British Business Bank

# UK Venture Capital Financial Returns 2021

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# Contents

# Foreword

As the UK continues to recover from the impact of the Covid-19 pandemic, a successful Venture Capital (VC) market will play an important role in growing UK economic activity by providing the 'rocket fuel' to enable the rapid growth of ambitious smaller businesses.

In the past, UK institutional investors, such as pension funds, have allocated less capital to UK VC, partly due to a lack of transparency about financial returns of the industry. This has impacted the level of capital available to high growth businesses in the UK.

As the country's economic development bank, and the largest investor in UK VC, the British Business Bank seeks to address this information gap by examining and providing better intelligence about how venture markets perform.

Our annual VC returns report, now in its third year, has become an increasingly recognised and trusted evidence source in the market. It provides a comprehensive and detailed assessment of UK VC fund performance, drawing on existing data sources including PitchBook and Preqin, data from the performance of the Bank's own equity programmes, and directly sourced information from fund managers. This widespread coverage of funds reporting financial returns data enables us to provide a robust account of the performance of the asset class.

This year's report found that UK VC funds continue to perform well compared to their US counterparts, and funds with 2002 vintage onwards have similar returns. This suggests that UK VC could be an attractive asset class for LPs currently investing, or considering investing, in US VC.

It is encouraging to see the performance of UK VC funds has increased in the last 12 months, driven by higher valuations and strong exit activity, with improvements seen across all parts of the market. It is particularly positive to see the top performing UK funds doing even better.

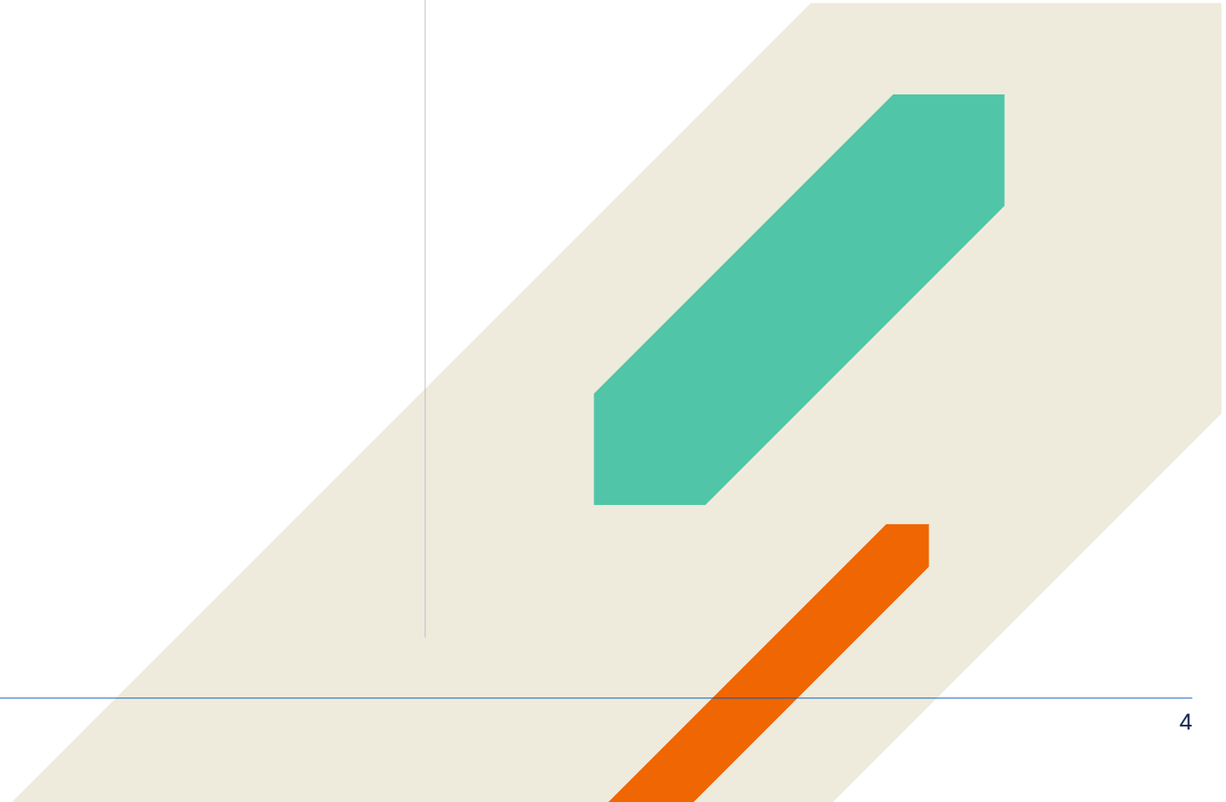
Our fund manager survey also confirmed fund managers had positive views on the investment opportunities available, with the overwhelming majority reporting that the quality of deals available was good or very good. The survey also identified increased competition for deals compared to the previous year.

## A vital market role

The British Business Bank has now committed a total of £2.4bn into 95 funds through its Enterprise Capital Fund programme and British Patient Capital. The overall performance of funds within these programmes demonstrates that positive returns can be generated.

The Bank's mission is to drive sustainable growth and prosperity across the UK, and to enable the transition to a net zero economy, by supporting access to finance for smaller businesses. Working with the wider VC community to improve both the coverage and accuracy of market data is an important part of helping finance markets operate more effectively. In so doing, we enable more high-growth innovative businesses to secure the finance they need so they can realise their potential and become the global success stories of the future.

**Catherine Lewis La Torre**
**CEO, British Business Bank**



# Executive summary

Venture Capital (VC) investors provide equity funding to early-stage companies with the potential for high growth. The UK VC industry has grown and matured substantially and is becoming a more recognised part of many institutional investors' portfolios.

Reliable data demonstrating high VC returns relative to other asset classes, including public equities, could help unlock greater domestic institutional funding, increasing the amounts of equity finance available to smaller businesses with high growth potential.

This is the third year the British Business Bank has collected and published data on the performance of UK VC funds. The Bank has collected fund level data on VC returns directly from UK fund managers and combined this with data from commercial data providers and data from funds the Bank has invested in as a Limited Partner (LP) to provide the most comprehensive assessment of UK VC fund performance.

This report includes the fund performance data of 154 UK VC funds with a 2002-2019 vintage, making it the largest source of information available on the performance of UK VC funds. We estimate our dataset covers 38% of the total number of UK VC funds in the market.

The report examines financial performance using Distributions to Paid-In capital (DPI) and Total Value to Paid-In capital (TVPI) multiples, with data covering performance up to 31 March 2021.

## Key findings:

1

### The performance of UK VC funds has increased sharply in the last 12 months

Higher company pre-money valuations, combined with strong exit activity in 2020 and 2021, has contributed to a material uplift in fund valuations since the previous VC Financial Returns report. UK VC funds with a 2008 to 2013 vintage have seen an increase in their pooled DPI multiple of 0.26 points, from 0.79 in 2020 to 1.05 in 2021. Over the same time period their pooled TVPI multiple has also increased by 0.28 points from 1.81 to 2.09 in 2021.

This uplift is also confirmed for funds that have reported performance in both the latest and the previous VC Returns report. The pooled DPI multiple for these funds has increased by 0.24 points over the past year. The pooled TVPI multiple has also increased by 0.30 points,

which is higher than the increase seen in DPI over the same time period. This reflects increased valuations in unrealised assets, some of which may not be sustained until exit.

This overall improvement in UK fund performance was also confirmed by the Bank's fund manager survey, which showed VC market conditions are good with fund managers reporting positive views on investment opportunities available and exit conditions. However, a high proportion of fund managers (59%) reported high levels of competition for deals. 59% of fund managers also reported competition to have increased compared to a year ago.

2

## UK VC funds continue to perform well compared to their US counterparts

Historically US VC financial returns were considered by many in the VC industry to be substantially higher than the performance of UK and European funds. Analysis of data within this report suggests that this is not the case, and returns are very similar between geographies since 2002.

Overall fund returns for UK VC funds with 2002-2016 vintage years show a pooled DPI multiple of 1.01 and pooled TVPI multiple of 2.08. US funds of the same vintage generated higher pooled DPI multiples of 1.12, but the US pooled TVPI is 0.11 points lower than the UK's.

In particular, the UK performs well across the earlier 2002-2007 post dotcom bubble vintage years where UK pooled DPI and TVPI returns are, respectively, 0.20 points and 0.34 points higher than in the US.

3

## The UK now has a similar distribution of fund returns as the US market

VC market returns are driven by the performance of high performing outlier funds. Previous research identified that the top performing US funds have substantially higher TVPI multiples than the top UK VC funds. This is still true in the latest data, with the UK top performing one percentile funds with a 2002-2019 vintage generating TVPI return multiples of approximately 11, compared to around 26 in the US, but the UK's TVPI multiple is an improvement on 6 presented in last year's report.

The UK now has a similar distribution of TVPI fund returns as US funds. The distribution of UK TVPI largely tracks the US up until the 3$^{rd}$ percentile, and then US funds go on to report substantially higher TVPI multiples. This is an improvement from the 2019 VC returns report where the UK matched the US up until the 8$^{th}$ percentile and suggests the top performing UK funds are now making higher returns than previously.

4

## British Business Bank supported fund performance is close to that of the wider UK VC market

As the largest LP investing in UK VC, the British Business Bank is committed to being transparent on the performance of funds it has invested in.

For VC funds supported by the Enterprise Capital Fund (ECF) programme with a 2006-2018 vintage year, the pooled TVPI multiple is 1.51 overall, but 1.99 for other LPs due to the prioritised return structure.

This shows the 'geared' returns structure for private sector LP investors is working as returns are now comparable to the 2.01 pooled TVPI for the wider UK VC market for comparable vintage years (2006-2018).

British Patient Capital (BPC) was established in June 2018 but was seeded with funds from the Bank's VC Catalyst programme which operated between 2013 and mid-2018. VC funds in BPC's portfolio with a 2013-2018 vintage have generated a pooled TVPI multiple of 1.73. This is higher than the figure reported a year ago (1.40) but is lower than the wider UK VC market multiple of 2.00 for funds of the same vintage.

The lower TVPI multiple for BPC is partly explained by the substantial increase in BPC's VC fund investment activity in 2018, which account for 33% of BPC's portfolio over this time period. In comparison, only 18% of UK wider market funds had a 2018 vintage. This means the BPC portfolio is now less mature than the wider market, reducing BPC's reported returns.

Given the length of time required for returns in the asset class to materialise, combined with the 'J-curve effect', a performance differential is to be expected. Comparisons on 2013-2017 vintage shows BPC's performance to be more similar to the wider market in terms of DPI multiples, although the pooled TVPI is 0.23 points lower than the wider market.

BPC is a long-term equity investor looking to support companies over an extended time frame. It is still too early in the life of BPC's portfolio to draw definitive conclusions about its long-term performance.

## Conclusions

The report shows the performance of UK VC continues to have good performance relative to the US and has the potential to be an attractive asset class for LPs.

We welcome comments and suggestions for ways in which UK VC financial returns data can be improved. We would also encourage fund managers (GPs) and institutional investors (LPs) who wish to contribute data to next year's report to contact the Bank's research team directly, in order to increase coverage even further, and make this data source even more robust.

# Introduction

This is the British Business Bank's third annual report examining the financial performance of UK VC funds. The aim of this report is to improve the availability of information on UK VC returns by presenting anonymised market level data on the performance of UK VC funds.

As the largest investor in UK VC, and with the mission of making finance markets work more effectively for UK smaller businesses, the British Business Bank seeks to address this information gap by improving the data available on the performance of UK VC returns.

The Bank has collected fund level data on VC financial returns directly from fund managers and has combined this with other data including data from PitchBook and Preqin to provide the most comprehensive data source on the performance of UK VC funds. This data is collected on a best endeavours basis. The report is broken down into the following sections:

- **Section 1** provides an overview of VC financial returns across the UK, US and rest of Europe.
- **Section 2** compares reported financial returns across different time periods, stages and sectors.
- **Section 3** assesses the performance of VC funds the Bank and British Patient Capital (BPC) have invested in and compares them against the wider VC market for funds of a similar vintage.
- **Section 4** provides an overview of current VC market conditions, and examines opportunities for investment and exits using the results from our survey of fund managers.

**Appendix 1** contains the definitions of the key terms used throughout the report, whilst **Appendix 2** provides an overview of the different data sources used in the report. **Appendix 3** provides a description of the methodology used to create the combined dataset.

# Section 1: Overall market performance

This section provides a summary of financial performance for the UK VC market using the combined dataset covering fund level data from PitchBook, Preqin, British Business Bank Management Information and data from the Bank's survey of fund managers. It then compares the performance of UK VC funds against their counterparts in both the US and the rest of Europe (ROE) using combined data from PitchBook and Preqin.

Section 1 presents trends in the financial performance of UK VC for funds up to 2018 by individual vintage year and by 2-year vintage year categories. Performance is also analysed by combined time periods (cohorts) to provide a robust assessment of performance and to allow for meaningful comparisons against the US and rest of Europe.

The section finishes with a longitudinal assessment of UK VC returns. As the British Business Bank has been producing this report for three years, we are now able to compare the reported performance of funds over multiple years if they are present in previous datasets. In this report, we compare the reported 2021 performance for nearly 80% of the UK VC funds in this year's dataset against their reported performance in last year's (2020) report.

## VC returns over time

Figure 1.1 shows the annual pooled and median DPI and TVPI multiples for UK VC funds with 2002-2018 vintage years. The performance of UK VC funds is analysed using funds with a 2002 vintage onwards as this removes the impact of the dot-com bubble bursting and provides a more balanced measure of fund performance. Vintage years with performance based on less than five funds are removed from the graph as shown by the gaps between 2003 to 2005. There is a large amount of annual variation in performance, but Figure 1.1 shows that the VC market overall has performed strongly since 2002 with several years reporting pooled multiples above 2.

The pooled DPI return multiple falls below one from 2011 onwards as there has been insufficient time for portfolio company exits to occur allowing for capital to be distributed to investors. Depending on stage, it can take many years before VC funds start exiting their portfolio companies through IPOs, trade sales and secondary sales. Therefore, early in a fund's life, the DPI return multiple is not a useful measure of current or expected performance.

TVPI multiples incorporates the unrealised value in the portfolio and so it is a more useful measure for calculating performance during the early part of a fund's life. However, because VC funds are affected by the 'J-curve' in the early stage of their life, reported returns in the first couple of years of a fund's life do not generally reflect the return investors can expect over the long term.

Fund TVPI returns follow a 'J-curve' over time where returns turn negative in the short run, before turning positive in the medium to long term. This is due to the impact of fees and fund managers keeping the value of their unrealised investments close to cost until there is evidence of an increased value (e.g progress against milestones or additional funding rounds involving outside investors which validates company value). Company failures may also become apparent early on which will result in the value of investments being written down or written off, before promising companies can be identified in the portfolio.

Most organisations publishing VC returns, such as the BVCA[1], do not publicly report financial returns for funds less than four or five years old due to the 'J-curve' giving misleadingly low returns figures. In that context, the relatively high TVPI multiples for recent funds younger than five years old suggests that these funds may now be following a different returns profile compared to those earlier periods.

