



British  
Private Equity &  
Venture Capital  
Association



# BVCA Private Equity and Venture Capital

## Performance Measurement Survey 2019

A survey of independent UK-based funds that raise capital  
from third-party investors





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# Foreword

Throughout 2019, political and economic uncertainty continued to impact the UK and wider European economy. However, the human economic cost of the COVID-19 pandemic has, of course, overshadowed other issues in 2020. As we approach the end of this very difficult year, policymakers, investors and businesses alike are already turning their minds to the recovery, with a focus on innovation, including digital transformation, skills, and sustainability.

Private equity and venture capital will play a significant role in the recovery of the UK economy, backing entrepreneurs and management teams across all the nations and regions to grow businesses, support employment, expand internationally and boost productivity. BVCA members invested over £43bn in 3,230 UK businesses from 2015-2019, including £11bn in the Midlands and the north of England. Companies backed by private equity and venture capital currently employ 972,000 people in the UK and the overwhelming majority of the businesses our members invest in are SMEs.

The private equity and venture capital industry is equally important to investors. It has consistently and continuously delivered excellent returns for its investors, as this report details. The BVCA Private Equity & Venture Capital Performance Measurement Survey, produced in association with PwC, includes data from a direct survey of the BVCA's eligible members. The survey contains information on 813 UK-managed funds and the results are provided net of fees and costs, including a provision for carried interest, where appropriate.

The primary method for calculating returns is the annualised internal rate of return (IRR), but we also report on multiples of drawn down cash or paid in capital.

For this year's survey we had 117 responses, out of 154 eligible firms (a 76% response rate). More detail on methodology is included in the appendices, including review processes.

When comparing the performance of the industry with public markets, the five-year and ten-year annual returns were 20.1% and 14.2% respectively, compared to the FTSE All-Share, which returned 7.5% and 8.1% to investors over the same respective time periods. Further comparative data is included in this report.

As this is a long-term asset class, the most appropriate measure of the long-term performance of a venture capital and private equity fund is on a since inception basis. We present this on a vintage basis, as well as for the portfolio data set by segment (further explanation of why these metrics are used is set out later in this report). The survey shows that since 2008, all vintages have generated since inception IRRs in excess of 14%.

The since inception multiple returns are also impressive. Across all years, the DPI – the total amount distributed to investors as a percentage of paid-in capital – was 143.9%. The TVPI – the total amount distributed plus the residual value attributable to investors as a percentage of paid-in capital – was 179.1%.

Given that investors in private equity and venture capital include pension funds, insurance companies and endowments, these returns make an important contribution to their institutions and in turn to their beneficiaries such as pensioners and savers across the UK and the world.

We would like to thank the BVCA members that contributed data, and give special thanks to Mark Drugan from Capital Dynamics who has supported this report since its creation.



**Neil MacDougall**  
BVCA Chair 2020-21, October 2020



**Richard McGuire**  
Partner, Private Equity Funds Leader,  
PwC, October 2020

# Highlights part 1 – Since inception return by vintage year to December 2019

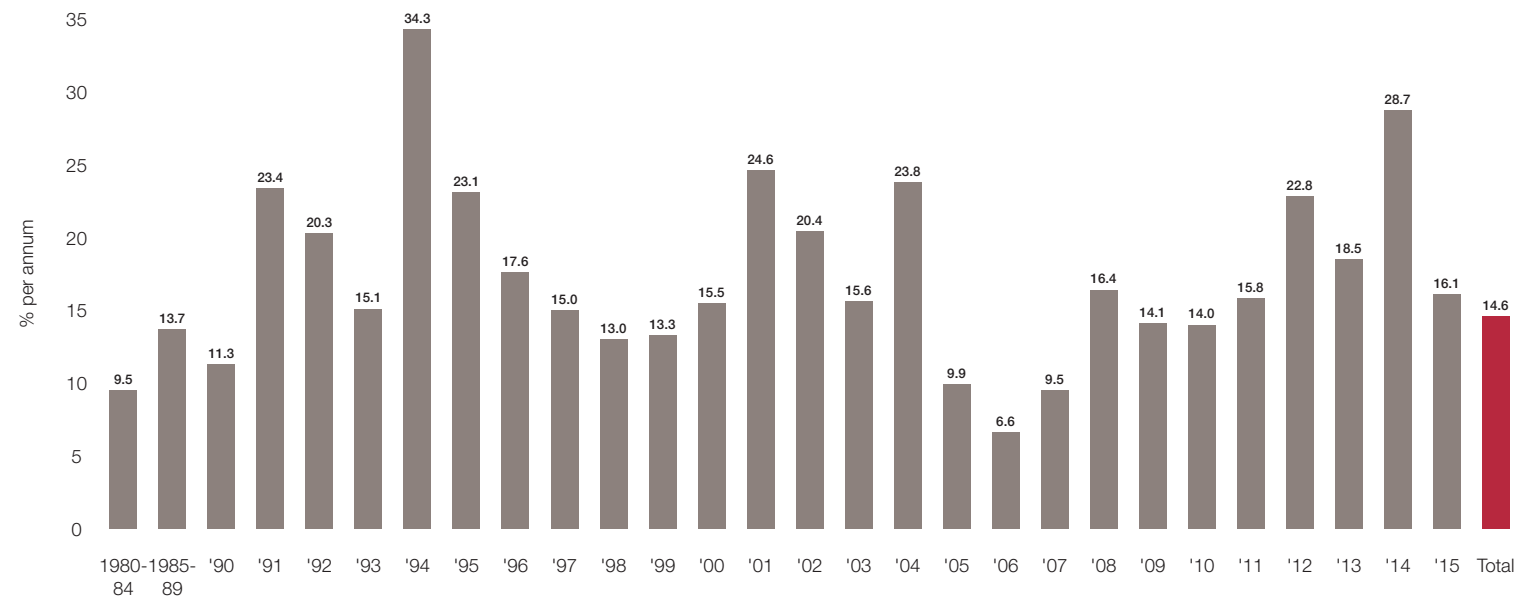
Since 2008, all vintages have generated since inception IRRs in excess of 14%.

Most private equity and venture capital funds have a life of ten years or more, and it is only possible to measure the actual returns from that fund when all investments have been liquidated and proceeds have been returned to investors. Before then, any interim performance data will necessarily be based on an estimate of the residual value of the fund's investments, and any fees that may accrue. That is why it is hard to properly assess the performance of more recent fund vintages, and the longer-term performance data should be regarded as more reliable.

The best measure of fund performance is the since inception IRR by vintage year as it measures the performance over the full life cycle of the fund. For the reason highlighted earlier, funds raised from 2016 onwards are not included in the computation of since inception returns as these funds are still at the early stage of their life cycle and not yet fully deployed, hence their investment return during this period does not provide an accurate indication of their performance at liquidation.

As of December 2019, the best performing fund vintage since 2008 was 2014 which generated a pooled average of 28.7% per annum.

Since Inception Return by Vintage Year to December 2019 (% p.a.)



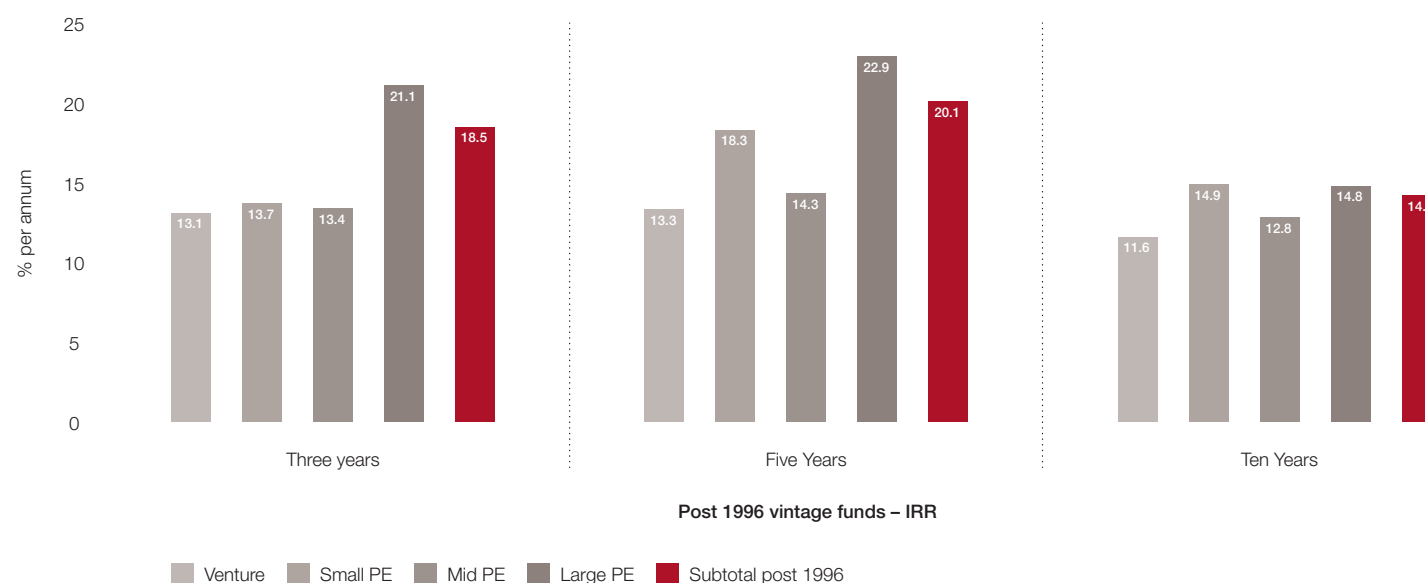
# Highlights part 2 – Summary of performance by investment stage and subcategories

Funds raised after 1996 were classified into four investment stages (recognising how the industry has evolved): Venture, Small Private Equity investments, Mid-market Private Equity investments, and Large Private Equity investments. The industry as a whole has generally performed well over a three-, five- and ten-year horizon when compared to FTSE indices. Horizon IRRs calculate the IRR over a specific time horizon, to see how the performance of the fund has evolved across time. We use Horizon IRRs to compare the performance of the funds in this survey with indices across the same period of time.

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 2019, we use the fund NAVs as at 31 December 2014), and treat this amount as the first draw down;
- (iii) calculate the aggregated net cash flows for everyday until 31st December 2019;
- (iv) add the aggregated fund NAVs as at 31st December 2019; and
- (v) calculate the Horizon IRR on the resulting cashflows.

Summary of Performance by Investment Stage and Subcategories (% p.a.)



Comparison to FTSE Indices

	Three years	Five years	Ten years
UK Private Equity and Venture Capital	18.5	20.1	14.2
FTSE All-Share index	6.9	7.5	8.1
FTSE 100 index	6.2	7.1	7.4
FTSE 250 index	9.6	9.3	12.0
FTSE 350 index	6.8	7.5	8.0

# Highlights part 3 – Capital raised by investment stage and subcategory

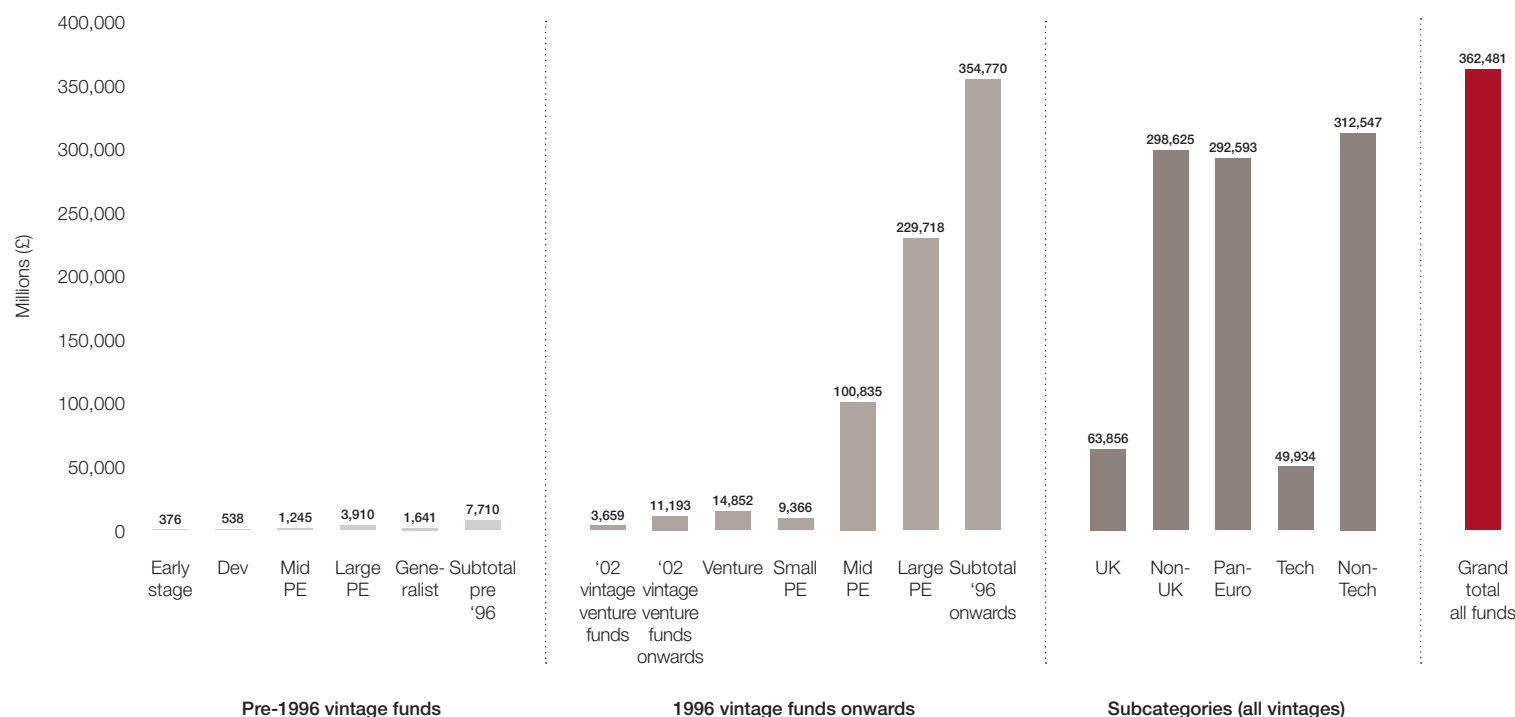
The survey contains information on 813 UK-managed funds. In aggregate these funds had raised £362.5 billion of capital for deployment in the UK and across the world.

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

- Be a full BVCA member;
- Raise money from third-party investors;
- Manage that money from the UK (although it may be invested elsewhere).

For this year's survey we had 117 responses, out of 154 eligible GPs (76% response rate). More detail on methodology is included in the appendices, including review processes.

Capital Raised by Investment Stage and Subcategory – December 2019



# Highlights part 4 – Performance of venture capital

## Venture Capital Performance

The UK venture capital industry is the most well developed ecosystem in Europe. The analysis of venture capital funds shows that the sector has come out of the Dot-com bubble in a relatively mixed fashion and in some areas still suffers from the second round effects of the bubble. To provide a more holistic and balanced assessment, we segment our funds into three categories according to their respective vintage year bands: Pre-bubble (1980 to 1997), bubble (1998 to 2001) and Post-bubble (2002 to 2012).

Funds with a vintage at the height of the bubble, between 1998 and 2001, have suffered from poor performance. However, the 2002 to 2014 (post-bubble) fund vintages have generated better returns.

## Since Inception IRR (%) – Venture funds (purely commercial)

	Subtotal	Pre-bubble 1980-1997	Bubble 1998-2001	Post-bubble 2002-2015
No. of funds	105	32	26	47
Pooled average	7.6	11.8	0.2	12.9
10th percentile	21.8	24.5	4.9	27.5
25th percentile	12.0	15.4	3.8	16.1
Median	3.5	9.1	-2.5	3.8
75th percentile	-2.6	-2.0	-10.4	0.0
90th percentile	-14.2	-9.3	-20.5	-12.0
Inter-decile range	36.0	33.8	25.4	39.5
<b>Range of returns</b>	<b>132.9</b>	<b>71.5</b>	<b>60.8</b>	<b>132.9</b>
DPI	101.5	163.4	79.5	97.3
TVPI	159.6	165.4	101.8	197.6

The table reports the returns of the venture funds with no restrictions in their investment strategy imposed by their investors for purposes other than return maximisation or risk management. Therefore, funds that have public investment are **not included** in this table.



# Further information on metrics used in this report

## Private equity and venture capital characteristics

The characteristics of private equity and venture capital performance differ from other asset classes. Typically, private equity and venture capital fund investments show less correlation to quoted public equity markets and are relatively illiquid, particularly in the early years. Private equity and venture capital is a long-term investment, which, in the first few years, will normally show a drop in the net asset value before showing any significant uplift. This is often the effect of management fees being paid out, as well as the costs of initial capital being deployed into companies.

Private equity and venture capital offer institutional investors the opportunity to further diversify their asset allocation with the prospect of attractive investment returns and the ability to invest through economic cycles. It does, however, have different characteristics from quoted equity and it is crucial that an institutional investor considers the appropriateness of private equity and venture capital in relation to their own particular risk profile and objectives. The life cycle of a private equity or venture capital fund commitment is typically ten years or more. An investor will receive pro-rata distributions of capital during the life of the fund.

The 'secondaries market', as it is colloquially known, provides an opportunity for investors to liquidate or increase their exposure to private equity and venture capital by buying or selling fund stakes to other investors in the asset class.

## Methods of measurement – IRRs and multiples

The primary method for calculating the return of a private equity or venture capital fund is based on the annualised internal rate of return (IRR) achieved over a period of time. The IRR is the metric most often used because, unlike a multiple of paid in capital, it takes account of the time value of money and can be used when an investment or an investment portfolio includes irregular cash flows, as is the case in private equity and venture capital. It is relatively easy to compute, including when there is no portfolio valuation available on the date of each cash flow, and is widely accepted.

This report measures performance in two main ways: 'since inception' and 'medium to long-term' (over three, five, and ten years using Horizon IRRs). The IRR does have some limitations, which is why in this survey returns data is also presented using paid in capital multiples.

One important issue is the so-called 're-investment assumption', which assumes that cash flows are re-invested at the same rate of return. This can provide a distortion (upwards or downwards) of the actual amounts realised by an investor over the life of a fund, depending upon the actual returns it can receive on cash flows generated by the investment. PME (Public Market Equivalent) and PME+ are helpful ways to compare returns generated by private equity and venture capital funds to those in the public markets, and a number of academic studies have used that method. PME is generated by creating a hypothetical investment vehicle which purchases and sells shares in the public market index in such a way that mimics a private equity or venture capital fund's irregular cash flows, and the PME+ deals with a technical issue that arises with a PME calculation if the private equity or venture capital fund significantly outperforms the market. Computational challenges make it difficult to produce reliable PME performance reports on an industry-wide basis, although the BVCA is working towards being able to do so in the future. Investors who are making investment decisions about an individual fund can, and often do, calculate a fund's PME based on data provided during due diligence.

We began reporting fund multiples alongside IRRs in the 2004 report. The multiples shown are: the total amount distributed to investors as a percentage of paid-in capital (DPI, 'distributions to paid in'), and the total amount distributed plus the residual value attributable to investors as a percentage of paid-in capital (TVPI, 'total value to paid in'). DPI therefore shows cash on cash and it is possible to see how much the funds have actually returned to investors, whereas TVPI also takes account of undistributed assets at their current valuation. It is important to note that, unlike IRR, multiples do not account for the time value of money. It is therefore important not to look at multiples of paid-in capital in isolation.

