the UK is a major contributor to the European technology market.

Four of the UK unicorn status companies: Improbable, Revolut, TransferWise and Graphcore, are currently within the Bank’s equity programme portfolio. This indicates 29\% of the UK’s current unicorn businesses received investment from British Business Bank supported funds.

This shows the importance of the Bank’s equity programmes in supporting the UK equity ecosystem from start-up to scale-up by backing equity funds which collectively invest across different stages.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Head Office Location</th>
<th>Year founded</th>
<th>Valuation</th>
<th>Date of unicorn valuation</th>
<th>Funded by BBB supported fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxford Nanopore Techs</td>
<td>Oxford</td>
<td>2005</td>
<td>£1.5bn</td>
<td>Apr-15</td>
<td></td>
</tr>
<tr>
<td>Transferwise</td>
<td>London</td>
<td>2010</td>
<td>£1.2bn</td>
<td>May-16</td>
<td>BPC</td>
</tr>
<tr>
<td>The Hut Group</td>
<td>Northwich</td>
<td>2004</td>
<td>£2.5bn</td>
<td>May-16</td>
<td></td>
</tr>
<tr>
<td>Brewdog</td>
<td>Ellon</td>
<td>2007</td>
<td>£1bn</td>
<td>Apr-17</td>
<td></td>
</tr>
<tr>
<td>Improbable</td>
<td>London</td>
<td>2012</td>
<td>£1.54bn</td>
<td>May-17</td>
<td>ECF</td>
</tr>
<tr>
<td>Oaknorth</td>
<td>London</td>
<td>2013</td>
<td>£1.76bn</td>
<td>Oct-17</td>
<td></td>
</tr>
<tr>
<td>Deliveroo</td>
<td>London</td>
<td>2012</td>
<td>£1.45bn</td>
<td>Nov-17</td>
<td></td>
</tr>
<tr>
<td>Benevolent.ai</td>
<td>London</td>
<td>2013</td>
<td>£1.42bn</td>
<td>Apr-18</td>
<td></td>
</tr>
<tr>
<td>Revolut</td>
<td>London</td>
<td>2015</td>
<td>£1.21bn</td>
<td>Apr-18</td>
<td>UKIF and BPC</td>
</tr>
<tr>
<td>Darktrace</td>
<td>Cambridge</td>
<td>2013</td>
<td>£1.27bn</td>
<td>Sep-18</td>
<td></td>
</tr>
<tr>
<td>Monzo</td>
<td>London</td>
<td>2015</td>
<td>£1bn</td>
<td>Oct-18</td>
<td></td>
</tr>
<tr>
<td>Graphcore</td>
<td>Bristol</td>
<td>2016</td>
<td>£1.3bn</td>
<td>Dec-18</td>
<td>ECF and BPC</td>
</tr>
<tr>
<td>Ovo Energy</td>
<td>Bristol</td>
<td>2009</td>
<td>£1.24bn</td>
<td>Feb-19</td>
<td></td>
</tr>
<tr>
<td>Checkout.com</td>
<td>London</td>
<td>2012</td>
<td>£1.53bn</td>
<td>May-19</td>
<td></td>
</tr>
</tbody>
</table>

Portfolio company exits are important to the long-term success of the VC ecosystem as they provide liquidity to investors. Most VC investments are unsuccessful with the portfolio company written off, but successful exits can occur through a trade sale, IPO listing on a public market or a secondary sale to another investor.

PitchBook data shows 81 UK VC-backed companies exited in 2018, which is 30% lower than in 2017. Despite this the value of these exits was very high at £4.5bn (compared to £1.9bn in 2017). High exit values combined with a slowdown in number of exits is a trend that can been seen across wider European VC markets and indicates that the average exit size increased substantially in 2018. There were several high-profile European VC-backed company exits in 2018 including Spotify, Funding Circle, and Farfetch, which marks an important step for the wider European VC ecosystem.

There were 52 UK VC-backed trade sales in 2018, down from 82 in 2017. Trade sales continue to be most frequent exit route for UK VC-backed companies. There were ten VC-backed company IPOs in 2018 (two more than 2017) worth £1.7bn with successful companies valued over $1bn like Funding Circle and Farfetch contributing to the increased value of exits seen in 2018.

It can take many years to develop a company before its VC investors are able to exit. The British Business Bank has looked at UK and US VC-backed companies that exited between 2017 and 2018 to measure how long it took for them to exit and the amount of funding that was required. The analysis is undertaken for two main exit types only: IPOs and trade sales.

Whilst there are a relatively small number of IPOs per year, the IPO exit route is usually regarded as the most prestigious. As a result, this exit route usually takes the longest and requires the most capital. Figure 3.6 shows UK companies IPO at an earlier stage than those in the US. On average US companies took 6.4 years between the date of first receiving a VC round and their IPO event, compared to 5.3 years in the UK. US firms who listed via an IPO in 2017 and 2018 raised 3.6 VC rounds on average compared to 3.3 in the UK. This cohort of US companies raised on average £109m of VC funding compared to £66m in the UK (Figure 3.7). This means UK companies that had an IPO in 2017/18 raised 39% less funding than their US counterparts. Differences in the ease of listing and liquidity between US and UK public markets may also contribute to differences in the time required and amount of funding required to IPO.