Figure 1.1

**Overall UK VC funds financial returns by vintage year**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

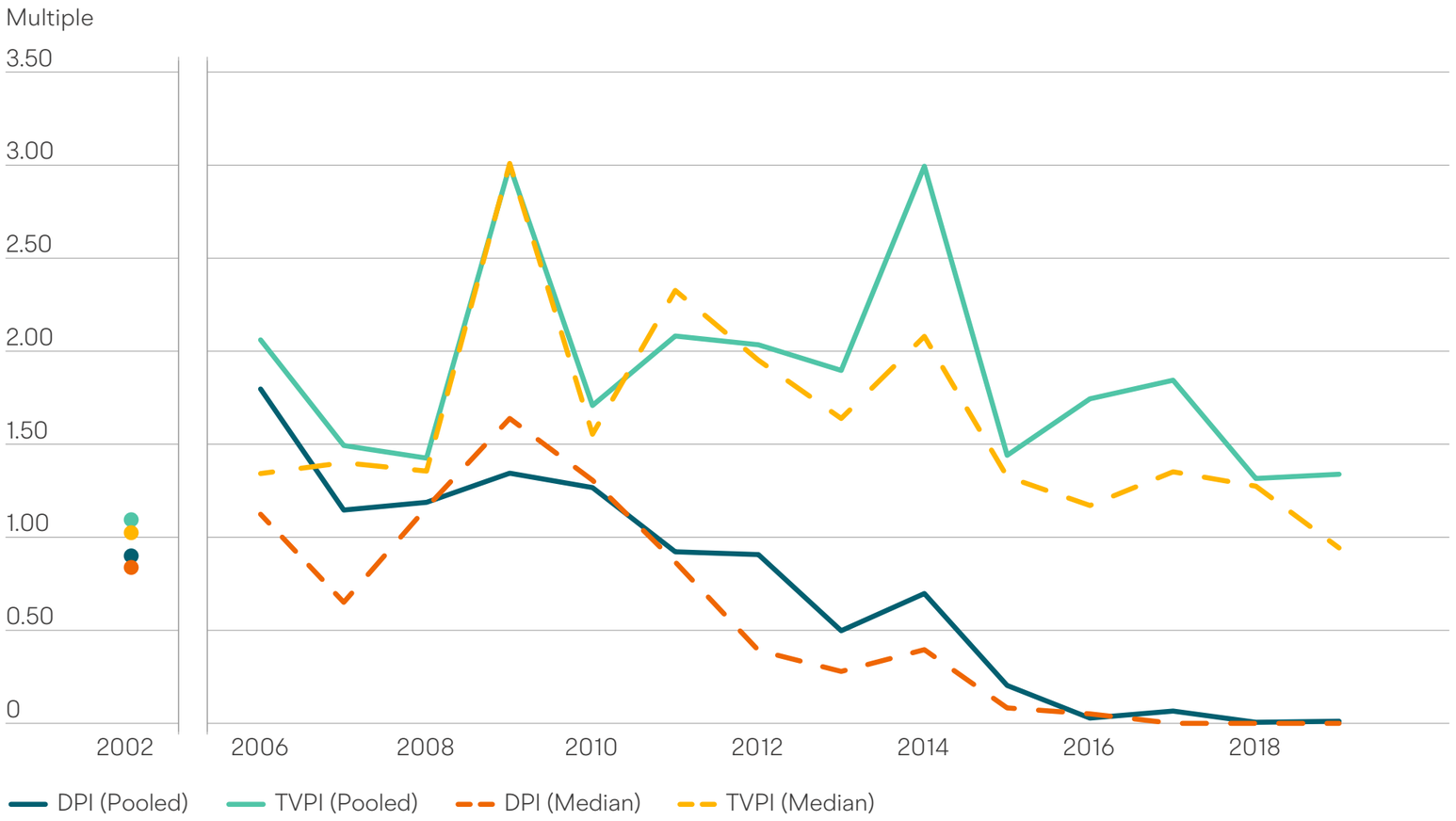


Figure 1.2 provides analysis of UK VC financial returns using two-year vintage year categories, which includes the previously omitted vintages between 2002-2006. Using two-year vintage categories mitigates somewhat against the small sample sizes for each vintage year category and the annual noise created by outlier funds. Consistent with Figure 1.1, Figure 1.2 shows that the UK VC asset class has performed strongly over the past two decades with nearly every two-year cohort producing a pooled TVPI multiple over 2.

The 2019 VC returns report was the last report in this series to provide international comparisons of VC fund performance by comparing the UK to the US. The 2019 report found that UK VC returns for funds established since 2002 were either broadly in line or slightly ahead of their US counterparts for funds with a 2002-2011 vintage year. This section updates this analysis using the latest data and for the first time provides a comparison of performance to the rest of Europe.[2]

Figure 1.2

**Overall UK VC funds financial returns by 2-year vintage category**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

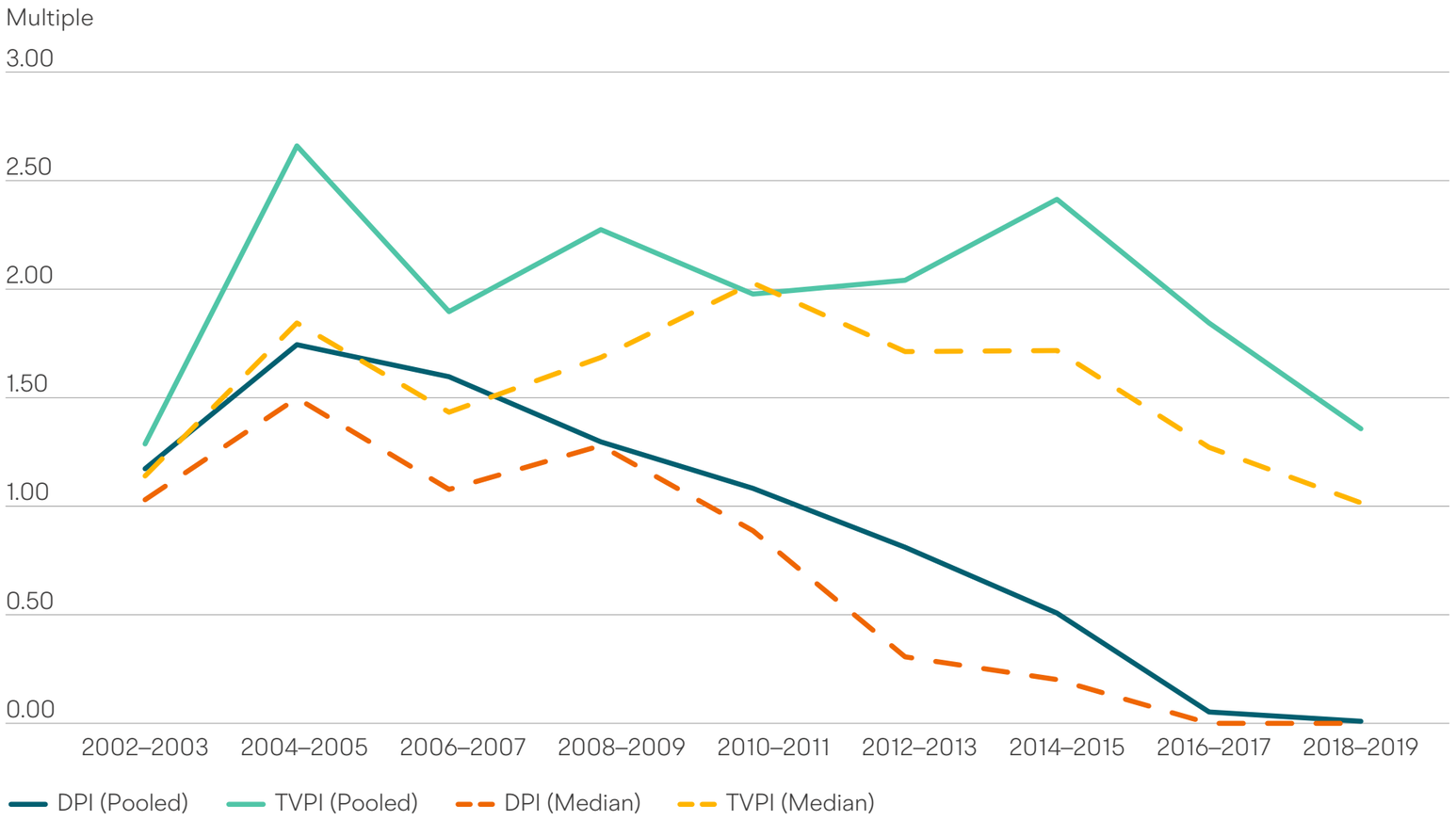


Figure 1.3 shows the pooled return, median and upper/lower quartile fund performance for UK, US and Rest of Europe funds in the 2002-2016 vintage cohort. This time period was selected to be consistent with the data reported in the latest 2020 BVCA Performance Measurement Survey Report[3] and provides an overall summary of market performance over a longer time period than presented later on in this section.

Overall UK fund returns for funds with 2002-2016 vintage years show a pooled DPI multiple of 1.01 and pooled TVPI multiple of 2.08. Funds of this vintage also generated a mean IRR of 17%. This is similar in scale but slightly higher than the BVCA reported fund performance for funds of the same vintage, giving reassurance on the validity of the reported market performance in this report. The BVCA reports a pooled DPI multiple of 0.90 and a pooled TVPI multiple of 1.93 for funds with a 2002-2016 vintage.

The performance of UK VC is comparable to the US, whose pooled DPI multiple is slightly higher at 1.12, but their pooled TVPI multiple is lower at 1.97. The US has a lower mean IRR of 12%. This could reflect UK companies exiting earlier than their US counterparts or reflect US data sources having a higher coverage of funds reporting IRR data.

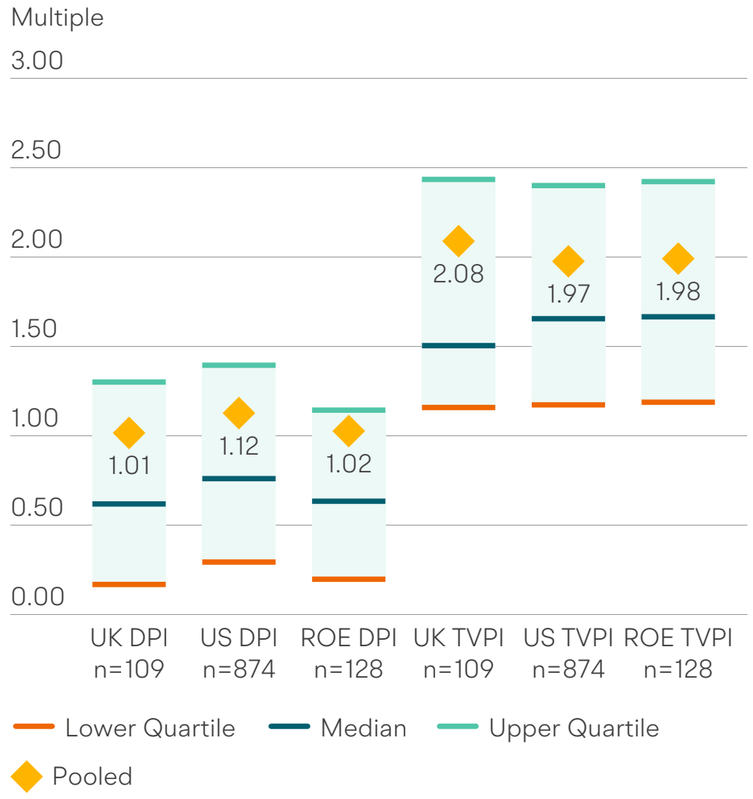
UK VC fund performance figures are also comparable to the rest of Europe (Pooled DPI of 1.02 and pooled TVPI of 1.98), although rest of Europe performance is more uncertain due to the relatively lower fund coverage. The rest of Europe has a mean IRR of 17% which is identical to the UK's figure.

For many of these funds in the 2002-2016 cohort, it is too early in their life to make a conclusive assessment, and so it is useful to assess the performance of older vintage funds in distinct categories.

Figure 1.3

**Performance multiples of UK, US and Rest of Europe VC funds (2002-2016 Vintage years)**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



High performing outlier funds and prevailing economic conditions can cause annual returns multiples to be volatile. Combining vintage years together can reduce some of the distortion arising from this annual noise and mitigates somewhat against the small sample sizes. It also allows consideration of wider economic factors. For these reasons, vintage years are grouped into the following wider cohorts to analyse performance over time:

Time period categories:

- 2002-2007: Positive economic growth post dot-com bubble
- 2008-2013: Recession and economic recovery
- 2014-2019: Latest time period

Greater importance should be attached to VC financial returns generated by funds in the 2002-2007 vintage year cohort, as these funds have had enough time to invest, develop and exit most of their investments as demonstrated by the closeness of their pooled DPI and TVPI multiples.

Funds with a vintage year between 2008-2013 have had more time to develop and exit their investments than the most recent cohort, so provide a clearer indication of likely performance going forward, but a substantial proportion of the returns are yet to be realised.

Reported returns for the most recent 2014-2019 cohort are less likely to provide an accurate representation of actual underlying fund performance. As a result of the previously described 'J-curve', the current TVPI multiples may underestimate the future returns investors may receive. TVPI multiples are themselves based on portfolio company valuations, which can change rapidly depending on company specific and wider market factors, it is possible that the historically high valuations we currently see for VC backed companies may normalise over future years bringing the 2014-2019 cohort more in line with historic performance.

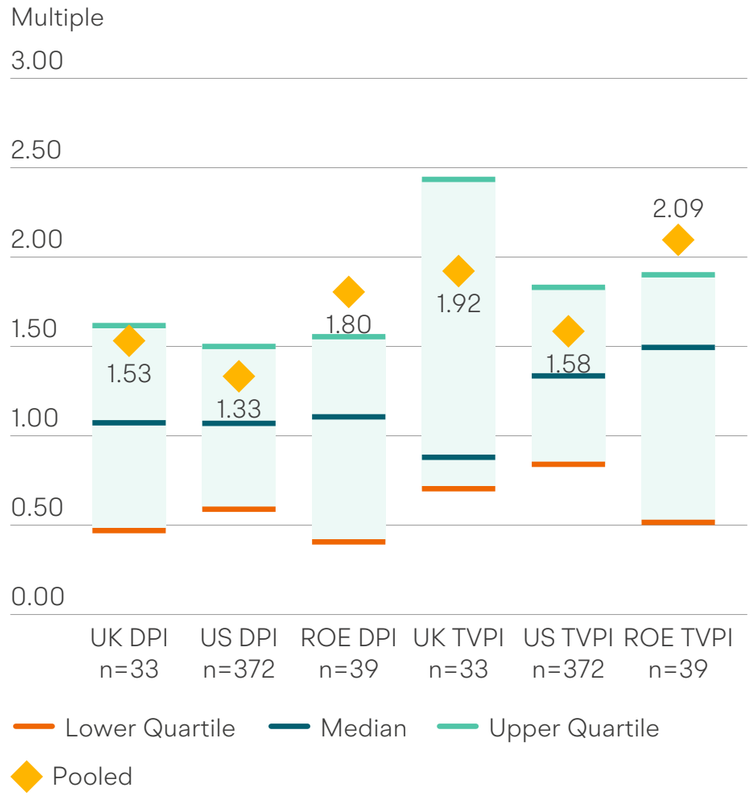
## 2002-2007 vintage year cohort

Figure 1.4 considers the pooled return, median and upper/lower quartile fund performance for UK, US and rest of Europe funds in the 2002-2007 vintage cohort.

Figure 1.4

**Performance multiples of UK, US and Rest of Europe VC funds, 2002-2007 cohort**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



UK funds performed well across all measures in this period, generating a pooled DPI multiple of 1.53 and a pooled TVPI multiple of 1.92. This is higher than in the US where the pooled DPI multiple was 1.33 and the pooled TVPI multiple was 1.58. Rest of Europe funds in this cohort generated the highest pooled multiples across the geographies during this period with a pooled DPI multiple of 1.80 and a pooled TVPI multiple of 2.09. There was strong economic growth globally during this period which helps to explain the strong performance of VC funds in all three geographies.

One caveat is that fund coverage in the rest of Europe is likely to be lower than for the UK and US. The pooled DPI and TVPI multiples for the Rest of Europe are higher than the upper quartile fund returns which is not the case in other geographies. This is driven by several large funds greater than $100m in size, some around $400m, reporting high return multiples above the upper quartile. A single strong performing large fund will have a larger impact on the pooled return than a smaller fund with equivalent performance, which can lead to upward distortions in the pooled return.

Given the lower overall coverage of European funds, it is possible that there is some additional selection bias affecting the results i.e. only the best performing funds are sharing their data with PitchBook and Preqin. Additional caution is needed in interpreting the rest of Europe findings for these reasons.

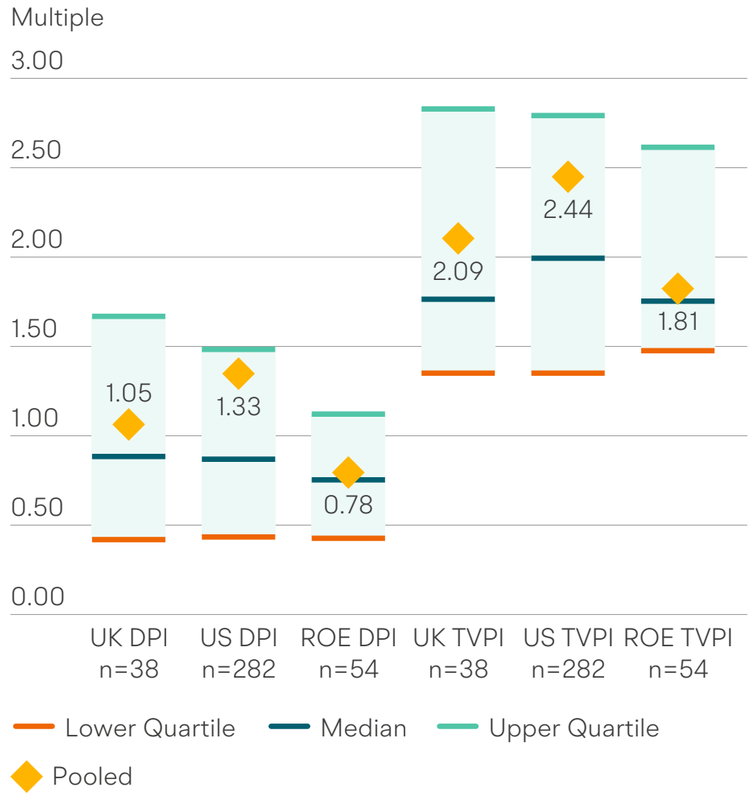
## 2008-2013 vintage year cohort

Figure 1.5 assesses the performance of UK, US and rest of Europe VC funds with a 2008-2013 vintage year. UK VC funds generated a pooled DPI of 1.05 and a pooled TVPI multiple of 2.09. Given that funds in this cohort have had less time to develop and exit their investments than those in the previous cohort, it is unsurprising that the DPI multiple was lower than that of the 2002-2007 cohort. The pooled TVPI of 2.09 is higher than 2002-2007 which is an encouraging sign that these funds will produce either equivalent or greater performance than earlier funds. The median TVPI of 1.75 and lower quartile of 1.31 suggests that this strong performance is broad based rather than being driven by a few outlier funds.