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, and they are best placed to take a view on this. When these institutions invest in a fund, they will have information rights, including detailed reporting requirements on historic performance and fees.

# Further information on metrics used in this report

Continued

## Since inception returns

This is the most meaningful way in which to measure private equity and venture capital performance. It measures from the start of a fund's investment (i.e. from the fund's first drawdown) up to a particular point in time. This therefore most closely reflects the return an investor would achieve if they invested at the start of the fund.

We present this on a vintage year basis, as well as for the portfolio data set by segment. We calculate the pooled IRR for each vintage year (i.e. treating all funds in that vintage as though they were a single fund) and present the pooled return as well as the dispersion around that average. We also present the median return, which is the actual return of the middle ranking fund in the sample. The pooled return is influenced by larger funds in the sample, whereas the median is size-neutral. The data is also calculated by segment, and segment and vintage e.g. (i) venture, and (ii) venture and specific vintages.

## Medium to long-term returns

Medium to long-term horizon IRRs are included in this report so that investors can compare private equity and venture capital returns with those of other asset classes, which is not possible with the 'since inception' horizon. It is not, however, the most appropriate way to measure private equity and venture capital performance. The returns quoted in the medium to long-term figures cover all activity of all funds in the survey over the measured period to 31 December 2019. This activity is not limited to those funds that were in existence at the start of the measured period (e.g. the ten-year return covers all activity of all funds over the period 1 January 2010 to 31 December 2019, regardless of whether the funds had been in existence for the whole of the measured period).

## Current year returns

One-year figures are extremely volatile and inappropriate as a realistic measure of private equity performance, since it is largely not possible to invest in a private equity or venture capital fund for just one year. They may, however, be used as an indication of how well the UK industry performed in that one year but this should be viewed with caution.

## Reclassification of investment stages for 1996 vintage funds onwards

To reflect changes in the market, which from the mid-1990s have seen the predominance of larger funds, a 'restart' in the venture marketplace, and the growing recognition of private equity as an asset class, 1996 vintage funds onwards were (14 years ago) reclassified into four new investment stage categories: Venture, Small Private Equity investments (including development capital), Mid-market private equity investments and Large private equity investments. Pre-1996 vintage funds remain in the previous stage categories (i.e. Early Stage, Development, Mid Private Equity investments, Large Private Equity investments and Generalist). This is reflected in the tables accordingly. Please see Glossary of Terms for definitions. Comparative figures are not available, other than for the subcategories of UK and Non-UK, Pan-European and Technology and Non-Technology, which apply to all vintages.

# Returns by investment stage – IRR and multiple

Private equity is in and of itself a long-term asset class, and over the long-term, both industry-related and independent academic research indicates that private equity performance is superior to other comparable asset classes. The performance of a private equity fund is influenced by a number of factors not least the investment stage and the vintage year. The measure of fund performance used throughout this report is the internal rate of return (IRR), which is based on managers' discretionary portfolio cash flows and year-end valuations.

## Since inception fund multiples and IRRs

A DPI of 143.9% as at December 2019 indicates that BVCA member funds (which are at least four years old) have in aggregate returned all of the initial capital committed for investments and fees back to their fund investors, and more in addition to this. There is however, a considerable amount of residual value present within these portfolios, which will be liquidated and realised in due course. Taking account of this residual value, the total value (or TVPI multiple) yielded by these funds is 179.1% of the capital committed by fund investors as at December 2019. The post-1996 vintage funds have a similar DPI and TVPI, which is marginally lower because of venture funds raised during the Dot-com bubble.

As the majority of the pre-1996 vintage funds have been fully wound up or retain only inconsequential residual values, their since inception IRRs are largely based upon realised cash flows and value. There is also little difference between the DPI and TVPI.

The performance of all funds, less those that are not at least four years old (and therefore not yet sufficiently mature), from their inception to December 2019, stood at 14.6% IRR per annum. Portfolio since inception IRRs do not change much year-on-year. Therefore, further attention should be paid to the vintage and investment stage analysis, and the range of returns, included later in this report.

## Since Inception Return to Dec 2019 – Multiple to Paid-in Capital (%) – Investment Stage and Subcategory

	No. of funds	DPI	TVPI	IRR to Dec' 19
<b>Pre-1996 vintage funds</b>				
Early stage	24	165.7	170.1	9.1
Development	35	170.9	171.4	10.2
Mid Private Equity	33	177.4	177.4	15.8
Large Private Equity	26	192.4	192.4	18.2
Generalist	35	242.1	243.0	15.8
<b>Subtotal pre-1996</b>	<b>153</b>	<b>197.1</b>	<b>197.5</b>	<b>15.6</b>
<b>1996 vintage funds onwards</b>				
Venture	155	85.6	143.7	5.6
pre '02 vintage venture funds	43	86.7	100.6	0.1
'02 vintage venture funds onwards	112	85.1	166.8	9.3
Small Private Equity	94	134.3	183.7	15.8
Mid Private Equity	205	120.6	158.1	11.9
Large Private Equity	64	154.8	188.6	16.1
<b>Subtotal 1996 onwards</b>	<b>518</b>	<b>142.2</b>	<b>178.5</b>	<b>14.3</b>
<b>Grand total all funds</b>	<b>671</b>	<b>143.9</b>	<b>179.1</b>	<b>14.6</b>
<b>Subcategories (all vintages)</b>				
UK	460	127.0	162.6	13.4
Non-UK	211	147.8	182.9	15.2
Pan-European	214	150.5	183.7	16.1
Technology	175	127.6	189.2	11.8
Non-Technology	496	145.9	177.8	15.1



# Returns by investment stage – IRR and multiple

Continued

## Medium to long-term IRR by investment stage

Over the three-, five- and ten-year time horizons, UK private equity and venture capital once again yielded solid returns of 18.5%, 20.1% and 14.2% respectively. Over these timeframes, the aggregate performance was in excess of, and in most investment stages far superior than, the returns delivered to investors in the FTSE All-Share and other indices listed here. Pan-European and Technology focused funds continued to perform very well.

## Current year IRR

Annual performance figures are highly volatile and unsuitable as a realistic measure of private equity returns. They may present a snapshot of activity in a given 12 month window. This year, the annual IRR for the 813 funds covered in the survey was 17.5% which was lower than the FTSE indices listed here.

## Pre-1996 vintage funds

The point-to-point returns for the pre-1996 vintage funds are shown only in the total and should be interpreted with special care. As the majority of these funds have either been wound up or retain only minimal residual values, even a small number of positive exit events or write-offs can cause large swings in their short-term returns. The weight of money in this group now has little impact on the returns of the total sample.

## Current year and longer term returns – IRR (% p.a.) by Investment Stage and Subcategory

	No. of funds	2019	Three years	Five years	Ten years
<b>1996 vintage funds onwards</b>					
Venture	196	12.6	13.1	13.3	11.6
pre '02 vintage venture funds	43	0.5	-0.2	1.9	5.0
'02 vintage venture funds onwards	153	13.6	14.6	15.1	13.2
Small Private Equity	118	3.9	13.7	18.3	14.9
Mid Private Equity	267	11.5	13.4	14.3	12.8
Large Private Equity	79	21.0	21.1	22.9	14.8
<b>Subtotal post 1996</b>	<b>660</b>	<b>17.5</b>	<b>18.5</b>	<b>20.1</b>	<b>14.2</b>
<b>Grand total all funds</b>	<b>813</b>	<b>17.5</b>	<b>18.5</b>	<b>20.1</b>	<b>14.2</b>
<b>Subcategories (all vintages)</b>					
UK	544	12.2	14.4	13.2	13.5
Non-UK	269	18.6	19.2	21.5	14.3
Pan-European	260	20.1	19.2	21.6	14.3
Technology	225	31.9	23.4	23.4	17.6
Non-Technology	588	14.3	17.5	19.6	13.8

## Comparison to FTSE Indices

	2019	Three years	Five years	Ten years
UK Private Equity and Venture Capital	17.5	18.5	20.1	14.2
FTSE All-Share index	19.2	6.9	7.5	8.1
FTSE 100 index	17.3	6.2	7.1	7.4
FTSE 250 index	28.9	9.6	9.3	12.0
FTSE 350 index	19.2	6.8	7.5	8.0

# Returns by investment stage – IRR and multiple

Continued

Since inception return – IRR (% p.a.) by vintage year

	No. of funds	To Dec '19	To Dec '18	To Dec '17	To Dec '16	To Dec '15	To Dec '14	To Dec '13	To Dec '12	To Dec '11	To Dec '10	To Dec '09	To Dec '08	To Dec '07	To Dec '06
1980-84	13	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
1985-89	68	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.8	13.8	13.8
1990	13	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.4	11.3	11.3
1991	14	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4	23.4
1992	7	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
1993	10	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.2	15.0	15.2	15.3	15.3
1994	19	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
1995	9	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	22.2

Please note that the remainder of the data continues on the following page.

# Returns by investment stage – IRR and multiple

Continued

Since inception return – IRR (% p.a.) by vintage year (continued)

	No. of funds	To Dec '19	To Dec '18	To Dec '17	To Dec '16	To Dec '15	To Dec '14	To Dec '13	To Dec '12	To Dec '11	To Dec '10	To Dec '09	To Dec '08	To Dec '07	To Dec '06
1996	13	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.8	17.8	19.1	18.7	18.7
1997	24	15.0	15.0	15.0	15.0	15.0	15.1	15.0	15.0	15.0	15.0	15.1	15.3	15.6	14.7
1998	16	13.0	12.9	12.9	12.9	12.9	12.9	12.9	12.8	12.9	12.8	12.9	12.9	12.5	12.2
1999	25	13.3	11.5	11.5	11.5	11.5	9.9	9.5	9.4	9.7	8.6	8.0	8.0	15.8	8.8
2000	27	15.5	16.5	16.6	16.6	16.6	16.7	16.6	16.6	16.6	16.6	16.2	14.1	16.7	14.9
2001	30	24.6	24.8	24.9	24.9	25.0	25.0	25.1	24.8	25.2	26.1	26.6	27.4	29.1	28.3
2002	20	20.4	24.5	24.4	24.4	24.4	24.9	24.7	25.5	26.1	26.1	25.5	27.0	30.8	26.6
2003	17	15.6	18.2	19.8	19.8	19.8	20.0	20.4	20.7	22.0	23.7	17.5	25.4	32.1	23.4
2004	13	23.8	24.6	24.3	24.4	17.9	24.7	24.2	25.0	26.4	32.0	34.1	41.3	41.1	25.8
2005	26	9.9	9.9	10.7	10.9	10.5	11.1	11.1	9.6	7.4	9.4	8.4	4.2	19.4	24.0
2006	42	6.6	6.6	5.9	5.3	4.6	5.2	6.2	4.2	2.4	5.2	-11.8	-12.7	7.2	100.6
2007	40	9.5	9.6	10.3	9.9	9.4	9.2	9.7	7.9	8.9	12.6	5.1	4.1	24.7	n/a
2008	29	16.4	18.8	17.1	13.5	10.0	7.8	8.1	7.6	7.8	5.8	-5.7	-2.5	n/a	n/a
2009	26	14.1	14.1	12.4	11.8	11.1	-2.1	9.2	4.0	-10.4	8.7	15.5	n/a	n/a	n/a
2010	22	14.0	12.5	16.8	18.2	23.5	25.6	23.3	18.7	37.9	140.8	n/a	n/a	n/a	n/a
2011	22	15.8	15.7	20.7	16.2	30.4	38.8	44.4	70.7	-36.9	n/a	n/a	n/a	n/a	n/a
2012	23	22.8	22.5	27.9	21.9	22.6	1.9	-9.7	-32.6	n/a	n/a	n/a	n/a	n/a	n/a
2013	28	18.5	26.3	19.8	19.8	21.9	-3.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2014	35	28.7	24.3	19.3	9.8	2.5	7.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2015	40	16.1	20.9	9.7	-61.4	-59.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Total*</b>	<b>671</b>	<b>14.6</b>	<b>14.6</b>	<b>14.5</b>	<b>14.1</b>	<b>13.8</b>	<b>13.8</b>	<b>14.1</b>	<b>13.9</b>	<b>14.3</b>	<b>15.3</b>	<b>15.9</b>	<b>16.4</b>	<b>17.3</b>	<b>16.0</b>
2016	37	16.3	15.9	-4.8	41.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2017	34	19.4	27.0	-4.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2018	41	17.2	-57.2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2019	30	-7.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Subtotal 2016-2019</b>	<b>142</b>	<b>17.8</b>	<b>20.7</b>	<b>13.6</b>	<b>4.2</b>	<b>19.8</b>	<b>26.0</b>	<b>29.2</b>	<b>12.4</b>	<b>6.0</b>	<b>11.5</b>	<b>-6.3</b>	<b>-2.1</b>	<b>18.2</b>	<b>27.9</b>

\*The 'total' figures relate to those from 1980-84 through to 2015 and are for each year end based on funds that were at least four years old at the relevant year end.

Please note that the remainder of the data is found on the previous page.



# Returns by investment stage – IRR and multiple

Continued

Since inception return to Dec 2019 – multiple to paid-in capital (%) by vintage year

	No. of funds	Distributions Multiple (DPI)	Total Value Multiple (TVPI)
1980-84	13	205.6	205.6
1985-89	68	183.9	185.1
1990	13	156.8	156.8
1991	14	186.0	186.0
1992	7	192.5	192.5
1993	10	194.5	194.7
1994	19	265.0	265.1
1995	9	192.1	192.1
1996	13	190.6	190.6
1997	24	168.1	168.1
1998	16	175.3	175.4
1999	25	181.7	182.2
2000	27	178.9	182.8
2001	30	197.3	199.6
2002	20	176.3	178.0
2003	17	170.2	176.5
2004	13	188.0	190.5
2005	26	155.7	164.5
2006	42	127.3	148.2
2007	40	149.5	159.8
2008	29	190.7	207.6
2009	26	139.8	175.1
2010	22	131.5	169.6
2011	22	110.5	182.0

	No. of funds	Distributions Multiple (DPI)	Total Value Multiple (TVPI)
2012	23	123.2	210.6
2013	28	80.9	177.7
2014	35	75.4	226.4
2015	40	32.2	141.1
<b>Total</b>	<b>671</b>	<b>143.9</b>	<b>179.1</b>

Please note that funds with vintage post-2015 are not mature enough to calculate since inception return, therefore are not included in this table.

# Returns by investment stage – IRR and multiple

Continued

Medium to long-term return – IRR (% p.a.) by vintage year

	No. of funds	2019	Three years	Five years	Ten years
1980-84	13	n/a	n/a	n/a	n/a
1985-89	68	n/a	n/a	n/a	n/a
1990	13	n/a	n/a	n/a	n/a
1991	14	n/a	n/a	n/a	n/a
1992	7	n/a	n/a	n/a	n/a
1993	10	n/a	n/a	n/a	n/a
1994	19	n/a	n/a	n/a	n/a
1995	9	n/a	n/a	n/a	n/a
1996	13	n/a	234.3	42.7	-13.0
1997	24	-4.2	-0.3	58.1	7.8
1998	16	-39.6	-70.8	-66.8	17.4
1999	25	-4.1	1.5	-22.2	14.7
2000	27	1.9	5.1	5.5	1.9
2001	30	-4.4	-0.5	-1.5	5.6
2002	20	-27.9	35.6	-1.6	7.1
2003	17	-5.6	-1.8	-0.9	12.1
2004	13	5.3	8.5	0.6	7.5
2005	26	3.9	7.9	11.9	12.0
2006	42	10.3	11.1	9.9	12.2
2007	40	7.4	3.1	12.7	11.5
2008	29	17.1	25.0	32.2	17.4
2009	26	9.3	9.5	43.2	14.3
2010	22	-5.2	6.2	9.8	n/a
2011	22	15.1	12.3	19.4	n/a

	No. of funds	2018	Three years	Five years	Ten years
2012	23	18.2	25.0	25.4	n/a
2013	28	23.8	18.3	21.3	n/a
2014	35	31.9	31.5	30.0	n/a
2015	40	18.1	17.5	n/a	n/a
2016	37	14.2	15.4	n/a	n/a
2017	34	15.8	n/a	n/a	n/a
2018	41	11.1	n/a	n/a	n/a
2019	30	n/a	n/a	n/a	n/a
<b>Total</b>	<b>813</b>	<b>17.5</b>	<b>18.5</b>	<b>20.1</b>	<b>14.2</b>

# Returns by vintage year (1996 onwards) and investment stage – IRR and multiple

Since inception return to Dec 2019 – IRR (% p.a.) by vintage year and investment stage

	Small/Mid Private Equity – to Dec '19		Mid/Large Private Equity – to Dec '19		Venture – to Dec '19	
	No. of funds	IRR (% p.a.)	No. of funds	IRR (% p.a.)	No. of funds	IRR (% p.a.)
1996	11	12.4	10	18.1	0	n/a
1997	12	6.9	12	14.7	10	21.0
1998	11	7.1	12	13.3	1	n/a
1999	12	10.0	15	14.1	9	-0.8
2000	14	17.4	12	20.0	11	-3.4
2001	13	23.8	15	26.1	12	1.2
2002	6	27.5	8	23.6	12	-3.5
2003	9	15.7	9	16.6	6	6.4
2004	7	23.0	10	24.1	2	n/a
2005	13	7.0	17	10.0	7	9.2
2006	24	7.9	18	6.2	12	9.3
2007	23	11.4	24	9.5	12	8.1
2008	19	12.2	16	16.4	5	-1.0
2009	16	14.5	8	12.9	8	24.5
2010	15	12.1	8	14.2	6	-1.0
2011	14	15.5	9	16.4	7	9.9
2012	13	17.3	9	23.2	7	18.5
2013	17	14.9	17	18.9	8	7.1
2014	21	14.7	16	29.5	11	16.5
2015	29	10.7	24	16.4	9	19.0
<b>Total</b>	<b>299</b>	<b>12.2</b>	<b>269</b>	<b>14.9</b>	<b>155</b>	<b>5.6</b>

Please note that funds with vintage post-2015 are not mature enough to calculate since inception return, therefore are not included in this table.



# Returns by vintage year (1996 onwards) and investment stage – IRR and multiple

Continued

Since inception return to Dec 2019 – multiple to paid-in capital (%) by vintage year and investment stage

	Small/Mid Private Equity – to Dec '19			Mid/Large Private Equity – to Dec '19			Venture – to Dec '19		
	No. of funds	Distributions (DPI)	Total Value (TVPI)	No. of funds	Distributions (DPI)	Total Value (TVPI)	No. of funds	Distributions (DPI)	Total Value (TVPI)
1996	11	162.1	162.1	10	193.0	193.0	0	n/a	n/a
1997	12	137.1	137.1	12	171.8	171.8	10	160.0	160.5
1998	11	141.5	141.8	12	177.6	177.7	1	n/a	n/a
1999	12	158.8	159.8	15	186.2	186.7	9	93.2	94.9
2000	14	174.3	174.6	12	205.3	205.9	11	48.7	70.2
2001	13	191.9	192.0	15	202.3	203.7	12	92.0	110.3
2002	6	211.1	211.1	8	185.9	186.4	12	55.6	72.7
2003	9	170.2	172.7	9	171.3	178.5	6	138.3	141.7
2004	7	197.4	198.3	10	189.0	191.1	2	n/a	n/a
2005	13	133.7	140.9	17	157.1	164.7	7	111.5	190.5
2006	24	127.8	162.3	18	126.0	145.0	12	118.4	188.4
2007	23	153.7	170.5	24	150.8	159.4	12	107.3	156.4
2008	19	142.5	166.4	16	192.1	208.6	5	12.6	92.4
2009	16	145.6	178.0	8	137.5	163.1	8	169.7	311.7
2010	15	119.2	153.9	8	131.5	167.3	6	16.5	93.9
2011	14	113.1	181.0	9	113.6	182.1	7	95.6	157.1
2012	13	110.1	175.7	9	127.2	214.5	7	88.9	183.2
2013	17	80.1	157.9	17	81.9	180.5	8	28.0	118.6
2014	21	45.4	145.6	16	78.8	231.5	11	22.5	164.9
2015	29	25.1	129.1	24	33.1	142.2	9	12.2	145.1
<b>Total</b>	<b>299</b>	<b>121.8</b>	<b>160.4</b>	<b>269</b>	<b>145.0</b>	<b>179.9</b>	<b>155</b>	<b>85.6</b>	<b>143.7</b>

Please note that funds with vintage post-2015 are not mature enough to calculate since inception return, therefore are not included in this table.