Most successful VC company exits occur through a trade sale. There is little difference between the UK and the US in terms of the time it takes to exit (5.7 years compared 5.9 years). Conversely US firms raise more funding rounds during this period (2.8 compared to 2.2) and also more funding (£18m compared to £8m). This means UK companies that exited via a trade sale raised 57% less funding than their US counterparts.
**FIG 3.6**

AVERAGE NUMBER OF VC ROUNDS/YEARS TO EXIT BY EXIT TYPE (2017-18 EXIT COHORT)

Source: British Business Bank analysis of PitchBook

**FIG 3.7**

AVERAGE AMOUNT OF VC FUNDING RAISED BY COMPANIES SUCCESSFULLY EXITING (2017-2018 EXIT COHORT)

Source: British Business Bank analysis of PitchBook
3.7 FUNDRAISING

One explanation for smaller deal sizes in the UK compared to the US is that the US has larger VC funds. Larger funds can do larger VC deals by nature of their size, whilst keeping a balanced portfolio of investments. Smaller funds tend to focus a higher proportion of their investments at the seed and early stage VC compared to later VC stages. British Business Bank analysis of PitchBook confirms VC deal sizes increase as VC fund size increases. This holds for both US and UK across all three investment stages, but is especially large at the later stage VC:

- **Seed**: The average seed stage deal size for UK VC funds under £50m is £1.2m compared to £2.4m for funds over £250m.60
- **Early stage VC**: The average early stage deal size for UK VC funds under £50m is £4m compared to £9.8m for funds over £250m.
- **Later stage VC**: The average later stage VC deal size for UK VC funds under £50m is £8.2m compared to £33.0m for funds over £250m.

Whilst the median fund size is similar across both the US and UK at around £75m (as shown in Table 13) the US has a much larger mean average fund size than the UK (£160m compared to £123m). The US VC market is split between a large proportion of very small funds and a small number of very large funds. Of the US VC funds closing in 2018, 48% were less than £50m in size compared to just 18% in the UK. The US has a high number of ‘micro VC funds’ less than £10m. These include accelerator funds, angel funds, special ops funds and special investment vehicles.61

Very large funds are also a feature of the US VC market, with 12 funds over £500m in size closing in 2018 (the largest of which closed at £6.1bn62). In comparison, the largest UK VC fund that closed in 2018 was £400m (Highland Europe Technology Growth III). These large VC funds can support the funding needs of scale-up companies requiring later stage VC, including many unicorn businesses. Large VC funds in the UK may require a pan-European investment strategy in order to be able to identify the most promising companies coming through the pipeline, as technology markets are not restricted by country boundaries.

UK VC funds are smaller than the US at all stages of their fundraising.63 Figure 3.8 shows first time VC fund managers in the UK on average raise a VC fund of £42m compared to £71m in US. By fund 3, US funds are 85% larger than UK funds (£113m compared to £61m), although the small number of UK funds leads to volatility in the data.

<table>
<thead>
<tr>
<th>Table 13</th>
<th>AVERAGE VC FUND SIZE EXCLUDING FUNDS LESS THAN £10M (2016-18)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean fund size</strong></td>
<td><strong>Median fund size</strong></td>
</tr>
<tr>
<td>UK</td>
<td>£123m</td>
</tr>
<tr>
<td>US</td>
<td>£160m</td>
</tr>
</tbody>
</table>

Source: British Business Bank of PitchBook
FIG 3.8
AVERAGE FUND SIZE BY FUND NUMBER (PITCHBOOK FUND NUMBER)
Source: British Business Bank analysis of PitchBook

FIG 3.9
AVERAGE UK VC DEAL SIZE BY STAGE AND FUND SIZE CATEGORY (2016-2018)
Source: British Business Bank analysis of PitchBook
In order to facilitate larger funds, more institutional investors are needed to invest in this asset class. This section provides updated analysis of Limited Partner (LP) commitments into European and US VC funds between 2010 and February 2019 to assess differences in investor composition and characteristics. There are clear differences between the UK and US markets in terms of the types of investors investing in VC. This analysis was first presented in the 2017 Equity Tracker report.

PitchBook does not have full coverage of all LP commitments to VC, as LPs are not required to publicly disclose their investments into funds. Therefore, commitment amounts should not be used to gauge total market size and these findings should be treated as indicative only. The data is presented for the overall time period rather than individual years due to the high degree of volatility in the fund commitment data.

The following analysis is based on fund location, rather than location of the LP investor. Around 55% of all UK VC fundraising between 2010 and Feb 2019 came from overseas funding sources. In comparison, only 6% of US VC fundraising was from a non-US source.

Figure 3.10 shows the composition of Limited Partners by amount committed to VC funds raised between 2010 and 2019. The UK appears to have similar investor composition as the Rest of Europe, but differs to the US.

