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YEARS

Performance Measurement Survey 2022

A survey of the returns generated by independent UK-managed private equity and venture capital funds that raise capital from third-party investors

July 2023

About this report

This report has been produced by the British Private Equity and Venture Capital Association (BVCA) to demonstrate the returns generated for investors by our members to 31 December 2022. The statistics in this report are the results of the BVCA's Performance Measurement Survey, an annual survey of fund level cash flows and valuations collected from our members.

With a significant presence in the UK, developed over the past 40 years, private equity and venture capital funds provide companies with the finance and know-how to deliver sustainable business growth.

Active ownership, over the medium to long term, delivers economic and social value to those involved in the businesses (from employees, management and owners on the one hand, to customers and suppliers on the other) and a wide group of stakeholders (from local communities and local and regional economies, to national policy makers focused on issues such as climate change, diversity, equity and inclusion and social issues).

Both private equity and venture capital firms are focused on delivering sustainable growth for the companies in which they invest: venture capital funds typically support early stage and younger companies, holding minority stakes in the businesses, while private equity funds typically acquire controlling stakes in more established businesses.

The Performance Measurement Survey looks at funds which invest in businesses at all stages of the growth lifecycle – from venture capital funds specialising in start-ups to large buyout funds investing in global corporations. We at the BVCA, firmly believe that private equity and venture capital funds are an exciting and attractive investment opportunity for pension schemes and other investors and the results of this survey show us why.

In 2022 we received responses from 105 members out of a total eligible pool of 136 members, a response rate of 77%. For comparison, in 2021, 114 members out of a total of 164 who were eligible responded to the survey.

A summary version of this document can be found in the [Performance Measurement Survey Highlights brochure](#).

For those who wish to explore the data further, we have made the data tables in this report available for download on the BVCA website [here](#), in excel format. We hope this will prove a valuable resource for industry participants, researchers and others wishing to find out more about the performance of private equity and venture capital funds.

Further analysis comparing private equity and venture capital fund performance to public markets can be found in our Performance and Public Market Equivalent analysis report. The 2021 edition of this report can be [found here](#), and the 2022 report will be available in September.

“

Robust, accurate and transparent data is of the utmost importance and underpins our ability to articulate our economic contribution to society. Gathered from over 100 BVCA members, this represents the largest primary research survey of its kind in the UK. I want to thank all firms who provided us with data and enabled us to demonstrate the continued strong returns generated for investors in 2022.



Michael Moore
Chief Executive, BVCA



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UK private capital at a glance

Industry return since 1980

14.7% p.a.

Overall industry since inception internal rate of return since 1980.

Industry return since 2013

19.7% p.a.

Overall industry since inception internal rate of return since 2013.

10 year horizon return

17.0% p.a.

vs 6.5% p.a. achieved by the FTSE All Share index.

Realised returns

1.34x

Across the industry as a whole since 1980, investors have received back distributions equal to 1.34x their original invested capital. This excludes the additional value in their, as yet, unrealised portfolios.

Total return since 2013

1.84x

Across the industry as a whole since 2013, investors own assets which, if realised at their 31 December 2022 values, would mean investors receive 1.84x their original investment.

Total returns

1.81x

Across the industry as a whole since 1980, investors own assets which, if realised at their 31 December 2022 values, would mean investors receive 1.81x their original investment.

Capital raised in 2022

£25.3bn

of capital raised in 2022 by members responding to this survey.

Wide range of returns

0.57x-2.63x

Illustrative Industry-wide range of total return multiples to 31 December 2022 (10th-90th percentile funds from 1980 onwards).



Foreword

After a record-breaking deal activity in 2021, private equity experienced a notable slowdown, particularly in the second half of 2022, as deal makers navigated shifting macroeconomic sentiment, challenging debt markets and geopolitical uncertainty.

Despite these challenges, UK fund managers continued to actively deploy capital, albeit at a slower pace than in 2021, focusing on add-on acquisitions, sector-specific strategies and value creation initiatives as shown in our recent report '[Private capital: rising to the challenges of turbulent times](#)'.

Although slightly down relative to the prior year, the aggregate since inception industry return remains robust at 14.7% per annum. This return was supported by steady levels of distributions in the first half of the year and valuations which held up relatively well in aggregate when compared to valuations in public markets.

The aggregate since inception return for all suitably mature funds launched in the past decade (with vintages between 2013 and 2018) is 19.7%. The total value to paid-in multiple shows that these funds almost doubled their invested capital, had all unrealised assets been realised as at 31 December 2022. This is net of all costs and fees.

However, these returns are not guaranteed. Our range of returns analysis shows that, whilst the industry's performance as a whole is very strong, returns vary between individual private equity and venture capital funds. Some funds ultimately may not generate a positive return (in which case the firm will not receive carried interest if returns are below the hurdle agreed with investors) whilst others greatly outperform the pooled industry returns presented in this report.

Private equity and venture capital is a long-term asset class. Whilst shorter term returns are volatile, the longer-term performance, particularly relative to public markets, is expected to remain strong. To illustrate

this, the ten year horizon return for funds managed by BVCA's members to 31 December 2022 stands at 17% compared to an equivalent annualised return for the FTSE All Share Total Return Index which reached 6.5%.

Looking ahead, private equity and venture capital funds will continue to navigate a more complex and uncertain environment in 2023. Changing market conditions also bring fresh opportunities to capitalise on market dislocation during an economic downturn while fuelling transformation and innovation across sectors. However, by taking a long-term view, private capital managers are able to hold assets for longer if they need to, and create value for investors.

We would like to thank all BVCA members who contributed data and give special thanks to the members of the Performance Measurement Survey Review Board, who provide technical advice to the BVCA and help ensure the robustness of the processes undertaken to produce this report.



Garry Wilson
Managing Partner, Endless,
& BVCA Chair 2023/2024



Albertha Charles
UK Asset & Wealth Management Leader,
PwC



Report from the Performance Measurement Survey Review Board

About the board

Established in 2019, the Performance Measurement Survey Review Board is an advisory group comprised of experienced individuals working across all parts of the private equity and venture capital industry – from fund managers to investors to academics.

Board membership changes

We are pleased to announce that in 2023 Fraser McLatchie became Chair of the Board. Fraser is Director at Scottish Equity Partners, where he is responsible for deal structuring, valuations and the financial analysis of new investments.

Fraser succeeded Mark Drugan who had chaired the Board from its creation in 2019. Mark continues to provide valuable technical advice to the BVCA regarding the survey as a member of the Board.

Robustness of results

77% of firms who were members of the BVCA in March 2023, and who managed funds which met the criteria, responded to this year's survey, that is 136 in total. This is a strong response rate and in line with previous years.

The survey is based on cash flows and valuations provided by each participating fund; neither the BVCA nor PwC is able to independently check the data provided. However, the BVCA research team has sought to verify the accuracy of data submissions via seeking sign-off of fund level returns to investors from a senior individual at each member firm. 100% of firms who provided data subsequently signed-off their numbers.

The response rate, sign-off rate, the calculation verification procedures undertaken by PwC and the additional improvements give the Board confidence that the survey findings are robust. As the non-respondents among BVCA members generally tend to be smaller firms with fewer assets under management, we believe that the pooled returns calculated in this study are representative of the BVCA membership.

Current board members



Fraser McLatchie
SEP



Mark Drugan
Formerly of Capital Dynamics



Candy Ip
Advent International



Graeme Keenan
Pantheon



Jeremy Lytle
ECI



Professor David Robinson
Duke University



Report from the Performance Measurement Survey Review Board

Commentary on findings

While a lower level of deal activity in 2022 led to a decrease in capital drawdowns compared to the year before (£31.7bn vs £42.4bn), the amount of distributed capital (£38.8bn) remained on par with that of 2021 (£38.3bn).

On aggregate, valuations remained relatively resilient throughout 2022 as private markets saw a smaller drop in valuations compared to public markets. Valuations for non-technology funds increased slightly relative to 2021 levels, while technology focused funds saw their assets depreciate during 2022.

Given the ongoing macroeconomic challenges in 2023, caution must be taken when interpreting interim results as funds with significant unrealised assets may face a challenge in realising assets at a 2022 valuation price point.

We are pleased to be able to contribute to the available research into the returns from private equity and venture capital to investors, and we hope the BVCA Performance Measurement Survey will continue to be an important resource for investors, industry participants and those who study or wish to learn more about the returns generated by the asset class.



Fraser McLatchie
Chair, Performance Measurement
Survey Review Board



Guide to this report

This report is structured as follows:

- **Section 1** explains, in simple language, how private equity and venture capital funds work and the different ways of measuring returns. It also introduces key concepts needed to understand this report for the reader unfamiliar with interpreting private equity and venture capital performance.
- **Section 2** presents information on our dataset – both the number of funds and the amount of capital raised – cut by investment stage and year of fund raising.

- **Sections 3 to 6** look at various measures of returns across different time periods. We present IRRs and multiples concurrently within each time period.
- **Section 7** summarises the key takeaways from the report.

Finally, the **appendices** cover methodology, definitions, worked examples and the list of responding firms.

We also present a separate [Data Tables Addendum](#) with the results of our calculations in total and by investment stage and subcategory or type of investment for each of the measures used in this report. This includes analysis by vintage year band to enable a more precise comparison to the funds in our dataset.

Who is this report written for?

This report is primarily written for individuals who have a finance background and are at least somewhat familiar with private equity and venture capital, although we have endeavoured to explain the key concepts as clearly as possible.

If you have any questions or comments on this report, including technical queries, please feel free to reach out to the BVCA research team.

[Get in touch >](#)



Private equity and venture capital explained

How does a private equity or venture capital fund work?

What is a private equity and venture capital fund?

Independent private equity and venture capital firms typically raise money from institutional investors such as pension funds, insurance companies and family offices. This money is committed to a fund and is drawn down over several years as investments get made. The fund (often structured as a limited partnership) is managed by a private equity or venture capital firm, known in industry parlance as a 'General Partner' or 'GP'.

The capital is used to invest in companies that, typically, are not listed on a stock exchange, either for a minority or majority equity stake. The firm will generally also invest their own money into the funds they manage to ensure their interests are aligned with that of their investors.

Private equity and venture capital funds usually have an initial life-span of 10 or more years and it is intended by the end of this period that they will have returned to investors' share of the original money, plus any additional returns made. This generally requires

the investments to be exited for cash or listed shares, before the end of the fund's life.

The investors in the funds first receive any distributions generated by a fund and it is only when these returns pass a certain point, known as the 'hurdle rate' (typically around 8%), that the private equity or venture capital firm receives any pay-out, known as carried interest. For further explanation on how carried interest is calculated, please refer to Appendix 3.

The fund lifecycle

A first step in understanding and interpreting private equity and venture capital returns is to understand the cyclical nature of these funds and how the cashflow profile develops over the life span of the fund.

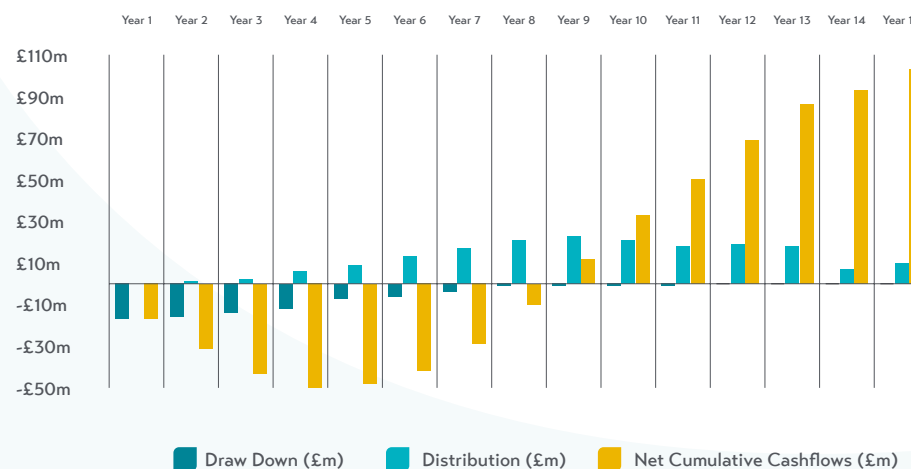
Investments into portfolio companies tend to take place in the beginning of a fund's life. In the case of the BVCA members that have historically participated in the survey, the majority of raised capital (78%) is drawn down and invested during the first four years of activity.

Distributions, on the other hand, tend to start being more significant after about five years, with the majority of money (70%) being paid back to investors during years five to ten of a fund's life span.

Chart 1 shows an illustration of the draw downs, distributions and net cumulative cashflow in each year of a fund's life.

A private equity and venture capital firm will frequently have more than one fund active at the same time, at different stages of the lifecycle. For some of the analysis in this report we group funds by vintage year, i.e. by the year in which they first draw down capital. Funds within each vintage year are likely to be at a broadly similar stage in the fund lifecycle.

Chart 1 – Illustrative cash flow (£m) by life stage of the fund



Private equity and venture capital explained

Measuring private equity and venture capital performance

There are two principal ways investors measure performance of private equity and venture capital funds:

1. By looking at the annualised percentage return on investment, known as the Internal Rate of Return ('IRR'). This accounts for the size and timing of cashflows and valuations.
2. By looking at the proportion of the initial invested capital which is returned, known as the Multiple of Invested Capital ('MOIC'). This measure only considers the size of the return and does not account for the time value of money.

For private equity funds which are still investing and have not yet distributed all of their assets, there are two types of multiple which are frequently considered:

1. The ratio of Distributed Capital to Paid-In Capital ('DPI'). The DPI multiple represents the total amount distributed to investors as a percentage of total capital drawn down from investors for a given period.

2. The ratio of Total Value to Paid-In Capital ('TVPI'). The TVPI multiple represents the total amount distributed plus the residual value attributable to investors as a percentage of total capital drawn down from investors for a given period.

Individual investors and fund managers will find that different combinations of these metrics work best for them in assessing their private equity and venture capital portfolios. When these institutions invest in a fund, they will have information rights, including detailed reporting requirements on performance and fees.

Illustrative example: IRR, DPI and TVPI

In our example we have a private equity fund which was launched in year 1 and is currently in year 5 of its life, with cash flows as shown in the table below:

Year	Amount (£m)	Description
1	-10	Drawdown
2	0	
3	0	
4	15	Distribution
5	5	Valuation

As at the end of year 5, the key performance metrics in this example fund are:

- IRR: 24% (Annualised return calculated using the IRR function in excel – Please note that the BVCA uses the XIRR function to calculate returns presented in this report)
- DPI: $15/10 = 150\%$ or 1.5x the initial investment
- TVPI: $(15+5)/10 = 200\%$ or 2x the initial investment.

Private equity and venture capital explained

Different ways of looking at IRRs

The life cycle of a fund is important because it affects the different ways in which IRRs can be looked at. Firstly, to be able to calculate the actual return of a fund, the fund has to be terminated and to have liquidated all its assets, with proceeds returned to investors – any interim measures will necessarily require an estimation of the residual value of the fund's investments.