# Returns by vintage year (1996 onwards) and investment stage – IRR and multiple

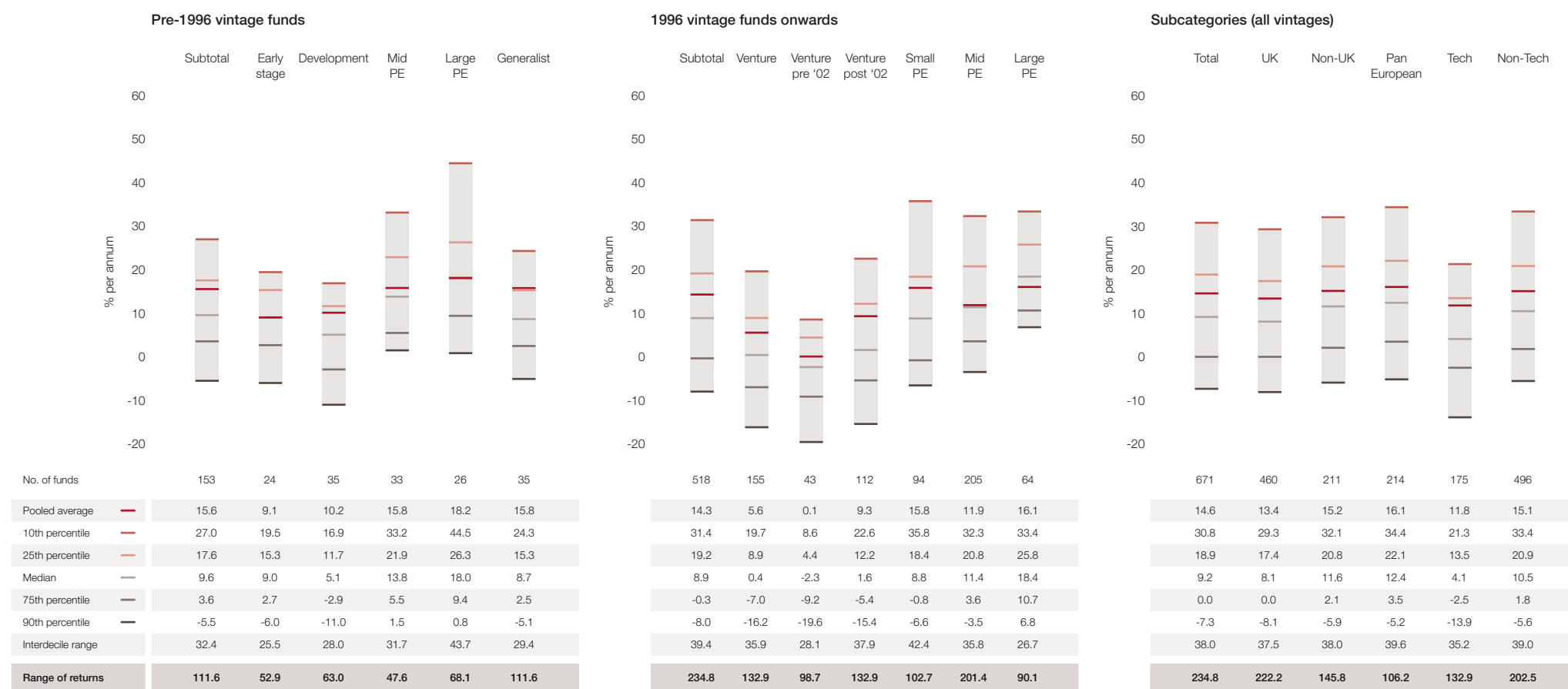
Continued

Medium to long-term return – IRR (% p.a.) by vintage year and investment stage

	Small/Mid Private Equity				Mid/Large Private Equity				Venture			
	No. of funds	Three years	Five years	Ten years	No. of funds	Three years	Five years	Ten years	No. of funds	Three years	Five years	Ten years
1996	11	234.3	74.5	14.0	10	n/a	57.7	-12.9	0	n/a	n/a	n/a
1997	12	n/a	n/a	65.6	12	2.1	106.4	16.9	10	-2.3	17.1	1.0
1998	11	-6.7	-4.7	3.9	12	-71.5	-67.9	17.4	1	n/a	n/a	n/a
1999	12	0.5	8.0	10.1	15	0.8	-24.8	15.3	9	5.0	7.5	4.2
2000	14	1.2	3.6	3.5	12	82.4	25.7	2.4	11	0.7	0.9	1.1
2001	13	-15.2	-18.8	-3.7	15	1.0	-4.8	5.1	12	-1.7	2.5	10.3
2002	6	n/a	n/a	16.1	8	45.3	-3.2	8.1	12	5.0	13.2	-1.2
2003	9	-1.4	6.7	20.0	9	-1.2	-0.8	11.5	6	-8.7	-2.1	8.9
2004	7	14.7	17.5	18.1	10	5.5	-0.2	7.6	2	n/a	n/a	n/a
2005	13	3.2	4.3	10.0	17	6.7	11.7	11.9	7	14.3	13.3	17.2
2006	24	27.6	25.3	13.0	18	11.6	9.3	12.2	12	9.1	14.8	11.7
2007	23	7.1	20.4	15.3	24	2.9	12.6	11.3	12	4.5	6.1	11.4
2008	19	13.8	9.2	13.8	16	25.9	33.0	17.4	5	-7.7	-6.7	-1.2
2009	16	14.7	22.5	13.3	8	6.4	51.4	13.7	8	19.0	24.3	24.1
2010	15	-1.3	5.6	n/a	8	3.6	8.7	n/a	6	0.5	-2.1	n/a
2011	14	13.0	18.3	n/a	9	13.5	20.7	n/a	7	10.6	9.5	n/a
2012	13	18.4	20.4	n/a	9	25.1	25.5	n/a	7	23.5	21.6	n/a
2013	17	20.1	17.9	n/a	17	18.6	21.9	n/a	8	0.1	7.2	n/a
2014	21	14.6	15.4	n/a	16	32.5	30.8	n/a	11	15.3	17.6	n/a
2015	29	13.4	n/a	n/a	24	17.8	n/a	n/a	9	21.3	n/a	n/a
2016	24	17.9	n/a	n/a	17	15.0	n/a	n/a	10	23.3	n/a	n/a
2017	22	n/a	n/a	n/a	20	n/a	n/a	n/a	6	n/a	n/a	n/a
2018	23	n/a	n/a	n/a	24	n/a	n/a	n/a	14	n/a	n/a	n/a
2019	17	n/a	n/a	n/a	16	n/a	n/a	n/a	11	n/a	n/a	n/a
<b>Total</b>	<b>385</b>	<b>13.4</b>	<b>14.8</b>	<b>13.1</b>	<b>346</b>	<b>19.0</b>	<b>20.6</b>	<b>14.3</b>	<b>196</b>	<b>13.1</b>	<b>13.3</b>	<b>11.6</b>

# Range of returns (IRR and multiple) since inception – investment stage and subcategory

Range of returns IRR (%) by investment stage and subcategory – Since inception to December 2019



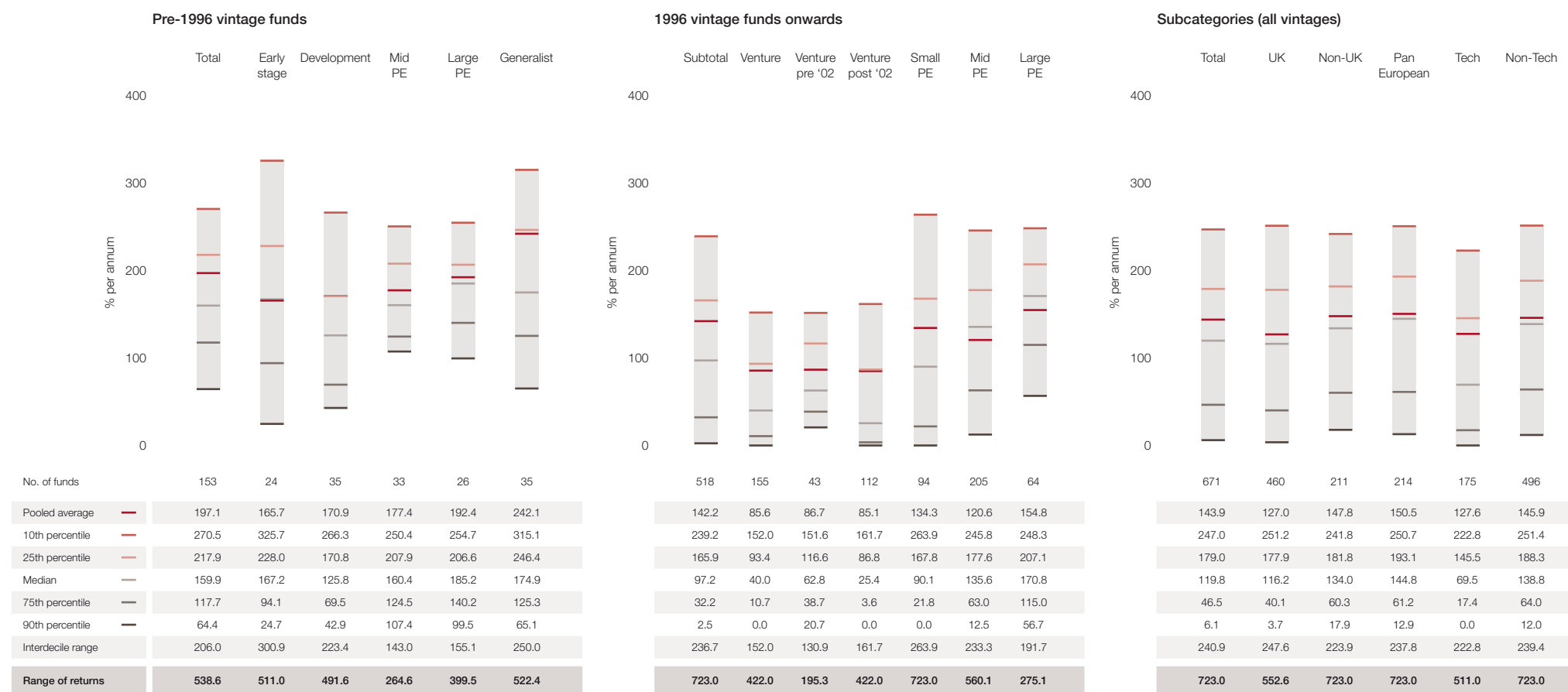
Please note that 2002 vintage funds are included in the Venture post '02 category.



# Range of returns (IRR and multiple) since inception – investment stage and subcategory

Continued

Range of returns (multiple) by investment stage and subcategory (%) – Distributions (DPI) – Since inception to December 2019

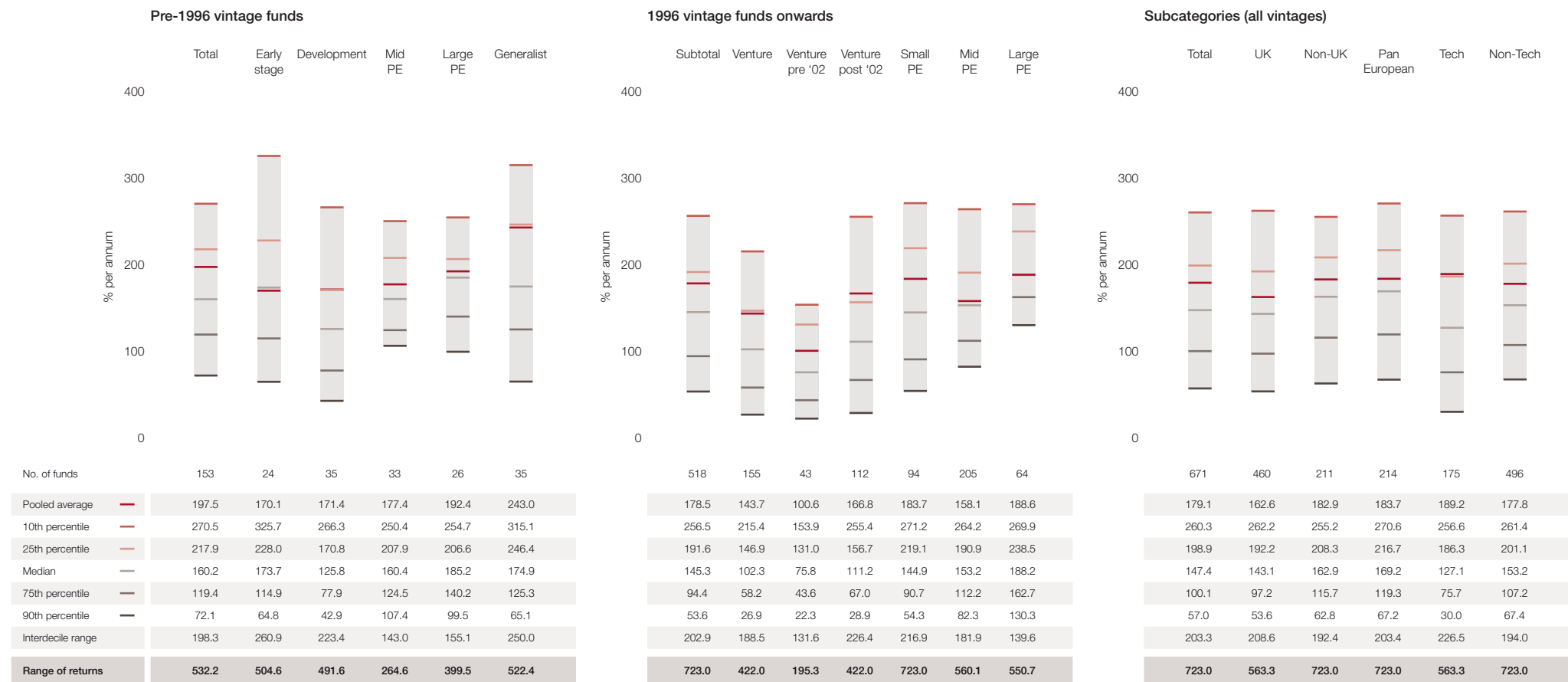


Please note that 2002 vintage funds are included in the Venture post '02 category.

# Range of returns (IRR and multiple) since inception – investment stage and subcategory

Continued

Range of returns (multiple) by investment stage and subcategory (%) – Total Value (TVPI) – Since inception to December 2019



Please note that 2002 vintage funds are included in the Venture post '02 category.

# Range of returns (IRR and multiple) since inception – vintage year

Range of returns – IRR (%) by vintage year – Since inception to December 2019



# Range of returns (IRR and multiple) since inception – vintage year

Continued

Range of returns – multiple (%) by vintage year – Distributions (DPI) – Since inception to December 2019





# Range of returns (IRR and multiple) since inception – vintage year

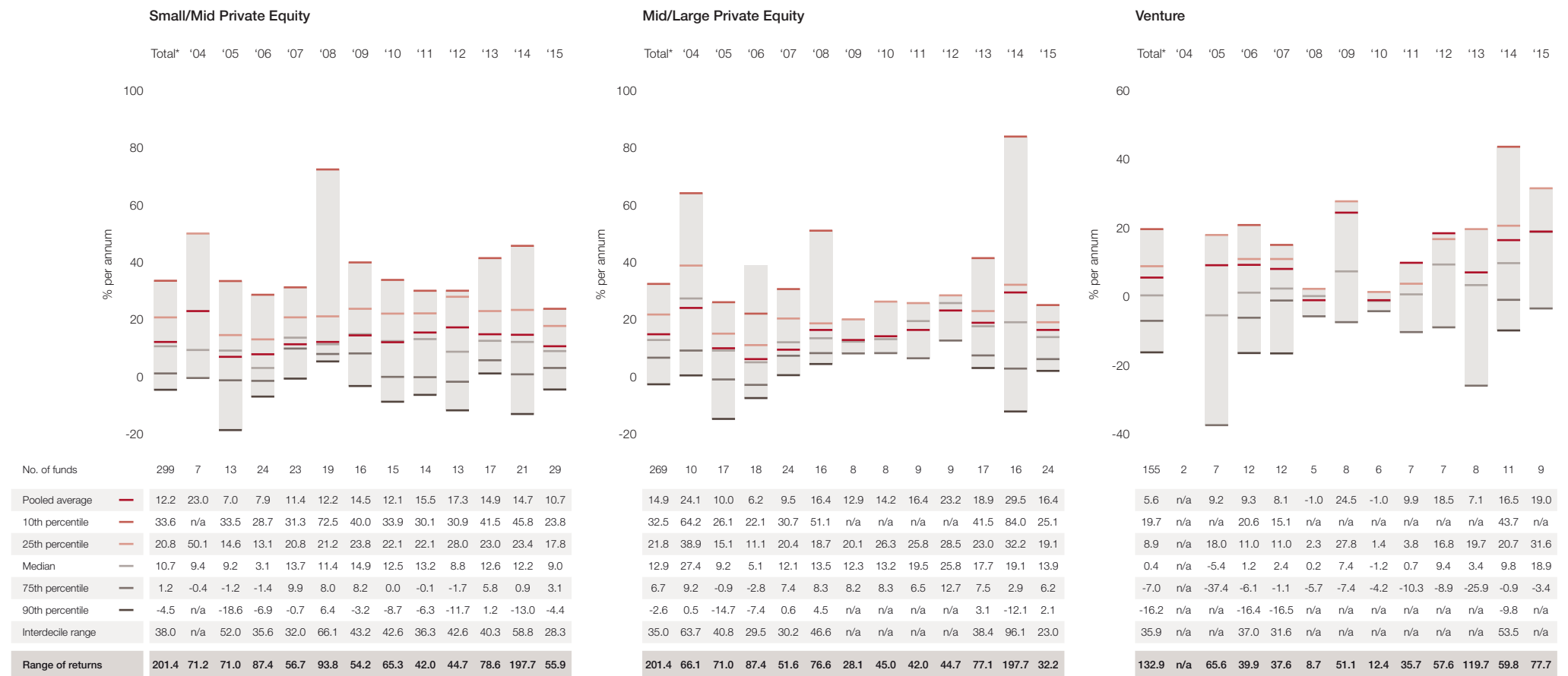
Continued

Range of returns – multiple (%) by vintage year – Total Value (TVPI) – Since inception to December 2019



# Range of returns (IRR and multiple) since inception – investment stage (1996 onwards) and vintage year

Range of returns – IRR (%) by investment stage and vintage year – Since inception to December 2019

