



GLOBAL

PitchBook Benchmarks

AS OF Q3 2021 (with preliminary Q4 2021 data)





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Introduction

PitchBook Benchmarks aim to help both LPs and GPs better understand fund performance relative to broader asset classes and other private market strategies. We present performance through several lenses—including internal rates of return (IRRs) and cash multiples—to provide a holistic view for assessing performance within and between strategies, as well as across vintage years. Furthermore, the returns of private market funds are measured relative to easily accessible public market substitutes using a public market equivalent (PME) metric.

We have expanded PitchBook Benchmarks to include additional slices based on fund strategy and geography, enabling performance comparisons with more representative peer groups. We include dedicated PitchBook Benchmarks for North America, Europe, private equity, venture capital, real estate, real assets, private debt, funds of funds, and secondaries. To easily access the supporting data in this PDF, be sure to download the accompanying Excel data packs.

As transparency is fundamental to our benchmarking efforts, subscribers to the PitchBook Platform can use the data packs to gain direct [access to all the underlying funds](#) and performance metrics used to calculate our Benchmarks.

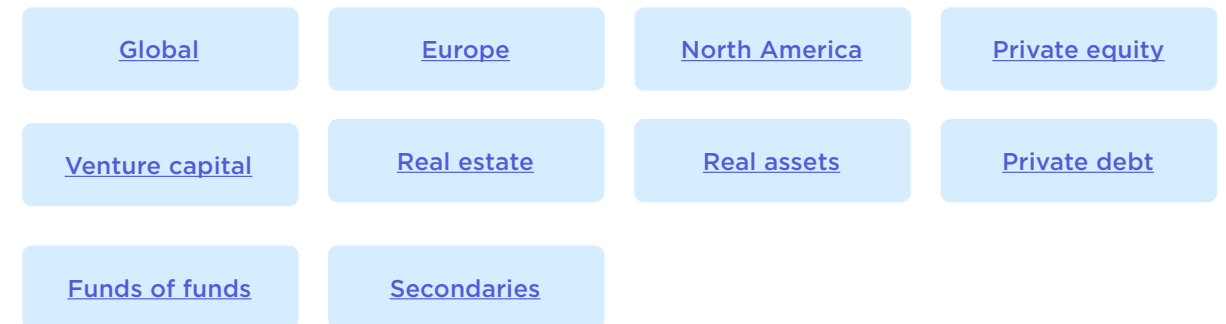
[Commitment pacing and cash flow models](#) can be made available via custom request for PitchBook clients.

PitchBook clients have access to [all the underlying funds](#) as well as additional benchmarking analysis using the [Custom Benchmarks Tool](#).

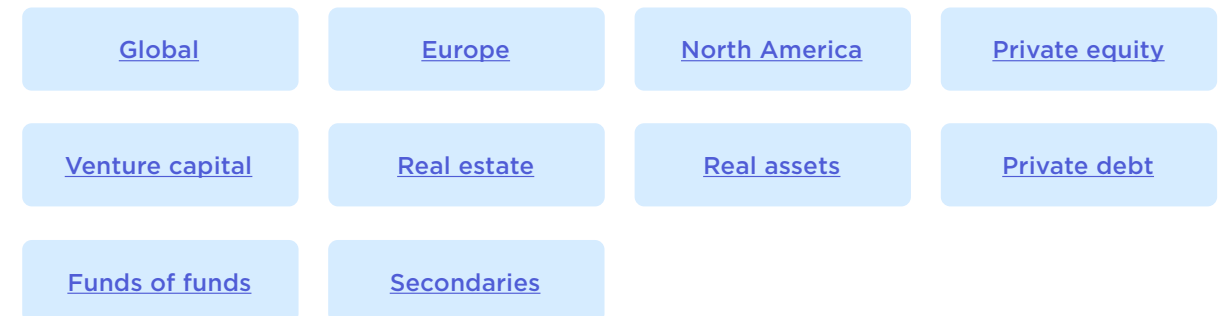
Additional PitchBook research specific to fund returns can be found in our [Fund Performance Evaluation analyst workspace](#).

Our goal is to provide the most transparent, comprehensive, and useful fund performance data for private market professionals. We hope that our Benchmarks prove useful in your practice, and we welcome any and all feedback that may arise as you make your way through our various benchmark groupings. Should there be any additional benchmark categories or data points you would like to see included in the future, please contact us directly at benchmarks@pitchbook.com.

Additional data and vintage years are available in the Excel data packs:



Additional PitchBook Benchmark PDFs:





Methodology

Fund classifications

Private equity

Buyout
Growth/expansion
Restructuring/turnaround
Diversified PE

Venture capital

Real estate

Real estate core
Real estate core plus
Real estate value added
Real estate opportunistic
Real estate distressed

Real assets

Infrastructure core
Infrastructure value added
Infrastructure opportunistic
Infrastructure greenfield
Oil & gas
Timber
Metals/mining
Agriculture

Private debt

Direct lending
Bridge financing
Distressed debt
Credit special situations
Infrastructure debt
Venture debt
Real estate debt
Mezzanine

Funds of funds

Secondaries

Note: Benchmark reports prior to the Q4 2021 release included Mezzanine under Private Equity.

Data composition

PitchBook's fund returns data is primarily sourced from individual LP reports, serving as the baseline for our estimates of activity across an entire fund. For any given fund, return profiles will vary for LPs due to a range of factors, including fee discounts, timing of commitments and inclusion of co-investments. This granularity of LP-reported returns—all available on the PitchBook Platform—provides helpful insight to industry practitioners but results in discrepancies that must be addressed when calculating fund-level returns.

To be included in pooled calculations, a fund must have: (i) at least one LP report within two years of the fund's vintage, and (ii) LP reports in at least 45% of applicable reporting periods. To mitigate discrepancies among multiple LPs reporting, the PitchBook Benchmarks (iii) determine returns for each fund based on data from all LP reports in a given period. For periods that lack

an LP report, (iv) a straight-line interpolation calculation is used to populate the missing data; interpolated data is used for approximately 10% of reporting periods, a figure that has been steadily declining.

Beginning with the PitchBook Benchmarks with data as of Q4 2019, we expanded our dataset to include funds with a reported IRR, even if the fund's cash flow data does not meet the pooled calculation criteria. In our Q2 2021 report, we made additional improvements to the inclusion criteria for reported IRRs, which caused some shifts in vintage year data counts compared with prior iterations.

We strive to maintain consistency from edition to edition of PitchBook Benchmarks, but fund classifications will change occasionally, and new funds will be incorporated into the dataset as we gather more information.

All returns data in this report is net of fees and carry.

Definitions and calculation methodologies

Fund count: Represents how many funds are included in a given sample. Note that some funds in our dataset have a reported IRR but lack sufficient cash flow information to be included in pooled calculations.

Median calculations: Shows the middle data point for a sample group.

Public market index returns: Instances where the return of a public market index is cited, we have calculated the annualized return for the given period. All public indices are total return and denominated in US dollars.

Standard deviation: Calculates the dispersion of reported IRRs for a given peer group using the sample-based standard deviation methodology.



Vintage year: The vintage year is based on the year that a fund makes its first capital call. If the year of the initial call is unknown, the year of the final close is used as the vintage year. However, if a firm publicly declares via press release or a notice on their website a fund to be of a particular vintage different than either of the first conditions, the firm's classification takes precedence.

Internal rate of return (IRR): IRR represents the rate at which an historical series of cash flows are discounted so that the net present value of the cash flows equals zero. For pooled calculations, any remaining unrealized value in the fund is treated as a distribution in the most recent reporting period. This explains why some vintages show high IRRs but low DPI values.

Horizon IRR: Horizon IRR is a capital-weighted pooled calculation that shows the IRR for a certain range in time. For example, the one-year horizon IRR figures in the report may show the IRR performance for the one-year period beginning in Q2 20x0 through the end of Q1 20x1 while the three-year horizon IRR is for the period beginning in Q2 20x0 through the end of Q1 20x3.

Quarterly return: Calculated as the aggregate percentage change in aggregate NAV for each group of funds in a sample, considering contributions and distributions during the quarter. This makes the calculation tantamount to a quarterly compounded growth rate. Interpolated and extended data are not used in this calculation. Preliminary data is only available for the Global Benchmarks report and will be published when NAV captured nears 50% of the expected NAV for all private capital funds with cash flow history.

$$\text{Quarterly return} = \left[\left(\frac{\text{NAV at end of quarter} + \text{distributions during the quarter} - \text{contributions during the quarter}}{\text{NAV at the beginning of the quarter}} \right) \right] - 1$$

Distributions to paid-in (DPI) multiple: A measurement of the capital that has been distributed back to LPs as a proportion of the total paid-in, or contributed, capital. DPI is also known as the cash-on-cash multiple or the realization multiple.

Remaining value to paid-in (RVPI) multiple: A measurement of the unrealized return of a fund as a proportion of the total paid-in, or contributed, capital.

Total value to paid-in (TVPI) multiple: A measurement of both the realized and unrealized value of a fund as a proportion of the total paid-in, or contributed, capital. Also known as the investment multiple, TVPI can be found by adding together the DPI and RVPI of a fund.

Pooled calculations: Pooled calculations combine cashflow data from a group of funds to create a capital-weighted IRR value. All cash flows and NAVs for each fund in the sample group (e.g. all private capital funds, 2004 vintage VC funds, etc.) are aggregated in the calculation. For vintage-specific calculations, we begin the calculation in Q1 of the vintage year, regardless of which quarter a fund first called capital. In cases where the sample has unrealized value, the ending NAV is treated as a cash outflow in the last reporting period.

Equal-weighted pooled calculations: Using the same methodology as the pooled calculations, the equal-weighted version expresses each fund's cash flows and ending NAV as a ratio of fund size. The result is that each fund in these calculations has an equal impact on the output, regardless of the fund size.

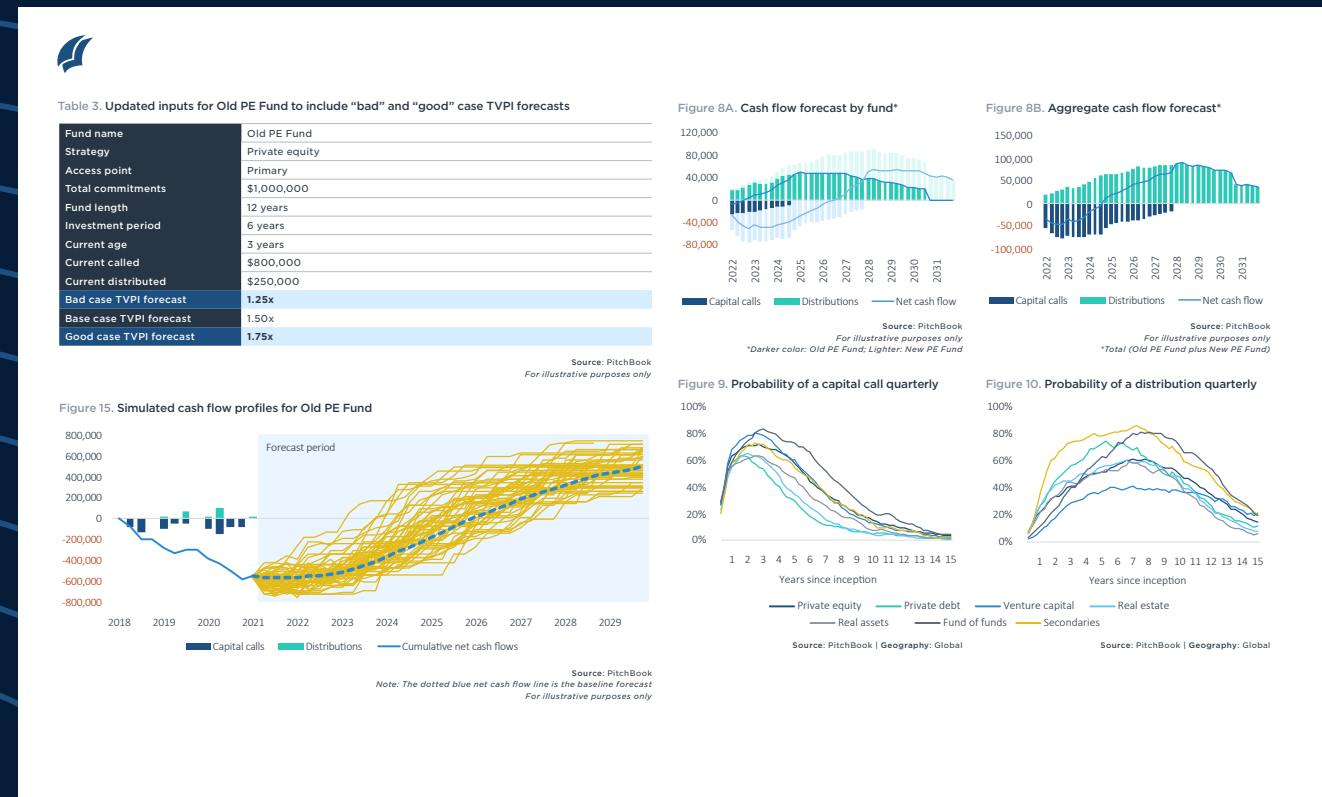
Public market equivalent (PME) calculations: PME metrics benchmark the performance of a fund (or group of funds) against an index. A white paper detailing the calculations and methodology behind the PME benchmarks can be found at [pitchbook.com](https://pitchbook.com/resources/whitepapers/public-market-equivalent-benchmarks). [PitchBook News & Analysis](https://pitchbook.com/resources/news/public-market-equivalent-benchmarks) also contains several articles with PME benchmarks and analysis. All PME figures are calculated using the Kaplan-Schoar PME method:

$$\text{PME}_{\text{KS-TVPI, T}} = \frac{\frac{\text{NAV}_T}{I_T} + \sum_{t=0}^T \left(\frac{\text{distribution}_t}{I_t} \right)}{\sum_{t=0}^T \left(\frac{\text{contribution}_t}{I_t} \right)}$$

When using a KS-PME, a value greater than 1.0 implies outperformance of the fund over the public index (net of all fees).

PitchBook introduces new cash flow forecasting and commitment pacing models

Helping allocators answer the important questions when it comes to managing private fund structures in their portfolios



PitchBook has leveraged our historical data on fund cash flows to build probabilistic forecasting and scenario analysis models for private fund portfolios. Datasets are available for clients that wish to use historical cash flow data as a parameter for their own models.

All the models introduced in the Allocator Solutions report are available to PitchBook clients. We welcome any questions, comments, or inquiries at pbinstitutionalresearch@pitchbook.com.

