

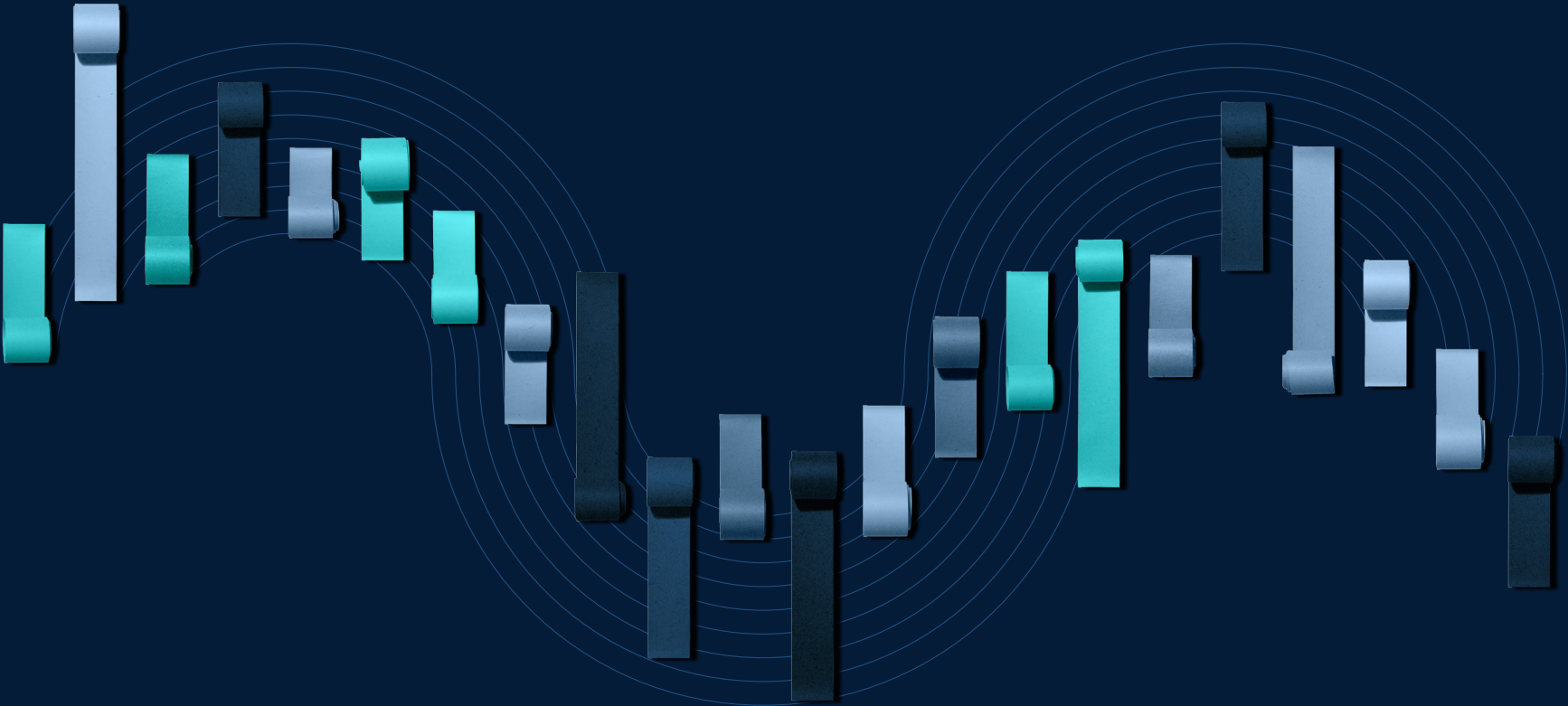


GLOBAL

PitchBook Benchmarks

Q3
2023

with preliminary
Q4 2023 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](#) 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.

Clients can access additional data and vintage years 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 core plus
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 that are 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: For instances where the return of a public market index is cited, we have calculated the annualized return for the given period. All public indexes 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: Vintage year is the year in which a fund makes its first investment by delivering capital to a project or company. When we cannot confirm the year of first investment, the year of the fund’s final close is used as the vintage year.

Internal rate of return (IRR): IRR represents the rate at which a 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 available only 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.

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

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.

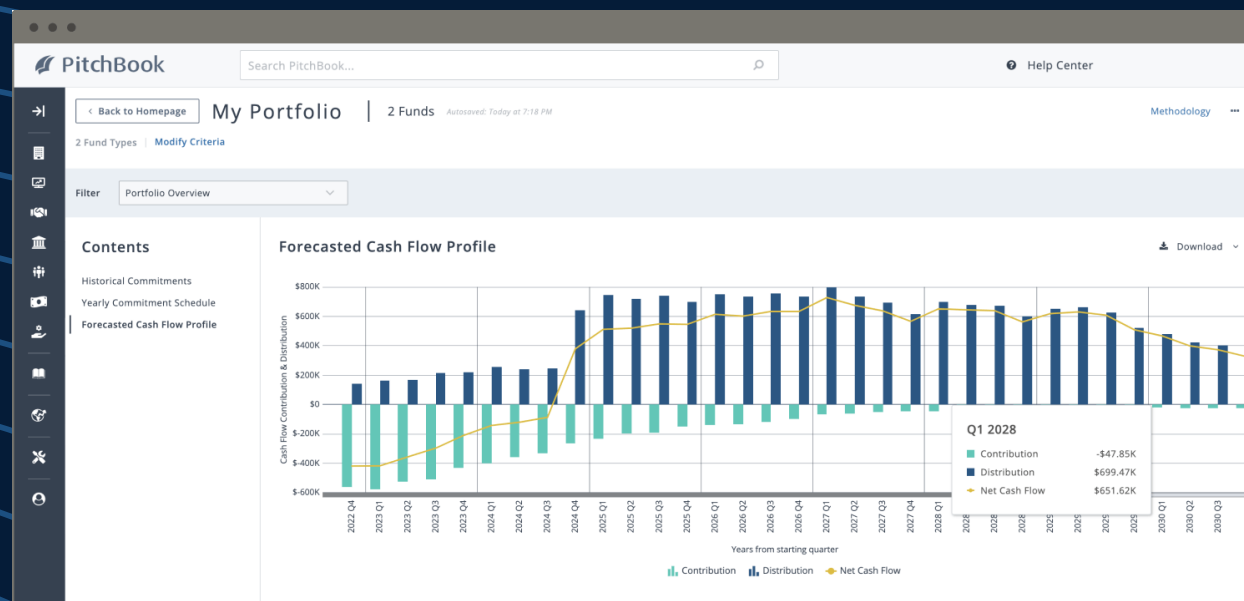
Pooled calculations: Pooled calculations combine cash flow data from a group of funds to create a capital-weighted IRR value. All cash flows and NAVs for each fund in the sample group (such as all private capital funds or 2004 vintage VC funds) are aggregated in the calculation. For vintage-specific 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-pme-calculations). [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).

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

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](#)



Private capital

Private capital

Horizon IRRs

Strategy	Q4 2023*	Q3 2023	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	1.21%	1.78%	6.84%	16.24%	13.43%	13.17%	11.14%	11.97%
Private equity	-0.43%	2.26%	10.43%	18.97%	17.02%	16.02%	13.18%	14.49%
Venture capital	-1.57%	-2.66%	-7.73%	12.54%	14.79%	14.25%	11.19%	10.28%
Real estate	1.35%	-1.08%	-2.58%	10.43%	8.18%	10.56%	7.19%	7.62%
Real assets	4.55%	2.44%	8.39%	15.24%	7.90%	7.74%	7.48%	8.04%
Private debt	3.62%	3.00%	9.80%	10.72%	8.19%	8.32%	8.93%	8.98%
Funds of funds	3.40%	1.36%	-2.14%	18.34%	15.36%	13.59%	10.28%	10.78%
Secondaries	4.14%	2.02%	4.64%	20.57%	14.18%	13.38%	11.85%	12.72%
S&P 500	11.69%	-3.27%	21.62%	10.15%	9.92%	11.91%	11.28%	9.72%
Morningstar Global	11.15%	-3.19%	20.96%	7.24%	6.59%	7.94%	8.30%	8.46%
MSCI World Small Cap Growth	12.18%	-5.90%	14.26%	1.52%	3.39%	7.16%	9.09%	9.19%
Morningstar Global Real Estate	15.59%	-5.77%	1.51%	-1.14%	-0.44%	2.98%	4.89%	6.41%
Morningstar Real Assets	8.02%	-3.75%	4.68%	5.18%	2.50%	2.52%	3.75%	5.46%
Morningstar Global High Yield	7.92%	0.10%	12.74%	0.79%	2.21%	3.45%	6.71%	6.19%

Note: All public index values are total return CAGRs. All private capital returns are net of fees and carry.

*For private fund strategies, these are preliminary quarterly returns.
Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private capital

Equal-weighted horizon IRRs

Strategy	Q4 2023*	Q3 2023	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	0.20%	1.15%	2.42%	16.25%	13.65%	12.88%	10.75%	11.32%
Private equity	-2.04%	3.72%	11.22%	20.81%	17.36%	15.37%	12.67%	14.62%
Venture capital	-1.15%	-3.57%	-9.23%	16.87%	16.43%	14.49%	11.13%	9.82%
Real estate	-0.08%	-2.00%	-3.83%	9.25%	8.19%	10.05%	7.23%	7.49%
Real assets	4.33%	1.16%	5.80%	12.85%	7.13%	6.81%	6.89%	8.33%
Private debt	3.16%	3.32%	9.29%	10.76%	8.50%	9.10%	8.89%	9.33%
Funds of funds	0.44%	0.67%	-3.07%	17.71%	15.91%	14.57%	12.13%	12.04%
Secondaries	1.65%	4.52%	10.97%	20.45%	13.55%	12.46%	10.79%	12.09%
S&P 500	11.69%	-3.27%	21.62%	10.15%	9.92%	11.91%	11.28%	9.72%
Morningstar Global	11.15%	-3.19%	20.96%	7.24%	6.59%	7.94%	8.30%	8.46%
MSCI World Small Cap Growth	12.18%	-5.90%	14.26%	1.52%	3.39%	7.16%	9.09%	9.19%
Morningstar Global Real Estate	15.59%	-5.77%	1.51%	-1.14%	-0.44%	2.98%	4.89%	6.41%
Morningstar Real Assets	8.02%	-3.75%	4.68%	5.18%	2.50%	2.52%	3.75%	5.46%
Morningstar Global High Yield	7.92%	0.10%	12.74%	0.79%	2.21%	3.45%	6.71%	6.19%

Note: All public index values are total return CAGRs. All private capital returns are net of fees and carry.

*For private fund strategies, these are preliminary quarterly returns.
Source: PitchBook • Geography: Global • Data as of September 30, 2023

Annual horizon IRRs

Select global strategies

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	15-year horizon IRR
Private debt 19.8%	Growth/ expansion 20.8%	Oil & gas 19.6%	Secondaries 14.9%	Venture capital 21.5%	Venture capital 20.3%	Buyout 13.4%	Oil & gas 19.3%	Buyout 20.6%	Venture capital 18.8%	Growth/ expansion 19.7%	Venture capital 35.1%	Venture capital 56.8%	Oil & gas 31.5%	Buyout 8.9%	Growth/ expansion 14.4%
Buyout 8.9%	Secondaries 20.5%	Secondaries 13.9%	Buyout 14.7%	Real estate 19.5%	Infrastructure 14.1%	Venture capital 12.6%	Buyout 12.3%	Secondaries 16.1%	Growth/ expansion 18.2%	Venture capital 17.2%	Growth/ expansion 33.7%	Growth/ expansion 51.9%	Infrastructure 9.7%	Infrastructure 8.3%	Buyout 13.0%
Growth/ expansion 7.9%	Private debt 18.3%	Venture capital 10.9%	Private debt 14.0%	Buyout 17.9%	Growth/ expansion 13.6%	Funds of funds 12.4%	Private capital 9.9%	Growth/ expansion 15.6%	Funds of funds 16.3%	Buyout 16.0%	Funds of funds 24.3%	Funds of funds 46.5%	Real estate 6.8%	Private debt 7.0%	Secondaries 11.8%
Oil & gas 5.1%	Buyout 17.5%	Growth/ expansion 10.1%	Growth/ expansion 13.2%	Growth/ expansion 17.6%	Real estate 12.8%	Growth/ expansion 11.9%	Infrastructure 9.0%	Private capital 15.2%	Secondaries 14.3%	Private capital 11.7%	Buyout 21.0%	Secondaries 46.0%	Private debt 4.8%	Private capital 5.8%	Venture capital 11.2%
Private capital 2.8%	Oil & gas 17.1%	Real estate 8.8%	Private capital 12.5%	Private capital 15.8%	Buyout 12.4%	Real estate 10.9%	Growth/ expansion 8.7%	Real estate 13.3%	Infrastructure 11.9%	Funds of funds 11.2%	Private capital 15.2%	Buyout 44.4%	Secondaries 4.0%	Secondaries 4.3%	Private capital 11.1%
Funds of funds 1.1%	Private capital 15.8%	Private capital 8.1%	Real estate 11.1%	Private debt 11.3%	Private capital 12.4%	Infrastructure 10.4%	Private debt 8.6%	Funds of funds 12.7%	Private capital 10.7%	Secondaries 10.0%	Secondaries 10.2%	Oil & gas 44.0%	Private capital 0.3%	Growth/ expansion 4.1%	Funds of funds 10.3%
Venture capital -0.1%	Real estate 12.3%	Funds of funds 7.8%	Funds of funds 7.8%	Funds of funds 10.9%	Secondaries 12.3%	Secondaries 10.2%	Real estate 8.6%	Private debt 10.3%	Buyout 10.4%	Private debt 8.1%	Infrastructure 7.8%	Private capital 38.1%	Buyout -0.7%	Funds of funds 2.1%	Infrastructure 9.1%
Infrastructure -3.8%	Venture capital 11.7%	Infrastructure 7.7%	Venture capital 7.2%	Secondaries 10.2%	Funds of funds 12.1%	Private capital 10.1%	Funds of funds 7.7%	Venture capital 9.6%	Real estate 7.5%	Real estate 7.9%	Real estate 3.4%	Real estate 27.4%	Growth/ expansion -6.8%	Oil & gas 1.0%	Private debt 8.9%
Secondaries -7.8%	Infrastructure 6.2%	Buyout 7.7%	Infrastructure 7.0%	Oil & gas 7.0%	Private debt 11.7%	Private debt 5.0%	Secondaries 7.2%	Oil & gas 8.5%	Private debt 6.0%	Infrastructure 7.2%	Private debt 3.3%	Private debt 17.6%	Funds of funds -6.8%	Real estate -2.1%	Real estate 7.2%
Real estate -34.9%	Funds of funds 5.1%	Private debt 3.2%	Oil & gas 6.9%	Infrastructure 4.6%	Oil & gas -2.7%	Oil & gas -21.5%	Venture capital 0.1%	Infrastructure 7.6%	Oil & gas 4.2%	Oil & gas -12.0%	Oil & gas -20.9%	Infrastructure 16.1%	Venture capital -17.2%	Venture capital -2.7%	Oil & gas 5.3%