Since inception IRR

Since inception IRR is the most meaningful way in which to measure private equity and venture capital funds' performance, as it refers to the IRR of a fund since its first draw down. This therefore most closely reflects the return an investor would achieve if they invested at the start of a fund.

As illustrated in chart 1, funds are mostly investing and only returning small amounts of capital to investors during the first four years of their life so any calculated IRR would not be meaningful and would not provide an accurate indication of what that fund performance could be at liquidation.

To avoid this issue, we only include funds that are at least four years old in our since inception return measures. For this report, since inception returns comprise of funds that started investing between 1980 and 2018.

Since inception IRR by vintage year

The BVCA classifies the vintage year of a fund as the first year in which the fund made a draw down. Since inception returns by vintage year are useful when analysing the returns delivered to date of funds at different stages of a fund's life cycle. For example, the vintage 2013 in this report will contain all funds that started investing in 2013, and therefore are currently 10 years old, having most likely invested the majority of their capital and distributed a significant proportion back to investors. Since inception returns by vintage year are also useful for analysing the impact that economic cycles can have on fund performance.

Since inception starting from a specific year

A new measure presented in the report for the first time last year is since inception starting from a specific year. This measure is a pooled since inception return for all funds starting at a certain vintage, and excluding the four most recent vintages. For instance, since inception starting from 2013 includes cashflows from all funds of vintages between 2013 and 2018, therefore funds that are between five and ten years old. This means that the funds included in the since inception starting from 2013 category, will probably have invested the majority of their capital and distributed a large proportion of it as well.

This measure is very important because it allows us to show since inception returns for the industry, and at the same time, remove any historical bias that may exist due to past performance. As an example, the since inception IRR starting from 2000 removes from our calculations funds which were active during the 1980s and 1990s when the market was very different from today.

Horizon IRRs

Horizon IRRs look backwards at specific time horizons. For instance, the ten year horizon IRR in this report looks at the performance of the industry for the past ten years (between January 2013 until December 2022) – this measure will include cashflows from all funds that were active at some point during the last ten years, regardless of lifecycle stage. The one year horizon figures are more volatile and inappropriate as a realistic measure of performance, since it is generally not possible to invest in a private equity or venture capital fund for just one year. It may, however, be used as an indicator of how well the UK industry performed during that year.



Private equity and venture capital explained

Investment stages and subcategories

Given the depth and breadth of the Performance Measurement Survey dataset, we are able to calculate the returns for several different subsets of the data. We look at this in two ways: firstly, by Investment stage, and secondly by subcategory.

Investment stage refers to the size and stage of development of the companies which the fund is looking to invest in.

The current investment stage classifications which BVCA uses are:

- Venture
- Small private equity (Invests less than £10 million of equity in each transaction. This category also includes development capital for expansion stage companies, that is, established companies that raise private equity to make acquisitions, fund working capital, buy new plant machinery and the like)
- Mid-market private equity (Invests between £10 million to £100 million of equity in each transaction)

- Large private equity (Invests more than £100 million of equity in each transaction)

These investment stages have applied since 1996 ('1996 vintage funds onwards')

Between 1980 and 1995 ('pre-1996 vintage funds') the investment stage classifications which applied were:

- Early stage
- Development
- Mid private equity
- Large private equity
- Generalist

The investment stage reclassification from 1996 onwards was driven by changes in the market at that time, with a growth in the size of funds being raised and a step up in terms of volume of activity in the venture space.

Subcategory refers to the fund investment focus, whether by geography or sector.

The subcategories presented have remained consistent throughout the life of the Performance Measurement Survey. These are:

- UK (Invests over 60% of raised capital into UK companies)
- Non-UK
- Pan-European (Invests over 60% of raised capital into companies in two or more European countries which may include the UK)
- Technology (Invests over 60% of raised capital into technology companies)
- Non-Technology

Full definitions of each of the investment stages and subcategories are given in [Appendix 2](#).

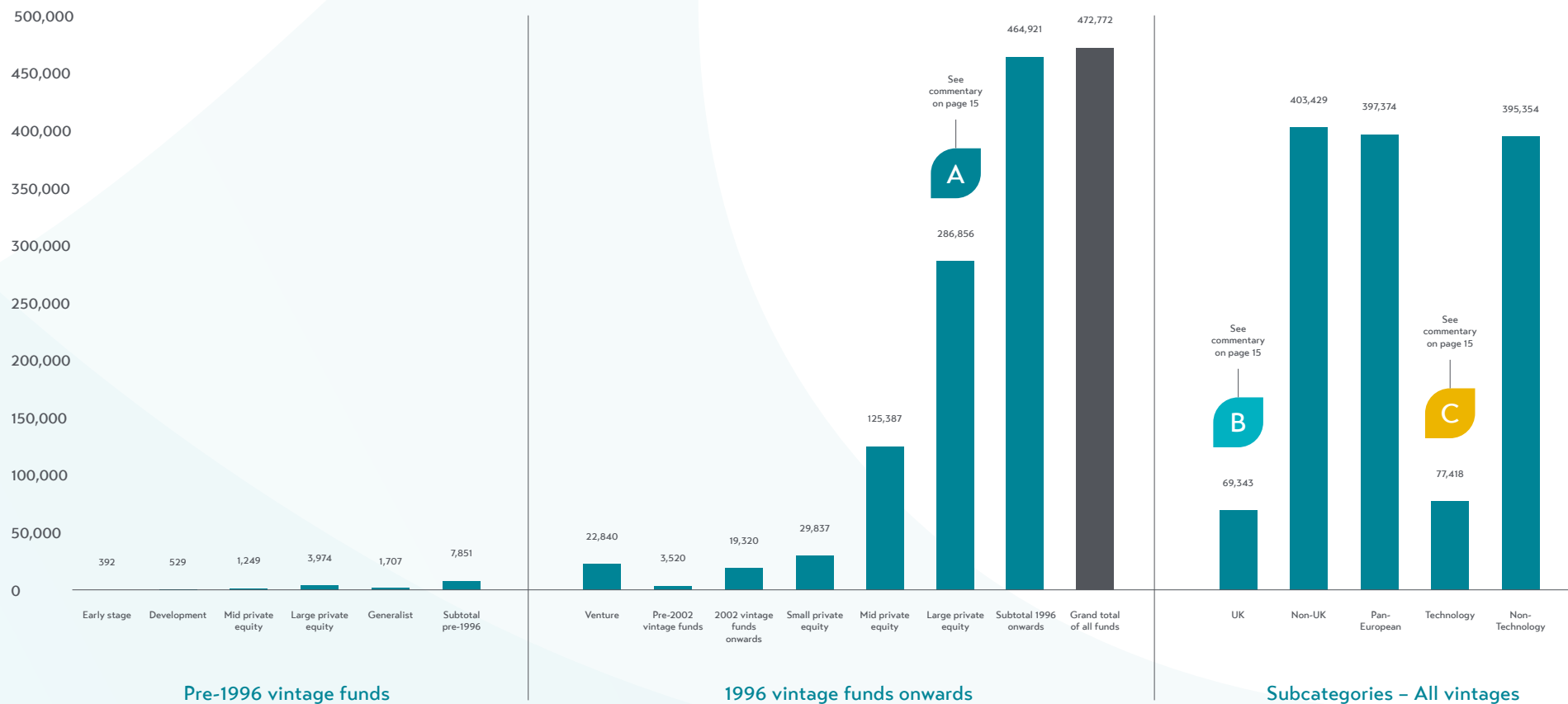
The advantage in providing a more granular analysis of returns is that investors can see more clearly the returns associated with the types of investments they may wish to make and they can more accurately compare the performance of their existing investments to the funds in our dataset.



Capital raised

by investment stage and subcategory // data

Chart 2 – Capital raised by investment stage and subcategory (£m)



Capital raised

by vintage year // data

Chart 3 – Capital raised by fund vintage year (£m)

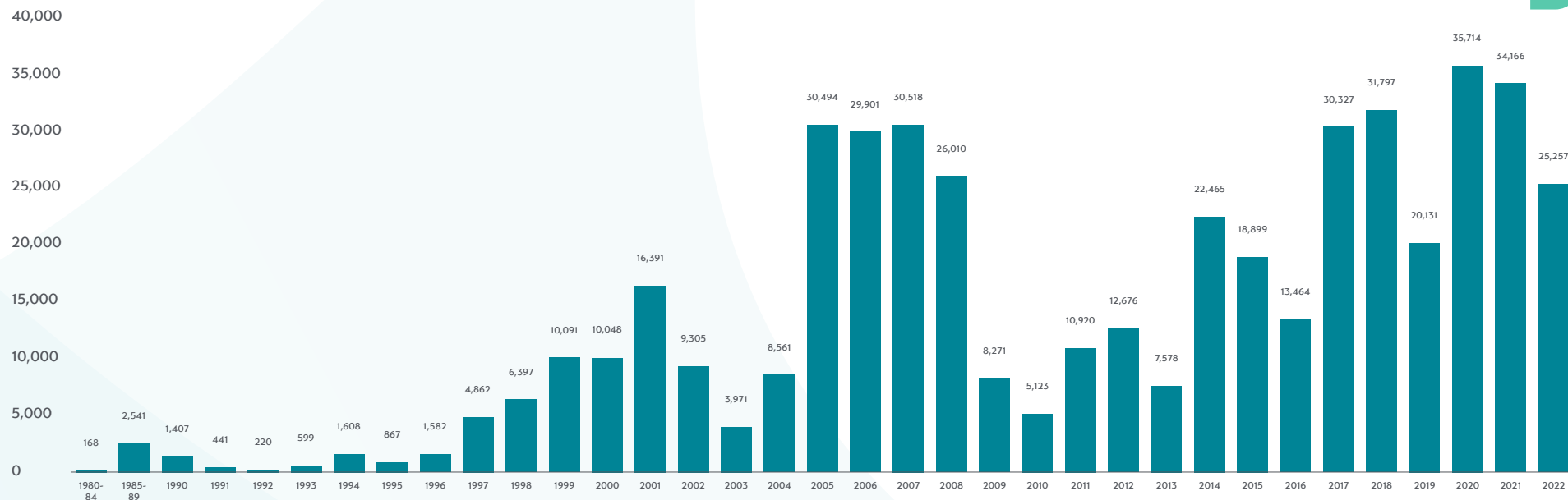


Table 1 – Number of funds by vintage year

Vintage year	1980-84	1985-89	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
No. of funds	13	67	14	14	7	9	20	9	13	24	16	25	26	29	21	17	14	26	42	39	29	23	22	19	23	27	37	43	37	41	44	43	44	41	41	959



Capital raised

Commentary

Chart 2 – Capital raised by investment stage and subcategory

A

Not surprisingly, large private equity funds have raised, to December 2022, substantially more capital as compared to other investment stages, accounting for 61.5% of the total capital raised for funds with vintages 1996 onwards.

B

UK focused funds, although representing 60% of the number of funds in our sample, raised only 15% of the total capital, amassing nearly £70bn by December 2022. In terms of capital raised over 60% (£42bn) of UK funds are Mid-Private Equity, highlighting the strength of the mid-market in the UK.

In contrast, 70% of the capital raised for Non-UK focused funds (£284bn) falls under Large Private Equity as the larger funds are more likely to have the resources to target/support a wider geographic focus.

C

Technology focused funds have raised £77bn to December 2022, representing 16% of the total capital raised. This is not surprising given that majority (65%) of all funds included in this category are venture capital funds, which raise less capital than private equity funds.

This is not to say that private equity funds do not invest in technology businesses, just that they are less likely to have dedicated technology funds (our definition of a technology fund is one which has the intention to invest 60% or more of the capital in technology businesses).

In addition, 87% of the total capital raised to December 2022 by technology focused funds went to Non-UK funds.

Chart 3 – Capital raised by vintage year

When looking at capital raised by vintage year, it is important to keep in mind, that the total amount of capital raised in a given year also depends on

the number of new funds that had a first drawdown in a given year.

We classify funds into vintage years based on the date of their first drawdown rather than the date the capital was committed.

D

2022 fundraising, although below the levels recorded in both 2020 and 2021, was above the ten year average. £25.3bn was raised across 41 funds, with the number of new funds created unchanged on the previous year. This continues the trend since 2017 with over 40 new funds created each year, signifying the ongoing strong investor confidence in the asset class.

Large private equity funds accounted for 70% of the total capital raised by our members in 2022.

Notes

Please note that the capital raised figures reported in this report are not comparable with the capital raised figures in the BVCA Investment Activity Report for the same period as the surveys use different eligibility criteria.

The two main differences are 1) this report examines only the UK-based unlisted funds managed by the BVCA members that raise capital from the third-party investors, whereas the Investment Activity Report covers not only these funds but also VCTs and listed private equity vehicles and also funds that were raised by non-members 2) this report only includes the funds, which have made their first capital call from their investors. Furthermore, it is the total amount raised by these funds that is reported, not just the amount raised in a particular year. The Investment Activity Report, on the other hand, considers only the amount raised in the relevant year irrespective of the timing of the first capital call.

Since inception performance

by investment stage and subcategory IRR and multiples // data and commentary

Chart 4 – Since inception IRR (%) by investment stage and subcategory



Since inception performance

by investment stage and subcategory IRR and multiples // data and commentary

Table 2 – DPI and TVPI multiples

	No. of funds	Distributions multiple (DPI)	Total value multiple (TVPI)
Pre-1996 vintage funds			
Early stage	24	1.70x	1.70x
Development	35	1.72x	1.72x
Mid Private Equity	33	1.76x	1.76x
Large Private Equity	26	1.92x	1.92x
Generalist	35	2.43x	2.43x
Subtotal pre-1996	153	1.97x	1.97x
1996 vintage funds onwards			
Venture	186	0.86x	1.73x
Pre-2002 vintage funds	42	0.93x	0.94x
2002 vintage funds onwards	144	0.84x	1.97x
Small Private Equity	134	1.17x	1.86x
Mid Private Equity	243	1.09x	1.66x
Large Private Equity	74	1.47x	1.87x
Subtotal 1996 onwards	637	1.32x	1.81x
Grand total all funds	790	1.34x	1.81x
Subcategories (all vintages)			
UK	505	1.30x	1.71x
Non-UK	285	1.35x	1.83x
Pan-European	275	1.38x	1.82x
Technology	216	1.26x	2.03x
Non-Technology	574	1.35x	1.77x

As of December 2022, funds with vintages between 1980 and 2018 have delivered a since inception IRR of 14.7%. This strong return is supported by a DPI of 1.34x and by a TVPI of 1.81x. The since inception return for vintages post 1996 (therefore between 1996 and 2018) is also robust, delivering an IRR of 14.4%, DPI of 1.32x and TVPI of 1.81x.

B

Investment Stages

With the exception of venture funds, all investment categories have delivered a DPI of 100% or higher by December 2022, meaning investors as a whole have at least broken even. Large private equity continues to display the highest return numbers of all investment stages, both in terms of IRRs and DPI multiples.

A

Historical Analysis

Funds which started before 1996 have identical DPI and TVPI indicating that all the funds from these vintages have been fully liquidated by December 2022. The 15.6% IRR presented on the bar graph is the actual return received by investors in those vintages. A DPI of 1.97x indicates that investors almost doubled their initial investment.