Figure 1.5

**Performance multiples of UK, US and Rest of Europe VC funds, 2008-2013 cohort**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



Despite the UK's strong performance, these multiples are lower than those reported by US funds for the same vintage years. 2008-2013 US VC funds generated a pooled DPI of 1.33 and a pooled TVPI of 2.44. This extremely strong performance is driven by multiple funds generating a TVPI multiple greater than 8 with the largest reported TVPI being in excess of 26. This contrasts with the UK where the best performing fund over this period generated a TVPI of 4.85. US VC funds overall performed strongly during this period with a median TVPI of 1.98, higher than the 1.75 generated by UK funds. Rest of Europe based VC funds also performed strongly over this period although they generated the lowest pooled multiples of the three geographies with a pooled DPI of 0.78 and a pooled TVPI of 1.81.

These performance figures show the ability of VC funds to perform countercyclically. These funds were established in the immediate aftermath of the Global Financial Crisis and subsequent recession and in the case of the rest of Europe, the Eurozone crisis. Despite this, they have performed strongly. It has been well documented that several extremely successful companies received VC backing for the first time in this period such as Uber, Airbnb, Whatsapp, etc and have gone on generate multibillion-dollar valuations leading to high performance multiples for their investors.

## 2014-2019 vintage year cohort

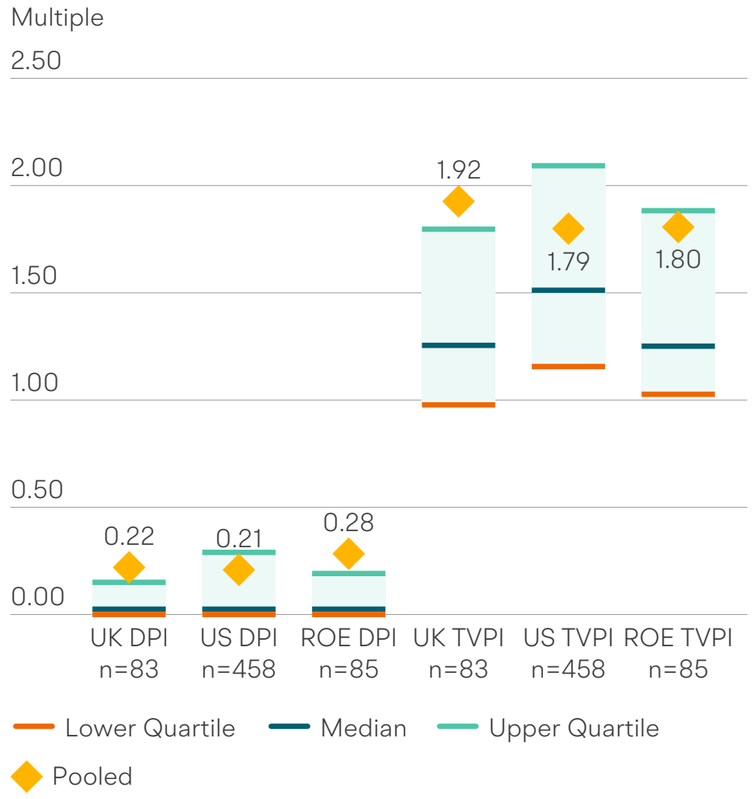
Figure 1.6 shows the performance for UK, US and rest of Europe funds with a vintage year between 2014 and 2019. It is too soon in the life of these funds to meaningfully assess the DPI multiple as they haven't had sufficient time to develop and exit many of their portfolio companies. The median DPI multiple for these cohorts is 0 for both the UK and rest of Europe, and 0.02 for the US showing most funds have yet to realise any value from their investments. This highlights the importance of patience with VC investment as it takes many years to develop a company before a successful trade sale or IPO exit can occur.

The TVPI multiple is a more useful measure of performance for funds in this cohort. UK VC funds in this cohort have generated a pooled TVPI multiple of 1.92. This is very strong performance especially so early in these funds' lifetimes. The strongest performing UK VC fund in the whole dataset with a TVPI multiple of 10.9 falls within this cohort.

Figure 1.6

**Performance multiples of UK, US and Rest of Europe VC funds, 2014-2019 cohort**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



Caution must be taken in interpreting these high recent multiples given they are currently only on 'paper' in unrealised assets. This may suggest this recent cohort of UK VC funds will go on to perform very strongly for investors, but it is also possible that some of these high valuations may not be sustained until exit, as valuations can be very volatile.

US and rest of Europe funds also performed strongly over this period, with near identical pooled TVPI multiples of 1.79 and 1.80 respectively. Global LP interest in VC as an asset class has expanded greatly, leading to annual records for VC fundraising and deal activity broken year after year across all three geographies. These strong TVPI performance multiples, although only indicative at this stage, help maintains LPs interest in VC as an asset class.

## Assessment of performance compared to a year ago

Last year, when government-initiated lockdown restrictions were introduced as a response to the Covid-19 pandemic, there were fears that this would have a large negative impact on the VC industry through lower deal activity and lower valuations of portfolio companies. The Bank's Equity Tracker 2021 shows that despite the uncertainty caused by Covid-19, there was a record amount of equity funding in the UK in 2020 and this has continued into 2021.

There are several global factors contributing to the recent valuation increases.[4] Public markets, especially in the US technology sector are trading at all-time highs, so private companies appear good value in comparison. There has also been strong exit activity in 2020 and 2021, allowing capital to be returned to investors. Recent strong VC fundraising conditions has enabled large amounts of dry powder to accumulate, combined with interest from non-traditional investors like hedge funds and mutual funds, leading to VC-backed companies seeing upward pressure on valuations. Many VC-backed companies have also benefitted from the economic conditions resulting from the Covid-19 pandemic, such as Hopin which achieved a unicorn valuation as the demand for its platform increased sharply with the shift to remote working.

The Equity Tracker 2021 report showed the average pre-money valuation grew by 47% in 2020 to £19.7m. This was driven by increases at the growth stage which increased by 92% in 2020. These higher company valuations contribute to higher TVPI multiples as the underlying value of the portfolio has increased. Further British Business Bank analysis of Beauhurst data shows that the average growth stage pre-money valuation in technology companies increased by 102% in 2020, reaching £124.5m.

To see how recent valuation increases have impacted on reported fund performance, it is possible to see how reported performance figures differ between this year's report and last year's report.

The 2020 VC financial returns report identified UK VC funds in the 2002-2007 vintage cohort generated a pooled DPI of 1.61 and a pooled TVPI of 1.99. The figures reported in this year's reported are slightly lower, but this should not be taken as a deterioration in VC fund performance. This difference can be explained by additional fund performance data obtained through the British Business Bank survey of fund managers. For those funds that are present in both datasets, the pooled DPI and TVPI multiples were higher in 2021 (1.77 and 2.21). This means the latest results are based on a more comprehensive population of funds and are more accurate.

Despite this slight decrease in reported performance, these latest figures do not change the conclusion first identified in the 2019 VC returns report that UK VC funds performed well relative to the US in the early part of the decade. This year's inclusion of rest of Europe VC funds for the first time also shows that performance of UK VC was broadly comparable to the rest of Europe.

Funds with a 2008 to 2013 vintage have seen increases in pooled DPI multiple of 0.26 points from 0.79 in 2020 to 1.05 in 2021. Over the same period, the pooled TVPI multiple has increased by 0.28 points from 1.81 to 2.09.

These increases could be due to changes in the underlying fund population reporting performance if high performing funds have joined the latest dataset.

We have been publishing this report for three years and are now able to compare reported performance of the **same funds** over multiple years. This section compares the performance of the same funds in the latest dataset (2021) and then compares performance to what they reported in last year's report (2020). This allows us to see whether UK VC funds' performance has improved during the pandemic, and any changes in performance is not down to different funds joining or leaving the dataset. Approximately 80% of the funds are present in both datasets, which makes this a robust assessment of performance over time.

The performance of UK VC funds has increased sharply in the last 12 months. Figure 1.7 shows the pooled return multiples for UK VC funds in 2021 compared to 2020, for those funds that have reported performance in both years. The pooled DPI multiple for these funds has increased by 0.24 points over the past year, rising from 0.70 reported in 2020 to 0.94 in 2021. The pooled TVPI multiple has increased by 0.30 points, from 1.64 reported in 2020 to 1.94 in 2021.

Table 1

**Table 1: Changes in pooled mean reported performance between 2020 and 2021 reports**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

| | This year (2021) | Last year (2020) | Difference |
|---|---|---|---|
| 2002-2007 vintage Pooled DPI | 1.53 | 1.61 | -0.08 |
| 2002-2007 vintage Pooled TVPI | 1.92 | 1.99 | -0.07 |
| 2008-2013 vintage Pooled DPI | 1.05 | 0.79 | 0.26 |
| 2008-2013 vintage Pooled TVPI | 2.09 | 1.81 | 0.28 |

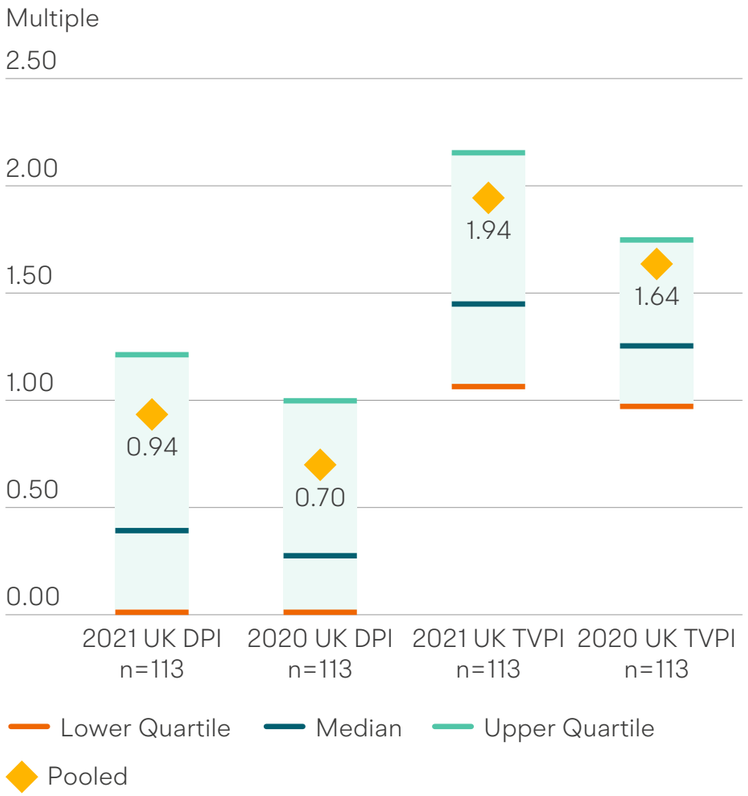
This increase in performance over the last year will be most apparent for those funds that are currently investing. Therefore, looking at the 2014-2019 cohort would show this effect most clearly. However, last year's dataset only had funds with a vintage year up to 2018 so that is the cut-off for this comparison. Our analysis shows that there has been a substantial increase in the pooled TVPI multiple for UK VC funds currently investing. In 2020, the pooled TVPI multiple for these funds was 1.35, and has increased by 0.45 points over the past year to 1.80.

This shows strong performance improvements over the past year providing an indication of potential future returns available to investors, although these increased valuations are in unrealised assets, and some of which may not be sustained.

Figure 1.7

**UK VC Performance multiples, 2021 vs 2020**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.




The performance of UK VC funds has increased sharply in the last 12 months.

# Section 2: Detailed assessment of VC returns

This section provides an in-depth assessment of the UK VC market in comparison to the US. It contains detailed analysis on performance multiples by investment stage as well as by specific sectors across the 2002-2016 vintage year period. It also contains analysis of the distribution of fund returns as there are large variations in performance between the best performing VC funds and the typical fund.

## VC returns by investment stage focus

The Bank's analysis of VC returns by investment stage compares UK and US funds. Due to relatively lower fund coverage, the performance of rest of Europe funds is not included.

VC funds invest in relatively young high growth potential companies, but it is possible to segment VC funds by their investment strategy depending on which types of companies they predominantly focus their investment on. The data has been segmented into the following fund categories:

- **Early stage VC:** Funds that focus specifically on earlier rounds (e.g. Seed and Series A)
- **Venture general:** Funds that invest in companies at both early and late stage with no specific stage focus
- **Later stage VC:** Funds that focus specifically on later rounds (e.g. Series B onwards).

This fund focus is based on the classifications made by PitchBook and Preqin, which is informed by the fund manager's own description listed on their website. For the funds the Bank has invested in, we have identified the relevant stage that most closely fits their investment stage. It should be noted that fund stage is not a clear category as funds may have invested at all investment stages, even if they focus on one specific stage. This is especially the case for US VC funds whose later stage VC funds also undertake a small number of early-stage investments to diversify their portfolio and give them access to higher returns.

Early-stage companies offer both the highest risk and the highest reward for VC investors, with the potential to generate extremely large investment multipliers for investors, as valuations can see exponential growth. For instance, Scottish Equity Partners (SEP) is reported to have made a near 50x return on its £9m deal in Skyscanner. However, early-stage companies also have a higher likelihood of business failure than more established, mature companies.

UK early-stage VC funds offer both the highest risk and the highest reward for investors compared to UK funds investing in other VC stages.

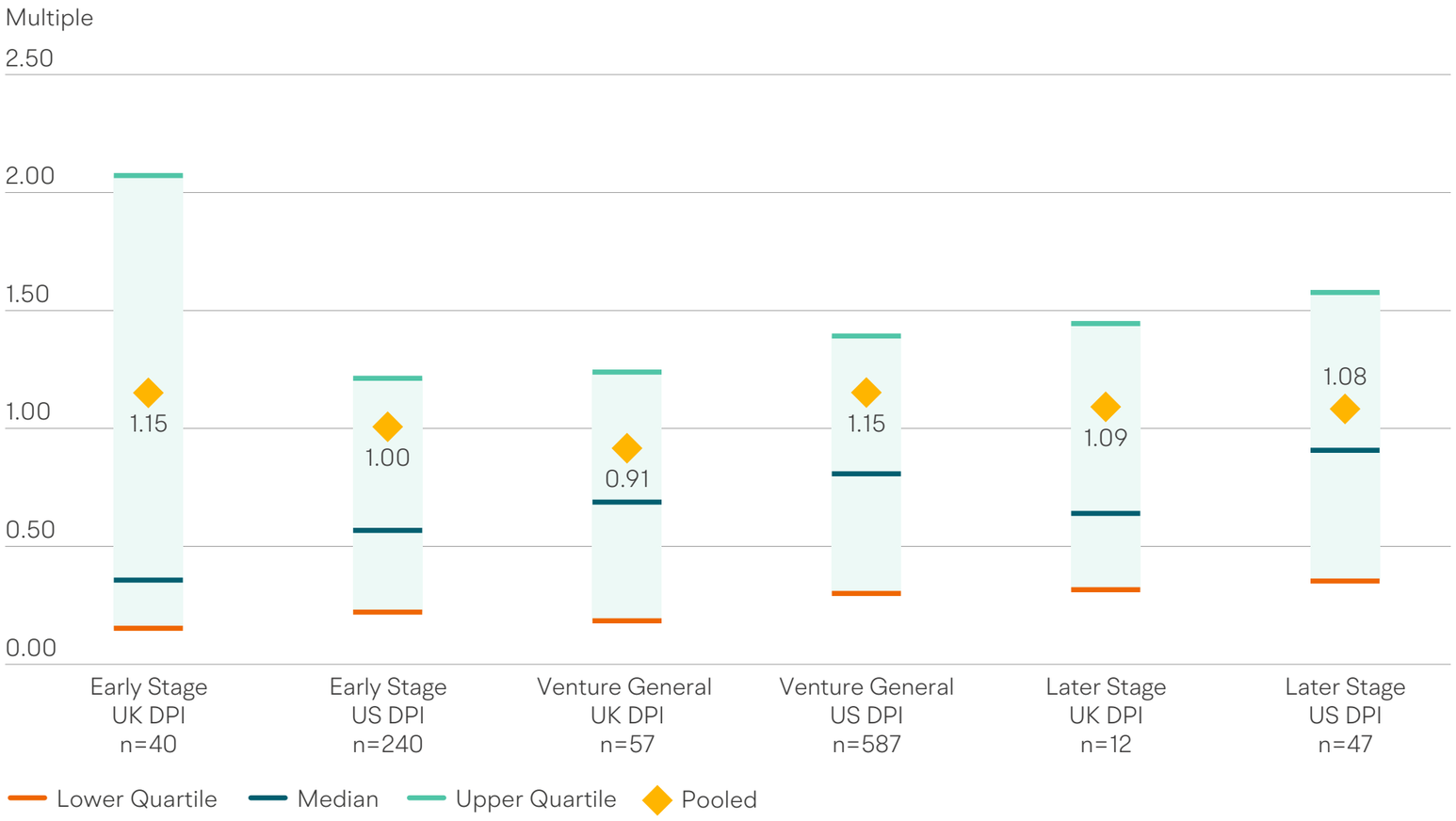
Last year's report showed that this high-risk, high-reward strategy appeared to be paying off with early stage VC funds generating the highest pooled multiples for funds with a 2002-2015 vintage. Figure 2.1 shows that early stage UK VC funds have continued to generate the highest DPI multiple at 1.15 across funds with a 2002-2016 vintage year.

