PitchBook

VENTURE CAPITAL

PitchBook Benchmarks

AS OF Q4 2022

Contents

PitchBook

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 are available in the Portfolio Forecasting tool in the PitchBook platform.

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:

Global | Europe | North America | Private equity

Venture capital | Real estate | Real assets | Private debt

Funds of funds | Secondaries

Additional PitchBook Benchmark PDFs:

Global | Europe | North America | Private equity

Venture capital | Real estate | Real assets | Private debt

Funds of funds | Secondaries

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.

Due to lag in reporting for some funds and liquidation causing older funds to no longer report returns, we will pull forward cash multiples and IRR information from previous quarters under the following stipulations: (i) we extend cash multiples and IRR after five years since fund inception if reported NAV was less than 5% of commitments. (ii) If NAV is unknown or is greater than 5% after five years, we extend cash multiples and IRR if the fund is older than eight years as of the last known data (iii) For funds less than five years or are less than eight years with NAV greater than 5%, we extend cash multiples and IRRs from the prior quarter if available.

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.

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

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.

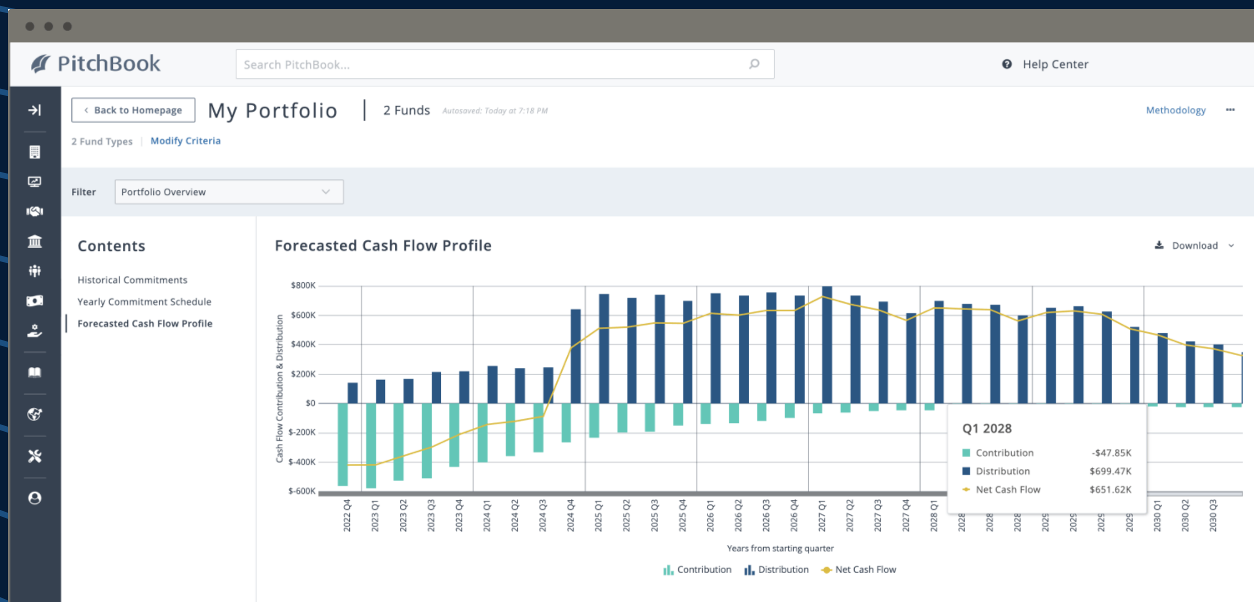
Pooled calculations: Pooled calculations combine cashflow data from a group of funds to create a capital-weighted IRR value. All cash flows and NAVs for each fund in the sample group (e.g. all private capital funds, 2004 vintage VC funds, etc.) are aggregated in the calculation. For vintage-specific 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. [PitchBook News & Analysis]() also contains several articles with PME benchmarks and analysis. All PME figures are calculated using the Kaplan-Schoar PME method: When using a KS-PME, a value greater than 1.0 implies outperformance of the fund over the public index (net of all fees).

$$PME_{KS\text{—}TVPI,\,T} = \frac{\frac{NAV_T}{I_T} + \sum_{t=0}^{T}\left(\frac{\text{distribution}_t}{I_t}\right)}{\sum_{t=0}^{T}\left(\frac{\text{contribution}_t}{I_t}\right)}$$

Gain confidence in your cash flow projections with Portfolio Forecasting



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

Developed and tested by PitchBook's Institutional Research Group, our proprietary, probabilistic cash flow models are built from our robust historical fund data.

With these models, you can confidently forecast the cash flows of private market funds and develop a commitment schedule to achieve your target allocations.

Learn more about Portfolio Forecasting

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Horizon IRRs

Strategy	Q1 2023*	Q4 2022	1-year	3-year	5-year	10-year	15-year	20-year
Global VC	0.21%	-5.51%	-16.84%	21.63%	19.72%	16.09%	11.20%	10.44%
North America VC	0.37%	-6.03%	-17.53%	22.70%	20.51%	16.36%	11.23%	10.52%
Europe VC	-1.29%	0.07%	-6.13%	19.71%	15.66%	12.87%	9.87%	8.21%
Rest of world VC	-0.64%	-2.01%	-14.59%	12.62%	13.35%	13.63%	12.04%	11.93%
VC < $250M	4.27%	-11.21%	-14.60%	30.68%	22.45%	15.96%	11.55%	10.16%
VC $250M+	-0.71%	-4.97%	-17.18%	20.16%	19.20%	16.12%	11.14%	10.50%
S&P 500	7.50%	7.56%	-18.11%	7.66%	9.42%	12.56%	8.81%	9.80%
MSCI World Small Cap Growth	6.89%	8.88%	-25.63%	2.01%	4.13%	9.05%	6.71%	10.46%
Morningstar US Small Cap Growth	10.20%	1.75%	-33.31%	-1.78%	2.66%	8.42%	6.76%	9.35%
MSCI Europe Small Cap Growth	8.84%	18.97%	-33.44%	-1.33%	0.53%	7.31%	4.70%	10.56%
MSCI Emerging Market Small Cap Growth	6.15%	6.86%	-22.93%	5.47%	1.12%	2.87%	1.18%	8.45%

*For private fund strategies these are prelimnary quarterly returns.
Source: PitchBook | Geography: Global | Data as of December 31, 2022
Note: all public index values are total return CAGRs

Venture capital

Equal-weighted horizon IRRs

Strategy	Q1 2023*	Q4 2022	1-year	3-year	5-year	10-year	15-year	20-year
Global VC	1.83%	-5.94%	-14.19%	23.92%	20.63%	15.53%	10.85%	9.74%
North America VC	0.92%	-6.35%	-15.80%	25.56%	21.93%	16.03%	11.07%	9.90%
Europe VC	8.09%	-4.34%	-3.26%	22.62%	16.09%	12.18%	9.19%	8.10%
Rest of world VC	-0.69%	-3.44%	-8.32%	8.04%	9.90%	10.99%	8.75%	8.65%
VC < $250M	5.52%	-7.91%	-12.48%	26.94%	21.31%	14.91%	10.73%	9.40%
VC $250M+	-1.68%	-4.93%	-15.58%	21.39%	20.00%	16.12%	10.97%	10.05%
S&P 500	7.50%	7.56%	-18.11%	7.66%	9.42%	12.56%	8.81%	9.80%
MSCI World Small Cap Growth	6.89%	8.88%	-25.63%	2.01%	4.13%	9.05%	6.71%	10.46%
Morningstar US Small Cap Growth	10.20%	1.75%	-33.31%	-1.78%	2.66%	8.42%	6.76%	9.35%
MSCI Europe Small Cap Growth	8.84%	18.97%	-33.44%	-1.33%	0.53%	7.31%	4.70%	10.56%
MSCI Emerging Market Small Cap Growth	6.15%	6.86%	-22.93%	5.47%	1.12%	2.87%	1.18%	8.45%

*For private fund strategies these are prelimnary quarterly returns
Source: PitchBook | Geography: Global | Data as of December 31, 2022
Note: all public index values are total return CAGRs

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One-year horizon IRRs

Select strategies

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*	15-year horizon IRR
Oil & gas 2.2%	Private debt 19.8%	Secondaries 21.5%	Oil & gas 19.6%	Secondaries 15.3%	Venture capital 21.6%	Venture capital 20.5%	Infrastructure 13.5%	Oil & gas 20.3%	Buyout 19.7%	Growth/expansion 19.0%	Growth/expansion 19.2%	Growth/expansion 36.6%	Venture capital 58.8%	Oil & gas 32.3%	Growth/expansion 14.7%
Secondaries -9.0%	Growth/expansion 9.0%	Growth/expansion 20.0%	Secondaries 14.2%	Buyout 14.6%	Real estate 18.8%	Infrastructure 15.2%	Growth/expansion 13.4%	Buyout 12.5%	Growth/expansion 18.2%	Venture capital 17.5%	Venture capital 16.8%	Venture capital 36.4%	Growth/expansion 49.7%	Infrastructure 10.8%	Secondaries 11.9%
Infrastructure -9.2%	Buyout 8.5%	Private debt 18.8%	Venture capital 10.9%	Private debt 14.0%	Buyout 18.1%	Real estate 13.0%	Buyout 13.0%	Private capital 10.2%	Secondaries 16.0%	Funds of funds 16.3%	Buyout 16.0%	Funds of funds 23.5%	Secondaries 46.7%	Real estate 7.7%	Buyout 11.5%
Venture capital -12.0%	Oil & gas 5.1%	Buyout 17.6%	Real estate 9.0%	Private capital 12.6%	Growth/expansion 16.1%	Growth/expansion 13.0%	Venture capital 12.5%	Growth/expansion 10.1%	Private capital 15.1%	Secondaries 14.2%	Private capital 11.7%	Buyout 20.8%	Funds of funds 46.7%	Private debt 4.0%	Venture capital 11.2%
Funds of funds -12.4%	Private capital 2.4%	Oil & gas 17.1%	Private capital 8.1%	Growth/expansion 12.5%	Private capital 15.9%	Buyout 12.6%	Funds of funds 12.2%	Real estate 9.0%	Real estate 13.3%	Infrastructure 12.6%	Funds of funds 11.5%	Private capital 15.5%	Buyout 44.7%	Secondaries 2.8%	Private capital 10.3%
Growth/expansion -14.7%	Funds of funds 0.5%	Private capital 15.8%	Buyout 8.1%	Real estate 11.2%	Funds of funds 11.6%	Funds of funds 12.5%	Real estate 11.4%	Infrastructure 8.8%	Funds of funds 12.5%	Buyout 10.6%	Secondaries 9.8%	Secondaries 12.5%	Oil & gas 44.3%	Private capital 0.7%	Funds of funds 10.2%
Private capital -20.9%	Venture capital -0.2%	Venture capital 11.7%	Growth/expansion 7.8%	Funds of funds 8.0%	Private debt 11.6%	Private capital 12.5%	Secondaries 10.3%	Private debt 8.6%	Private debt 10.6%	Private capital 10.5%	Private debt 8.7%	Infrastructure 8.8%	Private capital 38.3%	Buyout -0.4%	Infrastructure 8.7%
Buyout -22.5%	Infrastructure -4.2%	Real estate 11.2%	Infrastructure 7.4%	Venture capital 7.4%	Secondaries 10.2%	Secondaries 12.4%	Private capital 10.2%	Funds of funds 7.8%	Venture capital 10.0%	Real estate 7.4%	Real estate 7.9%	Real estate 4.0%	Real estate 27.8%	Funds of funds -3.6%	Private debt 7.8%
Private debt -26.5%	Secondaries -9.3%	Infrastructure 7.1%	Funds of funds 7.0%	Infrastructure 7.1%	Oil & gas 7.0%	Private debt 11.0%	Private debt 4.9%	Secondaries 7.2%	Oil & gas 9.7%	Private debt 4.8%	Infrastructure 6.7%	Private debt 3.2%	Private debt 16.2%	Growth/expansion -6.5%	Real estate 6.8%
Real estate -28.0%	Real estate -35.5%	Funds of funds 5.3%	Private debt 3.3%	Oil & gas 7.0%	Infrastructure 3.5%	Oil & gas -2.7%	Oil & gas -22.2%	Venture capital 0.0%	Infrastructure 7.1%	Oil & gas 3.2%	Oil & gas -11.9%	Oil & gas -20.8%	Infrastructure 15.2%	Venture capital -16.8%	Oil & gas 6.0%

