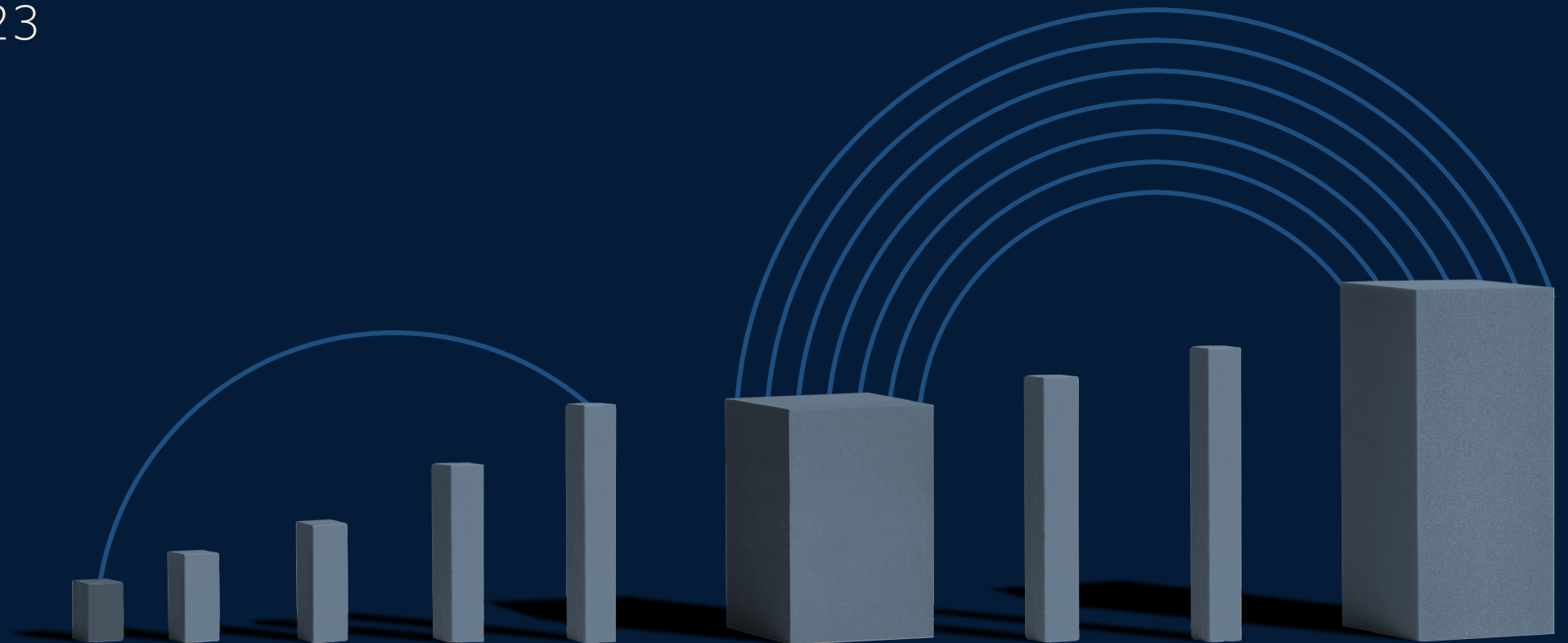




PRIVATE DEBT

PitchBook Benchmarks

AS OF Q1 2023



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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.

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.

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

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.

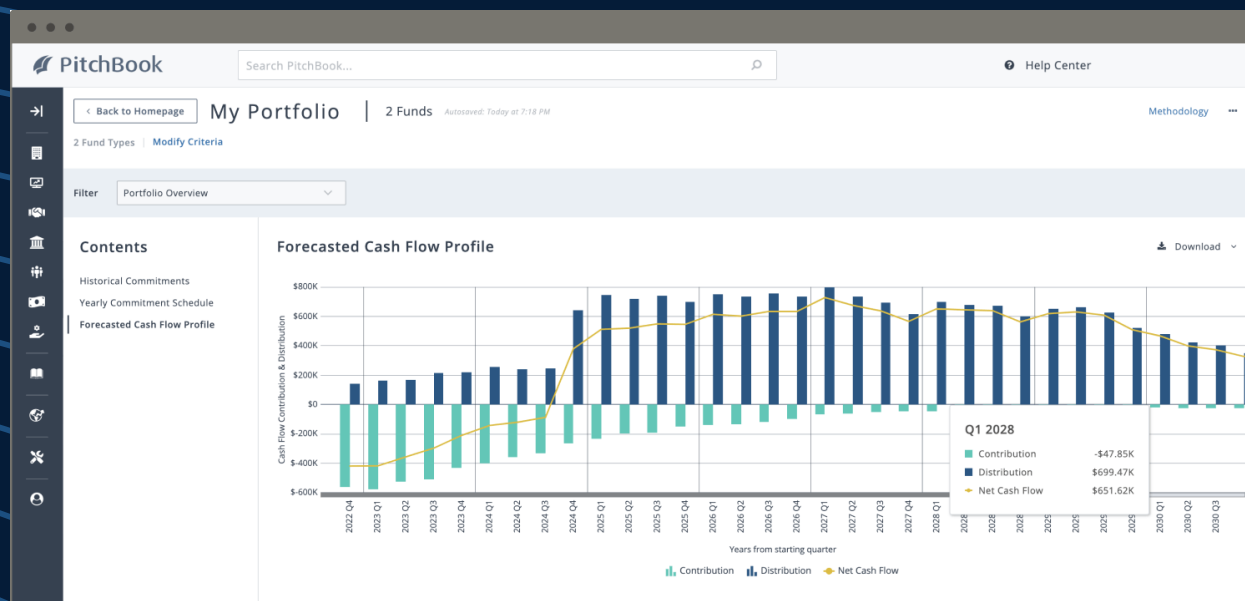
Pooled calculations: Pooled calculations combine cashflow data from a group of funds to create a capital-weighted IRR value. All cash flows and NAVs for each fund in the sample group (e.g. all private capital funds, 2004 vintage VC funds, etc.) are aggregated in the calculation. For vintage-specific 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).

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

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

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Private debt

Private debt

Horizon IRRs

Strategy	Q2 2023*	Q1 2023	1-year	3-year	5-year	10-year	15-year	20-year
Global private debt	0.67%	2.14%	4.24%	10.31%	7.28%	8.02%	8.07%	8.82%
North America private debt	-0.06%	1.82%	3.02%	11.52%	7.69%	8.57%	8.56%	9.43%
Europe private debt	2.15%	2.26%	8.22%	7.25%	5.80%	6.26%	6.15%	6.25%
Rest of world private debt	8.74%	10.57%	7.56%	6.05%	8.26%	6.09%	5.32%	13.90%
Direct lending	3.34%	2.80%	6.92%	7.12%	6.00%	6.12%	6.30%	6.36%
Mezzanine & Bridge	5.49%	2.21%	2.69%	11.44%	5.27%	10.23%	9.36%	10.07%
Distressed and special sits.	-4.23%	0.74%	1.68%	12.86%	8.61%	8.09%	8.41%	9.39%
Infrastructure and real estate	8.26%	4.59%	8.81%	8.85%	8.38%	8.10%	6.31%	10.13%
Venture debt	-8.74%	1.10%	-1.77%	20.59%	10.73%	10.69%	10.39%	12.77%
S&P 500	8.74%	7.50%	-7.73%	18.60%	11.19%	12.24%	10.06%	10.37%
Morningstar Global High Yield	1.81%	3.96%	-4.36%	5.51%	2.14%	3.51%	5.97%	6.75%
Morningstar US High Yield	1.65%	3.69%	-3.44%	6.04%	3.21%	4.08%	6.46%	6.89%
Morningstar Eurozone High Yield	2.11%	4.63%	-6.46%	4.17%	-1.62%	1.61%	3.37%	6.46%
Morningstar Emerging Market High Yield	1.44%	1.46%	-4.77%	2.15%	-0.80%	1.92%	5.13%	6.86%

*For private fund strategies these are preliminary quarterly returns.

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Note: All public index values are total return CAGRs.

Private debt

Equal-weighted horizon IRRs

Strategy	Q2 2023*	Q1 2023	1-year	3-year	5-year	10-year	15-year	20-year
Global private debt	2.46%	2.84%	4.67%	10.02%	8.09%	8.84%	8.13%	9.24%
North America private debt	1.89%	2.49%	3.75%	10.75%	8.64%	9.61%	8.64%	9.81%
Europe private debt	4.32%	3.35%	8.09%	8.46%	6.34%	6.50%	6.29%	6.60%
Rest of world private debt	5.68%	9.34%	7.03%	4.39%	6.47%	4.82%	4.57%	7.58%
Direct lending	3.41%	3.52%	6.60%	8.56%	6.76%	6.88%	7.13%	7.33%
Mezzanine & Bridge	5.16%	3.62%	1.47%	10.80%	8.37%	12.19%	8.98%	9.85%
Distressed and special sits.	-1.88%	0.63%	1.06%	11.18%	8.64%	8.61%	8.15%	10.00%
Infrastructure and real estate	10.63%	6.36%	11.90%	9.87%	9.78%	8.74%	7.54%	9.80%
Venture debt	-8.76%	1.71%	2.08%	9.01%	3.49%	5.76%	6.45%	8.38%
S&P 500	8.74%	7.50%	-7.73%	18.60%	11.19%	12.24%	10.06%	10.37%
Morningstar Global High Yield	1.81%	3.96%	-4.36%	5.51%	2.14%	3.51%	5.97%	6.75%
Morningstar US High Yield	1.65%	3.69%	-3.44%	6.04%	3.21%	4.08%	6.46%	6.89%
Morningstar Eurozone High Yield	2.11%	4.63%	-6.46%	4.17%	-1.62%	1.61%	3.37%	6.46%
Morningstar Emerging Market High Yield	1.44%	1.46%	-4.77%	2.15%	-0.80%	1.92%	5.13%	6.86%

*For private fund strategies these are preliminary quarterly returns.

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Note: All public index values are total return CAGRs.