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private equity

Private equity

IRRs by vintage

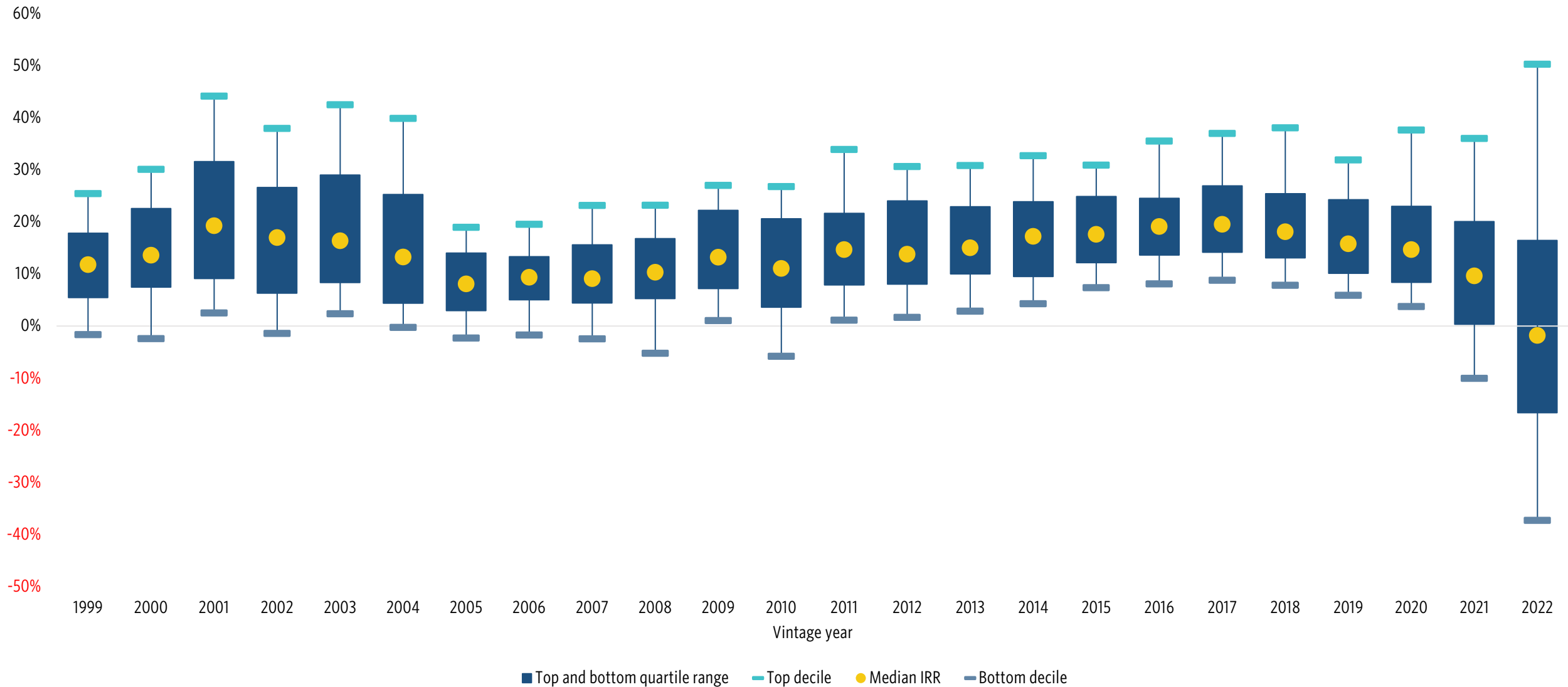
Pooled IRRs				IRR quantiles						
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1999	11.44%	11.20%	36	25.43%	17.81%	11.79%	5.47%	-1.65%	11.86%	85
2000	14.93%	12.26%	52	30.07%	22.58%	13.60%	7.47%	-2.42%	12.23%	113
2001	27.46%	22.77%	27	44.12%	31.59%	19.25%	9.12%	2.49%	20.03%	68
2002	20.42%	17.41%	29	37.92%	26.60%	16.98%	6.30%	-1.42%	17.91%	61
2003	16.11%	14.11%	30	42.48%	29.00%	16.37%	8.36%	2.36%	33.08%	75
2004	10.44%	11.34%	40	39.84%	25.27%	13.25%	4.40%	-0.29%	18.99%	70
2005	9.83%	9.24%	71	18.95%	14.03%	8.07%	2.96%	-2.33%	13.30%	116
2006	8.21%	8.33%	98	19.52%	13.31%	9.34%	5.04%	-1.74%	10.91%	163
2007	9.08%	9.70%	109	23.13%	15.60%	9.07%	4.42%	-2.46%	12.76%	179
2008	13.12%	10.88%	99	23.18%	16.79%	10.30%	5.27%	-5.23%	17.31%	143
2009	12.43%	13.92%	36	27.00%	22.20%	13.20%	7.20%	1.05%	16.27%	61
2010	11.60%	11.85%	46	26.77%	20.58%	11.05%	3.60%	-5.83%	13.48%	69
2011	14.78%	14.49%	77	33.90%	21.62%	14.68%	7.88%	1.10%	17.34%	101
2012	15.57%	14.98%	89	30.62%	24.03%	13.79%	8.04%	1.65%	14.42%	118
2013	14.53%	14.94%	88	30.80%	22.90%	15.00%	10.00%	2.86%	11.18%	107
2014	18.48%	18.33%	79	32.67%	23.87%	17.20%	9.49%	4.29%	13.54%	104
2015	19.83%	18.87%	94	30.87%	24.86%	17.59%	12.18%	7.36%	10.79%	112
2016	18.54%	19.76%	100	35.50%	24.52%	19.08%	13.64%	8.08%	12.85%	114
2017	22.01%	21.01%	108	36.97%	26.91%	19.54%	14.15%	8.77%	13.74%	124
2018	21.81%	23.71%	121	38.05%	25.40%	18.11%	13.09%	7.81%	14.64%	145
2019	18.94%	18.48%	123	31.89%	24.27%	15.78%	10.14%	5.90%	12.49%	153
2020	17.30%	18.03%	108	37.61%	22.97%	14.66%	8.38%	3.74%	22.40%	135
2021	7.56%	14.29%	158	35.98%	20.06%	9.64%	0.33%	-10.04%	19.77%	182
2022	1.85%	16.81%	111	50.24%	16.45%	-1.80%	-16.62%	-37.32%	41.97%	108

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private equity

IRRs by vintage



Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private equity

PMEs by vintage

S&P 500

Morningstar Global

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1999	11.44%	7.27%	1.46	11.44%	6.68%	1.28	36
2000	14.93%	7.00%	1.44	14.93%	6.06%	1.26	52
2001	27.46%	7.78%	1.66	27.46%	6.96%	1.50	27
2002	20.42%	8.69%	1.46	20.42%	7.97%	1.34	29
2003	16.11%	10.50%	1.43	16.11%	9.49%	1.37	30
2004	10.44%	9.42%	1.31	10.44%	7.97%	1.27	40
2005	9.83%	9.55%	1.18	9.83%	7.72%	1.25	71
2006	8.21%	9.54%	1.03	8.21%	7.14%	1.15	98
2007	9.08%	9.33%	0.93	9.08%	6.52%	1.07	109
2008	13.12%	10.20%	0.99	13.12%	6.86%	1.14	99
2009	12.43%	14.75%	0.94	12.43%	11.55%	1.10	36
2010	11.60%	12.93%	0.95	11.60%	9.03%	1.13	46
2011	14.78%	12.51%	1.05	14.78%	8.33%	1.23	77
2012	15.57%	13.12%	1.09	15.57%	9.27%	1.25	89
2013	14.53%	12.96%	1.07	14.53%	8.89%	1.22	88
2014	18.48%	11.88%	1.23	18.48%	8.03%	1.41	79
2015	19.83%	11.54%	1.22	19.83%	8.18%	1.37	94
2016	18.54%	13.71%	1.17	18.54%	10.54%	1.33	100
2017	22.01%	12.51%	1.28	22.01%	9.16%	1.43	108
2018	21.81%	11.23%	1.24	21.81%	7.03%	1.34	121
2019	18.94%	13.50%	1.19	18.94%	9.58%	1.28	123
2020	17.30%	13.22%	1.14	17.30%	9.58%	1.20	108
2021	7.56%	7.53%	1.01	7.56%	2.57%	1.05	158
2022	1.85%	1.59%	0.93	1.85%	-0.61%	0.95	111

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private equity

Multiples by vintage

Vintage year	Pooled multiples			Equal-weighted pooled multiples			Number of funds
	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999	1.66x	1.64x	0.02x	1.71x	1.67x	0.04x	36
2000	1.78x	1.77x	0.01x	1.70x	1.69x	0.02x	52
2001	2.14x	2.13x	0.01x	1.98x	1.97x	0.00x	27
2002	1.92x	1.92x	0.01x	1.83x	1.82x	0.01x	29
2003	1.83x	1.82x	0.01x	1.76x	1.73x	0.03x	30
2004	1.68x	1.67x	0.01x	1.68x	1.65x	0.03x	40
2005	1.61x	1.59x	0.02x	1.56x	1.53x	0.03x	71
2006	1.53x	1.51x	0.02x	1.53x	1.49x	0.04x	98
2007	1.54x	1.50x	0.04x	1.58x	1.52x	0.05x	109
2008	1.67x	1.62x	0.05x	1.60x	1.53x	0.07x	99
2009	1.65x	1.57x	0.08x	1.75x	1.65x	0.11x	36
2010	1.88x	1.60x	0.28x	1.81x	1.54x	0.27x	46
2011	1.89x	1.64x	0.25x	1.89x	1.62x	0.27x	77
2012	1.80x	1.40x	0.40x	1.75x	1.41x	0.34x	89
2013	1.77x	1.33x	0.44x	1.84x	1.36x	0.48x	88
2014	2.05x	1.33x	0.72x	2.09x	1.38x	0.72x	79
2015	1.94x	1.26x	0.69x	1.96x	1.21x	0.74x	94
2016	1.87x	0.96x	0.91x	1.89x	0.98x	0.91x	100
2017	1.84x	0.64x	1.20x	1.78x	0.71x	1.07x	108
2018	1.59x	0.39x	1.20x	1.72x	0.44x	1.28x	121
2019	1.43x	0.21x	1.23x	1.42x	0.24x	1.18x	123
2020	1.27x	0.15x	1.12x	1.31x	0.15x	1.16x	108
2021	1.10x	0.06x	1.04x	1.20x	0.11x	1.09x	158
2022	1.01x	0.03x	0.98x	1.14x	0.05x	1.09x	111

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private equity

Multiples by vintage

TVPI						DPI					Number of funds
Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	
1999	2.56x	2.14x	1.70x	1.18x	0.98x	2.46x	2.11x	1.70x	1.17x	0.98x	36
2000	2.67x	2.18x	1.66x	1.26x	0.84x	2.67x	2.18x	1.66x	1.26x	0.82x	52
2001	2.74x	2.35x	1.95x	1.55x	1.15x	2.74x	2.35x	1.95x	1.55x	1.15x	27
2002	2.58x	2.11x	1.80x	1.47x	1.20x	2.55x	2.11x	1.80x	1.47x	1.20x	29
2003	2.77x	1.93x	1.70x	1.40x	0.97x	2.77x	1.92x	1.66x	1.39x	0.91x	30
2004	2.56x	2.11x	1.66x	1.30x	0.98x	2.56x	2.10x	1.65x	1.21x	0.85x	40
2005	2.33x	1.84x	1.51x	1.17x	0.92x	2.22x	1.84x	1.49x	1.15x	0.92x	71
2006	2.10x	1.81x	1.49x	1.30x	0.89x	2.08x	1.78x	1.47x	1.19x	0.86x	98
2007	2.39x	1.98x	1.51x	1.22x	0.96x	2.31x	1.91x	1.46x	1.16x	0.84x	109
2008	2.28x	1.96x	1.57x	1.23x	0.82x	2.21x	1.91x	1.47x	1.10x	0.82x	99
2009	2.67x	2.21x	1.59x	1.34x	1.15x	2.54x	2.21x	1.51x	1.28x	0.88x	36
2010	2.98x	2.12x	1.74x	1.15x	0.77x	2.57x	1.88x	1.46x	1.00x	0.60x	46
2011	3.22x	2.29x	1.79x	1.43x	0.92x	2.88x	2.08x	1.51x	1.12x	0.59x	77
2012	2.62x	2.09x	1.69x	1.34x	1.04x	2.43x	1.79x	1.37x	0.94x	0.57x	89
2013	2.56x	2.10x	1.77x	1.43x	1.10x	2.00x	1.64x	1.24x	0.90x	0.60x	88
2014	3.49x	2.36x	1.97x	1.48x	1.25x	2.47x	1.69x	1.18x	0.79x	0.44x	79
2015	2.64x	2.22x	1.83x	1.64x	1.31x	1.83x	1.45x	1.18x	0.91x	0.62x	94
2016	2.41x	2.04x	1.83x	1.55x	1.37x	1.59x	1.20x	0.94x	0.57x	0.33x	100
2017	2.55x	2.04x	1.72x	1.42x	1.20x	1.29x	0.95x	0.57x	0.39x	0.27x	108
2018	2.19x	1.83x	1.53x	1.38x	1.22x	0.88x	0.61x	0.34x	0.15x	0.08x	121
2019	1.86x	1.56x	1.36x	1.19x	1.11x	0.57x	0.33x	0.16x	0.05x	0.00x	123
2020	1.58x	1.36x	1.25x	1.11x	1.03x	0.35x	0.21x	0.07x	0.01x	0.00x	108
2021	1.44x	1.26x	1.09x	1.00x	0.85x	0.25x	0.08x	0.01x	0.00x	0.00x	158
2022	1.38x	1.11x	0.97x	0.88x	0.75x	0.11x	0.01x	0.00x	0.00x	0.00x	111