Source: PitchBook | Geography: Global | Data as of December 31, 2022

Global VC

PitchBook

Global VC

IRRs by vintage

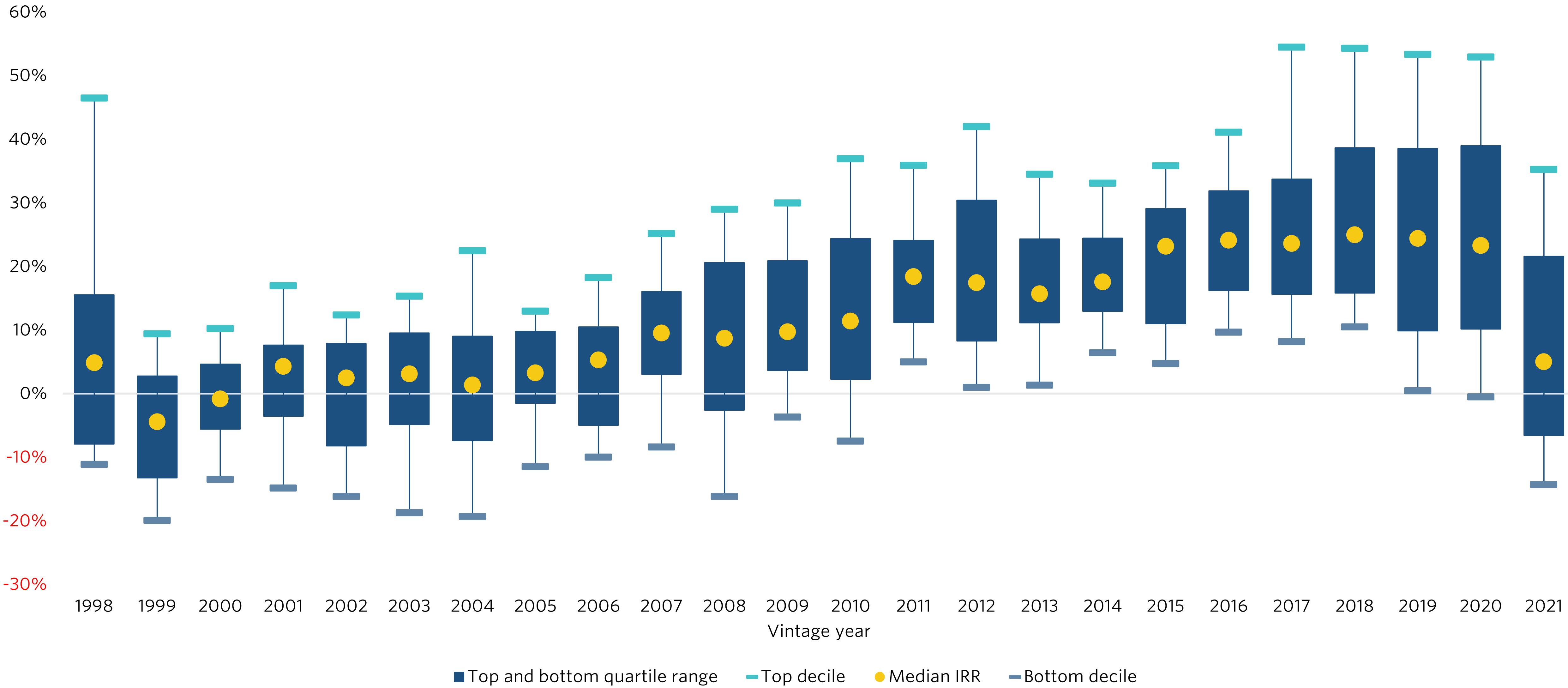
	Pooled IRRs			IRR quantiles						
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1998	7.40%	5.62%	20	46.49%	15.56%	4.89%	-7.90%	-11.09%	32.71%	48
1999	-2.24%	-3.41%	37	9.41%	2.79%	-4.40%	-13.22%	-19.90%	13.47%	72
2000	-0.55%	-1.84%	63	10.25%	4.66%	-0.80%	-5.54%	-13.46%	10.91%	118
2001	4.88%	3.34%	35	17.00%	7.63%	4.30%	-3.50%	-14.83%	19.09%	71
2002	1.96%	1.45%	19	12.38%	7.91%	2.50%	-8.19%	-16.16%	11.80%	43
2003	5.62%	1.54%	21	15.33%	9.54%	3.14%	-4.82%	-18.69%	35.79%	38
2004	4.62%	8.12%	22	22.50%	9.05%	1.38%	-7.36%	-19.32%	18.33%	42
2005	7.43%	7.25%	30	12.98%	9.80%	3.30%	-1.47%	-11.46%	17.13%	59
2006	5.52%	3.80%	44	18.27%	10.52%	5.31%	-4.95%	-9.96%	13.93%	79
2007	13.17%	12.52%	46	25.20%	16.08%	9.55%	3.07%	-8.38%	13.44%	85
2008	15.77%	10.38%	48	29.00%	20.63%	8.74%	-2.55%	-16.16%	22.54%	72
2009	12.40%	10.16%	22	30.00%	20.90%	9.74%	3.66%	-3.66%	15.84%	35
2010	14.50%	15.97%	24	36.95%	24.40%	11.43%	2.30%	-7.45%	18.86%	46
2011	21.23%	22.46%	21	35.90%	24.10%	18.44%	11.19%	5.01%	18.25%	56
2012	17.67%	19.28%	20	42.00%	30.42%	17.47%	8.30%	1.00%	16.69%	41
2013	18.53%	14.81%	23	34.51%	24.34%	15.71%	11.18%	1.34%	15.79%	46
2014	20.50%	19.64%	35	33.10%	24.45%	17.59%	13.00%	6.45%	12.18%	52
2015	18.59%	19.66%	32	35.83%	29.11%	23.20%	11.04%	4.76%	12.13%	52
2016	25.49%	27.70%	43	41.10%	31.89%	24.15%	16.25%	9.69%	24.63%	71
2017	23.94%	25.88%	32	54.50%	33.75%	23.62%	15.65%	8.20%	26.39%	51
2018	26.02%	24.93%	36	54.30%	38.67%	25.00%	15.84%	10.50%	24.63%	71
2019	24.14%	26.87%	43	53.36%	38.55%	24.44%	9.92%	0.47%	27.13%	79
2020	20.45%	24.08%	52	52.92%	38.97%	23.31%	10.20%	-0.48%	36.03%	85
2021	10.42%	12.67%	57	35.25%	21.59%	5.03%	-6.53%	-14.27%	29.59%	90

Source: PitchBook | Geography: Global | Data as of December 31, 2022

![PitchBook]

Global VC

IRRs by vintage



Source: PitchBook | Geography: Global | Data as of December 31, 2022

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Global VC

PMEs by vintage

	S&P 500			MSCI World Small Cap Growth			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1998	7.40%	7.48%	1.19	7.40%	7.55%	0.99	20
1999	-2.24%	6.80%	0.77	-2.24%	7.87%	0.64	37
2000	-0.55%	6.49%	0.71	-0.55%	5.96%	0.55	63
2001	4.88%	7.28%	0.91	4.88%	7.78%	0.74	35
2002	1.96%	8.18%	0.79	1.96%	8.95%	0.66	19
2003	5.62%	10.03%	0.93	5.62%	10.65%	0.84	21
2004	4.62%	8.89%	0.84	4.62%	8.43%	0.80	22
2005	7.43%	8.99%	0.93	7.43%	8.04%	0.91	30
2006	5.52%	8.95%	0.77	5.52%	7.17%	0.79	44
2007	13.17%	8.69%	1.10	13.17%	6.75%	1.16	46
2008	15.77%	9.56%	1.12	15.77%	7.47%	1.21	48
2009	12.40%	14.28%	0.93	12.40%	12.63%	1.07	22
2010	14.50%	12.33%	1.04	14.50%	9.52%	1.20	24
2011	21.23%	11.84%	1.48	21.23%	7.89%	1.70	21
2012	17.67%	12.42%	1.33	17.67%	8.88%	1.58	20
2013	18.53%	12.18%	1.34	18.53%	8.54%	1.56	23
2014	20.50%	10.93%	1.49	20.50%	6.48%	1.75	35
2015	18.59%	10.44%	1.30	18.59%	7.04%	1.53	32
2016	25.49%	12.66%	1.58	25.49%	9.25%	1.89	43
2017	23.94%	11.14%	1.46	23.94%	7.23%	1.74	32
2018	26.02%	9.39%	1.49	26.02%	3.63%	1.78	36
2019	24.14%	11.58%	1.37	24.14%	5.71%	1.62	43
2020	20.45%	10.54%	1.30	20.45%	4.85%	1.53	52
2021	10.42%	1.31%	1.18	10.42%	-14.12%	1.34	57

Source: PitchBook | Geography: Global | Data as of December 31, 2022

Global VC

Multiples by vintage

	Pooled multiples			Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1998	1.31x	1.30x	0.01x	1.23x	1.22x	0.01x	20
1999	0.86x	0.82x	0.04x	0.80x	0.79x	0.01x	37
2000	0.96x	0.95x	0.02x	0.88x	0.87x	0.01x	63
2001	1.38x	1.34x	0.04x	1.26x	1.21x	0.05x	35
2002	1.13x	1.11x	0.02x	1.10x	0.98x	0.12x	19
2003	1.40x	1.37x	0.03x	1.09x	1.08x	0.02x	21
2004	1.39x	1.30x	0.08x	1.79x	1.53x	0.26x	22
2005	1.69x	1.54x	0.15x	1.72x	1.53x	0.19x	30
2006	1.43x	1.28x	0.16x	1.31x	1.16x	0.15x	44
2007	2.13x	1.85x	0.27x	2.13x	1.76x	0.38x	46
2008	2.31x	2.05x	0.25x	1.87x	1.53x	0.34x	48
2009	2.21x	1.61x	0.60x	2.00x	1.17x	0.83x	22
2010	2.11x	1.55x	0.56x	2.28x	1.67x	0.62x	24
2011	3.32x	2.46x	0.87x	3.68x	2.75x	0.94x	21
2012	2.79x	1.50x	1.29x	3.18x	1.76x	1.42x	20
2013	2.37x	1.24x	1.13x	2.11x	0.97x	1.13x	23
2014	2.80x	1.27x	1.54x	2.80x	1.27x	1.52x	35
2015	2.15x	0.74x	1.41x	2.24x	0.69x	1.55x	32
2016	2.39x	0.65x	1.74x	2.50x	0.75x	1.74x	43
2017	2.06x	0.49x	1.57x	2.22x	0.50x	1.72x	32
2018	1.85x	0.21x	1.64x	1.96x	0.29x	1.67x	36
2019	1.55x	0.10x	1.46x	1.58x	0.11x	1.47x	43
2020	1.30x	0.03x	1.27x	1.38x	0.04x	1.33x	52
2021	1.11x	0.01x	1.10x	1.14x	0.01x	1.13x	57

Source: PitchBook | Geography: Global | Data as of December 31, 2022

PitchBook

Global VC

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
1998	1.80x	1.66x	1.31x	0.68x	0.46x	1.80x	1.66x	1.31x	0.68x	0.46x	20
1999	1.46x	1.04x	0.73x	0.40x	0.21x	1.41x	1.04x	0.73x	0.40x	0.21x	37
2000	1.43x	1.14x	0.92x	0.57x	0.28x	1.43x	1.13x	0.91x	0.56x	0.23x	63
2001	2.01x	1.64x	1.26x	0.83x	0.42x	1.86x	1.60x	1.26x	0.75x	0.41x	35
2002	1.75x	1.48x	1.18x	0.66x	0.36x	1.63x	1.48x	1.05x	0.52x	0.26x	19
2003	1.65x	1.44x	1.14x	0.54x	0.40x	1.65x	1.42x	1.14x	0.54x	0.40x	21
2004	3.11x	1.79x	1.03x	0.59x	0.42x	1.87x	1.27x	1.01x	0.58x	0.38x	22
2005	2.62x	1.96x	1.31x	1.02x	0.56x	2.26x	1.73x	1.28x	0.98x	0.53x	30
2006	2.22x	1.75x	1.31x	0.67x	0.41x	2.19x	1.53x	1.12x	0.59x	0.30x	44
2007	2.84x	2.60x	1.76x	1.07x	0.63x	2.67x	2.21x	1.68x	0.84x	0.41x	46
2008	4.20x	2.49x	1.48x	0.62x	0.22x	3.37x	2.15x	1.11x	0.34x	0.19x	48
2009	2.91x	2.50x	1.78x	0.99x	0.77x	2.43x	1.54x	0.93x	0.52x	0.40x	22
2010	3.59x	2.86x	1.71x	1.29x	0.78x	2.98x	1.78x	1.25x	0.72x	0.49x	24
2011	4.40x	3.42x	2.10x	1.74x	1.33x	3.39x	2.81x	1.43x	1.15x	0.49x	21
2012	3.92x	2.77x	2.10x	1.33x	0.97x	2.53x	1.98x	1.18x	0.50x	0.29x	20
2013	3.58x	2.54x	2.32x	1.40x	0.45x	1.83x	1.19x	0.99x	0.42x	0.21x	23
2014	5.14x	3.31x	2.30x	1.97x	1.51x	2.11x	1.66x	1.18x	0.60x	0.19x	35
2015	3.55x	2.83x	2.01x	1.31x	1.20x	1.49x	0.98x	0.41x	0.22x	0.05x	32
2016	4.00x	3.04x	2.16x	1.75x	1.37x	1.71x	0.99x	0.49x	0.14x	0.08x	43
2017	3.16x	2.39x	1.94x	1.70x	1.43x	1.23x	0.77x	0.27x	0.07x	0.00x	32
2018	2.93x	2.32x	1.64x	1.39x	1.17x	1.03x	0.35x	0.04x	0.00x	0.00x	36
2019	2.01x	1.70x	1.41x	1.22x	1.03x	0.24x	0.05x	0.00x	0.00x	0.00x	43
2020	1.75x	1.52x	1.31x	1.07x	0.98x	0.12x	0.02x	0.00x	0.00x	0.00x	52
2021	1.28x	1.13x	1.03x	0.91x	0.83x	0.00x	0.00x	0.00x	0.00x	0.00x	57