One-year horizon IRRs

Select strategies

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*	15-year horizon IRR
Private debt 19.5%	Secondaries 20.7%	Oil & gas 19.6%	Secondaries 14.9%	Venture capital 21.6%	Venture capital 20.3%	Growth/ expansion 13.5%	Oil & gas 19.2%	Buyout 19.5%	Growth/ expansion 19.3%	Growth/ expansion 19.5%	Venture capital 35.4%	Venture capital 56.5%	Oil & gas 31.6%	Infrastructure 5.5%	Growth/ expansion 14.7%
Growth/ expansion 8.9%	Growth/ expansion 19.9%	Secondaries 14.2%	Buyout 14.6%	Real estate 18.8%	Infrastructure 14.1%	Buyout 13.4%	Buyout 12.4%	Growth/ expansion 18.0%	Venture capital 17.8%	Venture capital 16.9%	Growth/ expansion 35.2%	Growth/ expansion 52.2%	Infrastructure 9.5%	Buyout 5.1%	Secondaries 12.0%
Buyout 8.6%	Private debt 18.5%	Venture capital 10.8%	Private debt 14.0%	Buyout 18.0%	Real estate 13.1%	Venture capital 12.3%	Growth/ expansion 10.4%	Secondaries 16.0%	Funds of funds 16.2%	Buyout 16.1%	Funds of funds 23.2%	Secondaries 46.4%	Real estate 7.0%	Private capital 3.3%	Buyout 11.8%
Oil & gas 5.1%	Buyout 17.6%	Real estate 9.0%	Growth/ expansion 13.0%	Growth/ expansion 16.5%	Growth/ expansion 12.8%	Funds of funds 11.8%	Private capital 10.0%	Private capital 14.8%	Secondaries 14.2%	Private capital 11.6%	Buyout 21.0%	Funds of funds 46.3%	Secondaries 4.9%	Private debt 2.1%	Venture capital 10.9%
Private capital 2.4%	Oil & gas 17.1%	Private capital 8.2%	Private capital 12.5%	Private capital 15.8%	Buyout 12.6%	Real estate 11.4%	Infrastructure 9.3%	Real estate 13.2%	Infrastructure 11.9%	Funds of funds 11.6%	Private capital 15.3%	Buyout 44.9%	Private debt 4.3%	Secondaries 2.1%	Private capital 10.4%
Funds of funds 0.7%	Private capital 15.7%	Infrastructure 8.1%	Real estate 11.2%	Private debt 11.4%	Private capital 12.4%	Secondaries 10.3%	Real estate 8.9%	Funds of funds 11.9%	Buyout 10.9%	Secondaries 9.7%	Secondaries 12.3%	Oil & gas 44.1%	Private capital 0.1%	Growth/ expansion 1.3%	Funds of funds 9.5%
Venture capital 0.0%	Venture capital 11.8%	Buyout 8.0%	Funds of funds 8.0%	Funds of funds 10.5%	Secondaries 12.4%	Private capital 10.2%	Private debt 8.4%	Private debt 10.2%	Private capital 10.8%	Private debt 8.1%	Infrastructure 8.2%	Private capital 38.2%	Buyout -1.1%	Funds of funds 1.1%	Infrastructure 9.1%
Infrastructure -3.5%	Real estate 11.2%	Growth/ expansion 7.8%	Infrastructure 7.3%	Secondaries 10.1%	Funds of funds 12.0%	Infrastructure 10.2%	Secondaries 7.2%	Venture capital 9.6%	Real estate 7.6%	Real estate 8.0%	Real estate 4.3%	Real estate 27.6%	Funds of funds -5.6%	Venture capital 1.0%	Private debt 8.1%
Secondaries -7.6%	Infrastructure 6.5%	Funds of funds 7.4%	Venture capital 7.3%	Oil & gas 7.1%	Private debt 11.1%	Private debt 5.3%	Funds of funds 7.0%	Oil & gas 8.5%	Private debt 5.7%	Infrastructure 6.4%	Private debt 3.2%	Private debt 16.7%	Growth/ expansion -7.1%	Real estate 0.5%	Real estate 6.9%
Real estate -35.6%	Funds of funds 5.1%	Private debt 3.3%	Oil & gas 7.1%	Infrastructure 4.4%	Oil & gas -2.5%	Oil & gas -21.4%	Venture capital 0.2%	Infrastructure 7.6%	Oil & gas 4.3%	Oil & gas -11.9%	Oil & gas -20.6%	Infrastructure 15.8%	Venture capital -17.8%	Oil & gas -2.8%	Oil & gas 5.6%

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Global private debt

Global private debt

IRRs by vintage

Pooled IRRs

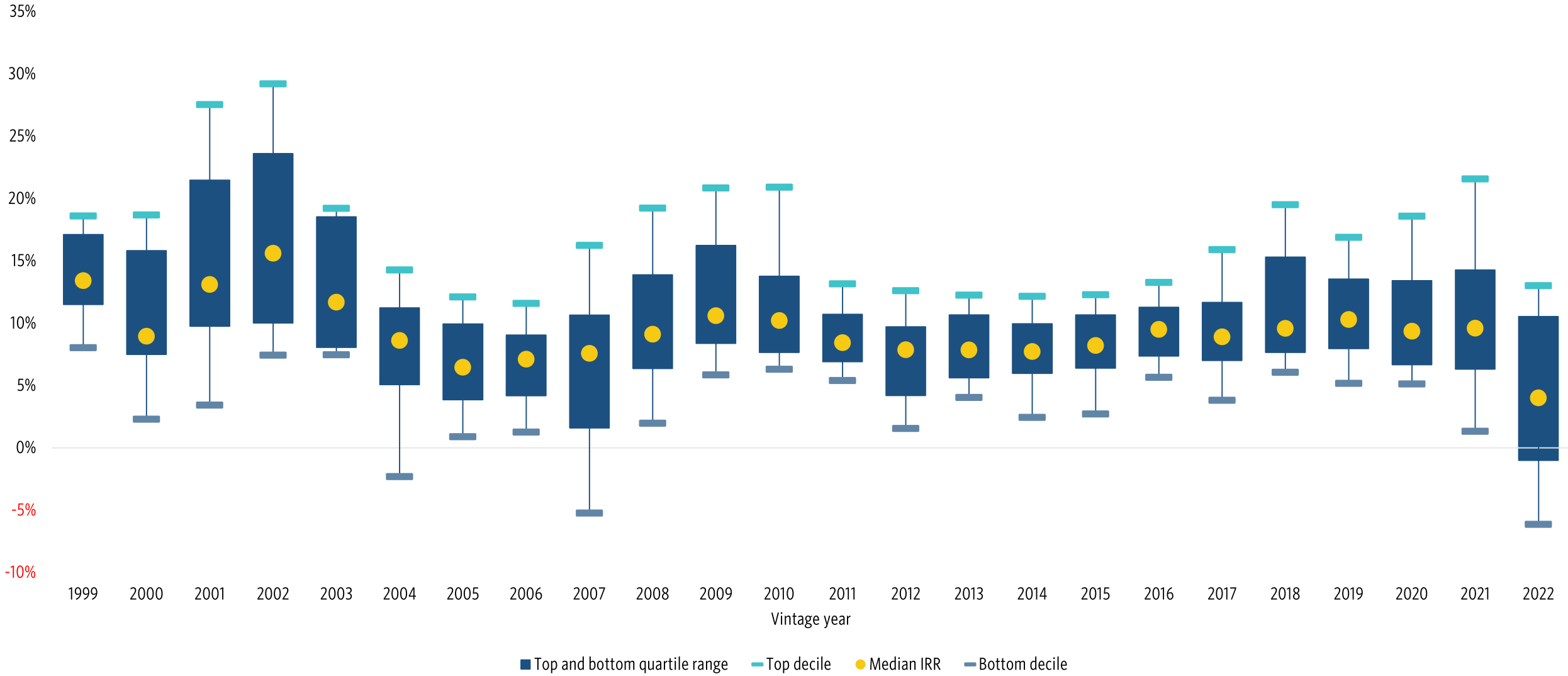
IRR quantiles

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	11.74%	13.07%	4	18.60%	17.11%	13.40%	11.50%	8.02%	5.45%	13
2000	11.85%	6.43%	9	18.67%	15.81%	8.95%	7.50%	2.29%	9.47%	17
2001	25.79%	22.23%	7	27.53%	21.47%	13.10%	9.76%	3.42%	10.44%	17
2002	16.12%	18.41%	10	29.19%	23.60%	15.60%	10.01%	7.42%	18.10%	15
2003	12.86%	12.13%	9	19.20%	18.53%	11.68%	8.05%	7.45%	6.47%	17
2004	5.10%	6.24%	10	14.27%	11.22%	8.61%	5.07%	-2.31%	9.06%	20
2005	9.77%	9.70%	14	12.10%	9.93%	6.45%	3.86%	0.88%	5.67%	24
2006	7.11%	6.35%	30	11.59%	9.05%	7.10%	4.19%	1.25%	6.00%	43
2007	6.11%	6.22%	27	16.23%	10.64%	7.57%	1.59%	-5.24%	8.07%	30
2008	13.00%	10.91%	31	19.23%	13.88%	9.10%	6.37%	1.96%	15.28%	54
2009	9.87%	11.10%	22	20.83%	16.24%	10.60%	8.38%	5.84%	10.90%	29
2010	10.47%	11.53%	31	20.91%	13.76%	10.20%	7.65%	6.30%	6.55%	43
2011	7.23%	6.54%	25	13.15%	10.70%	8.43%	6.91%	5.38%	5.73%	33
2012	5.92%	5.76%	35	12.60%	9.70%	7.87%	4.20%	1.55%	4.61%	45
2013	7.00%	7.25%	38	12.24%	10.66%	7.84%	5.62%	4.04%	3.80%	55
2014	7.40%	8.23%	50	12.14%	9.95%	7.72%	5.98%	2.43%	5.39%	55
2015	7.57%	7.21%	60	12.28%	10.67%	8.20%	6.40%	2.71%	4.97%	61
2016	7.97%	8.59%	54	13.26%	11.28%	9.50%	7.36%	5.64%	5.60%	59
2017	7.12%	7.68%	64	15.90%	11.67%	8.90%	7.02%	3.80%	5.70%	71
2018	9.02%	9.50%	68	19.50%	15.30%	9.57%	7.65%	6.06%	9.30%	69
2019	11.51%	9.83%	58	16.88%	13.53%	10.30%	7.96%	5.16%	5.57%	74
2020	8.83%	9.16%	56	18.58%	13.40%	9.35%	6.67%	5.12%	7.28%	73
2021	8.61%	10.00%	83	21.57%	14.26%	9.60%	6.31%	1.32%	17.79%	95
2022	6.60%	7.34%	54	13.00%	10.53%	4.00%	-1.01%	-6.15%	10.72%	41