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private equity

Quarterly return

Quarter end	1-quarter return
Q1 2001	-7.50%
Q2 2001	1.15%
Q3 2001	-6.12%
Q4 2001	-2.76%
Q1 2002	-0.67%
Q2 2002	-1.09%
Q3 2002	-4.44%
Q4 2002	0.16%
Q1 2003	-0.09%
Q2 2003	6.45%
Q3 2003	3.95%
Q4 2003	10.15%
Q1 2004	3.15%
Q2 2004	5.08%
Q3 2004	2.95%
Q4 2004	14.02%
Q1 2005	1.67%
Q2 2005	8.85%
Q3 2005	6.21%
Q4 2005	10.51%
Q1 2006	4.35%
Q2 2006	5.60%
Q3 2006	4.05%
Q4 2006	15.40%

Quarter end	1-quarter return
Q1 2007	4.08%
Q2 2007	11.07%
Q3 2007	3.26%
Q4 2007	3.31%
Q1 2008	0.43%
Q2 2008	-2.09%
Q3 2008	-8.20%
Q4 2008	-13.21%
Q1 2009	-7.20%
Q2 2009	4.79%
Q3 2009	5.42%
Q4 2009	7.62%
Q1 2010	2.26%
Q2 2010	1.80%
Q3 2010	4.58%
Q4 2010	8.02%
Q1 2011	4.81%
Q2 2011	4.75%
Q3 2011	-3.28%
Q4 2011	1.65%
Q1 2012	6.01%
Q2 2012	0.74%
Q3 2012	3.80%
Q4 2012	3.07%

Quarter end	1-quarter return
Q1 2013	3.17%
Q2 2013	3.00%
Q3 2013	5.06%
Q4 2013	6.05%
Q1 2014	4.51%
Q2 2014	5.09%
Q3 2014	-0.42%
Q4 2014	3.14%
Q1 2015	3.77%
Q2 2015	5.80%
Q3 2015	0.68%
Q4 2015	2.02%
Q1 2016	1.44%
Q2 2016	4.33%
Q3 2016	4.44%
Q4 2016	0.98%
Q1 2017	4.82%
Q2 2017	5.37%
Q3 2017	4.51%
Q4 2017	4.24%
Q1 2018	3.64%
Q2 2018	3.93%
Q3 2018	4.32%
Q4 2018	-1.01%

Quarter end	1-quarter return
Q1 2019	4.58%
Q2 2019	2.95%
Q3 2019	2.83%
Q4 2019	5.14%
Q1 2020	-8.63%
Q2 2020	9.97%
Q3 2020	11.99%
Q4 2020	8.27%
Q1 2021	14.23%
Q2 2021	13.45%
Q3 2021	6.16%
Q4 2021	5.88%
Q1 2022	0.93%
Q2 2022	-2.77%
Q3 2022	-1.52%
Q4 2022	1.77%
Q1 2023	3.81%
Q2 2023	2.50%
Q3 2023	2.26%
Q4 2023*	-0.43%

Note: All private capital returns are net of fees and carry.

*Preliminary figure
Source: PitchBook • Geography: Global

Venture capital

Venture capital

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
1999	-2.10%	-3.27%	37	10.11%	5.06%	-3.11%	-12.27%	-19.66%	34.09%	75
2000	-0.60%	-1.75%	63	10.30%	4.61%	-0.93%	-5.63%	-14.00%	11.02%	116
2001	4.81%	3.91%	33	15.60%	7.33%	3.50%	-2.94%	-12.75%	18.88%	71
2002	0.77%	1.77%	18	12.86%	8.93%	2.07%	-6.78%	-16.04%	16.24%	44
2003	3.80%	-0.78%	21	14.94%	6.73%	0.85%	-10.51%	-19.01%	24.84%	36
2004	5.00%	8.05%	23	15.49%	8.18%	1.06%	-7.90%	-18.84%	17.96%	43
2005	6.93%	6.42%	30	12.59%	8.94%	3.35%	-2.87%	-11.35%	17.01%	62
2006	5.77%	5.07%	47	19.09%	10.36%	5.59%	-6.11%	-10.42%	13.96%	79
2007	13.74%	15.85%	42	26.95%	17.08%	10.85%	2.21%	-9.37%	15.75%	84
2008	15.46%	10.30%	51	29.03%	20.58%	10.12%	-0.18%	-14.57%	21.53%	82
2009	12.13%	9.62%	22	30.14%	21.30%	9.05%	2.93%	-5.32%	17.07%	35
2010	12.31%	14.48%	21	41.30%	23.77%	10.93%	1.89%	-7.14%	19.39%	47
2011	19.88%	22.04%	21	31.80%	22.67%	15.96%	9.10%	4.84%	18.29%	61
2012	18.03%	19.11%	21	42.30%	29.42%	17.51%	8.80%	0.56%	16.14%	49
2013	18.85%	14.34%	20	36.94%	24.07%	17.10%	9.80%	4.25%	15.22%	52
2014	18.58%	17.40%	35	31.54%	23.95%	16.45%	10.84%	4.30%	12.89%	59
2015	16.43%	17.15%	40	36.24%	25.66%	16.34%	8.98%	1.66%	13.76%	70
2016	21.59%	23.39%	40	37.98%	28.87%	20.65%	12.21%	5.56%	25.37%	70
2017	20.52%	20.62%	36	41.83%	25.86%	19.00%	12.00%	8.06%	13.16%	57
2018	19.88%	19.99%	36	35.40%	28.62%	18.48%	9.66%	4.90%	18.56%	75
2019	15.45%	16.42%	36	33.63%	25.23%	14.70%	6.80%	0.97%	13.27%	76
2020	12.89%	20.87%	43	47.70%	25.78%	14.00%	4.86%	-5.27%	26.25%	83
2021	-0.74%	6.89%	78	24.04%	10.04%	1.46%	-5.82%	-14.92%	18.55%	102
2022	-4.20%	-5.84%	58	19.00%	5.11%	-6.07%	-16.74%	-23.13%	16.68%	71

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Venture capital

IRRs by vintage



Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Venture capital

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
1999	-2.10%	7.27%	0.79	-2.10%	8.11%	0.66	37
2000	-0.60%	7.00%	0.70	-0.60%	6.27%	0.55	63
2001	4.81%	7.78%	0.91	4.81%	8.05%	0.74	33
2002	0.77%	8.69%	0.69	0.77%	9.19%	0.56	18
2003	3.80%	10.50%	0.83	3.80%	10.85%	0.73	21
2004	5.00%	9.42%	0.87	5.00%	8.72%	0.82	23
2005	6.93%	9.55%	0.88	6.93%	8.36%	0.90	30
2006	5.77%	9.54%	0.78	5.77%	7.54%	0.80	47
2007	13.74%	9.33%	1.12	13.74%	7.16%	1.18	42
2008	15.46%	10.20%	1.10	15.46%	7.87%	1.19	51
2009	12.13%	14.75%	0.91	12.13%	12.81%	1.04	22
2010	12.31%	12.93%	0.94	12.31%	9.87%	1.07	21
2011	19.88%	12.51%	1.36	19.88%	8.36%	1.56	21
2012	18.03%	13.12%	1.31	18.03%	9.34%	1.57	21
2013	18.85%	12.96%	1.30	18.85%	9.06%	1.50	20
2014	18.58%	11.88%	1.35	18.58%	7.20%	1.62	35
2015	16.43%	11.54%	1.15	16.43%	7.81%	1.38	40
2016	21.59%	13.71%	1.37	21.59%	9.92%	1.68	40
2017	20.52%	12.51%	1.29	20.52%	8.21%	1.59	36
2018	19.88%	11.23%	1.26	19.88%	5.24%	1.56	36
2019	15.45%	13.50%	1.12	15.45%	7.37%	1.38	36
2020	12.89%	13.22%	1.10	12.89%	7.16%	1.31	43
2021	-0.74%	7.53%	0.89	-0.74%	-6.02%	1.03	78
2022	-4.20%	1.59%	0.85	-4.20%	-5.08%	0.97	58

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Venture capital

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1999	0.87x	0.84x	0.04x	0.81x	0.80x	0.01x	37
2000	0.96x	0.95x	0.01x	0.88x	0.87x	0.01x	63
2001	1.37x	1.33x	0.05x	1.30x	1.25x	0.05x	33
2002	1.05x	1.04x	0.02x	1.14x	1.00x	0.14x	18
2003	1.28x	1.26x	0.02x	0.95x	0.94x	0.01x	21
2004	1.41x	1.35x	0.07x	1.78x	1.54x	0.24x	23
2005	1.64x	1.52x	0.12x	1.62x	1.48x	0.14x	30
2006	1.46x	1.32x	0.14x	1.43x	1.26x	0.17x	47
2007	2.15x	1.89x	0.26x	2.18x	1.82x	0.36x	42
2008	2.29x	2.06x	0.23x	1.88x	1.56x	0.32x	51
2009	2.21x	1.64x	0.56x	1.96x	1.19x	0.77x	22
2010	1.86x	1.48x	0.38x	2.09x	1.69x	0.40x	21
2011	3.12x	2.38x	0.73x	3.61x	2.79x	0.81x	21
2012	2.91x	1.75x	1.16x	3.19x	2.02x	1.17x	21
2013	2.33x	1.52x	0.82x	2.08x	1.17x	0.91x	20
2014	2.77x	1.36x	1.41x	2.66x	1.30x	1.36x	35
2015	2.09x	0.83x	1.26x	2.16x	0.80x	1.36x	40
2016	2.33x	0.77x	1.56x	2.40x	0.85x	1.55x	40
2017	2.01x	0.44x	1.57x	2.06x	0.43x	1.63x	36
2018	1.80x	0.28x	1.53x	1.88x	0.36x	1.51x	36
2019	1.46x	0.09x	1.38x	1.48x	0.06x	1.43x	36
2020	1.25x	0.08x	1.17x	1.44x	0.15x	1.30x	43
2021	0.99x	0.02x	0.97x	1.11x	0.06x	1.05x	78
2022	0.94x	0.00x	0.94x	0.94x	0.02x	0.93x	58

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Venture capital

Multiples by vintage

TVPI						DPI					Number of funds
Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	
1999	1.46x	1.14x	0.75x	0.40x	0.21x	1.41x	1.14x	0.74x	0.40x	0.21x	37
2000	1.43x	1.14x	0.92x	0.60x	0.27x	1.43x	1.13x	0.91x	0.58x	0.27x	63
2001	2.05x	1.66x	1.26x	0.94x	0.63x	1.87x	1.62x	1.26x	0.81x	0.63x	33
2002	1.77x	1.57x	1.18x	0.62x	0.35x	1.65x	1.48x	0.92x	0.56x	0.35x	18
2003	1.46x	1.39x	1.02x	0.45x	0.37x	1.44x	1.37x	1.01x	0.45x	0.37x	21
2004	2.94x	1.75x	1.03x	0.68x	0.42x	1.87x	1.42x	1.02x	0.68x	0.42x	23
2005	2.36x	1.72x	1.29x	0.84x	0.45x	2.17x	1.63x	1.25x	0.74x	0.36x	30
2006	2.67x	2.01x	1.40x	0.68x	0.42x	2.25x	1.58x	1.24x	0.64x	0.31x	47
2007	2.82x	2.61x	1.83x	1.02x	0.52x	2.72x	2.37x	1.68x	0.84x	0.37x	42
2008	4.20x	2.43x	1.49x	0.69x	0.22x	3.15x	2.11x	1.13x	0.38x	0.21x	51
2009	2.91x	2.50x	1.75x	0.98x	0.69x	2.44x	1.64x	0.93x	0.52x	0.40x	22
2010	3.35x	2.25x	1.58x	1.18x	0.76x	3.35x	1.88x	1.10x	0.75x	0.48x	21
2011	4.28x	3.24x	1.97x	1.74x	1.40x	3.02x	2.38x	1.52x	1.38x	0.74x	21
2012	4.13x	3.02x	2.10x	1.37x	0.94x	3.40x	2.43x	1.37x	0.56x	0.29x	21
2013	3.70x	2.62x	2.12x	1.30x	0.63x	2.00x	1.59x	1.16x	0.42x	0.26x	20
2014	4.85x	3.04x	2.25x	1.93x	1.47x	2.33x	1.88x	1.18x	0.68x	0.19x	35
2015	3.54x	2.51x	1.99x	1.29x	1.09x	1.55x	0.97x	0.49x	0.24x	0.05x	40
2016	4.21x	2.85x	2.08x	1.52x	1.29x	2.03x	1.14x	0.59x	0.22x	0.08x	40
2017	2.91x	2.27x	1.90x	1.59x	1.29x	0.99x	0.67x	0.23x	0.08x	0.01x	36
2018	2.65x	2.31x	1.72x	1.36x	1.17x	1.10x	0.50x	0.06x	0.00x	0.00x	36
2019	1.93x	1.64x	1.37x	1.20x	1.04x	0.11x	0.05x	0.00x	0.00x	0.00x	36
2020	1.75x	1.47x	1.26x	1.07x	0.90x	0.33x	0.09x	0.00x	0.00x	0.00x	43
2021	1.30x	1.13x	1.02x	0.91x	0.80x	0.05x	0.00x	0.00x	0.00x	0.00x	78
2022	1.09x	1.03x	0.89x	0.83x	0.79x	0.03x	0.00x	0.00x	0.00x	0.00x	58