Download the Allocator Solutions: Cash Flow Forecasting and Commitment Pacing report



Private capital

Private capital

Horizon IRRs

Strategy	Q4 2021*	Q3 2021	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	4.02%	5.97%	37.90%	18.26%	16.64%	14.25%	11.57%	11.96%
Private equity	3.42%	6.79%	46.45%	24.15%	21.05%	16.96%	13.55%	14.31%
Venture capital	4.55%	8.74%	59.92%	30.49%	23.24%	17.03%	12.98%	9.75%
Real estate	6.49%	5.39%	17.18%	8.48%	9.72%	11.57%	6.91%	7.44%
Real assets	4.46%	2.46%	18.46%	3.75%	6.84%	6.19%	6.29%	6.83%
Private debt	2.14%	1.48%	15.42%	7.95%	7.99%	9.30%	8.44%	9.10%
Funds of funds	4.98%	7.29%	50.93%	23.08%	18.84%	13.86%	11.25%	11.04%
Secondaries	9.94%	9.21%	52.49%	17.90%	17.27%	13.21%	12.42%	12.75%
S&P 500	11.03%	0.58%	30.00%	15.99%	16.90%	16.63%	10.37%	9.51%
MSCI All Country World Index	6.77%	-0.95%	27.98%	13.14%	13.77%	12.50%	7.78%	8.66%
MSCI World Small Cap Growth	0.68%	-1.50%	33.14%	14.56%	15.88%	14.81%	10.21%	11.78%
Morningstar Global Real Estate	8.40%	-1.20%	24.35%	7.97%	6.57%	9.62%	4.97%	9.35%
Morningstar US Real Assets	6.80%	-0.43%	20.80%	5.52%	4.33%	3.76%	5.00%	6.72%
Bloomberg Barclays Global High Yield Corporate	-0.42%	-0.23%	9.76%	6.36%	6.10%	7.05%	7.05%	8.14%

*For private fund strategies these are preliminary quarterly returns
 Source: PitchBook | Geography: Global | Data as of September 30, 2021
 Note: all public index values are total return CAGRs

Private capital

Equal-weighted horizon IRRs

Strategy	Q4 2021*	Q3 2021	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	4.61%	6.88%	35.73%	17.89%	15.90%	13.43%	11.25%	10.65%
Private equity	4.20%	7.07%	37.40%	20.43%	18.40%	15.12%	13.08%	13.27%
Venture capital	7.12%	11.86%	55.51%	26.88%	20.93%	15.45%	11.95%	8.50%
Real estate	4.68%	6.35%	14.66%	8.76%	9.40%	10.62%	6.79%	7.46%
Real assets	4.45%	2.75%	13.84%	4.00%	6.21%	5.93%	6.54%	7.87%
Private debt	3.10%	0.06%	13.13%	7.40%	8.23%	9.41%	8.43%	9.35%
Funds of funds	4.31%	7.48%	51.35%	24.25%	20.29%	15.64%	13.33%	12.87%
Secondaries	5.23%	7.08%	41.42%	16.58%	15.04%	12.49%	11.86%	11.81%
S&P 500	11.03%	0.58%	30.00%	15.99%	16.90%	16.63%	10.37%	9.51%
MSCI All Country World Index	6.77%	-0.95%	27.98%	13.14%	13.77%	12.50%	7.78%	8.66%
MSCI World Small Cap Growth	0.68%	-1.50%	33.14%	14.56%	15.88%	14.81%	10.21%	11.78%
Morningstar Global Real Estate	8.40%	-1.20%	24.35%	7.97%	6.57%	9.62%	4.97%	9.35%
Morningstar US Real Assets	6.80%	-0.43%	20.80%	5.52%	4.33%	3.76%	5.00%	6.72%
Bloomberg Barclays Global High Yield Corporate	-0.42%	-0.23%	9.76%	6.36%	6.10%	7.05%	7.05%	8.14%

*For private fund strategies these are preliminary quarterly returns
 Source: PitchBook | Geography: Global | Data as of September 30, 2021
 Note: all public index values are total return CAGRs

Private capital

One-year horizon IRRs of select strategies

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021*	15-year horizon IRR
Secondaries 31.8%	Other PE 2.9%	Private debt 19.7%	Secondaries 20.4%	Secondaries 13.2%	Private debt 15.0%	Other PE 29.0%	Venture capital 19.5%	Venture capital 13.0%	Other PE 18.9%	Other PE 29.3%	Other PE 32.4%	Growth-Expansion 17.6%	Growth-Expansion 36.9%	Growth-Expansion 41.6%	Growth-Expansion 16.4%
Buyout 25.2%	Real assets -3.0%	Other PE 17.8%	Growth-Expansion 18.6%	Real assets 12.2%	Secondaries 14.5%	Venture capital 21.0%	Real estate 16.4%	Funds of funds 12.9%	Buyout 13.1%	Buyout 20.7%	Growth-Expansion 17.7%	Venture capital 17.2%	Venture capital 35.5%	Venture capital 38.9%	Other PE 15.1%
Other PE 23.0%	Secondaries -8.8%	Growth-Expansion 9.0%	Buyout 17.8%	Venture capital 10.9%	Buyout 14.3%	Buyout 17.9%	Secondaries 13.6%	Buyout 12.8%	Real assets 12.4%	Growth-Expansion 18.4%	Venture capital 17.1%	Other PE 16.8%	Funds of funds 23.5%	Secondaries 37.7%	Buyout 13.3%
Private capital 21.0%	Venture capital -12.3%	Buyout 8.0%	Private debt 16.4%	Real estate 10.4%	Private capital 12.5%	Real estate 16.4%	Buyout 13.2%	Growth-Expansion 12.4%	Private capital 10.6%	Private capital 16.1%	Funds of funds 15.3%	Buyout 16.0%	Buyout 19.8%	Buyout 36.5%	Venture capital 13.0%
Real assets 19.8%	Funds of funds -12.3%	Private capital 2.6%	Private capital 15.7%	Private capital 8.4%	Real estate 11.6%	Private capital 15.5%	Private capital 13.1%	Real estate 12.0%	Growth-Expansion 10.2%	Secondaries 15.8%	Secondaries 14.5%	Funds of funds 11.5%	Private capital 15.0%	Funds of funds 35.7%	Secondaries 12.4%
Funds of funds 17.7%	Growth-Expansion -15.5%	Funds of funds 1.1%	Real estate 12.2%	Buyout 8.2%	Growth-Expansion 10.8%	Growth-Expansion 13.2%	Other PE 13.1%	Secondaries 10.9%	Real estate 10.0%	Real estate 14.1%	Buyout 10.1%	Private capital 11.4%	Other PE 12.7%	Private capital 29.2%	Private capital 11.6%
Private debt 14.3%	Private capital -20.7%	Venture capital 0.2%	Venture capital 12.0%	Growth-Expansion 7.7%	Other PE 9.7%	Private debt 13.0%	Funds of funds 12.7%	Private capital 10.1%	Private debt 9.1%	Funds of funds 12.9%	Private capital 10.1%	Secondaries 10.4%	Secondaries 6.6%	Other PE 20.8%	Funds of funds 11.3%
Venture capital 13.1%	Buyout -21.9%	Real assets 0.1%	Real assets 11.8%	Funds of funds 6.0%	Funds of funds 8.3%	Funds of funds 12.0%	Growth-Expansion 12.6%	Private debt 5.6%	Funds of funds 7.6%	Venture capital 10.8%	Real assets 8.2%	Real estate 7.8%	Real estate 3.9%	Real estate 14.3%	Private debt 8.4%
Real estate 12.5%	Private debt -26.3%	Secondaries -10.6%	Other PE 9.5%	Private debt 4.0%	Venture capital 7.2%	Secondaries 10.3%	Private debt 10.7%	Other PE 3.4%	Secondaries 7.6%	Private debt 10.8%	Real estate 6.5%	Private debt 7.3%	Private debt 3.8%	Real assets 13.7%	Real estate 6.9%
Growth-Expansion 5.3%	Real estate -32.0%	Real estate -39.2%	Funds of funds 5.8%	Other PE 2.4%	Real assets 6.6%	Real assets 5.1%	Real assets 7.3%	Real assets -4.1%	Venture capital 0.0%	Real assets 10.2%	Private debt 4.5%	Real assets -0.6%	Real assets -0.2%	Private debt 11.2%	Real assets 6.3%

*YTD as of Q3 2021

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Private equity

Private equity

IRRs by vintage

Pooled IRRs

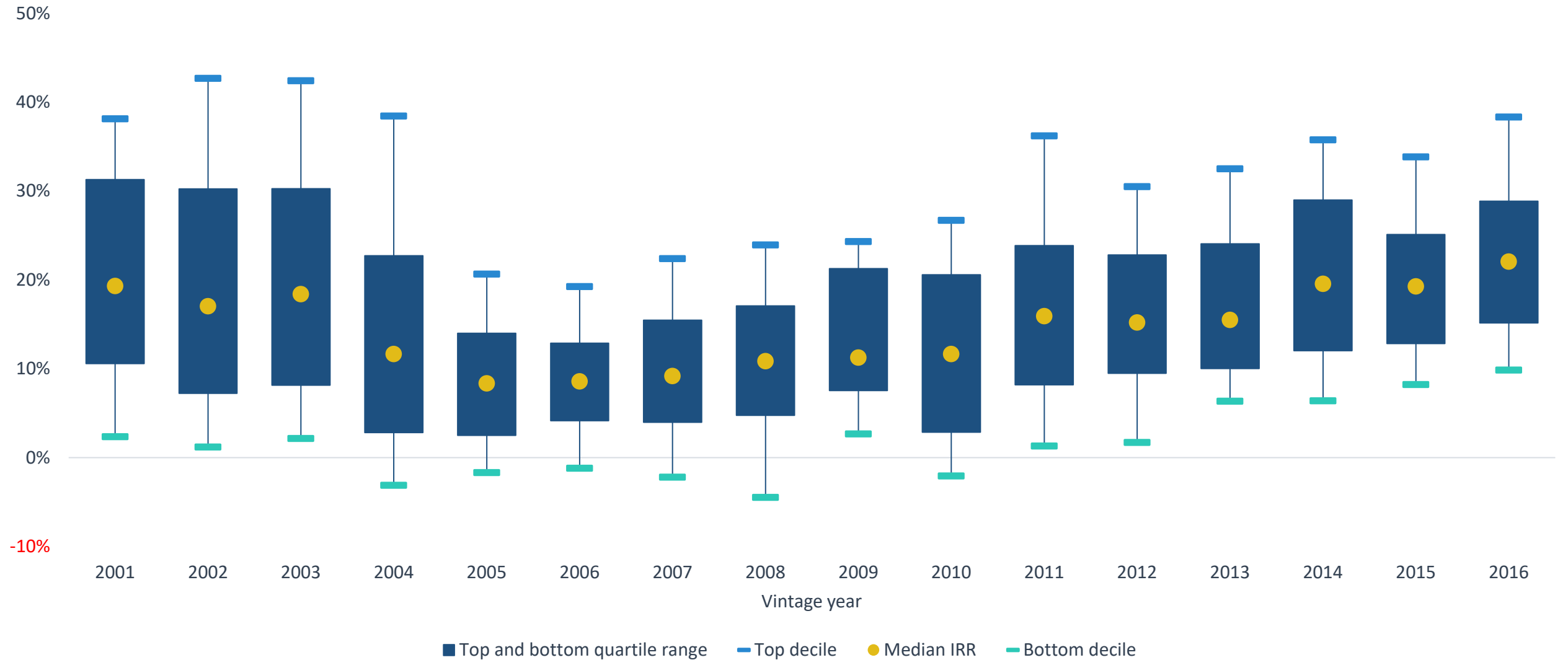
IRR quantiles

Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	9.69%	7.25%	23	35.10%	16.75%	9.60%	0.07%	-5.68%	25.60%	66
1998	6.62%	5.28%	40	21.92%	15.20%	9.11%	2.00%	-9.00%	20.47%	89
1999	9.68%	10.91%	37	24.59%	17.31%	10.75%	4.43%	-1.67%	11.66%	83
2000	16.19%	13.18%	49	31.60%	23.76%	13.65%	8.23%	0.17%	12.22%	106
2001	23.77%	20.57%	30	38.13%	31.30%	19.30%	10.59%	2.34%	17.05%	65
2002	21.25%	18.88%	30	42.67%	30.25%	17.04%	7.24%	1.18%	18.87%	58
2003	17.09%	14.08%	28	42.41%	30.28%	18.39%	8.16%	2.14%	34.87%	68
2004	11.95%	10.45%	44	38.43%	22.73%	11.66%	2.83%	-3.13%	19.85%	72
2005	9.66%	9.83%	69	20.64%	14.00%	8.35%	2.50%	-1.70%	13.98%	112
2006	7.77%	7.84%	102	19.25%	12.89%	8.58%	4.15%	-1.20%	10.38%	151
2007	9.80%	10.06%	104	22.38%	15.46%	9.18%	3.99%	-2.20%	11.76%	154
2008	13.30%	11.41%	104	23.94%	17.07%	10.85%	4.76%	-4.49%	17.66%	132
2009	12.93%	13.94%	39	24.32%	21.28%	11.26%	7.56%	2.65%	14.96%	50
2010	12.31%	10.87%	51	26.70%	20.57%	11.67%	2.87%	-2.07%	13.62%	60
2011	16.06%	16.26%	75	36.20%	23.87%	15.91%	8.20%	1.31%	17.82%	89
2012	16.47%	14.64%	96	30.50%	22.80%	15.20%	9.49%	1.69%	13.32%	111
2013	16.25%	15.91%	93	32.50%	24.06%	15.50%	10.03%	6.35%	10.92%	96
2014	21.95%	19.86%	89	35.76%	28.99%	19.56%	12.03%	6.39%	15.25%	82
2015	21.54%	19.31%	111	33.84%	25.12%	19.26%	12.84%	8.22%	10.37%	104
2016	24.42%	22.65%	118	38.32%	28.87%	22.06%	15.15%	9.86%	13.46%	119
2017	32.76%	28.14%	120	56.18%	36.88%	25.22%	16.99%	6.31%	19.88%	110
2018	32.26%	26.29%	116	52.52%	37.61%	25.60%	15.66%	8.22%	22.42%	130
2019	43.62%	33.45%	147	84.97%	47.52%	23.91%	7.60%	-8.66%	33.76%	154
2020	68.50%	38.22%	98	86.74%	53.28%	20.68%	0.60%	-12.71%	57.28%	87

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Private equity

IRRs by vintage





Private equity

PMEs by vintage

S&P 500 index

MSCI All Country World Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	9.69%	9.33%	1.37	9.69%	7.75%	1.33	23
1998	6.62%	8.44%	1.31	6.62%	7.17%	1.22	40
1999	9.68%	7.75%	1.37	9.68%	6.85%	1.26	37
2000	16.19%	7.47%	1.51	16.19%	6.25%	1.37	49
2001	23.77%	8.36%	1.70	23.77%	7.39%	1.54	30
2002	21.25%	9.39%	1.51	21.25%	8.60%	1.41	30
2003	17.09%	11.46%	1.45	17.09%	10.40%	1.41	28
2004	11.95%	10.30%	1.32	11.95%	8.84%	1.33	44
2005	9.66%	10.49%	1.17	9.66%	8.65%	1.28	69
2006	7.77%	10.55%	1.00	7.77%	8.12%	1.15	102
2007	9.80%	10.37%	0.96	9.80%	7.50%	1.12	104
2008	13.30%	11.47%	1.00	13.30%	7.94%	1.17	104
2009	12.93%	16.92%	0.95	12.93%	13.58%	1.11	39
2010	12.31%	14.94%	0.92	12.31%	10.89%	1.10	51
2011	16.06%	14.63%	1.07	16.06%	10.34%	1.25	75
2012	16.47%	15.61%	1.08	16.47%	11.71%	1.23	96
2013	16.25%	15.70%	1.06	16.25%	11.56%	1.20	93
2014	21.95%	14.66%	1.25	21.95%	10.89%	1.39	89
2015	21.54%	14.64%	1.13	21.54%	11.48%	1.23	111
2016	24.42%	18.28%	1.16	24.42%	15.48%	1.26	118
2017	32.76%	17.51%	1.22	32.76%	14.57%	1.30	120
2018	32.26%	16.85%	1.08	32.26%	12.60%	1.13	116
2019	43.62%	23.58%	1.13	43.62%	19.76%	1.17	147
2020	68.50%	30.05%	1.10	68.50%	26.42%	1.12	98

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Private equity

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.59x	1.59x	0.00x	1.38x	1.37x	0.00x	23
1998	1.39x	1.39x	0.00x	1.28x	1.28x	0.00x	40
1999	1.55x	1.52x	0.02x	1.68x	1.64x	0.04x	37
2000	1.86x	1.84x	0.02x	1.79x	1.75x	0.04x	49
2001	2.19x	2.17x	0.01x	2.02x	2.00x	0.02x	30
2002	2.03x	2.01x	0.02x	1.93x	1.92x	0.01x	30
2003	1.89x	1.88x	0.02x	1.78x	1.76x	0.02x	28
2004	1.71x	1.66x	0.05x	1.60x	1.54x	0.06x	44
2005	1.63x	1.58x	0.05x	1.63x	1.56x	0.07x	69
2006	1.55x	1.48x	0.07x	1.52x	1.43x	0.09x	102
2007	1.61x	1.50x	0.11x	1.61x	1.49x	0.13x	104
2008	1.73x	1.62x	0.11x	1.65x	1.50x	0.15x	104
2009	1.65x	1.50x	0.15x	1.73x	1.54x	0.20x	39
2010	1.75x	1.37x	0.38x	1.66x	1.27x	0.39x	51
2011	1.98x	1.42x	0.56x	1.99x	1.41x	0.58x	75
2012	1.86x	1.19x	0.66x	1.74x	1.15x	0.59x	96
2013	1.79x	1.02x	0.77x	1.81x	1.00x	0.81x	93
2014	2.12x	1.02x	1.11x	2.01x	0.96x	1.05x	89
2015	1.82x	0.78x	1.04x	1.77x	0.67x	1.09x	111
2016	1.85x	0.58x	1.26x	1.77x	0.56x	1.21x	118
2017	1.80x	0.30x	1.51x	1.71x	0.34x	1.36x	120
2018	1.47x	0.18x	1.30x	1.45x	0.18x	1.27x	116
2019	1.44x	0.13x	1.31x	1.39x	0.16x	1.23x	147
2020	1.23x	0.04x	1.20x	1.22x	0.08x	1.13x	98