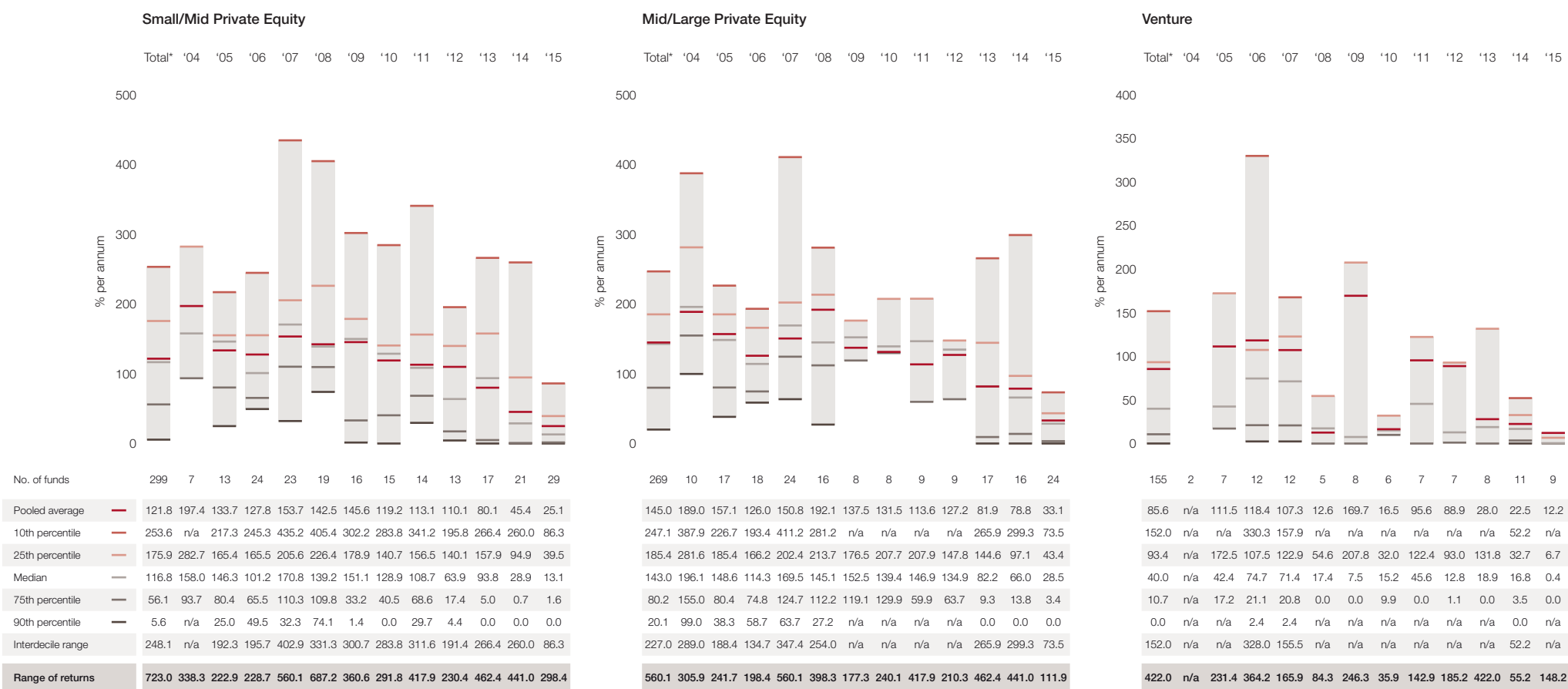


\*Total figures are inclusive of the period from 1996 to 2015

# Range of returns (IRR and multiple) since inception – investment stage (1996 onwards) and vintage year

Continued

Range of returns – multiple (%) by investment stage and vintage year – Distributions (DPI) – Since inception to December 2019

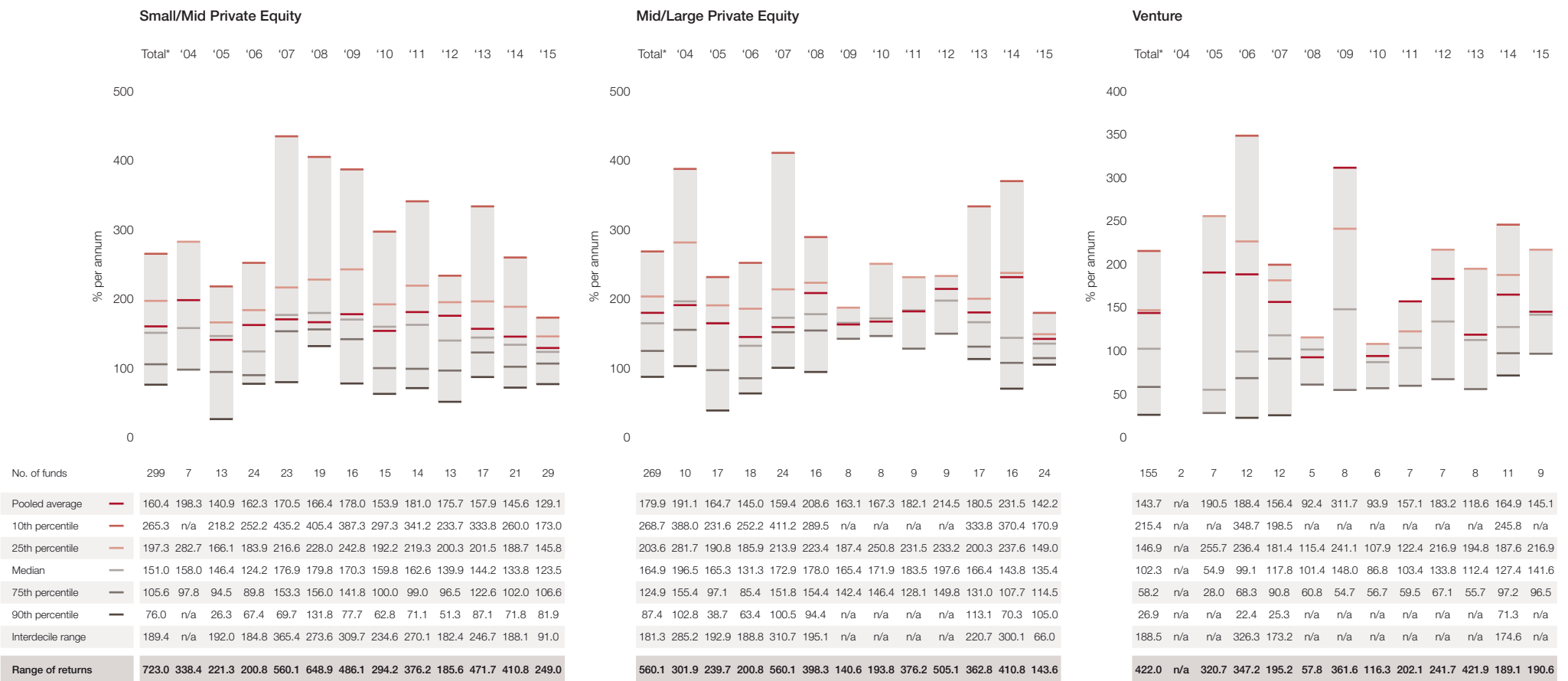


\*Total figures are inclusive of the period from 1996 to 2015

# Range of returns (IRR and multiple) since inception – investment stage (1996 onwards) and vintage year

Continued

Range of returns – multiple (%) by investment stage and vintage year – Total Value (TVPI) – Since inception to December 2019



\*Total figures are inclusive of the period from 1996 to 2015

# Capital raised and realised

Capital raised and realised by investment stage and subcategories to year end December 2019

	No. of funds	Capital raised (£mn)	Paid-in capital (£mn)	Distributions		Residual value		Total value	
				(£mn)	%	(£mn)	%	(£mn)	%
<b>Pre-1996 vintage funds</b>									
Early Stage	24	376	343	569	165.7	15	4.4	584	170.1
Development	35	538	528	903	170.9	2	0.4	906	171.4
Mid Private Equity	33	1,245	1,174	2,083	177.4	0	0.0	2,083	177.4
Large Private Equity	26	3,910	3,605	6,934	192.4	0	0.0	6,934	192.4
Generalist	35	1,641	1,439	3,484	242.1	13	0.9	3,497	243.0
<b>Subtotal pre-1996</b>	<b>153</b>	<b>7,710</b>	<b>7,090</b>	<b>13,974</b>	<b>197.1</b>	<b>31</b>	<b>0.4</b>	<b>14,005</b>	<b>197.5</b>
<b>1996 vintage funds onwards</b>									
Venture	196	14,852	11,028	8,253	74.8	7,600	68.9	15,852	143.7
pre '02 vintage venture funds	43	3,659	3,323	2,881	86.7	461	13.9	3,342	100.6
'02 vintage venture funds onwards	153	11,193	7,705	5,371	69.7	7,138	92.6	12,510	162.4
Small Private Equity	118	9,366	7,483	8,208	109.7	4,601	61.5	12,808	171.2
Mid Private Equity	267	100,835	69,728	72,396	103.8	33,376	47.9	105,772	151.7
Large Private Equity	79	229,718	182,982	233,502	127.6	89,797	49.1	323,299	176.7
<b>Subtotal 1996 onwards</b>	<b>660</b>	<b>354,770</b>	<b>271,221</b>	<b>322,358</b>	<b>118.9</b>	<b>135,373</b>	<b>49.9</b>	<b>457,731</b>	<b>168.8</b>
<b>Grand total all funds</b>	<b>813</b>	<b>362,481</b>	<b>278,311</b>	<b>336,332</b>	<b>120.8</b>	<b>135,404</b>	<b>48.7</b>	<b>471,736</b>	<b>169.5</b>
<b>Subcategories (all vintages)</b>									
UK	544	63,856	49,676	55,568	111.9	22,440	45.2	78,008	157.0
Non-UK	269	298,625	228,635	280,763	122.8	112,964	49.4	393,728	172.2
Pan-European	259	292,593	218,207	281,604	129.1	98,085	45.0	379,689	174.0
Technology	225	49,934	34,743	33,158	95.4	27,464	79.0	60,622	174.5
Non-Technology	588	312,547	243,568	303,174	124.5	107,940	44.3	411,114	168.8

Please note that total figures do not necessarily equal the sum of the components due to rounding.



# Capital raised and realised

Continued

Capital raised and realised by vintage year to year end December 2019

	No. of funds	Capital raised (£mn)	Paid-in capital (£mn)	Distributions		Residual value		Total value	
				(£mn)	%	(£mn)	%	(£mn)	%
1980-84	13	166	165	338	205.6	0	0.0	338	205.6
1985-89	68	2,552	2,473	4,549	183.9	28	1.1	4,577	185.1
1990	13	1,366	1,301	2,040	156.8	0	0.0	2,040	156.8
1991	14	412	342	636	186.0	0	0.0	636	186.0
1992	7	216	211	407	192.5	0	0.0	407	192.5
1993	10	534	365	710	194.5	1	0.2	711	194.7
1994	19	1,598	1,376	3,647	265.0	2	0.1	3,649	265.1
1995	9	867	858	1,648	192.1	0	0.0	1,648	192.1
1996	13	1,538	1,413	2,694	190.6	0	0.0	2,694	190.6
1997	24	4,820	4,085	6,866	168.1	3	0.1	6,869	168.1
1998	16	6,199	5,260	9,222	175.3	4	0.1	9,226	175.4
1999	25	9,678	7,697	13,990	181.7	36	0.5	14,026	182.2
2000	27	9,972	8,029	14,361	178.9	317	3.9	14,678	182.8
2001	30	19,142	15,158	29,900	197.3	357	2.4	30,257	199.6
2002	20	5,414	4,648	8,195	176.3	80	1.7	8,275	178.0
2003	17	3,848	3,598	6,124	170.2	227	6.3	6,351	176.5
2004	13	8,271	6,439	12,107	188.0	161	2.5	12,268	190.5
2005	26	29,980	25,697	40,002	155.7	2,263	8.8	42,265	164.5
2006	42	32,489	23,594	30,034	127.3	4,936	20.9	34,970	148.2
2007	40	29,559	27,447	41,038	149.5	2,834	10.3	43,872	159.8
2008	29	26,084	22,447	42,817	190.7	3,794	16.9	46,611	207.6
2009	26	8,206	7,292	10,192	139.8	2,576	35.3	12,768	175.1
2010	22	5,061	4,543	5,974	131.5	1,730	38.1	7,704	169.6
2011	22	11,392	10,638	11,750	110.5	7,612	71.6	19,362	182.0

Please note that the remainder of the data continues on the following page.

# Capital raised and realised

Continued

Capital raised and realised by vintage year to year end December 2019

	No. of funds	Capital raised (£mn)	Paid-in capital (£mn)	Distributions		Residual value		Total value	
				(£mn)	%	(£mn)	%	(£mn)	%
2012	23	7,106	9,334	11,501	123.2	8,157	87.4	19,658	210.6
2013	28	12,579	7,467	6,041	80.9	7,225	96.8	13,266	177.7
2014	35	21,058	15,991	12,058	75.4	24,138	150.9	36,195	226.4
2015	40	18,333	13,695	4,403	32.2	14,924	109.0	19,328	141.1
2016	37	10,095	8,672	2,134	24.6	9,379	108.2	11,514	132.8
2017	34	25,346	23,924	634	2.7	29,794	124.5	30,428	127.2
2018	41	33,425	11,236	290	2.6	12,016	106.9	12,307	109.5
2019	30	15,175	2,917	30	1.0	2,810	96.3	2,840	97.4
<b>Total*</b>	<b>813</b>	<b>362,481</b>	<b>278,311</b>	<b>336,332</b>	<b>120.8</b>	<b>135,404</b>	<b>48.7</b>	<b>471,736</b>	<b>169.5</b>

Please note that the remainder of the data is found on the previous page.

# Capital raised and realised

Continued

Across all vintage years and investment stages from when BVCA records commenced in 1980 to the present day (of December 2019), BVCA member funds have raised £362bn for investment<sup>1</sup>.

The tables overleaf on capital raised and realised show the ratio of distributions made to paid-in capital, the residual value of the funds to paid-in capital and the total value created to paid-in capital. In most cases, capital is paid into funds over a number of years as suitable investment opportunities arise.

Across all vintage years, BVCA funds have raised £362 billion for investment. Of the capital raised, £278 billion has been drawn down to date. This indicates an amount of around £84 billion that is available for the industry to invest. Of the capital paid in, £336 billion has been returned to investors and £135 billion is retained in the portfolio. The total value (distribution plus residual value) as a percentage of paid-in capital is 169.5%.

1. 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. Firstly, this report examines only the UK-based unlisted funds 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. Secondly, this report only includes the funds which have made their first capital call from their investors.



# Appendix I – Methodology

## The Survey – Introduction

The BVCA, in conjunction with PwC, carried out the BVCA Performance Measurement Survey for the year ended 31 December 2019. The Survey collects data on the performance of eligible BVCA members, UK managed funds that raise capital from institutional investors. This year's survey incorporates the results of 813 private equity and venture capital funds – the most comprehensive dataset to date. For this year's survey we had 117 responses, out of 154 eligible GPs (a 76% response rate). We therefore believe that it is the most complete country-specific survey on the performance of private equity funds in the world. The BVCA has collected annual fund performance data since 1992 and our records go back to 1980.

The results of the survey have been analysed, by both investment stage and vintage year. Further analysis has been included to consider the performance of UK, non-UK funds and pan-European funds, and also to review the overall performance of technology and non-technology funds.

## Eligibility criteria

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

- Be a full BVCA member;
- Raise money from third-party investors;
- Manage that money from the UK (although it may be invested elsewhere).

Venture Capital Trusts, 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 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.

## Data collection and review processes

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 or by spreadsheet. The BVCA collects data annually from its fund manager members. Specifically, that data is:

- 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').

As a result, the BVCA Performance Measurement Survey (PMS) shows results which are net of all fees and costs to investors.

The BVCA then calculates the IRR 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.

If necessary, the member firm will revise and update the data provided.

The aggregated data is then provided to PwC Research for analysis by investment category and vintage year. The BVCA also runs parallel analyses on key metrics as a cross check to ensure the calculations agree. The BVCA produces a summary report in the summer and works with PwC to produce this detailed report in the autumn.

The BVCA introduced a new governance process in 2019. The Performance Measurement Survey Review Board was created with a mandate to:

- Provide guidance on methodologies;
- Provide guidance on eligibility criteria;
- Provide guidance on further queries from the BVCA Research team; and
- Make recommendations to the BVCA Council on the appropriate response rate for the Survey

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

# Appendix I – Methodology

Continued

The Review Board is an advisory board and has no decision-making power. Decisions are taken by the BVCA Executive or are referred to the BVCA Council as appropriate.

The Board currently has five members, as follows:

- A Chair with substantial experience – Mark Drugan (Capital Dynamics)
- Two executives from private equity firms – Fraser McLatchie (Scottish Equity Partners) and Jeremy Lytle (ECI Partners)
- Two limited partners with substantial fund management experience – Graeme Keenan (Pantheon) and Kathleen Bacon (formerly with HarbourVest Partners)

An academic will also join the board in due course. The BVCA Research team and additional members of the BVCA Executive may attend meetings where appropriate. Full Terms of Reference have been created for the Review Board in line with the BVCA's governance procedures.

## Calculation of returns

The returns are derived from cash flows and valuations of funds at the relevant period year-ends and the calculation of the change between them on a per annum (p.a.) basis.

The measurement of performance in this survey is the internal rate of return (IRR), a widely used measure of performance and comparable with similar studies of private equity and venture capital fund returns in the US and Europe, which are both time- and money- weighted. The return represents the 'net' return to investors after costs and fees.

The IRR is used as the appropriate performance measure for venture capital and private equity, due to the high level of discretion of the manager in determining cash flows, to and from the fund investor, and the difficulty in determining portfolio valuations at the date of these cash flows. Time-weighted return calculations require frequent and easily obtainable re-valuations and assume a low level of manager discretion in the timing of cash flows.

The multiples shown are: the total amount distributed to investors as a percentage of paid-in capital (DPI, 'distributions to paid in'), and the total amount distributed plus the residual value attributable to investors as a percentage of paid-in capital (TVPI, 'total value to paid in'). DPI therefore shows cash on cash and it is possible to see how much the funds have actually returned to investors, whereas TVPI also takes account of undistributed assets at their current valuation. It is important to note that, unlike IRR, multiples do not account for the time value of money. It is therefore important not to look at multiples in isolation.

The performance numbers and percentiles analyses published throughout this report have been computed using SPSS Statistics, a specialist statistical software package. The use of SPSS ensures a greater level of robustness and richness in the final analysis not found in common spreadsheet software applications.

One important issue is the so-called 're-investment assumption', which assumes that cash flows are re-invested at the same rate of return. This can provide a distortion (upwards or downwards) of the actual amounts realised by an investor over the life of a fund, depending upon the actual returns it can receive on cash flows generated by the investment.

PME (Public Market Equivalent) and PME+ are helpful ways to compare returns generated by private equity and venture capital funds to those in the public markets, and a number of academic studies have used that method. PME is generated by creating a hypothetical investment vehicle which purchases and sells shares in the public market index in such a way that mimics a private equity or venture capital fund's irregular cash flows, and the PME+ deals with a technical issue that arises with a PME calculation if the private equity or venture capital fund significantly outperforms the market. Computational challenges make it difficult to produce reliable PME performance reports on an industry-wide basis, although the BVCA is working towards being able to do so in the future. Investors who are making investment decisions about an individual fund can, and often do, calculate a fund's PME based on data provided during due diligence.