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Venture capital

Quarterly return

Quarter end	1-quarter return
Q1 2001	-12.13%
Q2 2001	-8.37%
Q3 2001	-14.64%
Q4 2001	-11.52%
Q1 2002	-6.66%
Q2 2002	-12.63%
Q3 2002	-8.04%
Q4 2002	-13.11%
Q1 2003	-5.70%
Q2 2003	-2.02%
Q3 2003	-2.55%
Q4 2003	2.55%
Q1 2004	0.05%
Q2 2004	1.43%
Q3 2004	-0.90%
Q4 2004	2.66%
Q1 2005	-1.89%
Q2 2005	0.97%
Q3 2005	4.69%
Q4 2005	2.02%
Q1 2006	3.15%
Q2 2006	1.07%
Q3 2006	1.68%
Q4 2006	7.15%

Quarter end	1-quarter return
Q1 2007	2.25%
Q2 2007	5.90%
Q3 2007	2.00%
Q4 2007	3.80%
Q1 2008	2.33%
Q2 2008	-2.26%
Q3 2008	-2.85%
Q4 2008	-9.26%
Q1 2009	-3.85%
Q2 2009	0.05%
Q3 2009	1.02%
Q4 2009	2.98%
Q1 2010	1.24%
Q2 2010	-0.31%
Q3 2010	4.26%
Q4 2010	6.89%
Q1 2011	4.66%
Q2 2011	4.57%
Q3 2011	-0.10%
Q4 2011	1.73%
Q1 2012	4.11%
Q2 2012	1.45%
Q3 2012	-0.20%
Q4 2012	2.05%

Quarter end	1-quarter return
Q1 2013	2.17%
Q2 2013	4.74%
Q3 2013	5.65%
Q4 2013	8.78%
Q1 2014	5.30%
Q2 2014	4.13%
Q3 2014	2.54%
Q4 2014	7.29%
Q1 2015	4.44%
Q2 2015	6.96%
Q3 2015	-0.78%
Q4 2015	2.19%
Q1 2016	-3.34%
Q2 2016	0.40%
Q3 2016	-0.01%
Q4 2016	3.45%
Q1 2017	1.90%
Q2 2017	2.35%
Q3 2017	3.85%
Q4 2017	1.84%
Q1 2018	6.61%
Q2 2018	5.73%
Q3 2018	4.34%
Q4 2018	0.98%

Quarter end	1-quarter return
Q1 2019	6.75%
Q2 2019	2.47%
Q3 2019	1.56%
Q4 2019	5.62%
Q1 2020	-1.88%
Q2 2020	8.78%
Q3 2020	11.74%
Q4 2020	14.63%
Q1 2021	21.67%
Q2 2021	13.53%
Q3 2021	6.47%
Q4 2021	6.48%
Q1 2022	-4.04%
Q2 2022	-8.61%
Q3 2022	-2.71%
Q4 2022	-5.44%
Q1 2023	-0.56%
Q2 2023	0.04%
Q3 2023	-2.66%
Q4 2023*	-1.57%

Note: All private capital returns are net of fees and carry.

*Preliminary figure
Source: PitchBook • Geography: Global

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
1999	11.24%	9.37%	4	20.11%	15.94%	10.33%	9.14%	2.79%	7.41%	22
2000	19.78%	17.88%	11	31.14%	27.72%	16.32%	10.96%	5.11%	10.59%	24
2001	28.04%	25.12%	3	28.30%	23.00%	16.26%	10.40%	2.70%	9.55%	21
2002	26.40%	14.79%	2	27.05%	21.80%	10.26%	6.06%	-0.43%	16.00%	20
2003	10.51%	9.98%	5	39.66%	19.66%	13.60%	5.50%	1.08%	40.63%	33
2004	5.35%	7.23%	8	43.56%	13.73%	6.08%	0.09%	-5.34%	19.99%	43
2005	-0.30%	-1.25%	28	10.70%	3.40%	-2.40%	-8.60%	-18.10%	21.75%	61
2006	-3.02%	-1.58%	33	7.87%	5.08%	0.09%	-9.38%	-15.30%	12.84%	76
2007	3.75%	1.91%	56	13.40%	9.95%	4.49%	-1.02%	-14.02%	13.56%	93
2008	6.76%	5.83%	33	17.55%	11.30%	7.52%	1.18%	-7.59%	12.51%	66
2009	9.72%	8.81%	17	24.07%	15.88%	10.22%	6.52%	-0.26%	16.21%	32
2010	17.56%	13.16%	23	23.09%	19.20%	12.10%	6.42%	1.10%	10.11%	41
2011	14.00%	12.31%	40	24.08%	19.11%	13.50%	8.94%	4.30%	8.90%	56
2012	12.64%	10.62%	41	23.44%	16.69%	11.60%	7.98%	3.97%	7.91%	59
2013	9.88%	9.17%	51	21.12%	15.36%	11.30%	6.98%	0.50%	9.91%	57
2014	10.87%	10.07%	51	19.05%	15.28%	10.17%	5.35%	-1.24%	12.38%	59
2015	11.50%	11.61%	69	22.69%	15.17%	10.61%	7.04%	2.29%	7.77%	78
2016	11.64%	10.57%	48	21.44%	14.95%	10.00%	5.27%	0.90%	9.43%	61
2017	9.96%	10.05%	71	26.78%	16.66%	9.97%	5.83%	0.96%	10.72%	74
2018	10.33%	11.65%	72	22.06%	14.59%	11.12%	5.40%	-2.12%	11.34%	77
2019	14.22%	10.72%	56	23.16%	16.63%	9.20%	6.00%	-1.04%	11.15%	55
2020	11.36%	11.10%	39	22.48%	15.91%	11.47%	6.04%	-1.31%	8.27%	42
2021	5.76%	6.68%	80	19.50%	12.87%	5.00%	-2.90%	-15.50%	35.65%	81
2022	-1.86%	5.79%	50	12.08%	7.65%	-5.11%	-25.19%	-34.60%	28.75%	55

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real estate

IRRs by vintage



Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real estate

PMEs by vintage

S&P 500				Morningstar Global Real Estate			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1999	11.24%	7.27%	1.44	11.24%	7.18%	1.02	4
2000	19.78%	7.00%	1.63	19.78%	7.09%	1.12	11
2001	28.04%	7.78%	1.54	28.04%	6.94%	1.13	3
2002	26.40%	8.69%	1.56	26.40%	7.36%	1.27	2
2003	10.51%	10.50%	1.08	10.51%	7.87%	0.92	5
2004	5.35%	9.42%	0.95	5.35%	5.92%	0.98	8
2005	-0.30%	9.55%	0.66	-0.30%	5.11%	0.77	28
2006	-3.02%	9.54%	0.46	-3.02%	3.89%	0.55	33
2007	3.75%	9.33%	0.72	3.75%	2.17%	0.82	56
2008	6.76%	10.20%	0.79	6.76%	3.46%	0.88	33
2009	9.72%	14.75%	0.84	9.72%	9.41%	0.96	17
2010	17.56%	12.93%	1.06	17.56%	5.93%	1.15	23
2011	14.00%	12.51%	1.01	14.00%	4.61%	1.21	40
2012	12.64%	13.12%	0.99	12.64%	5.06%	1.22	41
2013	9.88%	12.96%	0.94	9.88%	3.39%	1.14	51
2014	10.87%	11.88%	0.94	10.87%	3.65%	1.20	51
2015	11.50%	11.54%	0.95	11.50%	2.10%	1.30	69
2016	11.64%	13.71%	0.96	11.64%	3.51%	1.33	48
2017	9.96%	12.51%	0.89	9.96%	2.34%	1.24	71
2018	10.33%	11.23%	0.97	10.33%	0.82%	1.30	72
2019	14.22%	13.50%	1.06	14.22%	0.13%	1.35	56
2020	11.36%	13.22%	1.05	11.36%	-1.82%	1.27	39
2021	5.76%	7.53%	0.99	5.76%	-3.71%	1.17	80
2022	-1.86%	1.59%	0.90	-1.86%	-12.79%	1.03	50

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real estate

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			Number of funds
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999	1.44x	1.43x	0.00x	1.44x	1.44x	0.00x	4
2000	1.79x	1.79x	0.00x	1.76x	1.76x	0.00x	11
2001	1.88x	1.88x	0.01x	1.87x	1.74x	0.13x	3
2002	2.28x	2.04x	0.24x	1.74x	1.60x	0.14x	2
2003	1.34x	1.33x	0.00x	1.32x	1.32x	0.01x	5
2004	1.28x	1.22x	0.06x	1.47x	1.33x	0.14x	8
2005	0.98x	0.97x	0.01x	0.92x	0.91x	0.01x	28
2006	0.81x	0.77x	0.04x	0.90x	0.87x	0.03x	33
2007	1.19x	1.15x	0.04x	1.10x	1.05x	0.05x	56
2008	1.33x	1.29x	0.04x	1.28x	1.25x	0.03x	33
2009	1.42x	1.40x	0.01x	1.40x	1.38x	0.02x	17
2010	1.53x	1.50x	0.03x	1.57x	1.46x	0.11x	23
2011	1.58x	1.45x	0.13x	1.60x	1.38x	0.21x	40
2012	1.50x	1.37x	0.13x	1.40x	1.29x	0.11x	41
2013	1.35x	1.17x	0.18x	1.36x	1.11x	0.25x	51
2014	1.40x	1.11x	0.29x	1.47x	1.06x	0.41x	51
2015	1.48x	0.98x	0.50x	1.45x	1.05x	0.40x	69
2016	1.42x	0.84x	0.59x	1.40x	0.91x	0.49x	48
2017	1.35x	0.69x	0.66x	1.38x	0.71x	0.66x	71
2018	1.26x	0.39x	0.87x	1.30x	0.51x	0.79x	72
2019	1.28x	0.35x	0.93x	1.24x	0.35x	0.89x	56
2020	1.17x	0.20x	0.97x	1.18x	0.21x	0.97x	39
2021	1.07x	0.12x	0.94x	1.08x	0.19x	0.90x	80
2022	0.99x	0.15x	0.83x	1.05x	0.28x	0.77x	50

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real estate

Multiples by vintage

TVPI						DPI					Number of funds
Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	
1999		1.55x	1.28x	1.20x			1.55x	1.28x	1.20x		4
2000	2.38x	1.94x	1.53x	1.41x	1.20x	2.37x	1.94x	1.53x	1.41x	1.19x	11
2001			1.99x					1.68x			3
2002			1.73x					1.60x			2
2003		1.31x	1.25x	1.11x			1.31x	1.24x	1.10x		5
2004		1.95x	1.42x	1.07x			1.65x	1.42x	1.03x		8
2005	1.35x	1.09x	0.97x	0.69x	0.42x	1.35x	1.09x	0.92x	0.68x	0.42x	28
2006	1.56x	1.15x	0.83x	0.52x	0.34x	1.52x	1.10x	0.83x	0.50x	0.34x	33
2007	1.68x	1.39x	1.19x	0.84x	0.42x	1.67x	1.36x	1.14x	0.73x	0.42x	56
2008	1.69x	1.58x	1.40x	1.07x	0.59x	1.68x	1.58x	1.40x	1.02x	0.58x	33
2009	2.02x	1.60x	1.38x	1.20x	0.83x	1.98x	1.60x	1.37x	1.20x	0.83x	17
2010	2.01x	1.71x	1.60x	1.27x	1.11x	1.73x	1.67x	1.57x	1.18x	0.97x	23
2011	2.19x	1.83x	1.56x	1.34x	1.11x	1.92x	1.71x	1.44x	1.16x	0.73x	40
2012	1.86x	1.53x	1.39x	1.25x	1.13x	1.86x	1.49x	1.36x	1.06x	0.89x	41
2013	1.78x	1.61x	1.39x	1.14x	1.00x	1.61x	1.48x	1.26x	0.80x	0.46x	51
2014	1.82x	1.66x	1.45x	1.21x	1.10x	1.54x	1.44x	1.04x	0.76x	0.41x	51
2015	1.81x	1.67x	1.41x	1.20x	1.07x	1.66x	1.44x	1.03x	0.60x	0.33x	69
2016	1.80x	1.54x	1.33x	1.17x	1.01x	1.62x	1.23x	0.80x	0.57x	0.24x	48
2017	1.92x	1.57x	1.35x	1.13x	1.03x	1.40x	1.06x	0.59x	0.28x	0.12x	71
2018	1.61x	1.40x	1.29x	1.13x	0.96x	0.98x	0.67x	0.43x	0.20x	0.08x	72
2019	1.59x	1.33x	1.18x	1.06x	0.88x	0.69x	0.46x	0.20x	0.11x	0.04x	56
2020	1.49x	1.25x	1.16x	1.03x	0.94x	0.32x	0.27x	0.13x	0.04x	0.00x	39
2021	1.31x	1.17x	1.06x	0.97x	0.74x	0.41x	0.20x	0.08x	0.00x	0.00x	80
2022	1.22x	1.11x	0.97x	0.82x	0.62x	0.66x	0.13x	0.02x	0.00x	0.00x	50

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real estate

Quarterly return

Quarter end	1-quarter return
Q1 2001	4.54%
Q2 2001	1.64%
Q3 2001	0.30%
Q4 2001	2.13%
Q1 2002	1.53%
Q2 2002	1.84%
Q3 2002	1.87%
Q4 2002	-0.96%
Q1 2003	-0.82%
Q2 2003	2.13%
Q3 2003	5.18%
Q4 2003	10.09%
Q1 2004	-2.12%
Q2 2004	4.63%
Q3 2004	3.01%
Q4 2004	15.70%
Q1 2005	1.63%
Q2 2005	6.99%
Q3 2005	13.07%
Q4 2005	16.07%
Q1 2006	4.54%
Q2 2006	7.46%
Q3 2006	9.21%
Q4 2006	18.06%