UK and European VC markets are highly dependent on Government agencies and the European Investment Fund (EIF) with a much lower proportion of funding coming from institutional investors. PitchBook data confirms the British Business Bank is the largest UK based investor in UK VC.

Public pension funds contribute most of the capital committed to the US VC market (65%) but a much smaller share of the UK market (12%) and Rest of Europe market (18%).

The largest single investor class in the UK over the whole time period was the EIF (23%), followed by other investors which include ‘direct fund investments’, ‘money management firms’, ‘private investment funds’ and ‘other limited partners’. Government agencies (mainly covering the British Business Bank which contributes 78% of the Government agency funding in the UK) form 18% of total fund commitments. Government agencies only form 2% of the US VC fundraising, although this does not include funds raised by the SBIC programme which are structured as debt instruments. SBIC funds form a large part of the US financing market.

This suggests the UK requires greater diversity in the number and type of LPs investing in VC. The British Business Bank aims to address this by attracting additional private investment into UK venture and growth capital through our programmes, primarily through BPC and the Managed Funds programme.

FIG 3.10
PROPORTION OF VC FUNDRAISING BY LP TYPE (BY COUNTRY OF VC FUND)

Source: British Business Bank analysis of PitchBook
CHAPTER 4: TALENT IN VENTURE CAPITAL

4.1 INTRODUCTION

The capabilities and expertise of the people working in VC fund management firms (subsequently shortened to ‘firms’ throughout this chapter) determine how well the VC industry can contribute to the success of portfolio companies, as well as its own success in generating financial returns. As the amount of capital in the industry increases, the number of firms and the variety of skilled professionals must also continue to increase. However, it is not clear what makes a ‘good’ venture capitalist: what skills, knowledge and networks are most valuable.

This chapter presents the findings of a detailed survey of people working within UK VC firms. Fieldwork was undertaken in late 2018/19, via an on-line survey of fund managers publicised predominantly by British Business Bank’s direct contact with the market.

The survey focused on senior venture capitalists, also including the views of their juniors. In total 108 professionals responded. The following describes, first, the people in the industry today, contrasting senior and junior, and then discusses the challenges to successfully creating the next generation of venture capitalists.

These findings provide an insight into the state of talent in the UK VC industry but should not be considered fully representative of the UK VC industry.
The VC firm is small companies in themselves – the average firm has nine employees, six of whom are investment professionals. Each person plays a distinct role and, while there is significant variation between firms, there are four broad levels of staff:

- **General Partners (GPs):** Senior professionals who lead VC firms. They secure the capital from Limited Partners (LPs) which the firm will then invest, set the firm’s strategy and culture, make investment decisions, assist portfolio companies and are responsible for recruiting more junior professionals. GPs have a personal stake in the firm’s capital, which acts to align their interests with those of their LP investors.

- **Partners:** Senior professionals who perform similar roles to GPs, typically supporting rather than leading. They do not have a personal stake in the firm’s capital.

- **Principals:** Mid-level professionals, many of whom have the authority to lead investments or aspects of them and sit on the boards of portfolio companies. They also typically source potential investment opportunities, perform deal diligence and manage junior professionals.

- **Analysts and Associates:** Junior professionals who focus on sourcing and performing the initial screening of potential investment opportunities, financial modelling and market research.

In terms of time allocation, GPs and Partners report spending 37% of their time assisting the portfolio companies for which they are responsible and less time originating new deals (25%). Whilst they provide some support to colleagues’ companies and origination, this is at relatively low levels (cumulatively 17% - 20%).

The focus of activity shifts with seniority. Junior and Mid-level venture capitalists spend the majority of their time on deal origination (61% for Juniors and 43% for Mid-levels), splitting their time more evenly between what they consider their own and colleagues’ companies.
4.3
CAPABILITIES PERCEIVED TO BE MOST VALUABLE

Venture capitalists require a diverse range of capabilities in order to identify investments, add value to their portfolio companies, exit their investments and raise funding from Limited Partners. The survey asked respondents to identify the capabilities most important for success.

The five capabilities ranked the highest by GPs and Partners are:

1. Listening skills.
2. Communication skills.
3. Network of entrepreneurs / managers (as candidates for portfolio companies).
4. Coaching / counselling / advising skills.
5. Network of other VCs (for deal flow or co-investment).

The importance of interpersonal skills and networks supports the view that professional experience is particularly important for the development of venture capitalists, as these skills tend to be developed with practice, over time.

Figure 4.2 shows that the relative ranking of skills changes with seniority. GPs and Partners rate the ability to recruit talented managers more highly than more Junior venture capitalists, reflecting their focus on assisting portfolio companies. Similarly, Junior and Mid-level venture capitalists rate analytical skills more highly, reflecting their emphasis on undertaking investment screening and deal diligence.