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Private equity

Multiples by vintage

Vintage year	TVPI					DPI					Number of funds
	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	
1997	2.04x	1.78x	1.43x	1.02x	0.72x	2.04x	1.78x	1.43x	1.02x	0.72x	23
1998	1.90x	1.59x	1.36x	0.92x	0.57x	1.90x	1.59x	1.35x	0.92x	0.57x	40
1999	2.55x	2.10x	1.59x	1.18x	0.98x	2.42x	2.02x	1.59x	1.17x	0.98x	37
2000	2.48x	2.22x	1.82x	1.35x	0.96x	2.48x	2.18x	1.71x	1.35x	0.83x	49
2001	2.95x	2.47x	2.10x	1.58x	1.22x	2.94x	2.46x	2.00x	1.58x	1.22x	30
2002	3.06x	2.31x	1.94x	1.49x	1.25x	2.96x	2.31x	1.93x	1.49x	1.24x	30
2003	2.87x	1.96x	1.69x	1.40x	0.91x	2.83x	1.96x	1.69x	1.38x	0.90x	28
2004	2.54x	1.97x	1.58x	1.16x	0.66x	2.53x	1.97x	1.57x	1.11x	0.64x	44
2005	2.37x	1.89x	1.52x	1.24x	0.97x	2.32x	1.86x	1.48x	1.16x	0.90x	69
2006	2.14x	1.83x	1.49x	1.19x	0.91x	2.11x	1.71x	1.44x	1.13x	0.75x	102
2007	2.41x	2.03x	1.52x	1.24x	0.92x	2.23x	1.90x	1.44x	1.09x	0.76x	104
2008	2.27x	2.05x	1.63x	1.29x	0.86x	2.20x	1.92x	1.43x	1.20x	0.70x	104
2009	2.56x	2.08x	1.65x	1.42x	0.97x	2.38x	1.98x	1.47x	1.06x	0.84x	39
2010	2.66x	1.84x	1.50x	1.11x	0.86x	2.40x	1.61x	1.14x	0.78x	0.44x	51
2011	3.34x	2.37x	1.79x	1.48x	1.01x	2.67x	1.76x	1.33x	0.77x	0.45x	75
2012	2.57x	2.13x	1.71x	1.34x	0.99x	1.92x	1.54x	1.05x	0.77x	0.50x	96
2013	2.42x	2.04x	1.66x	1.42x	1.24x	1.56x	1.27x	0.96x	0.66x	0.29x	93
2014	3.13x	2.29x	1.77x	1.43x	1.10x	1.83x	1.27x	0.82x	0.51x	0.11x	89
2015	2.49x	1.93x	1.65x	1.36x	1.08x	1.20x	0.86x	0.58x	0.34x	0.14x	111
2016	2.33x	1.98x	1.69x	1.44x	1.18x	1.23x	0.80x	0.36x	0.21x	0.06x	118
2017	2.38x	1.87x	1.52x	1.23x	1.13x	0.72x	0.44x	0.25x	0.10x	0.00x	120
2018	1.89x	1.55x	1.37x	1.23x	1.09x	0.52x	0.22x	0.07x	0.01x	0.00x	116
2019	1.82x	1.52x	1.23x	1.04x	0.94x	0.35x	0.14x	0.03x	0.00x	0.00x	147
2020	1.59x	1.27x	1.12x	0.97x	0.78x	0.19x	0.03x	0.00x	0.00x	0.00x	96

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Private equity

Quarterly return

Quarter end	1-quarter return
Q1 2001	-6.85%
Q2 2001	1.64%
Q3 2001	-5.63%
Q4 2001	-3.04%
Q1 2002	0.80%
Q2 2002	-3.08%
Q3 2002	-3.43%
Q4 2002	-0.33%
Q1 2003	0.02%
Q2 2003	6.32%
Q3 2003	4.10%
Q4 2003	9.93%
Q1 2004	9.07%
Q2 2004	-0.16%
Q3 2004	3.19%
Q4 2004	13.92%
Q1 2005	2.03%
Q2 2005	8.70%
Q3 2005	7.26%
Q4 2005	10.62%
Q1 2006	4.18%
Q2 2006	5.49%
Q3 2006	4.64%
Q4 2006	13.24%

Quarter end	1-quarter return
Q1 2007	4.72%
Q2 2007	10.21%
Q3 2007	3.87%
Q4 2007	3.24%
Q1 2008	-0.29%
Q2 2008	-1.27%
Q3 2008	-8.57%
Q4 2008	-12.17%
Q1 2009	-7.41%
Q2 2009	4.47%
Q3 2009	5.17%
Q4 2009	7.56%
Q1 2010	2.40%
Q2 2010	1.73%
Q3 2010	4.46%
Q4 2010	8.14%
Q1 2011	5.08%
Q2 2011	4.54%
Q3 2011	-3.17%
Q4 2011	1.65%
Q1 2012	5.84%
Q2 2012	0.80%
Q3 2012	3.62%
Q4 2012	3.09%

Quarter end	1-quarter return
Q1 2013	3.15%
Q2 2013	3.00%
Q3 2013	4.72%
Q4 2013	6.07%
Q1 2014	4.57%
Q2 2014	5.06%
Q3 2014	-0.04%
Q4 2014	3.19%
Q1 2015	3.50%
Q2 2015	5.70%
Q3 2015	0.43%
Q4 2015	2.09%
Q1 2016	1.65%
Q2 2016	4.76%
Q3 2016	4.23%
Q4 2016	1.39%
Q1 2017	4.65%
Q2 2017	5.43%
Q3 2017	4.69%
Q4 2017	4.73%
Q1 2018	4.15%
Q2 2018	3.91%
Q3 2018	3.45%
Q4 2018	-0.89%

Quarter end	1-quarter return
Q1 2019	4.84%
Q2 2019	3.16%
Q3 2019	3.32%
Q4 2019	4.63%
Q1 2020	-8.02%
Q2 2020	9.34%
Q3 2020	12.44%
Q4 2020	6.98%
Q1 2021	14.92%
Q2 2021	14.46%
Q3 2021	6.79%
Q4 2021*	3.42%

*Preliminary figure

Venture capital



Venture capital

IRR by vintage

Pooled IRRs

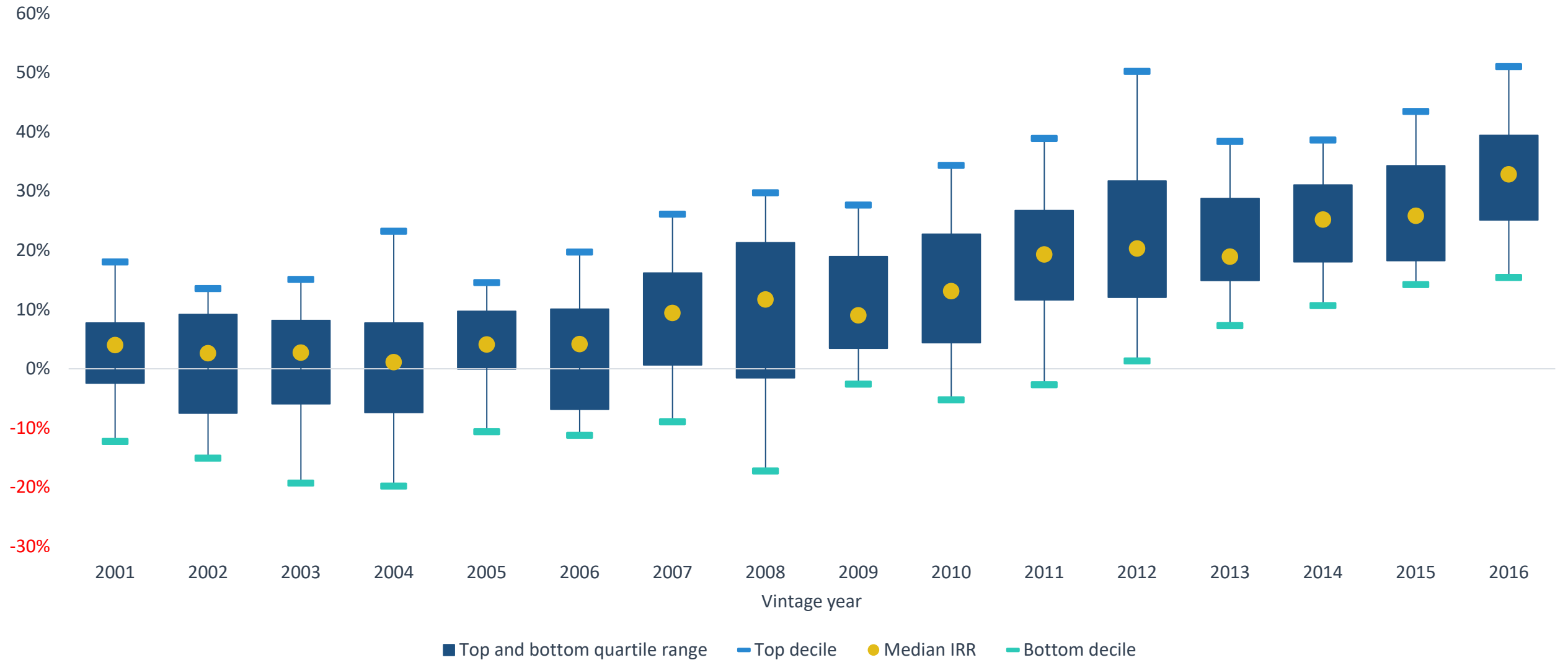
IRR quantiles

Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	6.01%	12.99%	15	127.52%	53.99%	20.53%	0.90%	-7.61%	87.54%	54
1998	6.11%	5.25%	21	49.48%	15.10%	3.10%	-7.89%	-11.11%	33.60%	45
1999	-2.66%	-3.81%	37	8.90%	2.40%	-4.40%	-12.90%	-20.04%	12.08%	71
2000	0.01%	-1.31%	60	10.60%	4.69%	-0.57%	-5.63%	-13.55%	11.52%	116
2001	4.96%	3.56%	32	18.00%	7.74%	4.00%	-2.45%	-12.29%	19.42%	67
2002	2.88%	2.12%	20	13.52%	9.17%	2.63%	-7.49%	-15.08%	20.05%	43
2003	5.57%	1.48%	21	15.07%	8.18%	2.72%	-5.91%	-19.32%	33.02%	38
2004	4.55%	7.31%	22	23.20%	7.75%	1.10%	-7.40%	-19.80%	18.50%	41
2005	8.86%	8.03%	29	14.55%	9.73%	4.09%	-0.05%	-10.65%	17.74%	54
2006	6.09%	3.98%	40	19.69%	10.08%	4.16%	-6.87%	-11.25%	14.98%	65
2007	11.52%	11.30%	50	26.08%	16.17%	9.43%	0.63%	-8.97%	13.37%	80
2008	13.01%	10.17%	51	29.69%	21.28%	11.67%	-1.54%	-17.28%	23.54%	64
2009	13.34%	10.46%	21	27.62%	18.95%	9.00%	3.46%	-2.62%	12.05%	27
2010	17.63%	18.69%	22	34.31%	22.72%	13.10%	4.39%	-5.26%	16.89%	35
2011	21.71%	23.18%	19	38.88%	26.70%	19.29%	11.63%	-2.70%	19.72%	39
2012	20.92%	19.83%	21	50.18%	31.71%	20.30%	12.07%	1.30%	21.77%	35
2013	22.71%	17.41%	21	38.36%	28.78%	18.91%	14.90%	7.26%	16.82%	35
2014	25.77%	23.55%	39	38.60%	31.04%	25.17%	18.05%	10.63%	55.59%	53
2015	27.39%	24.80%	44	43.41%	34.29%	25.83%	18.25%	14.20%	14.90%	54
2016	35.00%	37.21%	47	51.00%	39.40%	32.80%	25.10%	15.40%	26.38%	61
2017	39.53%	36.51%	40	63.70%	40.41%	29.66%	20.26%	9.63%	20.42%	60
2018	32.63%	21.66%	44	69.18%	54.83%	35.08%	25.84%	13.13%	22.72%	60
2019	62.32%	49.44%	40	90.80%	68.28%	41.73%	28.80%	11.78%	37.38%	57
2020	38.36%	33.01%	42	93.04%	50.87%	27.65%	-1.60%	-10.37%	45.51%	58

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Venture capital

IRRs by vintage



Venture capital

PMEs by vintage

S&P 500 index

MSCI World Small Cap Growth Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	6.01%	9.33%	1.06	6.01%	9.30%	0.94	15
1998	6.11%	8.44%	1.15	6.11%	9.42%	0.96	21
1999	-2.66%	7.75%	0.74	-2.66%	9.85%	0.61	37
2000	0.01%	7.47%	0.73	0.01%	7.89%	0.57	60
2001	4.96%	8.36%	0.91	4.96%	9.96%	0.74	32
2002	2.88%	9.39%	0.82	2.88%	11.33%	0.68	20
2003	5.57%	11.46%	0.92	5.57%	13.33%	0.84	21
2004	4.55%	10.30%	0.84	4.55%	11.05%	0.79	22
2005	8.86%	10.49%	0.98	8.86%	10.77%	0.99	29
2006	6.09%	10.55%	0.80	6.09%	9.99%	0.81	40
2007	11.52%	10.37%	1.00	11.52%	9.71%	1.04	50
2008	13.01%	11.47%	0.97	13.01%	10.75%	1.02	51
2009	13.34%	16.92%	0.93	13.34%	16.89%	1.02	21
2010	17.63%	14.94%	1.13	17.63%	13.68%	1.25	22
2011	21.71%	14.63%	1.43	21.71%	12.18%	1.56	19
2012	20.92%	15.61%	1.38	20.92%	13.83%	1.50	21
2013	22.71%	15.70%	1.38	22.71%	14.01%	1.46	21
2014	25.77%	14.66%	1.57	25.77%	12.21%	1.64	39
2015	27.39%	14.64%	1.39	27.39%	13.84%	1.44	44
2016	35.00%	18.28%	1.52	35.00%	18.05%	1.55	47
2017	39.53%	17.51%	1.50	39.53%	17.25%	1.52	40
2018	32.63%	16.85%	1.25	32.63%	14.84%	1.26	44
2019	62.32%	23.58%	1.35	62.32%	23.27%	1.34	40
2020	38.36%	30.05%	1.02	38.36%	34.57%	1.03	42

Venture capital

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.23x	1.23x	0.00x	1.41x	1.41x	0.00x	15
1998	1.28x	1.26x	0.02x	1.22x	1.20x	0.02x	21
1999	0.83x	0.79x	0.04x	0.77x	0.76x	0.01x	37
2000	1.00x	0.97x	0.03x	0.91x	0.89x	0.02x	60
2001	1.39x	1.31x	0.08x	1.28x	1.18x	0.10x	32
2002	1.20x	1.17x	0.03x	1.15x	1.03x	0.12x	20
2003	1.40x	1.35x	0.04x	1.09x	1.07x	0.02x	21
2004	1.37x	1.30x	0.06x	1.61x	1.55x	0.06x	22
2005	1.88x	1.51x	0.37x	1.83x	1.41x	0.42x	29
2006	1.47x	1.26x	0.22x	1.32x	1.09x	0.24x	40
2007	1.95x	1.54x	0.41x	1.94x	1.55x	0.39x	50
2008	1.96x	1.58x	0.38x	1.80x	1.34x	0.46x	51
2009	2.33x	1.47x	0.86x	1.95x	1.05x	0.90x	21
2010	2.42x	1.42x	1.00x	2.48x	1.65x	0.84x	22
2011	3.37x	2.15x	1.22x	3.81x	2.46x	1.35x	19
2012	3.13x	1.10x	2.03x	3.03x	0.91x	2.12x	21
2013	2.67x	0.96x	1.71x	2.22x	0.71x	1.51x	21
2014	3.20x	0.82x	2.38x	3.07x	0.87x	2.20x	39
2015	2.55x	0.59x	1.96x	2.33x	0.62x	1.71x	44
2016	2.55x	0.35x	2.20x	2.69x	0.49x	2.21x	47
2017	2.37x	0.29x	2.08x	2.32x	0.30x	2.02x	40
2018	1.81x	0.11x	1.69x	1.73x	0.15x	1.59x	44
2019	1.78x	0.08x	1.70x	1.63x	0.03x	1.60x	40
2020	1.23x	0.02x	1.21x	1.22x	0.02x	1.20x	42