The UK early stage VC pooled DPI multiple of 1.15, is lower than that reported last year, 1.43. This decrease is a result of new funds being added into the UK dataset rather than a deterioration in performance of those existing funds that had previously reported data. The pooled TVPI multiple has substantially increased from an already strong figure of 1.99 in 2020. Figure 2.2 shows that early stage funds have generated the highest pooled TVPI multiples in the US as well with a pooled TVPI of 2.15.

Figure 2.1

**DPI multiples of UK and US VC funds, by investment stage focus (2002-2016 vintage years)**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



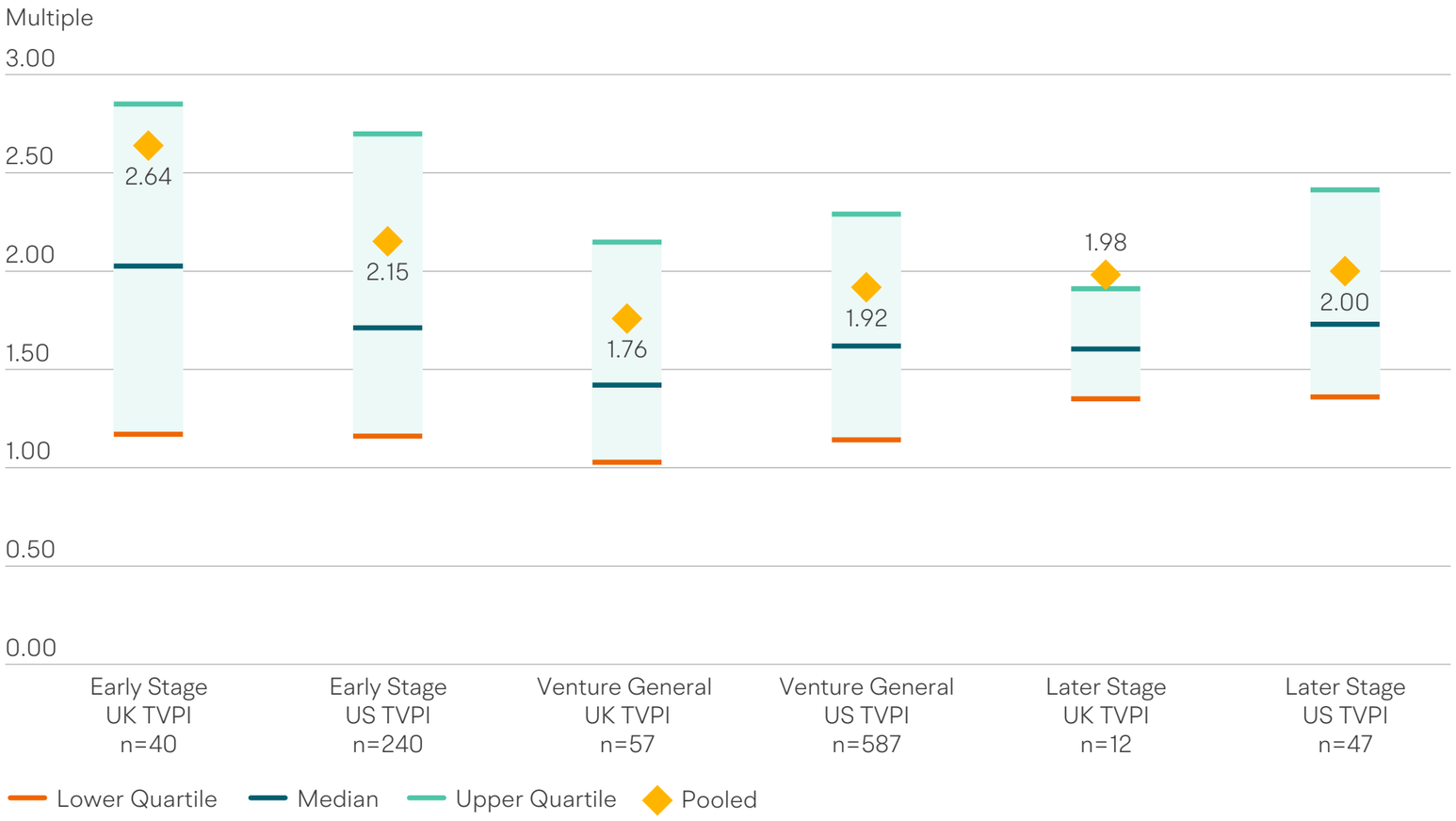
Last year's report also identified that venture general and later stage UK VC funds reported lower fund returns than early stage funds, which remains the case in 2021. Figures 2.1 and 2.2 show that venture general funds generated pooled DPI and TVPI multiples of 0.91 and 1.76 in 2021 which is an increase in the DPI multiple reported last year but a slight decrease on the previously reported TVPI multiple (-0.02 points). Encouragingly, the pooled DPI and TVPI multiples of later stage VC funds have seen substantial increases over the last year rising to 1.09 and 1.98 respectively, compared to 0.70 and 1.28 reported in 2020.

Figures 2.2 and 2.3 show that this disparity between fund performance by fund stage appears to be greatest in the UK VC market. Though US early stage VC funds also generated the highest TVPI multiple of 2.15, the multiples for the other stages were broadly in line. US venture general funds generated pooled DPI and TVPI multiples of 1.15 and 1.92 respectively, whilst US later stage funds generated pooled DPI and TVPI multiples of 1.08 and 2.00. However, US VC funds tend to invest across all stages, which could be why the differences by investment stage focus are less pronounced compared to the UK.

Figure 2.2

**TVPI multiples of UK and US VC funds, by investment stage focus (2002-2016 vintage years)**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



The UK VC ecosystem has matured considerably in recent years but is still considerably less developed than the US ecosystem. It is only in the last decade that the UK VC market has advanced enough for larger later stage funds to be developed. There were 12 later stage UK VC funds analysed for this report compared to 47 over the same time period in the US.

The improved performance multiples for UK later stage VC funds over the past year is a positive sign for the UK VC ecosystem. VC funding for growth stage companies has increased substantially over the last few years as reported by our latest Equity Tracker report, with pre-money valuations increasing sharply over the same period.

The British Business Bank remains committed to supporting the patient capital ecosystem through British Patient Capital, which aims to ensure that VC funds can close at sufficient scale, allowing later stage companies to achieve their growth ambitions and deliver strong financial returns to investors.

## Distribution of fund returns

VC market returns are driven by the performance of the top outlier funds which generate very high returns for their investors. The 2019 VC returns report identified that the top performing US funds have substantially higher TVPI multiples than the top UK VC funds. This is still true in the latest data, with the top 1 percentile UK VC funds with a 2002-2019 vintage generating TVPI return multiples of around 11, compared to around 26 in the US. However, this is an improvement compared to last year's data when the top percentile UK VC funds with a 2002-2018 vintage generated a TVPI of around 6. This show the UK VC market is now more closely following the US VC model with a greater proportion of funds generating very high returns.

VC market returns are driven by the performance of the top outlier funds which generate very high returns for their investors.

Figure 2.3 shows the distribution of fund TVPI multiples for UK, US and rest of Europe VC funds with a 2002-2019 vintage. This confirms that VC fund returns follow the pareto principle, with a small number of outlier funds generating very strong returns whilst most funds generate lower performance. For the 154 UK VC funds reporting data, 17 generated a TVPI multiple above 3 (11%) and 25 generated a TVPI multiple between 2 and 3 (16%). Nearly half of the funds (44%) generated a TVPI multiple between 1 and 2 whilst the rest (25%) generated a TVPI multiple below 1.

These percentages are nearly identical to those for US and Rest of Europe VC funds which is demonstrated by the similar fund multiple distribution. However, US funds in the top 3 percentiles have substantially higher TVPI multiples than UK funds. In the 2019 VC returns report, US funds in the top 8 percentiles were found to have outperformed their UK counterparts. This narrowing in the distribution compared to the US is a result of improved performance of the top UK funds, although UK outlier TVPI multiples are still well below the level of the top US funds.

Figure 2.3

**Ranked TVPI multiple distribution of UK, US and Rest of Europe VC funds (2002-2019 vintage years)**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

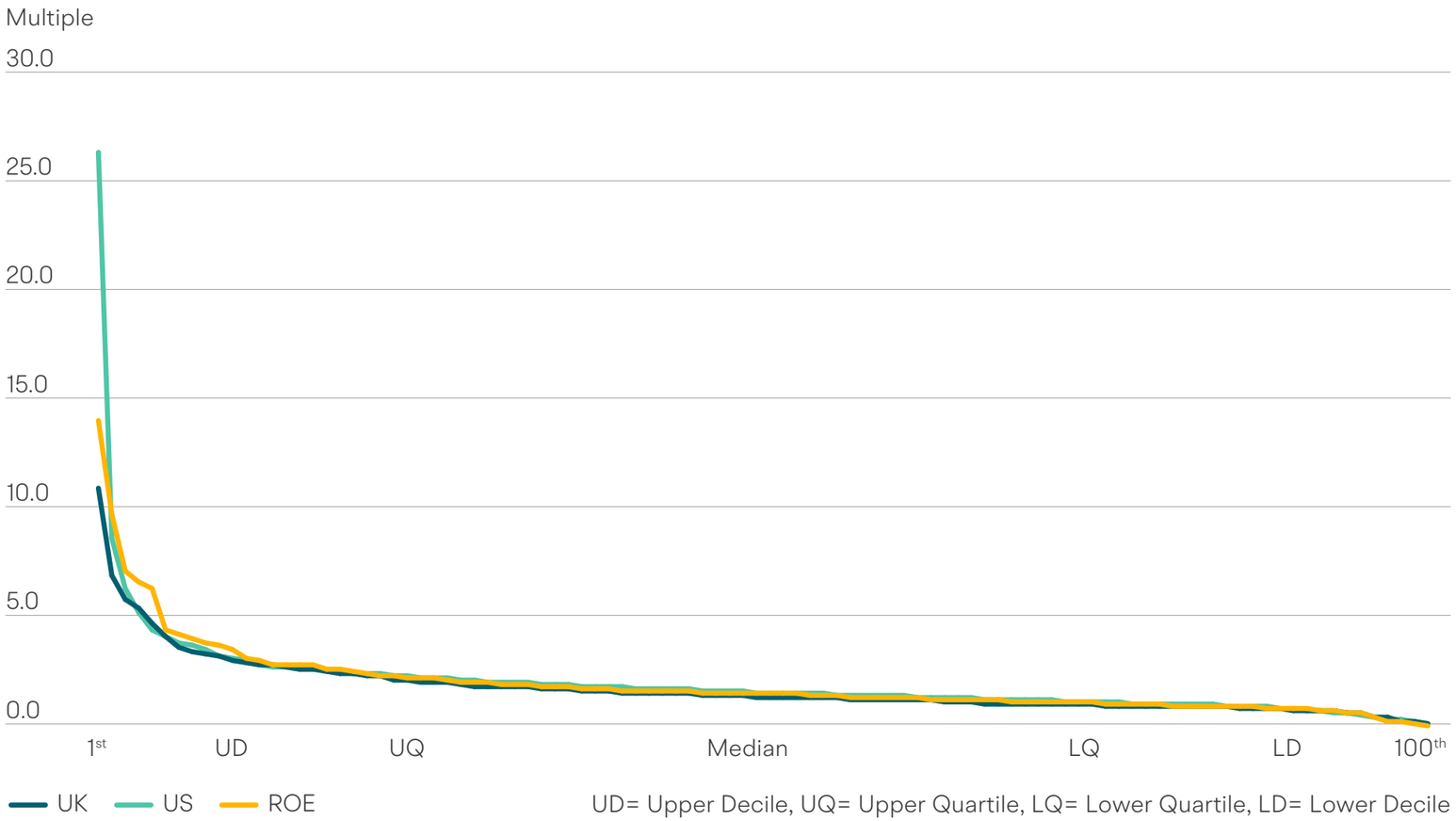


Figure 2.4 shows the distribution of fund DPI multiples for UK, US and rest of Europe VC funds with a 2002-2013 vintage. Extending the period beyond 2013 vintage years would result in a long tail of funds reporting DPI multiples of 0 as they have not had sufficient time to develop and exit their investments. This would not give an accurate picture of the distribution of fund returns.

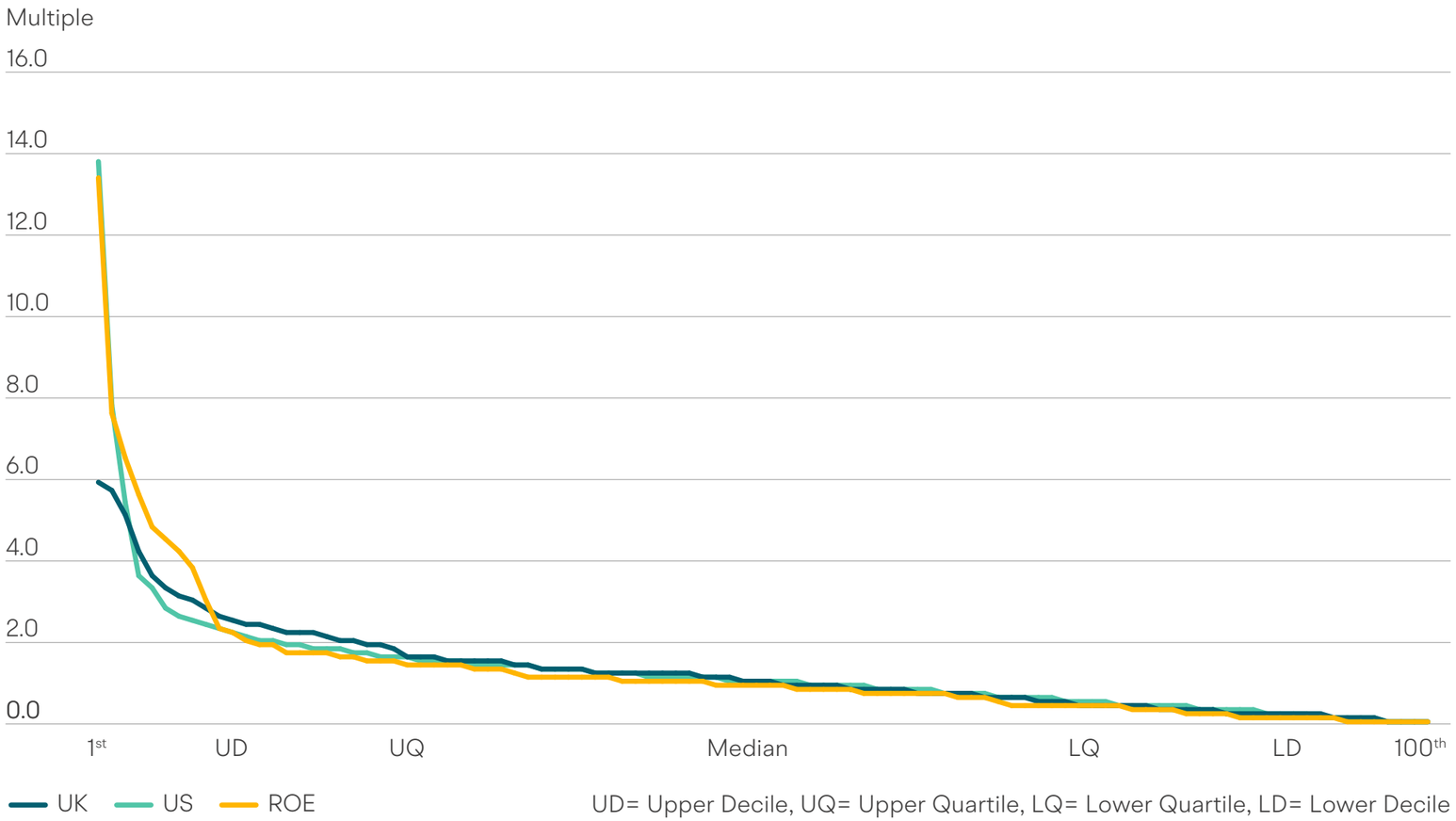
The shape of the DPI multiple distribution curve is broadly similar to that of TVPI multiples except for the following differences. Up until the 10th percentile, the UK DPI multiple is slightly higher than those of the US, but after the 10th percentile this switches with the US and rest of Europe having a couple of funds with extremely strong outlier performance. These outliers explain the high-performance multiples for rest of Europe funds in the 2002-2007 period.