This ranking of capabilities was inspired by a study undertaken in the US in 1999. While the time between the surveys limits direct comparability, some comparisons between the two markets can still be made, especially as the VC industry in the UK developed much later than in the US. There are some key differences between UK and US venture capitalists in terms of the importance they ascribe to different skills:

- **Networks**: UK venture capitalists rated having networks of entrepreneurs and other venture capitalists more highly than those in the US did (UK ranked 3rd and 5th, respectively, US ranked 8th and 14th).
- **Recruiting for portfolio companies**: UK venture capitalists rated recruiting talented managers less highly than those in the US did (UK ranked 7th, US ranked 2nd).
The length and breadth of professional experience is an indicator of accumulated human capital. Experience both in VC and in other industries helps venture capitalists develop the necessary skills, knowledge and networks to source, assess and support portfolio companies.

Figure 4.3 shows that 61% of GPs and 43% of Partners have been working in VC for over ten years, suggesting that the UK ecosystem has reached a level of maturity with a high degree of collective experience. It also shows the ability to retain successful professionals in the industry with over half of current GPs and Partners having first joined the industry as Analysts or Associates.

I believe it takes about ten years of VC experience to become reliably good at it.

GP at a UK VC fund

UK VC also attracts senior professionals from other industries. 48% of GPs and 40% of Partners spent more than ten years in other industries before joining VC. Junior and Mid-level professionals, on the other hand, tend to be younger and many only have limited experience outside VC.
In terms of professional background prior to working in the VC industry, advisory is the most common background for GPs and Partners. 41% have spent at least two years in advisory roles (includes business consulting, accounting, corporate finance and law). However, experience beyond this is more varied with around 25% having at least two years’ experience in finance and investment (including investment banking, other banking, insurance and non-venture/angel investing), angel investing\(^6\), as a start-up founder or in a technical role (including product roles, corporate R&D and research).

First-hand entrepreneurial experience is considered by many to be a sign of leading venture capitalists. At top-tier US venture capital firms, 40% of GPs have entrepreneurial experience and a further 20% have been senior executives at start-ups.\(^7\) Entrepreneurial experience has also been empirically proven as a predictor of success for first-time VC fund managers.\(^7\)

**FIG 4.5**

**SHARE OF VCS WITH AT LEAST TWO YEARS OF PROFESSIONAL EXPERIENCE IN EACH FIELD**

Source: British Business Bank survey

<table>
<thead>
<tr>
<th>Field</th>
<th>Junior &amp; Mid-level (Analyst, Associate, Principal or equivalent)</th>
<th>Partners and GPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisory</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Finance &amp; Investment (excl. Angel &amp; VC)</td>
<td>40%</td>
<td>35%</td>
</tr>
<tr>
<td>Angel investment</td>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td>Start-up (Founder)</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Start-up (Non-founder)</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Technical</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Operations</td>
<td>5%</td>
<td>0%</td>
</tr>
</tbody>
</table>
The key talent challenge is experience and preferably operational (company) as well as venture. It helps you identify good product, have real world knowledge of what it takes to get to market and also allows you to recognise teams that are likely to succeed.

GP at a UK VC fund

In terms of academic background, 44% of GPs and Partners have studied physical or computer sciences, suggesting that there is not a shortage of scientific education amongst Senior venture capitalists. In addition, 42% of GPs and Partners have an advanced business degree (although, anecdotally, the relevance of MBAs to VC is considered unclear by many venture capitalists).

By contrast, the professional experience of Junior and Mid-level venture capitalists is strongly skewed towards advisory and finance industries. Only 10% of the respondees had worked in a start-up or technical role. Similarly, only 10% have studied physical or computer sciences.

Senior UK venture capitalists appear well-connected internationally. 52% of senior professionals have international exposure through their professional, academic or personal experiences. Whilst Junior and Mid-level venture capitalists do have some international experience, this is predominantly from their academic background or nationality. 90% of Junior and Mid-level venture capitalists do not have significant experience working abroad.

For VC firms’ portfolio companies, international markets serve as opportunities for significant expansion. For the venture capitalists themselves, these markets host many institutional investors who can provide capital for future fundraising. For instance, chapter 3 of the report earlier highlighted around 55% of all UK VC fundraising between 2010 and Feb 2019 came from overseas funding sources. The US is the world’s leading VC market and there is now also demonstrated strength and scale in Asian technology companies and investors. 25% of UK venture capitalists’ international work experience is in the US, and the same amount in Europe. However, only around 5% have any work experience in Asia.

FIG 4.6
SHARE OF VCS WITH INTERNATIONAL EXPOSURE
Source: British Business Bank survey

![Diagram showing share of VCs with international exposure](image-url)
4.5
Talent Challenges for the Next Generation of Senior VCs

Historical patterns suggest that current Analysts and Associates will form around half of the next generation of Principals, Partners and GPs. Senior talent coming from outside the industry will form the other half. In both cases, it is vital that they have the necessary skills and experience. However, there are challenges to be overcome in terms of experience, training, networks and financial barriers.

Many venture capitalists surveyed by the Bank identified lack of diversity as the key talent challenge to developing the next generation of Partners. The survey has shown that Junior venture capitalists have less diverse experience than GPs and Partners, but this is not just a natural consequence of their shorter careers. The pre-VC experience of recent cohorts of Analysts and Associates is shorter and less diverse than for preceding cohorts. 32% of those joining the industry in the last five years have pre-VC work experience of three or more years, whereas 79% of those joining six or more years ago had this.