Venture performance was significantly impacted by the dot.com bubble in the early 2000s, with funds which started investing before 2002 producing particularly weak returns. The industry has since grown strongly, so we split the venture figures by initial investment year so that the post-2002 performance can be more clearly seen. We note that the TVPI and DPI are very different for venture funds, indicating a significant proportion of value remains unrealised. We discuss venture further in Section 5.



Since inception performance

by investment stage and subcategory IRR and multiples // data and commentary

Table 2 – DPI and TVPI multiples

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Overall results – 1996 onwards

A DPI of 1.32x indicates that by December 2022, funds starting from 1996 onwards have in aggregate returned back to investors 1.32x the initial capital committed for investment and fees.

The discrepancy between TVPI and DPI indicates that there is still a considerable amount of unrealised investment to be liquidated and realised. Taking into account the residual value, the TVPI yielded by BVCA members is 1.81x of the capital committed by investors as of December 2022.



Subcategories

All of the subcategories included in our survey have delivered DPI of over 1.26x since inception to December 2022. Pan-European funds (funds that invest in two or more European countries) are the star performers, reporting the highest DPI multiple of 1.38x and the highest IRR since inception of 15.9% to December 2022.

Technology focused funds (funds that invest at least 60% of committed capital into technology companies) are reporting the highest TVPI multiple of 2.03x, although this subcategory also has the widest gap between the distributions multiple and the total value multiple, implying significant unrealised value in these funds' portfolios.

Relative to December 2021, the TVPI multiple for technology focused funds saw the largest decline across all of the subcategories, mirroring the broader trend in public markets.



Since inception performance

by investment stage and subcategory // commentary on range of returns results

Figures presented in chart 2 and table 2 on the previous pages represent the pooled return across the data set by investment stage and subcategory. Investing in private equity and venture capital funds does involve putting capital at risk, and it is important that this is understood and recognised by investors and policy makers alike.

We illustrate this point on charts 5, 6 and 7 on the following pages, which present the range of returns achieved by funds by investment stage (venture, small, mid- and large private equity) looking at IRR, DPI and TVPI, and can be used to benchmark performance of funds in each specific year.

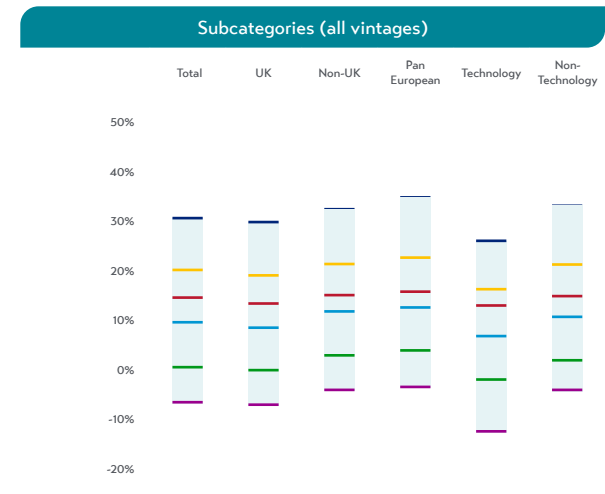
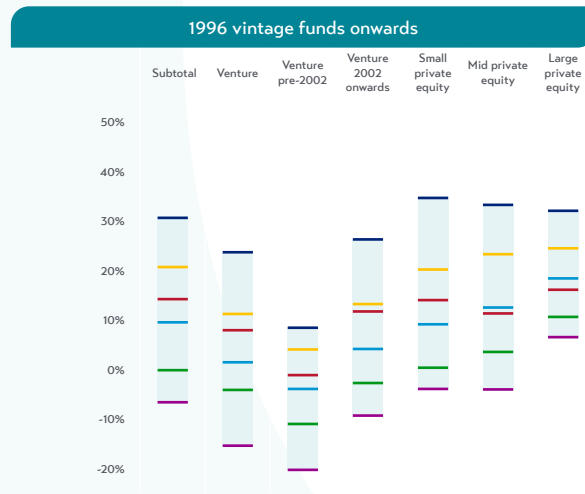
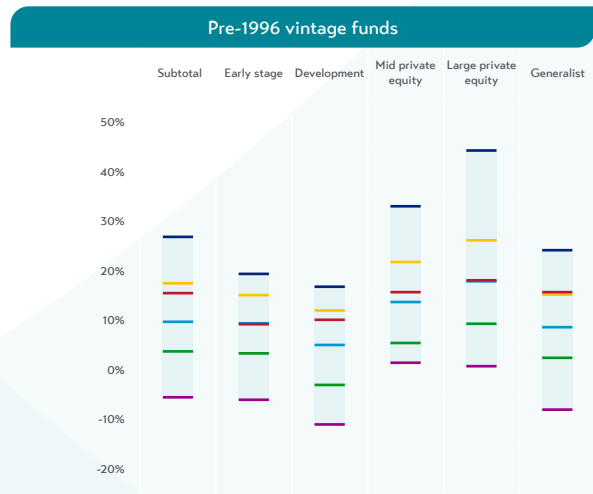
Key observations from these charts are:

- The returns achieved by different funds vary significantly so diversification is essential to manage this risk. Just as most investors in public equities own a portfolio of stocks rather than shares in just one company, institutional investors will typically invest in multiple private equity and venture capital funds with a view to maximising the risk-adjusted returns on the overall private equity and venture capital investment portfolio.
- Just like investments in the stock market can go down as well as up, not all investments in private equity and venture capital funds earn a return. We find that when we cut the data, whether this is by stage of investment or by category / type of fund, the lowest performing funds across categories have failed to generate a positive return for investors.
- However, the returns from investing in private equity and venture capital can be impressive. Focusing on post-1996 vintage funds, we can see that, aside from the pre-2002 venture funds, the top performing funds (10th percentile) at all stages have returned minimum 1.84x the initial capital to investors with an IRR of more than 26%.



Range of returns IRR by investment stage and subcategories

Charts 5, 6 and 7 – Range of returns – Since inception IRR (%) by investment stage and subcategory



Tables 3, 4 and 5 – Range of returns – Since inception IRR (%) by investment stage and subcategory

No. of funds	153	24	35	33	26	35
Pooled return	15.6	9.3	10.2	15.8	18.2	15.8
10th percentile	27.0	19.5	16.9	33.2	44.5	24.3
25th percentile	17.6	15.2	12.1	21.9	26.3	15.3
Median	9.8	9.5	5.1	13.8	18.0	8.7
75th percentile	3.8	3.4	-3.0	5.5	9.4	2.5
90th percentile	-5.5	-6.0	-11.0	1.5	0.8	-8.0
Interdecile range	32.4	25.5	28.0	31.7	43.7	32.2
Range of returns	111.6	52.9	63.0	47.6	68.1	111.6

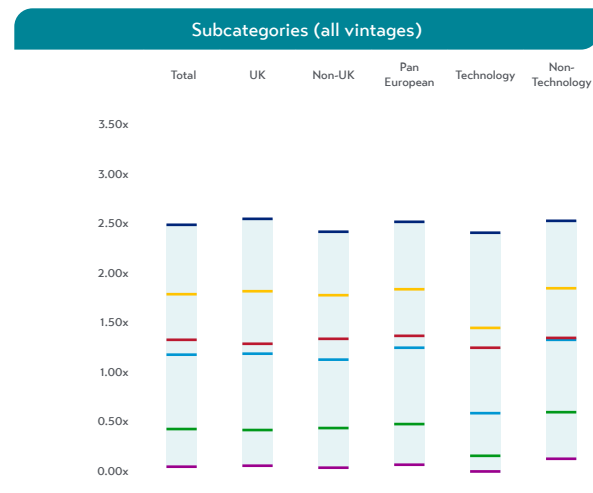
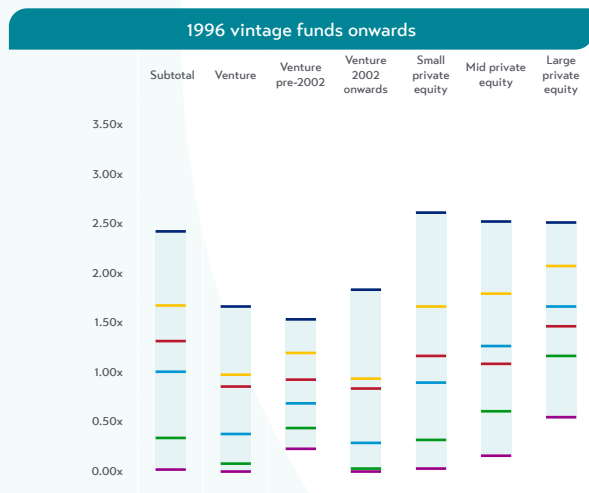
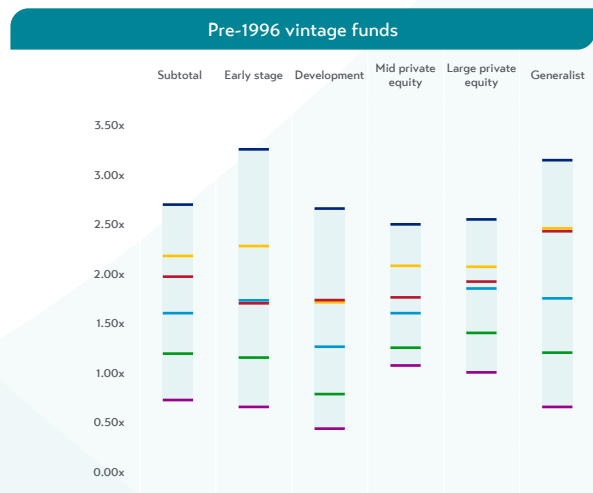
No. of funds	637	186	42	144	134	243	74
Pooled return	14.4	8.1	-1.0	11.9	14.2	11.5	16.3
10th percentile	31.0	23.9	8.6	26.5	34.9	33.5	32.3
25th percentile	20.9	11.4	4.2	13.4	20.4	23.5	24.7
Median	9.7	1.6	-3.8	4.3	9.3	12.7	18.6
75th percentile	0.0	-4.0	-10.9	-2.6	0.5	3.7	10.8
90th percentile	-6.5	-15.3	-20.2	-9.2	-3.8	-3.9	6.7
Interdecile range	37.5	39.2	28.8	35.7	38.7	37.4	25.6
Range of returns	256.3	202.2	98.7	194.4	162.0	256.3	90.1

No. of funds	790	505	285	275	216	574
Pooled return	14.7	13.5	15.2	15.9	13.1	15.0
10th percentile	30.8	30.0	32.6	35.0	26.2	33.3
25th percentile	20.3	19.2	21.5	22.8	16.4	21.4
Median	9.7	8.6	11.9	12.7	6.9	10.8
75th percentile	0.6	0.0	3.0	4.0	-1.9	2.0
90th percentile	-6.5	-7.0	-4.0	-3.4	-12.4	-4.0
Interdecile range	37.3	37.0	36.6	38.3	38.5	37.3
Range of returns	256.3	256.3	161.9	161.9	126.7	256.3



Range of returns DPI by investment stage and subcategories

Charts 8, 9 and 10 – Range of returns – DPI multiple by investment stage and subcategory



Tables 6, 7 and 8 – Range of returns – DPI multiple by investment stage and subcategory

No. of funds	153	24	35	33	26	35
Pooled return	1.97x	1.70x	1.72x	1.76x	1.92x	2.43x
10th percentile	2.70x	3.26x	2.66x	2.50x	2.55x	3.15x
25th percentile	2.18x	2.28x	1.71x	2.08x	2.07x	2.46x
Median	1.60x	1.73x	1.26x	1.60x	1.85x	1.75x
75th percentile	1.19x	1.15x	0.78x	1.25x	1.40x	1.20x
90th percentile	0.72x	0.65x	0.43x	1.07x	1.00x	0.65x
Interdecile range	1.98x	2.61x	2.23x	1.43x	1.55x	2.50x
Range of returns	5.32x	5.05x	4.92x	2.65x	3.99x	5.22x

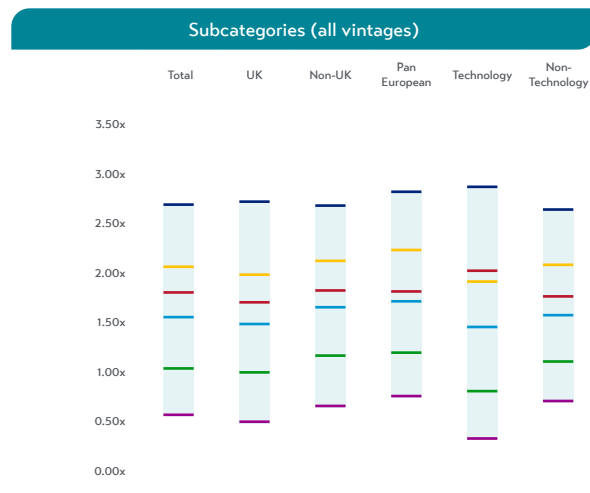
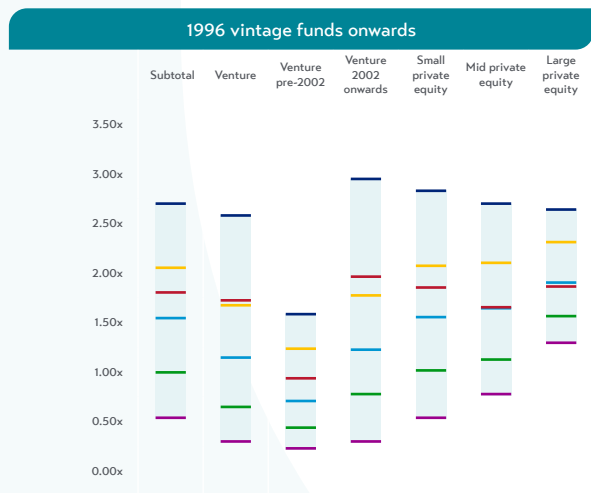
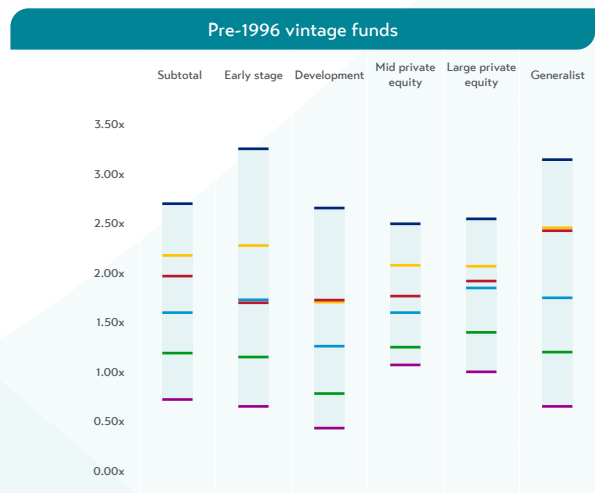
No. of funds	637	186	42	144	134	243	74
Pooled return	1.32x	0.86x	0.93x	0.84x	1.17x	1.09x	1.47x
10th percentile	2.43x	1.67x	1.54x	1.84x	2.62x	2.53x	2.52x
25th percentile	1.68x	0.98x	1.20x	0.94x	1.67x	1.80x	2.08x
Median	1.01x	0.38x	0.69x	0.29x	0.90x	1.27x	1.67x
75th percentile	0.34x	0.08x	0.44x	0.03x	0.32x	0.61x	1.17x
90th percentile	0.02x	0.00x	0.23x	0.00x	0.03x	0.16x	0.55x
Interdecile range	2.41x	1.67x	1.31x	1.84x	2.58x	2.37x	1.97x
Range of returns	7.27x	4.26x	1.95x	4.26x	7.23x	5.60x	2.92x