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Global private debt

IRRs by vintage



Source: PitchBook | Geography: Global | Data as of March 31, 2023

Global private debt

PMEs by vintage

Vintage year	S&P 500			Morningstar Global High Yield			Number of funds
	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	
1999	11.74%	6.91%	1.52	11.74%			4
2000	11.85%	6.61%	1.23	11.85%	6.08%	1.04	9
2001	25.79%	7.40%	1.62	25.79%	6.34%	1.42	7
2002	16.12%	8.30%	1.32	16.12%	6.73%	1.21	10
2003	12.86%	10.14%	1.26	12.86%	6.87%	1.18	9
2004	5.10%	9.01%	0.99	5.10%	5.91%	0.91	10
2005	9.77%	9.12%	1.31	9.77%	5.69%	1.08	14
2006	7.11%	9.08%	1.03	7.11%	5.84%	0.92	30
2007	6.11%	8.84%	0.96	6.11%	5.47%	0.87	27
2008	13.00%	9.70%	1.03	13.00%	5.92%	0.99	31
2009	9.87%	14.36%	0.86	9.87%	8.15%	1.04	22
2010	10.47%	12.45%	0.89	10.47%	5.23%	1.14	31
2011	7.23%	11.98%	0.80	7.23%	4.47%	1.06	25
2012	5.92%	12.56%	0.79	5.92%	4.42%	1.03	35
2013	7.00%	12.34%	0.86	7.00%	3.49%	1.08	38
2014	7.40%	11.13%	0.84	7.40%	2.91%	1.13	50
2015	7.57%	10.69%	0.87	7.57%	3.40%	1.11	60
2016	7.97%	12.86%	0.88	7.97%	4.81%	1.15	54
2017	7.12%	11.44%	0.88	7.12%	2.85%	1.13	64
2018	9.02%	9.83%	0.95	9.02%	1.81%	1.20	68
2019	11.51%	12.00%	1.03	11.51%	2.17%	1.21	58
2020	8.83%	11.18%	1.07	8.83%	1.37%	1.16	56
2021	8.61%	3.30%	1.07	8.61%	-3.83%	1.10	83
2022	6.60%	-8.87%	1.05	6.60%	-6.66%	1.06	54

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Global private debt

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1999	1.43x	1.43x	0.00x	1.52x	1.52x	0.00x	4
2000	1.41x	1.40x	0.01x	1.27x	1.25x	0.01x	9
2001	2.06x	2.06x	0.00x	2.08x	2.08x	0.00x	7
2002	1.74x	1.71x	0.03x	1.70x	1.68x	0.02x	10
2003	1.71x	1.70x	0.00x	1.70x	1.70x	0.00x	9
2004	1.23x	1.22x	0.01x	1.31x	1.30x	0.01x	10
2005	1.56x	1.52x	0.04x	1.80x	1.70x	0.10x	14
2006	1.40x	1.37x	0.03x	1.36x	1.34x	0.03x	30
2007	1.24x	1.23x	0.01x	1.28x	1.27x	0.01x	27
2008	1.59x	1.56x	0.03x	1.46x	1.43x	0.04x	31
2009	1.41x	1.37x	0.04x	1.40x	1.37x	0.04x	22
2010	1.42x	1.38x	0.04x	1.46x	1.40x	0.06x	31
2011	1.30x	1.17x	0.13x	1.24x	1.10x	0.14x	25
2012	1.24x	1.11x	0.13x	1.25x	1.07x	0.18x	35
2013	1.25x	1.14x	0.11x	1.28x	1.08x	0.20x	38
2014	1.33x	1.00x	0.33x	1.34x	1.07x	0.27x	50
2015	1.26x	0.84x	0.42x	1.25x	0.86x	0.39x	60
2016	1.27x	0.71x	0.56x	1.28x	0.82x	0.46x	54
2017	1.21x	0.62x	0.60x	1.22x	0.66x	0.56x	64
2018	1.25x	0.46x	0.79x	1.24x	0.57x	0.67x	68
2019	1.22x	0.43x	0.79x	1.18x	0.43x	0.75x	58
2020	1.12x	0.22x	0.90x	1.12x	0.28x	0.84x	56
2021	1.09x	0.20x	0.89x	1.10x	0.26x	0.84x	83
2022	1.05x	0.15x	0.90x	1.06x	0.14x	0.91x	54

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Global 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		1.62x	1.46x	1.36x			1.62x	1.46x	1.36x		4
2000		1.51x	1.47x	1.27x			1.51x	1.39x	1.24x		9
2001		2.47x	1.88x	1.63x			2.47x	1.88x	1.63x		7
2002	2.38x	1.97x	1.61x	1.39x	1.32x	2.23x	1.97x	1.61x	1.39x	1.32x	10
2003		1.72x	1.58x	1.49x			1.72x	1.58x	1.49x		9
2004	1.92x	1.65x	1.37x	1.16x	0.62x	1.91x	1.65x	1.35x	1.16x	0.61x	10
2005	1.58x	1.56x	1.41x	1.21x	0.81x	1.58x	1.51x	1.32x	1.18x	0.77x	14
2006	1.82x	1.40x	1.29x	1.13x	0.90x	1.81x	1.37x	1.27x	1.13x	0.70x	30
2007	1.67x	1.52x	1.24x	1.11x	0.82x	1.67x	1.48x	1.24x	1.08x	0.80x	27
2008	1.74x	1.55x	1.37x	1.19x	1.04x	1.74x	1.54x	1.32x	1.18x	1.04x	31
2009	1.82x	1.59x	1.41x	1.21x	1.07x	1.82x	1.58x	1.36x	1.16x	0.99x	22
2010	1.76x	1.65x	1.40x	1.30x	1.17x	1.72x	1.54x	1.34x	1.24x	1.17x	31
2011	1.69x	1.49x	1.22x	1.06x	0.80x	1.52x	1.27x	1.13x	0.97x	0.73x	25
2012	1.67x	1.36x	1.22x	1.07x	1.01x	1.45x	1.23x	1.11x	0.97x	0.83x	35
2013	1.57x	1.36x	1.27x	1.17x	1.05x	1.36x	1.28x	1.14x	1.03x	0.80x	38
2014	1.73x	1.45x	1.28x	1.17x	1.07x	1.39x	1.18x	1.09x	0.94x	0.71x	50
2015	1.52x	1.33x	1.21x	1.13x	1.01x	1.15x	1.01x	0.89x	0.72x	0.51x	60
2016	1.46x	1.36x	1.24x	1.16x	1.10x	1.17x	1.03x	0.81x	0.63x	0.34x	54
2017	1.52x	1.37x	1.22x	1.13x	0.89x	1.01x	0.80x	0.62x	0.49x	0.30x	64
2018	1.51x	1.32x	1.22x	1.15x	1.01x	0.89x	0.75x	0.50x	0.25x	0.19x	68
2019	1.42x	1.28x	1.18x	1.12x	1.04x	0.68x	0.57x	0.37x	0.22x	0.08x	58
2020	1.36x	1.18x	1.11x	1.07x	1.02x	0.65x	0.34x	0.14x	0.07x	0.03x	56
2021	1.27x	1.14x	1.08x	1.04x	0.96x	0.49x	0.33x	0.11x	0.03x	0.00x	83
2022	1.20x	1.09x	1.03x	0.97x	0.90x	0.32x	0.17x	0.06x	0.00x	0.00x	54

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Global private debt

Quarterly return

Quarter end	1-quarter return
Q1 2001	2.43%
Q2 2001	1.95%
Q3 2001	-0.30%
Q4 2001	1.07%
Q1 2002	2.54%
Q2 2002	-2.96%
Q3 2002	-0.55%
Q4 2002	1.37%
Q1 2003	3.08%
Q2 2003	5.95%
Q3 2003	-0.18%
Q4 2003	9.11%
Q1 2004	5.13%
Q2 2004	7.02%
Q3 2004	3.39%
Q4 2004	14.50%
Q1 2005	3.57%
Q2 2005	-1.06%
Q3 2005	5.90%
Q4 2005	3.84%
Q1 2006	4.07%
Q2 2006	4.37%
Q3 2006	3.00%
Q4 2006	8.31%

Quarter end	1-quarter return
Q1 2007	1.76%
Q2 2007	8.29%
Q3 2007	2.24%
Q4 2007	1.19%
Q1 2008	-2.43%
Q2 2008	-0.03%
Q3 2008	-9.06%
Q4 2008	-14.35%
Q1 2009	-4.17%
Q2 2009	10.77%
Q3 2009	11.36%
Q4 2009	5.29%
Q1 2010	6.23%
Q2 2010	2.22%
Q3 2010	4.54%
Q4 2010	8.04%
Q1 2011	4.38%
Q2 2011	3.07%
Q3 2011	-5.08%
Q4 2011	0.58%
Q1 2012	5.87%
Q2 2012	-0.50%
Q3 2012	7.58%
Q4 2012	0.53%

Quarter end	1-quarter return
Q1 2013	4.87%
Q2 2013	1.25%
Q3 2013	3.23%
Q4 2013	1.37%
Q1 2014	5.04%
Q2 2014	2.37%
Q3 2014	1.94%
Q4 2014	1.89%
Q1 2015	4.99%
Q2 2015	-0.06%
Q3 2015	0.10%
Q4 2015	-0.21%
Q1 2016	2.07%
Q2 2016	0.81%
Q3 2016	3.71%
Q4 2016	1.97%
Q1 2017	1.81%
Q2 2017	3.04%
Q3 2017	2.11%
Q4 2017	2.85%
Q1 2018	3.94%
Q2 2018	0.35%
Q3 2018	-0.30%
Q4 2018	0.39%

Quarter end	1-quarter return
Q1 2019	1.85%
Q2 2019	1.41%
Q3 2019	2.45%
Q4 2019	1.94%
Q1 2020	-7.05%
Q2 2020	2.87%
Q3 2020	3.19%
Q4 2020	3.39%
Q1 2021	5.52%
Q2 2021	7.94%
Q3 2021	0.45%
Q4 2021	2.19%
Q1 2022	2.17%
Q2 2022	-0.43%
Q3 2022	-0.46%
Q4 2022	2.99%
Q1 2023	2.14%
Q2 2023*	0.67%