Source: PitchBook | Geography: Global | Data as of December 31, 2022

PitchBook

Global VC

Quarterly return

Quarter end	1-quarter return
Q1 2001	-11.48%
Q2 2001	-8.71%
Q3 2001	-14.41%
Q4 2001	-11.14%
Q1 2002	-7.07%
Q2 2002	-12.48%
Q3 2002	-7.76%
Q4 2002	-13.43%
Q1 2003	-5.69%
Q2 2003	-1.81%
Q3 2003	-2.28%
Q4 2003	2.83%
Q1 2004	0.19%
Q2 2004	0.80%
Q3 2004	-0.75%
Q4 2004	3.14%
Q1 2005	-1.88%
Q2 2005	0.63%
Q3 2005	4.74%
Q4 2005	2.53%
Q1 2006	2.94%
Q2 2006	1.12%
Q3 2006	1.61%
Q4 2006	7.59%

Quarter end	1-quarter return
Q1 2007	2.15%
Q2 2007	5.72%
Q3 2007	2.07%
Q4 2007	3.71%
Q1 2008	2.58%
Q2 2008	-2.18%
Q3 2008	-2.94%
Q4 2008	-9.30%
Q1 2009	-3.92%
Q2 2009	-0.03%
Q3 2009	1.06%
Q4 2009	2.99%
Q1 2010	1.26%
Q2 2010	-0.23%
Q3 2010	4.24%
Q4 2010	6.86%
Q1 2011	4.72%
Q2 2011	4.42%
Q3 2011	-0.03%
Q4 2011	1.72%
Q1 2012	4.17%
Q2 2012	1.49%
Q3 2012	-0.17%
Q4 2012	2.05%

Quarter end	1-quarter return
Q1 2013	2.17%
Q2 2013	4.75%
Q3 2013	5.69%
Q4 2013	8.89%
Q1 2014	5.31%
Q2 2014	4.11%
Q3 2014	2.70%
Q4 2014	7.37%
Q1 2015	4.47%
Q2 2015	6.82%
Q3 2015	-0.74%
Q4 2015	2.30%
Q1 2016	-3.58%
Q2 2016	0.43%
Q3 2016	-0.02%
Q4 2016	3.47%
Q1 2017	2.39%
Q2 2017	2.15%
Q3 2017	4.03%
Q4 2017	1.71%
Q1 2018	6.77%
Q2 2018	5.45%
Q3 2018	3.76%
Q4 2018	1.05%

Quarter end	1-quarter return
Q1 2019	6.69%
Q2 2019	2.42%
Q3 2019	1.53%
Q4 2019	5.46%
Q1 2020	-1.96%
Q2 2020	9.05%
Q3 2020	11.59%
Q4 2020	15.48%
Q1 2021	21.89%
Q2 2021	13.54%
Q3 2021	8.18%
Q4 2021	6.31%
Q1 2022	-4.15%
Q2 2022	-9.19%
Q3 2022	-2.49%
Q4 2022	-5.51%
Q1 2023*	0.21%

*Preliminary figure

Source: PitchBook | Geography: Global

North America VC

North America VC

IRRs by vintage

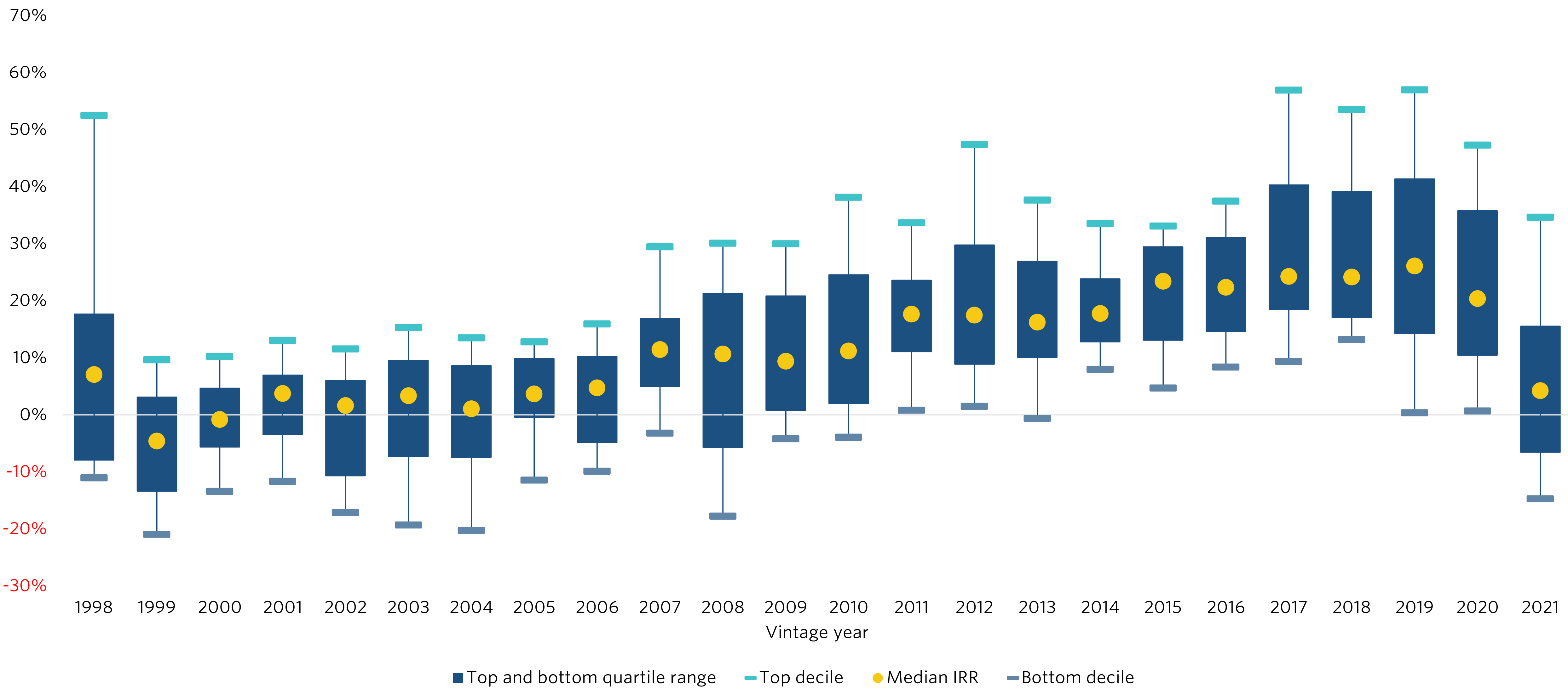
19.42%

				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
1998	7.40%	5.62%	20	52.46%	17.66%	7.07%	-7.92%	-11.06%	34.44%	42
1999	-2.24%	-3.41%	37	9.64%	3.09%	-4.60%	-13.35%	-20.93%	13.81%	67
2000	-1.07%	-2.42%	56	10.23%	4.65%	-0.80%	-5.60%	-13.44%	10.89%	99
2001	4.92%	3.15%	33	13.06%	6.97%	3.76%	-3.45%	-11.67%	17.26%	56
2002	1.83%	1.59%	17	11.53%	6.01%	1.64%	-10.65%	-17.17%	12.01%	34
2003	6.11%	1.88%	19	15.28%	9.54%	3.35%	-7.28%	-19.33%	37.78%	34
2004	4.98%	8.93%	20	13.48%	8.60%	1.06%	-7.40%	-20.28%	17.90%	37
2005	7.51%	7.38%	29	12.79%	9.84%	3.66%	-0.40%	-11.43%	18.09%	50
2006	5.57%	4.05%	42	15.92%	10.24%	4.74%	-4.83%	-9.91%	13.69%	64
2007	13.64%	13.48%	41	29.45%	16.85%	11.43%	4.99%	-3.20%	13.57%	62
2008	17.49%	11.76%	37	30.08%	21.27%	10.67%	-5.69%	-17.75%	24.52%	57
2009	12.53%	10.58%	21	29.99%	20.85%	9.40%	0.80%	-4.21%	17.03%	28
2010	15.15%	16.80%	22	38.12%	24.55%	11.20%	2.00%	-3.94%	19.42%	33
2011	21.79%	22.91%	19	33.65%	23.60%	17.66%	11.09%	0.82%	15.59%	38
2012	18.02%	20.43%	16	47.40%	29.77%	17.47%	8.90%	1.48%	16.55%	29
2013	18.64%	15.34%	22	37.66%	26.90%	16.23%	10.10%	-0.65%	17.72%	33
2014	20.64%	19.77%	31	33.53%	23.84%	17.77%	12.83%	7.98%	12.03%	39
2015	19.88%	21.11%	26	33.10%	29.45%	23.40%	13.10%	4.70%	11.21%	41
2016	24.84%	26.29%	38	37.47%	31.11%	22.35%	14.65%	8.36%	12.62%	54
2017	25.07%	28.18%	24	56.93%	40.30%	24.25%	18.53%	9.35%	28.15%	36
2018	26.70%	25.61%	27	53.55%	39.11%	24.16%	17.05%	13.21%	25.27%	51
2019	27.40%	32.54%	30	56.96%	41.33%	26.09%	14.26%	0.34%	29.77%	54
2020	19.18%	23.53%	40	47.30%	35.75%	20.38%	10.47%	0.65%	23.47%	58
2021	10.38%	17.00%	43	34.64%	15.53%	4.24%	-6.53%	-14.73%	24.09%	70

Source: PitchBook | Geography: North America | Data as of December 31, 2022

North America VC

IRRs by vintage



Source: PitchBook | Geography: North America | Data as of December 31, 2022

North America VC

PMEs by vintage

	S&P 500			Morningstar US Small Cap Growth			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1998	7.40%	7.48%	1.19	7.40%	5.63%	1.08	20
1999	-2.24%	6.80%	0.77	-2.24%	6.43%	0.77	37
2000	-1.07%	6.49%	0.69	-1.07%	4.11%	0.65	56
2001	4.92%	7.28%	0.91	4.92%	5.80%	0.84	33
2002	1.83%	8.18%	0.78	1.83%	7.01%	0.72	17
2003	6.11%	10.03%	0.96	6.11%	9.65%	0.90	19
2004	4.98%	8.89%	0.85	4.98%	7.33%	0.80	20
2005	7.51%	8.99%	0.94	7.51%	7.61%	0.90	29
2006	5.57%	8.95%	0.77	5.57%	6.90%	0.74	42
2007	13.64%	8.69%	1.12	13.64%	7.11%	1.11	41
2008	17.49%	9.56%	1.19	17.49%	7.92%	1.20	37
2009	12.53%	14.28%	0.94	12.53%	12.38%	1.02	21
2010	15.15%	12.33%	1.08	15.15%	9.86%	1.20	22
2011	21.79%	11.84%	1.53	21.79%	8.03%	1.71	19
2012	18.02%	12.42%	1.35	18.02%	8.48%	1.62	16
2013	18.64%	12.18%	1.35	18.64%	8.02%	1.60	22
2014	20.64%	10.93%	1.50	20.64%	5.63%	1.82	31
2015	19.88%	10.44%	1.34	19.88%	5.62%	1.66	26
2016	24.84%	12.66%	1.55	24.84%	8.67%	1.99	38
2017	25.07%	11.14%	1.50	25.07%	5.74%	1.93	24
2018	26.70%	9.39%	1.52	26.70%	2.47%	2.05	27
2019	27.40%	11.58%	1.44	27.40%	1.95%	1.91	30
2020	19.18%	10.54%	1.28	19.18%	0.70%	1.68	40
2021	10.38%	1.31%	1.18	10.38%	-22.74%	1.42	43

Source: PitchBook | Geography: North America | Data as of December 31, 2022

PitchBook

North America VC

Multiples by vintage

	Pooled multiples			Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1998	1.31x	1.30x	0.01x	1.23x	1.22x	0.01x	20
1999	0.86x	0.82x	0.04x	0.80x	0.79x	0.01x	37
2000	0.93x	0.91x	0.02x	0.84x	0.83x	0.01x	56
2001	1.38x	1.34x	0.04x	1.24x	1.20x	0.04x	33
2002	1.12x	1.10x	0.02x	1.11x	0.98x	0.13x	17
2003	1.43x	1.40x	0.03x	1.11x	1.10x	0.02x	19
2004	1.42x	1.33x	0.09x	1.90x	1.61x	0.29x	20
2005	1.69x	1.54x	0.15x	1.73x	1.54x	0.19x	29
2006	1.44x	1.28x	0.16x	1.33x	1.18x	0.15x	42
2007	2.18x	1.91x	0.27x	2.24x	1.84x	0.40x	41
2008	2.41x	2.22x	0.19x	1.97x	1.69x	0.27x	37
2009	2.23x	1.63x	0.60x	2.06x	1.21x	0.85x	21
2010	2.18x	1.60x	0.57x	2.38x	1.74x	0.64x	22
2011	3.49x	2.60x	0.89x	3.87x	2.91x	0.96x	19
2012	2.84x	1.54x	1.30x	3.45x	1.94x	1.52x	16
2013	2.38x	1.25x	1.14x	2.17x	1.01x	1.16x	22
2014	2.82x	1.27x	1.55x	2.87x	1.36x	1.51x	31
2015	2.22x	0.85x	1.37x	2.35x	0.74x	1.61x	26
2016	2.35x	0.63x	1.73x	2.40x	0.71x	1.69x	38
2017	2.10x	0.49x	1.61x	2.38x	0.55x	1.82x	24
2018	1.88x	0.21x	1.68x	2.01x	0.31x	1.70x	27
2019	1.62x	0.12x	1.51x	1.69x	0.16x	1.53x	30
2020	1.28x	0.03x	1.24x	1.35x	0.05x	1.30x	40
2021	1.10x	0.01x	1.10x	1.20x	0.01x	1.19x	43