No. of funds	790	505	285	275	216	574
Pooled return	1.34x	1.30x	1.35x	1.38x	1.26x	1.35x
10th percentile	2.50x	2.56x	2.43x	2.53x	2.42x	2.54x
25th percentile	1.80x	1.83x	1.79x	1.85x	1.46x	1.86x
Median	1.19x	1.20x	1.14x	1.26x	0.60x	1.34x
75th percentile	0.44x	0.43x	0.45x	0.49x	0.17x	0.61x
90th percentile	0.06x	0.07x	0.05x	0.08x	0.00x	0.14x
Interdecile range	2.43x	2.49x	2.39x	2.45x	2.42x	2.40x
Range of returns	7.27x	5.53x	7.27x	7.27x	5.15x	7.23x



Range of returns TVPI by investment stage and subcategories

Charts 11, 12 and 13 – Range of returns – TVPI (%) multiple by investment stage and subcategory



Tables 9, 10 and 11– Range of returns – TVPI multiple by investment stage and subcategory

No. of funds	153	24	35	33	26	35
Pooled return	1.97x	1.70x	1.72x	1.76x	1.92x	2.43x
10th percentile	2.71x	3.26x	2.66x	2.50x	2.55x	3.15x
25th percentile	2.18x	2.28x	1.71x	2.08x	2.07x	2.46x
Median	1.60x	1.73x	1.26x	1.60x	1.85x	1.75x
75th percentile	1.19x	1.15x	0.78x	1.25x	1.40x	1.20x
90th percentile	0.72x	0.65x	0.43x	1.07x	1.00x	0.65x
Interdecile range	1.98x	2.61x	2.23x	1.43x	1.55x	2.50x
Range of returns	5.32x	5.05x	4.92x	2.65x	4.00x	5.22x

No. of funds	637	186	42	144	134	243	74
Pooled return	1.81x	1.73x	0.94x	1.97x	1.86x	1.66x	1.87x
10th percentile	2.71x	2.59x	1.59x	2.96x	2.84x	2.71x	2.65x
25th percentile	2.06x	1.68x	1.24x	1.78x	2.08x	2.11x	2.32x
Median	1.55x	1.15x	0.71x	1.23x	1.56x	1.65x	1.91x
75th percentile	1.00x	0.65x	0.44x	0.78x	1.02x	1.13x	1.57x
90th percentile	0.54x	0.30x	0.23x	0.30x	0.54x	0.78x	1.30x
Interdecile range	2.17x	2.29x	1.36x	2.66x	2.31x	1.93x	1.35x
Range of returns	9.83x	9.83x	1.95x	9.83x	7.23x	5.60x	3.28x

No. of funds	790	505	285	275	216	574
Pooled return	1.81x	1.71x	1.83x	1.82x	2.03x	1.77x
10th percentile	2.70x	2.73x	2.69x	2.83x	2.88x	2.65x
25th percentile	2.07x	1.99x	2.13x	2.24x	1.92x	2.09x
Median	1.56x	1.49x	1.66x	1.72x	1.46x	1.58x
75th percentile	1.04x	1.00x	1.17x	1.20x	0.81x	1.11x
90th percentile	0.57x	0.50x	0.66x	0.76x	0.33x	0.71x
Interdecile range	2.13x	2.23x	2.03x	2.07x	2.55x	1.94x
Range of returns	9.83x	5.70x	9.83x	9.83x	9.83x	7.23x



Since inception performance by vintage year

Returns by vintage year allow us to see how the industry performs at different stages of investment, but it also allows us a glimpse into the effects of economic cycles in performance. To give our readers a clear picture of the return of the industry over different vintage years, we present both IRRs since inception and the Distributed To Paid-In (DPI) and Total Value to Paid-In (TVPI) multiples.

Chart 14 – Since inception IRR (%) by vintage year to December 2022

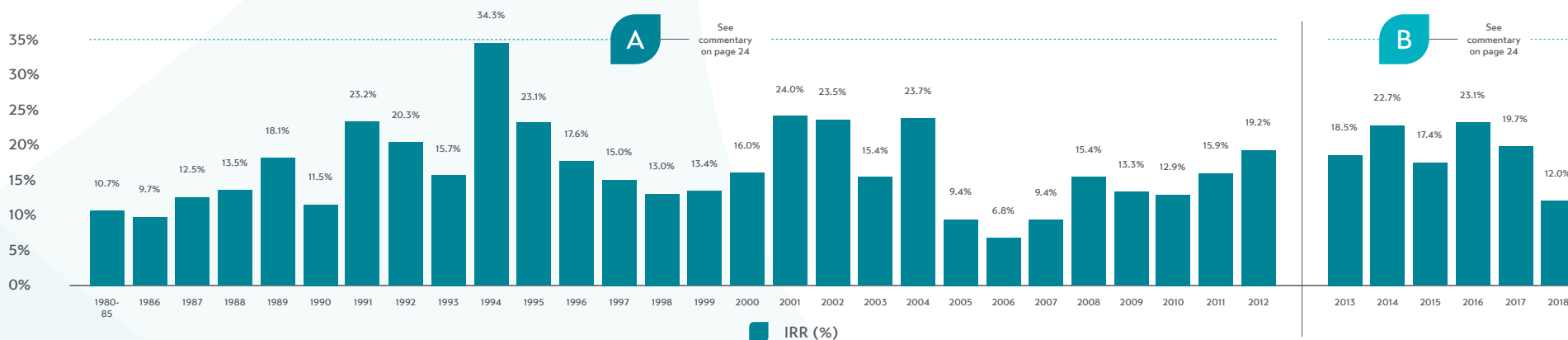
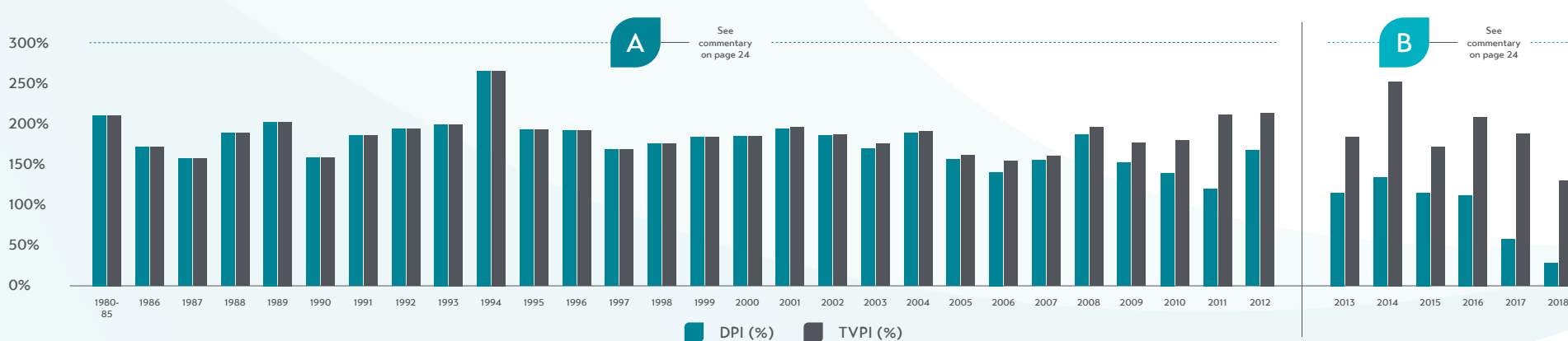


Chart 15 – Since inception multiples of invested capital by vintage year to December 2022



Since inception performance

by vintage year // commentary

A

Historical Performance

Money multiples for funds with vintages between 1980 and 2000 have the same value both for DPI and TVPI. This means that as these funds have finished distributing all their capital (and therefore are terminated). The IRR presented in our chart is the actual realised return for those vintages.

Vintages between 1991 and 2004 have constantly delivered an IRR over 13%, reaching a maximum of 34.3% for the 1994 vintage. These are mature vintages, with DPI and TVPI being very similar.

In terms of IRRs, the lowest performing vintages for the industry are between 2005 and 2007. These funds invested a reasonable amount of capital before

the crash of late 2008. They bought companies at high valuations and then the financial crisis struck, and a large amount of restructuring took place in portfolios from 2008 to 2010. The TVPI multiples for these vintages are reasonably strong at around 1.6x, however IRRs are lower than other vintage years due to the fact that funds had to hold on to investments longer than expected.

As expected, DPI and TVPI are not too dissimilar, indicating that funds in these vintages are approaching the end of their life cycle. Although the returns for these vintages on an IRR basis may appear disappointing relative to investments made in other years, private equity and venture capital is not immune to the impact of the economic cycle so a lower return is unsurprising. As a reminder, funds which did not manage to deliver a return to investors above the agreed

hurdle rate will not receive any carried interest payments as investors have first call on all returns generated.

B

The Last Decade

The majority of funds of vintage year 2013 and onwards will still be active – investing in businesses to generate value for investors. We can see that the divergence between DPI and TVPI increases for younger funds, as they have not yet made significant realisations and will hold a lot of value in current portfolio companies.

Relative to the 31 December 2021 results, we can observe that while DPI increased slightly for funds of vintage 2014 and younger, TVPI multiples have

largely remained flat. The IRRs have slightly declined over the same period, and we expect that the assets in general will be held for longer, resulting in lower IRR's relative to a given TVPI. We caution that as the funds are active these are interim IRRs, and the final return to investors will reflect what can be realised when assets are eventually exited.

Based on the recent figures, the best performing vintage year in the last decade appears in 2016 with an IRR of 23.1% followed closely by 2014 (IRR of 22.7%). Over the same period, the 2016 vintage, already has a DPI of 1.12x meaning investors have received back more than their original investment, while the 2014 vintage has both the highest DPI and TVPI of 1.34x and 2.5x respectively over the same period.

A note on subscription lines

Subscription lines (also known as subscription facilities) are where funds borrow money from banks or other financial institutions collateralised against the capital commitments made by investors. These are frequently used for administrative purposes where cash is needed quickly but it may take a short time to access the capital committed by investors. Subscription lines give flexibility and allow funds to respond quickly to opportunities when needed.

This year, for the second time, the BVCA has endeavoured to capture some information on the use of subscription lines. We asked firms who submitted information to us this year whether each of their funds used subscription lines and if so for how long. While not a complete dataset, we found that while the vast majority of respondents do use subscription lines, nearly 70% of funds for which data was provided used subscription lines for 6 months or less. Anecdotally, we are aware that use of subscription lines may have increased over the past few years, driven by low interest rates and an expansion of this market. We intend to continue this question in future years, allowing us to identify any changes over time.

Use of subscription lines delays the drawdown of capital, reducing the amount of time capital is outstanding so the internal rate of return is increased for a given absolute return. The impact of subscription lines on the IRR is highest immediately after drawdown and reduces over the life of the investment. Credit facilities do have a cost – hence the importance of considering both IRRs and multiples when evaluating fund performance as described in a 2019 study¹. We are encouraged by the fact that not only are the IRRs high in recent years, but the TVPI multiples are also high (1.5x or greater), demonstrating that performance is good under both metrics.

¹“Distorting Private Equity Performance: The Rise of Fund Debt” by J. Albertus and M. Denes, published in 2019



Since inception performance by vintage year // commentary and explanation of range of returns

Figures presented in charts 14 and 15 represent the pooled return across the data set by vintage year. As stated in section 3, investing in private equity and venture capital funds does involve putting capital at risk, and not all investments succeed.

We illustrate this point from a vintage year perspective on charts 16, 17 and 18 on the following pages, which present the range of returns achieved by funds within each vintage year looking at IRR, DPI and TVPI, and can be used to benchmark performance of funds in each specific year.

Key observations from these charts are:

- The variation in the returns from different funds is significant, so diversification is essential to manage this risk. As discussed earlier, just as most investors in public equities own a portfolio of stocks rather than shares in just one company, institutional investors will typically invest in multiple private equity and venture capital funds with a view to maximising the risk-adjusted returns on the overall private equity and venture capital investment portfolio.
- As investments in the stock market can go down as well as up, not all investments in private equity and venture capital funds earn a return. In every single year in our dataset, the lowest performing funds have failed to generate a return for investors.
- The returns from investing in private equity and venture capital can be very strong. Taking the 2004 vintage year as an example, the top performing funds (10th decile) delivered an IRR of 58% alongside a multiple of 3.4x invested capital (on both a distributed value and a total value basis). As funds started in 2004 are now 19 years old and have repaid the vast majority of funds to investors, this is a real return.