*Preliminary figure

Source: PitchBook | Geography: Global

North America private debt

North America private debt

IRRs by vintage

Pooled IRRs

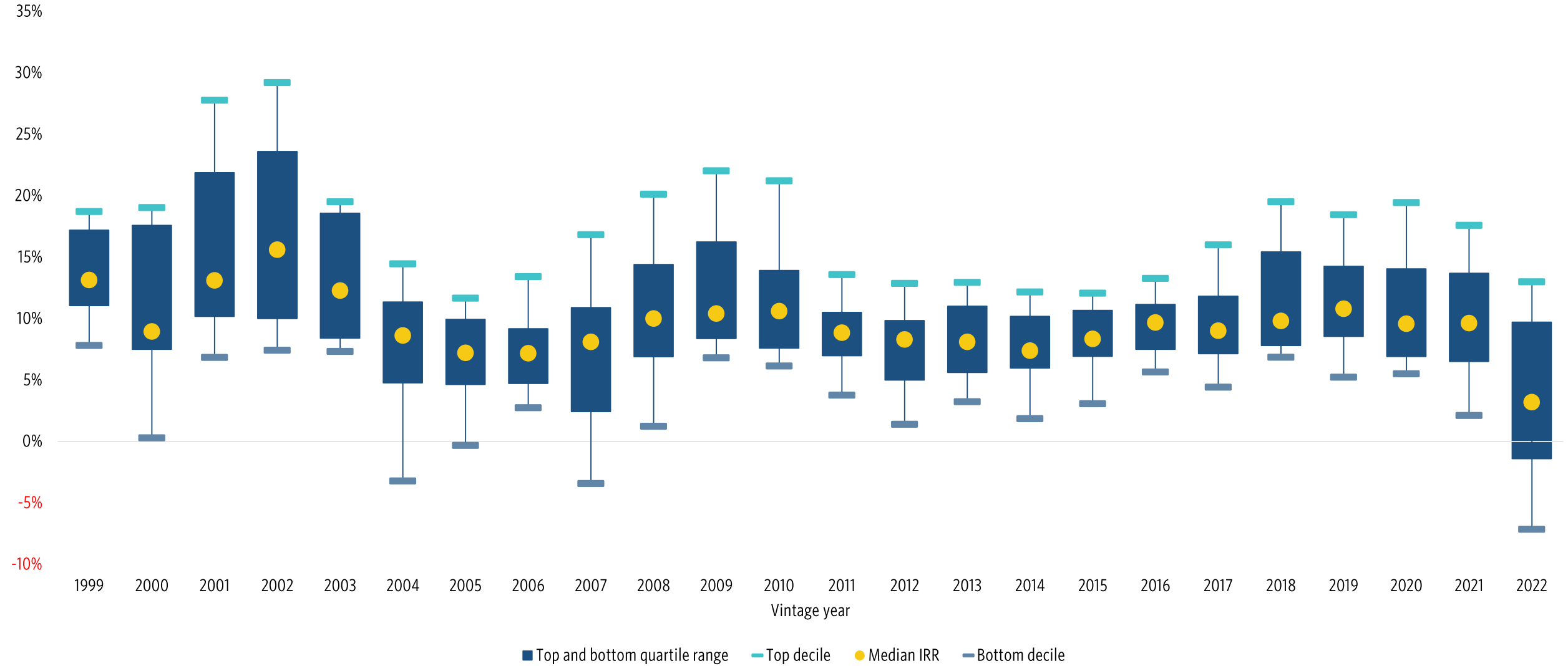
IRR quantiles

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	11.74%	13.07%	4	18.70%	17.20%	13.14%	11.05%	7.81%	5.57%	12
2000	13.08%	6.48%	8	19.04%	17.59%	8.95%	7.50%	0.28%	10.73%	13
2001	25.45%	20.71%	6	27.76%	21.87%	13.10%	10.18%	6.83%	9.61%	15
2002	16.12%	18.41%	10	29.19%	23.60%	15.60%	10.01%	7.42%	18.10%	15
2003	13.34%	12.55%	8	19.50%	18.57%	12.28%	8.41%	7.31%	6.89%	14
2004	5.10%	6.24%	10	14.46%	11.35%	8.61%	4.77%	-3.22%	9.31%	19
2005	10.02%	10.31%	12	11.65%	9.93%	7.20%	4.65%	-0.33%	6.00%	20
2006	7.45%	6.69%	27	13.41%	9.16%	7.17%	4.73%	2.73%	5.81%	36
2007	6.73%	7.04%	22	16.82%	10.89%	8.10%	2.43%	-3.43%	8.10%	25
2008	13.77%	11.75%	28	20.12%	14.41%	10.00%	6.89%	1.22%	16.46%	46
2009	9.78%	11.45%	19	22.02%	16.24%	10.40%	8.38%	6.80%	10.21%	25
2010	10.68%	11.55%	27	21.21%	13.91%	10.60%	7.60%	6.14%	6.77%	37
2011	6.95%	6.39%	21	13.57%	10.50%	8.84%	6.99%	3.76%	6.34%	26
2012	6.66%	6.46%	26	12.86%	9.84%	8.30%	5.00%	1.38%	4.84%	37
2013	7.44%	7.73%	27	12.93%	11.01%	8.10%	5.62%	3.22%	3.99%	47
2014	7.88%	8.44%	39	12.16%	10.18%	7.39%	5.98%	1.85%	5.93%	43
2015	7.80%	8.00%	43	12.07%	10.67%	8.34%	6.93%	3.06%	4.62%	46
2016	8.45%	8.74%	44	13.26%	11.15%	9.68%	7.50%	5.64%	4.90%	49
2017	8.34%	8.73%	47	15.99%	11.81%	9.00%	7.15%	4.41%	5.88%	55
2018	10.53%	10.46%	49	19.50%	15.43%	9.80%	7.81%	6.85%	9.48%	51
2019	12.57%	10.68%	42	18.45%	14.25%	10.80%	8.56%	5.23%	5.70%	56
2020	8.65%	9.50%	47	19.44%	14.05%	9.57%	6.91%	5.49%	7.87%	58
2021	7.78%	9.38%	66	17.58%	13.69%	9.63%	6.51%	2.10%	10.31%	74
2022	7.44%	8.00%	45	12.98%	9.70%	3.19%	-1.41%	-7.15%	10.71%	39

Source: PitchBook | Geography: North America | Data as of March 31, 2023

North America private debt

IRRs by vintage



Source: PitchBook | Geography: North America | Data as of March 31, 2023

North America private debt

PMEs by vintage

Vintage year	S&P 500			Morningstar US High Yield			Number of funds
	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	
1999	11.74%	6.91%	1.52	11.74%			4
2000	13.08%	6.61%	1.27	13.08%	6.25%	1.09	8
2001	25.45%	7.40%	1.62	25.45%	6.49%	1.45	6
2002	16.12%	8.30%	1.32	16.12%	6.82%	1.23	10
2003	13.34%	10.14%	1.26	13.34%	7.01%	1.21	8
2004	5.10%	9.01%	0.99	5.10%	6.14%	0.92	10
2005	10.02%	9.12%	1.32	10.02%	5.99%	1.09	12
2006	7.45%	9.08%	1.04	7.45%	6.12%	0.93	27
2007	6.73%	8.84%	0.98	6.73%	5.83%	0.89	22
2008	13.77%	9.70%	1.06	13.77%	6.37%	1.00	28
2009	9.78%	14.36%	0.84	9.78%	8.49%	1.03	19
2010	10.68%	12.45%	0.90	10.68%	5.78%	1.13	27
2011	6.95%	11.98%	0.79	6.95%	5.01%	1.02	21
2012	6.66%	12.56%	0.80	6.66%	4.91%	1.05	26
2013	7.44%	12.34%	0.87	7.44%	4.14%	1.08	27
2014	7.88%	11.13%	0.85	7.88%	3.78%	1.12	39
2015	7.80%	10.69%	0.88	7.80%	3.97%	1.11	43
2016	8.45%	12.86%	0.89	8.45%	5.57%	1.14	44
2017	8.34%	11.44%	0.91	8.34%	3.28%	1.13	47
2018	10.53%	9.83%	0.99	10.53%	2.88%	1.21	49
2019	12.57%	12.00%	1.05	12.57%	2.90%	1.20	42
2020	8.65%	11.18%	1.07	8.65%	2.12%	1.13	47
2021	7.78%	3.30%	1.06	7.78%	-2.19%	1.08	66
2022	7.44%	-8.87%	1.06	7.44%	-5.40%	1.07	45

Source: PitchBook | Geography: North America | Data as of March 31, 2023

North America private debt

Multiples by vintage

Vintage year	Pooled multiples			Equal-weighted pooled multiples			Number of funds
	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999	1.43x	1.43x	0.00x	1.52x	1.52x	0.00x	4
2000	1.43x	1.43x	0.00x	1.27x	1.26x	0.01x	8
2001	2.07x	2.07x	0.00x	2.12x	2.12x	0.00x	6
2002	1.74x	1.71x	0.03x	1.70x	1.68x	0.02x	10
2003	1.72x	1.72x	0.00x	1.72x	1.71x	0.00x	8
2004	1.23x	1.22x	0.01x	1.31x	1.30x	0.01x	10
2005	1.57x	1.53x	0.03x	1.87x	1.79x	0.08x	12
2006	1.43x	1.40x	0.03x	1.38x	1.36x	0.03x	27
2007	1.26x	1.25x	0.01x	1.31x	1.30x	0.01x	22
2008	1.62x	1.62x	0.01x	1.49x	1.48x	0.01x	28
2009	1.44x	1.38x	0.05x	1.43x	1.39x	0.04x	19
2010	1.42x	1.39x	0.03x	1.47x	1.41x	0.06x	27
2011	1.28x	1.17x	0.11x	1.23x	1.09x	0.14x	21
2012	1.29x	1.14x	0.15x	1.30x	1.08x	0.22x	26
2013	1.27x	1.16x	0.11x	1.32x	1.09x	0.23x	27
2014	1.36x	0.96x	0.40x	1.34x	1.06x	0.28x	39
2015	1.27x	0.80x	0.47x	1.28x	0.86x	0.43x	43
2016	1.28x	0.71x	0.57x	1.28x	0.81x	0.46x	44
2017	1.24x	0.65x	0.59x	1.24x	0.72x	0.52x	47
2018	1.28x	0.49x	0.79x	1.24x	0.61x	0.63x	49
2019	1.23x	0.47x	0.77x	1.19x	0.44x	0.75x	42
2020	1.11x	0.23x	0.89x	1.13x	0.29x	0.84x	47
2021	1.08x	0.19x	0.89x	1.10x	0.28x	0.82x	66
2022	1.06x	0.16x	0.90x	1.06x	0.15x	0.91x	45