Source: PitchBook | Geography: North America | Data as of December 31, 2022

PitchBook

North America VC

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
1998	1.80x	1.66x	1.31x	0.68x	0.46x	1.80x	1.66x	1.31x	0.68x	0.46x	20
1999	1.46x	1.04x	0.73x	0.40x	0.21x	1.41x	1.04x	0.73x	0.40x	0.21x	37
2000	1.43x	1.13x	0.86x	0.53x	0.24x	1.43x	1.13x	0.86x	0.52x	0.22x	56
2001	2.05x	1.62x	1.25x	0.79x	0.37x	1.87x	1.62x	1.25x	0.73x	0.35x	33
2002	1.75x	1.50x	1.18x	0.68x	0.34x	1.66x	1.49x	1.05x	0.49x	0.26x	17
2003	1.71x	1.45x	1.18x	0.50x	0.39x	1.71x	1.43x	1.18x	0.50x	0.39x	19
2004	3.41x	1.85x	1.10x	0.68x	0.41x	1.99x	1.36x	1.02x	0.66x	0.38x	20
2005	2.66x	2.01x	1.30x	1.02x	0.54x	2.26x	1.76x	1.28x	0.98x	0.51x	29
2006	2.22x	1.79x	1.36x	0.67x	0.40x	2.20x	1.54x	1.19x	0.62x	0.29x	42
2007	2.84x	2.64x	1.80x	1.33x	0.77x	2.69x	2.28x	1.69x	1.01x	0.45x	41
2008	4.23x	2.57x	1.57x	0.60x	0.23x	4.03x	2.39x	1.38x	0.32x	0.19x	37
2009	2.94x	2.51x	1.80x	1.22x	0.86x	2.43x	1.55x	0.97x	0.55x	0.49x	21
2010	3.66x	3.03x	1.71x	1.32x	0.84x	2.99x	1.83x	1.25x	0.76x	0.54x	22
2011	5.05x	3.75x	2.24x	1.74x	1.23x	3.46x	2.83x	1.64x	1.25x	0.42x	19
2012	5.09x	2.85x	2.18x	1.46x	1.12x	2.92x	1.98x	1.33x	0.98x	0.46x	16
2013	3.68x	2.54x	2.35x	1.46x	0.43x	1.87x	1.21x	1.02x	0.48x	0.27x	22
2014	5.34x	3.34x	2.29x	1.97x	1.60x	2.22x	1.76x	1.18x	0.65x	0.28x	31
2015	3.60x	3.16x	2.10x	1.39x	1.17x	1.66x	0.99x	0.43x	0.22x	0.04x	26
2016	3.71x	2.84x	2.12x	1.72x	1.26x	1.60x	0.97x	0.55x	0.14x	0.09x	38
2017	4.15x	2.63x	2.01x	1.74x	1.52x	1.33x	0.85x	0.44x	0.12x	0.06x	24
2018	2.93x	2.46x	2.01x	1.49x	1.28x	1.08x	0.43x	0.04x	0.01x	0.00x	27
2019	2.18x	1.85x	1.40x	1.23x	1.02x	0.32x	0.09x	0.00x	0.00x	0.00x	30
2020	1.68x	1.49x	1.23x	1.05x	0.97x	0.14x	0.00x	0.00x	0.00x	0.00x	40
2021	1.36x	1.14x	1.05x	0.92x	0.83x	0.00x	0.00x	0.00x	0.00x	0.00x	43

Source: PitchBook | Geography: North America | Data as of December 31, 2022

PitchBook

North America VC

Quarterly return

Quarter end	1-quarter return
Q1 2001	-12.00%
Q2 2001	-9.24%
Q3 2001	-14.77%
Q4 2001	-11.62%
Q1 2002	-7.59%
Q2 2002	-13.41%
Q3 2002	-8.21%
Q4 2002	-14.17%
Q1 2003	-6.17%
Q2 2003	-1.40%
Q3 2003	-2.35%
Q4 2003	2.75%
Q1 2004	0.42%
Q2 2004	0.86%
Q3 2004	-0.92%
Q4 2004	3.20%
Q1 2005	-1.76%
Q2 2005	0.65%
Q3 2005	5.24%
Q4 2005	2.62%
Q1 2006	2.80%
Q2 2006	1.00%
Q3 2006	1.64%
Q4 2006	7.75%
Q1 2007	2.09%
Q2 2007	5.66%
Q3 2007	2.16%
Q4 2007	3.92%
Q1 2008	2.55%
Q2 2008	-2.24%
Q3 2008	-2.59%
Q4 2008	-9.29%
Q1 2009	-4.11%
Q2 2009	-0.07%
Q3 2009	1.10%
Q4 2009	3.02%
Q1 2010	1.53%
Q2 2010	-0.13%
Q3 2010	4.15%
Q4 2010	6.72%
Q1 2011	4.74%
Q2 2011	4.45%
Q3 2011	-0.11%
Q4 2011	1.72%
Q1 2012	4.31%
Q2 2012	1.35%
Q3 2012	-0.36%
Q4 2012	2.26%
Q1 2013	2.15%
Q2 2013	4.79%
Q3 2013	5.92%
Q4 2013	9.17%
Q1 2014	5.32%
Q2 2014	4.20%
Q3 2014	2.65%
Q4 2014	7.69%
Q1 2015	4.61%
Q2 2015	6.50%
Q3 2015	-0.96%
Q4 2015	2.60%
Q1 2016	-3.73%
Q2 2016	0.38%
Q3 2016	-0.26%
Q4 2016	3.68%
Q1 2017	2.68%
Q2 2017	2.10%
Q3 2017	3.76%
Q4 2017	1.65%
Q1 2018	6.83%
Q2 2018	5.51%
Q3 2018	4.26%
Q4 2018	1.47%
Q1 2019	6.83%
Q2 2019	2.31%
Q3 2019	0.97%
Q4 2019	5.68%
Q1 2020	-1.85%
Q2 2020	8.92%
Q3 2020	12.67%
Q4 2020	15.18%
Q1 2021	23.32%
Q2 2021	14.13%
Q3 2021	7.98%
Q4 2021	6.36%
Q1 2022	-4.30%
Q2 2022	-9.71%
Q3 2022	-2.28%
Q4 2022	-6.03%
Q1 2023*	0.37%

*Preliminary figure

Source: PitchBook | Geography: North America

Europe VC

Europe VC

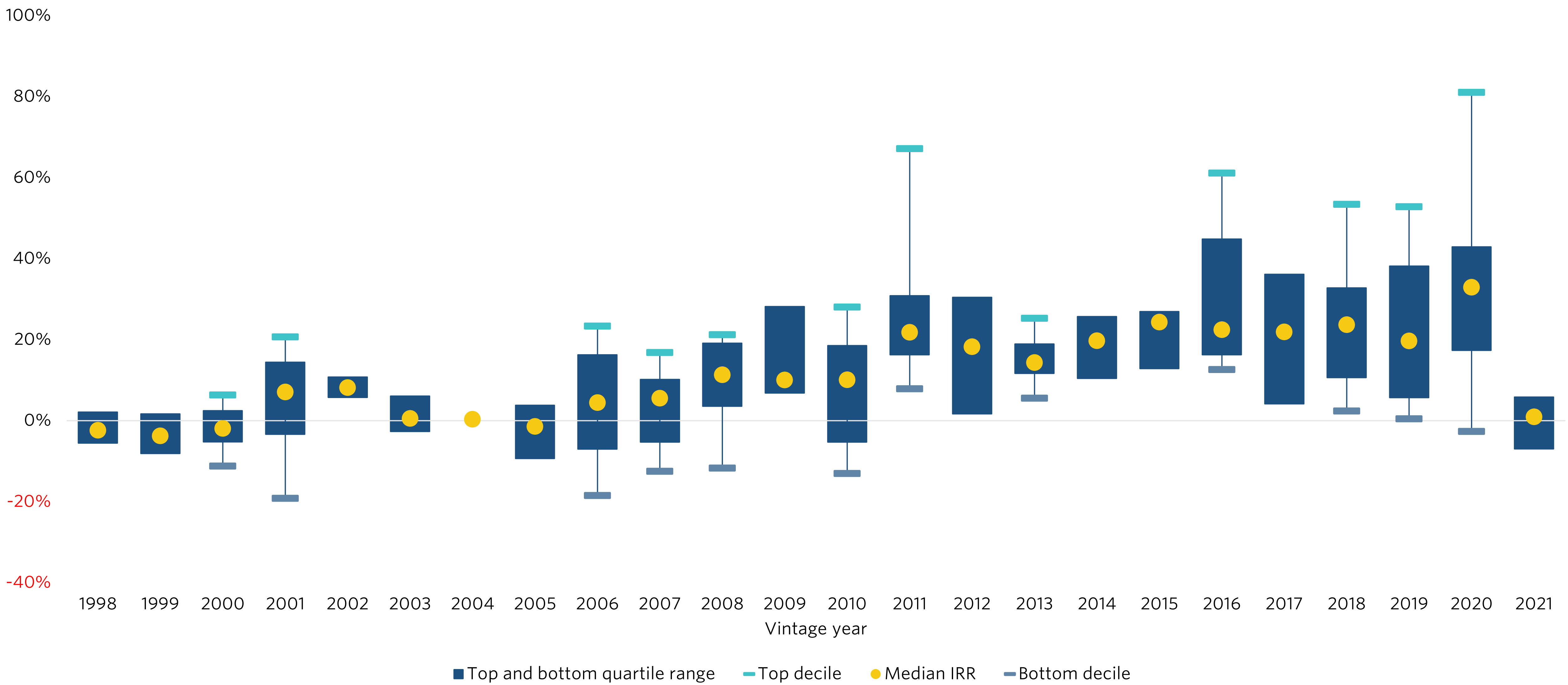
IRRs by vintage

	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
1998					2.08%	-2.41%	-5.57%		7.12%	6
1999					1.65%	-3.80%	-8.16%		8.88%	4
2000	3.17%	1.71%	7	6.31%	2.43%	-1.95%	-5.26%	-11.25%	10.97%	16
2001	4.08%	5.59%	2	20.62%	14.40%	7.06%	-3.38%	-19.22%	25.10%	15
2002	6.36%	6.36%	1		10.73%	8.15%	5.73%		8.68%	6
2003	0.19%	-1.18%	2		6.06%	0.49%	-2.71%		8.90%	4
2004	-2.95%	-4.90%	2			0.30%			18.44%	3
2005	3.33%	3.33%	1		3.78%	-1.45%	-9.39%		8.83%	8
2006	-8.31%	-8.31%	1	23.33%	16.22%	4.43%	-7.06%	-18.50%	15.60%	12
2007	8.80%	4.18%	4	16.76%	10.17%	5.50%	-5.30%	-12.54%	12.13%	17
2008	10.38%	8.73%	5	21.19%	19.13%	11.30%	3.53%	-11.77%	14.34%	10
2009	-5.60%	-5.60%	1		28.16%	10.00%	6.78%		12.24%	5
2010	2.00%	5.06%	2	28.00%	18.49%	10.06%	-5.31%	-13.07%	19.01%	10
2011	25.93%	25.93%	1	67.12%	30.80%	21.75%	16.26%	7.82%	24.26%	14
2012	14.26%	10.06%	3		30.42%	18.20%	1.65%		16.63%	9
2013	-7.16%	-7.16%	1	25.23%	18.90%	14.30%	11.62%	5.51%	9.50%	12
2014	16.02%	12.59%	2		25.70%	19.72%	10.40%		16.30%	8
2015	9.90%	13.40%	3		26.90%	24.27%	12.82%		16.06%	7
2016	43.88%	39.80%	3	61.10%	44.83%	22.40%	16.25%	12.60%	54.44%	11
2017	16.67%	15.54%	4		36.11%	21.85%	4.15%		32.25%	4
2018	28.26%	25.65%	6	53.36%	32.73%	23.65%	10.60%	2.33%	26.07%	14
2019	20.34%	20.41%	3	52.78%	38.14%	19.65%	5.65%	0.43%	22.93%	10
2020	31.87%	32.11%	8	81.00%	42.89%	32.90%	17.33%	-2.68%	54.75%	19
2021	-8.77%	-10.74%	3		5.78%	0.92%	-7.02%		13.87%	8

Source: PitchBook | Geography: Europe | Data as of December 31, 2022

Europe VC

IRRs by vintage



Source: PitchBook | Geography: Europe | Data as of December 31, 2022

PitchBook

Europe VC

PMEs by vintage

Vintage year	S&P 500 Pooled IRR	S&P 500 Index return	S&P 500 KS-PME	MSCI Europe Small Cap Growth Pooled IRR	MSCI Europe Small Cap Growth Index return	MSCI Europe Small Cap Growth KS-PME	Number of funds
1998							
1999							
2000	3.17%	6.49%	0.87	3.17%	4.34%	0.58	7
2001	4.08%	7.28%	0.81	4.08%	6.79%	0.60	2
2002	6.36%	8.18%	1.02	6.36%	8.82%	0.76	1
2003	0.19%	10.03%	0.61	0.19%	10.61%	0.53	2
2004	-2.95%	8.89%	0.60	-2.95%	8.03%	0.64	2
2005	3.33%	8.99%	0.67	3.33%	7.21%	0.74	1
2006	-8.31%	8.95%	0.61	-8.31%	6.23%	0.71	1
2007	8.80%	8.69%	0.90	8.80%	4.44%	0.99	4
2008	10.38%	9.56%	0.85	10.38%	5.16%	1.18	5
2009	-5.60%	14.28%	0.27	-5.60%	11.44%	0.32	1
2010	2.00%	12.33%	0.57	2.00%	7.75%	0.68	2
2011	25.93%	11.84%	1.34	25.93%	6.23%	1.57	1
2012	14.26%	12.42%	1.01	14.26%	7.67%	1.30	3
2013	-7.16%	12.18%	0.39	-7.16%	6.50%	0.55	1
2014	16.02%	10.93%	1.28	16.02%	3.82%	1.91	2
2015	9.90%	10.44%	0.95	9.90%	5.05%	1.32	3
2016	43.88%	12.66%	2.80	43.88%	5.19%	3.70	3
2017	16.67%	11.14%	1.26	16.67%	4.53%	1.78	4
2018	28.26%	9.39%	1.58	28.26%	-1.04%	2.11	6
2019	20.34%	11.58%	1.31	20.34%	2.63%	1.73	3
2020	31.87%	10.54%	1.48	31.87%	0.16%	1.89	8
2021	-8.77%	1.31%	1.06	-8.77%	-17.91%	1.32	3