Quarter end	1-quarter return
Q1 2007	2.02%
Q2 2007	8.97%
Q3 2007	2.17%
Q4 2007	6.11%
Q1 2008	-2.54%
Q2 2008	-4.23%
Q3 2008	-8.63%
Q4 2008	-14.73%
Q1 2009	-19.89%
Q2 2009	-11.62%
Q3 2009	-5.80%
Q4 2009	-3.77%
Q1 2010	-5.67%
Q2 2010	5.28%
Q3 2010	3.39%
Q4 2010	8.05%
Q1 2011	4.53%
Q2 2011	3.42%
Q3 2011	-0.01%
Q4 2011	0.10%
Q1 2012	3.95%
Q2 2012	0.31%
Q3 2012	4.75%
Q4 2012	2.62%

Quarter end	1-quarter return
Q1 2013	3.29%
Q2 2013	4.78%
Q3 2013	1.32%
Q4 2013	8.38%
Q1 2014	3.03%
Q2 2014	2.40%
Q3 2014	3.59%
Q4 2014	4.36%
Q1 2015	1.44%
Q2 2015	4.35%
Q3 2015	2.60%
Q4 2015	1.85%
Q1 2016	1.66%
Q2 2016	1.95%
Q3 2016	3.31%
Q4 2016	1.23%
Q1 2017	3.76%
Q2 2017	3.27%
Q3 2017	3.98%
Q4 2017	1.41%
Q1 2018	3.54%
Q2 2018	1.74%
Q3 2018	1.57%
Q4 2018	-0.65%

Quarter end	1-quarter return
Q1 2019	1.57%
Q2 2019	1.97%
Q3 2019	3.18%
Q4 2019	2.03%
Q1 2020	-3.21%
Q2 2020	-0.69%
Q3 2020	4.57%
Q4 2020	0.98%
Q1 2021	5.68%
Q2 2021	5.12%
Q3 2021	8.98%
Q4 2021	7.16%
Q1 2022	6.90%
Q2 2022	1.66%
Q3 2022	-1.07%
Q4 2022	-0.50%
Q1 2023	-0.15%
Q2 2023	-1.03%
Q3 2023	-1.08%
Q4 2023*	1.35%

Note: All private capital returns are net of fees and carry.

*Preliminary figure
Source: PitchBook • Geography: Global

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
1999	25.38%	25.38%	1		24.00%	14.70%	8.20%		12.95%	5
2000					42.51%	24.43%	21.70%		22.64%	6
2001	49.72%	49.72%	1			58.25%			15.63%	2
2002	35.14%	40.15%	4		50.53%	36.05%	27.35%		13.65%	5
2003	28.03%	28.76%	2		28.20%	24.70%	17.90%		23.99%	9
2004	19.85%	14.46%	5	19.83%	17.54%	14.16%	5.53%	1.83%	9.13%	10
2005	8.15%	8.59%	10	17.50%	10.64%	3.26%	-0.90%	-5.96%	9.33%	18
2006	5.51%	3.56%	14	19.86%	13.31%	5.84%	-1.83%	-8.90%	13.28%	22
2007	4.22%	4.42%	19	12.54%	10.98%	3.81%	-0.08%	-10.28%	12.77%	32
2008	4.33%	5.08%	23	13.40%	8.61%	5.81%	-1.75%	-9.96%	11.52%	31
2009	0.06%	1.16%	11	12.01%	11.34%	1.98%	-10.29%	-17.41%	12.79%	15
2010	3.43%	3.74%	22	16.12%	8.45%	3.05%	-6.07%	-19.75%	15.83%	26
2011	6.06%	4.49%	21	16.72%	10.99%	6.90%	0.30%	-9.50%	11.43%	31
2012	7.03%	7.30%	28	23.28%	11.35%	7.60%	3.80%	-7.11%	51.56%	33
2013	8.26%	6.63%	26	17.40%	12.09%	6.10%	1.05%	-4.70%	8.39%	31
2014	8.49%	6.95%	43	17.18%	13.18%	8.98%	3.71%	-3.22%	12.34%	44
2015	10.09%	9.18%	37	18.07%	13.33%	10.31%	7.05%	3.64%	32.97%	32
2016	10.91%	12.24%	34	17.00%	11.80%	8.30%	5.14%	-0.52%	7.84%	41
2017	11.83%	8.86%	47	19.21%	15.48%	10.43%	6.90%	1.42%	9.34%	50
2018	10.87%	10.00%	40	25.32%	16.93%	12.10%	7.65%	3.68%	9.80%	35
2019	11.46%	16.04%	40	27.35%	19.44%	13.40%	9.45%	4.26%	15.77%	39
2020	14.12%	12.72%	29	38.98%	22.09%	11.80%	8.14%	0.84%	24.22%	47
2021	1.80%	9.29%	30	27.38%	15.53%	7.59%	1.06%	-9.01%	18.71%	38
2022	13.14%	11.76%	28	44.71%	14.04%	1.93%	-4.92%	-8.29%	22.60%	27

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real assets

IRRs by vintage



Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real assets

PMEs by vintage

S&P 500				Morningstar Real Assets			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1999	25.38%	7.27%	1.82	25.38%			1
2000							
2001	49.72%	7.78%	2.35	49.72%	6.18%	2.09	1
2002	35.14%	8.69%	1.58	35.14%	6.11%	1.53	4
2003	28.03%	10.50%	1.57	28.03%	5.83%	1.52	2
2004	19.85%	9.42%	1.42	19.85%	5.20%	1.33	5
2005	8.15%	9.55%	1.13	8.15%	4.76%	1.12	10
2006	5.51%	9.54%	0.89	5.51%	4.45%	1.03	14
2007	4.22%	9.33%	0.79	4.22%	4.25%	0.97	19
2008	4.33%	10.20%	0.64	4.33%	3.60%	1.01	23
2009	0.06%	14.75%	0.54	0.06%	4.90%	0.85	11
2010	3.43%	12.93%	0.64	3.43%	3.82%	1.03	22
2011	6.06%	12.51%	0.70	6.06%	2.83%	1.18	21
2012	7.03%	13.12%	0.78	7.03%	2.48%	1.20	28
2013	8.26%	12.96%	0.84	8.26%	2.50%	1.26	26
2014	8.49%	11.88%	0.86	8.49%	2.88%	1.22	43
2015	10.09%	11.54%	0.91	10.09%	2.77%	1.26	37
2016	10.91%	13.71%	0.93	10.91%	3.98%	1.26	34
2017	11.83%	12.51%	0.99	11.83%	3.68%	1.26	47
2018	10.87%	11.23%	0.99	10.87%	3.90%	1.18	40
2019	11.46%	13.50%	1.02	11.46%	4.32%	1.17	40
2020	14.12%	13.22%	1.11	14.12%	5.04%	1.20	29
2021	1.80%	7.53%	0.93	1.80%	3.34%	1.02	30
2022	13.14%	1.59%	1.00	13.14%	-3.66%	1.07	28

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real assets

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			Number of funds
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
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	2.08x	2.08x	0.00x	2.24x	2.24x	0.00x	4
2003	1.96x	1.95x	0.01x	2.11x	2.09x	0.02x	2
2004	1.70x	1.62x	0.07x	1.67x	1.48x	0.19x	5
2005	1.50x	1.38x	0.12x	1.50x	1.42x	0.08x	10
2006	1.32x	1.27x	0.05x	1.23x	1.18x	0.05x	14
2007	1.22x	1.21x	0.01x	1.25x	1.23x	0.02x	19
2008	1.27x	1.21x	0.06x	1.33x	1.17x	0.16x	23
2009	1.00x	0.81x	0.19x	1.07x	0.72x	0.36x	11
2010	1.18x	1.05x	0.13x	1.25x	0.95x	0.30x	22
2011	1.39x	1.07x	0.32x	1.31x	0.94x	0.37x	21
2012	1.36x	1.04x	0.33x	1.41x	0.97x	0.45x	28
2013	1.47x	0.89x	0.58x	1.36x	0.87x	0.48x	26
2014	1.41x	0.89x	0.52x	1.36x	0.78x	0.58x	43
2015	1.47x	0.81x	0.66x	1.42x	0.80x	0.62x	37
2016	1.46x	0.69x	0.77x	1.55x	0.81x	0.74x	34
2017	1.42x	0.44x	0.98x	1.31x	0.46x	0.86x	47
2018	1.27x	0.24x	1.03x	1.30x	0.29x	1.01x	40
2019	1.24x	0.22x	1.02x	1.39x	0.33x	1.06x	40
2020	1.20x	0.09x	1.11x	1.21x	0.18x	1.02x	29
2021	1.02x	0.06x	0.96x	1.11x	0.15x	0.97x	30
2022	1.07x	0.06x	1.01x	1.09x	0.08x	1.01x	28

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real assets

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	
1999			2.59x					2.47x			1
2000											
2001			2.84x					2.84x			1
2002		2.37x	2.06x	1.98x			2.37x	2.06x	1.98x		4
2003			2.19x					2.17x			2
2004		1.84x	1.64x	1.46x			1.84x	1.64x	1.46x		5
2005	2.34x	1.70x	1.38x	1.05x	0.92x	2.20x	1.70x	1.29x	1.05x	0.90x	10
2006	2.12x	1.48x	1.06x	0.72x	0.63x	2.06x	1.41x	1.06x	0.65x	0.56x	14
2007	1.63x	1.41x	1.15x	1.04x	0.91x	1.62x	1.41x	1.14x	1.04x	0.91x	19
2008	2.00x	1.59x	1.01x	0.74x	0.52x	1.81x	1.46x	0.85x	0.62x	0.21x	23
2009	1.76x	1.43x	1.10x	0.68x	0.34x	1.31x	1.07x	0.58x	0.43x	0.27x	11
2010	2.20x	1.59x	1.12x	0.78x	0.61x	1.38x	1.22x	0.91x	0.69x	0.37x	22
2011	1.99x	1.79x	1.42x	0.94x	0.36x	1.67x	1.33x	0.79x	0.60x	0.35x	21
2012	2.01x	1.66x	1.41x	1.13x	0.92x	1.51x	1.27x	0.94x	0.62x	0.36x	28
2013	2.11x	1.60x	1.31x	0.98x	0.76x	1.52x	1.30x	0.74x	0.51x	0.32x	26
2014	1.83x	1.62x	1.44x	1.15x	0.76x	1.39x	1.04x	0.78x	0.41x	0.25x	43
2015	1.85x	1.66x	1.45x	1.17x	1.00x	1.35x	1.08x	0.75x	0.47x	0.21x	37
2016	1.90x	1.60x	1.38x	1.18x	1.01x	1.29x	1.01x	0.50x	0.29x	0.21x	34
2017	1.73x	1.51x	1.34x	1.13x	0.98x	0.98x	0.63x	0.33x	0.12x	0.04x	47
2018	1.73x	1.47x	1.34x	1.18x	1.00x	0.51x	0.44x	0.25x	0.11x	0.04x	40
2019	1.74x	1.43x	1.28x	1.16x	1.08x	0.71x	0.53x	0.16x	0.06x	0.02x	40
2020	1.47x	1.28x	1.19x	1.11x	1.04x	0.49x	0.24x	0.04x	0.00x	0.00x	29
2021	1.40x	1.24x	1.05x	1.02x	0.87x	0.21x	0.06x	0.03x	0.00x	0.00x	30
2022	1.33x	1.13x	1.01x	0.95x	0.82x	0.14x	0.06x	0.00x	0.00x	0.00x	28

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Real assets

Quarterly return

Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return
Q1 2001	5.02%	Q1 2007	3.98%	Q1 2013	3.42%	Q1 2019	1.30%
Q2 2001	1.16%	Q2 2007	5.98%	Q2 2013	-0.38%	Q2 2019	-1.17%
Q3 2001	-7.17%	Q3 2007	6.52%	Q3 2013	2.48%	Q3 2019	-0.21%
Q4 2001	11.36%	Q4 2007	9.14%	Q4 2013	2.05%	Q4 2019	0.43%
Q1 2002	0.21%	Q1 2008	1.89%	Q1 2014	3.16%	Q1 2020	-10.14%
Q2 2002	3.94%	Q2 2008	3.47%	Q2 2014	6.77%	Q2 2020	1.87%
Q3 2002	-4.07%	Q3 2008	2.50%	Q3 2014	2.78%	Q3 2020	2.40%
Q4 2002	0.22%	Q4 2008	-6.27%	Q4 2014	-4.55%	Q4 2020	4.35%
Q1 2003	-1.73%	Q1 2009	-3.92%	Q1 2015	-0.35%	Q1 2021	4.14%
Q2 2003	7.85%	Q2 2009	-0.13%	Q2 2015	1.87%	Q2 2021	7.07%
Q3 2003	0.44%	Q3 2009	4.21%	Q3 2015	-2.57%	Q3 2021	2.44%
Q4 2003	13.08%	Q4 2009	3.49%	Q4 2015	-2.22%	Q4 2021	6.68%
Q1 2004	3.33%	Q1 2010	-0.36%	Q1 2016	-0.79%	Q1 2022	6.34%
Q2 2004	0.46%	Q2 2010	0.21%	Q2 2016	5.73%	Q2 2022	3.00%
Q3 2004	10.27%	Q3 2010	3.97%	Q3 2016	2.25%	Q3 2022	2.47%
Q4 2004	19.29%	Q4 2010	8.63%	Q4 2016	5.14%	Q4 2022	1.35%
Q1 2005	20.66%	Q1 2011	4.86%	Q1 2017	3.16%	Q1 2023	2.61%
Q2 2005	31.70%	Q2 2011	4.21%	Q2 2017	2.29%	Q2 2023	1.92%
Q3 2005	13.44%	Q3 2011	-1.72%	Q3 2017	1.51%	Q3 2023	2.44%
Q4 2005	3.15%	Q4 2011	4.35%	Q4 2017	0.40%	Q4 2023*	4.55%
Q1 2006	9.15%	Q1 2012	2.11%	Q1 2018	2.97%		
Q2 2006	9.69%	Q2 2012	-1.95%	Q2 2018	2.56%		
Q3 2006	4.13%	Q3 2012	0.56%	Q3 2018	4.96%		
Q4 2006	7.40%	Q4 2012	3.58%	Q4 2018	-1.68%		

Note: All private capital returns are net of fees and carry.