Source: PitchBook | Geography: North America | Data as of March 31, 2023

North America 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		1.62x	1.46x	1.36x			1.62x	1.46x	1.36x		4
2000		1.51x	1.48x	1.19x			1.51x	1.44x	1.17x		8
2001		2.70x	1.86x	1.60x			2.70x	1.86x	1.60x		6
2002	2.38x	1.97x	1.61x	1.39x	1.32x	2.23x	1.97x	1.61x	1.39x	1.32x	10
2003		1.79x	1.64x	1.47x			1.79x	1.64x	1.47x		8
2004	1.92x	1.65x	1.37x	1.16x	0.62x	1.91x	1.65x	1.35x	1.16x	0.61x	10
2005	1.59x	1.54x	1.41x	1.22x	0.71x	1.58x	1.54x	1.40x	1.14x	0.69x	12
2006	1.83x	1.39x	1.31x	1.17x	1.03x	1.82x	1.37x	1.27x	1.17x	0.94x	27
2007	1.66x	1.55x	1.28x	1.20x	0.83x	1.66x	1.49x	1.28x	1.20x	0.83x	22
2008	1.87x	1.60x	1.37x	1.19x	1.04x	1.87x	1.59x	1.35x	1.18x	1.04x	28
2009	1.87x	1.61x	1.42x	1.22x	1.12x	1.85x	1.61x	1.39x	1.17x	1.04x	19
2010	1.83x	1.66x	1.38x	1.28x	1.17x	1.72x	1.60x	1.35x	1.21x	1.17x	27
2011	1.72x	1.51x	1.22x	1.02x	0.69x	1.58x	1.27x	1.13x	0.94x	0.60x	21
2012	1.70x	1.46x	1.28x	1.17x	0.96x	1.49x	1.28x	1.17x	1.00x	0.69x	26
2013	1.72x	1.41x	1.28x	1.18x	1.09x	1.36x	1.30x	1.20x	1.08x	0.65x	27
2014	1.56x	1.45x	1.30x	1.20x	1.03x	1.45x	1.14x	1.07x	0.89x	0.59x	39
2015	1.53x	1.40x	1.25x	1.16x	1.02x	1.13x	1.02x	0.89x	0.70x	0.54x	43
2016	1.46x	1.36x	1.25x	1.16x	1.12x	1.17x	1.05x	0.84x	0.61x	0.36x	44
2017	1.54x	1.38x	1.23x	1.13x	1.00x	1.07x	0.88x	0.66x	0.54x	0.35x	47
2018	1.55x	1.31x	1.21x	1.15x	1.03x	1.05x	0.78x	0.57x	0.30x	0.21x	49
2019	1.41x	1.26x	1.18x	1.11x	1.04x	0.68x	0.58x	0.35x	0.26x	0.09x	42
2020	1.41x	1.19x	1.12x	1.07x	0.97x	0.68x	0.37x	0.15x	0.06x	0.03x	47
2021	1.24x	1.14x	1.08x	1.04x	0.95x	0.59x	0.34x	0.11x	0.04x	0.00x	66
2022	1.24x	1.09x	1.03x	0.97x	0.90x	0.33x	0.17x	0.06x	0.00x	0.00x	45

Source: PitchBook | Geography: North America | Data as of March 31, 2023

North America private debt

Quarterly return

Quarter end	1-quarter return
Q1 2001	2.49%
Q2 2001	2.09%
Q3 2001	-0.28%
Q4 2001	1.07%
Q1 2002	3.13%
Q2 2002	-3.10%
Q3 2002	-0.56%
Q4 2002	1.40%
Q1 2003	3.14%
Q2 2003	6.09%
Q3 2003	-0.21%
Q4 2003	9.32%
Q1 2004	5.01%
Q2 2004	7.30%
Q3 2004	3.49%
Q4 2004	14.77%
Q1 2005	3.59%
Q2 2005	-1.10%
Q3 2005	6.17%
Q4 2005	3.95%
Q1 2006	4.21%
Q2 2006	4.10%
Q3 2006	2.73%
Q4 2006	8.01%

Quarter end	1-quarter return
Q1 2007	2.52%
Q2 2007	8.60%
Q3 2007	2.08%
Q4 2007	1.07%
Q1 2008	-2.81%
Q2 2008	0.36%
Q3 2008	-8.98%
Q4 2008	-14.56%
Q1 2009	-4.30%
Q2 2009	10.89%
Q3 2009	11.19%
Q4 2009	5.53%
Q1 2010	6.53%
Q2 2010	2.68%
Q3 2010	4.22%
Q4 2010	8.40%
Q1 2011	4.40%
Q2 2011	3.58%
Q3 2011	-5.27%
Q4 2011	0.83%
Q1 2012	6.15%
Q2 2012	-0.55%
Q3 2012	8.34%
Q4 2012	0.23%

Quarter end	1-quarter return
Q1 2013	4.80%
Q2 2013	2.00%
Q3 2013	3.05%
Q4 2013	1.12%
Q1 2014	5.28%
Q2 2014	2.89%
Q3 2014	2.28%
Q4 2014	2.66%
Q1 2015	1.91%
Q2 2015	2.88%
Q3 2015	-0.68%
Q4 2015	0.41%
Q1 2016	1.48%
Q2 2016	1.47%
Q3 2016	3.55%
Q4 2016	3.37%
Q1 2017	2.43%
Q2 2017	2.08%
Q3 2017	1.19%
Q4 2017	3.69%
Q1 2018	3.95%
Q2 2018	0.78%
Q3 2018	-0.38%
Q4 2018	0.74%

Quarter end	1-quarter return
Q1 2019	2.56%
Q2 2019	1.60%
Q3 2019	1.78%
Q4 2019	1.10%
Q1 2020	-8.92%
Q2 2020	3.76%
Q3 2020	3.12%
Q4 2020	3.94%
Q1 2021	6.51%
Q2 2021	8.14%
Q3 2021	2.25%
Q4 2021	2.73%
Q1 2022	2.84%
Q2 2022	-0.97%
Q3 2022	0.32%
Q4 2022	1.88%
Q1 2023	1.82%
Q2 2023*	-0.06%

*Preliminary figure

Source: PitchBook | Geography: North America

Europe private debt

Europe private debt

IRRs by vintage

Pooled IRRs

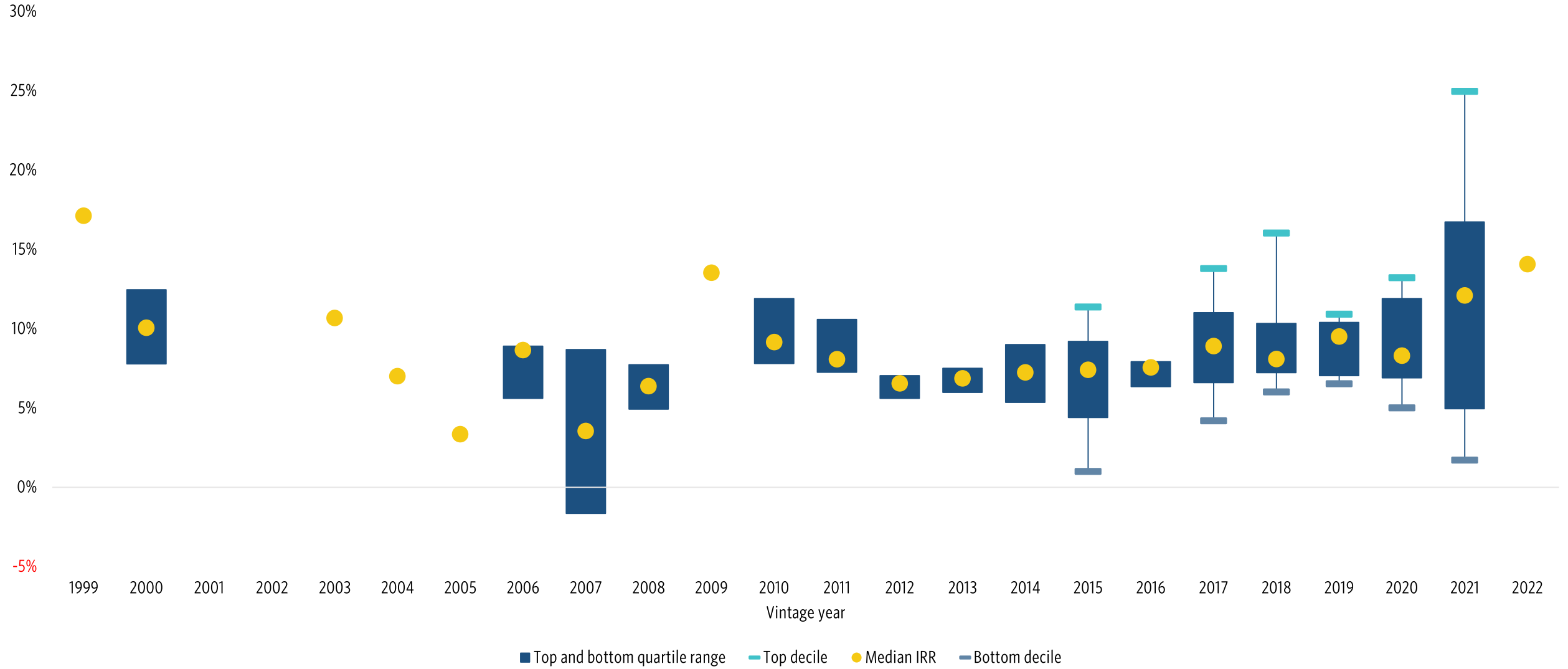
IRR quantiles

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						17.11%				1
2000	6.08%	6.08%	1		12.45%	10.05%	7.78%		4.05%	4
2001										
2002										
2003						10.67%			3.87%	2
2004						7.00%				1
2005	3.16%	3.16%	1			3.35%			0.36%	2
2006	7.91%	7.91%	1		8.90%	8.64%	5.60%		6.71%	5
2007	1.14%	3.27%	4		8.68%	3.54%	-1.65%		9.32%	4
2008	4.47%	4.77%	3		7.73%	6.37%	4.93%		1.97%	4
2009	10.53%	8.94%	3			13.52%			4.27%	3
2010	8.97%	11.43%	4		11.90%	9.15%	7.80%		5.37%	6
2011	8.24%	8.13%	3		10.58%	8.07%	7.25%		2.62%	6
2012	4.79%	3.49%	5		7.04%	6.55%	5.60%		2.90%	5
2013	5.97%	6.15%	10		7.50%	6.85%	5.97%		2.43%	8
2014	5.36%	7.50%	10		9.00%	7.24%	5.35%		3.18%	9
2015	7.12%	5.26%	16	11.36%	9.20%	7.40%	4.40%	0.99%	5.74%	13
2016	5.24%	8.84%	9		7.92%	7.56%	6.35%		2.59%	8
2017	4.01%	4.43%	14	13.79%	11.00%	8.90%	6.60%	4.18%	4.88%	13
2018	5.55%	7.16%	16	16.02%	10.33%	8.08%	7.22%	6.01%	4.96%	12
2019	8.57%	6.66%	11	10.91%	10.39%	9.50%	7.03%	6.52%	2.88%	13
2020	9.40%	7.83%	7	13.20%	11.90%	8.29%	6.90%	5.00%	4.55%	11
2021	17.84%	11.33%	14	24.96%	16.72%	12.09%	4.95%	1.70%	9.79%	14
2022	1.19%	2.47%	8			14.06%			3.60%	2