Source: PitchBook | Geography: Europe | Data as of December 31, 2022

PitchBook

Europe VC

Multiples by vintage

Vintage year	Pooled multiples: TVPI	Pooled multiples: DPI	Pooled multiples: RVPI	Equal-weighted pooled multiples: TVPI	Equal-weighted pooled multiples: DPI	Equal-weighted pooled multiples: RVPI	Number of funds
1998							
1999							
2000	1.26x	1.25x	0.02x	1.14x	1.13x	0.01x	7
2001	1.40x	1.32x	0.08x	1.55x	1.38x	0.17x	2
2002	1.46x	1.46x	0.00x	1.46x	1.46x	0.00x	1
2003	1.01x	1.01x	0.00x	0.92x	0.92x	0.00x	2
2004	0.82x	0.82x	0.00x	0.72x	0.72x	0.00x	2
2005	1.32x	1.31x	0.00x	1.32x	1.31x	0.00x	1
2006	0.59x	0.42x	0.17x	0.59x	0.42x	0.17x	1
2007	1.58x	1.30x	0.28x	1.27x	1.05x	0.22x	4
2008	2.42x	1.09x	1.33x	1.98x	1.00x	0.97x	5
2009	0.67x	0.39x	0.28x	0.67x	0.39x	0.28x	1
2010	1.11x	0.75x	0.36x	1.32x	0.91x	0.41x	2
2011	2.10x	1.15x	0.95x	2.10x	1.15x	0.95x	1
2012	2.26x	1.70x	0.56x	1.75x	1.15x	0.60x	3
2013	0.69x	0.16x	0.53x	0.69x	0.16x	0.53x	1
2014	2.17x	0.02x	2.15x	1.74x	0.09x	1.64x	2
2015	1.52x	0.32x	1.20x	1.74x	0.57x	1.17x	3
2016	4.37x	1.55x	2.81x	3.77x	1.16x	2.61x	3
2017	1.84x	0.04x	1.80x	1.60x	0.08x	1.52x	4
2018	1.97x	0.21x	1.75x	2.06x	0.24x	1.82x	6
2019	1.49x	0.01x	1.47x	1.48x	0.01x	1.47x	3
2020	1.53x	0.02x	1.51x	1.60x	0.02x	1.58x	8
2021	0.92x	0.00x	0.92x	0.91x	0.00x	0.91x	3

Source: PitchBook | Geography: Europe | Data as of December 31, 2022

PitchBook

Europe VC

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
1998											
1999											
2000		1.32x	1.05x	0.95x			1.32x	1.05x	0.90x		7
2001			1.52x					1.37x			2
2002			1.46x					1.46x			1
2003			0.91x					0.91x			2
2004			0.72x					0.72x			2
2005			1.32x					1.31x			1
2006			0.59x					0.42x			1
2007		2.09x	1.43x	0.63x			1.71x	1.22x	0.58x		4
2008		2.79x	1.25x	0.21x			1.88x	0.74x	0.21x		5
2009			0.67x					0.39x			1
2010			1.32x					0.91x			2
2011			2.10x					1.15x			1
2012			0.78x					0.49x			3
2013			0.69x					0.16x			1
2014			1.85x					0.07x			2
2015			1.32x					0.37x			3
2016			3.83x					0.41x			3
2017		1.90x	1.67x	1.34x			0.10x	0.04x	0.01x		4
2018		1.87x	1.64x	1.31x			0.26x	0.02x	0.00x		6
2019			1.51x					0.00x			3
2020		1.79x	1.51x	1.41x			0.03x	0.00x	0.00x		8
2021			0.90x					0.00x			3

Source: PitchBook | Geography: Europe | Data as of December 31, 2022

PitchBook

Europe VC

Quarterly return

Quarter end	1-quarter return
Q1 2001	-2.60%
Q2 2001	2.82%
Q3 2001	-7.20%
Q4 2001	-3.54%
Q1 2002	0.36%
Q2 2002	1.02%
Q3 2002	-0.25%
Q4 2002	-1.32%
Q1 2003	0.36%
Q2 2003	-7.06%
Q3 2003	-1.32%
Q4 2003	4.02%
Q1 2004	-3.20%
Q2 2004	-0.16%
Q3 2004	1.96%
Q4 2004	2.21%
Q1 2005	-4.17%
Q2 2005	0.45%
Q3 2005	-4.40%
Q4 2005	0.02%
Q1 2006	5.95%
Q2 2006	3.78%
Q3 2006	0.27%
Q4 2006	4.16%

Quarter end	1-quarter return
Q1 2007	3.57%
Q2 2007	8.13%
Q3 2007	-0.35%
Q4 2007	-0.58%
Q1 2008	3.47%
Q2 2008	-1.32%
Q3 2008	-6.95%
Q4 2008	-10.16%
Q1 2009	1.65%
Q2 2009	0.75%
Q3 2009	-1.47%
Q4 2009	-1.33%
Q1 2010	-7.94%
Q2 2010	-3.58%
Q3 2010	4.64%
Q4 2010	9.85%
Q1 2011	4.02%
Q2 2011	5.17%
Q3 2011	0.44%
Q4 2011	2.73%
Q1 2012	3.01%
Q2 2012	5.58%
Q3 2012	3.61%
Q4 2012	-2.19%

Quarter end	1-quarter return
Q1 2013	3.14%
Q2 2013	4.38%
Q3 2013	1.54%
Q4 2013	2.11%
Q1 2014	7.81%
Q2 2014	1.68%
Q3 2014	2.72%
Q4 2014	0.74%
Q1 2015	0.57%
Q2 2015	5.72%
Q3 2015	8.44%
Q4 2015	-6.17%
Q1 2016	-0.66%
Q2 2016	0.53%
Q3 2016	1.46%
Q4 2016	0.16%
Q1 2017	3.32%
Q2 2017	2.36%
Q3 2017	3.69%
Q4 2017	3.51%
Q1 2018	9.38%
Q2 2018	2.31%
Q3 2018	-4.00%
Q4 2018	-3.90%

Quarter end	1-quarter return
Q1 2019	2.21%
Q2 2019	8.85%
Q3 2019	2.76%
Q4 2019	3.15%
Q1 2020	-10.21%
Q2 2020	12.39%
Q3 2020	0.93%
Q4 2020	11.44%
Q1 2021	12.80%
Q2 2021	13.35%
Q3 2021	5.98%
Q4 2021	7.93%
Q1 2022	7.10%
Q2 2022	-5.86%
Q3 2022	-5.43%
Q4 2022	0.07%
Q1 2023*	-1.29%

*Preliminary figure

Source: PitchBook | Geography: Europe

Rest of world VC

PitchBook

Rest of world VC

IRRs by vintage

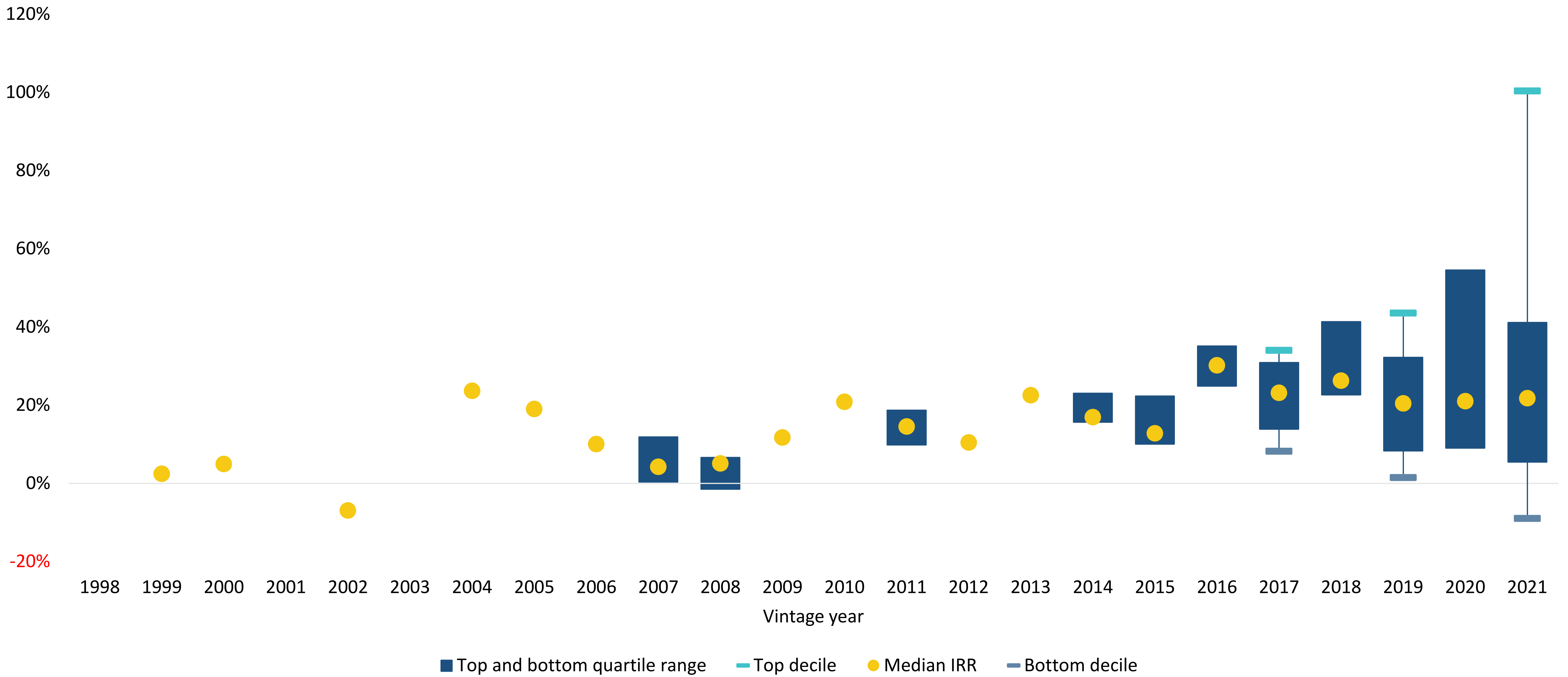
	Pooled IRRs			IRR quantiles						
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1998										
1999						2.40%				1
2000						4.90%			8.29%	3
2001										0
2002	-6.90%	-6.90%	1			-7.00%			12.48%	3
2003										0
2004						23.61%			22.75%	2
2005						19.00%				1
2006	1.29%	1.29%	1			10.00%			13.10%	3
2007	0.73%	0.73%	1		11.85%	4.20%	0.30%		8.63%	6
2008	3.99%	2.91%	6		6.60%	5.05%	-1.50%		10.99%	5
2009						11.70%			5.23%	2
2010						20.80%			13.94%	3
2011	11.04%	11.04%	1		18.67%	14.48%	9.82%		6.53%	4
2012	10.80%	10.80%	1			10.40%			23.67%	3
2013						22.50%				1
2014	18.69%	22.34%	2		23.00%	16.92%	15.62%		7.05%	5
2015	15.58%	12.59%	3		22.29%	12.78%	10.03%		17.37%	4
2016	30.34%	30.54%	2		35.10%	30.15%	24.86%		7.17%	6
2017	21.75%	18.71%	4	34.00%	30.88%	23.11%	13.83%	8.15%	16.65%	11
2018	19.80%	14.38%	3		41.33%	26.21%	22.60%		17.18%	6
2019	14.43%	15.80%	10	43.54%	32.19%	20.40%	8.29%	1.42%	19.14%	15
2020	19.88%	10.32%	4		54.53%	20.96%	9.00%		50.81%	8
2021	11.30%	2.41%	11	100.33%	41.11%	21.72%	5.43%	-9.00%	51.96%	12

Source: PitchBook | Geography: Rest of world | Data as of December 31, 2022

PitchBook

Rest of world VC

IRRs by vintage



Source: PitchBook | Geography: Rest of world | Data as of December 31, 2022

Rest of world VC

PMEs by vintage

	S&P 500			MSCI Emerging Market Small Cap Growth			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1998							
1999							
2000							
2001							
2002	-6.90%	8.18%	0.38	-6.90%	7.31%	0.21	1
2003							
2004							
2005							
2006	1.29%	8.95%	0.42	1.29%	4.31%	0.81	1
2007	0.73%	8.69%	0.57	0.73%	3.14%	0.88	1
2008	3.99%	9.56%	0.63	3.99%	1.89%	1.04	6
2009							
2010							
2011	11.04%	11.84%	0.89	11.04%	1.52%	1.60	1
2012	10.80%	12.42%	1.01	10.80%	3.25%	1.79	1
2013							
2014	18.69%	10.93%	1.37	18.69%	2.52%	2.17	2
2015	15.58%	10.44%	1.19	15.58%	2.46%	1.67	3
2016	30.34%	12.66%	1.69	30.34%	5.01%	2.14	2
2017	21.75%	11.14%	1.34	21.75%	4.37%	1.65	4
2018	19.80%	9.39%	1.24	19.80%	0.24%	1.38	3
2019	14.43%	11.58%	1.17	14.43%	5.57%	1.30	10
2020	19.88%	10.54%	1.28	19.88%	8.43%	1.41	4
2021	11.30%	1.31%	1.22	11.30%	-8.39%	1.37	11