*Preliminary figure
Source: PitchBook • Geography: Global

Private debt

Private debt

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
1999	12.81%	13.69%	2	18.80%	17.46%	12.88%	10.60%	7.60%	5.82%	11
2000	12.15%	7.62%	10	18.58%	15.61%	9.03%	7.67%	2.80%	9.26%	18
2001	25.79%	22.23%	7	27.56%	22.40%	12.13%	8.50%	1.44%	11.19%	16
2002	15.87%	16.69%	12	29.16%	22.39%	15.75%	10.07%	6.56%	17.66%	16
2003	12.40%	11.68%	8	19.20%	14.50%	9.50%	8.05%	7.45%	6.35%	17
2004	5.07%	6.22%	10	14.24%	11.23%	8.60%	5.08%	-2.31%	9.27%	20
2005	10.01%	10.11%	12	13.01%	9.95%	5.41%	3.77%	0.71%	5.89%	23
2006	7.14%	6.56%	29	14.36%	9.13%	7.64%	4.75%	1.26%	6.96%	43
2007	6.41%	6.33%	28	17.00%	11.30%	7.80%	1.65%	-4.98%	8.15%	31
2008	13.00%	10.91%	31	20.24%	14.03%	9.20%	6.60%	2.13%	16.20%	55
2009	8.70%	10.19%	24	20.05%	14.60%	10.40%	7.80%	3.60%	6.44%	29
2010	10.48%	11.50%	31	21.30%	13.80%	10.45%	7.90%	6.68%	6.54%	42
2011	6.79%	6.39%	26	13.11%	10.30%	8.14%	6.86%	5.51%	5.27%	35
2012	5.96%	5.78%	31	12.67%	9.42%	7.93%	5.07%	1.35%	4.74%	42
2013	7.14%	7.20%	38	13.31%	11.15%	8.26%	6.30%	4.74%	3.81%	56
2014	7.26%	8.21%	51	11.55%	9.93%	7.45%	5.50%	2.33%	5.30%	57
2015	7.30%	7.33%	64	12.86%	10.68%	8.39%	6.34%	1.98%	4.90%	70
2016	10.01%	9.46%	52	15.04%	11.95%	10.00%	7.61%	5.90%	5.40%	55
2017	6.72%	7.52%	63	14.07%	10.99%	8.67%	6.81%	2.82%	5.81%	62
2018	9.22%	9.79%	71	17.56%	12.90%	9.98%	7.65%	6.24%	6.93%	83
2019	11.35%	11.54%	60	16.90%	12.80%	10.42%	8.40%	5.63%	4.46%	73
2020	10.49%	11.23%	56	19.28%	14.68%	10.16%	8.01%	6.83%	5.24%	80
2021	9.05%	10.16%	86	17.45%	13.00%	9.80%	7.43%	3.38%	9.93%	98
2022	10.52%	8.89%	61	21.09%	15.72%	9.82%	6.75%	1.54%	10.85%	60

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private debt

IRRs by vintage



Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private debt

PMEs by vintage

S&P 500				Morningstar Global High Yield			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1999	12.81%	7.27%	1.75	12.81%			2
2000	12.15%	7.00%	1.26	12.15%	6.11%	1.06	10
2001	25.79%	7.78%	1.62	25.79%	6.36%	1.42	7
2002	15.87%	8.69%	1.29	15.87%	6.75%	1.20	12
2003	12.40%	10.50%	1.28	12.40%	6.88%	1.18	8
2004	5.07%	9.42%	0.99	5.07%	5.95%	0.91	10
2005	10.01%	9.55%	1.32	10.01%	5.74%	1.09	12
2006	7.14%	9.54%	1.03	7.14%	5.89%	0.92	29
2007	6.41%	9.33%	0.98	6.41%	5.53%	0.87	28
2008	13.00%	10.20%	1.03	13.00%	5.97%	0.99	31
2009	8.70%	14.75%	0.86	8.70%	8.13%	0.99	24
2010	10.48%	12.93%	0.89	10.48%	5.31%	1.14	31
2011	6.79%	12.51%	0.78	6.79%	4.59%	1.04	26
2012	5.96%	13.12%	0.78	5.96%	4.55%	1.03	31
2013	7.14%	12.96%	0.86	7.14%	3.68%	1.09	38
2014	7.26%	11.88%	0.83	7.26%	3.14%	1.11	51
2015	7.30%	11.54%	0.85	7.30%	3.64%	1.10	64
2016	10.01%	13.71%	0.91	10.01%	4.98%	1.21	52
2017	6.72%	12.51%	0.84	6.72%	3.20%	1.11	63
2018	9.22%	11.23%	0.92	9.22%	2.32%	1.20	71
2019	11.35%	13.50%	0.98	11.35%	2.75%	1.21	60
2020	10.49%	13.22%	1.03	10.49%	2.23%	1.19	56
2021	9.05%	7.53%	1.02	9.05%	-1.67%	1.12	86
2022	10.52%	1.59%	1.01	10.52%	-2.16%	1.08	61

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private debt

Multiples by vintage

Vintage year	Pooled multiples			Equal-weighted pooled multiples			Number of funds
	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999	1.49x	1.49x	0.00x	1.46x	1.46x	0.00x	2
2000	1.45x	1.44x	0.01x	1.33x	1.32x	0.01x	10
2001	2.05x	2.05x	0.00x	2.08x	2.08x	0.00x	7
2002	1.73x	1.70x	0.03x	1.66x	1.64x	0.02x	12
2003	1.70x	1.70x	0.00x	1.69x	1.69x	0.00x	8
2004	1.23x	1.22x	0.01x	1.31x	1.30x	0.01x	10
2005	1.57x	1.53x	0.04x	1.87x	1.77x	0.10x	12
2006	1.40x	1.37x	0.03x	1.38x	1.35x	0.03x	29
2007	1.23x	1.23x	0.01x	1.27x	1.26x	0.01x	28
2008	1.60x	1.57x	0.03x	1.47x	1.43x	0.04x	31
2009	1.39x	1.37x	0.02x	1.40x	1.37x	0.03x	24
2010	1.42x	1.38x	0.04x	1.46x	1.40x	0.06x	31
2011	1.29x	1.17x	0.12x	1.24x	1.11x	0.14x	26
2012	1.25x	1.14x	0.10x	1.25x	1.12x	0.13x	31
2013	1.27x	1.15x	0.12x	1.30x	1.07x	0.23x	38
2014	1.32x	1.03x	0.29x	1.34x	1.11x	0.23x	51
2015	1.25x	0.89x	0.37x	1.27x	0.90x	0.36x	64
2016	1.35x	0.84x	0.51x	1.31x	0.91x	0.40x	52
2017	1.21x	0.67x	0.54x	1.23x	0.72x	0.51x	63
2018	1.28x	0.49x	0.78x	1.27x	0.62x	0.64x	71
2019	1.25x	0.49x	0.76x	1.24x	0.50x	0.74x	60
2020	1.19x	0.28x	0.91x	1.19x	0.32x	0.86x	56
2021	1.12x	0.21x	0.91x	1.13x	0.25x	0.88x	86
2022	1.10x	0.17x	0.93x	1.08x	0.17x	0.91x	61

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private debt

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	
1999			1.46x					1.46x			2
2000	1.58x	1.52x	1.48x	1.27x	0.88x	1.58x	1.52x	1.44x	1.24x	0.88x	10
2001		2.47x	1.88x	1.62x			2.47x	1.88x	1.62x		7
2002	2.38x	1.80x	1.61x	1.34x	1.25x	2.19x	1.80x	1.61x	1.34x	1.23x	12
2003		1.78x	1.54x	1.47x			1.78x	1.54x	1.47x		8
2004	1.92x	1.65x	1.37x	1.16x	0.61x	1.91x	1.65x	1.35x	1.16x	0.61x	10
2005	1.59x	1.58x	1.41x	1.20x	0.71x	1.58x	1.54x	1.32x	1.19x	0.71x	12
2006	1.81x	1.45x	1.33x	1.16x	0.88x	1.80x	1.41x	1.31x	1.16x	0.70x	29
2007	1.67x	1.49x	1.24x	1.09x	0.82x	1.67x	1.47x	1.24x	1.06x	0.81x	28
2008	1.74x	1.55x	1.37x	1.19x	1.04x	1.74x	1.54x	1.34x	1.18x	1.04x	31
2009	1.78x	1.57x	1.41x	1.19x	1.09x	1.78x	1.55x	1.39x	1.18x	1.00x	24
2010	1.76x	1.61x	1.39x	1.30x	1.17x	1.72x	1.51x	1.34x	1.22x	1.17x	31
2011	1.68x	1.44x	1.23x	1.08x	0.84x	1.51x	1.27x	1.13x	0.97x	0.77x	26
2012	1.62x	1.37x	1.22x	1.05x	0.94x	1.52x	1.29x	1.13x	1.01x	0.83x	31
2013	1.70x	1.36x	1.27x	1.17x	1.05x	1.36x	1.29x	1.15x	0.96x	0.81x	38
2014	1.74x	1.46x	1.28x	1.17x	1.07x	1.44x	1.22x	1.11x	0.97x	0.77x	51
2015	1.58x	1.40x	1.23x	1.13x	1.01x	1.19x	1.05x	0.91x	0.73x	0.53x	64
2016	1.58x	1.39x	1.26x	1.16x	1.10x	1.30x	1.10x	0.89x	0.73x	0.44x	52
2017	1.55x	1.38x	1.25x	1.16x	0.90x	1.08x	0.92x	0.67x	0.54x	0.37x	63
2018	1.60x	1.39x	1.24x	1.15x	1.07x	0.98x	0.80x	0.53x	0.35x	0.23x	71
2019	1.47x	1.32x	1.22x	1.15x	1.08x	0.81x	0.63x	0.43x	0.28x	0.12x	60
2020	1.38x	1.23x	1.17x	1.11x	1.06x	0.61x	0.45x	0.24x	0.11x	0.04x	56
2021	1.32x	1.18x	1.11x	1.06x	0.97x	0.51x	0.36x	0.18x	0.05x	0.00x	86
2022	1.22x	1.15x	1.08x	1.02x	0.97x	0.33x	0.21x	0.05x	0.00x	0.00x	61

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Private debt

Quarterly return

Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return
Q1 2001	2.43%	Q1 2007	1.74%	Q1 2013	4.91%	Q1 2019	1.78%
Q2 2001	1.95%	Q2 2007	8.28%	Q2 2013	1.25%	Q2 2019	1.57%
Q3 2001	-0.30%	Q3 2007	2.26%	Q3 2013	3.26%	Q3 2019	2.05%
Q4 2001	1.07%	Q4 2007	1.21%	Q4 2013	1.31%	Q4 2019	2.24%
Q1 2002	2.54%	Q1 2008	-2.46%	Q1 2014	5.13%	Q1 2020	-6.90%
Q2 2002	-2.94%	Q2 2008	-0.06%	Q2 2014	3.07%	Q2 2020	2.44%
Q3 2002	-0.33%	Q3 2008	-9.13%	Q3 2014	1.88%	Q3 2020	3.38%
Q4 2002	1.37%	Q4 2008	-14.41%	Q4 2014	2.02%	Q4 2020	3.44%
Q1 2003	3.20%	Q1 2009	-4.11%	Q1 2015	5.32%	Q1 2021	5.17%
Q2 2003	6.05%	Q2 2009	10.89%	Q2 2015	-0.34%	Q2 2021	7.95%
Q3 2003	-0.18%	Q3 2009	11.45%	Q3 2015	-0.09%	Q3 2021	0.58%
Q4 2003	9.21%	Q4 2009	5.29%	Q4 2015	-0.14%	Q4 2021	2.06%
Q1 2004	5.10%	Q1 2010	6.24%	Q1 2016	2.14%	Q1 2022	2.36%
Q2 2004	7.00%	Q2 2010	2.09%	Q2 2016	0.62%	Q2 2022	-0.31%
Q3 2004	3.37%	Q3 2010	4.53%	Q3 2016	3.82%	Q3 2022	0.03%
Q4 2004	14.45%	Q4 2010	7.98%	Q4 2016	2.11%	Q4 2022	2.60%
Q1 2005	3.60%	Q1 2011	4.42%	Q1 2017	2.01%	Q1 2023	2.54%
Q2 2005	-1.05%	Q2 2011	3.07%	Q2 2017	3.01%	Q2 2023	1.91%
Q3 2005	5.88%	Q3 2011	-5.17%	Q3 2017	1.92%	Q3 2023	3.00%
Q4 2005	3.85%	Q4 2011	0.58%	Q4 2017	3.06%	Q4 2023*	3.62%
Q1 2006	4.07%	Q1 2012	5.87%	Q1 2018	3.84%		
Q2 2006	4.37%	Q2 2012	-0.49%	Q2 2018	0.51%		
Q3 2006	2.98%	Q3 2012	7.62%	Q3 2018	-0.24%		
Q4 2006	8.28%	Q4 2012	0.50%	Q4 2018	0.50%		

Note: All private capital returns are net of fees and carry.