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Venture capital

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
1997	2.43x	1.71x	1.14x	0.87x	0.65x	2.43x	1.71x	1.14x	0.87x	0.65x	15
1998	1.80x	1.66x	1.23x	0.69x	0.47x	1.80x	1.65x	1.23x	0.69x	0.47x	21
1999	1.46x	1.04x	0.71x	0.38x	0.19x	1.41x	1.04x	0.71x	0.36x	0.19x	37
2000	1.43x	1.16x	0.94x	0.63x	0.38x	1.43x	1.13x	0.92x	0.56x	0.35x	60
2001	2.07x	1.63x	1.28x	0.86x	0.60x	1.86x	1.57x	1.18x	0.73x	0.60x	32
2002	1.77x	1.62x	1.22x	0.67x	0.37x	1.73x	1.60x	1.10x	0.54x	0.26x	20
2003	1.65x	1.46x	1.15x	0.54x	0.40x	1.65x	1.42x	1.12x	0.54x	0.40x	21
2004	1.86x	1.53x	1.05x	0.69x	0.42x	1.83x	1.47x	1.02x	0.58x	0.42x	22
2005	2.50x	1.78x	1.29x	1.16x	0.54x	2.21x	1.64x	1.23x	0.98x	0.51x	29
2006	2.43x	1.79x	1.17x	0.67x	0.38x	2.13x	1.49x	1.01x	0.54x	0.29x	40
2007	2.99x	2.51x	1.67x	0.97x	0.49x	2.65x	2.01x	1.45x	0.56x	0.28x	50
2008	3.09x	2.22x	1.51x	0.82x	0.22x	2.84x	1.82x	0.79x	0.40x	0.21x	51
2009	2.78x	2.42x	1.67x	1.43x	0.87x	2.28x	1.49x	0.92x	0.50x	0.39x	21
2010	3.89x	3.05x	2.01x	1.60x	0.77x	2.89x	1.78x	1.17x	0.68x	0.46x	22
2011	5.43x	3.31x	1.99x	1.63x	0.80x	3.08x	1.96x	1.39x	0.81x	0.25x	19
2012	4.58x	3.28x	2.43x	1.48x	0.75x	1.95x	1.10x	0.77x	0.30x	0.10x	21
2013	3.23x	2.86x	2.21x	1.35x	0.81x	1.77x	0.95x	0.45x	0.23x	0.16x	21
2014	5.52x	3.79x	2.80x	1.93x	1.23x	1.59x	1.15x	0.67x	0.17x	0.07x	39
2015	3.41x	2.86x	2.26x	1.55x	1.23x	1.41x	0.90x	0.38x	0.07x	0.00x	44
2016	3.72x	3.29x	2.29x	1.81x	1.40x	1.30x	0.57x	0.29x	0.04x	0.00x	47
2017	3.85x	2.67x	1.96x	1.61x	1.10x	0.84x	0.46x	0.11x	0.01x	0.00x	40
2018	2.36x	2.02x	1.62x	1.23x	0.95x	0.50x	0.12x	0.00x	0.00x	0.00x	44
2019	2.05x	1.61x	1.42x	1.30x	1.12x	0.05x	0.00x	0.00x	0.00x	0.00x	40
2020	1.60x	1.31x	1.16x	0.97x	0.88x	0.08x	0.00x	0.00x	0.00x	0.00x	42

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Venture capital

Quarterly return

Quarter end	1-quarter return
Q1 2001	-11.48%
Q2 2001	-8.85%
Q3 2001	-14.85%
Q4 2001	-11.09%
Q1 2002	-7.38%
Q2 2002	-12.57%
Q3 2002	-7.96%
Q4 2002	-13.31%
Q1 2003	-5.97%
Q2 2003	-1.68%
Q3 2003	-2.18%
Q4 2003	2.78%
Q1 2004	0.14%
Q2 2004	0.65%
Q3 2004	-0.68%
Q4 2004	3.11%
Q1 2005	-1.88%
Q2 2005	0.72%
Q3 2005	5.00%
Q4 2005	2.53%
Q1 2006	2.95%
Q2 2006	1.17%
Q3 2006	1.78%
Q4 2006	7.56%

Quarter end	1-quarter return
Q1 2007	2.07%
Q2 2007	5.81%
Q3 2007	2.08%
Q4 2007	4.03%
Q1 2008	2.64%
Q2 2008	-2.29%
Q3 2008	-3.05%
Q4 2008	-9.33%
Q1 2009	-3.49%
Q2 2009	-0.07%
Q3 2009	1.58%
Q4 2009	2.72%
Q1 2010	1.40%
Q2 2010	-0.27%
Q3 2010	4.10%
Q4 2010	6.63%
Q1 2011	5.00%
Q2 2011	4.48%
Q3 2011	-0.12%
Q4 2011	1.46%
Q1 2012	4.35%
Q2 2012	1.21%
Q3 2012	-0.26%
Q4 2012	2.05%

Quarter end	1-quarter return
Q1 2013	2.37%
Q2 2013	4.71%
Q3 2013	5.39%
Q4 2013	8.27%
Q1 2014	5.11%
Q2 2014	2.94%
Q3 2014	2.82%
Q4 2014	7.03%
Q1 2015	4.65%
Q2 2015	7.15%
Q3 2015	-0.80%
Q4 2015	2.15%
Q1 2016	-3.70%
Q2 2016	0.67%
Q3 2016	3.46%
Q4 2016	0.59%
Q1 2017	2.62%
Q2 2017	1.95%
Q3 2017	3.81%
Q4 2017	3.04%
Q1 2018	7.09%
Q2 2018	5.34%
Q3 2018	3.64%
Q4 2018	0.91%

Quarter end	1-quarter return
Q1 2019	7.01%
Q2 2019	2.52%
Q3 2019	1.75%
Q4 2019	6.10%
Q1 2020	-1.29%
Q2 2020	8.82%
Q3 2020	11.53%
Q4 2020	17.17%
Q1 2021	20.94%
Q2 2021	14.02%
Q3 2021	8.74%
Q4 2021*	4.55%

*Preliminary figure

Real estate

Real estate

IRRs by vintage

Pooled IRRs

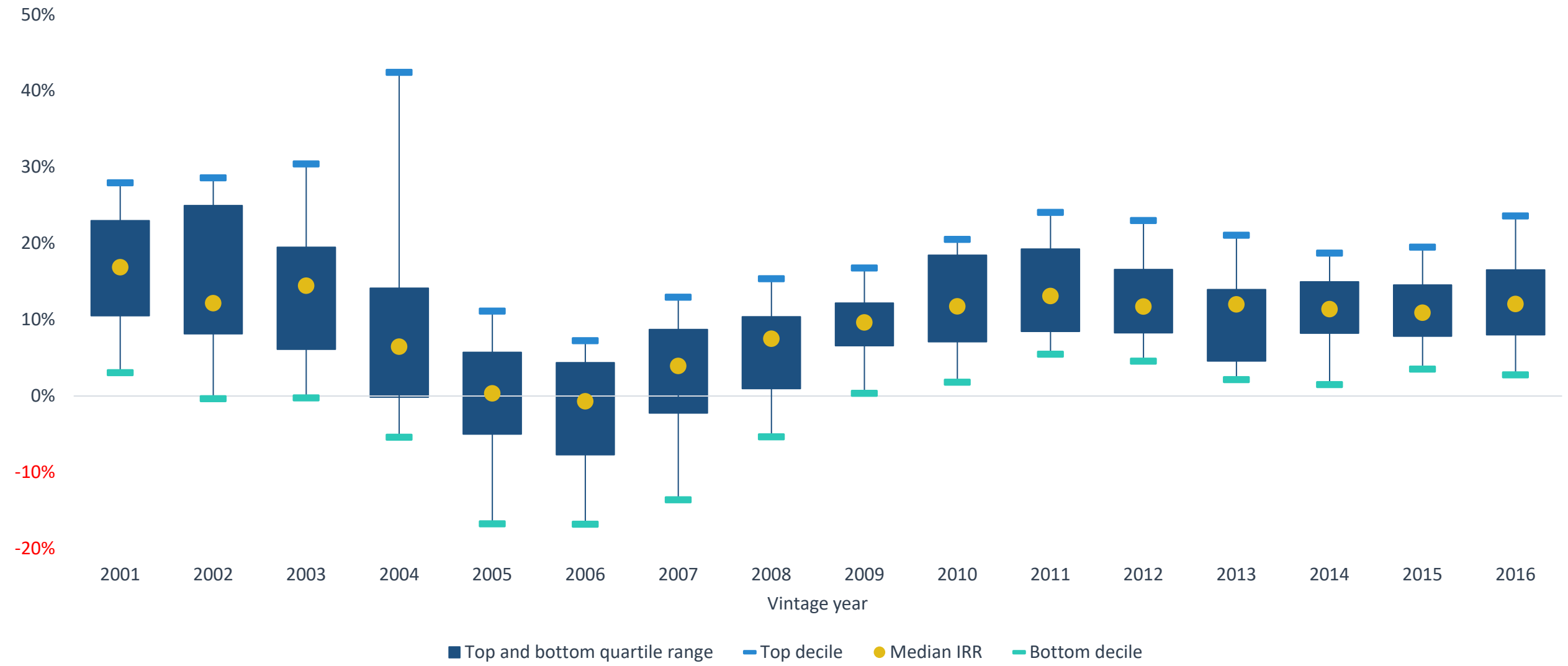
IRR quantiles

Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	13.89%	11.45%	5	17.61%	15.98%	7.17%	2.90%	-1.84%	16.06%	16
1998	4.86%	5.48%	8	17.25%	13.45%	8.70%	6.48%	1.61%	7.02%	23
1999	11.81%	9.15%	2	18.47%	14.97%	10.18%	9.04%	1.68%	7.56%	19
2000	16.29%	15.08%	12	28.50%	24.17%	15.54%	11.69%	5.90%	10.16%	21
2001	28.05%	24.31%	2	27.95%	23.00%	16.88%	10.52%	3.05%	9.37%	18
2002	8.54%	15.76%	3	28.59%	24.98%	12.16%	8.16%	-0.36%	16.64%	18
2003	6.32%	5.02%	4	30.42%	19.50%	14.47%	6.13%	-0.26%	41.88%	30
2004	5.12%	6.59%	9	42.42%	14.15%	6.47%	-0.16%	-5.42%	21.43%	35
2005	0.09%	-0.49%	27	11.13%	5.73%	0.34%	-5.01%	-16.75%	27.46%	47
2006	-3.87%	-2.38%	31	7.23%	4.37%	-0.70%	-7.70%	-16.81%	11.54%	63
2007	3.81%	1.97%	54	12.95%	8.73%	3.93%	-2.25%	-13.62%	11.35%	74
2008	6.26%	5.25%	33	15.36%	10.40%	7.50%	0.96%	-5.37%	12.09%	54
2009	9.08%	8.55%	20	16.76%	12.20%	9.63%	6.59%	0.33%	8.86%	28
2010	16.11%	12.46%	19	20.53%	18.45%	11.75%	7.12%	1.81%	7.93%	34
2011	15.14%	14.05%	38	24.05%	19.28%	13.11%	8.47%	5.46%	8.45%	48
2012	13.97%	12.53%	45	23.00%	16.60%	11.72%	8.29%	4.55%	10.06%	60
2013	11.29%	10.03%	46	21.08%	13.95%	12.00%	4.60%	2.14%	8.74%	39
2014	10.20%	11.38%	51	18.73%	14.97%	11.39%	8.24%	1.49%	8.29%	47
2015	12.09%	10.25%	71	19.49%	14.55%	10.92%	7.85%	3.53%	6.56%	68
2016	13.59%	11.00%	53	23.60%	16.54%	12.06%	8.03%	2.77%	9.00%	53
2017	14.31%	12.80%	63	26.12%	17.54%	12.24%	7.57%	4.43%	9.72%	60
2018	12.55%	11.69%	65	21.49%	17.38%	13.00%	6.97%	-8.13%	13.62%	64
2019	19.48%	10.42%	50	42.05%	25.87%	13.79%	4.04%	-3.95%	32.93%	46
2020	20.33%	4.02%	30	21.70%	15.89%	4.16%	-6.76%	-20.99%	19.82%	30

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Real estate

IRRs by vintage



Real estate

PMEs by vintage

S&P 500 index

Morningstar Global Real Estate Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	13.89%	9.33%	1.42	13.89%			5
1998	4.86%	8.44%	1.23	4.86%			8
1999	11.81%	7.75%	1.72	11.81%	8.94%	1.02	2
2000	16.29%	7.47%	1.56	16.29%	8.93%	1.02	12
2001	28.05%	8.36%	1.54	28.05%	8.85%	1.12	2
2002	8.54%	9.39%	0.97	8.54%	9.42%	0.85	3
2003	6.32%	11.46%	0.99	6.32%	10.11%	0.85	4
2004	5.12%	10.30%	0.94	5.12%	8.02%	0.95	9
2005	0.09%	10.49%	0.69	0.09%	7.23%	0.80	27
2006	-3.87%	10.55%	0.40	-3.87%	5.95%	0.48	31
2007	3.81%	10.37%	0.72	3.81%	4.10%	0.81	54
2008	6.26%	11.47%	0.75	6.26%	5.76%	0.85	33
2009	9.08%	16.92%	0.81	9.08%	13.05%	0.94	20
2010	16.11%	14.94%	1.03	16.11%	9.14%	1.14	19
2011	15.14%	14.63%	1.03	15.14%	7.83%	1.22	38
2012	13.97%	15.61%	1.02	13.97%	8.75%	1.23	45
2013	11.29%	15.70%	0.95	11.29%	7.04%	1.13	46
2014	10.20%	14.66%	0.88	10.20%	7.89%	1.10	51
2015	12.09%	14.64%	0.91	12.09%	6.43%	1.13	71
2016	13.59%	18.28%	0.92	13.59%	9.26%	1.15	53
2017	14.31%	17.51%	0.91	14.31%	8.77%	1.11	63
2018	12.55%	16.85%	0.87	12.55%	8.12%	1.02	65
2019	19.48%	23.58%	0.94	19.48%	9.82%	1.06	50
2020	20.33%	30.05%	0.93	20.33%	11.57%	0.99	30

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Real estate

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.71x	1.71x	0.00x	1.58x	1.58x	0.00x	5
1998	1.21x	1.21x	0.00x	1.25x	1.25x	0.00x	8
1999	1.91x	1.91x	0.00x	1.65x	1.65x	0.00x	2
2000	1.76x	1.76x	0.00x	1.73x	1.72x	0.01x	12
2001	1.88x	1.88x	0.00x	1.77x	1.77x	0.00x	2
2002	1.23x	1.21x	0.02x	1.51x	1.37x	0.14x	3
2003	1.21x	1.21x	0.00x	1.17x	1.16x	0.01x	4
2004	1.28x	1.21x	0.06x	1.43x	1.30x	0.13x	9
2005	1.01x	0.99x	0.02x	0.97x	0.96x	0.01x	27
2006	0.74x	0.69x	0.06x	0.84x	0.78x	0.05x	31
2007	1.20x	1.16x	0.04x	1.10x	1.05x	0.05x	54
2008	1.28x	1.22x	0.06x	1.25x	1.20x	0.05x	33
2009	1.43x	1.33x	0.10x	1.41x	1.31x	0.10x	20
2010	1.51x	1.46x	0.04x	1.56x	1.43x	0.13x	19
2011	1.65x	1.42x	0.23x	1.68x	1.43x	0.25x	38
2012	1.58x	1.31x	0.27x	1.49x	1.24x	0.25x	45
2013	1.39x	1.06x	0.33x	1.39x	1.01x	0.38x	46
2014	1.44x	0.91x	0.52x	1.51x	0.86x	0.65x	51
2015	1.41x	0.75x	0.65x	1.37x	0.75x	0.62x	71
2016	1.42x	0.55x	0.87x	1.36x	0.57x	0.79x	53
2017	1.35x	0.38x	0.96x	1.35x	0.43x	0.92x	63
2018	1.20x	0.21x	0.99x	1.21x	0.25x	0.96x	65
2019	1.22x	0.11x	1.11x	1.14x	0.11x	1.03x	50
2020	1.13x	0.11x	1.02x	1.03x	0.10x	0.93x	30