Source: PitchBook | Geography: Rest of world | Data as of December 31, 2022

Rest of world VC

Multiples by vintage

Vintage year	Pooled multiples TVPI	Pooled multiples DPI	Pooled multiples RVPI	Equal-weighted pooled multiples TVPI	Equal-weighted pooled multiples DPI	Equal-weighted pooled multiples RVPI	Number of funds
1998							
1999							
2000							
2001							
2002	0.57x	0.57x	0.00x	0.57x	0.57x	0.00x	1
2003							
2004							
2005							
2006	1.15x	0.89x	0.26x	1.15x	0.89x	0.26x	1
2007	1.07x	0.80x	0.27x	1.07x	0.80x	0.27x	1
2008	1.29x	1.03x	0.26x	1.21x	0.96x	0.25x	6
2009							
2010							
2011	1.89x	1.39x	0.50x	1.89x	1.39x	0.50x	1
2012	2.07x	0.23x	1.84x	2.07x	0.23x	1.84x	1
2013							
2014	2.63x	1.57x	1.06x	2.96x	1.45x	1.51x	2
2015	2.00x	0.42x	1.58x	1.78x	0.37x	1.41x	3
2016	2.49x	0.97x	1.52x	2.50x	0.99x	1.51x	2
2017	1.95x	0.72x	1.23x	1.83x	0.52x	1.32x	4
2018	1.61x	0.26x	1.35x	1.42x	0.20x	1.23x	3
2019	1.34x	0.04x	1.29x	1.35x	0.03x	1.32x	10
2020	1.39x	0.03x	1.36x	1.16x	0.02x	1.15x	4
2021	1.15x	0.01x	1.14x	1.03x	0.00x	1.02x	11

Source: PitchBook | Geography: Rest of world | Data as of December 31, 2022

Rest of world VC

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
1998											
1999											
2000											
2001											
2002			0.57x					0.57x			1
2003											
2004											
2005											
2006			1.15x					0.89x			1
2007			1.07x					0.80x			1
2008		1.46x	1.26x	1.02x			1.15x	1.02x	0.80x		6
2009											
2010											
2011			1.89x					1.39x			1
2012			2.07x					0.23x			1
2013											
2014			2.96x					1.45x			2
2015			1.99x					0.36x			3
2016			2.48x					0.93x			2
2017		1.99x	1.87x	1.71x			0.84x	0.38x	0.04x		4
2018			1.39x					0.23x			3
2019	1.51x	1.48x	1.34x	1.23x	1.17x	0.06x	0.02x	0.00x	0.00x	0.00x	10
2020		1.31x	1.23x	1.08x			0.04x	0.02x	0.00x		4
2021	1.23x	1.11x	1.02x	0.91x	0.86x	0.01x	0.00x	0.00x	0.00x	0.00x	11

Source: PitchBook | Geography: Rest of world | Data as of December 31, 2022

PitchBook

Rest of world VC

Quarterly return

Quarter end	1-quarter return
Q1 2001	
Q2 2001	
Q3 2001	
Q4 2001	
Q1 2002	
Q2 2002	
Q3 2002	
Q4 2002	
Q1 2003	
Q2 2003	
Q3 2003	
Q4 2003	
Q1 2004	
Q2 2004	
Q3 2004	
Q4 2004	
Q1 2005	0.38%
Q2 2005	-4.04%
Q3 2005	-0.02%
Q4 2005	20.75%
Q1 2006	-5.67%
Q2 2006	-1.85%
Q3 2006	15.33%
Q4 2006	7.99%

Quarter end	1-quarter return
Q1 2007	-0.94%
Q2 2007	-4.52%
Q3 2007	7.46%
Q4 2007	0.81%
Q1 2008	1.22%
Q2 2008	0.17%
Q3 2008	-24.16%
Q4 2008	-6.24%
Q1 2009	-4.08%
Q2 2009	0.12%
Q3 2009	-3.10%
Q4 2009	42.08%
Q1 2010	-9.11%
Q2 2010	-4.81%
Q3 2010	9.85%
Q4 2010	5.88%
Q1 2011	5.70%
Q2 2011	0.54%
Q3 2011	3.27%
Q4 2011	-1.00%
Q1 2012	-0.90%
Q2 2012	-0.38%
Q3 2012	0.33%
Q4 2012	1.83%

Quarter end	1-quarter return
Q1 2013	1.23%
Q2 2013	3.51%
Q3 2013	3.90%
Q4 2013	9.65%
Q1 2014	0.40%
Q2 2014	4.46%
Q3 2014	4.44%
Q4 2014	5.03%
Q1 2015	5.05%
Q2 2015	18.17%
Q3 2015	-2.97%
Q4 2015	2.73%
Q1 2016	-2.62%
Q2 2016	1.45%
Q3 2016	4.04%
Q4 2016	1.65%
Q1 2017	-4.04%
Q2 2017	3.22%
Q3 2017	9.58%
Q4 2017	1.57%
Q1 2018	3.66%
Q2 2018	6.80%
Q3 2018	1.98%
Q4 2018	-2.46%

Quarter end	1-quarter return
Q1 2019	7.44%
Q2 2019	0.58%
Q3 2019	6.90%
Q4 2019	4.30%
Q1 2020	-0.31%
Q2 2020	9.31%
Q3 2020	5.61%
Q4 2020	20.07%
Q1 2021	11.43%
Q2 2021	8.00%
Q3 2021	11.37%
Q4 2021	5.36%
Q1 2022	-6.65%
Q2 2022	-5.38%
Q3 2022	-3.16%
Q4 2022	-2.01%
Q1 2023*	-0.64%

*Preliminary figure

Source: PitchBook | Geography: Rest of world

VC < $250M

PitchBook

VC < $250M

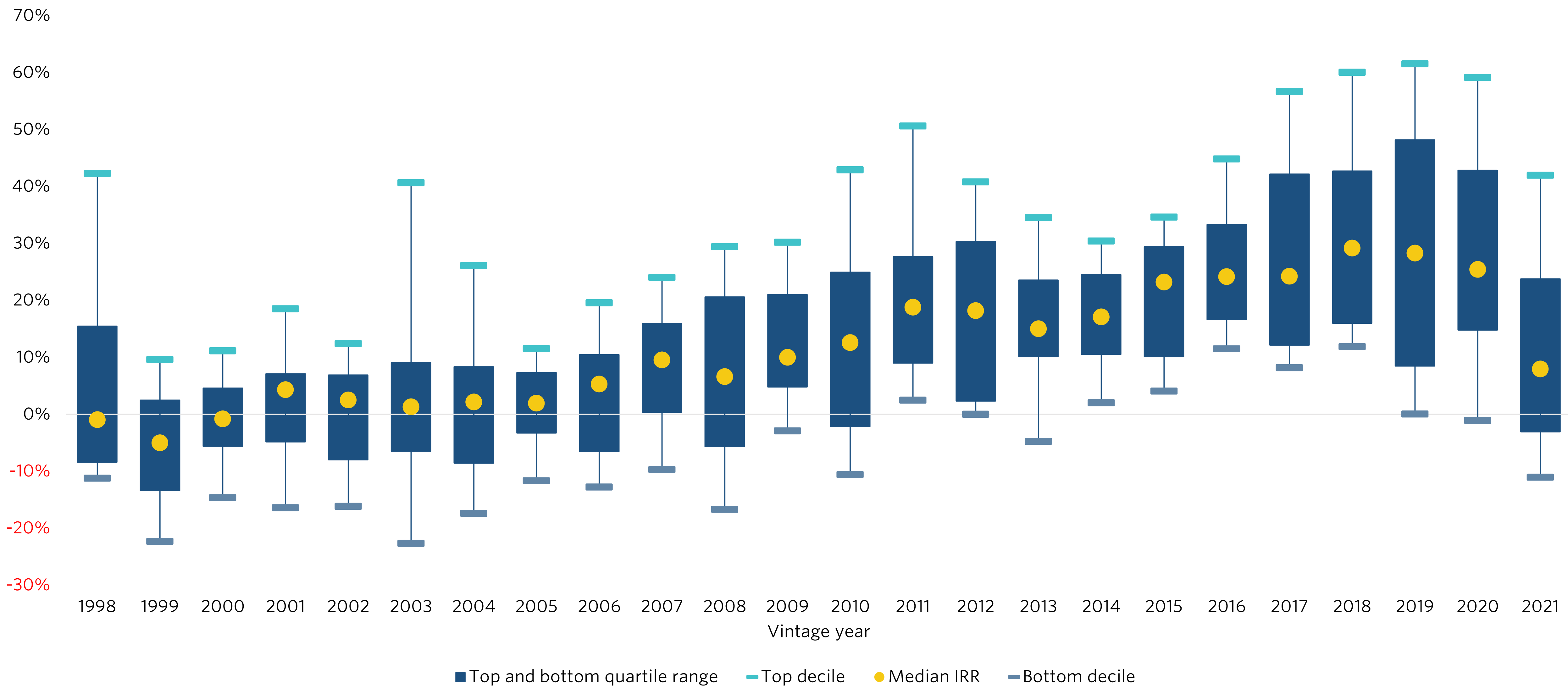
IRRs by vintage

	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
1998	8.29%	9.48%	10	42.26%	15.46%	-0.97%	-8.40%	-11.23%	32.23%	35
1999	-4.42%	-4.24%	14	9.60%	2.46%	-5.01%	-13.38%	-22.33%	16.02%	38
2000	-1.28%	-2.67%	26	11.11%	4.60%	-0.80%	-5.60%	-14.65%	12.08%	69
2001	5.93%	3.20%	13	18.50%	7.10%	4.30%	-4.84%	-16.44%	20.11%	45
2002	0.53%	0.94%	11	12.38%	6.90%	2.50%	-7.98%	-16.16%	11.98%	33
2003	-10.83%	-7.14%	7	40.66%	9.06%	1.29%	-6.47%	-22.68%	45.46%	23
2004	10.70%	12.52%	11	26.10%	8.33%	2.14%	-8.60%	-17.40%	21.19%	26
2005	10.20%	7.48%	10	11.50%	7.33%	1.95%	-3.28%	-11.70%	20.34%	36
2006	1.27%	1.16%	19	19.57%	10.44%	5.31%	-6.53%	-12.77%	15.31%	49
2007	13.61%	12.20%	20	24.00%	15.93%	9.55%	0.40%	-9.70%	15.02%	51
2008	10.52%	7.54%	28	29.40%	20.60%	6.61%	-5.69%	-16.70%	24.51%	49
2009	9.55%	8.58%	12	30.18%	21.00%	10.00%	4.80%	-2.94%	17.56%	25
2010	13.78%	18.87%	9	42.92%	24.91%	12.58%	-2.16%	-10.58%	22.09%	28
2011	26.22%	24.23%	10	50.60%	27.65%	18.80%	9.00%	2.46%	20.51%	43
2012	21.65%	22.18%	9	40.80%	30.31%	18.20%	2.33%	-0.00%	16.50%	27
2013	12.86%	10.15%	12	34.49%	23.55%	15.00%	10.14%	-4.75%	17.22%	35
2014	16.63%	16.01%	14	30.40%	24.51%	17.10%	10.53%	2.00%	13.88%	31
2015	18.24%	20.42%	18	34.62%	29.41%	23.20%	10.14%	4.06%	12.04%	36
2016	31.91%	32.73%	20	44.80%	33.30%	24.15%	16.64%	11.49%	28.03%	49
2017	23.60%	24.74%	12	56.64%	42.17%	24.22%	12.16%	8.17%	29.88%	34
2018	27.37%	20.71%	10	60.02%	42.68%	29.16%	15.99%	11.85%	29.40%	44
2019	40.49%	31.91%	17	61.50%	48.15%	28.28%	8.49%	0.03%	30.98%	50
2020	31.33%	28.21%	17	59.10%	42.83%	25.44%	14.81%	-1.10%	40.12%	48
2021	21.26%	15.21%	26	41.94%	23.75%	7.95%	-3.09%	-11.04%	33.56%	55

Source: PitchBook | Geography: Global | Data as of December 31, 2022

VC < $250M

IRRs by vintage



Source: PitchBook | Geography: Global | Data as of December 31, 2022

PitchBook

VC < $250M

PMEs by vintage

	S&P 500			MSCI World Small Cap Growth			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1998	8.29%	7.48%	1.20	8.29%	7.55%	1.05	10
1999	-4.42%	6.80%	0.67	-4.42%	7.87%	0.54	14
2000	-1.28%	6.49%	0.69	-1.28%	5.96%	0.54	26
2001	5.93%	7.28%	0.98	5.93%	7.78%	0.80	13
2002	0.53%	8.18%	0.70	0.53%	8.95%	0.58	11
2003	-10.83%	10.03%	0.46	-10.83%	10.65%	0.40	7
2004	10.70%	8.89%	1.22	10.70%	8.43%	1.17	11
2005	10.20%	8.99%	1.07	10.20%	8.04%	1.13	10
2006	1.27%	8.95%	0.55	1.27%	7.17%	0.57	19
2007	13.61%	8.69%	1.13	13.61%	6.75%	1.24	20
2008	10.52%	9.56%	0.88	10.52%	7.47%	0.98	28
2009	9.55%	14.28%	0.82	9.55%	12.63%	0.93	12
2010	13.78%	12.33%	1.02	13.78%	9.52%	1.18	9
2011	26.22%	11.84%	2.06	26.22%	7.89%	2.36	10
2012	21.65%	12.42%	1.64	21.65%	8.88%	1.97	9
2013	12.86%	12.18%	1.06	12.86%	8.54%	1.28	12
2014	16.63%	10.93%	1.34	16.63%	6.48%	1.55	14
2015	18.24%	10.44%	1.29	18.24%	7.04%	1.54	18
2016	31.91%	12.66%	1.83	31.91%	9.25%	2.15	20
2017	23.60%	11.14%	1.52	23.60%	7.23%	1.83	12
2018	27.37%	9.39%	1.58	27.37%	3.63%	1.91	10
2019	40.49%	11.58%	1.60	40.49%	5.71%	1.85	17
2020	31.33%	10.54%	1.51	31.33%	4.85%	1.77	17
2021	21.26%	1.31%	1.36	21.26%	-14.12%	1.58	26