Range of returns IRR by vintage year // data

Chart 16 – Range of returns – Since inception IRR (%) by vintage year

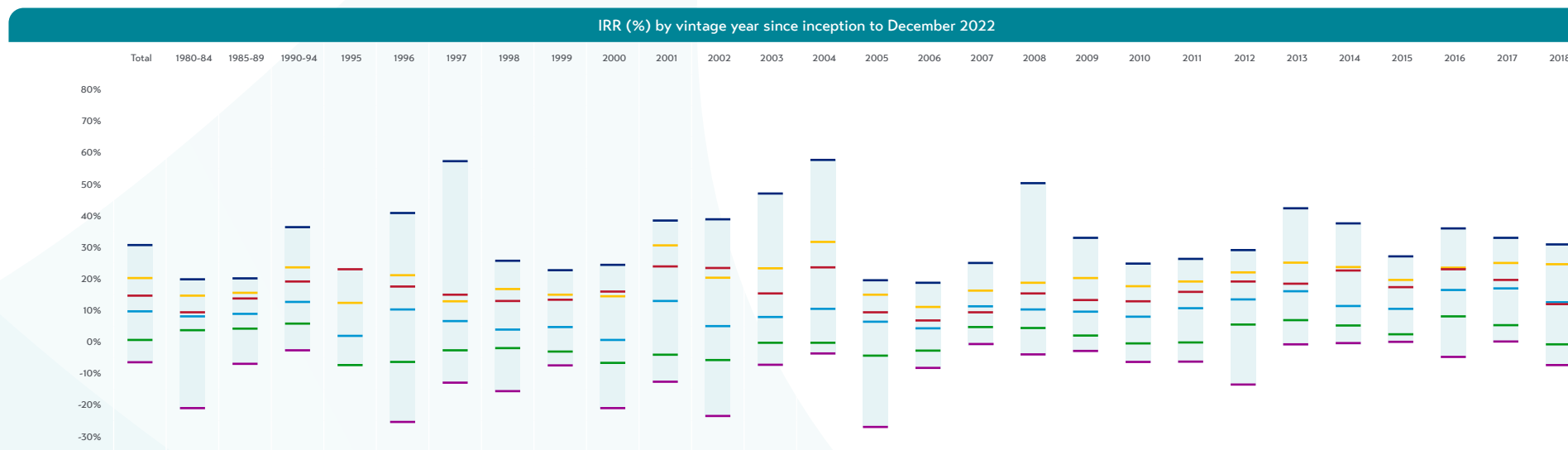


Table 12 – Range of returns – Since inception IRR (%) by vintage year

No. of funds	790	13	67	64	9	13	24	16	25	26	29	21	17	14	26	42	39	29	23	22	19	23	27	37	43	37	41	44
Pooled return	14.7	9.4	13.8	19.2	23.1	17.6	15.0	13.0	13.4	16.0	24.0	23.5	15.4	23.7	9.4	6.8	9.4	15.4	13.3	12.9	15.9	19.2	18.5	22.7	17.4	23.1	19.7	12.0
10th percentile	30.8	19.9	20.2	36.5	n/a	41.0	57.5	25.8	22.8	24.5	38.6	39.0	47.2	57.9	19.6	18.8	25.1	50.5	33.1	24.9	26.4	29.2	42.5	37.7	27.2	36.1	33.1	31.0
25th percentile	20.3	14.7	15.6	23.7	12.4	21.2	12.9	16.8	15.0	14.5	30.7	20.4	23.4	31.8	15.0	11.1	16.3	18.8	20.3	17.7	19.2	22.1	25.2	23.8	19.7	23.6	25.1	24.7
Median	9.7	8.1	8.9	12.7	1.9	10.3	6.6	3.9	4.7	0.6	13.0	5.0	7.9	10.5	6.4	4.3	11.3	10.3	9.6	8.0	10.7	13.5	16.1	11.4	10.5	16.5	17.0	12.6
75th percentile	0.6	3.7	4.2	5.8	-7.4	-6.4	-2.7	-2.0	-3.1	-6.7	-4.1	-5.8	-0.3	-0.3	-4.4	-2.8	4.7	4.4	2.0	-0.5	-0.2	5.5	6.9	5.2	2.4	8.1	5.3	-0.8
90th percentile	-6.5	-21.1	-7.0	-2.7	n/a	-25.5	-13.0	-15.7	-7.5	-21.1	-12.7	-23.6	-7.3	-3.7	-27.1	-8.3	-0.9	-4.0	-2.9	-6.4	-6.3	-13.6	-0.8	-0.4	0.0	-4.8	0.1	-7.4
Interdecile range	37.3	41.0	27.2	39.1	n/a	66.5	70.5	41.5	30.4	45.7	51.3	62.6	54.6	61.6	46.7	27.1	26.0	54.5	36.0	31.3	32.7	42.8	43.4	38.1	27.2	40.9	33.0	38.4
Range of returns	256.3	56.8	67.6	74.3	91.9	83.2	98.2	68.1	44.8	101.4	82.9	91.8	74.4	71.2	90.2	95.0	55.7	93.8	60.1	60.4	42.8	59.0	94.0	234.5	46.6	209.1	54.3	160.8



Range of returns DPI by vintage year // data

Chart 17 – Range of returns – DPI multiple by vintage year

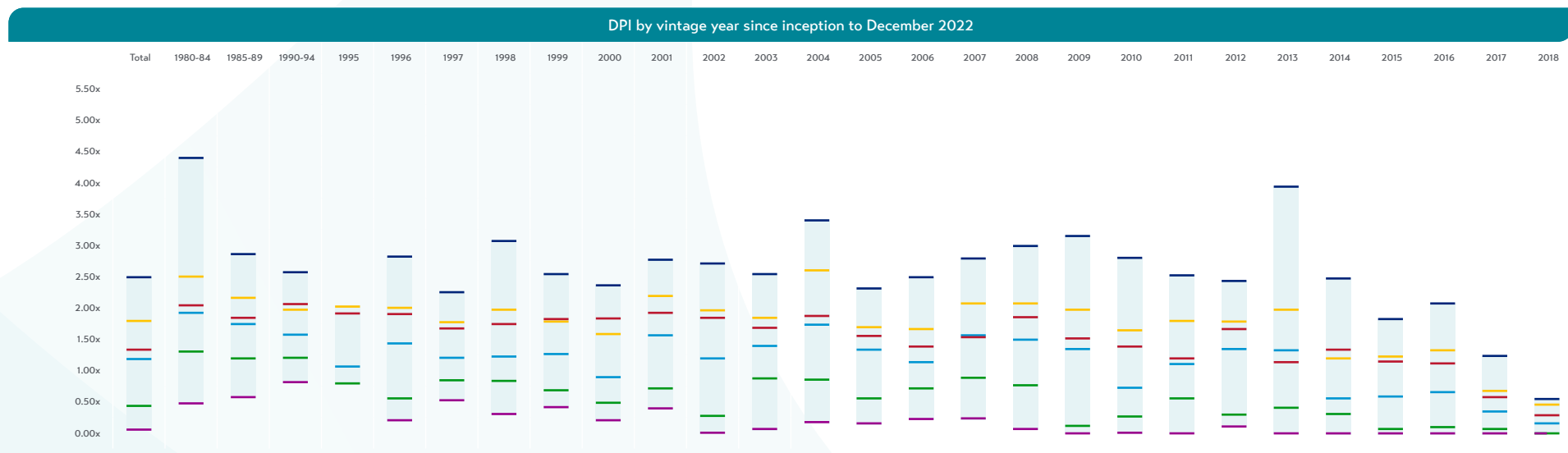


Table 13 – Range of returns – DPI multiple by vintage year

No. of funds	790	13	67	64	9	13	24	16	25	26	29	21	17	14	26	42	39	29	23	22	19	23	27	37	43	37	41	44
Pooled return	1.34x	2.05x	1.85x	2.07x	1.92x	1.91x	1.68x	1.75x	1.83x	1.84x	1.93x	1.85x	1.69x	1.88x	1.56x	1.39x	1.54x	1.86x	1.52x	1.39x	1.20x	1.67x	1.14x	1.34x	1.15x	1.12x	0.58x	0.29x
10th percentile	2.50x	4.41x	2.87x	2.58x	n/a	2.83x	2.26x	3.08x	2.55x	2.37x	2.78x	2.72x	2.55x	3.41x	2.32x	2.50x	2.80x	3.00x	3.16x	2.81x	2.53x	2.44x	3.95x	2.48x	1.83x	2.08x	1.24x	0.55x
25th percentile	1.80x	2.51x	2.17x	1.98x	2.03x	2.01x	1.78x	1.98x	1.79x	1.59x	2.20x	1.97x	1.85x	2.61x	1.70x	1.67x	2.08x	2.08x	1.98x	1.65x	1.80x	1.79x	1.98x	1.20x	1.23x	1.33x	0.68x	0.46x
Median	1.19x	1.93x	1.75x	1.58x	1.07x	1.44x	1.21x	1.23x	1.27x	0.90x	1.57x	1.20x	1.40x	1.74x	1.34x	1.14x	1.57x	1.50x	1.35x	0.73x	1.11x	1.35x	1.33x	0.56x	0.59x	0.66x	0.35x	0.16x
75th percentile	0.44x	1.31x	1.20x	1.21x	0.80x	0.56x	0.85x	0.84x	0.69x	0.49x	0.72x	0.28x	0.88x	0.86x	0.56x	0.72x	0.89x	0.77x	0.12x	0.27x	0.56x	0.30x	0.41x	0.31x	0.07x	0.10x	0.07x	0.00x
90th percentile	0.06x	0.48x	0.58x	0.82x	n/a	0.21x	0.53x	0.31x	0.42x	0.21x	0.40x	0.01x	0.07x	0.18x	0.16x	0.23x	0.24x	0.07x	0.00x	0.01x	0.00x	0.11x	0.00x	0.00x	0.00x	0.00x	0.00x	0.00x
Interdecile range	2.43x	3.93x	2.29x	1.76x	n/a	2.62x	1.73x	2.77x	2.13x	2.16x	2.37x	2.70x	2.48x	3.23x	2.17x	2.27x	2.56x	2.92x	3.16x	2.80x	2.53x	2.33x	3.95x	2.48x	1.83x	2.08x	1.24x	0.55x
Range of returns	7.27x	4.92x	5.05x	4.18x	4.97x	3.03x	2.44x	4.41x	2.45x	3.50x	5.47x	2.84x	2.61x	3.99x	2.43x	3.60x	5.60x	7.23x	3.61x	2.98x	4.40x	2.73x	4.82x	4.41x	2.98x	2.78x	2.73x	2.89x



Range of returns TVPI

by vintage year // data

Chart 18 – Range of returns – TVPI multiple by vintage year

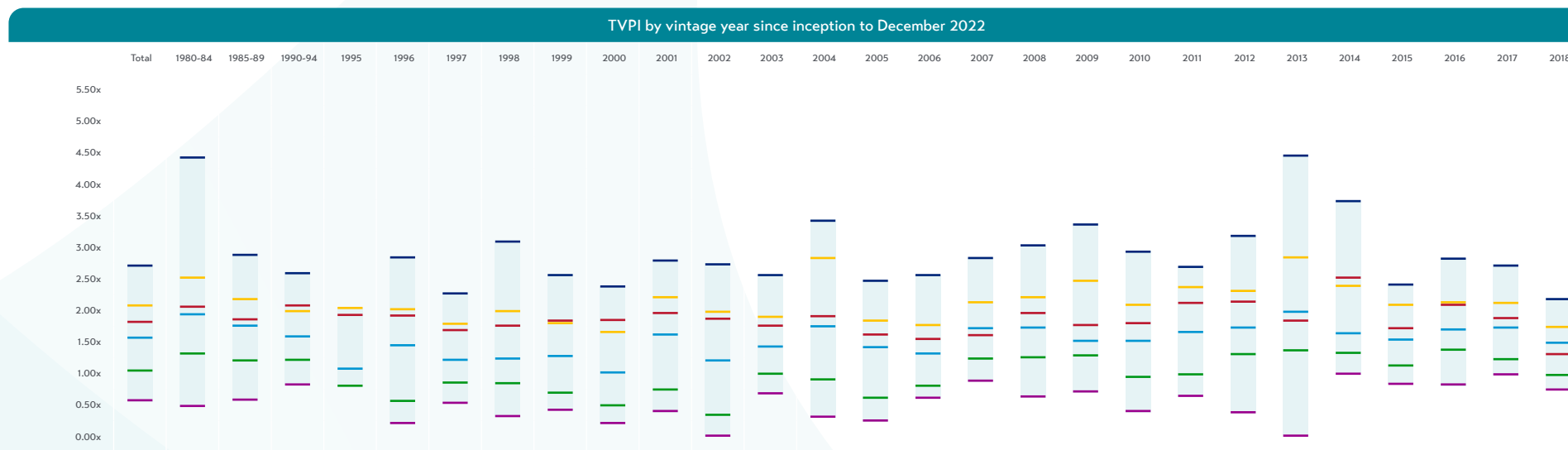


Table 14 – Range of returns – TVPI multiple by vintage year

No. of funds	790	13	67	64	9	13	24	16	25	26	29	21	17	14	26	42	39	29	23	22	19	23	27	37	43	37	41	44
Pooled return	1.81x	2.05x	1.85x	2.07x	1.92x	1.91x	1.68x	1.75x	1.83x	1.84x	1.95x	1.86x	1.75x	1.90x	1.61x	1.54x	1.60x	1.95x	1.76x	1.79x	2.11x	2.13x	1.83x	2.51x	1.71x	2.08x	1.87x	1.30x
10th percentile	2.70x	4.41x	2.87x	2.58x	n/a	2.83x	2.26x	3.08x	2.55x	2.37x	2.78x	2.72x	2.55x	3.41x	2.46x	2.55x	2.82x	3.02x	3.35x	2.92x	2.68x	3.17x	4.44x	3.72x	2.40x	2.81x	2.70x	2.17x
25th percentile	2.07x	2.51x	2.17x	1.98x	2.03x	2.01x	1.78x	1.98x	1.79x	1.65x	2.20x	1.97x	1.89x	2.82x	1.83x	1.76x	2.12x	2.20x	2.46x	2.08x	2.36x	2.30x	2.83x	2.38x	2.08x	2.12x	2.11x	1.73x
Median	1.56x	1.93x	1.75x	1.58x	1.07x	1.44x	1.21x	1.23x	1.27x	1.01x	1.61x	1.20x	1.42x	1.74x	1.41x	1.31x	1.71x	1.72x	1.51x	1.51x	1.65x	1.72x	1.97x	1.63x	1.53x	1.69x	1.72x	1.48x
75th percentile	1.04x	1.31x	1.20x	1.21x	0.80x	0.56x	0.85x	0.84x	0.69x	0.49x	0.74x	0.34x	0.99x	0.90x	0.61x	0.80x	1.23x	1.25x	1.28x	0.94x	0.98x	1.30x	1.36x	1.32x	1.12x	1.37x	1.22x	0.97x
90th percentile	0.57x	0.48x	0.58x	0.82x	n/a	0.21x	0.53x	0.32x	0.42x	0.21x	0.40x	0.01x	0.68x	0.31x	0.25x	0.61x	0.88x	0.63x	0.71x	0.40x	0.64x	0.38x	0.01x	0.99x	0.83x	0.82x	0.98x	0.74x
Interdecile range	2.13x	3.93x	2.29x	1.76x	n/a	2.62x	1.73x	2.77x	2.13x	2.16x	2.37x	2.70x	1.87x	3.11x	2.22x	1.94x	1.94x	2.39x	2.64x	2.52x	2.04x	2.79x	4.42x	2.74x	1.57x	1.99x	1.71x	1.43x
Range of returns	9.83x	4.92x	5.05x	4.18x	4.97x	3.04x	2.44x	4.41x	2.45x	3.50x	5.47x	2.84x	2.44x	4.00x	3.36x	3.57x	5.60x	7.16x	5.33x	2.88x	4.04x	5.51x	5.70x	5.40x	3.47x	9.83x	3.96x	2.87x



Since inception starting from a specific year

Are legacy funds skewing the current return results?

IRR calculations have an implicit re-investment assumption – all cash flows are assumed to be able to be reinvested at the calculated return through the life of the investment. Early cashflows can have an outsized impact on the result as these are assumed to be reinvested for a longer period of time – thus if funds starting at the beginning of our sample in 1980 performed exceptionally well, then this could still have an impact on the overall since inception return for the industry today.

As the investment environment today is very different from the 1980s and 1990s, an important question naturally arises about whether the industry-wide since inception return since 1980 is a reasonable measure of current industry performance.

To give our readers a clear picture of since inception return and to split out the impact of legacy funds on current reported performance, we are now presenting since inception return starting from different points in time. The results are shown overleaf.

Refreshing the concept

Since inception return is calculated as a pooled return for the entire industry, excluding the four most recent vintage years (2019–2022). Since inception starting from, therefore, refers to all funds starting at a certain vintage up to the 2018 vintage. For instance, since inception return starting from 2007 represents the return for all funds of vintage 2007 onwards until 2018. Since 2018 is the last vintage included in the calculations. Since inception return starting from 2018 refers to funds with vintage 2018 only.