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Real estate

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
1997		1.50x	1.42x	1.27x			1.50x	1.41x	1.27x		5
1998		1.39x	1.31x	1.21x			1.39x	1.31x	1.18x		8
1999			1.66x					1.66x			2
2000	2.66x	1.71x	1.48x	1.31x	1.20x	2.66x	1.71x	1.48x	1.30x	1.12x	12
2001			1.75x					1.75x			2
2002			1.38x					1.38x			3
2003		1.27x	1.18x	1.09x			1.26x	1.17x	1.08x		4
2004		1.91x	1.34x	1.12x			1.60x	1.34x	0.93x		9
2005	1.37x	1.12x	0.98x	0.74x	0.51x	1.37x	1.10x	0.95x	0.72x	0.49x	27
2006	1.58x	1.11x	0.67x	0.46x	0.28x	1.31x	1.04x	0.67x	0.36x	0.22x	31
2007	1.66x	1.38x	1.17x	0.84x	0.39x	1.64x	1.35x	1.12x	0.75x	0.38x	54
2008	1.68x	1.54x	1.32x	1.05x	0.58x	1.64x	1.53x	1.23x	1.03x	0.51x	33
2009	1.91x	1.57x	1.39x	1.26x	1.10x	1.86x	1.53x	1.36x	1.18x	0.61x	20
2010	1.98x	1.71x	1.56x	1.29x	1.20x	1.79x	1.64x	1.49x	1.19x	0.94x	19
2011	2.13x	1.87x	1.60x	1.42x	1.19x	2.04x	1.75x	1.48x	1.15x	0.89x	38
2012	1.97x	1.54x	1.45x	1.36x	1.19x	1.77x	1.50x	1.29x	1.00x	0.76x	45
2013	1.63x	1.59x	1.43x	1.20x	1.07x	1.56x	1.36x	1.12x	0.60x	0.44x	46
2014	1.79x	1.58x	1.42x	1.25x	1.15x	1.36x	1.17x	0.89x	0.60x	0.30x	51
2015	1.66x	1.52x	1.34x	1.23x	1.13x	1.41x	1.13x	0.80x	0.32x	0.13x	71
2016	1.75x	1.45x	1.30x	1.21x	0.91x	1.11x	0.69x	0.49x	0.22x	0.06x	53
2017	1.79x	1.54x	1.29x	1.15x	1.00x	1.05x	0.53x	0.28x	0.14x	0.03x	63
2018	1.42x	1.35x	1.18x	1.06x	0.88x	0.57x	0.30x	0.12x	0.03x	0.00x	65
2019	1.41x	1.24x	1.11x	0.98x	0.85x	0.27x	0.13x	0.04x	0.00x	0.00x	50
2020	1.20x	1.10x	1.03x	0.92x	0.87x	0.41x	0.15x	0.02x	0.00x	0.00x	29

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Real estate

Quarterly return

Quarter end	1-quarter return
Q1 2001	4.40%
Q2 2001	1.41%
Q3 2001	0.28%
Q4 2001	1.33%
Q1 2002	2.10%
Q2 2002	1.30%
Q3 2002	0.36%
Q4 2002	-0.90%
Q1 2003	-2.17%
Q2 2003	0.92%
Q3 2003	4.90%
Q4 2003	9.72%
Q1 2004	-4.22%
Q2 2004	4.74%
Q3 2004	0.76%
Q4 2004	19.10%
Q1 2005	-3.53%
Q2 2005	5.24%
Q3 2005	9.64%
Q4 2005	13.70%
Q1 2006	2.71%
Q2 2006	7.99%
Q3 2006	9.86%
Q4 2006	20.45%

Quarter end	1-quarter return
Q1 2007	2.26%
Q2 2007	8.92%
Q3 2007	1.63%
Q4 2007	5.50%
Q1 2008	-2.46%
Q2 2008	-4.67%
Q3 2008	-8.09%
Q4 2008	-19.40%
Q1 2009	-24.36%
Q2 2009	-14.26%
Q3 2009	-7.11%
Q4 2009	-5.69%
Q1 2010	-7.13%
Q2 2010	7.27%
Q3 2010	4.49%
Q4 2010	8.25%
Q1 2011	5.63%
Q2 2011	4.34%
Q3 2011	-0.09%
Q4 2011	0.15%
Q1 2012	4.52%
Q2 2012	0.15%
Q3 2012	5.23%
Q4 2012	2.27%

Quarter end	1-quarter return
Q1 2013	3.21%
Q2 2013	4.44%
Q3 2013	1.09%
Q4 2013	6.63%
Q1 2014	3.75%
Q2 2014	3.29%
Q3 2014	2.91%
Q4 2014	4.19%
Q1 2015	1.58%
Q2 2015	4.71%
Q3 2015	2.30%
Q4 2015	1.38%
Q1 2016	2.59%
Q2 2016	1.96%
Q3 2016	3.01%
Q4 2016	1.47%
Q1 2017	4.08%
Q2 2017	3.05%
Q3 2017	4.16%
Q4 2017	2.21%
Q1 2018	2.33%
Q2 2018	2.44%
Q3 2018	1.68%
Q4 2018	-0.58%

Quarter end	1-quarter return
Q1 2019	1.84%
Q2 2019	1.82%
Q3 2019	2.93%
Q4 2019	1.71%
Q1 2020	-1.40%
Q2 2020	-0.82%
Q3 2020	2.50%
Q4 2020	2.54%
Q1 2021	4.88%
Q2 2021	5.32%
Q3 2021	5.39%
Q4 2021*	6.49%

*Preliminary figure

Real assets

Real assets

IRRs by vintage

Pooled IRRs

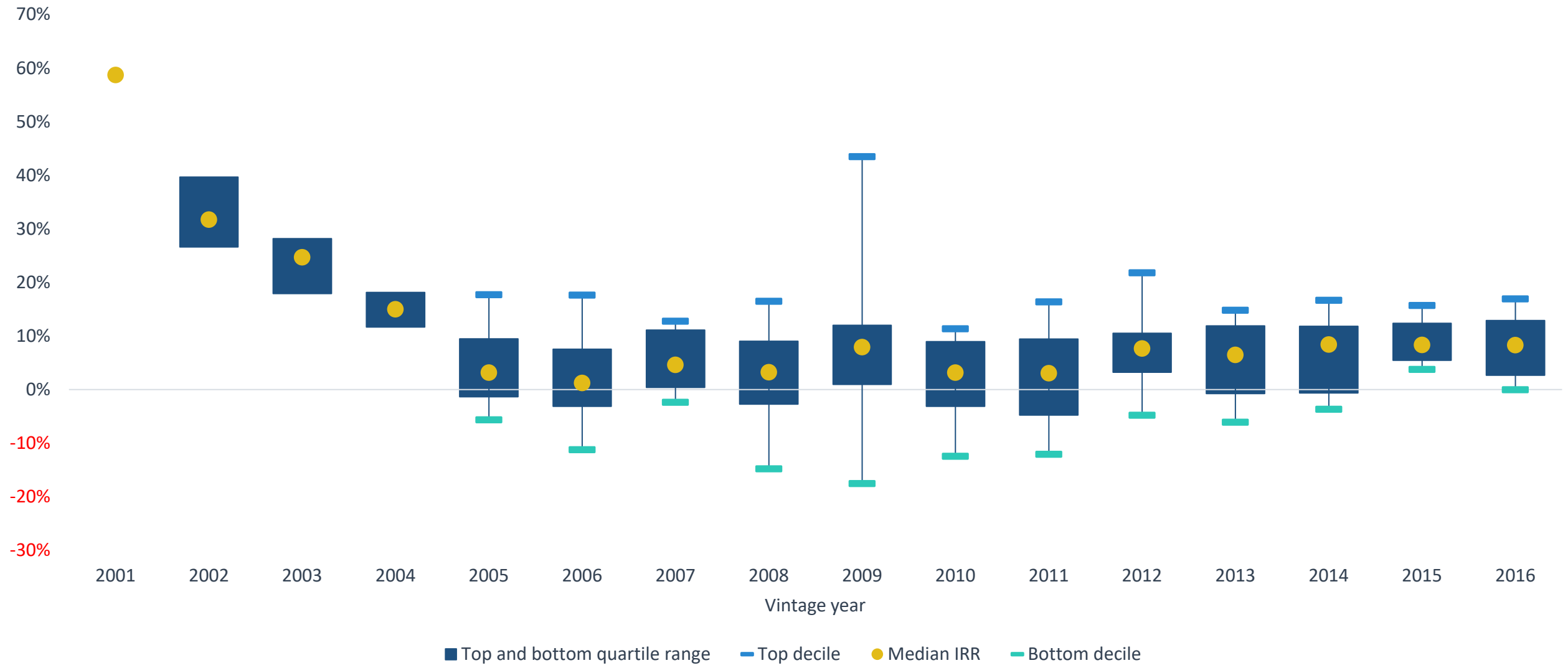
IRR quantiles

Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	15.81%	12.18%	2		21.92%	13.71%	8.53%		13.95%	8
1998	16.83%	18.64%	3	26.10%	23.98%	17.42%	14.80%	6.85%	9.40%	10
1999	25.39%	25.39%	1		24.00%	14.70%	7.90%		12.98%	5
2000					42.51%	24.43%	21.70%		22.64%	6
2001	49.72%	49.72%	1			58.71%			14.98%	2
2002	30.86%	34.13%	3		39.67%	31.70%	26.61%		11.73%	4
2003	29.00%	29.52%	2		28.20%	24.70%	17.90%		23.99%	9
2004	22.61%	20.34%	4		18.15%	15.00%	11.68%		8.18%	8
2005	8.25%	9.34%	9	17.71%	9.46%	3.16%	-1.34%	-5.65%	9.56%	16
2006	5.96%	1.85%	13	17.64%	7.53%	1.20%	-3.15%	-11.23%	15.11%	17
2007	4.28%	4.49%	19	12.76%	11.11%	4.61%	0.40%	-2.37%	12.12%	29
2008	1.56%	2.21%	22	16.46%	9.04%	3.21%	-2.72%	-14.83%	12.01%	20
2009	4.55%	5.36%	11	43.46%	12.00%	7.90%	0.96%	-17.58%	82.19%	13
2010	4.86%	6.24%	25	11.35%	8.94%	3.15%	-3.12%	-12.47%	12.45%	22
2011	3.35%	2.07%	20	16.34%	9.43%	3.04%	-4.76%	-12.12%	23.93%	24
2012	6.15%	6.50%	25	21.80%	10.50%	7.66%	3.22%	-4.79%	24.29%	25
2013	8.22%	4.91%	29	14.79%	11.90%	6.45%	-0.77%	-6.11%	9.35%	23
2014	7.69%	6.14%	42	16.66%	11.83%	8.39%	-0.66%	-3.69%	9.34%	40
2015	7.23%	9.27%	38	15.70%	12.38%	8.34%	5.47%	3.73%	36.79%	26
2016	10.55%	13.66%	45	16.90%	12.90%	8.30%	2.68%	-0.04%	11.45%	37
2017	10.44%	7.57%	37	20.31%	16.46%	9.55%	1.63%	-7.07%	12.53%	32
2018	7.00%	7.23%	44	24.62%	17.03%	6.27%	0.87%	-5.57%	14.57%	32
2019	6.14%	12.65%	30	79.22%	25.26%	11.85%	1.36%	-7.94%	35.75%	30
2020	12.86%	18.51%	20	56.25%	29.19%	5.81%	0.99%	-5.09%	70.35%	18

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Real assets

IRRs by vintage



Real assets

PMEs by vintage

S&P 500 index

Morningstar US Real Assets Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	15.81%	9.33%	2.00	15.81%			2
1998	16.83%	8.44%	1.92	16.83%			3
1999	25.39%	7.75%	1.82	25.39%			1
2000							
2001	49.72%	8.36%	2.35	49.72%	6.91%	2.09	1
2002	30.86%	9.39%	1.45	30.86%	6.88%	1.40	3
2003	29.00%	11.46%	1.75	29.00%	6.60%	1.69	2
2004	22.61%	10.30%	1.51	22.61%	5.94%	1.38	4
2005	8.25%	10.49%	1.15	8.25%	5.49%	1.09	9
2006	5.96%	10.55%	0.90	5.96%	5.18%	1.05	13
2007	4.28%	10.37%	0.78	4.28%	5.00%	0.97	19
2008	1.56%	11.47%	0.57	1.56%	4.31%	0.87	22
2009	4.55%	16.92%	0.67	4.55%	5.89%	1.05	11
2010	4.86%	14.94%	0.64	4.86%	4.69%	1.08	25
2011	3.35%	14.63%	0.62	3.35%	3.59%	1.02	20
2012	6.15%	15.61%	0.74	6.15%	3.24%	1.12	25
2013	8.22%	15.70%	0.79	8.22%	3.35%	1.19	29
2014	7.69%	14.66%	0.79	7.69%	3.95%	1.10	42
2015	7.23%	14.64%	0.76	7.23%	3.98%	1.06	38
2016	10.55%	18.28%	0.83	10.55%	5.88%	1.12	45
2017	10.44%	17.51%	0.83	10.44%	5.86%	1.06	37
2018	7.00%	16.85%	0.78	7.00%	6.84%	0.97	44
2019	6.14%	23.58%	0.81	6.14%	8.84%	0.93	30
2020	12.86%	30.05%	0.91	12.86%	13.76%	0.98	20



Real assets

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	2.65x	2.10x	0.55x	3.11x	1.99x	1.13x	2
1998	2.01x	1.99x	0.02x	2.20x	2.18x	0.02x	3
1999	2.59x	2.47x	0.12x	2.59x	2.47x	0.12x	1
2000							
2001	2.84x	2.84x	0.00x	2.84x	2.84x	0.00x	1
2002	1.91x	1.91x	0.00x	1.98x	1.98x	0.00x	3
2003	2.31x	2.30x	0.01x	2.40x	2.39x	0.02x	2
2004	1.75x	1.75x	0.00x	1.77x	1.77x	0.00x	4
2005	1.45x	1.40x	0.05x	1.51x	1.45x	0.06x	9
2006	1.36x	1.22x	0.14x	1.11x	1.02x	0.09x	13
2007	1.23x	1.19x	0.04x	1.26x	1.19x	0.06x	19
2008	1.09x	0.94x	0.15x	1.13x	0.88x	0.25x	22
2009	1.24x	0.99x	0.25x	1.29x	0.93x	0.36x	11
2010	1.29x	0.93x	0.36x	1.36x	0.86x	0.50x	25
2011	1.17x	0.71x	0.46x	1.12x	0.62x	0.50x	20
2012	1.27x	0.78x	0.49x	1.31x	0.75x	0.56x	25
2013	1.39x	0.71x	0.69x	1.22x	0.60x	0.62x	29
2014	1.28x	0.52x	0.76x	1.25x	0.50x	0.76x	42
2015	1.25x	0.42x	0.83x	1.34x	0.44x	0.90x	38
2016	1.33x	0.32x	1.01x	1.45x	0.57x	0.88x	45
2017	1.25x	0.25x	1.00x	1.20x	0.23x	0.96x	37
2018	1.13x	0.12x	1.01x	1.16x	0.15x	1.01x	44
2019	1.07x	0.12x	0.95x	1.17x	0.16x	1.01x	30
2020	1.08x	0.06x	1.01x	1.18x	0.08x	1.10x	20