Source: PitchBook | Geography: Global | Data as of December 31, 2022

PitchBook

VC < $250M

Multiples by vintage

	Pooled multiples			Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1998	1.26x	1.26x	0.00x	1.26x	1.26x	0.00x	10
1999	0.74x	0.74x	0.00x	0.75x	0.75x	0.00x	14
2000	0.92x	0.90x	0.02x	0.84x	0.82x	0.01x	26
2001	1.45x	1.42x	0.03x	1.24x	1.19x	0.05x	13
2002	1.04x	0.96x	0.07x	1.07x	0.87x	0.20x	11
2003	0.60x	0.60x	0.00x	0.72x	0.72x	0.00x	7
2004	2.04x	1.74x	0.30x	2.40x	1.91x	0.49x	11
2005	2.51x	2.06x	0.45x	1.99x	1.64x	0.35x	10
2006	1.10x	0.97x	0.13x	1.10x	0.95x	0.14x	19
2007	2.45x	1.76x	0.69x	2.29x	1.61x	0.67x	20
2008	2.03x	1.50x	0.53x	1.68x	1.26x	0.42x	28
2009	1.86x	1.06x	0.80x	1.79x	1.00x	0.79x	12
2010	2.14x	1.48x	0.65x	2.65x	2.04x	0.61x	9
2011	5.22x	4.16x	1.06x	4.52x	3.56x	0.96x	10
2012	3.69x	2.29x	1.41x	3.96x	2.24x	1.72x	9
2013	2.04x	0.59x	1.45x	1.77x	0.55x	1.22x	12
2014	2.71x	1.13x	1.58x	2.59x	1.02x	1.56x	14
2015	2.12x	0.62x	1.50x	2.33x	0.75x	1.58x	18
2016	2.71x	0.90x	1.81x	2.77x	1.04x	1.74x	20
2017	2.21x	0.37x	1.84x	2.24x	0.32x	1.92x	12
2018	2.02x	0.31x	1.71x	1.88x	0.32x	1.56x	10
2019	1.78x	0.37x	1.41x	1.62x	0.24x	1.38x	17
2020	1.56x	0.03x	1.53x	1.49x	0.04x	1.44x	17
2021	1.32x	0.00x	1.32x	1.20x	0.01x	1.18x	26

Source: PitchBook | Geography: Global | Data as of December 31, 2022

VC < $250M

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
1998	1.94x	1.67x	1.36x	0.71x	0.43x	1.94x	1.67x	1.35x	0.71x	0.43x	10
1999	1.49x	1.11x	0.66x	0.39x	0.20x	1.49x	1.11x	0.65x	0.37x	0.20x	14
2000	1.31x	1.09x	0.92x	0.63x	0.19x	1.31x	1.09x	0.92x	0.63x	0.18x	26
2001	2.33x	1.73x	1.30x	0.60x	0.20x	2.32x	1.45x	1.30x	0.60x	0.19x	13
2002	1.77x	1.44x	1.11x	0.63x	0.27x	1.61x	1.39x	0.57x	0.37x	0.26x	11
2003		1.05x	0.69x	0.48x			1.04x	0.69x	0.48x		7
2004	5.28x	1.92x	1.05x	0.65x	0.42x	1.55x	1.08x	1.01x	0.62x	0.42x	11
2005	3.26x	1.53x	1.23x	0.48x	0.25x	2.33x	1.53x	1.01x	0.44x	0.23x	10
2006	1.89x	1.49x	0.77x	0.51x	0.29x	1.69x	1.31x	0.77x	0.42x	0.24x	19
2007	3.06x	2.46x	1.44x	0.80x	0.44x	2.88x	1.91x	1.01x	0.50x	0.33x	20
2008	4.43x	2.06x	1.05x	0.49x	0.20x	2.86x	1.59x	0.65x	0.22x	0.14x	28
2009	2.69x	2.47x	1.71x	0.87x	0.69x	1.55x	1.10x	0.86x	0.54x	0.40x	12
2010		3.11x	1.58x	0.83x			1.58x	1.11x	0.64x		9
2011	6.37x	3.39x	2.26x	1.44x	0.77x	5.02x	2.59x	1.36x	0.65x	0.13x	10
2012		2.46x	1.38x	0.99x			2.15x	1.03x	0.51x		9
2013	3.65x	2.49x	1.50x	0.60x	0.28x	0.99x	0.95x	0.42x	0.25x	0.16x	12
2014	5.19x	3.16x	2.20x	1.65x	1.42x	1.78x	1.35x	1.06x	0.18x	0.03x	14
2015	3.88x	2.68x	2.10x	1.22x	1.12x	1.76x	0.98x	0.39x	0.21x	0.05x	18
2016	5.56x	2.94x	2.38x	1.86x	1.59x	2.91x	1.65x	0.65x	0.14x	0.07x	20
2017	4.37x	2.41x	1.74x	1.46x	1.26x	0.74x	0.53x	0.17x	0.00x	0.00x	12
2018	2.62x	2.19x	1.46x	1.29x	1.06x	1.02x	0.33x	0.14x	0.00x	0.00x	10
2019	2.42x	1.62x	1.39x	1.07x	1.01x	0.49x	0.09x	0.00x	0.00x	0.00x	17
2020	1.90x	1.75x	1.47x	1.15x	0.95x	0.07x	0.02x	0.00x	0.00x	0.00x	17
2021	1.32x	1.11x	1.00x	0.92x	0.86x	0.00x	0.00x	0.00x	0.00x	0.00x	26

Source: PitchBook | Geography: Global | Data as of December 31, 2022

PitchBook

VC < $250M

Quarterly return

Quarter end	1-quarter return
Q1 2001	-10.78%
Q2 2001	-9.34%
Q3 2001	-18.28%
Q4 2001	-12.32%
Q1 2002	-7.79%
Q2 2002	-7.91%
Q3 2002	-6.70%
Q4 2002	-13.44%
Q1 2003	-1.62%
Q2 2003	-6.27%
Q3 2003	1.58%
Q4 2003	-2.47%
Q1 2004	-1.85%
Q2 2004	-0.10%
Q3 2004	-1.00%
Q4 2004	0.85%
Q1 2005	-2.86%
Q2 2005	0.01%
Q3 2005	2.67%
Q4 2005	0.13%
Q1 2006	3.25%
Q2 2006	0.13%
Q3 2006	-0.66%
Q4 2006	5.64%

Quarter end	1-quarter return
Q1 2007	1.45%
Q2 2007	7.18%
Q3 2007	1.28%
Q4 2007	7.41%
Q1 2008	0.19%
Q2 2008	-0.24%
Q3 2008	-6.15%
Q4 2008	-7.74%
Q1 2009	-6.79%
Q2 2009	3.89%
Q3 2009	-4.75%
Q4 2009	3.59%
Q1 2010	1.35%
Q2 2010	3.38%
Q3 2010	4.57%
Q4 2010	7.03%
Q1 2011	8.41%
Q2 2011	2.03%
Q3 2011	1.89%
Q4 2011	0.54%
Q1 2012	4.30%
Q2 2012	2.25%
Q3 2012	0.91%
Q4 2012	0.51%

Quarter end	1-quarter return
Q1 2013	0.94%
Q2 2013	3.05%
Q3 2013	6.05%
Q4 2013	12.71%
Q1 2014	2.57%
Q2 2014	2.71%
Q3 2014	1.07%
Q4 2014	7.51%
Q1 2015	3.24%
Q2 2015	13.35%
Q3 2015	-0.17%
Q4 2015	-1.12%
Q1 2016	-6.78%
Q2 2016	2.45%
Q3 2016	2.38%
Q4 2016	0.58%
Q1 2017	-0.04%
Q2 2017	1.91%
Q3 2017	5.52%
Q4 2017	1.94%
Q1 2018	5.29%
Q2 2018	6.31%
Q3 2018	4.56%
Q4 2018	-0.60%

Quarter end	1-quarter return
Q1 2019	2.37%
Q2 2019	3.62%
Q3 2019	2.96%
Q4 2019	2.53%
Q1 2020	-1.33%
Q2 2020	3.47%
Q3 2020	6.41%
Q4 2020	8.44%
Q1 2021	45.40%
Q2 2021	15.04%
Q3 2021	14.87%
Q4 2021	11.48%
Q1 2022	-0.77%
Q2 2022	-6.85%
Q3 2022	-3.65%
Q4 2022	-11.21%
Q1 2023*	4.27%

*Preliminary figure

Source: PitchBook | Geography: Global

VC $250M+

VC $250M+

IRRs by vintage

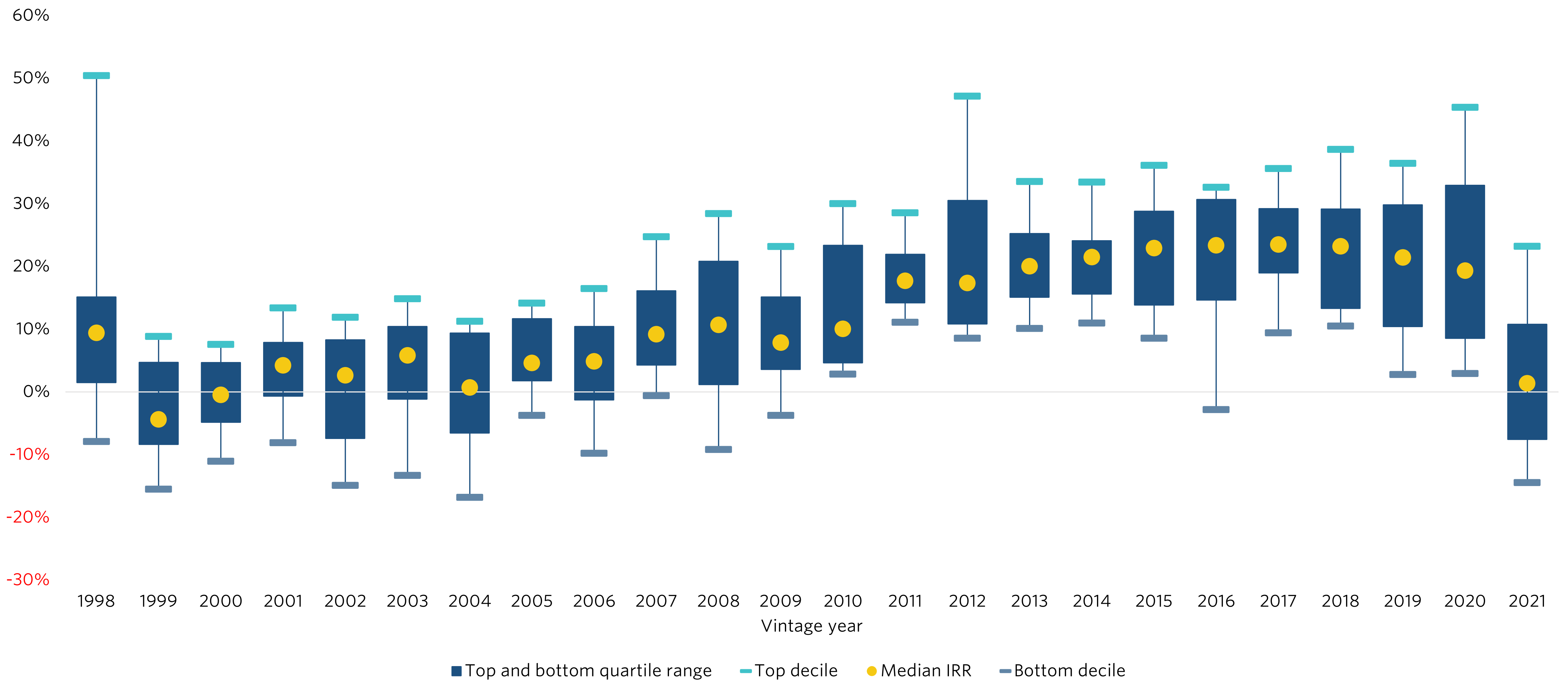
	Pooled IRRs			IRR quantiles						
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1998	7.23%	3.52%	10	50.38%	15.10%	9.38%	1.48%	-7.92%	34.43%	13
1999	-1.89%	-2.94%	23	8.83%	4.69%	-4.40%	-8.37%	-15.54%	10.06%	34
2000	-0.45%	-1.33%	37	7.55%	4.67%	-0.49%	-4.84%	-11.07%	9.11%	49
2001	4.78%	3.42%	22	13.38%	7.86%	4.21%	-0.68%	-8.12%	17.06%	26
2002	2.26%	2.28%	8	11.86%	8.29%	2.64%	-7.42%	-14.91%	11.77%	10
2003	6.83%	4.11%	14	14.81%	10.40%	5.81%	-1.15%	-13.34%	11.00%	15
2004	2.77%	2.28%	11	11.25%	9.35%	0.68%	-6.58%	-16.82%	12.77%	16
2005	6.71%	7.08%	20	14.12%	11.65%	4.61%	1.75%	-3.77%	10.24%	23
2006	6.17%	5.85%	25	16.46%	10.41%	4.85%	-1.28%	-9.82%	11.57%	30
2007	13.02%	12.80%	26	24.72%	16.09%	9.16%	4.29%	-0.63%	10.79%	34
2008	17.46%	15.01%	20	28.38%	20.82%	10.67%	1.15%	-9.20%	17.94%	23
2009	13.02%	12.03%	10	23.14%	15.11%	7.85%	3.57%	-3.78%	10.36%	10
2010	14.64%	13.99%	15	29.98%	23.35%	10.02%	4.61%	2.83%	12.90%	18
2011	19.61%	20.29%	11	28.52%	21.91%	17.70%	14.20%	11.08%	6.95%	13
2012	17.00%	16.46%	11	47.12%	30.51%	17.34%	10.82%	8.53%	17.31%	14
2013	20.34%	19.92%	11	33.53%	25.24%	20.00%	15.10%	10.10%	9.62%	11
2014	21.44%	23.72%	21	33.41%	24.07%	21.48%	15.60%	10.94%	8.96%	21
2015	18.66%	18.68%	14	36.11%	28.78%	22.89%	13.85%	8.54%	12.66%	16
2016	24.20%	23.28%	23	32.60%	30.65%	23.35%	14.65%	-2.86%	13.00%	22
2017	23.98%	26.58%	20	35.58%	29.20%	23.48%	18.97%	9.41%	16.63%	17
2018	25.96%	26.74%	26	38.65%	29.12%	23.19%	13.31%	10.46%	11.24%	27
2019	22.76%	24.44%	26	36.42%	29.80%	21.40%	10.40%	2.74%	17.64%	29
2020	19.42%	21.60%	35	45.35%	32.90%	19.30%	8.54%	2.91%	29.87%	37
2021	8.70%	9.11%	31	23.18%	10.75%	1.35%	-7.59%	-14.48%	20.24%	35