Looking at the contribution of upper quartile funds to the overall pooled capital returns shows overall VC performance is driven by the performance of outlier funds. In the UK, upper quartile funds contributed 57% of the overall pooled capital returns. This is slightly ahead of the US, where upper quartile funds returned 48% of the overall pooled capital returns. However, both figures illustrate the importance of outliers to overall market returns.

Figure 2.4

**Ranked DPI multiple distribution of UK, US and Rest of Europe VC funds (2002-2013 vintage years)**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



## Life sciences and deep tech

Last year's VC returns report included a detailed assessment of the returns of UK VC funds targeted at the life sciences sector and found that life sciences funds reported slightly higher pooled DPI multiples than the wider market. However, life sciences funds also reported slightly lower pooled TVPI multiples than the wider market, which is likely due to the differing valuation approaches compared to tech companies. Life sciences companies are likely to be valued closer to cost until a significant trial result or upon exit compared to technology companies whose values increase in line with visible growth metrics. This year we have updated the analysis in our previous report and have also included deep tech as a separate category.

It is important to note that this analysis is at the fund level and assesses the performance of funds specialising in life sciences and deep tech. It does not capture the performance of generalist funds making investments in deep tech or life science companies.

Life sciences are an example of an R&D-intensive sector which require specialist investor knowledge, are more capital intensive and require longer holding periods. Earlier this year, the Bank's Equity Tracker report contained a section on the R&D-intensive ecosystem with analysis on the deep tech subset of R&D-intensive companies.

Using PitchBook's 'preferred vertical system' of categorising funds, we can segment the funds in our dataset by the sectors that they target. Please see the appendix for a more detailed description of our methodology.[5] This next section presents the fund performance of those funds identified by PitchBook as preferring to invest in life sciences or 'deep tech' verticals as well as presenting the combined figures for 'R&D-intensive' funds. It is important to note that VC funds can invest across multiple sectors (not just life sciences and deep tech), and so these returns may include the performance of companies in other sectors. All analysis in this section is based on funds with a vintage year of between 2002 and 2016.

**Life sciences funds have higher pooled DPI multiples but lower pooled TVPI multiples than the wider VC market.**

Figure 2.5 shows the pooled TVPI and DPI multiples segmented by sector for UK VC funds. UK life sciences VC funds generated a pooled DPI of 1.10 and a pooled TVPI of 1.82. The life sciences pooled DPI multiple is higher than the 1.01 generated by the whole VC market, though the life science pooled TVPI multiple is lower than the wider market multiple (2.08) for funds of the same vintage. This is consistent with findings in the previous report.

UK deep tech VC funds generated a pooled DPI multiple of 0.68 and 1.42, substantially lower than both life sciences funds and funds in the wider market. Caution should be taken interpreting this multiple as it is based on a small number of funds, with only 9 being categorised as deep tech within the dataset. These deep tech funds have a later vintage year on average (2013) than either the whole market funds or life sciences funds (2010 and 2011 respectively), which is especially important due to the long technology development lead times.

Combining the deep tech with the life sciences provides a combined R&D intensive category. UK R&D-intensive funds with a 2002-2016 vintage year generated a pooled DPI multiple of 0.99 and a pooled TVPI multiple of 1.71.

Figure 2.5

**Fund performance multiples of UK VC funds with a 2002-2016 vintage, segmented by sector**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

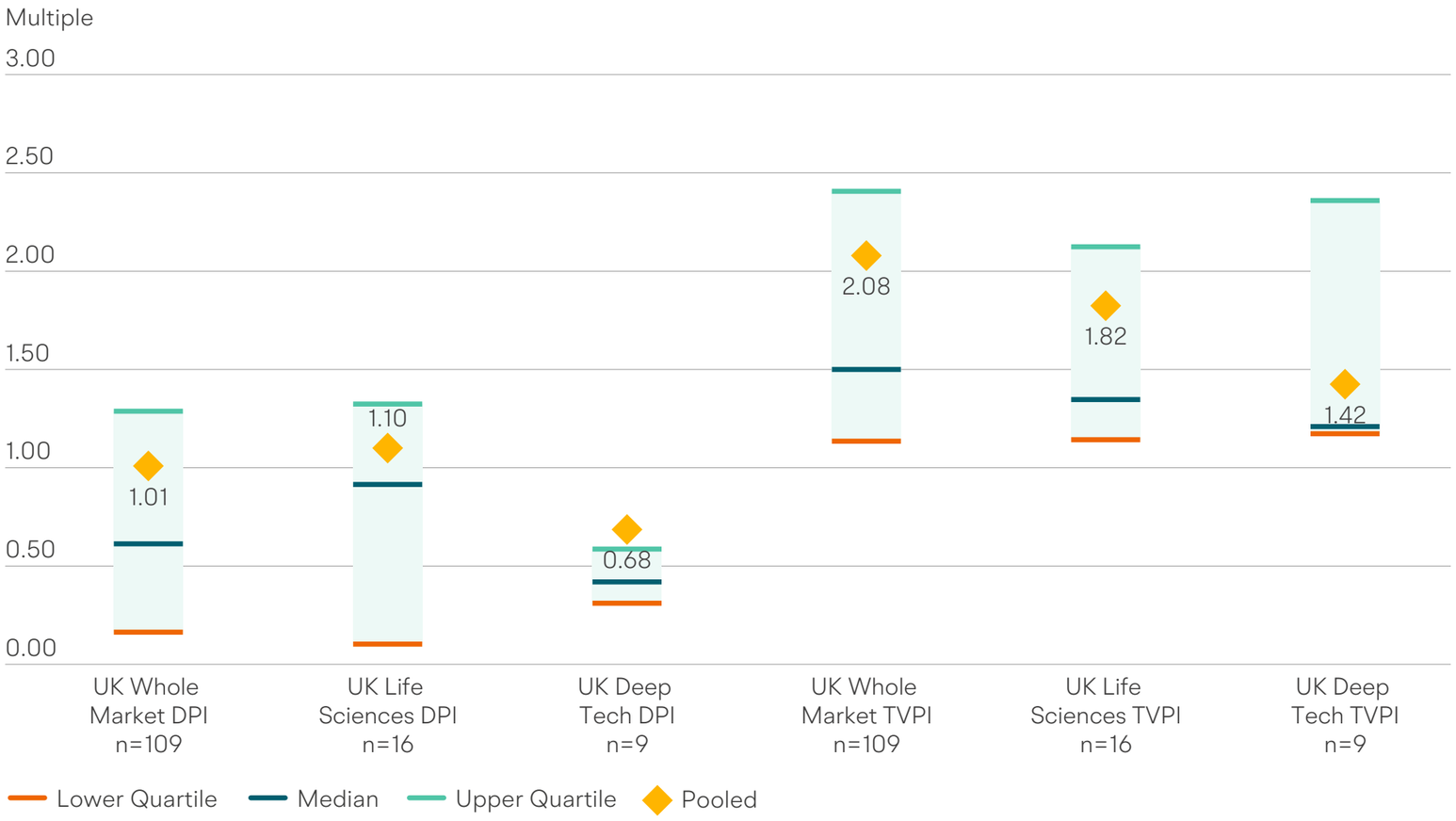


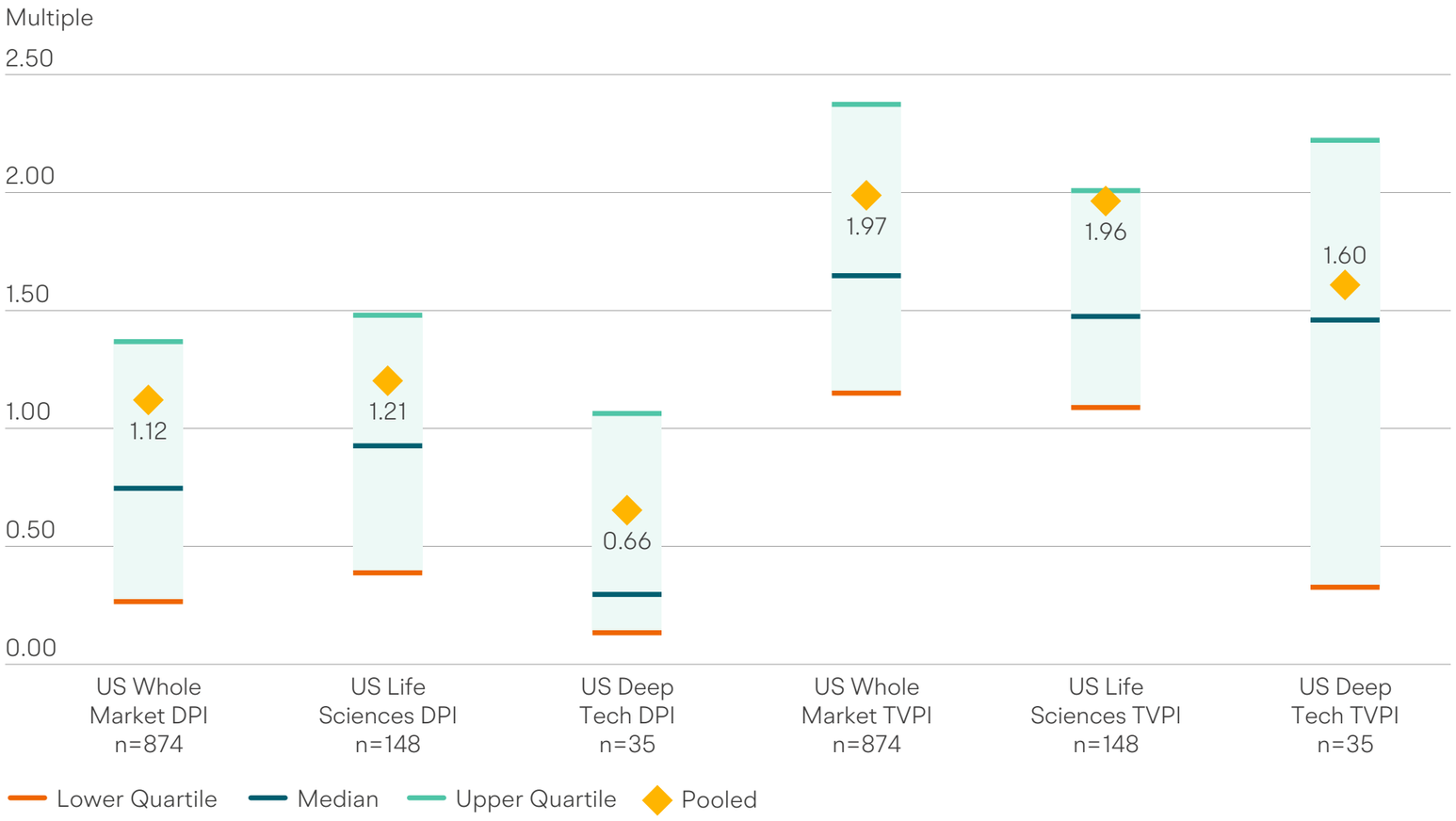
Figure 2.6 shows that US life sciences VC funds generated pooled DPI and TVPI multiples of 1.21 and 1.96, which is higher than the performance reported for UK life sciences funds. This pooled DPI multiple is also higher than the 1.12 generated by the whole US VC market and the pooled TVPI multiple is only just lower than the 1.97 generated by the whole US VC market. As with the UK, US deep tech funds generated substantially lower performance multiples than either life sciences or the whole market with a pooled DPI multiple of 0.66 and a pooled TVPI multiple of 1.60. The combined R&D-intensive funds generated a pooled DPI multiple of 1.08 and a pooled TVPI multiple of 1.87.

There are promising signs for the future performance of UK life sciences funds, but also a perception that the US life sciences ecosystem remains more mature with a greater pool of experienced investors.[6] UK life sciences has seen improved TVPI multiples over the past year. Last year's report found that the TVPI of UK life sciences funds was 1.52 compared to the whole market TVPI of 1.84 (0.32-point differential, but this disparity has narrowed slightly this year to 0.26 points).

Figure 2.6

**Fund performance multiples of US VC funds with a 2002-2016 vintage, segmented by sector**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



UK life sciences VC fund performance has likely benefitted from the increased investor interest in life sciences in part brought upon by life sciences companies' contributions to the fight against Covid-19 alongside the strong public market valuations for life sciences companies on public markets like Nasdaq. British Business Bank analysis shows that there have been record levels of investment and valuations in UK life sciences companies over the last year.[7]

Comparing the performance of UK life sciences against the US shows that the UK ecosystem still has some ground to cover. First, in the US the pooled TVPI multiple for life sciences funds was nearly identical to that of the whole market. The investor base for life sciences is also substantially larger in the US with 148 funds being classified as life sciences within our dataset (17% of all US VC funds) compared to 16 in the UK (14% of all UK VC funds). An experienced investor base is especially important for investing in life sciences due to the regulatory and technical expertise required.

The British Business Bank is dedicated to supporting the UK life sciences ecosystem through its Life Sciences Investment Programme (LSIP) via our commercial subsidiary, BPC. BPC have been allocated £200m to make cornerstone commitments to later stage life sciences VC funds to ensure the UK continues to be a world leader in health and life sciences innovation.

Deep tech is currently in its infancy, and it is too early to assess the financial performance of VC funds targeted at this area of the market. There are only a small number of funds specifically targeted at deep tech within the UK and US and the TVPI multiples of these funds are currently lower than the wider market in the respective countries. Many of these funds are in the negative part of the 'J-curve', with long technology lead times. It is therefore too early to assess the financial performance of deep tech funds, and this sector has not yet developed a track record. The Bank's Future Fund Breakthrough programme aims to co-invest in UK R&D-intensive companies seeking to raise in excess of £30m, including life sciences companies to help strengthen the deep tech sector.

**The British Business Bank is supporting the UK life sciences and deep tech ecosystem through its Life Sciences Investment Programme (LSIP) and Future Fund Breakthrough programme.**

# Section 3: Comparing British Business Bank and BPC VC fund performance to the wider market

This section provides an overview of the performance of VC funds the British Business Bank has invested in as a Limited Partner (LP), through its Enterprise Capital Fund (ECF) programme and through British Patient Capital (BPC).

**These numbers may differ from the figures reported in the British Business Bank and British Patient Capital (BPC) Annual Reports due to differences in the coverage of funds. For instance, the latest 2021 BPC Annual Report shows the BPC portfolio had a TVPI multiple of 1.51 overall as at end of March 2021, up from 1.15 a year ago. The BPC Annual report covers the performance all BPC funds including those classified as non-VC and also those with a more recent vintage.**

The British Business Bank has analysed the performance of the Enterprise Capital Fund (ECF) programme, which was established in 2006 to increase the amount of equity finance available to high growth innovative smaller businesses affected by the equity gap. The ECF programme is designed to address identified market failures leading to an equity gap by facilitating the establishment of VC funds targeting high growth potential companies seeking smaller amounts of equity finance.