FIG 4.7
Distribution of Pre-Venture Capital Experience of New Analysts and Associates
Source: British Business Bank survey

![Distribution of Pre-Venture Capital Experience of New Analysts and Associates](chart.png)
The more recent cohort is also less likely to have founder experience or have worked for a start-up, or have science education than previous cohorts. As junior venture capitalists progress into more senior roles, their limited experience may pose challenges for VC firms’ ability to engage with founders, invest in specialist industries, assist companies and deliver returns.

Training and other professional development can provide an important way for junior venture capitalists to develop new capabilities, especially considering newer cohorts’ shorter and less diverse work experience. In the survey, most venture capitalists identified the same three factors that have positively impacted on their career:

- 74% cited Mentorship (someone giving advice from time to time).
- 58% cited Apprenticeship (someone providing on-the-job training).
- 56% cited Self-taught training.

However, 4-in-10 respondents had not experienced any such development once employed in the VC industry. The industry’s apparent lack of emphasis on training was also indicated by multiple respondents as an important challenge in creating the next generation of Partners.
The key talent challenge is time spent on training and development and programmes to support progression of inexperienced VC investors.

Associate at a UK VC fund

There is too much focus on the prestige of previous experience - talented graduates need to be given a chance regardless of whether they are an investment banker or a management consultant.

GP at a UK VC fund

The structure of the UK VC industry may explain its relatively low focus on professional development. The small size of most VC firms may lead to a more informal, ad-hoc approach to professional development and high staff turnover may lower incentives for more senior VCs to invest time and resources into coaching and mentoring junior colleagues.

Over-reliance on personal and professional networks may also be limiting diversity. 34% of Analysts or Associates got their first job in VC via a personal or professional network, as did 52% of Principals and above. This increases the likelihood of repeatedly hiring people with similar backgrounds and experiences. The survey also showed that those joining the industry without a referral were then less likely to receive mentoring, potentially limiting the industry’s ability to support and develop diverse talent.

FIG 4.10
PATH TO FIRST JOB IN VENTURE CAPITAL
Source: British Business Bank survey

![Chart showing the percentage of individuals joining as Analyst or Associate or Principal or above through different means.]

- Other
- Cold application (applying to a job advert or proactively contacted VC fund)
- Referral via personal or professional network (incl. when referred combined with another option, e.g. applying to a job advert)
Despite taking investment risks VCs are operationally very risk averse and constantly replicate each other’s ways of working (including hiring). This will maintain a one-dimensional set of people in the industry.

Associate at a UK VC fund

These features may also be contributing to the industry’s low gender diversity, particularly at senior, decision-making levels. Only 13% of Senior venture capitalists are female, down from 29% at Junior and Mid-levels.73 The industry’s long working hours are also a likely driver. Similarly, to the private equity industry, this survey finds that female GPs and Partners are significantly less likely to have children than their male peers.74

Finally, the Bank’s survey showed that over 60% of surveyed GPs invested more than £100,000 personally into their first fund, to gain the typical 1-5% stake and align interests with their investors. The average personal commitment size is even higher for those GPs who started their first fund in the last ten years. This commitment is made on top of foregone earnings whilst fundraising and the actual costs of setting up a fund.

The ability and/or willingness to personally invest such amounts may be a significant barrier to becoming a GP. In many other ways GPs and Partners appear very similar: they perform similar activities at their firms, as shown by their distribution of day-to-day activities, they have similar durations and types of professional experience both before and in the VC industry and they share views on which skills and capabilities are most important for success in VC.

Almost all GPs used personal wealth to fund their first personal commitment (either sourced from savings or proceeds from a company sale), narrowing the potential pool of new GPs to those individuals with existing large personal wealth. The increase in personal commitment size over time may pose an additional challenge for new GPs, mirroring similar challenges observed in private equity.75

CONCLUSION

This survey has highlighted the strength of the UK VC industry but also the issues its juniors face across diversity, professional development, reliance on networks and financial barriers. In resolving these issues, the industry has the potential to successfully raise and deploy more capital, and so expand the range of sectors, technologies and companies in which it invests.

**FIG 4.11**

SIZE OF PERSONAL COMMITMENT INTO FIRST FUND AS A GP

Source: British Business Bank survey

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**FIG 4.11**

SIZE OF PERSONAL COMMITMENT INTO FIRST FUND AS A GP

Source: British Business Bank survey
APPENDIX

BEAUHURST METHODOLOGY SUMMARY

Beauhurst was founded in 2010 and provides in-depth data on the UK’s fastest growing companies. The Beauhurst research team identifies a range of company events that indicate high growth. When a company meets one of these triggers it is tracked, and a broad range of data about it and its transactions is collected. The triggers are as follows; receipt of equity investment, securing venture debt, undergoing an MBO/MBI, attending a recognised accelerator programme, scaling up according to the OECD’s definition of high growth, receiving an innovation grant, or spinning out of an academic institution.

Beauhurst data on these events is comprehensive from the start of 2011, with the exception of unannounced equity deals, for which Beauhurst have comprehensive coverage from 2015.