To reflect changes in the marketplace, funds set up from 1996 onwards have been reclassified into four investment categories: Venture, Small Private Equity, Mid Private Equity and Large Private Equity.



# Appendix I – Methodology

Continued

Pre-1996 vintage funds remain in the previous stage categories, that is, Early Stage, Development, Mid Private Equity, Large Private Equity and Generalist. This is reflected in the tables accordingly. Please note that when comparing the totals and subtotals with underlying category inputs, in some instances there may be minor discrepancies due to rounding.

UK private equity returns are compared in the report with the FTSE 100, 250, 350 and FTSE All-Share indices.

## Valuations

The survey is based on cash flows and valuations supplied by each participating fund. PwC has stipulated that these be based on the International Private Equity and Venture Capital Valuation (IPEV) Guidelines which were first introduced in March 2005. However, as noted in the 'Disclaimer' at the end of this report, PwC has not independently checked the valuation data, nor confirmed that the IPEV Guidelines have been adhered to. Fifty-nine percent of the funds surveyed contain unrealised investments, which are usually stated at fair value in accordance with these Guidelines, and which give a return in an interim measure of performance.

## Confidentiality

The data for this survey was provided by BVCA members on the basis that no data relating to any individual member or fund would be seen by any other member, including those on the BVCA's Council, Committees or Advisory Groups, or by another person or organisation other than PwC, other than in the anonymous and aggregate form in which it is published.





# Appendix II – Glossary of terms

## Capital raised (or ‘funds raised’)

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

## Inception/since inception

The period from a fund’s first drawdown up to a particular point in time, that is, 31 December 2019 in this report. Funds measured thus are at least four years old.

## Investment stage and general fund investment profile

### 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.

#### ‘Mid Private Equity’

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

#### ‘Large Private Equity’

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

### 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.

## Subcategories – all vintages

### ‘Technology’

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

### ‘Non-UK’

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

### ‘Pan-European’

Invests in more than two European countries.

### IRR

See Return.

### Multiple

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

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

## Net and gross returns

All private equity returns quoted are the net returns of investors, after all costs and fees.

## Not applicable

Due to the small number of private equity funds in some periods and the need for confidentiality, some ranges are marked not applicable – that is, n/a.

## Paid-in capital

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

## 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 II – Glossary of terms

Continued

## Range of returns: quartiles/deciles/percentiles

The 'range of returns' represents the results of a universe of portfolios constructed for the purposes of comparing performance. Within each range, a portfolio's results are defined in terms of a percentile ranking. Ranges can be subdivided by quartiles, deciles and percentiles. 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.

## Pooled average

The IRR or return for the total sample of funds being analysed.

## Return

The annualised internal rate of return (IRR) achieved over a period of time, based on the portfolio cash flows and valuations. The cash flows used in the calculations are the total actual fund cash flows and the returns are therefore time-weighted and money-weighted. This type of calculation is often referred to as 'timeline basis' (see also Methodology, 'Calculation of Return').

## Total return

The aggregate of all cash flows.

## Universe

A group of similar portfolios assembled to provide a benchmark against which the performance of an individual portfolio may be compared. Any such universe should comprise portfolios with similar investments and objectives, and the same domicile and tax status.

## Valuations

This refers to the assessed value of the unrealised part of the portfolio, which is assumed to be realised at 31 December 2019 in the final return calculation. This assessment is carried out in accordance with the International Private Equity and Venture Capital Valuation Guidelines.

## 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.

## Weighted average (Principal comparators)

The aggregate returns of a number of like portfolios, the results of which are used for comparing performance. The weighted average for a number of portfolios is calculated by weighting each individual portfolio's return by the proportion (by the average value of investment over the period) of the combined total that it represents.

# Appendix III – Range of returns (IRR) medium to long-term

This appendix shows the range of returns (under the IRR metric) over the longer term – three, five and ten-year periods. The range of returns ‘since inception’ is the most appropriate measurement for private equity and venture capital and these are shown on pages 18-26 of the main report.

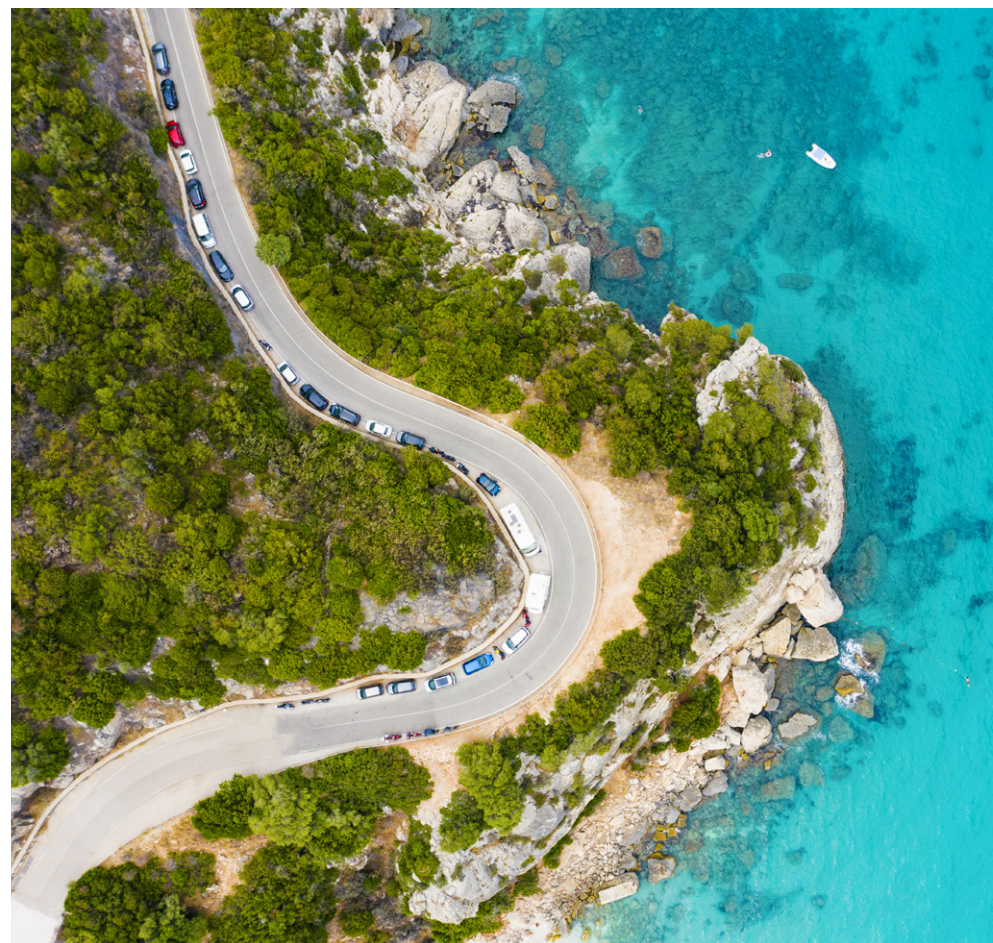
It is important to note that the shorter the time period measured, the more volatile the returns are likely to be. The most probable cause of extreme numbers is the realisation of assets at prices that differ significantly from previous valuations. The more extreme numbers are likely to occur where the time period measured is short, or where funds in older vintages realise their last remaining assets from a small residual carrying value.

Put simply, an investment with an original cost of £1 might be valued at £0.50. If the investment subsequently failed, the loss of £0.50 of value would record as -100% over whatever time period was measured. If the investment had been sold at cost, say nine months later, the return in the period would be in excess of 150% on an annualised basis.

It should also be noted that the ‘Pooled average’ return in the ‘Total’ column in the following tables is the return for all funds that were in existence at the beginning of the measurement period (e.g. the ‘pooled average’ return for funds over five years is calculated by measuring the aggregate performance of all funds that were in existence on 1 January 2015 for the five-year period from 1 January 2015 to 31 December 2019). This differs from the medium to long-term return tables, which calculate the five-year returns on all funds in the survey at 31 December 2019, regardless of their vintage year. The same principle applies to the three and ten-year returns.

The top and bottom deciles are excluded to produce a range that disregards outliers. This is known as the ‘interdecile’ range

Where there are fewer than ten funds in a sample, the 10th and 90th percentile are denoted n/a (not applicable) in the following tables.



# Appendix III – Range of returns (IRR) medium to long-term – three years

Range of returns (IRR) by investment stage and subcategory (% p.a.) – three years

	Pre-1996 vintage funds						1996 vintage funds onwards					Subcategories (all vintages)					
	Total	Early Stage	Dev	Mid PE	Large PE	Generalist	Total	Venture	Small PE	Mid PE	Large PE	Total	UK	Non-UK	Pan-Euro	Tech	Non-Tech
No. of funds	153	24	35	33	26	35	555	165	104	219	67	708	481	227	224	186	522
Pooled average	0.3	n/a	3.9	n/a	n/a	0.0	18.5	11.7	13.2	13.8	21.3	18.5	14.6	19.2	19.7	23.2	17.6
10th percentile	0.0	0.0	0.0	0.0	0.0	0.0	30.7	31.2	37.2	30.0	35.3	26.8	24.6	31.0	30.5	28.5	26.6
25th percentile	0.0	0.0	0.0	0.0	0.0	0.0	14.3	7.5	12.2	14.6	23.9	8.9	4.7	14.3	15.5	9.8	8.9
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
75th percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90th percentile	0.0	0.0	0.0	0.0	0.0	0.0	-9.8	-20.5	-11.0	-4.7	-5.9	-6.9	-3.0	-8.3	-8.8	-13.0	-4.6
Interdecile range	0.0	0.0	0.0	0.0	0.0	0.0	40.5	51.6	48.2	34.8	41.1	33.7	27.6	39.3	39.3	41.5	31.2
<b>Range of returns</b>	<b>157.0</b>	<b>0.0</b>	<b>157.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>287.4</b>	<b>255.2</b>	<b>251.8</b>	<b>262.5</b>	<b>125.2</b>	<b>287.4</b>	<b>287.4</b>	<b>216.7</b>	<b>190.7</b>	<b>255.2</b>	<b>269.4</b>

Range of returns (IRR) by vintage year (% p.a.) – three years

	Total	1980-84	1985-89	1990-94	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
No. of funds	708	13	68	63	9	13	24	16	25	27	30	20	17	13	26	42	40	29	26	22	22	23	28	35	40	37
Pooled average	18.5	n/a	n/a	3.2	n/a	234.3	-0.3	-70.8	1.5	5.1	-0.5	35.6	-1.8	8.5	7.9	11.1	3.1	25.0	9.5	6.2	12.3	25.0	18.3	31.5	17.5	15.4
10th percentile	26.8	0.0	0.0	0.0	n/a	0.0	0.0	51.2	26.4	4.3	33.9	44.5	143.1	134.9	35.7	36.8	35.4	38.9	39.9	30.2	32.5	36.4	42.5	40.6	30.6	26.8
25th percentile	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	38.7	20.1	10.4	11.1	19.4	19.9	8.5	18.1	25.4	22.4	24.7	23.0	18.6
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	8.1	10.5	13.1	14.4	12.4
75th percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.7	-1.0	0.0	-10.2	-0.1	-0.5	-0.1	-2.4	-4.0	0.0	0.1	0.0	2.7	0.0
90th percentile	-6.9	0.0	0.0	0.0	n/a	0.0	0.0	-2.4	-0.1	-15.3	-4.4	0.0	-29.2	-9.2	-28.8	-39.9	-17.8	-37.8	-17.9	-16.4	-31.3	-6.4	-22.8	-16.9	-9.0	-1.4
Interdecile range	33.7	0.0	0.0	0.0	n/a	0.0	0.0	53.6	26.5	19.6	38.3	44.5	172.3	144.1	64.5	76.7	53.2	76.7	57.8	46.6	63.8	42.8	65.4	57.5	39.6	28.2
<b>Range of returns</b>	<b>287.4</b>	<b>0.0</b>	<b>0.0</b>	<b>157.0</b>	<b>0.0</b>	<b>0.0</b>	<b>6.3</b>	<b>178.5</b>	<b>104.8</b>	<b>33.3</b>	<b>115.2</b>	<b>149.9</b>	<b>193.4</b>	<b>198.0</b>	<b>141.6</b>	<b>221.6</b>	<b>113.6</b>	<b>171.9</b>	<b>101.6</b>	<b>144.4</b>	<b>78.8</b>	<b>56.0</b>	<b>149.1</b>	<b>116.4</b>	<b>87.0</b>	<b>54.3</b>

# Appendix III – Range of returns (IRR) medium to long-term – five years

Range of returns (IRR) by investment stage and subcategory (% p.a.) – five years

	Pre-1996 vintage funds						1996 vintage funds onwards					Subcategories (all vintages)					
	Total	Early Stage	Dev	Mid PE	Large PE	Generalist	Total	Venture	Small PE	Mid PE	Large PE	Total	UK	Non-UK	Pan-Euro	Tech	Non-Tech
No. of funds	153	24	35	33	26	35	478	146	87	183	62	631	431	200	203	166	465
Pooled average	-0.8	0.0	1.9	n/a	n/a	-0.9	20.7	11.8	19.6	15.1	23.3	20.7	13.7	21.9	22.3	23.3	20.2
10th percentile	0.0	0.0	0.0	0.0	0.0	0.0	34.6	25.0	37.0	40.1	55.1	30.1	25.5	35.9	37.6	25.9	32.3
25th percentile	0.0	0.0	0.0	0.0	0.0	0.0	19.1	11.1	17.9	21.1	28.9	11.2	5.7	21.5	20.8	11.1	11.5
Median	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.8	4.8	10.2	0.0	0.0	4.8	4.7	0.0	0.0
75th percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90th percentile	0.0	0.0	0.0	0.0	0.0	0.0	-11.7	-18.4	-6.7	-5.2	-20.6	-5.0	-4.6	-11.6	-13.6	-6.9	-4.6
Interdecile range	0.0	0.0	0.0	0.0	0.0	0.0	46.3	43.4	43.7	45.3	75.7	35.1	30.1	47.5	51.2	32.7	37.0
<b>Range of returns</b>	<b>29.1</b>	<b>0.0</b>	<b>29.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>389.5</b>	<b>195.5</b>	<b>219.4</b>	<b>348.7</b>	<b>242.3</b>	<b>389.5</b>	<b>219.4</b>	<b>372.3</b>	<b>350.9</b>	<b>195.5</b>	<b>389.5</b>

Range of returns (IRR) by vintage year (% p.a.) – five years

	Total	1980-84	1985-89	1990-94	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
No. of funds	631	13	68	63	9	13	24	16	25	27	30	20	17	13	26	42	40	29	26	22	22	23	28	35
Pooled average	20.7	n/a	0.0	-6.2	n/a	42.7	58.1	-66.8	-22.2	5.5	-1.5	-1.6	-0.9	0.6	11.9	9.9	12.7	32.2	43.2	9.8	19.4	25.4	21.3	30.0
10th percentile	30.1	0.0	0.0	0.0	n/a	29.1	16.5	78.0	11.6	29.3	50.6	58.8	31.6	122.0	29.6	47.3	34.5	42.2	34.7	33.5	32.7	40.9	40.5	39.6
25th percentile	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	4.8	4.6	2.8	13.0	96.7	16.1	11.2	24.4	20.2	24.3	19.1	20.8	28.9	26.2	28.5
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	17.7	5.0	0.5	3.3	4.8	3.9	3.0	14.2	15.3	13.0	12.5
75th percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-4.0	-2.1	-2.2	-11.0	0.0	0.0	0.0	-0.4	0.0	3.2	0.0	
90th percentile	-5.0	0.0	0.0	0.0	n/a	-2.3	0.0	-3.3	-16.5	-28.5	-19.2	-49.9	-20.5	-16.7	-27.3	-28.5	-13.9	-11.1	-6.5	-6.3	-16.6	-6.2	-9.9	-12.5
Interdecile range	35.1	0.0	0.0	0.0	n/a	31.4	16.5	81.2	28.0	57.8	69.8	108.7	52.2	138.7	57.0	75.8	48.3	53.3	41.1	39.8	49.3	47.1	50.4	52.0
<b>Range of returns</b>	<b>389.5</b>	<b>0.0</b>	<b>0.0</b>	<b>29.1</b>	<b>0.0</b>	<b>44.9</b>	<b>75.2</b>	<b>108.7</b>	<b>242.3</b>	<b>133.3</b>	<b>117.0</b>	<b>189.4</b>	<b>70.8</b>	<b>143.6</b>	<b>346.3</b>	<b>219.4</b>	<b>74.8</b>	<b>81.0</b>	<b>84.1</b>	<b>64.1</b>	<b>154.1</b>	<b>136.3</b>	<b>168.2</b>	<b>89.8</b>

# Appendix III – Range of returns (IRR) medium to long-term – ten years

Range of returns (IRR) by investment stage and subcategory (% p.a.) – ten years

	Pre-1996 vintage funds						1996 vintage funds onwards					Subcategories (all vintages)					
	Total	Early Stage	Dev	Mid PE	Large PE	Generalist	Total	Venture	Small PE	Mid PE	Large PE	Total	UK	Non-UK	Pan-Euro	Tech	Non-Tech
No. of funds	153	24	35	33	26	35	348	107	55	135	51	501	346	155	157	126	375
Pooled average	-1.6	-2.1	-5.4	2.5	n/a	-0.6	12.5	10.5	14.8	12.5	12.6	12.5	12.1	12.5	12.6	15.1	12.2
10th percentile	0.0	0.0	0.0	0.0	0.0	0.0	34.6	26.7	52.6	47.1	23.5	28.0	29.3	27.8	28.0	25.4	29.5
25th percentile	0.0	0.0	0.0	0.0	0.0	0.0	17.0	10.0	23.8	20.6	15.8	12.8	10.2	15.7	16.4	6.6	15.1
Median	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	9.9	9.2	9.2	0.0	0.0	5.1	6.6	0.0	0.0
75th percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.4	0.0	0.0	1.6	0.0	0.0	0.0	0.0	-0.6	0.0
90th percentile	0.0	-40.6	0.0	0.0	0.0	0.0	-6.4	-13.3	-4.5	-1.9	-4.6	-5.4	-4.7	-6.7	-5.4	-8.7	-3.5
Interdecile range	0.0	40.6	0.0	0.0	0.0	0.0	40.9	39.9	57.1	49.0	28.1	33.4	34.0	34.6	33.3	34.0	33.0
<b>Range of returns</b>	<b>155.6</b>	<b>155.6</b>	<b>31.7</b>	<b>54.2</b>	<b>96.2</b>	<b>4.5</b>	<b>168.5</b>	<b>111.8</b>	<b>167.5</b>	<b>164.2</b>	<b>91.6</b>	<b>211.9</b>	<b>209.0</b>	<b>188.0</b>	<b>142.2</b>	<b>155.6</b>	<b>209.0</b>