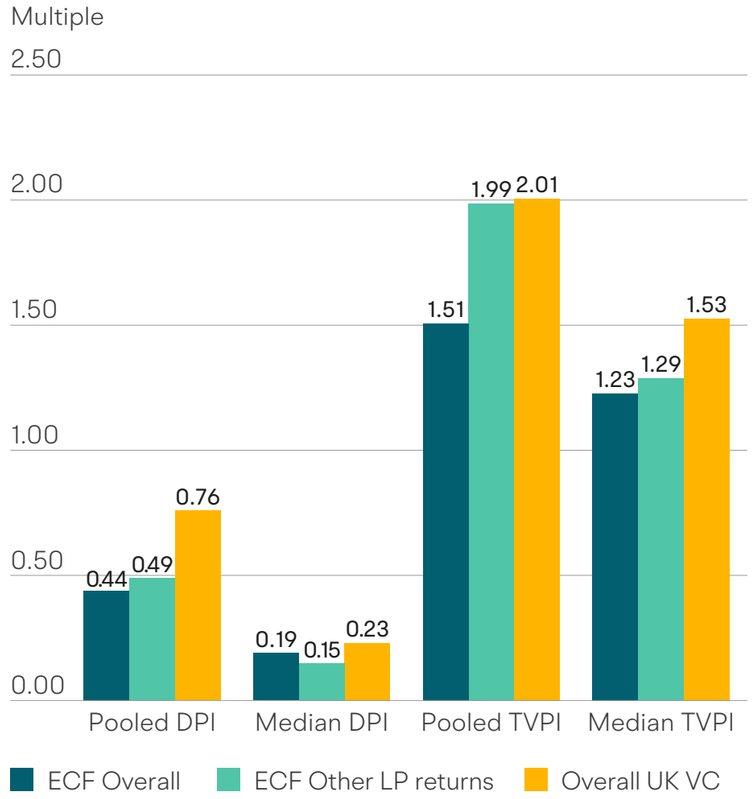
A key feature of the ECF programme is the 'geared' return structure designed to increase returns for private investors so that they are competitive with other market investment opportunities. The British Business Bank receives a 3% prioritised return but, after repayment of capital, the Bank receives a lower share of the profit compared to the other private investors in the fund. In the event of good performance by the fund manager, private investors (identified below as other LPs) receive a greater share of the profits.

Figure 3.1 shows the overall pooled DPI multiple for VC funds invested in through the ECF programme between 2006 and 2018 is 0.44, equating to a pooled DPI of 0.49 for other LPs. This is lower than the wider UK VC market pooled DPI of 0.76 for funds of the same vintages. However, the lower realised returns are likely to be the result of the earlier investment stage focus of the funds supported by the ECF programme relative to the overall market leading to portfolio company exits taking longer to materialise.

Figure 3.1

**ECF VC fund performance multiples (2006-2018 vintage years)**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



VC funds within the Bank's ECF programme have a pooled TVPI multiple of 1.51, equating to 1.99 for other LPs. Private investors in ECF supported funds therefore have the potential to make similar returns to the wider UK VC market (2.01 for the same vintage years), showing that the British Business Bank prioritised return mechanism is working as intended. The same prioritised return mechanism means the median fund DPI for other LP investors is lower than the overall ECF fund return, as the British Business Bank receives the priority returns.

This similar level of performance to the wider VC market could make the ECF programme an attractive asset class for LP investors wishing to invest in UK VC.

BPC was formed in 2018 in response to the Patient Capital Review to provide long-term equity support for UK growth stage companies. BPC's portfolio was seeded from investments made under the Bank's VC Catalyst programme. This earlier programme had fund vintages between 2013-2017 and had a slightly different remit to BP. The investments strategy of BPC has evolved from those initial seeding investment to focus more on funds that have later stage, growth equity strategies.

Figure 3.2 shows the VC funds BPC has invested in between 2013-2018 have generated a pooled DPI multiple of 0.22. Although in the same magnitude, this is lower than the wider UK VC market pooled DPI for funds of the same vintage of 0.27.

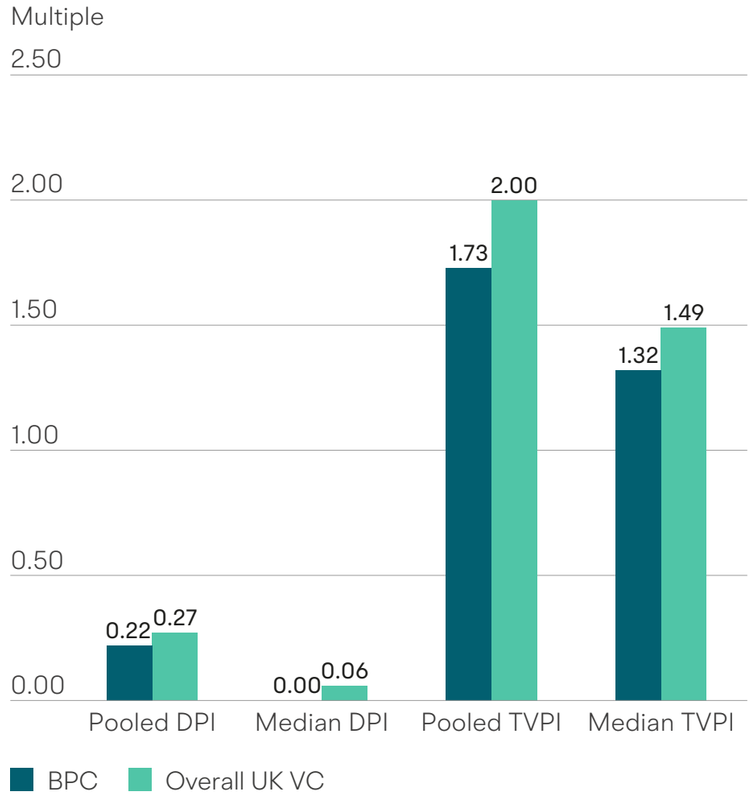
BPC's latest pooled DPI multiple of 0.22 is higher than the one reported in last year's report of 0.18, but the wider market figure has increased more substantially from 0.17 to 0.27.

Figure 3.2 also shows the BPC pooled TVPI multiple of 1.73 is also lower than the UK VC market TVPI multiple (2.00) for funds of the same vintage (2013-2018). The BPC median fund TVPI performance at 1.32 is also slightly lower than the wider UK market multiple of 1.49. BPC portfolio funds now have a higher pooled TVPI figure of 1.73 compared to the figures presented in last year's report (1.40). This improvement in portfolio valuation is positive, although the overall VC market portfolio has increased more sharply from 1.45 to 2.00 in the same period.

Figure 3.2

**BPC VC fund performance multiples (2013-2018 vintage years)**

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.



One reason for the lower DPI and TVPI multiples is the average vintage year for the BPC portfolio being nearly a year younger in age than the wider market portfolio due to BPC substantially increasing its activity in 2018. 33% of BPC portfolio funds have a 2018 vintage compared to 18% in wider market. This gives less time for the BPC portfolio to have developed compared to funds in the wider market.

The Internal Rate of Return (IRR) measure takes into account the time value of money. BPC's mean average fund IRR return for VC funds with a 2013-2018 vintage year is 20%, which is similar to the UK wider market average fund return of 21%. This confirms vintage year effects are affecting comparisons between BPC and the wider market using money multiple measures.

A comparison of 2013-2017 vintages shows BPC's pooled DPI multiples of 0.30 are much closer to the wider UK market multiple of 0.32, which suggests the programme is performing as expected in terms of making a commercial return in line with the wider market. However, BPC's pooled TVPI multiple is 0.23 points lower than the wider market (1.89 compared to 2.12).

For 2018 vintage funds (the first year of BPC's establishment), BPC's performance is broadly in line with the wider market with a pooled DPI multiple of 0.00 compared to 0.01 in the wider UK market. The wider VC market has a pooled TVPI multiple of 1.33 compared to 1.30 for BPC, confirming BPC is broadly in line with the wider market. Over half (54%) of UK VC funds with a 2018 vintage submitting returns data are within the BPC portfolio, and so the wider market figures are also heavily influenced by BPC's involvement.

It should be noted that it is an early stage in the life of the BPC portfolio, and performance is based on 24 BPC portfolio funds overall. Moreover, 14 of the 24 funds (58%) have a vintage year of 2017 or 2018, again a reflection of a portfolio that is relatively immature. This is a substantially higher proportion than the wider market where just 35% of funds between 2013 and 2018 had a vintage year of 2017 or 2018. Therefore, it is to be expected that there is currently a performance differential.

It is too early in the life of BPC to draw conclusions about the long-term performance of BPC's portfolio as more than half of BPC's funds are too young to be included in the analysis and the majority of the portfolio is currently unrealised.

It is too early in the life of BPC to draw conclusions about the long-term performance of BPC's portfolio.

# Section 4: Market conditions

This section of the report outlines fund manager perceptions on the current state of the VC market and provides some useful insights into market conditions compared to the previous year. Fund managers shared their views on market conditions including on quality of deal flow, exit opportunities for portfolio companies and the fundraising environment.

**29 fund managers completed the fund manager survey this year, an improvement on the 22 completing the survey in 2020. Whilst this survey cannot be considered fully representative of the wider UK VC industry, the survey provides useful qualitative insights into VC market conditions to help provide context to the wider trends observed.**

The Bank estimates these 29 fund managers form 28% of the total population of UK-based fund managers that are currently active, so does provide reasonable coverage from which inferences can be drawn.[8] Fieldwork for the survey was undertaken in September 2021 over a four-week period.

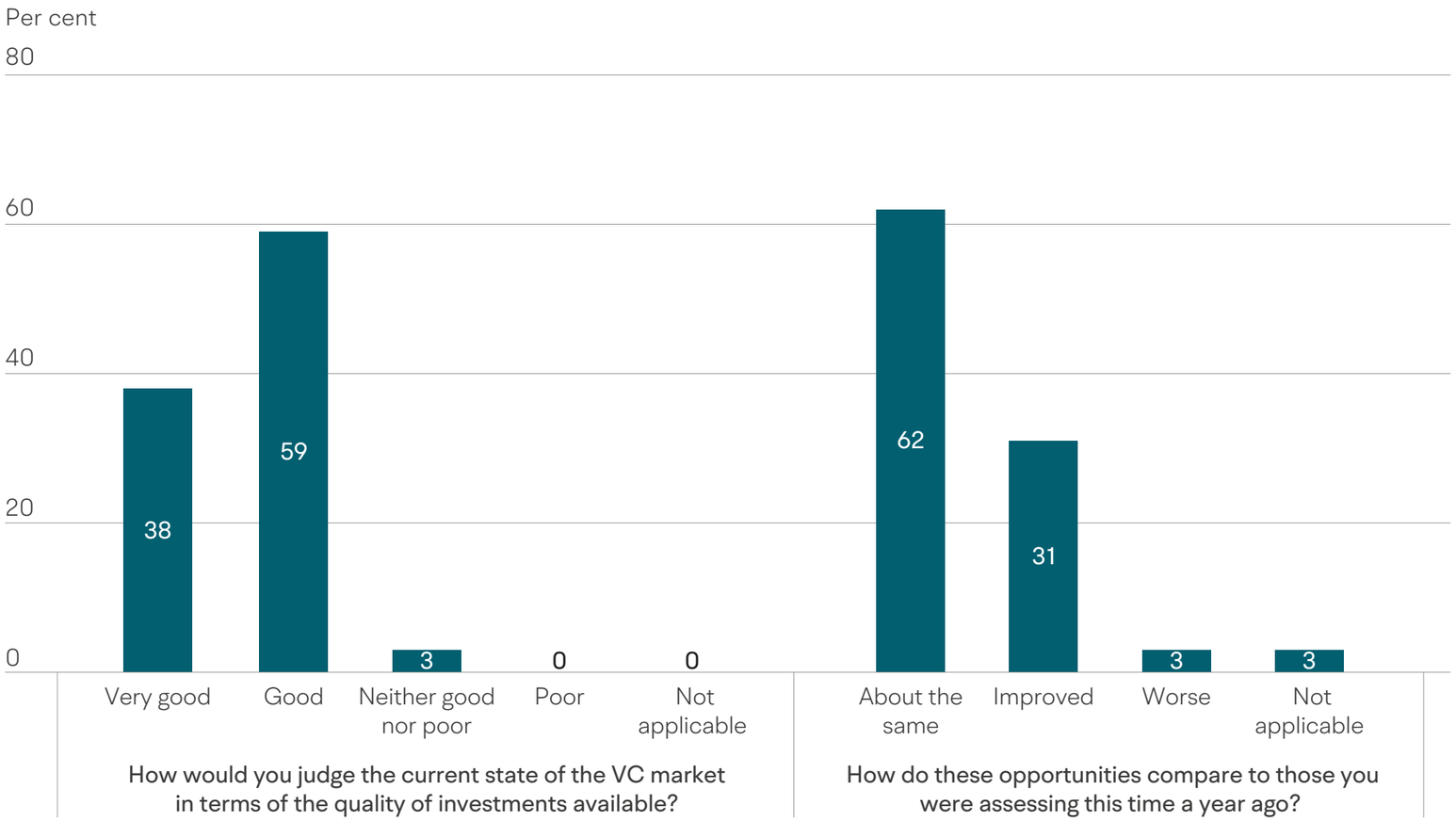
## Survey findings

Figure 4.1 shows almost all fund managers reported the quality of investment opportunities in the market was good (59%) or very good (38%) in 2021. No fund managers reported the market was poor, although 3% thought it was neither good nor bad.

Figure 4.1

**Fund manager views on quality of investments and compared to last year**

Source: Bank survey of VC fund managers (n=29)



Fund managers' views on how this compared to 2020 were more nuanced. Whilst almost two in three fund managers (62%) reported that the market was broadly in line with that of the previous year, just one in three (31%) thought that the quality of potential investments had improved. Only 3% thought the quality of investment opportunities had declined compared to a year ago. The strong level of VC activity in 2020 and 2021 so far reported in the Equity Tracker confirms fund managers are having no problem deploying funding into UK high growth potential businesses.

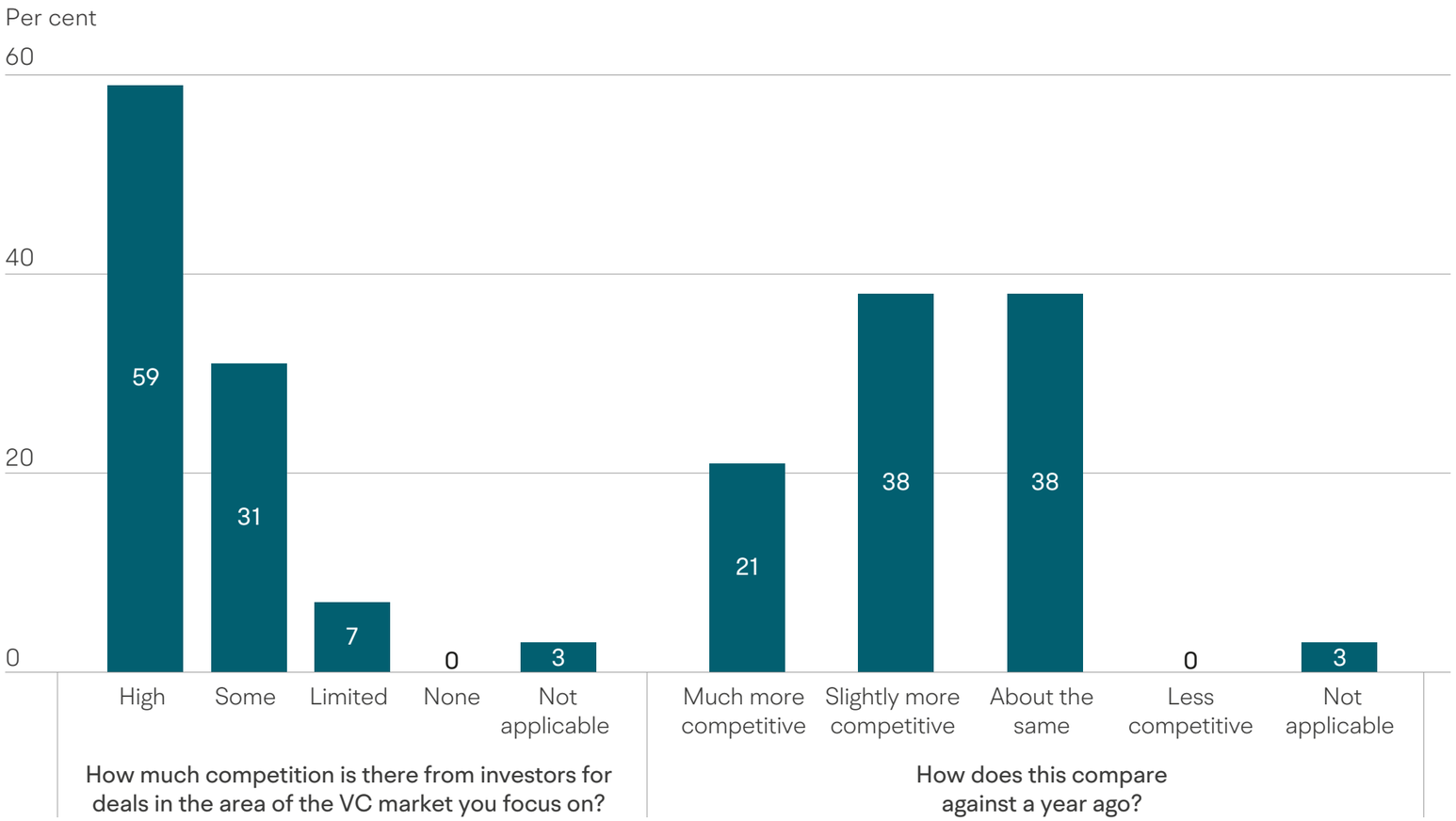
Whilst there remain good opportunities for investment, competition within the VC market for deals is reported to have been high and increased in intensity compared to this time last year. A majority of fund managers (59%) reported a high level of competition in the VC market in 2021, with the remainder reporting some (31%) or limited (7%) competition.