Source: PitchBook | Geography: Europe | Data as of March 31, 2023

Europe private debt

IRRs by vintage



Source: PitchBook | Geography: Europe | Data as of March 31, 2023

Europe private debt

PMEs by vintage

Vintage year	S&P 500			Morningstar Eurozone High Yield			Number of funds
	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	
1999							
2000	6.08%	6.61%	0.99	6.08%	4.71%	0.75	1
2001							
2002							
2003							
2004							
2005	3.16%	9.12%	0.89	3.16%	4.21%	0.79	1
2006	7.91%	9.08%	1.23	7.91%	4.58%	0.99	1
2007	1.14%	8.84%	0.75	1.14%	3.69%	0.75	4
2008	4.47%	9.70%	0.64	4.47%	3.60%	0.96	3
2009	10.53%	14.36%	0.98	10.53%	6.98%	1.06	3
2010	8.97%	12.45%	0.84	8.97%	3.05%	1.16	4
2011	8.24%	11.98%	0.82	8.24%	2.42%	1.26	3
2012	4.79%	12.56%	0.81	4.79%	2.70%	1.07	5
2013	5.97%	12.34%	0.85	5.97%	1.25%	1.12	10
2014	5.36%	11.13%	0.77	5.36%	-0.10%	1.13	10
2015	7.12%	10.69%	0.85	7.12%	1.63%	1.16	16
2016	5.24%	12.86%	0.80	5.24%	2.36%	1.15	9
2017	4.01%	11.44%	0.80	4.01%	1.61%	1.13	14
2018	5.55%	9.83%	0.87	5.55%	-1.93%	1.20	16
2019	8.57%	12.00%	0.98	8.57%	-0.15%	1.25	11
2020	9.40%	11.18%	1.10	9.40%	-0.66%	1.27	7
2021	17.84%	3.30%	1.16	17.84%	-8.61%	1.25	14
2022	1.19%	-8.87%	1.02	1.19%	-9.68%	1.00	8

Source: PitchBook | Geography: Europe | Data as of March 31, 2023

Europe private debt

Multiples by vintage

Vintage year	Pooled multiples			Equal-weighted pooled multiples			Number of funds
	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999							
2000	1.29x	1.24x	0.05x	1.29x	1.24x	0.05x	1
2001							
2002							
2003							
2004							
2005	1.21x	1.20x	0.01x	1.21x	1.20x	0.01x	1
2006	1.65x	1.65x	0.00x	1.65x	1.65x	0.00x	1
2007	1.04x	1.04x	0.00x	1.13x	1.13x	0.00x	4
2008	1.28x	1.01x	0.28x	1.28x	1.05x	0.22x	3
2009	1.29x	1.28x	0.00x	1.27x	1.25x	0.01x	3
2010	1.38x	1.28x	0.10x	1.42x	1.34x	0.08x	4
2011	1.41x	1.20x	0.20x	1.33x	1.19x	0.13x	3
2012	1.14x	1.08x	0.06x	1.11x	1.03x	0.08x	5
2013	1.20x	1.10x	0.10x	1.20x	1.06x	0.14x	10
2014	1.23x	1.12x	0.11x	1.36x	1.12x	0.24x	10
2015	1.24x	0.95x	0.30x	1.18x	0.88x	0.30x	16
2016	1.19x	0.70x	0.49x	1.30x	0.90x	0.40x	9
2017	1.13x	0.50x	0.62x	1.14x	0.47x	0.67x	14
2018	1.16x	0.38x	0.78x	1.22x	0.42x	0.80x	16
2019	1.19x	0.25x	0.94x	1.14x	0.30x	0.85x	11
2020	1.14x	0.19x	0.96x	1.10x	0.28x	0.82x	7
2021	1.20x	0.27x	0.92x	1.12x	0.20x	0.93x	14
2022	1.01x	0.09x	0.92x	1.02x	0.08x	0.93x	8

Source: PitchBook | Geography: Europe | Data as of March 31, 2023

Europe 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											
2000			1.29x					1.24x			1
2001											
2002											
2003											
2004											
2005			1.21x					1.20x			1
2006			1.65x					1.65x			1
2007		1.31x	1.12x	0.94x			1.30x	1.11x	0.94x		4
2008			1.31x					1.19x			3
2009			1.39x					1.33x			3
2010		1.48x	1.45x	1.40x			1.35x	1.29x	1.27x		4
2011			1.36x					1.13x			3
2012		1.15x	1.07x	1.03x			1.11x	1.07x	0.94x		5
2013	1.36x	1.31x	1.18x	1.11x	1.06x	1.32x	1.16x	1.11x	0.91x	0.83x	10
2014	1.89x	1.46x	1.24x	1.13x	1.10x	1.26x	1.25x	1.12x	1.08x	0.89x	10
2015	1.41x	1.21x	1.17x	1.07x	1.00x	1.14x	0.98x	0.90x	0.79x	0.49x	16
2016		1.36x	1.21x	1.16x			0.92x	0.79x	0.68x		9
2017	1.36x	1.31x	1.19x	0.91x	0.82x	0.74x	0.61x	0.46x	0.33x	0.23x	14
2018	1.40x	1.30x	1.22x	1.16x	1.08x	0.67x	0.56x	0.38x	0.20x	0.16x	16
2019	1.42x	1.30x	1.21x	1.15x	1.13x	0.52x	0.48x	0.31x	0.13x	0.05x	11
2020		1.15x	1.09x	1.08x			0.23x	0.09x	0.07x		7
2021	1.30x	1.16x	1.11x	1.05x	1.01x	0.41x	0.24x	0.11x	0.03x	0.01x	14
2022		1.07x	1.04x	0.94x			0.10x	0.05x	0.00x		8

Source: PitchBook | Geography: Europe | Data as of March 31, 2023

Europe private debt

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	0.98%
Q4 2003	0.52%
Q1 2004	6.97%
Q2 2004	2.22%
Q3 2004	-0.04%
Q4 2004	4.47%
Q1 2005	3.87%
Q2 2005	-0.92%
Q3 2005	-1.30%
Q4 2005	2.04%
Q1 2006	1.08%
Q2 2006	25.28%
Q3 2006	19.52%
Q4 2006	2.02%

Quarter end	1-quarter return
Q1 2007	0.86%
Q2 2007	17.38%
Q3 2007	-11.45%
Q4 2007	-3.04%
Q1 2008	11.55%
Q2 2008	-5.75%
Q3 2008	-9.88%
Q4 2008	-7.85%
Q1 2009	-3.25%
Q2 2009	11.04%
Q3 2009	11.64%
Q4 2009	3.49%
Q1 2010	-1.06%
Q2 2010	-7.20%
Q3 2010	10.70%
Q4 2010	3.39%
Q1 2011	5.41%
Q2 2011	-3.92%
Q3 2011	-2.16%
Q4 2011	-1.89%
Q1 2012	1.74%
Q2 2012	1.99%
Q3 2012	3.41%
Q4 2012	2.60%

Quarter end	1-quarter return
Q1 2013	7.25%
Q2 2013	-6.36%
Q3 2013	5.15%
Q4 2013	1.77%
Q1 2014	5.25%
Q2 2014	-0.00%
Q3 2014	-1.54%
Q4 2014	-0.52%
Q1 2015	25.55%
Q2 2015	-14.29%
Q3 2015	4.83%
Q4 2015	-2.87%
Q1 2016	5.03%
Q2 2016	-0.93%
Q3 2016	4.62%
Q4 2016	-3.57%
Q1 2017	-1.28%
Q2 2017	7.70%
Q3 2017	5.57%
Q4 2017	-0.17%
Q1 2018	3.52%
Q2 2018	-0.91%
Q3 2018	0.07%
Q4 2018	-3.12%

Quarter end	1-quarter return
Q1 2019	1.08%
Q2 2019	-0.12%
Q3 2019	6.71%
Q4 2019	2.84%
Q1 2020	-2.91%
Q2 2020	2.64%
Q3 2020	1.49%
Q4 2020	1.91%
Q1 2021	3.12%
Q2 2021	6.34%
Q3 2021	-4.22%
Q4 2021	0.55%
Q1 2022	0.82%
Q2 2022	1.96%
Q3 2022	-3.95%
Q4 2022	7.89%
Q1 2023	2.26%
Q2 2023*	2.15%