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Real assets

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
1997			3.10x					1.99x			2
1998			1.92x					1.92x			3
1999			2.59x					2.47x			1
2000											
2001			2.84x					2.84x			1
2002			2.07x					2.07x			3
2003			2.40x					2.39x			2
2004		1.91x	1.74x	1.60x			1.91x	1.74x	1.60x		4
2005		1.74x	1.32x	1.02x			1.74x	1.29x	1.02x		9
2006	1.79x	1.17x	0.92x	0.75x	0.62x	1.79x	1.16x	0.91x	0.61x	0.54x	13
2007	1.81x	1.48x	1.15x	1.02x	0.91x	1.76x	1.39x	1.13x	0.97x	0.78x	19
2008	1.86x	1.38x	0.94x	0.66x	0.54x	1.80x	1.09x	0.63x	0.52x	0.17x	22
2009	2.20x	1.44x	1.29x	1.04x	0.54x	1.35x	1.20x	1.05x	0.39x	0.21x	11
2010	2.26x	1.80x	1.33x	0.87x	0.70x	1.66x	1.21x	0.70x	0.38x	0.28x	25
2011	1.95x	1.32x	1.16x	0.83x	0.43x	1.14x	0.86x	0.53x	0.34x	0.10x	20
2012	1.89x	1.51x	1.29x	1.14x	0.87x	1.35x	1.05x	0.76x	0.37x	0.15x	25
2013	1.76x	1.50x	1.22x	0.87x	0.69x	1.30x	0.96x	0.40x	0.32x	0.13x	29
2014	1.64x	1.47x	1.28x	1.02x	0.82x	1.04x	0.68x	0.47x	0.26x	0.10x	42
2015	1.88x	1.42x	1.29x	1.17x	1.01x	0.90x	0.57x	0.39x	0.20x	0.09x	38
2016	1.89x	1.49x	1.29x	1.11x	1.00x	0.83x	0.46x	0.31x	0.16x	0.05x	45
2017	1.56x	1.37x	1.17x	1.00x	0.88x	0.52x	0.31x	0.11x	0.05x	0.01x	37
2018	1.60x	1.30x	1.10x	1.00x	0.82x	0.41x	0.20x	0.07x	0.01x	0.00x	44
2019	1.57x	1.24x	1.12x	0.95x	0.57x	0.35x	0.25x	0.10x	0.02x	0.00x	30
2020	1.34x	1.22x	1.01x	0.92x	0.61x	0.17x	0.05x	0.00x	0.00x	0.00x	20

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Real assets

Quarterly return

Quarter end	1-quarter return
Q1 2001	5.02%
Q2 2001	1.16%
Q3 2001	-7.17%
Q4 2001	11.36%
Q1 2002	0.21%
Q2 2002	3.94%
Q3 2002	-4.07%
Q4 2002	0.22%
Q1 2003	-1.73%
Q2 2003	7.83%
Q3 2003	0.46%
Q4 2003	13.41%
Q1 2004	3.11%
Q2 2004	0.60%
Q3 2004	10.67%
Q4 2004	19.32%
Q1 2005	21.36%
Q2 2005	32.08%
Q3 2005	12.35%
Q4 2005	0.54%
Q1 2006	8.01%
Q2 2006	9.81%
Q3 2006	4.62%
Q4 2006	7.67%

Quarter end	1-quarter return
Q1 2007	4.18%
Q2 2007	6.07%
Q3 2007	6.99%
Q4 2007	8.79%
Q1 2008	2.03%
Q2 2008	4.11%
Q3 2008	2.90%
Q4 2008	-5.78%
Q1 2009	-3.91%
Q2 2009	-0.19%
Q3 2009	3.85%
Q4 2009	3.62%
Q1 2010	-0.33%
Q2 2010	0.15%
Q3 2010	4.04%
Q4 2010	8.49%
Q1 2011	4.72%
Q2 2011	4.15%
Q3 2011	-1.52%
Q4 2011	4.56%
Q1 2012	2.05%
Q2 2012	-2.05%
Q3 2012	0.69%
Q4 2012	3.69%

Quarter end	1-quarter return
Q1 2013	3.64%
Q2 2013	-0.48%
Q3 2013	2.48%
Q4 2013	1.50%
Q1 2014	3.75%
Q2 2014	6.82%
Q3 2014	2.88%
Q4 2014	-4.60%
Q1 2015	-1.27%
Q2 2015	2.17%
Q3 2015	-3.22%
Q4 2015	-2.18%
Q1 2016	-0.51%
Q2 2016	5.32%
Q3 2016	2.87%
Q4 2016	4.68%
Q1 2017	3.60%
Q2 2017	2.50%
Q3 2017	1.89%
Q4 2017	1.99%
Q1 2018	2.65%
Q2 2018	2.83%
Q3 2018	4.88%
Q4 2018	-1.78%

Quarter end	1-quarter return
Q1 2019	1.37%
Q2 2019	-1.09%
Q3 2019	-0.32%
Q4 2019	-0.16%
Q1 2020	-9.48%
Q2 2020	2.95%
Q3 2020	1.90%
Q4 2020	4.38%
Q1 2021	4.43%
Q2 2021	8.16%
Q3 2021	2.46%
Q4 2021*	4.46%

*Preliminary figure

Private debt



Private debt

IRR by vintage

Pooled IRRs

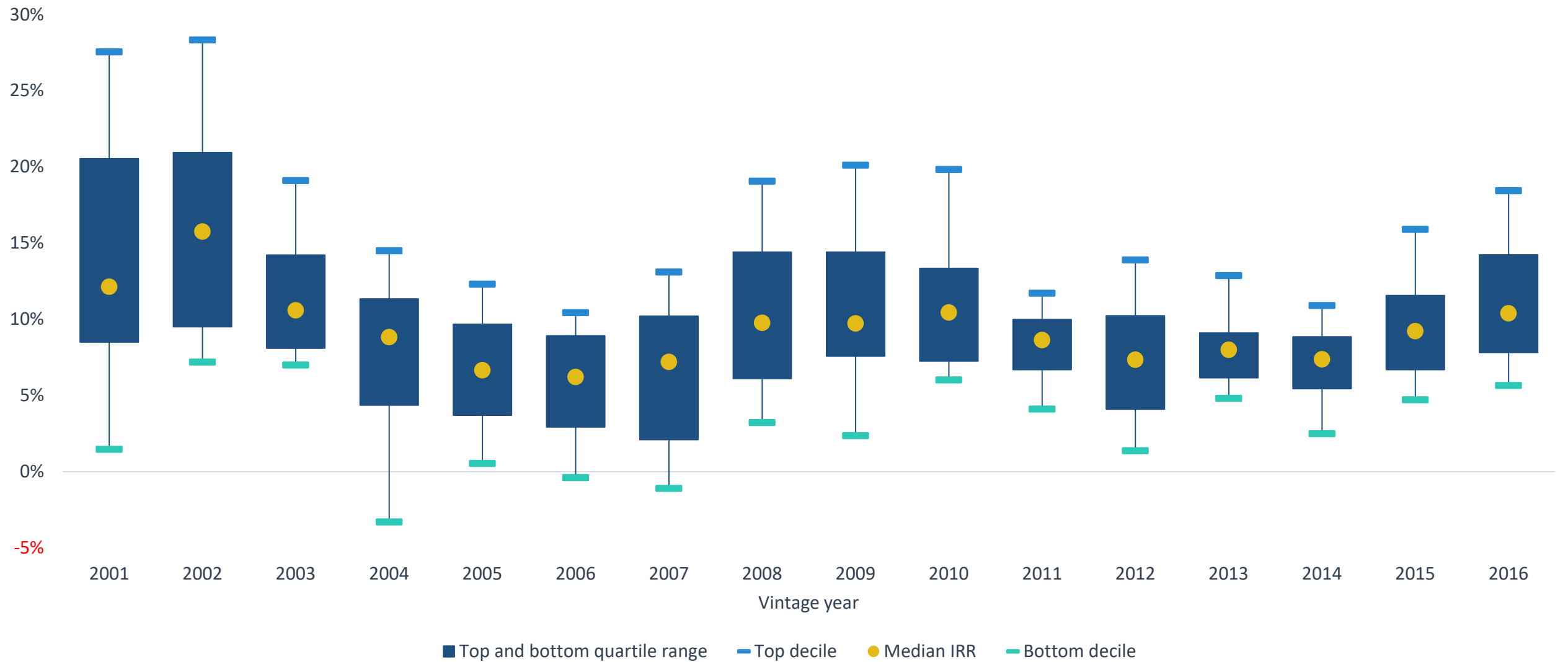
IRR quantiles

Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	10.16%	13.11%	6	53.02%	25.06%	10.65%	8.16%	5.51%	20.55%	12
1998	3.40%	4.10%	3	11.80%	9.30%	5.69%	3.80%	1.96%	6.90%	15
1999	11.39%	12.48%	5	20.32%	17.11%	13.40%	9.70%	7.90%	6.65%	13
2000	8.88%	4.65%	7	18.94%	16.95%	8.72%	5.97%	0.79%	10.36%	14
2001	25.56%	22.10%	7	27.56%	20.55%	12.13%	8.50%	1.46%	10.86%	16
2002	16.46%	18.70%	10	28.33%	20.95%	15.75%	9.51%	7.19%	18.52%	14
2003	13.47%	13.34%	9	19.10%	14.23%	10.59%	8.10%	7.00%	6.22%	18
2004	6.26%	7.31%	10	14.50%	11.34%	8.83%	4.36%	-3.30%	9.29%	19
2005	8.61%	9.85%	15	12.30%	9.68%	6.65%	3.70%	0.54%	6.28%	22
2006	6.81%	5.63%	27	10.44%	8.92%	6.21%	2.93%	-0.40%	5.80%	34
2007	5.77%	5.74%	27	13.10%	10.22%	7.20%	2.10%	-1.10%	8.65%	31
2008	13.09%	11.46%	29	19.06%	14.41%	9.77%	6.11%	3.22%	16.99%	42
2009	8.88%	10.48%	23	20.12%	14.42%	9.73%	7.58%	2.37%	10.16%	26
2010	13.82%	12.17%	33	19.83%	13.34%	10.44%	7.25%	6.02%	7.97%	39
2011	7.56%	7.70%	25	11.70%	9.99%	8.63%	6.70%	4.10%	6.10%	31
2012	6.43%	6.37%	37	13.89%	10.24%	7.35%	4.10%	1.37%	5.84%	47
2013	5.82%	6.78%	41	12.87%	9.10%	7.99%	6.16%	4.81%	6.72%	41
2014	6.48%	7.92%	51	10.90%	8.86%	7.37%	5.45%	2.49%	5.15%	50
2015	7.47%	6.48%	67	15.90%	11.56%	9.23%	6.70%	4.72%	4.95%	60
2016	9.39%	9.06%	54	18.44%	14.23%	10.40%	7.81%	5.65%	12.10%	53
2017	7.45%	8.51%	65	16.15%	12.86%	9.69%	7.13%	5.03%	7.39%	62
2018	9.57%	9.62%	60	19.61%	13.20%	9.00%	7.26%	4.76%	9.38%	63
2019	16.83%	14.34%	57	35.08%	20.99%	13.91%	10.03%	6.41%	12.50%	62
2020	21.50%	23.47%	41	54.21%	27.05%	14.71%	8.94%	4.66%	26.95%	42

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Private debt

IRRs by vintage



Private debt

PMEs by vintage

S&P 500 index

Bloomberg Barclays Global High Yield Corporate Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	10.16%	9.33%	1.51	10.16%			6
1998	3.40%	8.44%	1.11	3.40%			3
1999	11.39%	7.75%	1.49	11.39%			5
2000	8.88%	7.47%	1.17	8.88%			7
2001	25.56%	8.36%	1.60	25.56%	7.57%	1.37	7
2002	16.46%	9.39%	1.29	16.46%	8.06%	1.17	10
2003	13.47%	11.46%	1.35	13.47%	8.22%	1.25	9
2004	6.26%	10.30%	1.03	6.26%	7.24%	0.95	10
2005	8.61%	10.49%	1.24	8.61%	7.07%	1.02	15
2006	6.81%	10.55%	1.01	6.81%	7.22%	0.89	27
2007	5.77%	10.37%	0.94	5.77%	6.84%	0.84	27
2008	13.09%	11.47%	1.03	13.09%	7.49%	0.97	29
2009	8.88%	16.92%	0.83	8.88%	10.39%	1.00	23
2010	13.82%	14.94%	0.97	13.82%	6.87%	1.22	33
2011	7.56%	14.63%	0.79	7.56%	6.13%	1.04	25
2012	6.43%	15.61%	0.78	6.43%	6.34%	1.03	37
2013	5.82%	15.70%	0.82	5.82%	5.35%	1.02	41
2014	6.48%	14.66%	0.78	6.48%	4.95%	1.03	51
2015	7.47%	14.64%	0.81	7.47%	5.93%	1.03	67
2016	9.39%	18.28%	0.83	9.39%	8.13%	1.06	54
2017	7.45%	17.51%	0.80	7.45%	6.31%	1.01	65
2018	9.57%	16.85%	0.81	9.57%	5.66%	1.03	60
2019	16.83%	23.58%	0.91	16.83%	7.87%	1.10	57
2020	21.50%	30.05%	0.95	21.50%	9.89%	1.08	41

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Private debt

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.62x	1.62x	0.00x	1.83x	1.83x	0.00x	6
1998	1.19x	1.18x	0.01x	1.22x	1.20x	0.02x	3
1999	1.41x	1.41x	0.00x	1.51x	1.50x	0.01x	5
2000	1.36x	1.34x	0.01x	1.21x	1.20x	0.01x	7
2001	2.03x	2.03x	0.00x	2.06x	2.06x	0.00x	7
2002	1.66x	1.66x	0.00x	1.66x	1.66x	0.00x	10
2003	1.95x	1.89x	0.05x	2.00x	1.96x	0.05x	9
2004	1.30x	1.28x	0.01x	1.39x	1.37x	0.02x	10
2005	1.59x	1.48x	0.10x	1.84x	1.61x	0.22x	15
2006	1.38x	1.31x	0.06x	1.31x	1.23x	0.08x	27
2007	1.24x	1.20x	0.03x	1.26x	1.23x	0.03x	27
2008	1.62x	1.58x	0.04x	1.50x	1.46x	0.05x	29
2009	1.38x	1.33x	0.06x	1.40x	1.34x	0.07x	23
2010	1.51x	1.44x	0.07x	1.48x	1.37x	0.11x	33
2011	1.33x	1.09x	0.24x	1.32x	1.10x	0.23x	25
2012	1.27x	1.10x	0.17x	1.27x	1.03x	0.25x	37
2013	1.20x	0.98x	0.22x	1.25x	0.95x	0.30x	41
2014	1.27x	0.79x	0.48x	1.32x	0.86x	0.47x	51
2015	1.24x	0.63x	0.61x	1.22x	0.64x	0.59x	67
2016	1.23x	0.47x	0.75x	1.23x	0.55x	0.68x	54
2017	1.17x	0.41x	0.76x	1.19x	0.42x	0.77x	65
2018	1.18x	0.22x	0.96x	1.17x	0.34x	0.83x	60
2019	1.21x	0.31x	0.90x	1.17x	0.30x	0.87x	57
2020	1.14x	0.14x	1.00x	1.15x	0.20x	0.95x	41