Moreover, a majority of fund managers (59%) reported that competition had increased compared to a year ago. Of which 38% believed the level of competition had increased slightly on last year, and 21% considered the market was much more competitive. 38% of fund managers believed the level of competition they were experiencing was the same as last year.

Figure 4.2

**Fund manager views on competition in the market and compared to last year**

Source: Bank survey of VC fund managers (n=29)



This greater level of competition amongst fund managers could have an adverse impact on future financial returns, as fund managers could be competing against one another, which will drive up valuations. However, as fund managers' report that there is still good availability of deals to invest in, this is less of an immediate concern, but something to monitor going forward.

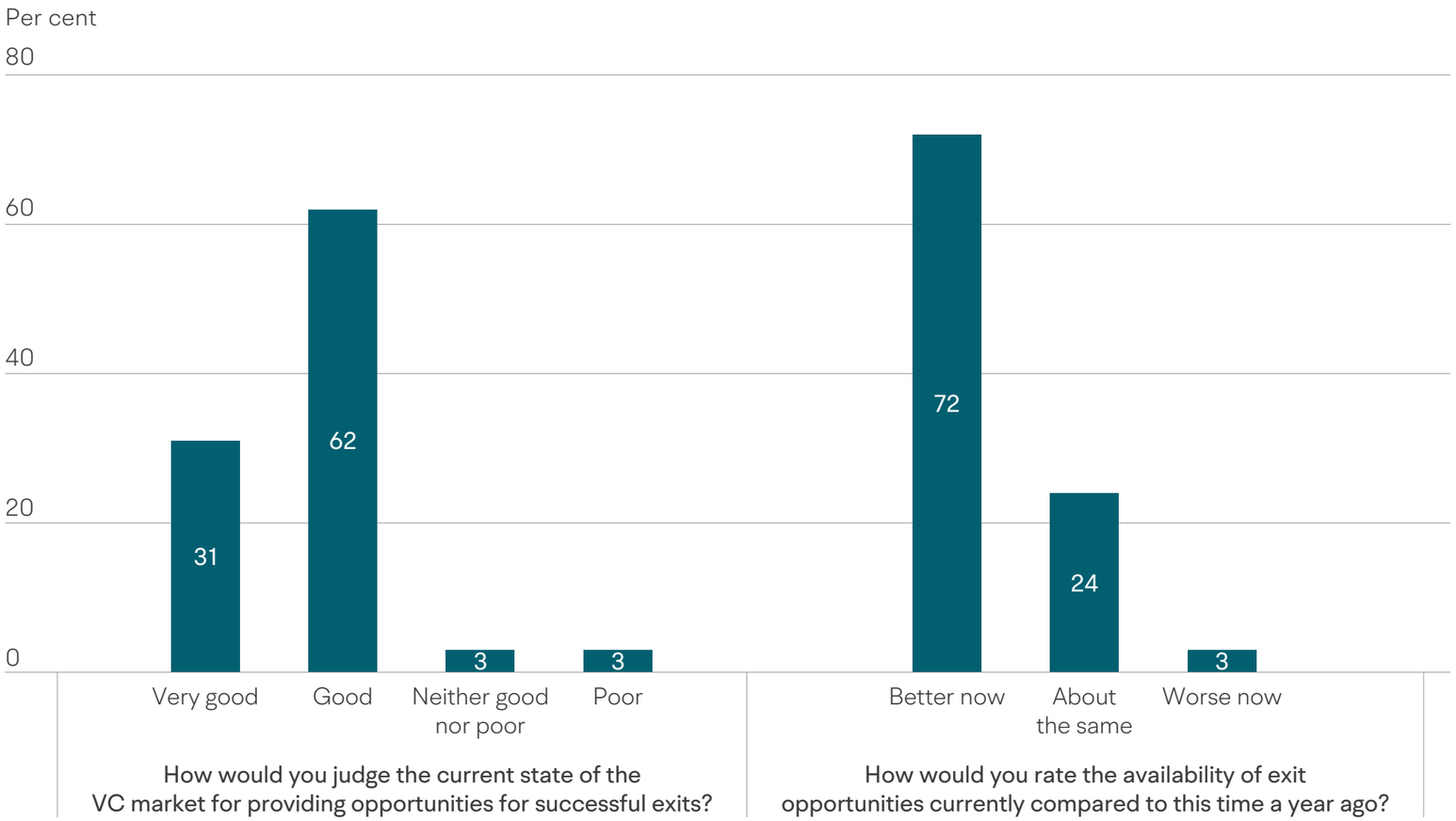
Almost all fund managers (93%) reported exit conditions were good (62%) or very good (31%) in 2021. Again, in a further sign that the market in 2021 has been more buoyant, 72% reported that the market conditions for successful exits for portfolio investments have improved on last year.

British Business Bank analysis of PitchBook for UK headquartered companies shows 2021 year to date is by far highest year for the value of capital exited with £21bn exited. In 2020, £4.8bn was exited, which was the 3rd highest year on record and substantially higher than in previous years. There has also been strong IPO activity in 2020 and 2021. Equity Tracker 2021 reported IPO activity increased in 2020 despite Covid-19 with 7 IPOs with a total exit value of £5.5bn. IPO activity has been strong in 2021 with several high-profile UK companies with unicorn status before listing, including Deliveroo and Darktrace have listed in 2021.

Figure 4.3

**Fund manager views on conditions for exits and compared to last year**

Source: Bank survey of VC fund managers (n=29)



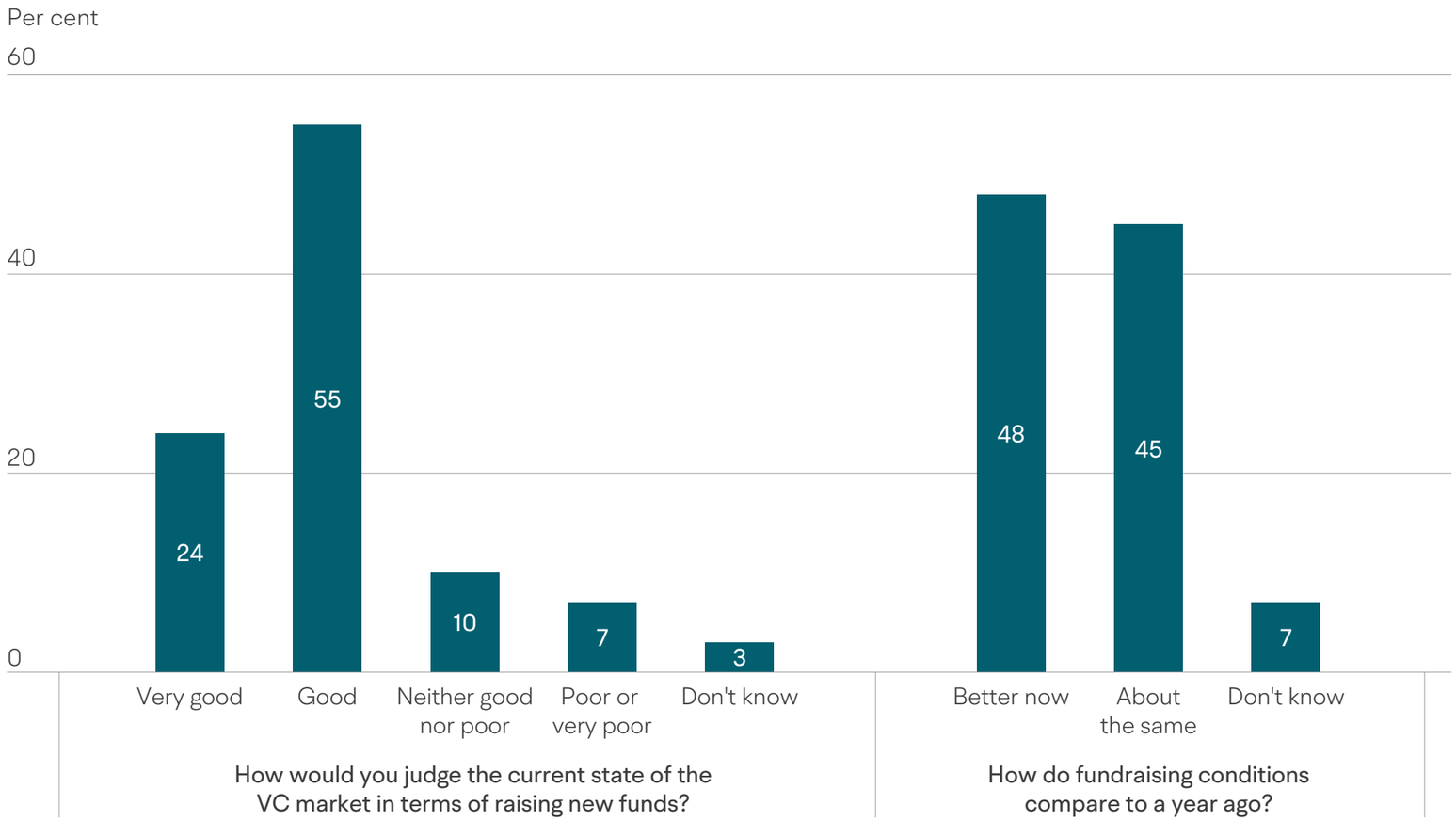
Strong exit conditions contribute to fund performance, as it allows VCs to exit their companies at relatively high valuations leading to increased distributions to investors. Strong exit conditions will also lead to an increase in TVPI multiples, as valuations will often be based upon projected future exit return.

Fund managers were much more upbeat in 2021, compared to the previous year on VC fundraising conditions. Four in five respondents (79%) reported that fundraising conditions were good (55%) or very good (24%). However, perceptions of year-on-year improvement in the market for fundraising were more evenly split. Just under one in two fund managers (48%) reported fundraising conditions were better now, compared to 2020, whilst 45% thought that fundraising conditions were very similar to last year. It is likely that many of these fund managers are not currently trying to raise new funds, and so are not able to comment on conditions compared to a year ago.

Figure 4.4

**Fund manager views on new fundraising and compared to last year**

Source: Bank survey of VC fund managers (n=29)



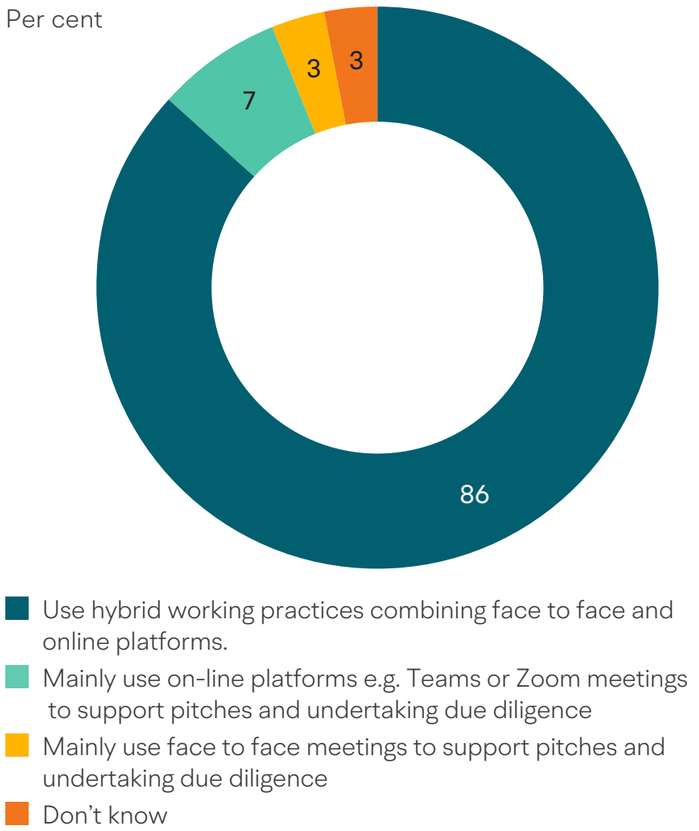
It has been over 18 months since the start of the Covid-19 pandemic and the Government initiated lock down. These restrictions forced fund managers to adapt their due diligence processes with a shift to undertaking deal sourcing and due diligence activity remotely. Prior to this, much importance had been placed upon 'face-to-face' meetings. The Bank's Regional Tracker[9] found that 82% of equity deals made by investors were made in companies less than two hours travel time away from the investor location and thus possible to easily meet face to face in a day. With a shift to remote working, it is possible that VC funds will be able to assess a broader range of opportunities potentially leading to higher returns.

Fund managers were asked about the delivery model they use for assessing pitches and undertaking due diligence. The majority (86%) reported they now use hybrid working practices, combining face to face and online meetings to support pitches and to undertake due diligence. Only 3% of fund managers mainly use face to face meetings, suggesting fund managers have adapted their investment practices to cope with current conditions.

Figure 4.5

**Fund manager use of face to face and online meetings to assess pitches and undertaking due diligence**

Source: Bank survey of VC fund managers (n=29)




Fund managers report positive views on investment opportunities and exit conditions.

# Appendix 1: Definitions

## Venture Capital

Venture Capital (VC) is a type of Private Equity (PE) finance provided by investors into small early-stage companies with the potential for very high growth. Finance is provided in return for an equity stake in the business and investors generate a financial return (or profit) on their investment when they sell their stake through an Initial Public Offering (IPO), trade sale or secondary sale. Many early-stage VC-backed companies are unlikely to have positive cash flows, or even be generating sales at the time of VC investment. It may therefore take many years until a company has developed its technology and market position to allow a VC investor to exit with a positive return. VC-backed companies therefore differ to PE-backed companies which are more established.

This report focuses on the returns made by funds focused on making VC investments only. It does not compare the performance of returns generated from wider PE or other asset classes like investing in public markets.

## Financial performance metrics

There are several ways to measure VC financial returns. Deciding which measure to use is often context specific and dependent on the data available. The following measures are used to assess fund performance in this report:

- Internal Rate of Return (IRR)
- Money multiples:
  - Distributions to Paid-In capital (DPI)
  - Residual Value to Paid-In capital (RVPI)
  - Total Value to Paid-In capital (TVPI)

Money multiples are the main measure used to assess fund performance throughout this report.

## Internal Rate of Return (IRR)

IRRs are widely used in private capital industries as they offer a way of comparing two investments with irregular cashflow timings and sizes. The IRR represents the discount rate at which the Net Present Value (NPV) of an investment's future cashflow is equal to zero.

The IRR measure incorporates the time value of money, so that £100 of returns generated sooner is valued more than £100 realised in the future.

## Money multiples

Multiples provide a relatively simple measure of an investor's return on their invested capital, providing a cash-on-cash measure of how much investors are receiving back from the capital they have committed. Multiples are useful in that they show the scale of the returns but a key limitation is that the time value for money is completely ignored. A fund returning twice the invested amount will have the same multiple regardless of whether the return took two or ten years to materialise. Two multiples that are typically reported by funds are Distribution to Paid-In capital (DPI) and Total Value to Paid-In capital (TVPI), but it is also useful to know the Residual Value to Paid-In Capital (RVPI) which is the difference between the two multiples: TVPI = DPI + RVPI

- **Distributions to Paid-In capital (DPI):** The ratio of cumulative distributions to LPs divided by the amount of capital contributed by the LPs. At the start of a fund's life, this ratio will be zero due to there being no exits to date but will begin to increase as distributions (portfolio company exits) occur. When the DPI is equal to one the fund has broken even, as the money paid in is equal to money distributed. Any number above one indicates that the fund has paid out more than has been paid in, so that LP investors get more than their initial capital back. This measure is therefore useful at the later stages of a funds life as it is an actual measure of fund performance directly measuring cash received from exits
- **Residual Value to Paid-In capital (RVPI):** The sum of cumulative net asset value of the investment, divided by the capital contributed by the LPs. It calculates the multiple of the investment would be returned to investors if the unrealised assets were sold at current valuations. Valuation of early stage companies can be very difficult because of the inherent uncertainty surrounding the prospects of the company. However, the concept of 'fair value' is used to value the unrealised assets at each measurement date, with a number of recognised valuation techniques used. The 'Book value' of unrealised investments is useful for assessing performance during the early part of a funds life, but offers no guarantee on future performance as valuations can change over time due to changes in wider economic and market conditions. For instance, a high RVPI may be indicative of an inflated market versus an accurate representation of how much the portfolio can actually be sold for eventually'. Globally, there are a number of well-known later stage unicorn businesses that have received funding at a lower valuation to their previous funding round (known as a down round). This will effectively lead to disappointed LP investors as the DPI does not match up to the projected RVPI.
- **Total Value to Paid-In capital (TVPI):** The sum of cumulative distributions to LPs and the net asset value of the investments, divided by the capital contributed by the LPs. It calculates what multiple of the investment would be returned to LP investors if the unrealised assets were sold at current valuations and added to distributions that have already been received. This is useful for assessing performance during the early part of a fund's life, like the RVPI measure. While this can provide a more complete picture on the returns from the fund, it is significantly impacted by the valuation that is placed on the unrealised investments remaining in the fund, although the impact should reduce as the fund matures and investments are realised.