This report focuses solely on announced equity deals for UK companies. However, Beauhurst also picks up on unannounced deals by monitoring Companies House filings. These deals make up over half of all UK equity investments, although less information is available on these deals. In cases where a deal is announced but the value is undisclosed, the value of the investment can sometimes be worked out using the Companies House filing that corresponds to the deal.

The announced equity deals included in this report meet the following criteria: (1) the recipient of the funding is a UK-based business; (2) there is no upper or lower limit for the sum invested; (3) the investment is visible, meaning that it has been publicly announced via press release or some other media; (4) The recipient of investment is a small or medium-sized business as defined by the European Commission.76

When analysing cross-sector data, Beauhurst weights deal numbers and investment amounts across all the sectors the investee is in. For example, a company in the internet platform and theatre sectors will be counted as half a deal in each of these two sectors. Unless otherwise stated, this report omits single sector analysis to avoid double counted figures.

Where investment amounts have been provided in foreign currencies, these have been converted to GBP at the exchange rate on the day of the transaction.

The relatively simple breakdown by stage used by Beauhurst differs from organisations such as Invest Europe and BVCA, which tend to distinguish between seed and start-up, and between early and late stage venture.

The reasons for using the simpler taxonomy are:

1. In some cases there isn’t enough information to decide on a principled basis which of the two seed or venture subgroups a company lies in.
2. The simpler taxonomy can be used for all sectors, whereas a more complicated one would be more difficult to apply consistently across sectors.
3. A less detailed breakdown reduces ‘noise’ in the data resulting from smaller numbers of deals being categorised into narrower stages - the small base sizes can lead to large swings in reported investment from one quarter to the next.

The following table summarises the differences between the Beauhurst taxonomy and the more detailed classifications of investment stage used by Invest Europe and BVCA, and offers some broad descriptors of the types of activity and company supported in each case.
## BUSINESS STAGE CLASSIFICATION

<table>
<thead>
<tr>
<th>Beaufurst Classification</th>
<th>Invest Europe Classification</th>
<th>BVCA Classification</th>
<th>Broad Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed</td>
<td>Seed</td>
<td>Seed</td>
<td>Young companies in the process of being setup or been in business for a short time, but have not yet made any commercial sales. Likely to have uncertain product-market fit or just started with regulatory approval process.</td>
</tr>
<tr>
<td>Start-up</td>
<td></td>
<td></td>
<td>Company likely to be seeking finance to establish itself/develop product/service further.</td>
</tr>
<tr>
<td>Venture</td>
<td>Start-up</td>
<td>Other Early stage</td>
<td>Company that has been around for a few years and is in the process of gaining significant market traction or progressing with regulatory approval. Sales are growing rapidly but unlikely to be profitable. Company has high cash burn rate and is seeking finance to scale-up rapidly.</td>
</tr>
<tr>
<td>Later stage venture</td>
<td>Later stage venture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td></td>
<td></td>
<td>More established company that has been around for at least 5 years. Likely to have multiple offices or branches with substantial revenue streams (some of them may be profitable).</td>
</tr>
<tr>
<td>Growth</td>
<td>Expansion or 'Growth Capital'</td>
<td></td>
<td>Company likely to be seeking finance to grow core market further or expanding into new markets or products/services. Company may be getting ready to exit shortly (e.g. Pre-IPO).</td>
</tr>
</tbody>
</table>

## INVESTOR CLASSIFICATION

<table>
<thead>
<tr>
<th>Investor classification</th>
<th>Description of investor type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Office</td>
<td>Wealth management firms that manage the investments of wealthy individuals, families, or multiple families.</td>
</tr>
<tr>
<td>Angel</td>
<td>Individuals that invest their own wealth into growing companies. Angels may invest as an individual or as part of a syndicate involving other angel.</td>
</tr>
<tr>
<td>Angel Network</td>
<td>An angel network is an organisation (or sometimes a platform) that helps to originate and facilitate investments. The individual angels will be the shareholders in the investee.</td>
</tr>
<tr>
<td>Crowdfunding platforms</td>
<td>Online platforms enabling retail investors to invest into private companies.</td>
</tr>
<tr>
<td>Private Equity/ Venture Capital</td>
<td>Fund structures that invest institutional funding into private companies. Venture Capital funds typically invest in early stage, high growth businesses; whilst Private Equity funds invest in later stage established businesses.</td>
</tr>
</tbody>
</table>
BEAUHURST METHODOLOGY DETAILED

Location information: Based on the head office location of the company receiving investment. This is also true of ONS data used to measure equity deal activity against regional business stock.

Second closing of a round: If a company completes a second closing of its Series B round for £5m and previously had closed £2m in a prior quarter, then only the £5m is included in the Beauhurst data for this quarter.

Ongoing fundraising: If a company indicates the closing of £1m out of a desired raise of £10m, Beauhurst data only reflects the amount that has closed.

Contingent funding: If a company receives a commitment for £10m subject to certain milestones being achieved but first gets £5m, the entire £10m is included in the data.