*Preliminary figure
Source: PitchBook • Geography: Global

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
1999	5.45%	5.23%	9	12.34%	9.40%	4.86%	2.13%	-0.64%	5.56%	33
2000	7.83%	7.85%	8	13.79%	10.54%	6.75%	3.75%	1.42%	5.46%	39
2001	12.21%	9.20%	9	19.08%	14.93%	9.85%	6.72%	2.05%	9.23%	36
2002	7.74%	6.44%	4	15.42%	10.70%	9.06%	5.45%	4.36%	5.70%	25
2003	7.21%	5.76%	7	13.78%	10.00%	7.78%	6.51%	2.70%	5.31%	31
2004	8.24%	7.99%	9	11.56%	10.45%	7.20%	5.53%	1.22%	7.92%	44
2005	6.70%	6.45%	19	10.40%	8.45%	6.90%	5.22%	2.39%	11.21%	63
2006	7.97%	7.87%	33	11.76%	10.10%	7.00%	4.90%	2.80%	3.87%	73
2007	10.38%	9.16%	45	15.04%	12.28%	8.84%	6.03%	2.45%	5.95%	102
2008	4.09%	10.47%	43	18.02%	14.70%	10.82%	7.95%	4.02%	5.70%	89
2009	12.55%	12.13%	30	18.38%	15.94%	13.61%	8.46%	4.54%	5.81%	48
2010	12.67%	12.79%	37	19.10%	15.67%	12.40%	8.10%	0.70%	7.66%	61
2011	15.45%	16.31%	39	22.80%	18.09%	14.09%	10.90%	6.90%	7.41%	61
2012	15.62%	15.12%	39	25.09%	19.61%	15.20%	9.88%	7.70%	9.15%	51
2013	14.97%	15.48%	42	24.22%	18.89%	15.68%	11.75%	6.01%	7.34%	48
2014	15.53%	16.58%	40	23.97%	21.09%	17.65%	13.53%	11.56%	35.01%	60
2015	19.03%	18.77%	37	22.96%	21.53%	18.87%	14.33%	10.95%	5.16%	48
2016	17.47%	17.63%	35	24.78%	20.93%	17.38%	12.40%	7.87%	7.03%	42
2017	21.54%	20.77%	27	26.90%	24.00%	19.79%	16.00%	10.44%	6.57%	41
2018	20.14%	19.59%	27	23.68%	21.19%	18.90%	12.30%	8.29%	6.61%	39
2019	19.36%	17.43%	29	26.26%	21.91%	16.50%	12.49%	9.92%	8.74%	39
2020	5.73%	5.50%	25	20.97%	14.71%	9.40%	3.78%	0.70%	14.34%	32
2021	8.93%	9.97%	20	21.53%	15.29%	9.35%	4.53%	-9.39%	12.01%	38
2022	14.51%	10.39%	30	36.70%	22.12%	9.20%	-11.00%	-17.81%	37.43%	30

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Funds of funds

IRRs by vintage



Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Funds of funds

PMEs by vintage

S&P 500				Morningstar Global			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1999	5.45%	7.27%	1.05	5.45%	6.68%	0.92	9
2000	7.83%	7.00%	1.07	7.83%	6.06%	0.97	8
2001	12.21%	7.78%	1.16	12.21%	6.96%	1.08	9
2002	7.74%	8.69%	1.04	7.74%	7.97%	1.01	4
2003	7.21%	10.50%	1.01	7.21%	9.49%	1.07	7
2004	8.24%	9.42%	1.02	8.24%	7.97%	1.09	9
2005	6.70%	9.55%	0.92	6.70%	7.72%	1.02	19
2006	7.97%	9.54%	0.87	7.97%	7.14%	1.02	33
2007	10.38%	9.33%	0.91	10.38%	6.52%	1.10	45
2008	4.09%	10.20%	0.58	4.09%	6.86%	0.71	43
2009	12.55%	14.75%	0.94	12.55%	11.55%	1.16	30
2010	12.67%	12.93%	0.96	12.67%	9.03%	1.18	37
2011	15.45%	12.51%	1.09	15.45%	8.33%	1.32	39
2012	15.62%	13.12%	1.15	15.62%	9.27%	1.39	39
2013	14.97%	12.96%	1.11	14.97%	8.89%	1.32	42
2014	15.53%	11.88%	1.12	15.53%	8.03%	1.31	40
2015	19.03%	11.54%	1.27	19.03%	8.18%	1.48	37
2016	17.47%	13.71%	1.18	17.47%	10.54%	1.35	35
2017	21.54%	12.51%	1.28	21.54%	9.16%	1.43	27
2018	20.14%	11.23%	1.24	20.14%	7.03%	1.37	27
2019	19.36%	13.50%	1.17	19.36%	9.58%	1.26	29
2020	5.73%	13.22%	0.96	5.73%	9.58%	1.02	25
2021	8.93%	7.53%	0.99	8.93%	2.57%	1.04	20
2022	14.51%	1.59%	1.03	14.51%	-0.61%	1.06	30

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Funds of funds

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			Number of funds
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999	1.33x	1.31x	0.01x	1.34x	1.31x	0.02x	9
2000	1.46x	1.45x	0.01x	1.47x	1.46x	0.01x	8
2001	1.63x	1.61x	0.02x	1.53x	1.47x	0.06x	9
2002	1.44x	1.44x	0.00x	1.38x	1.38x	0.00x	4
2003	1.55x	1.54x	0.01x	1.39x	1.38x	0.01x	7
2004	1.59x	1.54x	0.05x	1.61x	1.53x	0.08x	9
2005	1.46x	1.42x	0.04x	1.47x	1.39x	0.09x	19
2006	1.65x	1.53x	0.12x	1.95x	1.82x	0.13x	33
2007	1.90x	1.65x	0.26x	1.75x	1.57x	0.18x	45
2008	1.29x	1.10x	0.19x	1.85x	1.52x	0.33x	43
2009	2.00x	1.54x	0.46x	1.96x	1.55x	0.41x	30
2010	2.00x	1.50x	0.50x	2.09x	1.49x	0.60x	37
2011	2.23x	1.54x	0.69x	2.37x	1.63x	0.74x	39
2012	2.33x	1.34x	1.00x	2.21x	1.32x	0.89x	39
2013	2.12x	1.09x	1.03x	2.17x	1.16x	1.01x	42
2014	2.00x	0.95x	1.05x	2.15x	1.00x	1.16x	40
2015	2.18x	0.68x	1.49x	2.19x	0.76x	1.43x	37
2016	1.91x	0.62x	1.29x	1.90x	0.60x	1.30x	35
2017	1.81x	0.38x	1.43x	1.80x	0.40x	1.39x	27
2018	1.69x	0.23x	1.46x	1.70x	0.22x	1.49x	27
2019	1.41x	0.24x	1.17x	1.40x	0.19x	1.21x	29
2020	1.10x	0.09x	1.00x	1.10x	0.10x	1.00x	25
2021	1.13x	0.09x	1.04x	1.14x	0.26x	0.88x	20
2022	1.12x	0.10x	1.02x	1.10x	0.12x	0.98x	30

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Funds of funds

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	
1999		1.52x	1.18x	1.14x			1.51x	1.18x	1.14x		9
2000		1.65x	1.53x	1.26x			1.64x	1.53x	1.24x		8
2001		1.73x	1.70x	1.38x			1.70x	1.45x	1.38x		9
2002		1.45x	1.40x	1.33x			1.44x	1.40x	1.33x		4
2003		1.60x	1.51x	1.26x			1.59x	1.49x	1.24x		7
2004		1.60x	1.56x	1.43x			1.59x	1.54x	1.38x		9
2005	1.88x	1.66x	1.42x	1.34x	1.23x	1.69x	1.56x	1.41x	1.32x	0.97x	19
2006	2.06x	1.88x	1.61x	1.40x	1.26x	1.88x	1.73x	1.55x	1.30x	1.23x	33
2007	2.38x	2.00x	1.60x	1.41x	1.14x	2.02x	1.83x	1.52x	1.38x	0.98x	45
2008	2.79x	2.29x	1.85x	1.34x	1.02x	2.07x	1.86x	1.60x	1.12x	0.76x	43
2009	2.48x	2.31x	1.93x	1.60x	1.36x	2.22x	1.90x	1.54x	1.22x	1.01x	30
2010	3.52x	2.41x	1.76x	1.56x	1.35x	2.43x	1.63x	1.44x	1.15x	0.95x	37
2011	4.11x	2.45x	2.11x	1.68x	1.36x	2.65x	1.77x	1.45x	1.20x	0.75x	39
2012	3.27x	2.91x	2.06x	1.49x	1.36x	2.03x	1.65x	1.18x	0.95x	0.78x	39
2013	3.14x	2.55x	2.16x	1.67x	1.25x	1.75x	1.50x	1.08x	0.93x	0.46x	42
2014	3.23x	2.36x	2.01x	1.72x	1.56x	1.44x	1.18x	0.94x	0.77x	0.60x	40
2015	3.16x	2.64x	2.07x	1.82x	1.56x	1.19x	0.85x	0.69x	0.54x	0.38x	37
2016	2.51x	2.18x	1.89x	1.66x	1.40x	0.92x	0.79x	0.53x	0.38x	0.31x	35
2017	2.35x	2.12x	1.75x	1.55x	1.33x	0.86x	0.55x	0.22x	0.13x	0.10x	27
2018	1.95x	1.83x	1.54x	1.42x	1.30x	0.38x	0.33x	0.16x	0.08x	0.02x	27
2019	1.58x	1.56x	1.45x	1.25x	1.11x	0.34x	0.24x	0.13x	0.04x	0.00x	29
2020	1.32x	1.21x	1.13x	1.00x	0.84x	0.19x	0.13x	0.05x	0.01x	0.00x	25
2021	1.31x	1.25x	1.17x	1.07x	0.98x	0.56x	0.07x	0.03x	0.01x	0.00x	20
2022	1.29x	1.15x	1.08x	0.87x	0.74x	0.11x	0.02x	0.00x	0.00x	0.00x	30

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Funds of funds

Quarterly return

Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return
Q1 2001	-8.44%	Q1 2007	1.77%	Q1 2013	2.45%	Q1 2019	2.17%
Q2 2001	-7.16%	Q2 2007	10.78%	Q2 2013	2.95%	Q2 2019	3.81%
Q3 2001	-9.65%	Q3 2007	4.21%	Q3 2013	2.61%	Q3 2019	1.83%
Q4 2001	-4.33%	Q4 2007	4.00%	Q4 2013	4.17%	Q4 2019	2.57%
Q1 2002	-10.46%	Q1 2008	8.59%	Q1 2014	2.46%	Q1 2020	-0.65%
Q2 2002	-5.32%	Q2 2008	-2.08%	Q2 2014	6.42%	Q2 2020	3.16%
Q3 2002	-6.93%	Q3 2008	-6.38%	Q3 2014	1.96%	Q3 2020	6.71%
Q4 2002	-3.88%	Q4 2008	-10.68%	Q4 2014	1.68%	Q4 2020	13.38%
Q1 2003	-7.62%	Q1 2009	-2.91%	Q1 2015	4.31%	Q1 2021	12.05%
Q2 2003	3.75%	Q2 2009	-5.10%	Q2 2015	5.04%	Q2 2021	16.76%
Q3 2003	0.33%	Q3 2009	5.69%	Q3 2015	2.47%	Q3 2021	7.25%
Q4 2003	-0.55%	Q4 2009	3.13%	Q4 2015	0.03%	Q4 2021	3.77%
Q1 2004	5.26%	Q1 2010	5.07%	Q1 2016	1.33%	Q1 2022	0.14%
Q2 2004	0.86%	Q2 2010	-0.61%	Q2 2016	1.46%	Q2 2022	-2.10%
Q3 2004	4.84%	Q3 2010	4.61%	Q3 2016	4.15%	Q3 2022	-1.31%
Q4 2004	6.90%	Q4 2010	2.21%	Q4 2016	0.54%	Q4 2022	-4.40%
Q1 2005	2.05%	Q1 2011	4.51%	Q1 2017	3.36%	Q1 2023	0.81%
Q2 2005	6.00%	Q2 2011	5.58%	Q2 2017	3.65%	Q2 2023	0.76%
Q3 2005	5.57%	Q3 2011	-1.68%	Q3 2017	3.70%	Q3 2023	1.36%
Q4 2005	7.68%	Q4 2011	0.30%	Q4 2017	1.41%	Q4 2023*	3.40%
Q1 2006	4.89%	Q1 2012	5.02%	Q1 2018	5.19%		
Q2 2006	6.49%	Q2 2012	1.14%	Q2 2018	5.59%		
Q3 2006	4.61%	Q3 2012	-1.85%	Q3 2018	3.12%		
Q4 2006	8.45%	Q4 2012	4.63%	Q4 2018	2.10%		

Note: All private capital returns are net of fees and carry.