Given this difference, many LPs rely on the TVPI measure earlier in the life of a fund and DPI measure towards the end of a fund's life. Multiples tend to be a more conservative measure than IRR as a zero-rate reinvestment of cash flows is assumed.

## Distribution of returns

There are large variations in performance between the top performing funds and the remaining funds. It is therefore useful to look at both the pooled return and median fund return figures, alongside the upper and lower quartiles. The VC industry has a focus on benchmarking upper quartile funds but there is no universal method for choosing the reference period or specific reporting metric, which will fluctuate from year to year depending on the composition of the funds included.

- **Pooled Return:** The return for the total group of funds being analysed. This is calculated by aggregating the realised and unrealised values across all funds, which accounts for different fund sizes. This is the best measure for estimating total market returns as it includes the performance of all outlier funds.
- **Median:** The fiftieth percentile. The return of a fund in the middle of the ranking. This represents the return of a 'typical fund'.
- **Upper quartile:** The return of the fund in the top 25th ranking. When all VC funds are considered, upper quartile fuvnd performance is higher than the remaining three quarters of other funds.

## Fees

The financial return metrics presented for LP funds in this report are net of fees (I.e. fees are deducted). Management fees allow VC funds to meet their own operating costs, whilst carried interest fees relates to performance related share of fund profits from realised investments.

# Appendix 2: Overview of data sources

## BVCA

The British Private Equity and Venture Capital Association (BVCA) represents the interests of the UK VC and PE Industry and reports on the financial performance of its members.

BVCA's membership comprises over 750 members, including 470 private equity and venture capital firms and their investors, as well as advisers and financial institutions. The BVCA, in association with PwC, undertakes an annual survey of its eligible members asking about the performance of the funds that they manage. To be eligible for inclusion the PE firm must be a full BVCA member, raise money from third-party investors and manage that money from the UK (although it may be invested elsewhere). BVCA members investing from their own balance sheet, quoted vehicles such as VCTs and listed PE are excluded from the fund returns.

The BVCA annually publishes financial returns information through its Performance Measurement Survey.[10] The report examines the performance of PE and VC funds and then benchmarks them against other asset classes, notably the UK public equity market.

Overall, 119 fund managers responded to the latest BVCA survey using data to 31 December 2020. Fund data is presented anonymously in pre-defined categories relating to vintage year.

## Commercial data providers

Commercial data providers like Preqin and PitchBook primarily source information on the performance of funds from public filings by pension funds, Freedom of Information (FOI) requests and voluntary disclosures by fund managers (GPs) or LPs.

## Preqin

Preqin is a provider of data and intelligence to the alternative assets industry including PE, real estate, hedge funds, infrastructure, private debt and natural resources. It collects a range of information including funds and fundraising, performance, fund managers, institutional investors, deals and fund terms.

## PitchBook

PitchBook is a financial technology company that provides data on capital markets. PitchBook collects and analyses detailed data on the entire private equity, venture capital and M&A landscape - including public and private companies, investors, funds, investments and exits.

## Other sources of information on VC financial returns

The British Business Bank is the largest LP investor in UK VC.[11] The Bank monitors the performance of the funds it has invested in by collecting information directly from fund managers. LP status ensures this information is fully verified and has full coverage of funds invested in. In line with the Bank's role in addressing market failures in finance markets, the characteristics of funds invested in through the Enterprise Capital Fund (ECF) programme may differ to the wider UK VC market due to their focus on early stage market, smaller deals sizes affected by the equity gap and emerging fund managers.

Since 2013, BPC through the Bank's previous VC Catalyst programme has invested on commercial terms in VC funds targeting UK scale up companies. The VC Catalyst programme was targeted at helping VC funds to reach a first close, which differs to the objective BPC has for increasing the amount of patient capital to UK scale up businesses. It is early days in the life of these funds, but a summary of performance to date compared to the wider VC market is included in Section 3 of the report.

This year's report also includes the results of data the British Business Bank has directly collected from UK VC fund managers. The Bank collected fund level financial returns information from 29 fund managers (covering 37 funds), and also captured the views of these fund managers on current market conditions on quality of deal flow, exit opportunities for portfolio companies and the fund-raising environment. These fund managers were UK based, active in the VC market managing closed end funds, with a vintage year of between 2002 to 2019 vintage making VC investments in the UK.

# Appendix 3: Methodology for compiling dataset

Data on individual UK VC funds with a 2002 to 2019 vintage year was downloaded from PitchBook and Preqin in July 2021. 2002 was chosen as the first vintage year to avoid picking up effects from the dot-com bubble and also to be consistent with BVCA reporting.

- Data from British Business Bank MI systems was also extracted for funds under the ECF, UKIIF and British Patient Capital (including VC Catalyst) programmes as these programmes are delivered by private sector fund managers that have raised funding from private sector sources.
- Funds with missing data relating to fund size, PIC, TVPI and DPI was removed from the underlying databases as it was not possible to calculate market return figures. For instance, the reported PIC, TVPI and DPI multiples were used to calculate the commitment drawn, realised value and unrealised vale in relation to the reported fund size for the pooled financial return metrics. The individual reported fund TVPI and DPI multiples were used to calculate the median and quartile returns figures.
- The PitchBook and Preqin data was then cleaned to remove 'old' fund data, which might relate to funds strategically reporting returns, for instance taking advantage of initial early returns. For funds with a vintage year between 2002-2011, funds with the latest reporting date less than seven years were excluded. For funds with a vintage year of 2012 onwards, a reporting date of at least 2018 was required.
- The data was then visually checked for errors with a focus on the largest reported TVPI and DPI multiples, but it was not possible or feasible to check the accuracy of information for every fund.
- Funds were assessed to ensure only VC funds were captured. This sometimes involves reclassifying funds from their PitchBook and Preqin fund classification. All PE growth capital and buyout funds were removed from the dataset. In addition, VC funds which entirely invested in geographic areas and developing countries outside of their listed location was also removed from the dataset.
- This gave a total dataset of 2,030 VC funds (Table A2). Financial returns figures may therefore differ to the numbers published by PitchBook and Preqin themselves which include all VC funds in their relevant fund populations.

– To increase coverage of funds, the individual funds from PitchBook, Preqin and British Business Bank were all merged into one single data file. To avoid the same fund appearing more than once, funds were deduplicated using the following sequential preference logic:

  1. British Business Bank supported fund. This information has been verified/ audited.
  2. British Business Bank survey data. This information has been supplied directly by fund managers
  3. Most up to date reporting date. This to ensure the latest information is captured.
  4. Lowest TVPI multiple. This is to ensure most conservative data source is chosen.
  5. Largest fund. This is to ensure subsequent fund-raising closures are captured
  6. Oldest vintage

– This gave a total combined dataset of 1,448 unique VC funds (Table A3).

Table A1

### Number of VC funds 2002 – 2019 by data source (Raw downloaded numbers)

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

| | Bank MI | Bank Survey | PitchBook | Preqin | Total |
|---|---|---|---|---|---|
| UK | 94 | 71 | 115 | 51 | 330 |
| US | - | - | 1359 | 780 | 2,139 |
| ROE | 7 | - | 144 | 137 | 288 |
| **Total** | **101** | **71** | **1,618** | **968** | **2,757** |

Table A2

### Number of VC funds 2002 – 2019 and data source (Cleaned)

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

| | Bank MI | Bank Survey | PitchBook | Preqin | Total |
|---|---|---|---|---|---|
| UK | 75 | 71 | 54 | 45 | 245 |
| US | - | - | 902 | 670 | 1,572 |
| ROE | 2 | - | 85 | 126 | 213 |
| **Total** | **77** | **71** | **1,041** | **841** | **2,030** |

Table A3

### Number of VC funds 2002 – 2019 and data source (Cleaned and de-duplicated)

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

| | Bank MI | Bank Survey | PitchBook | Preqin | Total |
|---|---|---|---|---|---|
| UK | 72 | 37 | 25 | 20 | 154 |
| US | - | - | 745 | 367 | 1,112 |
| ROE | 2 | - | 65 | 111 | 178 |
| **Total** | **74** | **37** | **835** | **498** | **1,448** |

Figure A.1

## Proportion of UK VC funds reporting TVPI data by vintage year (3-year moving average)

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

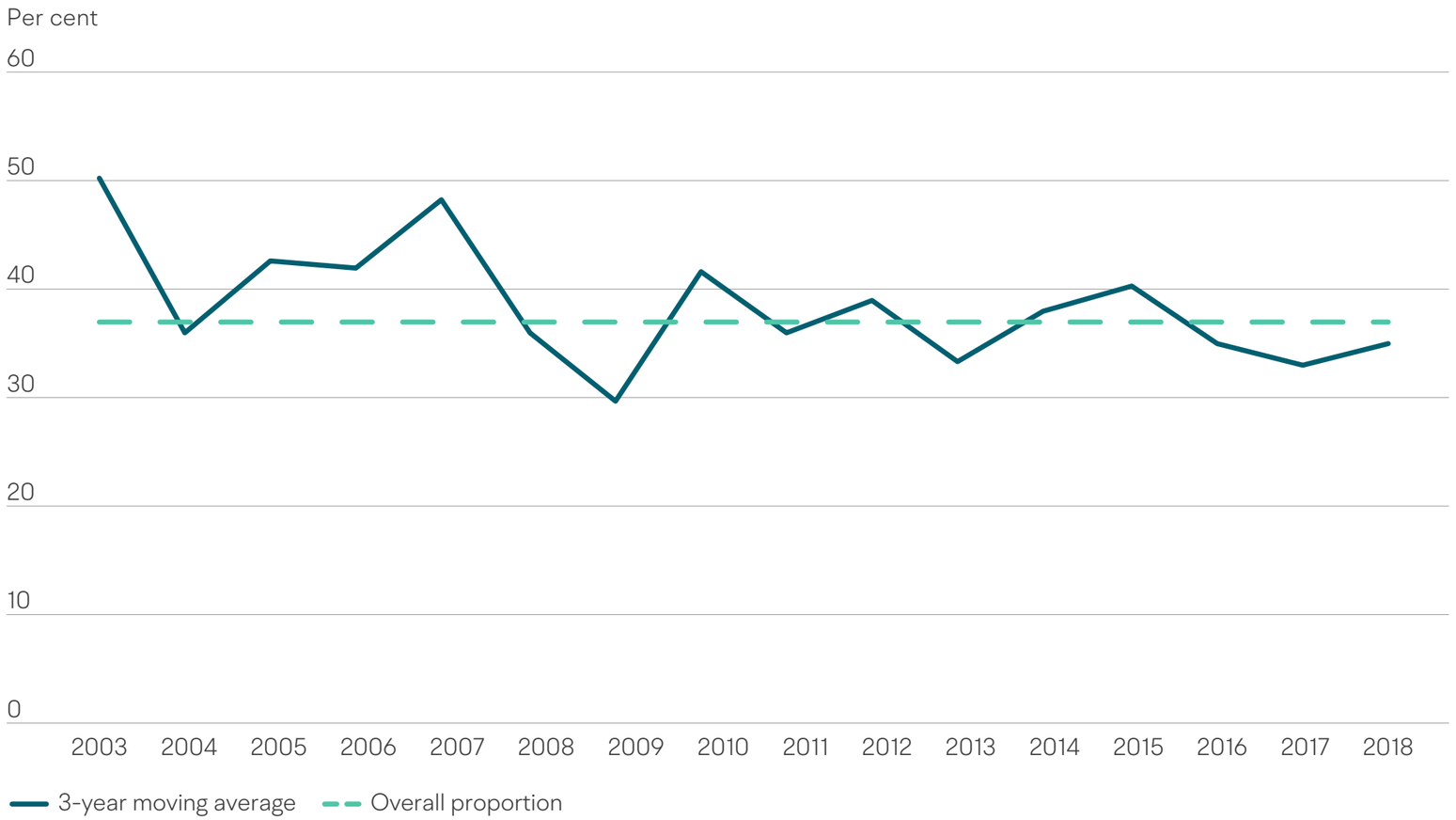



Table A4

## Deep tech sector segmentation, by PitchBook vertical

| | Deep tech |
|---|---|
| Definition | "Companies founded on tangible scientific discoveries or meaningful engineering innovation" |
| PitchBook Verticals | 3D Printing |
| | Advanced manufacturing |
| | AgTech |
| | Artificial Intelligence & Machine learning |
| | Augmented reality |
| | Autonomous cars |
| | Clean tech |
| | Climate tech |
| | Infrastructure |
| | Manufacturing |
| | Nanotechnology |
| | Robotics and drones |
| | Space technology |
| | Wearables and Quantified Self |
| | Excluding any companies in SAAS and fintech verticals |

# Appendix 4: Detailed UK performance by 2-year vintage category

Table A5

## DPI performance multiple by two-year vintage category

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

| Years | Pooled Average | UQ | Median | LQ | Number of funds |
|---|---|---|---|---|---|
| 2002-2003 | 1.16 | 1.27 | 1.02 | 0.58 | 12 |
| 2004-2005 | * | * | * | * | * |
| 2006-2007 | 1.58 | 2.26 | 1.07 | 0.21 | 17 |
| 2008-2009 | 1.28 | 2.19 | 1.27 | 1.17 | 13 |
| 2010-2011 | 1.07 | 1.71 | 0.88 | 0.66 | 11 |
| 2012-2013 | 0.8 | 0.72 | 0.3 | 0.18 | 14 |
| 2014-2015 | 0.5 | 0.58 | 0.2 | 0.08 | 27 |
| 2016-2017 | 0.05 | 0.08 | 0.00 | 0.00 | 23 |
| 2018-2019 | 0.01 | 0.00 | 0.00 | 0.00 | 33 |

* Less than 5 funds

Table A6

## TVPI performance multiple by two-year vintage category

Source: British Business Bank analysis of PitchBook, Preqin, Bank survey data and Bank MI data.

| Years | Pooled Average | UQ | Median | LQ | Number of funds |
|---|---|---|---|---|---|
| 2002-2003 | 1.28 | 1.36 | 1.13 | 0.77 | 12 |
| 2004-2005 | * | * | * | * | * |
| 2006-2007 | 1.88 | 2.6 | 1.42 | 0.7 | 17 |
| 2008-2009 | 2.25 | 3.2 | 1.67 | 1.31 | 13 |
| 2010-2011 | 1.96 | 2.86 | 2.01 | 1.24 | 11 |
| 2012-2013 | 2.02 | 2.31 | 1.7 | 1.42 | 14 |
| 2014-2015 | 2.39 | 2.14 | 1.7 | 1.25 | 27 |
| 2016-2017 | 1.83 | 1.78 | 1.26 | 0.98 | 23 |
| 2018-2019 | 1.34 | 1.5 | 1.01 | 0.88 | 33 |

* Less than 5 funds

# Endnotes

1. British Private Equity and Venture Capital Association, https://www.bvca.co.uk/
2. We are using PitchBook and Preqin's definition of Europe, which includes Russia.
3. Note that the BVCA data is calculated as at 31 December 2020, so the time period is closely comparable but is not exactly the same.
4. PitchBook US VC Valuations Report Q3 2021
5. The coverage of life sciences funds in this report is likely to include funds targeting traditional life sciences sectors such as pharma and bio tech. Increasingly life sciences funds are now applying deep technology, such as AI, so there is likely to be an overlap with deep technology funds. These deep tech funds may be omitted from the current definition of life sciences funds.
6. Since 2018, 22 European biotech and pharmaceutical companies have opted to list on Nasdaq or the New York Stock Exchange, compared with 13 on European exchanges. In 2021, more than three dozen U.S. companies in these two sectors have listed, compared with five U.K. companies. https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/british-biotechs-swerve-london-markets-for-nasdaq-s-investor-pool-ipo-rules-64544098
7. British Business Bank analysis of user defined search of the PitchBook platform (14/10/2021) found that there had been 209 VC deals worth £1.6bn in UK life sciences companies in 2020
8. There were 104 UK based VC fund managers in the sample frame.
9. https://www.british-business-bank.co.uk/research/regions-and-nations-tracker-2021/
10. https://www.bvca.co.uk/Portals/0/Documents/Research/Industry%20Performance/BVCA-Performance-Measurement-Survey-2020.pdf
11. British Business Bank analysis of PitchBook

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# Disclaimer

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