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Private debt

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
1997		1.73x	1.59x	1.43x			1.73x	1.59x	1.43x		6
1998			1.25x					1.24x			3
1999		1.48x	1.47x	1.40x			1.48x	1.40x	1.39x		5
2000		1.51x	1.29x	1.11x			1.51x	1.24x	1.09x		7
2001		2.47x	1.88x	1.59x			2.47x	1.88x	1.59x		7
2002	2.10x	1.71x	1.61x	1.39x	1.33x	2.10x	1.71x	1.61x	1.39x	1.33x	10
2003		1.97x	1.58x	1.49x			1.97x	1.58x	1.49x		9
2004	1.92x	1.65x	1.54x	1.17x	0.65x	1.91x	1.65x	1.48x	1.17x	0.63x	10
2005	1.57x	1.51x	1.34x	1.25x	0.91x	1.56x	1.50x	1.34x	1.22x	0.81x	15
2006	1.70x	1.39x	1.27x	1.11x	0.87x	1.69x	1.34x	1.25x	1.11x	0.81x	27
2007	1.68x	1.53x	1.24x	1.08x	0.75x	1.68x	1.49x	1.21x	1.06x	0.70x	27
2008	1.99x	1.72x	1.35x	1.19x	1.04x	1.99x	1.68x	1.34x	1.15x	1.02x	29
2009	1.87x	1.54x	1.43x	1.20x	1.06x	1.67x	1.54x	1.33x	1.16x	0.99x	23
2010	1.75x	1.61x	1.39x	1.32x	1.28x	1.71x	1.60x	1.32x	1.18x	1.13x	33
2011	1.71x	1.50x	1.31x	1.14x	1.00x	1.49x	1.20x	1.12x	0.85x	0.67x	25
2012	1.62x	1.37x	1.24x	1.13x	1.05x	1.38x	1.25x	1.08x	0.88x	0.61x	37
2013	1.50x	1.35x	1.21x	1.11x	0.94x	1.20x	1.13x	1.04x	0.81x	0.55x	41
2014	1.66x	1.41x	1.23x	1.12x	1.05x	1.26x	1.02x	0.84x	0.60x	0.35x	51
2015	1.42x	1.34x	1.22x	1.13x	0.98x	0.99x	0.82x	0.59x	0.46x	0.29x	67
2016	1.45x	1.30x	1.20x	1.13x	1.02x	1.00x	0.71x	0.46x	0.29x	0.09x	54
2017	1.40x	1.29x	1.16x	1.10x	0.99x	0.64x	0.55x	0.41x	0.25x	0.10x	65
2018	1.35x	1.25x	1.14x	1.09x	0.97x	0.62x	0.44x	0.29x	0.11x	0.06x	60
2019	1.35x	1.26x	1.14x	1.09x	1.01x	0.64x	0.43x	0.20x	0.09x	0.02x	57
2020	1.39x	1.21x	1.12x	1.03x	0.91x	0.60x	0.22x	0.08x	0.01x	0.00x	41

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Private debt

Quarterly return

Quarter end	1-quarter return
Q1 2001	1.90%
Q2 2001	2.19%
Q3 2001	-0.09%
Q4 2001	0.68%
Q1 2002	2.61%
Q2 2002	-2.80%
Q3 2002	-0.32%
Q4 2002	1.24%
Q1 2003	3.05%
Q2 2003	6.09%
Q3 2003	-0.41%
Q4 2003	10.27%
Q1 2004	5.19%
Q2 2004	6.31%
Q3 2004	3.61%
Q4 2004	14.80%
Q1 2005	3.67%
Q2 2005	-0.96%
Q3 2005	5.56%
Q4 2005	3.26%
Q1 2006	4.33%
Q2 2006	4.89%
Q3 2006	3.49%
Q4 2006	8.32%

Quarter end	1-quarter return
Q1 2007	1.73%
Q2 2007	8.05%
Q3 2007	2.32%
Q4 2007	1.08%
Q1 2008	-1.64%
Q2 2008	-0.11%
Q3 2008	-9.03%
Q4 2008	-14.71%
Q1 2009	-4.18%
Q2 2009	10.71%
Q3 2009	11.52%
Q4 2009	5.11%
Q1 2010	6.37%
Q2 2010	1.12%
Q3 2010	3.68%
Q4 2010	7.90%
Q1 2011	4.55%
Q2 2011	3.07%
Q3 2011	-4.91%
Q4 2011	0.83%
Q1 2012	6.16%
Q2 2012	-0.12%
Q3 2012	6.39%
Q4 2012	2.86%

Quarter end	1-quarter return
Q1 2013	5.22%
Q2 2013	2.38%
Q3 2013	3.44%
Q4 2013	1.14%
Q1 2014	3.98%
Q2 2014	2.29%
Q3 2014	2.55%
Q4 2014	1.81%
Q1 2015	5.46%
Q2 2015	-0.80%
Q3 2015	0.31%
Q4 2015	-0.07%
Q1 2016	1.97%
Q2 2016	0.42%
Q3 2016	4.60%
Q4 2016	1.90%
Q1 2017	2.31%
Q2 2017	2.89%
Q3 2017	2.16%
Q4 2017	3.85%
Q1 2018	3.25%
Q2 2018	-0.29%
Q3 2018	-0.56%
Q4 2018	0.97%

Quarter end	1-quarter return
Q1 2019	1.48%
Q2 2019	1.45%
Q3 2019	1.41%
Q4 2019	2.32%
Q1 2020	-6.92%
Q2 2020	2.50%
Q3 2020	3.08%
Q4 2020	3.99%
Q1 2021	4.97%
Q2 2021	6.84%
Q3 2021	1.48%
Q4 2021*	2.14%

*Preliminary figure

Funds of funds

Funds of funds

IRRs by vintage

Pooled IRRs

IRR quantiles

Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	-13.89%	-13.86%	2	77.88%	21.72%	12.20%	3.03%	-4.14%	29.64%	19
1998	7.86%	7.64%	3	19.48%	9.89%	6.10%	3.71%	1.72%	8.48%	15
1999	5.42%	4.79%	8	16.44%	11.71%	4.86%	2.24%	0.02%	6.04%	31
2000	5.64%	6.38%	9	13.31%	9.88%	6.55%	3.70%	0.63%	5.58%	38
2001	10.69%	7.79%	9	17.15%	13.77%	8.47%	6.18%	1.47%	8.97%	34
2002	8.10%	7.73%	3	13.24%	10.70%	9.00%	5.05%	3.50%	5.93%	21
2003	7.30%	5.82%	7	12.74%	9.37%	7.57%	6.78%	4.57%	4.20%	22
2004	8.26%	8.18%	9	12.08%	10.66%	7.20%	5.65%	1.30%	7.75%	43
2005	7.23%	7.23%	18	10.41%	8.46%	7.09%	5.37%	4.45%	10.92%	60
2006	8.86%	8.36%	36	12.44%	10.38%	7.77%	5.86%	4.29%	3.74%	67
2007	10.02%	8.85%	41	14.39%	12.20%	8.90%	5.86%	0.10%	6.62%	73
2008	4.39%	11.86%	39	19.86%	15.30%	12.00%	8.84%	3.62%	6.70%	65
2009	14.20%	13.74%	30	19.44%	16.73%	14.20%	10.18%	7.26%	5.19%	35
2010	13.27%	14.07%	31	20.16%	15.61%	13.17%	8.60%	0.28%	7.13%	44
2011	16.34%	18.16%	44	27.44%	20.50%	16.69%	13.40%	7.88%	7.49%	45
2012	19.03%	18.55%	41	27.54%	21.20%	16.82%	10.25%	6.69%	8.15%	36
2013	18.55%	17.95%	45	29.22%	25.26%	20.00%	15.80%	9.05%	7.31%	33
2014	21.22%	22.71%	42	29.56%	27.04%	23.60%	17.60%	15.16%	6.25%	37
2015	24.56%	22.92%	42	34.37%	28.27%	22.56%	17.21%	15.47%	9.15%	44
2016	25.97%	25.58%	34	43.57%	33.01%	25.86%	19.98%	15.89%	11.42%	35
2017	32.69%	33.20%	28	42.06%	36.72%	29.62%	23.44%	19.65%	10.07%	27
2018	30.42%	32.42%	31	49.98%	38.13%	29.30%	23.78%	8.50%	15.04%	32
2019	46.99%	40.51%	24	68.62%	48.66%	33.97%	23.06%	10.20%	32.08%	35
2020	84.10%	63.53%	15	132.02%	73.25%	38.23%	17.44%	7.26%	55.79%	16

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Funds of funds

IRRs by vintage



■ Top and bottom quartile range ■ Top decile ● Median IRR ■ Bottom decile



Funds of funds

PMEs by vintage

S&P 500 index

MSCI All Country World Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	-13.89%	9.33%	0.26	-13.89%	7.75%	0.24	2
1998	7.86%	8.44%	1.25	7.86%	7.17%	1.12	3
1999	5.42%	7.75%	1.05	5.42%	6.85%	0.96	8
2000	5.64%	7.47%	0.99	5.64%	6.25%	0.93	9
2001	10.69%	8.36%	1.11	10.69%	7.39%	1.05	9
2002	8.10%	9.39%	1.06	8.10%	8.60%	1.05	3
2003	7.30%	11.46%	1.01	7.30%	10.40%	1.10	7
2004	8.26%	10.30%	1.01	8.26%	8.84%	1.11	9
2005	7.23%	10.49%	0.93	7.23%	8.65%	1.06	18
2006	8.86%	10.55%	0.88	8.86%	8.12%	1.06	36
2007	10.02%	10.37%	0.87	10.02%	7.50%	1.06	41
2008	4.39%	11.47%	0.58	4.39%	7.94%	0.72	39
2009	14.20%	16.92%	0.97	14.20%	13.58%	1.18	30
2010	13.27%	14.94%	0.95	13.27%	10.89%	1.14	31
2011	16.34%	14.63%	1.06	16.34%	10.34%	1.26	44
2012	19.03%	15.61%	1.20	19.03%	11.71%	1.42	41
2013	18.55%	15.70%	1.12	18.55%	11.56%	1.27	45
2014	21.22%	14.66%	1.20	21.22%	10.89%	1.35	42
2015	24.56%	14.64%	1.20	24.56%	11.48%	1.32	42
2016	25.97%	18.28%	1.20	25.97%	15.48%	1.31	34
2017	32.69%	17.51%	1.19	32.69%	14.57%	1.26	28
2018	30.42%	16.85%	1.13	30.42%	12.60%	1.19	31
2019	46.99%	23.58%	1.19	46.99%	19.76%	1.23	24
2020	84.10%	30.05%	1.19	84.10%	26.42%	1.22	15



Funds of funds

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	0.31x	0.31x	0.00x	0.32x	0.32x	0.00x	2
1998	1.49x	1.48x	0.01x	1.52x	1.50x	0.01x	3
1999	1.35x	1.33x	0.02x	1.32x	1.29x	0.03x	8
2000	1.34x	1.32x	0.02x	1.38x	1.36x	0.02x	9
2001	1.65x	1.56x	0.09x	1.52x	1.44x	0.08x	9
2002	1.46x	1.44x	0.02x	1.45x	1.44x	0.02x	3
2003	1.57x	1.54x	0.03x	1.42x	1.38x	0.04x	7
2004	1.58x	1.46x	0.13x	1.62x	1.46x	0.16x	9
2005	1.51x	1.41x	0.09x	1.52x	1.41x	0.12x	18
2006	1.73x	1.48x	0.25x	1.69x	1.46x	0.23x	36
2007	1.81x	1.41x	0.39x	1.66x	1.36x	0.30x	41
2008	1.30x	0.96x	0.34x	1.98x	1.38x	0.60x	39
2009	2.12x	1.28x	0.84x	2.03x	1.33x	0.69x	30
2010	1.96x	1.27x	0.69x	2.14x	1.20x	0.94x	31
2011	2.19x	1.16x	1.03x	2.46x	1.22x	1.24x	44
2012	2.50x	0.94x	1.57x	2.42x	0.95x	1.47x	41
2013	2.10x	0.70x	1.39x	2.09x	0.68x	1.42x	45
2014	2.21x	0.59x	1.62x	2.41x	0.68x	1.73x	42
2015	2.05x	0.38x	1.66x	2.03x	0.41x	1.62x	42
2016	2.01x	0.29x	1.73x	1.95x	0.27x	1.68x	34
2017	1.75x	0.18x	1.57x	1.80x	0.19x	1.60x	28
2018	1.64x	0.13x	1.51x	1.66x	0.18x	1.48x	31
2019	1.57x	0.07x	1.50x	1.47x	0.05x	1.42x	24
2020	1.37x	0.05x	1.32x	1.36x	0.08x	1.28x	15

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Funds of funds

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
1997			0.32x					0.32x			2
1998			1.56x					1.56x			3
1999		1.46x	1.24x	1.14x			1.46x	1.21x	1.14x		8
2000		1.57x	1.50x	1.23x			1.57x	1.48x	1.19x		9
2001		1.70x	1.66x	1.48x			1.70x	1.48x	1.33x		9
2002			1.41x					1.41x			3
2003		1.63x	1.51x	1.31x			1.55x	1.49x	1.30x		7
2004		1.62x	1.55x	1.42x			1.48x	1.44x	1.36x		9
2005	1.84x	1.67x	1.47x	1.39x	1.32x	1.70x	1.56x	1.37x	1.31x	1.17x	18
2006	2.12x	1.86x	1.69x	1.44x	1.29x	1.81x	1.66x	1.45x	1.25x	1.18x	36
2007	2.29x	1.94x	1.57x	1.38x	0.97x	1.83x	1.67x	1.40x	1.11x	0.79x	41
2008	3.22x	2.37x	1.90x	1.42x	1.04x	1.99x	1.70x	1.38x	1.02x	0.66x	39
2009	2.61x	2.41x	2.01x	1.77x	1.46x	1.95x	1.59x	1.34x	1.05x	0.83x	30
2010	3.62x	2.30x	1.81x	1.55x	1.26x	1.52x	1.41x	1.19x	0.94x	0.69x	31
2011	4.29x	2.58x	2.06x	1.55x	1.28x	2.03x	1.32x	1.13x	0.98x	0.43x	44
2012	4.07x	3.09x	1.94x	1.43x	1.33x	1.51x	1.17x	0.89x	0.52x	0.40x	41
2013	3.00x	2.40x	2.10x	1.66x	1.25x	1.26x	0.84x	0.66x	0.31x	0.22x	45
2014	3.76x	3.20x	2.17x	1.69x	1.39x	1.16x	0.80x	0.52x	0.35x	0.24x	42
2015	3.07x	2.43x	1.89x	1.62x	1.32x	0.75x	0.50x	0.36x	0.23x	0.15x	42
2016	2.85x	2.30x	1.81x	1.46x	1.27x	0.53x	0.34x	0.20x	0.12x	0.06x	34
2017	2.19x	1.94x	1.75x	1.52x	1.32x	0.44x	0.27x	0.11x	0.04x	0.01x	28
2018	1.94x	1.80x	1.63x	1.38x	1.24x	0.34x	0.19x	0.07x	0.00x	0.00x	31
2019	1.77x	1.65x	1.38x	1.26x	1.14x	0.13x	0.07x	0.02x	0.00x	0.00x	24
2020	1.63x	1.39x	1.22x	1.03x	0.67x	0.14x	0.08x	0.01x	0.00x	0.00x	13

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Funds of funds

Quarterly return

Quarter end	1-quarter return
Q1 2001	-10.12%
Q2 2001	-5.57%
Q3 2001	-10.00%
Q4 2001	-5.99%
Q1 2002	-9.57%
Q2 2002	-5.84%
Q3 2002	-7.21%
Q4 2002	-5.03%
Q1 2003	-8.48%
Q2 2003	4.03%
Q3 2003	0.10%
Q4 2003	-5.75%
Q1 2004	4.45%
Q2 2004	1.67%
Q3 2004	4.82%
Q4 2004	6.68%
Q1 2005	2.02%
Q2 2005	5.92%
Q3 2005	5.62%
Q4 2005	7.57%
Q1 2006	4.90%
Q2 2006	6.13%
Q3 2006	4.65%
Q4 2006	8.53%

Quarter end	1-quarter return
Q1 2007	1.61%
Q2 2007	10.77%
Q3 2007	3.72%
Q4 2007	3.73%
Q1 2008	8.88%
Q2 2008	-2.04%
Q3 2008	-6.48%
Q4 2008	-10.57%
Q1 2009	-2.06%
Q2 2009	-4.87%
Q3 2009	5.28%
Q4 2009	2.84%
Q1 2010	5.14%
Q2 2010	-0.79%
Q3 2010	4.80%
Q4 2010	2.67%
Q1 2011	3.61%
Q2 2011	5.67%
Q3 2011	-1.86%
Q4 2011	-0.23%
Q1 2012	5.33%
Q2 2012	0.99%
Q3 2012	-0.46%
Q4 2012	3.17%

Quarter end	1-quarter return
Q1 2013	2.52%
Q2 2013	3.26%
Q3 2013	2.74%
Q4 2013	3.70%
Q1 2014	2.40%
Q2 2014	6.82%
Q3 2014	1.49%
Q4 2014	1.60%
Q1 2015	4.10%
Q2 2015	5.76%
Q3 2015	2.59%
Q4 2015	0.00%
Q1 2016	1.46%
Q2 2016	1.03%
Q3 2016	4.08%
Q4 2016	0.81%
Q1 2017	3.26%
Q2 2017	3.88%
Q3 2017	3.65%
Q4 2017	1.57%
Q1 2018	5.36%
Q2 2018	5.53%
Q3 2018	3.07%
Q4 2018	1.42%