Source: PitchBook | Geography: Global | Data as of December 31, 2022

PitchBook

VC $250M+

IRRs by vintage



Source: PitchBook | Geography: Global | Data as of December 31, 2022

PitchBook

VC $250M+

PMEs by vintage

	S&P 500			MSCI World Small Cap Growth			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1998	7.23%	7.48%	1.19	7.23%	7.55%	0.97	10
1999	-1.89%	6.80%	0.78	-1.89%	7.87%	0.66	23
2000	-0.45%	6.49%	0.71	-0.45%	5.96%	0.55	37
2001	4.78%	7.28%	0.90	4.78%	7.78%	0.74	22
2002	2.26%	8.18%	0.80	2.26%	8.95%	0.68	8
2003	6.83%	10.03%	0.99	6.83%	10.65%	0.90	14
2004	2.77%	8.89%	0.74	2.77%	8.43%	0.70	11
2005	6.71%	8.99%	0.91	6.71%	8.04%	0.88	20
2006	6.17%	8.95%	0.80	6.17%	7.17%	0.82	25
2007	13.02%	8.69%	1.09	13.02%	6.75%	1.13	26
2008	17.46%	9.56%	1.18	17.46%	7.47%	1.27	20
2009	13.02%	14.28%	0.96	13.02%	12.63%	1.10	10
2010	14.64%	12.33%	1.05	14.64%	9.52%	1.21	15
2011	19.61%	11.84%	1.35	19.61%	7.89%	1.55	11
2012	17.00%	12.42%	1.29	17.00%	8.88%	1.53	11
2013	20.34%	12.18%	1.42	20.34%	8.54%	1.64	11
2014	21.44%	10.93%	1.52	21.44%	6.48%	1.78	21
2015	18.66%	10.44%	1.30	18.66%	7.04%	1.53	14
2016	24.20%	12.66%	1.53	24.20%	9.25%	1.84	23
2017	23.98%	11.14%	1.46	23.98%	7.23%	1.73	20
2018	25.96%	9.39%	1.49	25.96%	3.63%	1.78	26
2019	22.76%	11.58%	1.35	22.76%	5.71%	1.60	26
2020	19.42%	10.54%	1.29	19.42%	4.85%	1.51	35
2021	8.70%	1.31%	1.16	8.70%	-14.12%	1.32	31

Source: PitchBook | Geography: Global | Data as of December 31, 2022

VC $250M+

Multiples by vintage

	Pooled multiples			Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1998	1.33x	1.32x	0.01x	1.19x	1.17x	0.02x	10
1999	0.88x	0.84x	0.04x	0.83x	0.81x	0.02x	23
2000	0.97x	0.95x	0.02x	0.91x	0.90x	0.01x	37
2001	1.38x	1.33x	0.05x	1.27x	1.23x	0.05x	22
2002	1.14x	1.14x	0.01x	1.14x	1.13x	0.01x	8
2003	1.50x	1.47x	0.03x	1.28x	1.26x	0.02x	14
2004	1.22x	1.19x	0.03x	1.18x	1.15x	0.03x	11
2005	1.55x	1.45x	0.10x	1.59x	1.48x	0.11x	20
2006	1.48x	1.32x	0.16x	1.47x	1.32x	0.15x	25
2007	2.03x	1.88x	0.15x	2.02x	1.86x	0.16x	26
2008	2.38x	2.20x	0.18x	2.14x	1.90x	0.24x	20
2009	2.30x	1.74x	0.55x	2.28x	1.40x	0.88x	10
2010	2.10x	1.56x	0.54x	2.07x	1.45x	0.62x	15
2011	2.88x	2.06x	0.82x	2.92x	2.00x	0.92x	11
2012	2.67x	1.39x	1.28x	2.59x	1.39x	1.20x	11
2013	2.47x	1.43x	1.04x	2.46x	1.42x	1.05x	11
2014	2.82x	1.29x	1.53x	2.94x	1.45x	1.50x	21
2015	2.15x	0.76x	1.39x	2.15x	0.63x	1.52x	14
2016	2.33x	0.60x	1.73x	2.26x	0.51x	1.75x	23
2017	2.05x	0.50x	1.55x	2.20x	0.59x	1.61x	20
2018	1.85x	0.21x	1.64x	1.99x	0.28x	1.72x	26
2019	1.53x	0.07x	1.46x	1.56x	0.04x	1.52x	26
2020	1.28x	0.03x	1.25x	1.32x	0.04x	1.28x	35
2021	1.09x	0.01x	1.08x	1.09x	0.01x	1.08x	31

Source: PitchBook | Geography: Global | Data as of December 31, 2022

VC $250M+

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
1998	1.78x	1.62x	1.31x	0.72x	0.54x	1.78x	1.60x	1.31x	0.70x	0.51x	10
1999	1.34x	0.88x	0.73x	0.48x	0.22x	1.33x	0.84x	0.73x	0.47x	0.22x	23
2000	1.43x	1.19x	0.87x	0.56x	0.37x	1.43x	1.18x	0.87x	0.55x	0.37x	37
2001	1.87x	1.62x	1.26x	0.95x	0.67x	1.83x	1.61x	1.26x	0.89x	0.67x	22
2002		1.47x	1.27x	0.75x			1.47x	1.25x	0.75x		8
2003	1.85x	1.52x	1.42x	0.89x	0.42x	1.85x	1.51x	1.35x	0.89x	0.42x	14
2004	1.87x	1.58x	1.02x	0.59x	0.42x	1.87x	1.57x	1.02x	0.57x	0.33x	11
2005	2.49x	2.06x	1.37x	1.16x	0.82x	2.26x	2.03x	1.32x	1.12x	0.64x	20
2006	2.36x	2.10x	1.44x	0.94x	0.60x	2.22x	1.76x	1.27x	0.84x	0.57x	25
2007	2.79x	2.61x	2.00x	1.47x	0.87x	2.67x	2.42x	1.75x	1.40x	0.84x	26
2008	3.26x	2.65x	1.84x	1.46x	0.48x	3.20x	2.50x	1.77x	1.12x	0.34x	20
2009	3.34x	2.45x	1.78x	1.42x	1.18x	2.57x	2.19x	1.31x	0.67x	0.46x	10
2010	3.56x	2.50x	1.78x	1.45x	1.27x	2.85x	1.81x	1.36x	0.79x	0.50x	15
2011	4.40x	3.20x	2.10x	1.89x	1.73x	3.39x	2.58x	1.64x	1.39x	1.15x	11
2012	3.63x	3.01x	2.14x	1.81x	1.48x	2.44x	1.77x	1.26x	0.68x	0.29x	11
2013	2.80x	2.63x	2.52x	2.30x	1.74x	2.16x	1.73x	1.24x	1.10x	1.06x	11
2014	4.59x	3.19x	2.57x	2.16x	1.90x	2.22x	1.82x	1.23x	0.76x	0.60x	21
2015	3.21x	2.91x	1.93x	1.54x	1.29x	1.04x	0.95x	0.48x	0.31x	0.10x	14
2016	3.55x	3.04x	2.14x	1.70x	0.88x	1.05x	0.75x	0.43x	0.15x	0.10x	23
2017	2.96x	2.26x	1.98x	1.80x	1.64x	1.25x	0.99x	0.44x	0.10x	0.05x	20
2018	2.93x	2.45x	1.74x	1.51x	1.28x	0.98x	0.38x	0.04x	0.01x	0.00x	26
2019	1.95x	1.70x	1.42x	1.24x	1.12x	0.14x	0.04x	0.00x	0.00x	0.00x	26
2020	1.65x	1.46x	1.30x	1.07x	0.99x	0.13x	0.02x	0.00x	0.00x	0.00x	35
2021	1.23x	1.14x	1.06x	0.92x	0.83x	0.01x	0.00x	0.00x	0.00x	0.00x	31

Source: PitchBook | Geography: Global | Data as of December 31, 2022

PitchBook

VC $250M+

Quarterly return

Quarter end	1-quarter return
Q1 2001	-11.65%
Q2 2001	-8.54%
Q3 2001	-13.41%
Q4 2001	-10.81%
Q1 2002	-6.87%
Q2 2002	-13.70%
Q3 2002	-7.99%
Q4 2002	-13.43%
Q1 2003	-6.74%
Q2 2003	-0.62%
Q3 2003	-3.18%
Q4 2003	4.04%
Q1 2004	0.62%
Q2 2004	0.99%
Q3 2004	-0.71%
Q4 2004	3.55%
Q1 2005	-1.69%
Q2 2005	0.75%
Q3 2005	5.09%
Q4 2005	2.92%
Q1 2006	2.88%
Q2 2006	1.29%
Q3 2006	1.97%
Q4 2006	7.90%
Q1 2007	2.25%
Q2 2007	5.52%
Q3 2007	2.19%
Q4 2007	3.12%
Q1 2008	2.98%
Q2 2008	-2.49%
Q3 2008	-2.43%
Q4 2008	-9.53%
Q1 2009	-3.47%
Q2 2009	-0.60%
Q3 2009	1.77%
Q4 2009	2.92%
Q1 2010	1.25%
Q2 2010	-0.67%
Q3 2010	4.19%
Q4 2010	6.82%
Q1 2011	4.05%
Q2 2011	4.86%
Q3 2011	-0.39%
Q4 2011	1.95%
Q1 2012	4.14%
Q2 2012	1.35%
Q3 2012	-0.40%
Q4 2012	2.37%
Q1 2013	2.42%
Q2 2013	5.10%
Q3 2013	5.62%
Q4 2013	8.09%
Q1 2014	5.93%
Q2 2014	4.41%
Q3 2014	3.04%
Q4 2014	7.34%
Q1 2015	4.72%
Q2 2015	5.51%
Q3 2015	-0.86%
Q4 2015	3.08%
Q1 2016	-2.87%
Q2 2016	-0.01%
Q3 2016	-0.55%
Q4 2016	4.12%
Q1 2017	2.91%
Q2 2017	2.21%
Q3 2017	3.72%
Q4 2017	1.66%
Q1 2018	7.09%
Q2 2018	5.27%
Q3 2018	3.60%
Q4 2018	1.39%
Q1 2019	7.57%
Q2 2019	2.19%
Q3 2019	1.26%
Q4 2019	5.89%
Q1 2020	-2.04%
Q2 2020	9.76%
Q3 2020	12.28%
Q4 2020	16.28%
Q1 2021	18.89%
Q2 2021	13.37%
Q3 2021	7.45%
Q4 2021	5.73%
Q1 2022	-4.64%
Q2 2022	-9.52%
Q3 2022	-2.34%
Q4 2022	-4.97%
Q1 2023*	-0.71%

*Preliminary figure

Source: PitchBook | Geography: Global

Additional research

Market updates

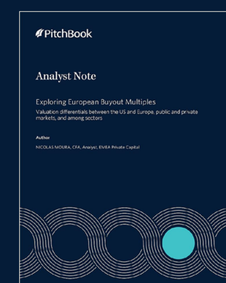
Q1 2023 PitchBook-NVCA Venture Monitor
Download the report here

H2 2022 Global Real Estate Report
Download the report here

H2 2022 Greater China Venture Report
Download the report here

PitchBook Analyst Note: The Transient Era of Billion-Dollar Funds
Download the report here

2022 Global Private Debt Report
Download the report here



PitchBook Analyst Note: Exploring European Buyout Multiples
Download the report here

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