*Preliminary figure

Source: PitchBook | Geography: Europe

Rest of world private debt

Rest of world private debt

IRRs by vintage

Pooled IRRs

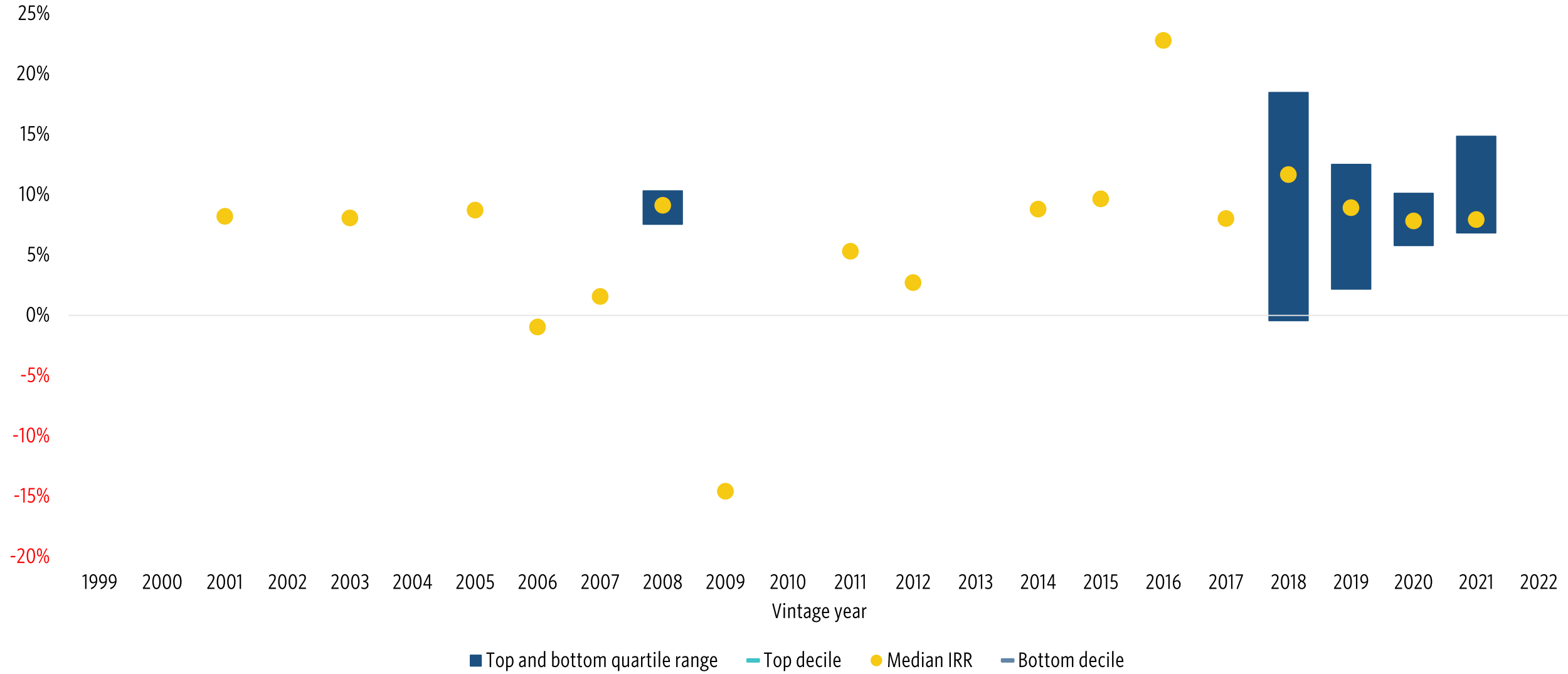
IRR quantiles

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										
2000										
2001	41.81%	41.81%	1			8.19%			18.79%	2
2002										
2003	8.26%	8.26%	1			8.06%				1
2004										
2005	7.95%	7.95%	1			8.70%			5.23%	2
2006	1.22%	-1.54%	2			-0.98%			3.14%	2
2007	1.58%	1.58%	1			1.55%				1
2008					10.30%	9.10%	7.54%		4.28%	4
2009						-14.59%				1
2010										0
2011	5.17%	5.17%	1			5.30%				1
2012	2.09%	2.97%	4			2.70%			1.30%	3
2013	1.14%	1.14%	1							0
2014	10.15%	10.15%	1			8.78%			0.33%	3
2015	2.56%	2.56%	1			9.64%			9.14%	2
2016	3.05%	3.05%	1			22.76%			15.83%	2
2017	7.36%	8.74%	3			8.00%			5.44%	3
2018	12.75%	7.91%	3		18.45%	11.66%	-0.45%		14.17%	6
2019	12.91%	11.33%	5		12.50%	8.90%	2.16%		7.98%	5
2020	6.24%	5.67%	2		10.10%	7.80%	5.78%		4.32%	4
2021	8.83%	35.97%	3		14.83%	7.92%	6.82%		55.25%	7
2022	13.84%	13.84%	1							0

Source: PitchBook | Geography: Rest of world | Data as of March 31, 2023

Rest of world private debt

IRRs by vintage



Source: PitchBook | Geography: Rest of world | Data as of March 31, 2023

Rest of world private debt

PMEs by vintage

Vintage year	S&P 500			Morningstar Emerging Market High Yield			Number of funds
	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	
1999							
2000							
2001	41.81%	7.40%	1.57	41.81%	7.09%	1.48	1
2002							
2003	8.26%	10.14%	1.22	8.26%	7.01%	0.95	1
2004							
2005	7.95%	9.12%	1.22	7.95%	5.81%	1.03	1
2006	1.22%	9.08%	0.77	1.22%	5.32%	0.72	2
2007	1.58%	8.84%	0.73	1.58%	5.03%	0.66	1
2008							
2009							
2010							
2011	5.17%	11.98%	0.81	5.17%	3.81%	1.03	1
2012	2.09%	12.56%	0.69	2.09%	3.28%	0.90	4
2013	1.14%	12.34%	0.74	1.14%	1.88%	0.87	1
2014	10.15%	11.13%	0.94	10.15%	2.36%	1.13	1
2015	2.56%	10.69%	0.79	2.56%	3.10%	0.94	1
2016	3.05%	12.86%	0.68	3.05%	2.77%	1.15	1
2017	7.36%	11.44%	0.90	7.36%	0.24%	1.22	3
2018	12.75%	9.83%	1.01	12.75%	-0.83%	1.43	3
2019	12.91%	12.00%	1.04	12.91%	-1.21%	1.29	5
2020	6.24%	11.18%	1.00	6.24%	-3.03%	1.18	2
2021	8.83%	3.30%	1.07	8.83%	-8.54%	1.10	3
2022	13.84%	-8.87%	1.12	13.84%	-7.96%	1.15	1

Source: PitchBook | Geography: Rest of world | Data as of March 31, 2023

Rest of world private debt

Multiples by vintage

Vintage year	Pooled multiples			Equal-weighted pooled multiples			Number of funds
	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999							
2000							
2001	1.88x	1.88x	0.00x	1.88x	1.88x	0.00x	1
2002							
2003	1.49x	1.49x	0.00x	1.49x	1.49x	0.00x	1
2004							
2005	1.58x	1.24x	0.34x	1.58x	1.24x	0.34x	1
2006	1.04x	1.04x	0.00x	0.93x	0.93x	0.00x	2
2007	1.10x	1.02x	0.09x	1.10x	1.02x	0.09x	1
2008							
2009							
2010							
2011	1.14x	1.03x	0.11x	1.14x	1.03x	0.11x	1
2012	1.07x	1.00x	0.07x	1.11x	1.03x	0.08x	4
2013	1.04x	1.03x	0.01x	1.04x	1.03x	0.01x	1
2014	1.22x	1.18x	0.04x	1.22x	1.18x	0.04x	1
2015	1.08x	0.90x	0.18x	1.08x	0.90x	0.18x	1
2016	1.16x	0.19x	0.97x	1.16x	0.19x	0.97x	1
2017	1.21x	0.68x	0.53x	1.24x	0.65x	0.59x	3
2018	1.38x	0.46x	0.93x	1.22x	0.48x	0.74x	3
2019	1.21x	0.58x	0.63x	1.15x	0.60x	0.54x	5
2020	1.09x	0.30x	0.78x	1.07x	0.26x	0.81x	2
2021	1.06x	0.32x	0.75x	1.26x	0.26x	1.00x	3
2022	1.10x	0.30x	0.80x	1.10x	0.30x	0.80x	1

Source: PitchBook | Geography: Rest of world | Data as of March 31, 2023

Rest of world 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											
2000											
2001			1.88x					1.88x			1
2002											
2003			1.49x					1.49x			1
2004											
2005			1.58x					1.24x			1
2006			0.90x					0.90x			2
2007			1.10x					1.02x			1
2008											
2009											
2010											
2011			1.14x					1.03x			1
2012		1.14x	1.11x	1.08x			1.10x	1.04x	0.96x		4
2013			1.04x					1.03x			1
2014			1.22x					1.18x			1
2015			1.08x					0.90x			1
2016			1.16x					0.19x			1
2017			1.21x					0.69x			3
2018			1.39x					0.52x			3
2019		1.13x	1.13x	1.10x			0.72x	0.54x	0.48x		5
2020			1.07x					0.26x			2
2021			1.05x					0.00x			3
2022			1.10x					0.30x			1

Source: PitchBook | Geography: Rest of world | Data as of March 31, 2023

Rest of world private debt

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	1.47%
Q2 2005	0.79%
Q3 2005	2.52%
Q4 2005	1.64%
Q1 2006	1.22%
Q2 2006	-1.62%
Q3 2006	-1.92%
Q4 2006	22.85%

Quarter end	1-quarter return
Q1 2007	-17.71%
Q2 2007	-4.30%
Q3 2007	9.52%
Q4 2007	4.92%
Q1 2008	-0.09%
Q2 2008	-5.01%
Q3 2008	-10.47%
Q4 2008	-15.93%
Q1 2009	-1.49%
Q2 2009	6.96%
Q3 2009	16.42%
Q4 2009	0.19%
Q1 2010	6.83%
Q2 2010	0.60%
Q3 2010	4.27%
Q4 2010	5.97%
Q1 2011	0.84%
Q2 2011	3.00%
Q3 2011	-6.00%
Q4 2011	-1.40%
Q1 2012	6.18%
Q2 2012	-3.30%
Q3 2012	-0.40%
Q4 2012	3.01%

Quarter end	1-quarter return
Q1 2013	0.97%
Q2 2013	2.86%
Q3 2013	2.51%
Q4 2013	5.92%
Q1 2014	-0.53%
Q2 2014	-1.33%
Q3 2014	5.17%
Q4 2014	-6.11%
Q1 2015	-0.41%
Q2 2015	0.95%
Q3 2015	-2.88%
Q4 2015	-1.65%
Q1 2016	0.19%
Q2 2016	-6.39%
Q3 2016	1.73%
Q4 2016	1.35%
Q1 2017	2.82%
Q2 2017	0.91%
Q3 2017	6.11%
Q4 2017	-1.10%
Q1 2018	7.11%
Q2 2018	-1.78%
Q3 2018	-0.86%
Q4 2018	18.16%

Quarter end	1-quarter return
Q1 2019	-7.48%
Q2 2019	7.68%
Q3 2019	-8.83%
Q4 2019	11.70%
Q1 2020	8.11%
Q2 2020	-12.99%
Q3 2020	16.06%
Q4 2020	1.18%
Q1 2021	0.68%
Q2 2021	12.06%
Q3 2021	-5.47%
Q4 2021	1.59%
Q1 2022	-4.11%
Q2 2022	-3.55%
Q3 2022	3.25%
Q4 2022	-1.29%
Q1 2023	10.57%
Q2 2023*	8.74%