Quarter end	1-quarter return
Q1 2019	2.55%
Q2 2019	3.43%
Q3 2019	0.82%
Q4 2019	4.41%
Q1 2020	-0.76%
Q2 2020	3.88%
Q3 2020	8.18%
Q4 2020	11.97%
Q1 2021	12.45%
Q2 2021	16.95%
Q3 2021	7.29%
Q4 2021*	4.98%

*Preliminary figure

Secondaries

Secondaries

IRRs by vintage

Pooled IRRs

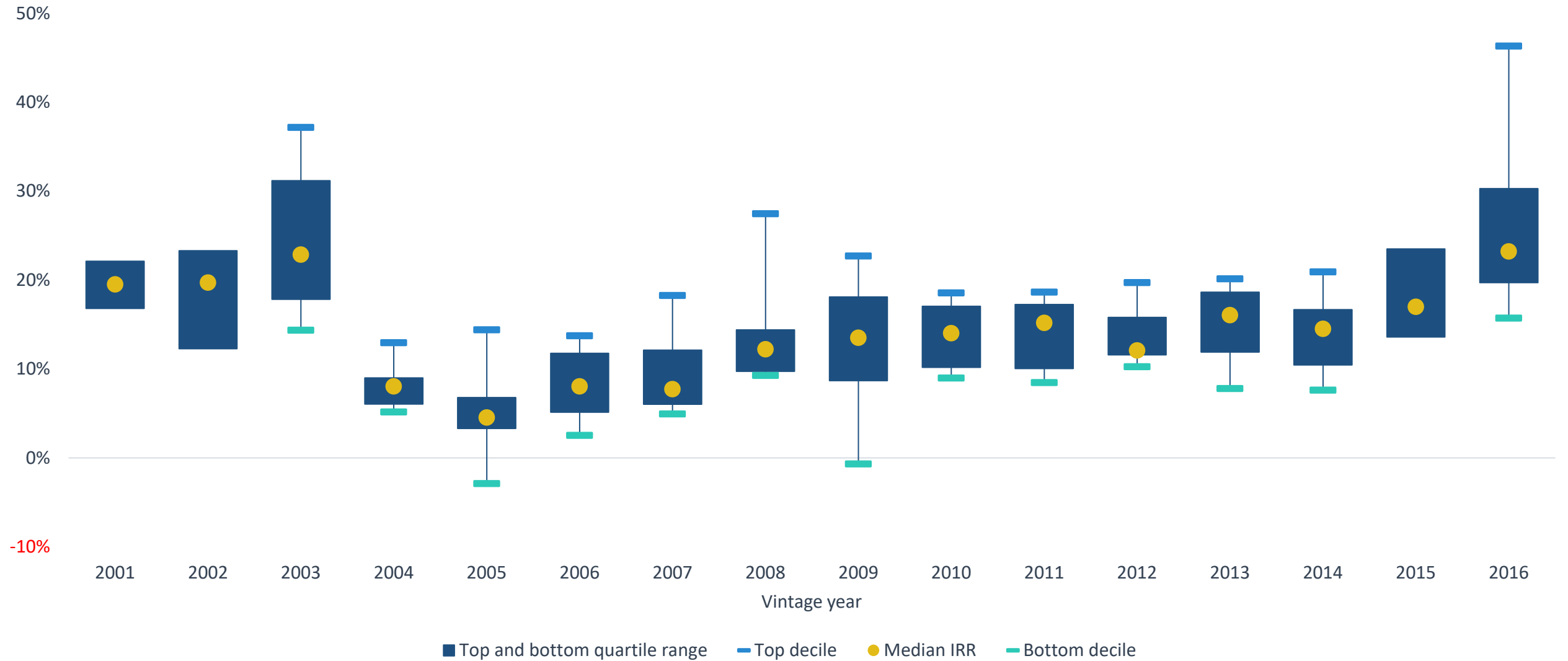
IRR quantiles

Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	16.60%	16.60%	1			9.61%			9.89%	2
1998	9.03%	11.69%	3		7.92%	6.19%	4.56%		8.28%	8
1999	7.33%	5.51%	3	31.00%	17.15%	8.63%	0.85%	-3.09%	14.86%	11
2000	15.09%	14.35%	3		19.45%	18.60%	10.90%		6.63%	7
2001	14.10%	16.01%	2		22.11%	19.52%	16.80%		5.50%	5
2002	16.07%	18.06%	4		23.30%	19.72%	12.27%		13.09%	9
2003	37.92%	37.92%	1	37.17%	31.18%	22.85%	17.83%	14.34%	16.48%	10
2004	11.17%	11.10%	5	12.96%	9.00%	8.04%	6.05%	5.16%	6.35%	10
2005	6.50%	6.11%	10	14.40%	6.79%	4.53%	3.30%	-2.90%	11.54%	15
2006	6.44%	6.88%	10	13.74%	11.78%	8.04%	5.13%	2.54%	5.06%	16
2007	5.66%	9.77%	9	18.25%	12.12%	7.73%	6.03%	4.93%	8.98%	10
2008	11.20%	11.71%	16	27.46%	14.40%	12.22%	9.73%	9.27%	8.13%	13
2009	11.46%	10.60%	11	22.70%	18.10%	13.50%	8.69%	-0.70%	9.30%	13
2010	14.00%	14.06%	5	18.56%	17.06%	14.03%	10.17%	8.98%	4.00%	10
2011	15.18%	13.42%	12	18.64%	17.27%	15.19%	10.05%	8.47%	4.63%	12
2012	12.26%	11.06%	11	19.70%	15.81%	12.08%	11.59%	10.24%	4.11%	13
2013	11.42%	11.35%	15	20.13%	18.65%	16.05%	11.91%	7.80%	11.44%	18
2014	15.82%	19.18%	12	20.91%	16.68%	14.52%	10.45%	7.61%	5.69%	12
2015	18.68%	21.16%	10		23.50%	16.99%	13.60%		15.77%	9
2016	23.32%	24.87%	20	46.32%	30.29%	23.22%	19.70%	15.71%	13.79%	23
2017	20.66%	18.19%	14	32.36%	27.81%	23.05%	11.96%	6.05%	10.00%	16
2018	48.69%	46.54%	11	95.53%	79.62%	63.13%	32.00%	22.14%	30.67%	11
2019	50.36%	49.37%	9	66.98%	62.52%	38.42%	25.98%	24.04%	21.29%	10
2020	55.01%	66.87%	10	174.50%	105.54%	91.75%	34.34%	13.56%	67.13%	12

Source: PitchBook | Geography: Global | Data as of September 30, 2021

Secondaries

IRRs by vintage





Secondaries

PMEs by vintage

S&P 500 index

MSCI All Country World Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	16.60%	9.33%	1.36	16.60%	7.75%	1.40	1
1998	9.03%	8.44%	1.27	9.03%	7.17%	1.21	3
1999	7.33%	7.75%	1.23	7.33%	6.85%	1.17	3
2000	15.09%	7.47%	1.38	15.09%	6.25%	1.25	3
2001	14.10%	8.36%	1.19	14.10%	7.39%	1.10	2
2002	16.07%	9.39%	1.23	16.07%	8.60%	1.16	4
2003	37.92%	11.46%	1.56	37.92%	10.40%	1.46	1
2004	11.17%	10.30%	1.15	11.17%	8.84%	1.20	5
2005	6.50%	10.49%	0.94	6.50%	8.65%	1.05	10
2006	6.44%	10.55%	0.91	6.44%	8.12%	1.02	10
2007	5.66%	10.37%	0.79	5.66%	7.50%	0.89	9
2008	11.20%	11.47%	0.91	11.20%	7.94%	1.04	16
2009	11.46%	16.92%	0.89	11.46%	13.58%	1.03	11
2010	14.00%	14.94%	0.99	14.00%	10.89%	1.15	5
2011	15.18%	14.63%	1.01	15.18%	10.34%	1.17	12
2012	12.26%	15.61%	0.94	12.26%	11.71%	1.05	11
2013	11.42%	15.70%	0.93	11.42%	11.56%	1.05	15
2014	15.82%	14.66%	1.01	15.82%	10.89%	1.09	12
2015	18.68%	14.64%	1.03	18.68%	11.48%	1.11	10
2016	23.32%	18.28%	1.10	23.32%	15.48%	1.18	20
2017	20.66%	17.51%	1.02	20.66%	14.57%	1.09	14
2018	48.69%	16.85%	1.24	48.69%	12.60%	1.29	11
2019	50.36%	23.58%	1.26	50.36%	19.76%	1.30	9
2020	55.01%	30.05%	1.10	55.01%	26.42%	1.12	10

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Secondaries

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.59x	1.59x	0.00x	1.59x	1.59x	0.00x	1
1998	1.34x	1.33x	0.01x	1.38x	1.35x	0.03x	3
1999	1.24x	1.24x	0.00x	1.19x	1.19x	0.00x	3
2000	1.64x	1.64x	0.00x	1.62x	1.62x	0.00x	3
2001	1.55x	1.54x	0.01x	1.62x	1.61x	0.00x	2
2002	1.50x	1.50x	0.00x	1.53x	1.52x	0.00x	4
2003	1.79x	1.79x	0.00x	1.79x	1.79x	0.00x	1
2004	1.53x	1.47x	0.06x	1.51x	1.46x	0.05x	5
2005	1.40x	1.37x	0.03x	1.38x	1.35x	0.03x	10
2006	1.38x	1.31x	0.07x	1.42x	1.27x	0.15x	10
2007	1.29x	1.14x	0.15x	1.50x	1.35x	0.14x	9
2008	1.56x	1.43x	0.14x	1.59x	1.44x	0.15x	16
2009	1.57x	1.43x	0.13x	1.51x	1.34x	0.17x	11
2010	1.55x	1.49x	0.06x	1.56x	1.42x	0.14x	5
2011	1.68x	1.41x	0.27x	1.64x	1.29x	0.36x	12
2012	1.48x	1.19x	0.29x	1.41x	1.10x	0.31x	11
2013	1.50x	1.06x	0.44x	1.53x	0.90x	0.63x	15
2014	1.50x	0.88x	0.62x	1.82x	1.17x	0.65x	12
2015	1.60x	0.63x	0.98x	1.54x	0.96x	0.58x	10
2016	1.66x	0.59x	1.07x	1.75x	0.66x	1.10x	20
2017	1.49x	0.42x	1.07x	1.45x	0.40x	1.05x	14
2018	1.62x	0.23x	1.39x	1.82x	0.34x	1.47x	11
2019	1.61x	0.39x	1.21x	1.61x	0.33x	1.28x	9
2020	1.30x	0.16x	1.14x	1.48x	0.11x	1.38x	10

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Secondaries

Multiples by vintage

Vintage year	TVPI					DPI					Number of funds
	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	
1997			1.59x					1.59x			1
1998			1.32x					1.32x			3
1999			1.26x					1.25x			3
2000			1.74x					1.74x			3
2001			1.62x					1.62x			2
2002		1.58x	1.54x	1.49x			1.57x	1.54x	1.49x		4
2003			1.79x					1.79x			1
2004		1.66x	1.47x	1.41x			1.57x	1.39x	1.35x		5
2005	1.71x	1.60x	1.33x	1.29x	1.09x	1.70x	1.42x	1.33x	1.27x	1.09x	10
2006	1.85x	1.55x	1.39x	1.23x	1.13x	1.51x	1.42x	1.29x	1.16x	1.10x	10
2007		1.44x	1.36x	1.32x			1.35x	1.32x	1.11x		9
2008	1.83x	1.74x	1.51x	1.39x	1.31x	1.68x	1.53x	1.45x	1.29x	1.07x	16
2009	1.79x	1.74x	1.38x	1.22x	1.06x	1.74x	1.55x	1.37x	1.11x	0.78x	11
2010		1.63x	1.57x	1.46x			1.56x	1.46x	1.34x		5
2011	2.08x	1.73x	1.63x	1.40x	1.37x	1.52x	1.41x	1.32x	1.12x	1.05x	12
2012	1.73x	1.59x	1.38x	1.30x	1.25x	1.39x	1.30x	1.16x	0.89x	0.86x	11
2013	1.97x	1.70x	1.48x	1.36x	1.25x	1.30x	1.13x	0.85x	0.81x	0.48x	15
2014	1.69x	1.56x	1.53x	1.32x	1.23x	1.19x	1.10x	0.95x	0.74x	0.61x	12
2015	1.92x	1.64x	1.56x	1.38x	1.32x	1.47x	1.40x	0.86x	0.59x	0.49x	10
2016	2.15x	1.92x	1.71x	1.39x	1.18x	1.40x	0.90x	0.60x	0.31x	0.09x	20
2017	1.60x	1.59x	1.54x	1.25x	1.13x	0.62x	0.50x	0.40x	0.28x	0.15x	14
2018	2.23x	1.89x	1.63x	1.49x	1.28x	0.53x	0.44x	0.27x	0.16x	0.10x	11
2019		1.72x	1.67x	1.59x			0.39x	0.27x	0.18x		9
2020	1.81x	1.73x	1.46x	1.15x	1.04x	0.21x	0.13x	0.12x	0.01x	0.00x	10

Source: PitchBook | Geography: Global | Data as of September 30, 2021



Secondaries

Quarterly return

Quarter end	1-quarter return
Q1 2001	-3.16%
Q2 2001	-3.72%
Q3 2001	1.65%
Q4 2001	-3.32%
Q1 2002	4.02%
Q2 2002	2.08%
Q3 2002	-6.33%
Q4 2002	-4.72%
Q1 2003	-3.00%
Q2 2003	1.35%
Q3 2003	1.54%
Q4 2003	2.47%
Q1 2004	8.86%
Q2 2004	4.93%
Q3 2004	6.66%
Q4 2004	6.11%
Q1 2005	6.89%
Q2 2005	2.03%
Q3 2005	4.72%
Q4 2005	2.03%
Q1 2006	8.03%
Q2 2006	4.83%
Q3 2006	3.79%
Q4 2006	6.72%

Quarter end	1-quarter return
Q1 2007	4.20%
Q2 2007	11.35%
Q3 2007	8.36%
Q4 2007	4.30%
Q1 2008	1.69%
Q2 2008	-2.72%
Q3 2008	1.74%
Q4 2008	-6.01%
Q1 2009	-8.97%
Q2 2009	-3.61%
Q3 2009	0.31%
Q4 2009	1.84%
Q1 2010	1.34%
Q2 2010	6.19%
Q3 2010	6.07%
Q4 2010	5.17%
Q1 2011	6.94%
Q2 2011	5.63%
Q3 2011	4.67%
Q4 2011	-3.71%
Q1 2012	3.96%
Q2 2012	2.77%
Q3 2012	4.63%
Q4 2012	2.08%

Quarter end	1-quarter return
Q1 2013	3.16%
Q2 2013	3.50%
Q3 2013	2.06%
Q4 2013	4.92%
Q1 2014	3.65%
Q2 2014	2.76%
Q3 2014	3.33%
Q4 2014	2.83%
Q1 2015	2.40%
Q2 2015	6.86%
Q3 2015	1.34%
Q4 2015	-0.03%
Q1 2016	0.03%
Q2 2016	2.99%
Q3 2016	1.26%
Q4 2016	2.97%
Q1 2017	3.53%
Q2 2017	4.23%
Q3 2017	3.37%
Q4 2017	3.68%
Q1 2018	2.54%
Q2 2018	7.95%
Q3 2018	2.45%
Q4 2018	0.82%

Quarter end	1-quarter return
Q1 2019	2.47%
Q2 2019	4.80%
Q3 2019	1.08%
Q4 2019	3.46%
Q1 2020	-3.72%
Q2 2020	-4.34%
Q3 2020	3.11%
Q4 2020	11.32%
Q1 2021	7.99%
Q2 2021	18.31%
Q3 2021	9.21%
Q4 2021*	9.94%

*Preliminary figure

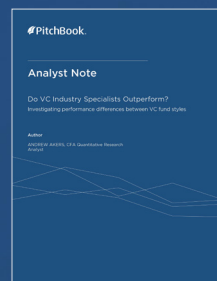
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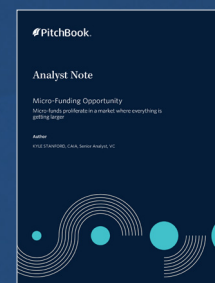
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