*Preliminary figure
Source: PitchBook • Geography: Global

Secondaries

Secondaries

IRRs by vintage

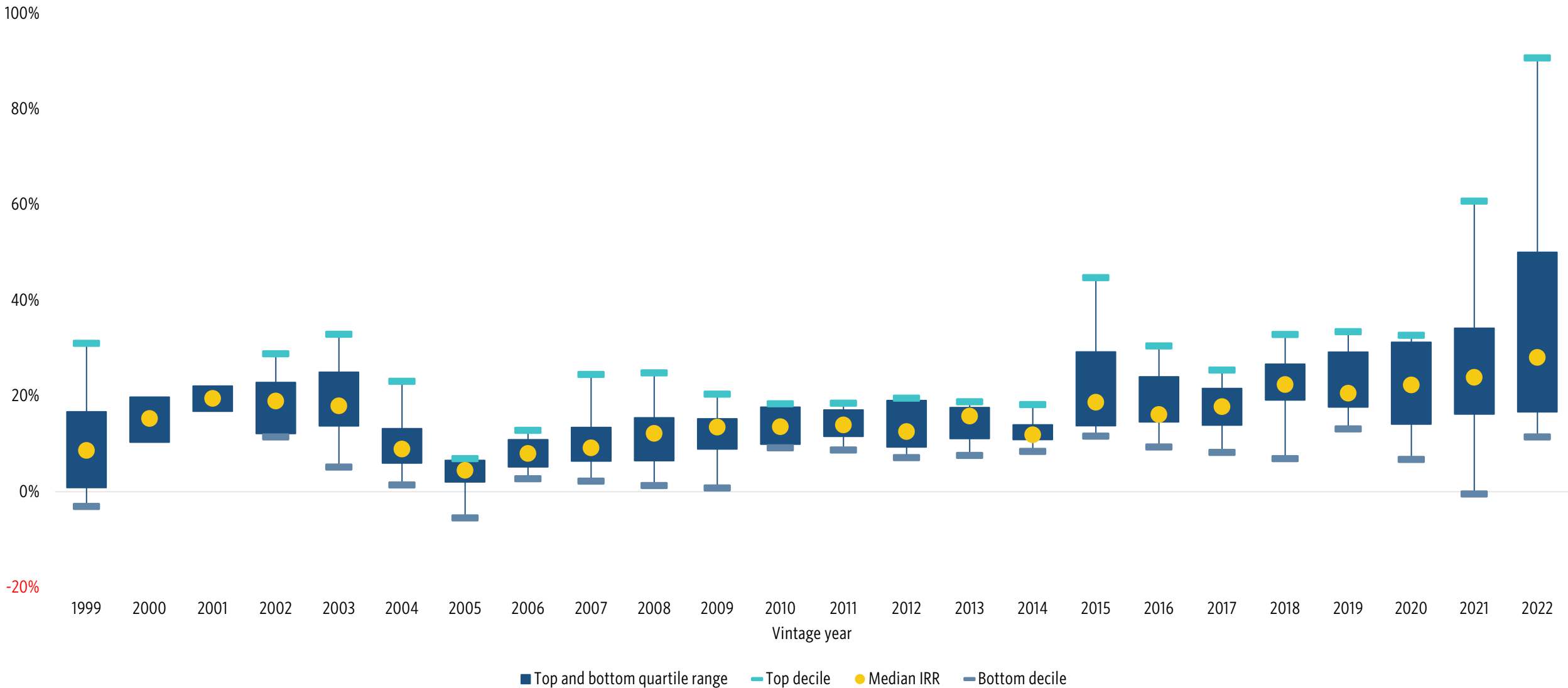
Pooled IRRs				IRR quantiles						
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1999	7.32%	5.51%	3	31.00%	16.75%	8.63%	0.85%	-3.09%	14.81%	11
2000	15.09%	14.35%	3		19.80%	15.30%	10.35%		7.05%	6
2001	14.09%	16.01%	2		22.11%	19.52%	16.80%		5.51%	5
2002	16.08%	18.07%	4	28.82%	22.88%	18.97%	12.16%	11.43%	13.03%	10
2003	37.92%	37.92%	1	32.90%	25.01%	17.97%	13.75%	5.16%	9.95%	11
2004	9.16%	7.73%	6	23.09%	13.18%	8.90%	5.96%	1.39%	12.73%	13
2005	6.70%	6.13%	11	6.89%	6.55%	4.47%	2.05%	-5.50%	5.42%	11
2006	7.23%	8.53%	8	12.81%	10.90%	7.99%	5.18%	2.69%	3.93%	14
2007	5.59%	9.39%	10	24.50%	13.45%	9.18%	6.40%	2.20%	20.61%	16
2008	11.68%	12.79%	13	24.86%	15.48%	12.20%	6.50%	1.28%	9.54%	15
2009	12.05%	10.62%	11	20.40%	15.25%	13.50%	8.90%	0.77%	8.12%	13
2010	12.11%	12.69%	6	18.39%	17.70%	13.58%	9.91%	9.18%	3.98%	13
2011	14.08%	12.67%	13	18.50%	17.12%	13.97%	11.57%	8.71%	7.01%	16
2012	10.87%	9.93%	11	19.54%	19.10%	12.57%	9.35%	7.11%	8.12%	19
2013	10.78%	11.39%	12	18.81%	17.60%	15.80%	11.10%	7.57%	7.84%	17
2014	13.81%	11.59%	13	18.21%	14.00%	11.90%	10.89%	8.42%	4.58%	17
2015	12.37%	15.48%	8	44.74%	29.25%	18.70%	13.80%	11.60%	14.70%	11
2016	16.89%	18.48%	18	30.47%	24.04%	16.13%	14.61%	9.32%	8.84%	25
2017	16.41%	16.65%	11	25.44%	21.60%	17.80%	13.90%	8.22%	8.02%	17
2018	21.63%	16.61%	11	32.85%	26.70%	22.39%	19.17%	6.92%	9.50%	16
2019	27.55%	26.63%	14	33.47%	29.20%	20.59%	17.72%	13.14%	17.41%	15
2020	20.98%	17.47%	15	32.68%	31.25%	22.32%	14.14%	6.73%	19.26%	19
2021	26.28%	26.53%	21	60.76%	34.20%	23.90%	16.24%	-0.48%	25.59%	27
2022	42.80%	55.55%	17	90.68%	50.10%	28.07%	16.68%	11.46%	32.71%	17

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Secondaries

IRRs by vintage



Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Secondaries

PMEs by vintage

S&P 500				Morningstar Global			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1999	7.32%	7.27%	1.23	7.32%	6.68%	1.13	3
2000	15.09%	7.00%	1.38	15.09%	6.06%	1.22	3
2001	14.09%	7.78%	1.19	14.09%	6.96%	1.08	2
2002	16.08%	8.69%	1.23	16.08%	7.97%	1.14	4
2003	37.92%	10.50%	1.56	37.92%	9.49%	1.44	1
2004	9.16%	9.42%	1.10	9.16%	7.97%	1.13	6
2005	6.70%	9.55%	0.95	6.70%	7.72%	1.04	11
2006	7.23%	9.54%	0.95	7.23%	7.14%	1.04	8
2007	5.59%	9.33%	0.81	5.59%	6.52%	0.89	10
2008	11.68%	10.20%	0.93	11.68%	6.86%	1.06	13
2009	12.05%	14.75%	0.92	12.05%	11.55%	1.06	11
2010	12.11%	12.93%	0.95	12.11%	9.03%	1.09	6
2011	14.08%	12.51%	1.00	14.08%	8.33%	1.15	13
2012	10.87%	13.12%	0.91	10.87%	9.27%	1.03	11
2013	10.78%	12.96%	0.95	10.78%	8.89%	1.08	12
2014	13.81%	11.88%	1.03	13.81%	8.03%	1.13	13
2015	12.37%	11.54%	0.97	12.37%	8.18%	1.09	8
2016	16.89%	13.71%	1.10	16.89%	10.54%	1.22	18
2017	16.41%	12.51%	1.11	16.41%	9.16%	1.23	11
2018	21.63%	11.23%	1.23	21.63%	7.03%	1.33	11
2019	27.55%	13.50%	1.31	27.55%	9.58%	1.40	14
2020	20.98%	13.22%	1.18	20.98%	9.58%	1.24	15
2021	26.28%	7.53%	1.26	26.28%	2.57%	1.31	21
2022	42.80%	1.59%	1.24	42.80%	-0.61%	1.27	17

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Secondaries

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			Number of funds
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
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	1.53x	0.00x	4
2003	1.79x	1.79x	0.00x	1.79x	1.79x	0.00x	1
2004	1.45x	1.40x	0.05x	1.37x	1.31x	0.06x	6
2005	1.44x	1.30x	0.14x	1.41x	1.23x	0.18x	11
2006	1.44x	1.40x	0.03x	1.57x	1.42x	0.16x	8
2007	1.26x	1.21x	0.05x	1.45x	1.39x	0.06x	10
2008	1.60x	1.54x	0.06x	1.73x	1.55x	0.18x	13
2009	1.57x	1.47x	0.10x	1.52x	1.41x	0.12x	11
2010	1.50x	1.44x	0.06x	1.51x	1.41x	0.10x	6
2011	1.67x	1.49x	0.18x	1.67x	1.42x	0.26x	13
2012	1.45x	1.30x	0.15x	1.40x	1.21x	0.19x	11
2013	1.48x	1.21x	0.27x	1.54x	1.19x	0.35x	12
2014	1.53x	1.07x	0.46x	1.45x	1.07x	0.38x	13
2015	1.48x	0.95x	0.53x	1.39x	1.08x	0.31x	8
2016	1.57x	0.81x	0.76x	1.66x	0.95x	0.71x	18
2017	1.60x	0.63x	0.97x	1.65x	0.70x	0.95x	11
2018	1.52x	0.33x	1.19x	1.51x	0.40x	1.11x	11
2019	1.58x	0.61x	0.97x	1.59x	0.61x	0.98x	14
2020	1.33x	0.24x	1.09x	1.31x	0.29x	1.02x	15
2021	1.39x	0.19x	1.20x	1.34x	0.24x	1.10x	21
2022	1.34x	0.07x	1.27x	1.50x	0.06x	1.44x	17

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

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	
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			1.58x	1.54x	1.49x		4
2003			1.79x					1.79x			1
2004		1.61x	1.43x	1.29x			1.59x	1.40x	1.07x		6
2005	2.06x	1.56x	1.31x	1.21x	0.73x	1.67x	1.37x	1.27x	1.05x	0.73x	11
2006		1.64x	1.48x	1.32x			1.49x	1.35x	1.27x		8
2007	2.05x	1.40x	1.38x	1.34x	1.01x	1.86x	1.39x	1.37x	1.25x	0.95x	10
2008	1.85x	1.65x	1.51x	1.40x	1.27x	1.71x	1.56x	1.50x	1.38x	1.27x	13
2009	1.86x	1.73x	1.37x	1.14x	0.90x	1.74x	1.62x	1.37x	1.08x	0.75x	11
2010		1.66x	1.54x	1.38x			1.56x	1.48x	1.32x		6
2011	2.14x	1.81x	1.63x	1.42x	1.29x	1.64x	1.57x	1.51x	1.15x	1.09x	13
2012	1.69x	1.58x	1.36x	1.29x	1.20x	1.58x	1.42x	1.24x	1.04x	0.87x	11
2013	1.84x	1.66x	1.53x	1.39x	1.35x	1.34x	1.29x	1.25x	1.15x	0.93x	12
2014	1.67x	1.64x	1.51x	1.40x	1.20x	1.26x	1.22x	1.05x	1.02x	0.84x	13
2015		1.43x	1.38x	1.34x			1.34x	1.08x	0.91x		8
2016	2.00x	1.74x	1.64x	1.42x	1.37x	1.52x	1.18x	0.88x	0.64x	0.53x	18
2017	2.15x	1.92x	1.69x	1.48x	1.31x	1.14x	0.87x	0.68x	0.40x	0.37x	11
2018	1.84x	1.70x	1.51x	1.35x	1.29x	0.73x	0.45x	0.31x	0.26x	0.20x	11
2019	1.85x	1.70x	1.56x	1.34x	1.23x	0.89x	0.82x	0.48x	0.37x	0.30x	14
2020	1.56x	1.50x	1.25x	1.21x	1.12x	0.84x	0.30x	0.13x	0.09x	0.02x	15
2021	1.71x	1.57x	1.36x	1.24x	0.99x	0.44x	0.23x	0.08x	0.00x	0.00x	21
2022	1.97x	1.64x	1.36x	1.15x	1.03x	0.17x	0.12x	0.01x	0.00x	0.00x	17

Note: All private capital returns are net of fees and carry.

Source: PitchBook • Geography: Global • Data as of September 30, 2023

Secondaries

Quarterly return

Quarter end	1-quarter return
Q1 2001	-3.10%
Q2 2001	-4.16%
Q3 2001	1.67%
Q4 2001	-3.01%
Q1 2002	4.25%
Q2 2002	1.64%
Q3 2002	-6.28%
Q4 2002	-4.62%
Q1 2003	-2.99%
Q2 2003	1.33%
Q3 2003	1.58%
Q4 2003	2.42%
Q1 2004	8.84%
Q2 2004	4.87%
Q3 2004	6.67%
Q4 2004	6.16%
Q1 2005	6.94%
Q2 2005	2.09%
Q3 2005	4.88%
Q4 2005	1.96%
Q1 2006	7.87%
Q2 2006	4.70%
Q3 2006	3.71%
Q4 2006	6.54%

Quarter end	1-quarter return
Q1 2007	3.60%
Q2 2007	11.23%
Q3 2007	7.27%
Q4 2007	3.98%
Q1 2008	1.15%
Q2 2008	-2.52%
Q3 2008	2.07%
Q4 2008	-6.27%
Q1 2009	-7.96%
Q2 2009	-3.07%
Q3 2009	0.45%
Q4 2009	1.81%
Q1 2010	1.41%
Q2 2010	6.46%
Q3 2010	6.60%
Q4 2010	5.20%
Q1 2011	7.28%
Q2 2011	5.77%
Q3 2011	4.27%
Q4 2011	-3.57%
Q1 2012	3.96%
Q2 2012	2.92%
Q3 2012	4.15%
Q4 2012	2.89%

Quarter end	1-quarter return
Q1 2013	3.00%
Q2 2013	3.79%
Q3 2013	2.20%
Q4 2013	4.67%
Q1 2014	3.57%
Q2 2014	2.75%
Q3 2014	3.26%
Q4 2014	2.41%
Q1 2015	1.26%
Q2 2015	7.16%
Q3 2015	1.58%
Q4 2015	0.05%
Q1 2016	-0.14%
Q2 2016	3.25%
Q3 2016	1.12%
Q4 2016	2.76%
Q1 2017	3.38%
Q2 2017	4.22%
Q3 2017	3.81%
Q4 2017	3.50%
Q1 2018	2.41%
Q2 2018	8.23%
Q3 2018	2.19%
Q4 2018	0.69%

Quarter end	1-quarter return
Q1 2019	2.36%
Q2 2019	4.93%
Q3 2019	1.11%
Q4 2019	1.55%
Q1 2020	-4.00%
Q2 2020	-2.47%
Q3 2020	3.84%
Q4 2020	12.29%
Q1 2021	8.34%
Q2 2021	14.26%
Q3 2021	9.09%
Q4 2021	8.18%
Q1 2022	1.55%
Q2 2022	4.09%
Q3 2022	-2.16%
Q4 2022	-0.03%
Q1 2023	0.14%
Q2 2023	2.26%
Q3 2023	2.02%
Q4 2023*	4.14%

Note: All private capital returns are net of fees and carry.

*Preliminary figure
Source: PitchBook • Geography: Global

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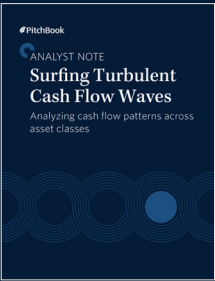
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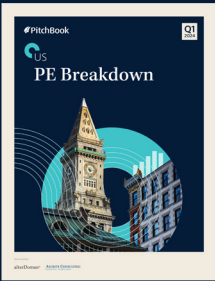
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