Timing: Investments are allocated based on funding announcement date and not on close date. This is also true for deals backed by the British Business Bank. There is generally a lag between the announcement data and the close date, with the latter preceding the former.

Equity financing: Funding comes from both ‘organised’ and ‘unorganised’ investors. The former includes institutional investors such as private equity firms, corporate venturing arms or formal networks such as business angel groups. The latter includes investments by business angels.

Crowdfunding investment: Investments of money in return for equity from crowdfunding intermediaries are included, e.g. Crowdcube, Seedrs.

Deals only partly equity: Venture debt, loans or grants issued to private companies are included only if they have come alongside equity financing. The entire round (including debt) is added to the data.

Investment only into private companies: Publicly listed companies on any exchange are excluded from the numbers even if they received investment by an organised investor.

Only announced deals are included: Investments are verified via (1) government regulatory organisations (2) confirmation with the investee or investor or (3) a press release or news source.

Companies must be headquartered in the UK: The geographic data is based on the local authority where the company receiving investment is headquartered at the time of receiving investment. For example, if a company has offices in multiple cities or was founded in a particular city but has moved its headquarters, the data only reflect the headquarters.

What Beauhurst does not include for the purposes of this report:

- **Buyouts, mergers and acquisitions:** These transaction types involve the change in ownership of existing shares (to buy out existing shareholders) rather than the creation of new shares (and the injection of new money into the company).
- **Private placements:** Private investment in public equities even if made by a venture capital or private equity firm.
- **Solely debt/grant funding:** Venture debt or grants issued to emerging, start-up companies without any additional equity financing.
- **Cash for rewards:** Investment into companies for nonfinancial rewards, e.g. Kickstarter.
This report and the analysis contained in it was produced by Joel Connolly and Dan van der Schans in the British Business Bank's Economics Team, with contributions from Alasdair Barrett and Tom Purvis on the geographic analysis. Chapter 4 of the report was written by Nick Shuttleworth in the Bank's Strategy Team with contributions from Slav Losevs.

We would like to thank Henry Whorwood at Beauhurst for his support and guidance and also PitchBook for the use of their data.

ENDNOTES
1. Beauhurst uses the European Commission definition of an SME. See appendix for more information.
2. Includes individuals working at analyst and associate level.
3. This report does not look at public equity markets.
4. For more information on how Beauhurst identifies unannounced equity deals and the relative scale across time and deal stage see: https://about.beauhurst.com/blog/all-the-data-on-unannounced-fundraisings/utm_campaign=bulletin&utm_source=hs_email&utm_medium=email&utm_content=7245z26o
6. This can affect the historical time series due to deals being excluded if the company is now classified as large under the closest accounts being filed.
7. https://about.beauhurst.com/research/the-deal/
12. Comparable PitchBook data for the UK shows an 8% decrease in equity deal numbers, but a 15% increase in investment value in 2018 relative to 2017
14. Beauhurst published numbers show a decline in the number of equity deals in Q1 2019 compared to Q4 2018, which contrasts to the trend identified here which shows an increase. This can be explained by differences in the date the analysis was undertaken. The Q1 2019 numbers were extracted by Beauhurst around one month later than the numbers published by Beauhurst themselves in their quarterly update. https://about.beauhurst.com/blog/equity-investment-update-q1-2019/
16. https://about.beauhurst.com/research/the-deal/
18. Note that these proportions are of deals with a disclosed investment value, not overall deal proportions.
20. Unicorn businesses are discussed in section 3.5.
22. Equity deals can involve multiple investor types (for instance, a business angel and a PE/VC fund).
25. Throughout this report, deal number and investment amount are calculated across industry sector based on weighted sectors. This reflects the weighting Beauhurst attach to the sectors the company covers. For example, a company in the internet and theatre sectors will be counted as half a deal in each sector, rather than being counted twice.
27. Bootstrapping in this context refers to companies whom have achieved growth using only internal resources without the addition of any external capital.
28. Note that companies can have multiple investor types, to be classed as being initially funded by a particular investor a company just had to have that investor type take part in the initial funding round.
29. Sectors/sub-sectors needed at least 40 companies in the cohort to be included. This uses unweighted business counts.
30. Pre-money valuation refers to the valuation of a company prior to an investment round.
32. An ‘Up’ round is a round for which the company pre-money valuation is higher than the post-money valuation was at the previous round of funding.
33. Deals were only classed as having UK investors only if the deal had complete investor level information, and all of the investors were based in the UK. A deal could have incomplete investor information and be in the ‘has at least one overseas investor’ category, if at least one of the listed investors was located outside of the UK.
34. It is only possible to identify total deal size and it is not possible to identify the specific funding contribution an overseas investor makes.
36. All-female teams received 4% of all UK VC deals in 2017 and less than 1% by value.
37. Barking and Dagenham, Barnet, Lewsey, Brent, Bromley, Croydon, Ealing, Enfield, Haringey, Harrow, Havering, Hillingdon, Hounslow, Kingston upon Thames, Merton, Newham, Redbridge, Richmond upon Thames, Sutton and Waltham Forest.
38. The hexagons used have an inradius of 5km so cover an area of around 85km².
39. Note that looking at individual Local Authority Districts in isolation may not be a good indicator of the strength of a cluster if it is spread over multiple LADs. For instance Manchester is spread over 10 LADs whilst Leeds is largely covered by just one.
40. The Herfindahl-Hirschman (HH) index is the sum of the squared deal shares of all locations (as defined as regions, LAs or hexagons on the grid for the three different measures).
41. Series peaks highlighted in bold
42. Figure A.2.5 on page 35
43. Limited Partners are predominantly institutional investors that invest in private equity and venture capital funds. British Business Bank funds delivered by private sector fund managers involving private sector sources of capital are not included in Beauhurst's definition of Government funds.
44. When British Business Bank deals are limited to deals made by PE/VC funds only, the stage distribution largely falls in line with that of the wider PE/VC market.