Range of returns (IRR) by vintage year (% p.a.) – ten years

	Total	1980-84	1985-89	1990-94	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2008
No. of funds	501	13	68	63	9	13	24	16	25	27	30	20	17	13	26	42	40	29	26
Pooled average	12.5	n/a	0.1	-6.8	n/a	-13.0	7.8	17.4	14.7	1.9	5.6	7.1	12.1	7.5	12.0	12.2	11.5	17.4	14.3
10th percentile	28.0	0.0	0.0	0.0	n/a	16.8	56.4	99.8	48.4	37.3	38.0	21.6	34.5	35.4	30.4	32.7	39.4	86.3	41.4
25th percentile	12.8	0.0	0.0	0.0	0.0	11.3	6.3	28.1	29.8	6.4	13.3	8.7	24.5	20.3	17.9	20.8	18.5	18.8	23.2
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	1.2	0.0	0.0	0.0	9.8	9.6	8.8	5.8	13.8	12.0	12.3
75th percentile	0.0	0.0	0.0	0.0	0.0	0.0	-4.9	0.0	-0.3	-1.2	-5.6	-6.1	0.0	0.8	1.2	0.0	4.8	5.9	-2.8
90th percentile	-5.4	0.0	0.0	0.0	n/a	-29.9	-54.1	0.0	-5.4	-22.1	-13.4	-16.2	-8.5	-3.3	-6.5	-5.2	-2.2	-4.8	-8.7
Interdecile range	33.4	0.0	0.0	0.0	n/a	46.8	110.5	99.8	53.8	59.4	51.4	37.7	42.9	38.7	37.0	37.9	41.5	91.1	50.1
<b>Range of returns</b>	<b>211.9</b>	<b>0.0</b>	<b>20.5</b>	<b>155.6</b>	<b>96.2</b>	<b>59.7</b>	<b>143.6</b>	<b>110.7</b>	<b>124.8</b>	<b>144.6</b>	<b>111.0</b>	<b>78.0</b>	<b>51.0</b>	<b>45.9</b>	<b>64.0</b>	<b>82.6</b>	<b>102.2</b>	<b>117.2</b>	<b>73.3</b>



# Appendix IV – Since inception range of returns by vintage year band and investment stage

## 1991 to 1993 vintage funds

	IRR (% p.a.)						DPI						TVPI					
	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist
No. of funds	31	5	9	7	6	4	31	5	9	7	6	4	31	5	9	7	6	4
Pooled average	19.5	15.3	1.7	21.5	21.7	n/a	190.9	176.2	106.5	186.1	181	n/a	191	176.2	107	186.1	181	n/a
10th percentile	31.5	n/a	n/a	n/a	n/a	n/a	242.5	n/a	n/a	n/a	n/a	n/a	242.5	n/a	n/a	n/a	n/a	n/a
25th percentile	21.9	16.9	10.0	35.9	24.7	n/a	198.2	193.1	145.1	226.8	202.3	n/a	198.2	193.1	145.1	226.8	202.3	n/a
Median	13.0	12.5	-2.9	26.3	21.5	n/a	151.6	159.9	69.5	198.2	180.9	n/a	151.6	159.9	69.5	198.2	180.9	n/a
75th percentile	2.5	0.2	-8.6	11.0	17.0	n/a	108.4	97.8	59.7	151.6	144.7	n/a	108.4	97.8	59.7	151.6	144.7	n/a
90th percentile	-8.5	n/a	n/a	n/a	n/a	n/a	58.4	n/a	n/a	n/a	n/a	n/a	58.4	n/a	n/a	n/a	n/a	n/a
Interdecile range	40.0	n/a	n/a	n/a	n/a	n/a	184.1	n/a	n/a	n/a	n/a	n/a	184.1	n/a	n/a	n/a	n/a	n/a
<b>Range of returns</b>	<b>61.3</b>	<b>22.3</b>	<b>33.7</b>	<b>31.8</b>	<b>11.5</b>	<b>n/a</b>	<b>292.5</b>	<b>136.6</b>	<b>102.8</b>	<b>185.8</b>	<b>78.2</b>	<b>n/a</b>	<b>292.5</b>	<b>136.6</b>	<b>102.8</b>	<b>185.8</b>	<b>78.2</b>	<b>n/a</b>

## 1992 to 1994 vintage funds

	IRR (% p.a.)						DPI						TVPI					
	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist
No. of funds	36	5	8	10	7	6	36	5	8	10	7	6	36	5	8	10	7	6
Pooled average	27.9	15.6	17.5	15.1	39.2	18.4	244	172.8	166.9	175	295.5	221	244.1	172.8	169.9	175	295.5	221.2
10th percentile	41.6	n/a	n/a	32.5	n/a	n/a	256.3	n/a	n/a	308.7	n/a	n/a	256.3	n/a	n/a	308.7	n/a	n/a
25th percentile	21.3	17.8	11.6	17.8	51.6	21.8	216.2	195.8	151.0	191.2	264.2	248.0	216.2	195.8	155.3	191.2	264.2	248.0
Median	11.7	13.5	6.9	12.4	27.9	11.6	152.7	159.9	127.7	154.8	222.6	151.2	154.5	159.9	130.3	154.8	222.6	151.2
75th percentile	4.8	0.2	-1.7	8.0	11.7	2.6	119.6	97.8	78.6	130.9	139.6	105.0	120.7	97.8	87.5	130.9	139.6	107.1
90th percentile	-2.4	n/a	n/a	4.2	n/a	n/a	81.9	n/a	n/a	119.5	n/a	n/a	84.5	n/a	n/a	119.5	n/a	n/a
Interdecile range	44.0	n/a	n/a	28.4	n/a	n/a	174.4	n/a	n/a	189.2	n/a	n/a	171.8	n/a	n/a	189.2	n/a	n/a
<b>Range of returns</b>	<b>61.7</b>	<b>22.3</b>	<b>49.6</b>	<b>29.8</b>	<b>51.6</b>	<b>32.1</b>	<b>426.4</b>	<b>136.6</b>	<b>158.6</b>	<b>201.7</b>	<b>353.7</b>	<b>220.0</b>	<b>417.9</b>	<b>136.6</b>	<b>158.6</b>	<b>201.7</b>	<b>353.7</b>	<b>211.5</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

1993 to 1995 vintage funds

	IRR (% p.a.)						DPI						TVPI					
	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist
No. of funds	38	4	7	10	9	8	38	4	7	10	9	8	38	4	7	10	9	8
Pooled average	27.9	n/a	20.7	13.7	30.7	36.5	231	n/a	172.7	166.9	226.7	331	231.1	n/a	176.1	166.9	226.7	331.1
10th percentile	43.2	n/a	n/a	32.0	n/a	n/a	269.9	n/a	n/a	308.7	n/a	n/a	269.9	n/a	n/a	308.7	n/a	n/a
25th percentile	15.6	n/a	11.7	14.8	46.5	19.7	203.4	n/a	153.8	169.5	256.7	256.4	203.4	n/a	159.5	169.5	256.7	256.4
Median	9.5	n/a	4.4	9.6	11.7	11.5	142.3	n/a	116.4	143.0	148.8	151.2	142.3	n/a	121.7	143.0	148.8	151.2
75th percentile	2.0	n/a	1.8	3.0	1.9	-4.6	106.9	n/a	106.0	114.5	106.4	63.5	108.1	n/a	112.9	114.5	106.4	63.5
90th percentile	-3.5	n/a	n/a	-0.2	n/a	n/a	68.5	n/a	n/a	99.5	n/a	n/a	76.1	n/a	n/a	99.5	n/a	n/a
Interdecile range	46.6	n/a	n/a	32.2	n/a	n/a	201.3	n/a	n/a	209.2	n/a	n/a	193.8	n/a	n/a	209.2	n/a	n/a
<b>Range of returns</b>	<b>91.9</b>	<b>n/a</b>	<b>45.2</b>	<b>33.9</b>	<b>68.1</b>	<b>91.9</b>	<b>505.6</b>	<b>n/a</b>	<b>157.4</b>	<b>221.7</b>	<b>399.5</b>	<b>505.6</b>	<b>497.1</b>	<b>n/a</b>	<b>149.0</b>	<b>221.7</b>	<b>399.5</b>	<b>497.1</b>

1994 to 1996 vintage funds (pre-1996 vintage funds)

	IRR (% p.a.)						DPI						TVPI					
	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist
No. of funds	28	1	5	9	8	5	28	1	5	9	8	5	28	1	5	9	8	5
Pooled average	31.1	n/a	23.1	16.4	30.7	55	237	n/a	180.2	174	226.7	389.1	237.1	n/a	183.5	174	226.7	389.1
10th percentile	51.8	n/a	n/a	n/a	n/a	n/a	335.0	n/a	n/a	n/a	n/a	n/a	335.0	n/a	n/a	n/a	n/a	n/a
25th percentile	16.1	n/a	27.0	15.3	49.1	46.0	219.4	n/a	190.3	178.7	260.4	398.1	219.4	n/a	193.2	178.7	260.4	398.1
Median	11.0	n/a	9.5	10.4	10.7	15.2	146.9	n/a	138.9	134.5	144.2	157.3	146.9	n/a	138.9	134.5	144.2	157.3
75th percentile	2.4	n/a	2.8	1.9	1.9	-3.7	108.6	n/a	109.4	109.6	106.0	93.3	114.5	n/a	117.3	109.6	106.0	93.3
90th percentile	-1.6	n/a	n/a	n/a	n/a	n/a	95.5	n/a	n/a	n/a	n/a	n/a	95.5	n/a	n/a	n/a	n/a	n/a
Interdecile range	53.4	n/a	n/a	n/a	n/a	n/a	239.4	n/a	n/a	n/a	n/a	n/a	239.4	n/a	n/a	n/a	n/a	n/a
<b>Range of returns</b>	<b>91.9</b>	<b>n/a</b>	<b>40.4</b>	<b>33.9</b>	<b>68.1</b>	<b>91.9</b>	<b>496.9</b>	<b>n/a</b>	<b>120.9</b>	<b>221.7</b>	<b>399.5</b>	<b>496.9</b>	<b>496.9</b>	<b>n/a</b>	<b>113.9</b>	<b>221.7</b>	<b>399.5</b>	<b>496.9</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

1994 to 1996 vintage funds continued (1996 vintage funds onwards)

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	13	0	3	8	2	13	0	3	8	2	13	0	3	8	2
Pooled average	17.6	n/a	n/a	13.2	n/a	190.6	n/a	n/a	165.9	n/a	190.6	n/a	n/a	165.9	n/a
10th percentile	41.0	n/a	n/a	n/a	n/a	282.9	n/a	n/a	n/a	n/a	282.9	n/a	n/a	n/a	n/a
25th percentile	21.2	n/a	n/a	18.0	n/a	200.5	n/a	n/a	205.5	n/a	200.5	n/a	n/a	205.5	n/a
Median	10.3	n/a	n/a	10.3	n/a	144.1	n/a	n/a	147.2	n/a	144.1	n/a	n/a	147.2	n/a
75th percentile	-6.4	n/a	n/a	5.2	n/a	56.0	n/a	n/a	122.7	n/a	56.0	n/a	n/a	122.7	n/a
90th percentile	-25.5	n/a	n/a	n/a	n/a	21.2	n/a	n/a	n/a	n/a	21.2	n/a	n/a	n/a	n/a
Interdecile range	66.5	n/a	n/a	n/a	n/a	261.7	n/a	n/a	n/a	n/a	261.7	n/a	n/a	n/a	n/a
<b>Range of returns</b>	<b>83.2</b>	<b>n/a</b>	<b>n/a</b>	<b>60.0</b>	<b>n/a</b>	<b>303.5</b>	<b>n/a</b>	<b>n/a</b>	<b>249.9</b>	<b>n/a</b>	<b>303.5</b>	<b>n/a</b>	<b>n/a</b>	<b>249.9</b>	<b>n/a</b>

1995 to 1997 vintage funds (pre-1996 vintage funds)

	IRR (% p.a.)						DPI						TVPI						
	Subtotal	Early Stage	Dev	Mid PE	Large PE	Generalist	Subtotal	Early Stage	Dev	Mid MBO	Large MBO	Generalist	Subtotal	Early Stage	Dev	Mid MBO	Large MBO	Generalist	
No. of funds	9	0	1	2	3	3	9	0	1	2	3	3	9	0	1	2	3	3	
Pooled average	23.1	n/a	n/a	n/a	n/a	n/a	192.1	n/a	n/a	n/a	n/a	n/a	192.1	n/a	n/a	n/a	n/a	n/a	n/a
10th percentile	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
25th percentile	12.4	n/a	n/a	n/a	n/a	n/a	203.2	n/a	n/a	n/a	n/a	n/a	203.2	n/a	n/a	n/a	n/a	n/a	n/a
Median	1.9	n/a	n/a	n/a	n/a	n/a	107.2	n/a	n/a	n/a	n/a	n/a	107.2	n/a	n/a	n/a	n/a	n/a	n/a
75th percentile	-7.4	n/a	n/a	n/a	n/a	n/a	79.7	n/a	n/a	n/a	n/a	n/a	79.7	n/a	n/a	n/a	n/a	n/a	n/a
90th percentile	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Interdecile range	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Range of returns</b>	<b>91.9</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>496.9</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>496.9</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

1995 to 1997 vintage funds continued (1996 vintage funds onwards)

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	37	10	5	18	4	37	10	5	18	4	37	10	5	18	4
Pooled average	15.9	21	1.3	8.7	n/a	173.9	160	106.3	145.8	n/a	173.9	160.5	106.3	145.8	n/a
10th percentile	46.8	n/a	n/a	23.6	n/a	247.8	n/a	n/a	220.2	n/a	247.8	n/a	n/a	220.2	n/a
25th percentile	16.1	26.8	34.2	10.6	n/a	188.3	167.0	189.6	177.9	n/a	188.3	168.3	189.6	177.9	n/a
Median	8.4	7.2	-5.9	8.4	n/a	143.4	123.2	55.0	143.4	n/a	143.4	123.2	55.0	143.4	n/a
75th percentile	-2.7	-5.3	-24.3	0.5	n/a	85.3	64.0	25.7	102.8	n/a	85.3	70.5	25.7	102.8	n/a
90th percentile	-16.4	n/a	n/a	-8.2	n/a	52.9	n/a	n/a	58.6	n/a	52.9	n/a	n/a	58.6	n/a
Interdecile range	63.2	n/a	n/a	31.8	n/a	194.9	n/a	n/a	161.6	n/a	194.9	n/a	n/a	161.6	n/a
<b>Range of returns</b>	<b>108.8</b>	<b>59.6</b>	<b>101.1</b>	<b>72.7</b>	<b>n/a</b>	<b>303.5</b>	<b>154.0</b>	<b>287.7</b>	<b>249.9</b>	<b>n/a</b>	<b>303.5</b>	<b>154.0</b>	<b>287.7</b>	<b>249.9</b>	<b>n/a</b>

1996 to 1998 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	53	11	8	26	8	53	11	8	26	8	53	11	8	26	8
Pooled average	14.4	16.1	2	8.2	19.6	174.6	145.3	109.7	144.2	201.8	174.6	145.8	109.8	144.3	201.8
10th percentile	40.0	43.9	n/a	20.6	n/a	246.7	198.9	n/a	217.3	n/a	246.7	198.9	n/a	217.3	n/a
25th percentile	16.7	18.9	25.8	10.3	22.7	188.3	159.6	240.3	176.4	246.8	188.3	161.6	240.5	176.4	246.8
Median	7.6	6.6	-1.9	6.0	19.6	142.5	121.3	64.3	129.2	204.1	142.5	121.3	71.6	129.2	204.1
75th percentile	-2.3	-7.9	-15.3	-2.0	16.1	83.0	57.9	41.5	94.6	174.8	85.3	65.8	41.5	94.6	174.8
90th percentile	-13.3	-14.8	n/a	-10.8	n/a	50.1	47.7	n/a	58.2	n/a	50.1	47.7	n/a	58.2	n/a
Interdecile range	53.3	58.7	n/a	31.4	n/a	196.6	151.3	n/a	159.0	n/a	196.6	151.3	n/a	159.0	n/a
<b>Range of returns</b>	<b>112.4</b>	<b>59.6</b>	<b>101.1</b>	<b>86.8</b>	<b>71.7</b>	<b>451.1</b>	<b>154.0</b>	<b>451.1</b>	<b>293.6</b>	<b>107.5</b>	<b>451.1</b>	<b>154.0</b>	<b>451.1</b>	<b>293.6</b>	<b>107.5</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

## 1997 to 1999 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	65	20	6	29	10	65	20	6	29	10	65	20	6	29	10
Pooled average	13.6	8.1	6.2	8.2	17.6	176.5	127.5	129.9	147.3	199	176.7	128.4	130	147.7	199
10th percentile	28.1	42.5	n/a	19.3	73.9	245.3	181.8	n/a	197.3	278.9	245.3	181.8	n/a	197.3	278.9
25th percentile	15.2	7.2	43.5	10.4	26.6	177.9	145.7	331.9	176.9	246.7	177.9	145.7	331.9	176.9	246.7
Median	6.2	2.8	7.4	3.7	17.1	126.4	112.4	131.7	112.5	204.1	127.2	119.3	132.0	112.5	204.1
75th percentile	-2.5	-7.9	-1.6	-2.6	9.7	83.0	46.8	65.0	90.1	162.7	85.3	46.8	75.9	90.1	162.7
90th percentile	-8.0	-8.2	n/a	-13.4	4.3	44.9	37.0	n/a	58.8	121.9	44.9	37.0	n/a	58.8	121.9
Interdecile range	36.1	50.7	n/a	32.8	69.5	200.4	144.8	n/a	138.5	157.0	200.4	144.8	n/a	138.5	157.0
<b>Range of returns</b>	<b>112.4</b>	<b>59.6</b>	<b>73.3</b>	<b>55.2</b>	<b>74.5</b>	<b>441.1</b>	<b>178.2</b>	<b>415.1</b>	<b>250.5</b>	<b>162.5</b>	<b>441.1</b>	<b>178.2</b>	<b>415.1</b>	<b>256.8</b>	<b>162.5</b>

## 1998 to 2000 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	68	21	8	29	10	68	21	8	29	10	68	21	8	29	10
Pooled average	13.9	-3.1	2.4	11.1	17.1	179	58.4	111.5	160.7	202.4	180.7	74.5	111.7	161.3	202.7
10th percentile	21.5	4.5	n/a	21.4	30.7	242.1	137.7	n/a	234.7	278.5	242.8	146.7	n/a	234.7	278.5
25th percentile	15.2	3.3	12.7	17.7	22.8	175.7	112.9	166.7	184.4	245.1	175.7	126.6	166.7	184.4	245.1
Median	3.3	-3.9	0.0	9.0	18.2	112.9	55.3	83.6	135.0	193.2	122.7	55.6	90.1	135.0	193.6
75th percentile	-3.4	-8.9	-1.6	-2.6	9.7	61.3	31.7	47.9	89.1	162.7	68.8	32.2	48.5	90.0	162.7
90th percentile	-10.0	-20.5	n/a	-7.0	4.3	30.0	18.1	n/a	66.4	121.9	30.3	22.3	n/a	66.4	121.9
Interdecile range	31.5	25.1	n/a	28.4	26.4	212.1	119.6	n/a	168.3	156.6	212.5	124.4	n/a	168.3	156.6
<b>Range of returns</b>	<b>101.4</b>	<b>60.8</b>	<b>38.8</b>	<b>80.6</b>	<b>27.3</b>	<b>454.4</b>	<b>139.5</b>	<b>454.4</b>	<b>337.0</b>	<b>162.5</b>	<b>454.4</b>	<b>134.6</b>	<b>454.4</b>	<b>337.0</b>	<b>162.5</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