Since inception starting from a specific year

UK findings

The main take away from chart 19 is that, although including legacy funds may inflate industry performance, this does not appear to be the case for UK private equity and venture capital funds. Indeed, removing older funds actually increases the more recent performance of the UK private equity and venture capital industry.

There is no doubt that the early 2000s were a difficult period, but despite the lower performance of the vintages 2005 to 2007, which will have had a large impact on the since inception returns starting from 2002 to 2007 vintages, the industry still delivered a net return to investors of nearly 13% in its most challenging times.

Since 2008, regardless of which year we take as a starting point, the UK private equity and venture capital industry has delivered net since inception returns of at least 17%. Funds with vintage starting from 2018 appear to be an exception to this trend with a net return of 12%. Funds in this vintage are five years old and are at the lifecycle stage where they have made several investments but

might not have realised a large number of their assets yet. Therefore, the interim IRRs are likely to be materially driven by the end year valuations of the current portfolio. Almost 40% of funds with vintage starting from 2018 are technology focused funds investing in technology companies, a sector that saw the biggest decline in public and private valuations.

Chart 19 – Since inception IRR (%) starting from a specific year

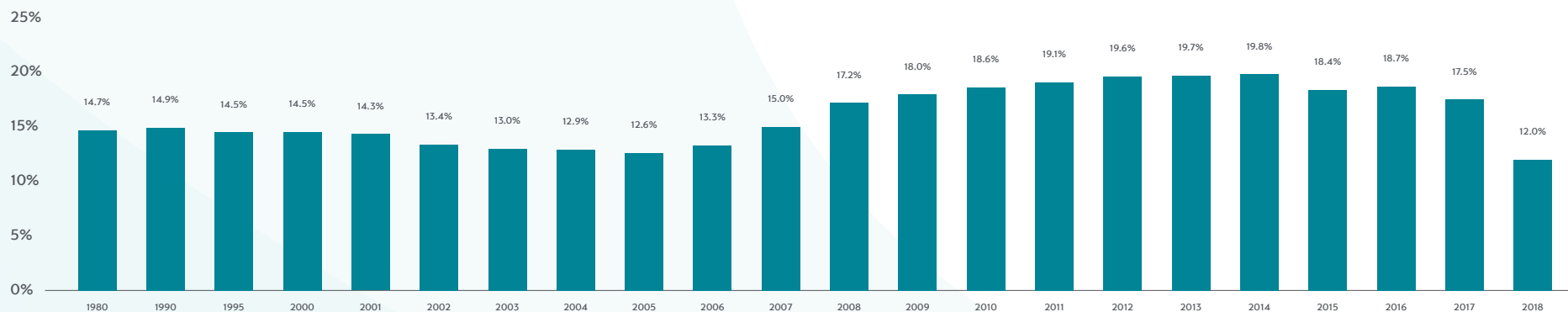


Table 15 – Number of funds included in each starting from category

Vintage year	1980	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
No. of funds in calculation	790	710	646	559	533	504	483	466	452	426	384	345	316	293	271	252	229	202	165	122	85	44



Since inception performance starting from IRRs by investment stage and subcategory // data

The following five pages present the data tables showing the since inception results starting from each vintage year for each investment stage and subcategory. Commentary on the venture and mid private equity investment stages and technology subcategory results can be found on page 35.

Table 16 – Since inception IRR (%) starting from a specific year by investment stage and subcategory – Part 1

	Starting from 2018	Starting from 2017	Starting from 2016	Starting from 2015	Starting from 2014	Starting from 2013	Starting from 2012	Starting from 2011	Starting from 2010	Starting from 2009	Starting from 2008
1996 vintage funds onwards											
A Venture	17.8	21.3	37.7	31.8	27.3	23.4	22.2	21.8	20.4	20.5	18.8
Small Private Equity	13.5	23.0	23.5	17.5	16.5	17.3	18.2	17.8	16.0	15.9	15.0
B Mid Private Equity	15.6	15.5	16.8	15.7	16.1	16.1	16.1	16.1	15.6	15.5	15.2
Large Private Equity	9.4	17.9	18.1	19.4	21.5	21.5	21.2	21.2	21.3	19.9	18.3
Grand total all funds	12.0	17.5	18.7	18.4	19.8	19.7	19.6	19.1	18.6	18.0	17.2
Subcategories											
UK	14.8	20.9	20.7	17.9	16.8	16.6	17.2	16.9	17.5	17.7	16.0
Non-UK	11.5	17.2	18.5	18.5	20.4	20.3	20.1	19.5	18.8	18.1	17.4
Pan-European	11.5	15.5	17.4	17.6	20.1	20.0	20.0	19.3	18.7	17.9	17.2
C Technology	17.2	20.9	24.0	23.4	24.9	23.8	23.6	23.5	23.2	23.5	22.8
Non-Technology	10.8	16.4	17.2	17.3	18.2	18.3	18.5	18.0	17.6	17.0	16.5
Total number of funds	44	85	122	165	202	229	252	271	293	316	345



Since inception performance starting from IRRs by investment stage and subcategory // data

Table 17 – Since inception IRR (%) starting from a specific year by investment stage and subcategory – Part 2

Continued	Starting from 2007	Starting from 2006	Starting from 2005	Starting from 2004	Starting from 2003	Starting from 2002	Starting from 2001	Starting from 2000	Starting from 1995	Starting from 1990	Starting from 1980
1996 vintage funds onwards											
A Venture	16.5	14.4	13.8	13.6	13.0	11.9	10.1	8.0	8.1	8.1	8.1
Small Private Equity	14.7	14.4	11.4	11.4	11.7	11.7	15.0	14.7	14.2	14.2	14.2
B Mid Private Equity	14.3	11.1	10.7	11.0	11.1	11.4	11.9	12.3	11.5	11.5	11.5
Large Private Equity	15.3	14.1	13.4	13.8	13.9	14.5	15.6	16.0	16.3	16.3	16.3
Grand total all funds	15.0	13.3	12.6	12.9	13.0	13.4	14.3	14.5	14.5	14.9	14.7
Subcategories											
UK	17.7	13.2	11.8	12.0	12.3	12.0	12.2	11.7	12.1	13.7	13.5
Non-UK	18.1	13.4	12.7	13.1	13.1	13.6	14.7	15.0	15.1	15.3	15.2
Pan-European	17.9	13.0	12.4	12.8	12.9	13.5	14.5	14.8	15.6	16.2	15.9
C Technology	23.5	16.8	16.6	17.7	17.4	17.2	15.8	14.6	13.9	13.9	13.1
Non-Technology	17.0	12.7	12.0	12.2	12.3	12.8	14.1	14.4	14.6	15.1	15.0
Total number of funds	384	426	452	466	483	559	533	559	646	710	790



Since inception performance starting from Multiples by investment stage and subcategory // data

Table 18 – DPI and TVPI starting from a specific year by investment stage and subcategory – Part 1

	Starting from 2018		Starting from 2017		Starting from 2016		Starting from 2015		Starting from 2014		Starting from 2013		Starting from 2012		Starting from 2011		Starting from 2010		Starting from 2009		Starting from 2008	
	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI
1996 vintage funds onwards																						
Venture	0.09x	1.56x	0.16x	1.73x	0.52x	2.88x	0.47x	2.67x	0.45x	2.75x	0.38x	2.12x	0.48x	2.13x	0.49x	2.13x	0.49x	2.10x	0.66x	2.13x	0.65x	2.10x
Small Private Equity	0.30x	1.28x	0.38x	1.69x	0.58x	1.77x	0.59x	1.68x	0.60x	1.65x	0.65x	1.70x	0.75x	1.93x	0.76x	1.92x	0.82x	1.93x	0.85x	1.94x	0.88x	1.90x
Mid Private Equity	0.45x	1.40x	0.36x	1.53x	0.47x	1.60x	0.60x	1.63x	0.67x	1.70x	0.70x	1.70x	0.72x	1.70x	0.82x	1.79x	0.84x	1.77x	0.86x	1.77x	0.90x	1.77x
Large Private Equity	0.21x	1.23x	0.52x	1.65x	0.60x	1.67x	0.75x	1.68x	0.91x	1.90x	0.93x	1.91x	1.02x	1.92x	1.02x	1.92x	1.04x	1.93x	1.05x	1.91x	1.23x	1.93x
Grand total all funds	0.29x	1.30x	0.45x	1.62x	0.56x	1.69x	0.68x	1.70x	0.80x	1.85x	0.82x	1.84x	0.90x	1.87x	0.92x	1.89x	0.93x	1.88x	0.96x	1.88x	1.09x	1.89x
Subcategories																						
UK	0.33x	1.35x	0.42x	1.62x	0.58x	1.68x	0.72x	1.72x	0.74x	1.71x	0.79x	1.72x	0.85x	1.84x	0.87x	1.83x	0.94x	1.84x	0.99x	1.86x	1.03x	1.83x
Non-UK	0.28x	1.29x	0.46x	1.62x	0.55x	1.69x	0.67x	1.69x	0.81x	1.87x	0.83x	1.87x	0.91x	1.88x	0.93x	1.90x	0.93x	1.89x	0.96x	1.88x	1.10x	1.90x
Pan-European	0.28x	1.29x	0.36x	1.54x	0.48x	1.64x	0.63x	1.64x	0.80x	1.85x	0.82x	1.84x	0.88x	1.85x	0.91x	1.87x	0.92x	1.87x	0.94x	1.86x	1.10x	1.88x
Technology	0.50x	1.46x	0.50x	1.78x	0.55x	1.95x	0.55x	1.94x	0.98x	2.30x	1.00x	2.20x	1.00x	2.20x	1.02x	2.20x	1.02x	2.20x	1.05x	2.22x	1.04x	2.21x
Non-Technology	0.24x	1.26x	0.44x	1.57x	0.56x	1.62x	0.71x	1.64x	0.76x	1.74x	0.78x	1.75x	0.87x	1.79x	0.90x	1.82x	0.92x	1.82x	0.94x	1.81x	1.10x	1.83x
Total number of funds	44		85		122		165		202		229		252		271		293		316		345	



Since inception performance starting from

Multiples by investment stage and subcategory continued // data

Table 19 – DPI and TVPI starting from a specific year by investment stage and subcategory – Part 2

Continued	Starting from 2007		Starting from 2006		Starting from 2005		Starting from 2004		Starting from 2003		Starting from 2002		Starting from 2001		Starting from 2000		Starting from 1995		Starting from 1990		Starting from 1980	
	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI	DPI	TVPI
1996 vintage funds onwards																						
A Venture	0.72x	2.07x	0.81x	2.06x	0.82x	2.05x	0.83x	2.05x	0.85x	2.01x	0.84x	1.97x	0.86x	1.89x	0.83x	1.77x	0.86x	1.73x	0.86x	1.73x	0.86x	1.73x
B Small Private Equity	0.92x	1.90x	0.96x	1.89x	1.02x	1.84x	1.06x	1.84x	1.07x	1.85x	1.07x	1.85x	1.17x	1.87x	1.17x	1.87x	1.17x	1.86x	1.17x	1.86x	1.17x	1.86x
Mid Private Equity	0.97x	1.76x	0.95x	1.67x	0.98x	1.65x	1.00x	1.65x	1.01x	1.65x	1.02x	1.66x	1.05x	1.66x	1.06x	1.67x	1.09x	1.66x	1.09x	1.66x	1.09x	1.66x
Large Private Equity	1.28x	1.87x	1.32x	1.87x	1.36x	1.85x	1.37x	1.85x	1.38x	1.85x	1.39x	1.85x	1.42x	1.86x	1.44x	1.87x	1.47x	1.87x	1.47x	1.87x	1.47x	1.87x
Grand total all funds	1.15x	1.85x	1.17x	1.82x	1.21x	1.80x	1.23x	1.80x	1.24x	1.80x	1.25x	1.80x	1.28x	1.81x	1.30x	1.81x	1.33x	1.81x	1.33x	1.81x	1.34x	1.81x
Subcategories																						
UK	1.07x	1.82x	1.08x	1.77x	1.08x	1.74x	1.10x	1.74x	1.13x	1.74x	1.13x	1.73x	1.16x	1.73x	1.17x	1.71x	1.24x	1.70x	1.27x	1.71x	1.30x	1.72x
Non-UK	1.16x	1.86x	1.19x	1.83x	1.23x	1.81x	1.25x	1.81x	1.25x	1.81x	1.27x	1.81x	1.30x	1.82x	1.32x	1.82x	1.34x	1.83x	1.35x	1.83x	1.35x	1.83x
Pan-European	1.17x	1.83x	1.20x	1.80x	1.24x	1.79x	1.26x	1.79x	1.26x	1.79x	1.28x	1.79x	1.31x	1.80x	1.33x	1.81x	1.37x	1.82x	1.37x	1.82x	1.38x	1.82x
Technology	1.08x	2.20x	1.20x	2.18x	1.20x	2.18x	1.25x	2.14x	1.25x	2.13x	1.25x	2.13x	1.24x	2.10x	1.25x	2.05x	1.25x	2.03x	1.25x	2.03x	1.26x	2.03x
Non-Technology	1.16x	1.79x	1.17x	1.75x	1.21x	1.74x	1.23x	1.74x	1.23x	1.74x	1.25x	1.75x	1.29x	1.76x	1.30x	1.77x	1.34x	1.77x	1.35x	1.77x	1.35x	1.78x
Total number of funds	384		426		452		466		483		504		533		559		646		710		790	



Since inception performance starting from

Results by investment stage and subcategory // data

A

Venture

Looking at the last decade, we find that venture funds that started investing from 2013 onwards have delivered a net since inception return of 23.4% outperforming other investment stages pointing to the strength of UK venture capital. In total, there are 63 funds included in this category, all of them are still active. 33% of these funds are from the 2013 and 2014 vintage hence currently ten and nine years old, while 30% are from the 2018 vintage year (five years old). The remaining vintage years (between six and eight years old) made up another 37%. As the majority of these venture capital funds are still at the beginning of the process of distributing capital back to investors, caution is advised when looking at returns for funds that are less than ten years old, as estimated unrealised capital plays a big role in IRR calculations.

Venture funds starting from the 2016 vintage has delivered the highest since inception net return of 37.7% over the last ten years. This observation

has been consistent with what we reported last year. Distributed to paid-in capital for this group of funds is 0.52x whereas total value to paid in capital is 2.88x. As the sample size is small, this performance may be skewed by a small number of extremely good performances.

B

Mid Private Equity

The BVCA classifies mid private equity funds as those that invest between £10 million and £100 million in equity. It is the most popular investment stage category within our sample with the highest number of funds, accounting for 34% of the total. In the last ten years, since inception returns for mid private equity have grown slightly from 16.1% for funds starting from vintage 2013 to 16.8% for funds investing from 2016 onwards, with an IRR of 16.8% being the highest since inception net return for this investment stage overall. For funds that started investing from 2016 onwards we observe a DPI of 0.47x and a TVPI of 1.6x. Keeping in mind that these funds are currently seven

years old and still at the beginning of distributing capital back to investors, these multiples indicate very promising returns to investors, should valuations remain at current levels.