Legal Notices
British Business Bank plc is a public limited company registered in England and Wales registration number 08616013, registered office at Steel City House, West Street, Sheffield, S1 2GQ. As the holding company of the group operating under the trading name of British Business Bank, it is a development bank wholly owned by HM Government which is not authorised or regulated by the Prudential Regulation Authority (PRA) or the Financial Conduct Authority (FCA). It operates under its own trading name through a number of subsidiaries. One of these, Capital for Enterprise Fund Managers Limited, is authorised and regulated by the FCA (FRN 496977). British Business Bank plc and its subsidiary entities are not banking institutions and do not operate as such. A complete legal structure chart for British Business Bank plc and its subsidiaries can be found at www.british-business-bank.co.uk.
46. https://globalventurecapital.wordpress.com/2013/04/11/vc-market-in-the-united-
    states/
    ons.gov.uk/businessindustryandtrade/changestobusiness/
49. In 2013, there were 12,495 high growth businesses. ONS (2017) ‘High Growth
    Enterprises 2013 to 2016’ https://www.ons.gov.uk/businessindustryandtrade/
    changestobusiness/businessbirthsdeathsandsurvivalrates/adhoc/007887
51. A 3-year time period minimises volatility in the data which can occur from using
    individual years.
52. British Business Bank analysis of PitchBook shows the number of VC deals in the
    US increased by 66% between 2010 and 2018, but the number of UK VC deals
    increased by 90% over the same time period, showing the UK’s position has
    improved relative to the US.
    to-raise-venture-capital/
54. PitchBook was used to calculate the follow on rates used in this report. Preqin was
    previously used as the data source to provide the follow on analysis in the previous
    Small Business Finance Market report, but recent improvements in Preqin’s deal
    coverage has led to the dataset no longer be comparable. The follow on rates in
    PitchBook are also verified by Beauhurst. Of companies that received seed stage
    funding between 2011 and 2013 by a PE/VC fund 53% received a subsequent
    funding round which is similar to PitchBook’s figures of 55% for the UK.
55. As at 7th May 2019, $1bn is worth around £770m. Unicorn status is gained at the
    exchange rate at the time the VC deal was undertaken.
56. For instance, via a trade sale or IPO listing.
57. For more information on the approach taken, please see Small Business Finance
58. Note that the figures referred to in this paragraph are from British Business Bank
    analysis of PitchBook, but they were cleaned by the British Business Bank to only
    include first-time exit events. For example the NEX Group acquisition was removed
    due to the company having previously listed. This means that the numbers differ
    from those on the PitchBook platform.
59. ‘VC rounds’ only includes ‘Seed’, ‘Early stage VC’ and ‘Later stage VC’ deals, excluding
    any angel/ later stage growth rounds
60. 8% of deals undertaken by UK VC funds over £250m are at the seed stage.
61. The fund raising profile of these micro funds does not follow other VC funds.
62. Sequoia Capital Growth Fund III
63. VC fund managers typically raise a new VC fund every five years once the
    investment period of their current fund ends, and fund size tends to increase with
    each subsequent fund raised.
64. Although the majority of SBI funding is straight debt or debt with equity
    features, as at end of 2018, there were 305 SBI funds operating with total fund
    commitments of $30bn https://www.sba.gov/sites/default/files/2019-05/SIBK%20
    Quarterly%20Report%20December%202019%20REVISED.pdf
    Portals/O/Documents/Research/2017%20Reports/Women-in-UK-Venture-
    Capital-2017.pdf
    venture capital funds and US venture capital funds’
69. Angel investing includes all venture capitalists who have performed any such activity
    regardless of duration, as this type of investing is typically not a full-time role.
70. TechCrunch (2015) ‘Entrepreneurial experience separates top VCs from other
    investors’ - https://techcrunch.com/2015/12/02/entrepreneurial-experience-
    separates-top-vcs-from-other-investors/
    markets: evidence from first-time funds’
72. A similar but weaker trend is observed for those joining at Principal level and above.
74. Nadkarni, Chu and Berger (2016) ‘Private equity career paths and personality traits:
    gender similarities and differences’ - http://www.jbs.cam.ac.uk/fleadmin/user_
    upload/about_us/women/downloads/2018-pe-career-paths-personality-trait.pdf
    trends.html
    sme-definition_en