1999 to 2001 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	82	32	8	31	11	82	32	8	31	11	82	32	8	31	11
Pooled average	18	-1.4	29.3	16.1	21.4	188.6	70.8	234.6	175.2	208.3	190.9	88.3	234.6	175.7	209.4
10th percentile	31.2	4.6	n/a	33.7	34.1	259.3	136.2	n/a	274.9	279.5	261.9	147.3	n/a	276.2	279.5
25th percentile	20.8	2.6	36.7	22.9	30.7	185.8	93.8	253.8	194.4	251.8	186.1	123.3	253.8	194.4	260.4
Median	4.4	-3.5	10.5	13.0	25.0	122.7	54.4	158.2	167.4	207.1	137.1	68.1	158.2	167.4	207.1
75th percentile	-3.6	-11.9	-1.3	-2.0	14.9	64.4	31.3	79.7	90.2	173.9	72.6	34.4	79.8	90.2	174.3
90th percentile	-12.8	-20.2	n/a	-5.6	5.4	27.5	18.0	n/a	74.7	127.8	31.6	20.7	n/a	74.7	127.8
Interdecile range	44.1	24.9	n/a	39.4	28.7	231.9	118.2	n/a	200.3	151.7	230.3	126.6	n/a	201.5	151.7
<b>Range of returns</b>	<b>117.1</b>	<b>60.8</b>	<b>61.1</b>	<b>75.9</b>	<b>30.8</b>	<b>552.6</b>	<b>146.2</b>	<b>552.6</b>	<b>344.4</b>	<b>162.5</b>	<b>552.6</b>	<b>157.3</b>	<b>552.6</b>	<b>344.4</b>	<b>162.5</b>

2000 to 2002 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	77	35	7	26	9	77	35	7	26	9	77	35	7	26	9
Pooled average	20.5	-1.7	30.5	21.1	24.3	188.5	65.6	238.2	185.3	205.5	191.2	85.3	238.2	185.4	206.8
10th percentile	34.2	5.1	n/a	51.2	n/a	268.8	121.2	n/a	299.5	n/a	268.8	147.2	n/a	299.5	n/a
25th percentile	22.0	1.2	38.6	31.2	32.1	187.1	82.3	262.6	225.6	246.8	187.4	113.5	262.6	225.6	251.5
Median	3.9	-4.0	6.3	20.6	27.4	113.5	52.5	141.2	179.3	204.4	122.9	68.6	141.2	179.3	204.4
75th percentile	-4.7	-15.6	-1.7	8.2	17.0	46.4	22.2	75.8	123.0	177.6	67.0	30.8	76.0	123.0	178.3
90th percentile	-18.6	-20.5	n/a	-3.8	n/a	12.1	6.3	n/a	71.7	n/a	24.9	18.9	n/a	71.7	n/a
Interdecile range	52.7	25.6	n/a	55.0	n/a	256.7	114.9	n/a	227.7	n/a	243.9	128.3	n/a	227.7	n/a
<b>Range of returns</b>	<b>117.1</b>	<b>64.0</b>	<b>61.1</b>	<b>69.0</b>	<b>20.9</b>	<b>552.6</b>	<b>284.0</b>	<b>552.6</b>	<b>389.0</b>	<b>108.2</b>	<b>552.6</b>	<b>280.2</b>	<b>552.6</b>	<b>389.0</b>	<b>108.2</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

## 2001 to 2003 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	67	30	5	23	9	67	30	5	23	9	67	30	5	23	9
Pooled average	22.9	1.5	37.1	20.6	26.6	188.9	97.8	259	181.5	200	191.8	111.8	259	182.2	202.5
10th percentile	38.9	5.7	n/a	53.0	n/a	268.8	149.9	n/a	275.5	n/a	268.8	152.9	n/a	275.5	n/a
25th percentile	27.4	2.2	50.0	28.4	34.2	207.1	90.5	407.6	212.5	256.3	207.1	119.8	407.6	212.5	260.6
Median	7.9	-2.5	38.6	20.9	27.8	140.4	57.0	253.6	163.4	204.4	148.7	79.3	253.6	163.4	204.4
75th percentile	-2.9	-12.7	27.4	7.9	14.4	57.5	24.4	230.9	139.4	167.7	76.4	39.5	230.9	144.8	173.1
90th percentile	-13.3	-18.7	n/a	-3.8	n/a	10.9	5.7	n/a	76.7	n/a	29.2	20.4	n/a	76.7	n/a
Interdecile range	52.2	24.4	n/a	56.8	n/a	257.9	144.2	n/a	198.8	n/a	239.5	132.5	n/a	198.8	n/a
<b>Range of returns</b>	<b>87.8</b>	<b>35.1</b>	<b>32.9</b>	<b>69.0</b>	<b>51.9</b>	<b>552.6</b>	<b>284.0</b>	<b>325.1</b>	<b>389.0</b>	<b>113.7</b>	<b>552.6</b>	<b>280.2</b>	<b>325.1</b>	<b>389.0</b>	<b>108.2</b>

## 2002 to 2004 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	50	20	3	19	8	50	20	3	19	8	50	20	3	19	8
Pooled average	20.3	2.0	n/a	20.5	22.7	179.9	103	n/a	185.8	183.7	183.1	114.6	n/a	187.3	186.8
10th percentile	43.0	9.1	n/a	61.5	n/a	272.0	151.2	n/a	282.7	n/a	280.4	152.8	n/a	282.7	n/a
25th percentile	26.3	4.6	n/a	30.8	34.8	208.1	112.1	n/a	269.0	243.3	208.1	122.1	n/a	269.0	248.2
Median	8.1	-1.8	n/a	13.1	27.4	139.9	57.0	n/a	158.0	184.6	147.2	82.2	n/a	158.0	185.2
75th percentile	-1.8	-9.6	n/a	7.3	12.2	60.3	8.9	n/a	134.9	175.2	79.7	31.7	n/a	134.9	175.8
90th percentile	-10.1	-18.4	n/a	-0.4	n/a	6.8	0.3	n/a	80.8	n/a	26.3	14.3	n/a	80.8	n/a
Interdecile range	53.1	27.5	n/a	61.9	n/a	265.1	151.0	n/a	201.9	n/a	254.1	138.5	n/a	201.9	n/a
<b>Range of returns</b>	<b>90.6</b>	<b>35.1</b>	<b>n/a</b>	<b>72.0</b>	<b>51.9</b>	<b>399.6</b>	<b>284.0</b>	<b>n/a</b>	<b>399.6</b>	<b>105.8</b>	<b>399.7</b>	<b>285.7</b>	<b>n/a</b>	<b>399.7</b>	<b>110.7</b>



# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

## 2003 to 2005 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	56	15	5	24	12	56	15	5	24	12	56	15	5	24	12
Pooled average	12.3	7.7	8.3	10.9	13.1	163	124	147.9	149.8	169	170.4	163.5	154.2	155.2	175.9
10th percentile	37.6	18.3	n/a	46.8	54.6	253.8	200.6	n/a	282.0	258.8	266.9	288.6	n/a	282.0	275.2
25th percentile	18.7	5.4	33.5	22.0	28.3	199.5	138.2	244.0	196.8	233.8	209.7	146.8	244.0	197.0	238.6
Median	8.6	0.0	1.3	10.1	13.5	146.2	64.0	102.3	153.3	179.1	152.7	88.2	105.8	159.1	179.5
75th percentile	-0.3	-6.8	-2.5	2.3	7.4	77.8	17.2	77.3	104.0	139.5	90.6	28.0	83.2	116.4	164.1
90th percentile	-7.9	-41.2	n/a	-5.7	-6.0	24.8	4.8	n/a	69.7	73.7	38.8	10.3	n/a	71.7	74.8
Interdecile range	45.5	59.5	n/a	52.4	60.6	229.0	195.8	n/a	212.3	185.1	228.1	278.2	n/a	210.3	200.4
<b>Range of returns</b>	<b>112.6</b>	<b>65.6</b>	<b>48.8</b>	<b>93.3</b>	<b>74.4</b>	<b>399.6</b>	<b>242.8</b>	<b>192.3</b>	<b>399.6</b>	<b>212.9</b>	<b>399.7</b>	<b>337.9</b>	<b>192.3</b>	<b>397.6</b>	<b>233.5</b>

## 2004 to 2006 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	81	21	15	29	16	81	21	15	29	16	81	21	15	29	16
Pooled average	9.5	9.1	8.3	8.7	9.8	147.4	115.3	152.2	136	151.8	160.6	188.1	162.4	155.6	161.1
10th percentile	28.5	18.6	27.1	50.1	31.0	246.6	249.5	244.8	281.3	245.5	260.8	331.6	247.1	281.3	253.7
25th percentile	14.3	9.7	11.3	15.5	20.1	172.3	98.8	165.8	168.7	200.8	188.6	210.9	180.4	197.8	205.1
Median	6.7	0.0	1.3	9.2	10.4	116.2	43.4	102.3	148.6	166.6	142.7	81.7	107.7	155.2	173.9
75th percentile	-1.7	-6.6	-1.4	-1.2	6.8	61.9	19.0	61.3	81.1	121.3	82.8	36.1	91.0	92.7	139.0
90th percentile	-7.0	-33.3	-4.5	-7.0	-7.2	21.9	1.6	33.1	59.4	51.3	49.3	17.7	66.8	62.5	59.0
Interdecile range	35.4	51.8	31.6	57.1	38.2	224.7	248.0	211.7	221.9	194.1	211.5	313.9	180.4	218.8	194.7
<b>Range of returns</b>	<b>123.7</b>	<b>70.2</b>	<b>42.5</b>	<b>104.5</b>	<b>46.7</b>	<b>399.6</b>	<b>364.2</b>	<b>224.9</b>	<b>399.6</b>	<b>206.4</b>	<b>399.7</b>	<b>366.8</b>	<b>191.9</b>	<b>397.6</b>	<b>233.5</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

## 2005 to 2007 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	108	31	18	42	17	108	31	18	42	17	108	31	18	42	17
Pooled average	8.7	8.9	9.7	8.6	8.6	144.7	113.2	151.6	137.8	147.9	157.8	177.5	172.4	157.1	156.8
10th percentile	20.8	17.6	22.1	31.9	16.6	241.8	228.7	243.6	271.5	212.7	253.4	297.0	244.1	274.5	231.6
25th percentile	13.9	12.3	13.0	18.5	11.1	171.7	116.2	172.4	190.6	172.9	188.8	185.2	188.9	207.1	181.1
Median	7.3	1.4	4.0	11.6	7.6	117.1	60.2	104.9	161.7	147.1	152.3	111.1	128.8	165.8	158.2
75th percentile	0.0	-5.4	0.0	1.1	6.8	60.8	20.9	67.0	83.4	114.3	91.8	67.0	101.5	106.5	130.3
90th percentile	-6.8	-20.8	-4.1	-6.2	-6.6	21.6	7.9	23.3	59.4	51.8	54.8	21.3	68.8	63.0	60.5
Interdecile range	27.6	38.3	26.2	38.1	23.2	220.2	220.8	220.2	212.2	160.8	198.6	275.7	175.4	211.4	171.1
<b>Range of returns</b>	<b>123.7</b>	<b>70.2</b>	<b>43.4</b>	<b>104.5</b>	<b>33.2</b>	<b>560.1</b>	<b>364.2</b>	<b>224.9</b>	<b>560.1</b>	<b>193.8</b>	<b>560.1</b>	<b>359.4</b>	<b>199.6</b>	<b>560.1</b>	<b>193.9</b>

## 2006 to 2008 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	111	29	24	42	16	111	29	24	42	16	111	29	24	42	16
Pooled average	10.2	8.1	14	9.5	10.4	155	104.4	169.6	138.8	160.7	170.7	167.1	190.5	164	172.1
10th percentile	22.9	14.3	43.8	38.2	19.6	241.2	165.9	245.3	287.9	218.2	252.8	259.8	248.1	287.9	229.9
25th percentile	14.3	6.7	15.2	18.7	11.6	173.8	91.7	213.1	190.6	183.7	190.7	168.1	216.8	208.6	188.8
Median	8.7	2.0	9.3	12.1	10.2	121.7	60.2	127.1	157.3	154.4	160.0	114.6	178.1	169.9	161.5
75th percentile	0.9	-4.7	0.9	5.5	6.9	69.7	18.6	75.4	93.1	112.9	107.1	68.9	107.5	128.9	127.7
90th percentile	-5.4	-15.9	-5.1	-1.7	-1.6	21.0	0.0	31.8	59.4	39.1	64.8	28.8	72.3	81.2	46.7
Interdecile range	28.3	30.1	48.9	39.9	21.2	220.2	165.9	213.5	228.5	179.1	187.9	231.0	175.9	206.8	183.2
<b>Range of returns</b>	<b>98.7</b>	<b>45.1</b>	<b>89.7</b>	<b>87.4</b>	<b>26.5</b>	<b>723.0</b>	<b>364.2</b>	<b>700.5</b>	<b>560.1</b>	<b>216.2</b>	<b>723.0</b>	<b>359.4</b>	<b>669.4</b>	<b>560.1</b>	<b>232.7</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

## 2007 to 2009 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	95	25	22	36	12	95	25	22	36	12	95	25	22	36	12
Pooled average	12.5	12.3	15	11.7	12.6	164.5	115.4	154	148.5	170.5	180.6	198.3	195.7	167.7	182.8
10th percentile	32.6	22.3	50.5	35.5	20.5	238.6	188.3	335.6	325.5	221.1	278.4	223.4	487.9	325.5	235.6
25th percentile	17.9	12.2	24.6	20.8	16.4	179.4	113.9	200.7	192.1	198.7	206.0	177.6	237.2	213.9	207.7
Median	11.4	2.0	11.7	13.7	11.4	139.2	25.0	155.6	166.3	154.4	170.0	116.1	183.1	176.5	165.5
75th percentile	2.7	-3.9	8.1	8.2	7.4	60.2	0.0	78.0	122.3	115.1	122.8	66.9	149.8	151.7	150.0
90th percentile	-3.8	-9.6	-5.3	0.8	2.0	1.2	0.0	8.3	42.7	34.8	67.0	45.0	75.0	103.1	41.8
Interdecile range	36.4	31.9	55.9	34.7	18.4	237.4	188.3	327.3	282.8	186.3	211.4	178.4	412.8	222.3	193.8
<b>Range of returns</b>	<b>98.4</b>	<b>61.9</b>	<b>89.7</b>	<b>80.3</b>	<b>21.1</b>	<b>723.0</b>	<b>246.3</b>	<b>723.0</b>	<b>560.1</b>	<b>216.2</b>	<b>723.0</b>	<b>390.8</b>	<b>669.4</b>	<b>560.1</b>	<b>232.7</b>

## 2008 to 2010 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	77	19	26	24	8	77	19	26	24	8	77	19	26	24	8
Pooled average	15.7	14.2	18.7	11.8	16.7	172.1	97.8	172.8	129	189.5	195.7	210.4	214.6	157.5	207.4
10th percentile	36.4	31.7	50.5	42.3	n/a	236.1	221.9	303.1	259.9	n/a	280.1	254.6	387.3	259.9	n/a
25th percentile	19.9	5.5	22.7	20.1	20.6	177.6	40.4	193.9	177.6	221.5	217.5	145.5	246.9	187.6	236.3
Median	11.4	0.0	11.7	13.0	15.0	128.9	15.0	123.1	139.1	190.5	162.8	95.3	181.2	172.0	198.9
75th percentile	1.1	-5.3	6.6	8.0	11.7	18.6	0.0	35.3	121.7	123.5	108.0	63.1	139.7	149.4	155.4
90th percentile	-4.1	-8.6	-7.3	3.0	n/a	0.0	0.0	0.0	43.8	n/a	65.3	36.6	76.2	114.9	n/a
Interdecile range	40.5	40.3	57.8	39.4	n/a	236.1	221.9	303.1	216.1	n/a	214.8	218.0	311.1	145.0	n/a
<b>Range of returns</b>	<b>97.3</b>	<b>51.1</b>	<b>93.3</b>	<b>80.3</b>	<b>24.9</b>	<b>723.0</b>	<b>246.3</b>	<b>723.0</b>	<b>403.4</b>	<b>220.9</b>	<b>715.9</b>	<b>369.0</b>	<b>711.6</b>	<b>327.5</b>	<b>264.0</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

## 2009 to 2011 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	70	21	24	21	4	70	21	24	21	4	70	21	24	21	4
Pooled average	14.8	17.7	14.6	14	n/a	124.2	116.7	121.9	121.9	n/a	177.3	228.7	200.5	165.6	n/a
10th percentile	31.2	30.1	33.8	32.6	n/a	240.8	210.6	277.8	281.9	n/a	276.5	251.4	308.8	281.9	n/a
25th percentile	20.9	8.7	21.0	25.0	n/a	154.1	87.0	150.3	175.4	n/a	210.8	155.5	242.8	213.4	n/a
Median	11.9	0.0	12.3	13.8	n/a	110.7	15.0	102.4	146.7	n/a	150.2	95.3	152.2	176.3	n/a
75th percentile	-0.5	-5.3	0.7	7.6	n/a	17.0	0.0	24.8	105.9	n/a	96.6	62.6	106.1	141.7	n/a
90th percentile	-6.6	-10.8	-3.8	-3.1	n/a	0.0	0.0	0.0	25.3	n/a	64.3	36.4	77.6	81.2	n/a
Interdecile range	37.8	41.0	37.6	35.8	n/a	240.8	210.6	277.8	256.7	n/a	212.2	215.0	231.1	200.7	n/a
<b>Range of returns</b>	<b>71.3</b>	<b>51.8</b>	<b>71.3</b>	<b>52.5</b>	<b>n/a</b>	<b>440.3</b>	<b>246.3</b>	<b>360.6</b>	<b>438.2</b>	<b>n/a</b>	<b>551.9</b>	<b>369.0</b>	<b>551.9</b>	<b>376.2</b>	<b>n/a</b>

## 2010 to 2012 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	67	20	21	21	5	67	20	21	21	5	67	20	21	21	5
Pooled average	17.7	11.9	15.6	14.2	20.8	119.2	74.4	111.2	115.5	125.9	190.6	161.1	196.6	165.1	207.9
10th percentile	28.2	23.2	23.9	33.6	n/a	193.8	140.8	143.2	281.9	n/a	252.0	236.3	244.4	281.9	n/a
25th percentile	20.9	8.4	13.2	27.0	26.9	139.8	50.1	113.7	162.2	190.3	199.0	142.6	177.9	225.6	414.4
Median	9.4	0.3	8.8	19.3	24.9	74.7	15.2	71.9	139.0	109.9	145.5	99.4	144.6	176.3	199.0
75th percentile	-0.6	-5.9	-0.3	6.7	18.0	19.4	3.9	17.4	73.4	64.3	95.3	66.2	98.5	134.9	190.5
90th percentile	-9.1	-11.6	-8.7	-6.5	n/a	0.9	0.0	0.0	39.9	n/a	58.1	29.9	55.9	70.2	n/a
Interdecile range	37.3	34.8	32.6	40.1	n/a	192.9	140.8	143.2	242.0	n/a	193.8	206.3	188.5	211.7	n/a
<b>Range of returns</b>	<b>69.0</b>	<b>57.6</b>	<b>50.3</b>	<b>57.5</b>	<b>11.7</b>	<b>440.3</b>	<b>185.2</b>	<b>278.5</b>	<b>417.9</b>	<b>207.9</b>	<b>546.4</b>	<b>241.7</b>	<b>294.2</b>	<b>387.6</b>	<b>374.3</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