C

Technology Focus

The BVCA classifies technology-focused funds as those that invest over 60% of their capital into technology companies. The growth in performance of technology focused funds is not surprising given the long-term growth of the technology sector. In the last ten years as opposed to venture and mid private equity funds, the highest since inception IRR of 24.9% for this subcategory was delivered by funds investing from vintage 2014 onwards. The strong performance of technology focused funds that started investing from 2014 is also reflected in the multiples. The ratio of distributed to paid-in capital and total value to paid-in capital for this group of funds have reached 0.98x, and 2.3x respectively, meaning that investors have already nearly received back what

they invested to date. Only four funds are completely liquidated, leaving significant unrealised capital left to be distributed to investors.



Horizon performance

IRR by investment stage // data and commentary

One Year Horizon

As a preliminary note, it is important to point out that the one year horizon should be interpreted with caution as these figures are not realistic representation of private equity performance since it's typically not possible to invest in private equity or venture capital for just a year. Given the challenging macroeconomic environment, 2022 was a turbulent year for the UK private equity and venture capital industry as presented in Chart 20. The overall one year return dropped from 31.5% in 2021 to 5.5% in 2022. All investment stages recorded significantly lower returns relative to the previous year, with venture funds hitting a negative territory. In this context it is important to note that many venture funds in our sample are funds investing in technology. This sector was impacted the most by the broader slowdown in public market and falling valuations. Across all stages, small private equity has reported the highest one year horizon return at 9%. There is a good mix of active funds within our dataset at different stages of the investment cycle, with roughly one third being four years old or less, one third being between five and ten

years old and the remaining funds being over ten years old, suggesting that this return is unlikely to be skewed by having a concentration of funds in a particular lifecycle stage.

Ten Year Horizon

The ten year horizon varies less year on year. Out of the 790 active funds included in this category, 53% are over ten years old (the NAV as of December 2022 represents less than 12% of the overall NAV for 2022, hence these funds are currently distributing a small proportion of unrealised capital) 26% of these funds are between five and ten years old (still distributing a significant proportion of unrealised capital – the NAV for those funds accounts for 56% of the total NAV) and 21% are young funds, four years or younger, currently investing more than distributing. This suggest that the ten year horizon return of 17% is a reliable metric, given the majority of funds included in this calculation have already realised most of their assets.

Consistent with previous years' results, large private equity continues to outperform other investment stages on the ten year horizon, delivering a return of 19.4% in 2022.

Chart 20 – Horizon performance – IRR (%) by investment stage

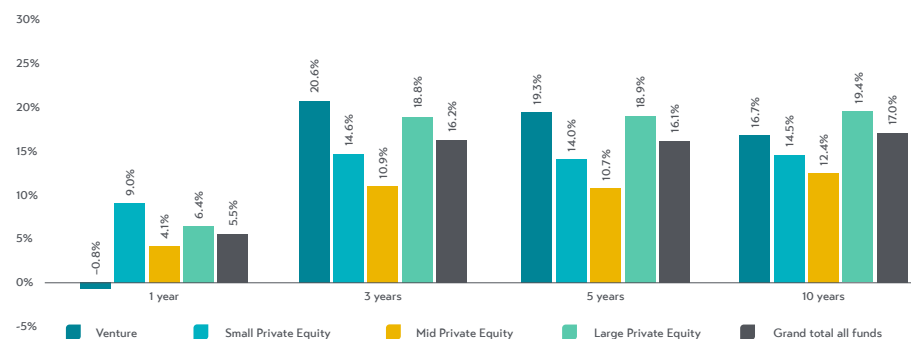


Table 20 – Horizon performance – IRR (%) for BVCA members and FTSE indices

No. of funds	1 year	3 years	5 Years	10 Years	Since Inception
PE and VC	5.5	16.2	16.1	17.0	14.7
FTSE ALL-SHARE INDEX	0.3	2.3	2.5	6.5	n/a
FTSE 100 INDEX	4.7	3.1	3.3	6.3	n/a
FTSE 250 INDEX	-17.4	-2.7	0.6	7.0	n/a
FTSE 350 INDEX	0.8	2.2	2.9	6.4	n/a

Source: FTSE Russell 2022

FTSE Performance

Overall, when looking at the three, five and ten year horizons, UK private equity and venture capital achieved solid returns of 16.2%, 16.1% and 17% respectively, well above the returns delivered to investors by the FTSE All-Share and other indices presented in table 20.



Horizon performance

IRR by subcategories

One Year Horizon

On the backdrop of unfavourable macroeconomic conditions that dominated the second half of 2022, UK focused funds (funds that invest over 60% of raised capital into the UK) reported the highest one year return among all subcategories, with IRR of 11.3%. Non-Technology funds were the second best performing in the last 12 months delivering a return of 10.1%. This is in contrast to the previous year, where Non-Technology funds were the worst performing across all subcategories. On the opposite spectrum are Technology funds reporting the negative one year return of 7.6%, bearing the brunt of tumbling public tech valuations in the wake of rising inflation and interest rates.

Ten Year Horizon

As the most stable horizon, the ten year horizon remained stable compared to 2021. The overall return declined slightly vs 2021 moving from 17.5% in 2021 to 17% in 2022. Despite the negative one year horizon performance, the five and ten year returns for

technology funds are above those of other investment subcategories in line with historical trends.

Regional Focus

Historically, Pan-European funds (funds that invest in two or more European countries) outperformed all other regional categories.

This year, for the first time UK focused funds have outperformed Non-UK funds for both, the one and three year horizons. Non-UK funds (that is, funds that invest over 60% of capital committed outside the UK, including Europe but also North America, Asia, Middle East etc) consistently delivered a higher return across the five and ten year horizons.

Chart 21 – Horizon performance – IRR (%) by investment subcategory

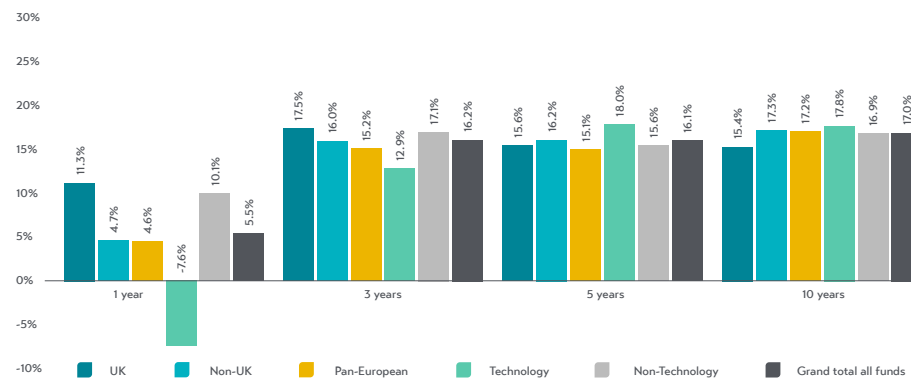


Table 21 – Horizon performance – IRR (%) for BVCA members and FTSE indices

No. of funds	1 year	3 years	5 Years	10 Years	Since Inception
PE and VC	5.5	16.2	16.1	17.0	14.7
FTSE ALL-SHARE INDEX	0.3	2.3	2.5	6.5	n/a
FTSE 100 INDEX	4.7	3.1	3.3	6.3	n/a
FTSE 250 INDEX	-17.4	-2.7	0.6	7.0	n/a
FTSE 350 INDEX	0.8	2.2	2.9	6.4	n/a

Source: FTSE Russell 2022



Conclusion

This report uses a large dataset of fund level cash flows and valuations from 1980 to 2022 to provide significant detail on the returns achieved for investors in private equity and venture capital funds. The findings are clear:

- Private equity and venture capital has continued to perform strongly throughout 2022. Investors showed confidence in the asset class as 2022 vintage funds which had their first drawdown raised over £25bn of capital from across the world.
- Analysis in this report demonstrates that the asset class performs particularly well in the medium and long term with returns being reasonably resilient throughout the economic cycle.
- While both public and private markets have been impacted by challenging macroeconomic conditions, private equity and venture capital funds in our sample have collectively continued to outperform the FTSE All Share over one, three, five and ten year horizons.
- The macroeconomic headwinds through 2022 have led to the slowdown in deal activity particularly in the second half of the year, suggesting that private equity and venture capital investors might have postponed their exit plans and are likely to hold their investments for longer. This is likely reflected in lower IRRs to December 2022 relative to the previous year.
- Technology focused funds saw the largest year-on-year drop in valuations, following the decline in valuations of publicly traded technology companies.
- Our range of returns analysis shows that, whilst the industry's performance as a whole is very strong, returns vary between individual private equity and venture capital funds. Some funds ultimately may not generate a positive return (in which case the firm will not receive carried interest

if returns are below the hurdle agreed with investors) whilst others greatly outperform the pooled industry returns presented in this report. Investors in private equity and venture capital funds are typically institutional, well-advised investors, who will be aware of the spectrum of returns.

We are aware that there is significant literature available on private equity performance, and we are pleased to be able to contribute to the evidence around the performance of UK private equity and venture capital in this latest edition of this long running study.

All tables in this report are available on the BVCA website in excel format, along with more granular analysis by investment stage, subcategory and vintage year. We hope this will prove a valuable resource for industry participants, researchers and others wishing to learn more about the performance of private equity and venture capital.

We would like to conclude by thanking all BVCA members who contributed to our performance measurement survey, without which this report would not have been possible.

If you would like to discuss anything within this report please contact Suzi Gillespie, Head of Research at the BVCA at research@bvca.co.uk.



Appendices

1. Methodology
2. Definitions
3. Example IRR calculation with carried interest
4. List of responding firms



Appendix 1

Methodology

Eligibility criteria

To be eligible for inclusion in the 2022 survey, the private equity or venture capital firm must:

- Be a full BVCA member on 28 February 2023;
- Raise money from third-party investors;
- Manage that money from the UK (although it may be invested elsewhere);
- The fund structure is a typical limited partnership with a fixed, long-term fund life.

Venture Capital Trusts (VCTs), EIS funds, listed private equity investment companies and funds not open to external investors (e.g. where a firm is investing from its own balance sheet) have been excluded from the survey.

The BVCA represents the vast majority of private equity and venture capital firms in the UK. Full members, such as those included in this survey,

are UK-based firms, which manage private equity and venture capital funds from the UK. Funds managed by former members of the BVCA have been included and data has been rolled forward or supplemented where possible. Firms that have never been members of the BVCA are not included.

Response rates

136 BVCA members were deemed to have at least one fund which met the criteria above. Of these members, we received data from 105 firms, a response rate of 77%.

Confidentiality

The BVCA treats the performance data received from members with the utmost confidentiality. Only the research team within the BVCA are able to access the fund level information. The PwC Research team who support this work receive the data under a strict confidentiality agreement, and only the small number of individuals working directly on the project at PwC have access to the data.

Data collection

The BVCA manages the data collection and review process. BVCA members submit their cash flow and valuation data for qualifying funds via the BVCA's online data collection portal, the European Data Cooperative, or by spreadsheet.

Our survey collects information for each eligible fund on an annual basis as follows:

- Amounts drawn down (i.e. amounts paid by investors into the private equity or venture capital fund);
- Distributions (i.e. amounts paid by the private equity or venture capital fund to the investors) and;
- Net Asset Value (i.e. the residual value of the assets of the private equity or venture capital fund net of any provision for 'carried interest'). The Net Asset Value collected for the 2022 survey is as at 31 December 2022.

As the Net Asset Value is after allowance for any carried interest, all results shown in this report are returns to investors.

We also collect information on whether the valuations are completed in line with IPEV guidelines and whether the valuations provided are audited.

This year, for the first time, we collected information on whether funds were using subscription line financing, and if so, over what term.



Appendix 1

Methodology

Review and quality control procedures

BVCA research team review and feedback loop

Each submission is individually reviewed by the BVCA research team, who raise any queries with the submitting firm. The BVCA then calculates the IRR to 31 December 2022 for each fund where cash flow data has been submitted and asks the private equity or venture capital firm to verify the IRR is correct, with sign off requested from an appropriately senior member of the firm.

If the figures are incorrect, then the firm has the opportunity to amend the data provided.

As senior individuals will always know the fund IRRs, this additional check provides us with further comfort that the cash flow and valuation data which has been provided is correct.

All firms that submitted data confirmed their IRRs (100% sign off) by the time we closed the feedback process

PwC and BVCA calculation verification

The aggregated data is then provided to PwC Research who perform internal consistency checks on the data.

As of last year, the BVCA has developed the capability to calculate all the data tables for this report in house.

The BVCA and PwC run parallel analyses for 30 data tables collectively covering every type of calculation as a cross check to ensure the calculations agree, thus providing verification of the calculations within the BVCA's model.

Due to minor changes in the dataset identified after the commencement of the PwC analysis, the figures published in this report are the output from the BVCA calculations. We confirm that output from the calculations on the original dataset provided to PwC and the BVCA model using the same input file agree exactly.

Valuations

Valuations of unrealised investments are the most judgemental element of the information provided to us by

participating firms. The vast majority of firms have confirmed to us that they conduct valuations using the International Private Equity and Venture Capital Valuation (IPEV) Guidelines which were first introduced in March 2005. However, as noted at the end of this report, neither PwC nor the BVCA has independently checked the valuation data, nor confirmed that the IPEV Guidelines have been adhered to. 58% of the funds surveyed contain unrealised investments, which are usually stated at fair value in accordance with these Guidelines, and which are included when calculating interim measures of performance.

Performance Measurement Survey Review Board

The Performance Measurement Survey Review Board is a group of experienced professionals who support the BVCA research team by:

- Providing guidance on methodology and technical questions
- Using their personal knowledge or contacts to advise on individual firm eligibility where this is not known to the BVCA

and if necessary, reaching out to individuals at these firms to encourage prompt submission of data

- Using their extensive experience in the industry to assist in the interpretation of results, and to sense check the overall results against what they are seeing elsewhere.

The Review Board supports the BVCA with its work but does not have access to the underlying data.

The Board has six members in line with the Terms of Reference for the Board set out on the BVCA website, with members from general partner firms, limited partner firms and academia. Details of the members of the Review Board can be found in the Report from the Performance Measurement Survey Review Board (page 6) in which they present their opinion of the robustness of this survey.

The BVCA is very grateful to these individuals for the contribution of their time and expertise throughout the production of this report.



Appendix 1

Methodology

Performance measurement metrics

Multiples

For an explanation on how the DPI and TVPI multiples are calculated, please refer to page 10.

Internal Rate of Return

For an explanation on how IRRs are calculated, please refer to page 10. Note that the BVCA works with pooled daily cash flows provided by our members. To maintain this level of granularity within our calculations we use the XIRR function instead of IRR.