## 2011 to 2013 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	73	22	16	28	7	73	22	16	28	7	73	22	16	28	7
Pooled average	18.7	14.9	14.4	16	20.5	106.8	70.7	95.5	105.2	110.9	190.6	160.3	185.2	171.4	201.2
10th percentile	29.5	30.4	29.4	32.4	n/a	204.2	172.9	166.0	262.0	n/a	250.8	251.1	231.8	313.4	n/a
25th percentile	21.0	17.2	13.1	25.9	26.6	140.0	101.5	111.4	160.0	114.3	201.5	174.9	160.1	217.6	199.8
Median	12.6	2.8	7.9	18.1	20.6	74.7	17.5	73.3	115.2	108.5	147.2	116.4	142.1	178.0	198.8
75th percentile	0.8	-9.3	0.0	6.3	19.7	12.3	0.0	16.4	33.4	25.8	103.4	65.2	92.3	126.5	183.5
90th percentile	-9.4	-31.3	-6.1	-1.4	n/a	0.0	0.0	0.0	1.4	n/a	55.4	21.2	35.2	91.7	n/a
Interdecile range	38.9	61.7	35.5	33.8	n/a	204.2	172.9	166.0	260.6	n/a	195.4	229.9	196.5	221.8	n/a
<b>Range of returns</b>	<b>145.8</b>	<b>119.7</b>	<b>39.3</b>	<b>91.6</b>	<b>11.7</b>	<b>462.4</b>	<b>422.0</b>	<b>217.5</b>	<b>462.4</b>	<b>132.5</b>	<b>557.8</b>	<b>421.9</b>	<b>262.1</b>	<b>419.0</b>	<b>391.4</b>

## 2012 to 2014 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	86	26	18	33	9	86	26	18	33	9	86	26	18	33	9
Pooled average	24.4	16.2	18.6	14.9	27.4	90.3	48.5	93	63.7	101.9	210.8	162.5	174.3	151.9	235
10th percentile	33.2	37.8	30.2	41.8	n/a	194.7	156.5	222.3	235.3	n/a	263.1	256.5	262.5	275.0	n/a
25th percentile	24.8	18.8	17.2	24.9	31.2	111.0	43.7	116.3	140.1	133.4	202.6	191.3	177.9	201.5	313.3
Median	12.4	9.1	8.9	12.9	26.6	38.8	16.0	17.4	63.9	88.6	142.6	127.1	135.9	140.9	199.8
75th percentile	3.0	-1.9	-1.0	5.5	20.1	4.3	0.0	0.0	12.5	52.7	112.6	94.5	89.6	118.6	198.2
90th percentile	-9.2	-27.4	-10.2	-2.7	n/a	0.0	0.0	0.0	0.0	n/a	67.4	33.7	45.3	92.4	n/a
Interdecile range	42.3	65.2	40.4	44.5	n/a	194.7	156.5	222.3	235.3	n/a	195.7	222.8	217.2	182.6	n/a
<b>Range of returns</b>	<b>234.8</b>	<b>119.7</b>	<b>50.7</b>	<b>197.7</b>	<b>26.5</b>	<b>462.4</b>	<b>422.0</b>	<b>265.3</b>	<b>462.4</b>	<b>145.4</b>	<b>557.8</b>	<b>421.9</b>	<b>265.3</b>	<b>441.4</b>	<b>391.4</b>

# Appendix IV – Since inception range of returns by vintage year band and investment stage

Continued

2013 to 2015 vintage funds

	IRR (% p.a.)					DPI					TVPI				
	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE	Subtotal	Venture	Small PE	Mid PE	Large PE
No. of funds	103	28	18	49	8	103	28	18	49	8	103	28	18	49	8
Pooled average	23.2	14.9	12.8	12.9	28.6	60.6	21.5	55.7	39.1	77.5	185.2	149	140.1	138.6	220.0
10th percentile	33.3	49.1	33.5	27.8	n/a	159.3	144.6	268.6	162.1	n/a	259.9	257.2	268.6	225.5	n/a
25th percentile	21.5	20.6	17.2	20.3	32.2	86.3	36.6	119.1	89.0	107.8	193.1	198.8	178.4	159.3	273.6
Median	12.6	10.0	8.7	12.6	26.2	25.8	4.4	5.6	32.1	80.9	137.1	130.5	119.0	137.1	199.3
75th percentile	3.5	-0.9	-3.7	5.3	21.5	0.6	0.0	0.0	5.9	36.9	110.7	97.3	87.4	115.4	167.0
90th percentile	-6.0	-14.3	-15.4	1.5	n/a	0.0	0.0	0.0	0.0	n/a	82.1	65.0	44.4	104.2	n/a
Interdecile range	39.3	63.4	48.9	26.3	n/a	159.3	144.6	268.6	162.1	n/a	177.9	192.2	224.2	121.4	n/a
<b>Range of returns</b>	<b>234.8</b>	<b>132.9</b>	<b>58.8</b>	<b>197.7</b>	<b>26.5</b>	<b>462.4</b>	<b>422.0</b>	<b>298.4</b>	<b>462.4</b>	<b>139.7</b>	<b>471.7</b>	<b>421.9</b>	<b>298.4</b>	<b>441.4</b>	<b>190.9</b>

# Appendix V – Worked examples

## Sample carried interest calculation to produce an interim IRR (as of 31 Dec 2019)

Fund size – £20 million  
 Draw down – £17 million (85%)  
 Distributed – £12.25 million

Residual net asset value (NAV) at 31 December 2019 (before carried interest) – £12 million.

### Distribution Priority

- i) 100% to investors until commitments returned;
- ii) 100% to investors until a ‘preferred return’ of 10% pa compound is achieved;
- iii) 100% to manager until payments equal 25% of ii);
- iv) 80% to investors, 20% to manager thereafter.

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 NAV date (i.e. 31 December 2019) and that the residual value is distributed according to the above.

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 2019 and distributed simultaneously.

The example given on the right produces an interim IRR before carried interest of 12.9% and 10.7% pa after carried interest. The latter figure is the one used in the BVCA Performance Measurement Survey.

## Sample interim IRR calculation for a fund

Cash flow date	Amount (£)	Comment
1 Feb 2015	-2,000,000	10% draw down from investors
10 Jun 2015	-2,000,000	10% draw down from investors
25 Nov 2015	-2,000,000	10% draw down from investors
3 Apr 2016	-2,000,000	10% draw down from investors
9 Sep 2016	-2,000,000	10% draw down from investors
12 Dec 2016	-2,000,000	10% draw down from investors
5 May 2017	-2,000,000	10% draw down from investors
15 Oct 2017	1,500,000	Cash distribution to investors
11 Nov 2017	-1,000,000	5% draw down from investors
29 Mar 2018	2,500,000	Cash distribution to investors
27 Jun 2018	1,000,000	Cash distribution to investors
18 Sep 2018	-2,000,000	10% draw down from investors
29 Apr 2019	3,000,000	Cash distribution to investors
12 Aug 2019	1,500,000	Cash distribution to investors
15 Dec 2019	2,750,000	Cash distribution to investors
31 Dec 2019	12,000,000	Residual NAV

Please note that all figures have been calculated using Microsoft Excel and the IRRs using the XIRR function in the same programme.



# Appendix V – Worked examples

Continued

The NAV required to produce the preferred return to investors at 31 December 2019 is £10,098,788 in accordance with Distribution Priority ii) leaving an excess of £1,901,212 to be allocated between the investors and the manager.

At this point, the minimum gain attributable to investors would be £5,348,788 (£10,098,788 + £12,250,000 – £17,000,000).

As investors would have received the preferred return (the fund being 'wound up' at this date), the manager becomes entitled to an amount equivalent to 20% of this minimum gain from the excess of £1,901,212. The manager is thus entitled to 25% of the minimum gain achieved (i.e. £1,337,197) in accordance with iii) plus 20% of the remaining excess of £564,015 (£1,901,212 – £1,337,197). The manager would now have received 20% of the gain, that is, 20% of (£5,348,788 + £1,337,197 + £564,015).

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)
<b>£11,435,985</b>	

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
<b>£564,015</b>	

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

£10,550,000	To the investors
£1,450,000	To the manager
<b>£12,000,000</b>	

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 VI – List of responding managers

3i	Bain Capital Europe LLP	CVC Advisers Limited	GMG Ventures
7percent Ventures	Baird Capital	Development Bank of Wales	Graphite Capital Management LLP
Abingworth LLP	BC Partners	DN Capital	Greyhound Capital Europe LLP
Accel	Beech Tree Private Equity	Duke Street	Growth Capital Partners LLP (GCP)
Active Partners Investments LLP	BlueGem Capital Partners LLP	Dunedin LLP	Herald Investment Management Limited
Ada Ventures	Bowmark Capital LLP	ECI Partners LLP	Hg
Alchemy Partners LLP	Bregal Capital LLP	Elysian Capital LLP	Horizon Capital LLP
Alcuin Capital Partners LLP	Bridgepoint	EMK Capital	Inflexion Private Equity
Aliter Capital LLP	Bridges Fund Management Limited	Endless LLP	Inverleith
Amadeus Capital Partners Limited	Cambridge Innovation Capital	Epiris LLP	IP Group
AnaCap Financial Partners Limited	CBPE Capital	Equistone Partners Europe Limited	IQ Capital Partners LLP
Anthemis Group	Cinven Partners LLP	ETF Partners	IW Capital Limited
Apax Partners UK Ltd	Circularity Capital	Exponent Private Equity LLP	Keen Venture Partners LLP
Apiary Capital LLP	Clarendon Fund Managers Limited	Finch Capital	Key Capital Partners LLP
Apposite Capital LLP	Connect Ventures	FPE Capital LLP	Kindred Capital
August Equity LLP	Crane Venture Partners	Frog Capital Limited	Kings Park Capital

# Appendix VI – List of responding managers

Continued

KKR & Co.	NorthEdge Capital LLP	Solingen Private Equity Limited	Vespa Capital LLP
Lakestar VC	Oakley Capital Limited	Sovereign Capital	Vision Capital LLP
Langholm Capital	Oxford Capital	STAR Capital Partnership LLP	Vitruvian Partners LLP
Lion Capital	Palamon Capital Partners, LP	Stirling Square Capital Partners LLP	Westbridge Fund Managers Limited
Livingbridge EP LLP	Palatine Private Equity LLP	Sussex Place Ventures	YFM Equity Partners
Lonsdale Capital Partners	Panoramic Growth Equity	SV Health Investors LLP	YFM Venture Finance
Luminous Ventures	Par Equity LLP	Synova Capital LLP	Zouk Capital LLP
Magenta Partners LLP	Penta Capital LLP	Target Global	
Mayfair Equity Partners	Permira Advisers (London) Ltd	TDR Capital LLP	
Mercia Asset Management	PHD Equity Partners	Technology Venture Partners	
Midven Limited	Phoenix Equity Partners	Techstart Ventures	
MMC Ventures Ltd	Piper PE LLP	Tenzing	
MML Capital Partners LLP	Primary Capital Partners LLP	Terra Firma Capital Partners Limited	
Mobius Equity Partners	Rutland Partners LLP	The Summit Group Ltd	
MVM Partners	SEP	TowerBrook Capital Partners (UK) LLP	
Next Wave Partners LLP	Silverfleet Capital	True.	

# Appendix VII – Frequently asked questions

## Who is included in the survey?

To be eligible for inclusion in the survey, the private equity firm must:

- Be a full BVCA member;<sup>2</sup>
- Raise money from third-party investors;
- Manage that money from the UK (although it may be invested elsewhere).

The BVCA represents the vast majority of private equity and venture capital 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.

## The following are excluded:

- BVCA members investing from their own balance sheet;
- Quoted vehicles managed by BVCA members such as VCTs and listed private equity (formerly known as private equity investment trusts).

These groups have been excluded because the purpose of the survey is to show institutional investors the kind of returns they might attain if they invested in UK-based private equity funds (which are often structured as limited partnerships). The performance of these 'independent' funds is calculated in a different way from quoted vehicles and therefore cannot be combined in the same sample. Firms that only invest directly from their own balance sheet are excluded because they do not manage a fund into which an institutional investor would be able to invest. Such firms will not be able to report performance data net of costs and fees, as with the 'independent' funds.

## Is the BVCA membership representative of the UK private equity industry?

The BVCA represents the vast majority of private equity and venture capital in the UK, with just over 300 full members – firms that provide private equity or venture capital funding to unquoted companies.

## What is the response rate for the survey?

In total, 117 BVCA members responded to the survey in 2019 out of 154 eligible firms (a 76% response rate). Only firms that manage funds are eligible to be included. Many firms manage more than one fund. In total, 813 funds were analysed in this year's survey. The BVCA recognises the importance of producing the most comprehensive performance data possible and therefore it is a condition of BVCA membership that the data is provided.

## Who produces the survey?

The survey analysis is conducted by PwC Research in conjunction with the BVCA.

## How is the data collected?

BVCA members submit their cash flow and valuation data for qualifying funds via the BVCA's online data collection portal or by spreadsheet. The data is then provided to PwC Research for analysis by investment category and vintage year, with verification undertaken by the BVCA. The BVCA then produces a summary report in the summer, with the full report compiled by PwC and the BVCA, published in the autumn.

2. Funds managed by former members of the BVCA have been included where information has been available, but these are few and most are no longer active within the UK private equity industry. Only past members that still have active funds and continue to provide data are listed as having responded to the survey.

# Appendix VII – Frequently asked questions

Continued

## Why have funds with vintages of 1996 onwards been reclassified?

This was done in order to reflect changes in the market. It was decided that 1996 was the most appropriate point at which to do this, as it was around this time that the market started to noticeably change, with a large rise in the number of venture capital funds and significantly larger buyout funds being raised. The new categories and their size-bandings (i.e. size of equity investments) are as follows:

- Venture;
- Small Private Equity (< £10mn);
- Mid Private Equity (£10mn–£100mn);
- Large Private Equity (> £100mn).

## Does this allow for greater breakdown of the data?

Yes. Reducing the number of categories makes it easier to break out vintage year data by stage category. From 1996 vintages onwards, vintage years are analysed by Venture, Small/Mid Private Equity and Mid/Large Private Equity deals. Due to some very small sample sizes, the deals categories have had to be combined when comparing with Venture. This further breakdown of vintage year returns will be useful when benchmarking funds. It is hoped that this will increase the usefulness of the survey to investors and practitioners alike.

## How are the returns calculated?

The primary method for calculating returns is based on the annualised internal rate of return (IRR) achieved over a period of time. This return is based upon the total actual fund cash flows and valuations of the funds at the relevant period ends and the calculation of the change between them on a per annum basis. The returns are therefore time- and money-weighted (often referred to as 'timeline basis').

## The returns are based on fund valuations provided by the fund manager.

### How robust are these numbers?

Fifty-nine percent of the funds surveyed contain unrealised investments. As part of the data collection process, respondents are asked whether fund valuations have been based on the new International Private Equity and Venture Capital Valuation (IPEV) Guidelines and, if not, what valuation method has been used. However, PwC has not independently confirmed that the IPEV Guidelines have been adhered to.

It should be remembered that, as with other asset classes, a valuation provides an interim 'snapshot' of performance. The distributing nature of the vast majority of private equity and venture capital funds means that when a fund has made its final distribution, a pure cash-on-cash return can be calculated.

## What are the International Private Equity and Venture Capital Valuation (IPEV) Guidelines?

The International Valuation Guidelines were initially launched in March 2005, and are endorsed by regional and national associations, including the Institutional Limited Partners Association (ILPA) in the USA. For more information, please visit: <http://www.privateequityvaluation.com/>

## Why is the internal rate of return (IRR) used?

The IRR is the most appropriate measure of return due to the high level of discretion on the part of the fund manager in determining cash flows to and from the investors and the difficulty in determining portfolio valuations at the date of each cash flow that would be required in order to calculate a time-weighted return.

# Appendix VII – Frequently asked questions

Continued

## Can you compare IRRs to the returns generated by other asset classes?

Most other asset classes quoted in this report, are calculated as gross time-weighted returns (TWR) and so any comparison should be done with care. Such TWR calculations are not possible for private equity as they require frequent and easily obtainable revaluations and assume a low level of manager discretion in the timing of cash flows.

## Is the IRR net or gross?

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. Returns from FTSE indices, however, are gross time-weighted returns. Thus, private equity and venture capital returns are effectively understated in comparison.

## Why is the net IRR used?

The net IRR is the most appropriate measure of performance as this is the return that is generated to the investor. While gross IRRs are important for measuring individual investments, the effects of costs and fees can significantly reduce the gross returns when the totality of the fund is examined.

## Why are different types of net IRR reported?

'Since inception' returns are the most meaningful way to measure private equity performance. They measure from the actual start of the fund (i.e. from the first drawdown) up to a particular point in time. This, therefore, most closely reflects the return a primary investor would have achieved.

'Medium to long-term returns' or Horizon IRRs (three, five and ten years) are reported so that investors can compare them with other asset classes, which is not possible with the since inception numbers. These returns cover all activity in all funds in the survey over the measured period to 31 December; it is not limited to just those funds that were in existence at the start of the measured period.

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. when calculating a 5-year horizon as at December 2019, we use the aggregated fund NAVs as at 31 December 2014), and treat this amount as the first draw down;
- (iii) calculate the aggregated net cash flows (distributions less draw downs) for everyday until 31st December 2019;
- (iv) add the aggregated fund NAVs as at 31st December 2019; and
- (v) calculate the Horizon IRR on the resulting cashflows.

Current (or one) year returns are very volatile and inappropriate as a sensible measure of private equity performance. It is not possible to invest in a private equity fund for just one year. Private equity is a long-term investment, spanning the life of a fund. They can, however, be used as an indication of how well the UK private equity industry performed in that one year.

## Why is the complete dataset 813 funds in some cases and 671 in others?

The since inception returns have a reduced dataset compared to the medium to longer-term returns, because only funds over four years old are included in the former. The reason for this is that short-term IRRs can be very volatile and are not a reliable indicator of progress. After four years, the IRR has begun to settle down and is thus a more meaningful indication of the direction of progress.

## Why is the pooled average IRR so different from the median IRR in some populations?

The pooled average IRR is the return for the total sample of funds being analysed, whereas the median is the actual return of the middle ranking fund in the sample. The pooled average is influenced by larger funds in the sample, whereas the median is size-neutral.



# Appendix VII – Frequently asked questions

Continued

## Why are multiples also quoted?

The IRR is not the only important measure of performance for private equity and venture capital funds. Multiples are a useful additional measure that can be used in conjunction with IRRs when comparing the relative performance of funds. The multiple is shown in two ways:

- As a percentage of paid-in capital distributed to investors (DPI);
- As a percentage of total value, which includes capital distributed and residual value (TVPI).

## What is the impact of currency on the returns?

All of the fund returns are calculated in pounds sterling. For those funds that are denominated in other currencies, each cash flow and valuation is converted to pounds sterling using the relevant exchange rate prevailing at the date of said cash flow or valuation. In this way, the return calculated will be closest to that of a sterling-based investor. Although exchange rate movements may have some significant impact on short to medium-term returns, their effect on since inception and long-term returns is generally small.

## How transparent is the UK private equity industry?

The private equity industry is mindful of the need for appropriate levels of transparency, given its high profile in the media and its importance to the wider success of the economy. It must be remembered, however, that private equity differs from public equity and that a degree of privacy is an important component of return generation. This survey was first commissioned by the BVCA in 1994 and demonstrated the desire and strategic vision of the BVCA to promote greater understanding of the industry and to encourage greater transparency regarding performance. The proactive and continuous efforts to improve the survey, such as the further breakdown of vintage year performance, are also made with the desire for greater transparency.





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## Disclaimer

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The data used in the preparation of the report has been collated and analysed by PwC Research but has not been independently verified, validated or audited by PwC.

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