Horizon Returns

To calculate the Horizon IRRs, we:

- (i) select a specific horizon (e.g. 5 years);
- (ii) aggregate the NAVs of all funds as at 31 December of the year before the horizon (i.e. for a 5-year horizon as at December 2022, we use the fund NAVs as at 31 December 2017), and treat this amount as the first draw down;
- (iii) calculate the aggregated net cash flows for everyday until 31 December 2022;
- (iv) add the aggregated fund NAVs as at 31 December 2022; and
- (v) calculate the Horizon IRR on the resulting cashflows.



Appendix 2

Definitions

Capital statistics

Capital raised / funds raised

Capital committed by investors (capital they have agreed to subscribe). This will not usually all be paid in at one time.

Paid in capital

Capital that has actually been paid into the fund by investors.

Return metrics

IRR

The annualised internal rate of return (IRR) achieved over a period of time, based on the portfolio cash flows and valuations.

DPI

The distributed (DPI) multiple is the total amount distributed to investors as a percentage of paid-in/committed capital.

TVPI

The total value multiple (TVPI) is the total amount distributed plus the residual value attributable to investors as a percentage of paid-in capital.

Return inputs

Cash flow

Transfer of capital into and out of a business.

Drawdown

Fund manager collecting capital from investors.

Distribution

Fund manager returning capital to investors.

Time periods

Vintage year

Governed by the date of the fund's first drawdown, that is, the earlier of either: (i) the first payment by the investor to the fund; or (ii) the first investment made by the fund.

Since inception

From the actual start of the fund (i.e. from the first drawdown) up to a particular point in time. This measure of return most closely reflects the return a primary investor would have achieved.

Horizon

Horizon IRRs look backwards at specific time horizons. This measure includes cashflows from all funds that were active at some point during horizon period, regardless of which part of the life cycle the fund is in.

Types of return

Net return

The return represents the 'net' return to investors after costs and fees. Provision is made for carried interest, which would have been payable if the residual valuation had been realised at the valuation date.

Gross return

The return represents the 'gross' return to investors before costs, fees and carried interest provision.

Investment stage

Pre-1996 vintage funds

Early stage

Invests in companies in the seed (concept), start-up (within three years of a company's establishment) and

early stages of development.

Development

Invests in expansion stage companies, that is, established companies that raise private equity to make acquisitions, fund working capital, buy new plant, etc. and small management buyouts and buy-ins (MBOs) with less than £10 million of equity invested per transaction.

Mid Private Equity

Invests in private equity with £10 million to £100 million of equity invested per transaction.

Large Private Equity

Invests in private equity with more than £100 million of equity invested per transaction.

Generalist

Invests across all stages of private equity.

Note: The same definitions of mid-private equity and large private equity apply throughout the life of the survey.



Appendix 2

Definitions

1996 vintage funds onwards

Venture

Invests in companies in the seed (concept), start-up (within three years of a company's establishment) and early stages of development.

Small Private Equity

Invests in private equity with less than £10 million of equity invested. This category also includes development capital for expansion stage companies, that is, established companies that raise private equity to make acquisitions, fund working capital, buy new plant machinery and the like.

Fund Subcategories

(apply to all vintages)

UK

Invests primarily (at least 60% of the fund) in companies inside the UK.

Non-UK

Invests primarily (at least 60% of the fund) in companies outside the UK.

Pan-European

Invests in more than two European countries.

Technology

Invests primarily (at least 60% of the fund) in technology companies.

Non-Technology

Invests primarily (at least 60% of the fund) in non-technology companies.

Mathematical terms

Pooled return

We pool all cash flows and valuations as if they were one fund, and calculate the IRR or multiples on this set of combined, or pooled, cash flows. This gives the IRR or return for the total sample of funds being analysed, with funds implicitly being weighted by size.

Range of returns

The range of returns analysis demonstrates the variation in performance between different funds. Within each range, a portfolio's results are defined in terms of a percentile ranking. Ranges can be subdivided by

quartiles, deciles and percentiles (see below). The range between the tenth and ninetieth percentile is known as the 'interdecile' range.

Top decile

Tenth percentile – 10% of the funds have an equal or higher return than this value.

Upper quartile

Twenty-fifth percentile – 25% of the funds have an equal or higher return than this value.

Median

Fiftieth percentile – The return of funds in the middle of the ranking.

Lower quartile

Seventy-fifth percentile – 75% of the funds have an equal or higher return than this value.

Bottom decile

Ninetieth percentile – 90% of the funds have an equal or higher return than this value.

Percentile ranking

Percentile rankings indicate the position occupied by a portfolio return in a particular universe. A ranking of the nth percentile means that n% of funds achieved a return greater than or equal to that fund's return. See also 'range of returns'.



Appendix 3

Example IRR calculation with carried interest

As explained earlier in this report, private equity and venture capital firms are typically entitled to a profit share, called carried interest, once fund investors have been repaid their initial capital investment plus a designated “preferred return” or “hurdle rate” (typically around 8-10%). This mechanism aligns the interests of the firm with that of investors and incentivises the firm to maximise a fund’s performance over the long term.

This appendix sets out a worked example of how carried interest might be calculated for a fund, and demonstrates the difference between ‘gross return’ (i.e. the total returns of the fund including carried interest), and ‘net return’ (i.e. the total returns due to investors).

It is the net return after carried interest which is presented in this survey i.e. the returns actually due to investors.

Sample carried interest calculation to produce an interim IRR

An interim IRR is a ‘snapshot’ of performance to date. In calculating an interim IRR, the assumption used is that the fund is wound up at the valuation date (in this case 31 December 2022) and that the residual value is distributed according to the rules laid out when the fund was set up.

In order to calculate the interim IRR to investors, we need to know not only the fund cash flows and a current valuation estimate, but also the rules on how returns are divided between investors and fund managers. These will vary by fund, with most funds having a hurdle rate of around 8-10%. It is only after this is achieved that the private equity or venture capital firm is entitled to any share in the fund’s profits (carried interest).



Appendix 3

Example IRR calculation with carried interest

For the purpose of our worked example, we have made the following assumptions:

Cash flows (set out in the table opposite)

Fund size – £20 million

Draw down – £17 million (85%)

Distributed – £12.25 million.

Residual net asset value (NAV) at 31 December 2022 (before carried interest) – £12 million.

Distribution priority (Waterfall)

i) 100% to investors until commitments returned

ii) 100% to investors until a 'preferred return' of 10% pa compound is achieved (i.e. a hurdle rate of 10%)

iii) 100% to manager until payments equal 25% of ii)

iv) 80% to investors, 20% to the private equity fund thereafter.

As the fund is not fully drawn down, one of two assumptions can be made, each of which has the same effect on the IRR calculation:

i) The £3 million not yet drawn down is cancelled and commitments correspondingly drop to £17 million; or

ii) The £3 million is drawn down on 31 December 2022 and distributed simultaneously.

This example produces an interim IRR before carried interest of 12.9%.

Cash flow date	Amount (£m)	Comment
01-Feb-18	-2,000,000	10% draw down from investors
10-Jun-18	-2,000,000	10% draw down from investors
25-Nov-18	-2,000,000	10% draw down from investors
03-Apr-19	-2,000,000	10% draw down from investors
09-Sep-19	-2,000,000	10% draw down from investors
12-Dec-19	-2,000,000	10% draw down from investors
05-May-20	-2,000,000	10% draw down from investors
15-Oct-20	1,500,000	Cash distribution to investors
11-Nov-20	-1,000,000	5% draw down from investors
29-Mar-21	2,500,000	Cash distribution to investors
27-Jun-21	1,000,000	Cash distribution to investors
18-Sep-21	-2,000,000	10% draw down from investors
29-Apr-22	3,000,000	Cash distribution to investors
12-Aug-22	1,500,000	Cash distribution to investors
15-Dec-22	2,750,000	Cash distribution to investors
31-Dec-22	12,000,000	Residual NAV



Appendix 3

Example IRR calculation with carried interest

The IRR in this example is above the 10% hurdle rate and a proportion of this return will be allocated to the private equity or venture capital firm in the form of carried interest.

To calculate the net IRR for investors after carried interest, we need to apply the distribution priority waterfall set out on the previous page.

Firstly, we identify the net asset value (NAV) required to produce the preferred return of 10% to investors as of 31 December 2022. Back solving the cash flows on the previous page to achieve a compounded annualised return of 10% means that the investors must be allocated £10,098,788 out of the £12,000,000 net asset value.

This leaves an excess of £1,901,212 to be allocated between the investors and the fund manager.

Once investors have been allocated their preferred return, the fund manager becomes entitled to an amount equivalent to 25% of the minimum profit achieved (i.e. £1,337,197) in accordance with distribution priority item iii) which allows the fund to 'catch up' such that

the profit share ratio between investors and the manager remains 80/20 overall.

Any remaining excess amount is then divided in line with distribution priority iv) and split 80% / 20% between the investors and the fund manager.

In our example, this means that 20% of the remaining excess of £564,015 (£1,901,212 – £1,337,197) would be allocated to the fund manager and the remainder to the investors. The manager would now have received 20% of total profits, that is, 20% of (£5,348,788 + £1,337,197 + £564,015).

The net IRR to investors is calculated by using the cash flows on the previous page but substituting the £12,000,000 net asset value with solely the net asset value due to investors, in this case £10,550,000.

The interim IRR after carried interest in this example is therefore 10.7% p.a. It is this figure which is reported in the BVCA Performance Measurement Survey.

Of the £12,000,000 residual NAV, £11,435,985 has been allocated as follows:

£4,750,000	To the investors to make draw downs equal to distributions
£5,348,788	To the investors to produce the preferred return – ii)
£1,337,197	To the manager to produce 20% of gains at the preferred return point – iii)
£11,435,985	

The residual £564,015 (£12,000,000-£11,435,985) is to be allocated in accordance with condition iv):

£451,212	To the investors
£112,803	To the manager
£564,015	

In total the £12,000,000 has been allocated as follows:

£10,550,000	To the investors
£1,450,000	To the manager
£12,000,000	

Please note that the manager has received 20% of net gains (£1,450,000 being 25% of (£10,550,000 + £12,250,000-£17,000,000)). NB. If the residual NAV had been £10,098,788 condition iii) could not be fulfilled in its entirety and the interim IRR would be exactly 10% pa.



Appendix 4

List of responding firms

- 3i
- 4Bio Ventures Management
- Abingworth LLP
- ACF Investors
- Alchemy Partners LLP
- Aliter Capital LLP
- ALSA Ventures
- Amadeus Capital Partners Limited
- Anthemis Group
- Apax Partners UK Ltd
- Apiary Capital LLP
- August Equity LLP
- Bain Capital Europe LLP
- Baird Capital
- Balderton Capital
- Beech Tree Private Equity
- Bestport Ventures LLP
- Blue Earth Capital AG
- BlueGem Capital Partners LLP
- Bowmark Capital LLP
- Bregal Capital LLP
- Bridgepoint
- Bridges Fund Management Limited
- Cambridge Innovation Capital
- CBPE Capital
- CGE Partners LLP
- Cinven Limited
- Circularity Capital
- Clean Growth Investment Management LLP
- Cordovan Capital Management
- Cornerstone VC
- Crane Venture Partners
- CVC Advisers Limited
- Development Bank of Wales
- Duke Street
- Dunedin LLP
- ECI Partners LLP
- EKA Ventures
- Elysian Capital LLP
- EMK Capital
- Endless LLP
- Equistone Partners Europe Limited
- ETF Partners
- Exponent Private Equity LLP
- FPE Capital LLP
- Freshstream
- Frog Capital Limited
- G Square Healthcare Private Equity LLP
- GHO Capital LLP
- Graphite Capital Management LLP
- Growth Capital Partners LLP (GCP)
- HG Capital
- Horizon Capital LLP
- Inflexion Private Equity
- Inspirit Capital
- IQ Capital Partners LLP
- Just Climate LLP
- Kester Capital LLP
- Key Capital Partners LLP
- Kings Park Capital
- Livingbridge EP LLP
- Magenta Partners LLP
- Mayfair Equity Partners
- Mercia Asset Management
- MMC Ventures Ltd
- Mobeus Equity Partners
- Nesta Investment Management LLP
- Next Wave Partners LLP
- NorthEdge Capital LLP
- Oakley Capital Limited
- Oxford Capital
- Oxx
- Palamon Capital Partners, LP
- Palatine Private Equity LLP
- Par Equity LLP
- Penta Capital LLP
- Permira Advisers (London) Ltd
- Phoenix Equity Partners
- Pi Labs
- Piper PE LLP
- Primary Capital Partners LLP
- Queen's Park Equity
- Rutland Partners LLP
- SEP
- Silverfleet Capital
- Sovereign Capital
- Spex Capital Ltd
- STAR Capital Partnership LLP
- Start Codon Fund 1 LP
- Sure Valley Ventures Limited
- Sussex Place Ventures
- Synova LLP
- Systemiq Capital Limited
- Target Global
- TDR Capital LLP
- Technology Venture Partners
- Terra Firma Capital Partners Limited
- Top Technology Ventures Limited
- TowerBrook Capital Partners (UK) LLP
- True
- Vespa Capital LLP
- Vitruvian Partners LLP
- WestBridge Fund Managers Limited
- YFM Equity Partners
- Zouk Capital LLP

The BVCA would like to thank all firms who contributed to the 2022 edition of the Performance Measurement Survey



Contacts & useful resources

BVCA Performance Measurement Survey 2022 Highlights

BVCA Performance Measurement Survey 2022 Data Pack

Private capital: rising to the challenges of turbulent times

BVCA Report on Investment Activity 2022

Measuring the contribution of private equity and venture capital to the UK economy in 2023

If you would like to discuss this report on the industry's contribution more generally, please contact any of the following:



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We would also like to extend our thanks to all firms who responded to our Performance Measurement Survey.

Please contact research@bvca.co.uk for any enquiries.

About the BVCA

The British Private Equity & Venture Capital Association (BVCA) is the voice of private capital in the UK.

We have been advocating for the UK's private equity and venture capital industry for 40 years, helping it to uphold its vision and achieve its goals. We actively represent this diverse community of long-term investors, enabling them to speak with one clear and consistent voice to society, including the Government, media and MPs.

We connect institutional investors, fund managers, companies, advisers and service providers together, with our membership currently comprising more than 700 businesses from across the private capital ecosystem. This includes more than 325 PE and VC firms, 100 institutional investors and 220 professional services firms.

The BVCA supports its members to help companies grow and achieve their long-term ambitions, creating value for the country, both economically and socially. From creating medicines to protect us against COVID-19, to backing innovative companies in their quest to find solutions to our low-carbon future, private capital also plays a critical role in addressing society's future challenges.

Together we are invested in a better future.



The data within this report was collated and analysed by the BVCA and PwC Research. While PricewaterhouseCoopers LLP (PwC) and the BVCA have made every effort to ensure the reliability of the data included in this report, they do not assume any responsibility for any inaccuracy in the data nor for the accuracy of the underlying amounts submitted by the participating private equity and venture capital funds. The survey is based on valuations provided by each participating fund. Neither the BVCA nor PwC have independently checked the valuation data, or independently confirmed that the International Private Equity and Venture Capital Valuation Guidelines have been adhered to.

The data used in the preparation of the report has not been independently verified, validated or audited by the BVCA or PwC. This publication has been prepared for general guidance on matters of interest

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