*Preliminary figure

Source: PitchBook | Geography: Rest of world

Direct lending

Direct lending

IRRs by vintage

Pooled IRRs

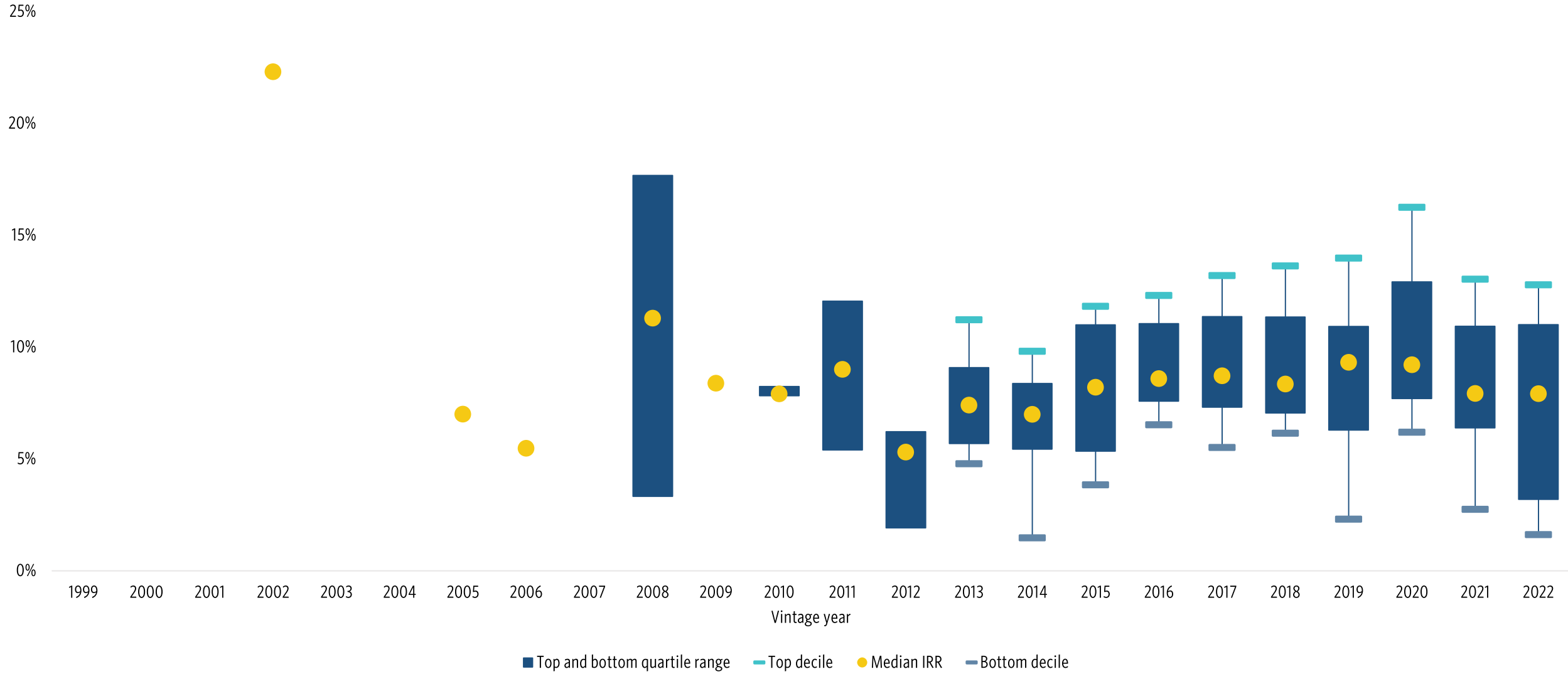
IRR quantiles

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										
2000										
2001										
2002	16.53%	16.53%	1			22.30%			9.48%	2
2003										
2004										
2005						7.00%				1
2006						5.47%				1
2007										
2008	32.24%	24.74%	2		17.68%	11.29%	3.33%		8.23%	6
2009	4.10%	4.10%	1			8.38%			2.46%	3
2010	8.07%	8.19%	2		8.23%	7.91%	7.83%		0.71%	4
2011	5.94%	5.46%	7		12.05%	9.00%	5.40%		5.15%	8
2012	0.79%	3.81%	2		6.22%	5.30%	1.92%		5.18%	8
2013	4.60%	4.73%	10	11.22%	9.08%	7.40%	5.69%	4.78%	2.88%	17
2014	4.89%	6.16%	17	9.81%	8.37%	6.99%	5.44%	1.47%	3.43%	19
2015	5.57%	5.78%	18	11.82%	10.99%	8.20%	5.35%	3.84%	4.55%	17
2016	6.46%	6.70%	16	12.30%	11.04%	8.59%	7.58%	6.52%	4.69%	18
2017	5.83%	9.14%	21	13.19%	11.36%	8.71%	7.31%	5.51%	3.66%	30
2018	4.37%	6.48%	27	13.62%	11.35%	8.34%	7.05%	6.15%	3.75%	22
2019	7.75%	8.22%	22	13.97%	10.93%	9.31%	6.29%	2.31%	5.15%	28
2020	11.26%	13.53%	19	16.24%	12.91%	9.21%	7.70%	6.19%	5.09%	29
2021	5.78%	4.73%	25	13.03%	10.93%	7.92%	6.39%	2.74%	5.74%	29
2022	9.10%	12.10%	20	12.78%	11.00%	7.91%	3.19%	1.61%	4.93%	13

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Direct lending

IRRs by vintage



Source: PitchBook | Geography: Global | Data as of March 31, 2023

Direct lending

PMEs by vintage

Vintage year	S&P 500			Morningstar Global High Yield			Number of funds
	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	
1999							
2000							
2001							
2002	16.53%	8.30%	1.17	16.53%	6.73%	1.16	1
2003							
2004							
2005							
2006							
2007							
2008	32.24%	9.70%	1.67	32.24%	5.92%	1.80	2
2009	4.10%	14.36%	0.70	4.10%	8.15%	0.67	1
2010	8.07%	12.45%	0.83	8.07%	5.23%	0.96	2
2011	5.94%	11.98%	0.77	5.94%	4.47%	1.01	7
2012	0.79%	12.56%	0.64	0.79%	4.42%	0.88	2
2013	4.60%	12.34%	0.79	4.60%	3.49%	1.01	10
2014	4.89%	11.13%	0.78	4.89%	2.91%	1.02	17
2015	5.57%	10.69%	0.83	5.57%	3.40%	1.05	18
2016	6.46%	12.86%	0.83	6.46%	4.81%	1.10	16
2017	5.83%	11.44%	0.85	5.83%	2.85%	1.09	21
2018	4.37%	9.83%	0.83	4.37%	1.81%	1.07	27
2019	7.75%	12.00%	0.96	7.75%	2.17%	1.14	22
2020	11.26%	11.18%	1.13	11.26%	1.37%	1.18	19
2021	5.78%	3.30%	1.07	5.78%	-3.83%	1.12	25
2022	9.10%	-8.87%	1.06	9.10%	-6.66%	1.08	20

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Direct lending

Multiples by vintage

Vintage year	Pooled multiples			Equal-weighted pooled multiples			Number of funds
	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999							
2000							
2001							
2002	1.69x	1.69x	0.00x	1.69x	1.69x	0.00x	1
2003							
2004							
2005							
2006							
2007							
2008	2.91x	2.91x	0.00x	2.02x	2.02x	0.00x	2
2009	1.13x	1.13x	0.00x	1.13x	1.13x	0.00x	1
2010	1.21x	1.21x	0.00x	1.24x	1.24x	0.00x	2
2011	1.21x	1.10x	0.10x	1.17x	0.96x	0.21x	7
2012	1.04x	0.63x	0.41x	1.22x	0.70x	0.52x	2
2013	1.17x	1.08x	0.09x	1.22x	0.95x	0.27x	10
2014	1.19x	1.03x	0.16x	1.26x	1.03x	0.23x	17
2015	1.18x	0.82x	0.37x	1.19x	0.86x	0.32x	18
2016	1.24x	0.73x	0.50x	1.24x	0.70x	0.54x	16
2017	1.18x	0.61x	0.57x	1.24x	0.72x	0.52x	21
2018	1.12x	0.41x	0.72x	1.18x	0.51x	0.67x	27
2019	1.16x	0.35x	0.82x	1.15x	0.42x	0.74x	22
2020	1.13x	0.22x	0.91x	1.16x	0.38x	0.77x	19
2021	1.07x	0.22x	0.84x	1.05x	0.22x	0.83x	25
2022	1.07x	0.20x	0.88x	1.10x	0.19x	0.91x	20

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Direct lending

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											
2000											
2001											
2002			1.69x					1.69x			1
2003											
2004											
2005											
2006											
2007											
2008			2.03x					2.03x			2
2009			1.13x					1.13x			1
2010			1.23x					1.23x			2
2011		1.52x	1.02x	0.96x			1.23x	0.97x	0.93x		7
2012			1.28x					0.72x			2
2013	1.40x	1.24x	1.17x	1.11x	1.05x	1.23x	1.15x	1.09x	0.82x	0.70x	10
2014	1.48x	1.37x	1.23x	1.12x	1.03x	1.24x	1.13x	1.08x	1.02x	0.67x	17
2015	1.32x	1.25x	1.19x	1.16x	1.06x	1.15x	1.02x	0.92x	0.74x	0.44x	18
2016	1.40x	1.34x	1.21x	1.16x	1.06x	1.09x	0.87x	0.75x	0.42x	0.26x	16
2017	1.38x	1.30x	1.23x	1.19x	1.06x	1.09x	0.83x	0.67x	0.40x	0.30x	21
2018	1.32x	1.24x	1.19x	1.17x	0.96x	0.77x	0.69x	0.53x	0.23x	0.18x	27
2019	1.30x	1.22x	1.18x	1.07x	1.01x	0.62x	0.57x	0.36x	0.26x	0.19x	22
2020	1.29x	1.19x	1.13x	1.06x	1.03x	0.81x	0.47x	0.14x	0.10x	0.06x	19
2021	1.26x	1.14x	1.08x	1.00x	0.70x	0.47x	0.35x	0.14x	0.05x	0.01x	25
2022	1.27x	1.10x	1.06x	1.02x	0.99x	0.34x	0.26x	0.10x	0.00x	0.00x	20

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Direct lending

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	
Q2 2005	
Q3 2005	
Q4 2005	
Q1 2006	
Q2 2006	
Q3 2006	
Q4 2006	

Quarter end	1-quarter return
Q1 2007	
Q2 2007	
Q3 2007	
Q4 2007	
Q1 2008	
Q2 2008	6.19%
Q3 2008	6.73%
Q4 2008	-36.43%
Q1 2009	-12.29%
Q2 2009	29.65%
Q3 2009	20.75%
Q4 2009	1.54%
Q1 2010	2.81%
Q2 2010	-4.05%
Q3 2010	6.23%
Q4 2010	3.74%
Q1 2011	12.72%
Q2 2011	-2.12%
Q3 2011	-5.89%
Q4 2011	-3.92%
Q1 2012	8.69%
Q2 2012	0.98%
Q3 2012	3.76%
Q4 2012	6.72%

Quarter end	1-quarter return
Q1 2013	12.05%
Q2 2013	-21.30%
Q3 2013	1.21%
Q4 2013	5.95%
Q1 2014	2.37%
Q2 2014	-2.08%
Q3 2014	8.50%
Q4 2014	6.66%
Q1 2015	5.47%
Q2 2015	0.52%
Q3 2015	1.71%
Q4 2015	-0.86%
Q1 2016	4.18%
Q2 2016	-0.22%
Q3 2016	3.67%
Q4 2016	-1.96%
Q1 2017	-2.75%
Q2 2017	9.14%
Q3 2017	4.29%
Q4 2017	3.14%
Q1 2018	3.56%
Q2 2018	1.01%
Q3 2018	-0.93%
Q4 2018	-1.03%

Quarter end	1-quarter return
Q1 2019	1.96%
Q2 2019	1.43%
Q3 2019	4.76%
Q4 2019	0.97%
Q1 2020	-1.81%
Q2 2020	2.56%
Q3 2020	0.46%
Q4 2020	3.81%
Q1 2021	2.04%
Q2 2021	5.68%
Q3 2021	-2.03%
Q4 2021	0.86%
Q1 2022	0.20%
Q2 2022	-0.13%
Q3 2022	1.50%
Q4 2022	2.55%
Q1 2023	2.80%
Q2 2023*	3.34%

*Preliminary figure

Source: PitchBook | Geography: Global

Mezzanine & Bridge

Mezzanine & Bridge

IRRs by vintage

Pooled IRRs

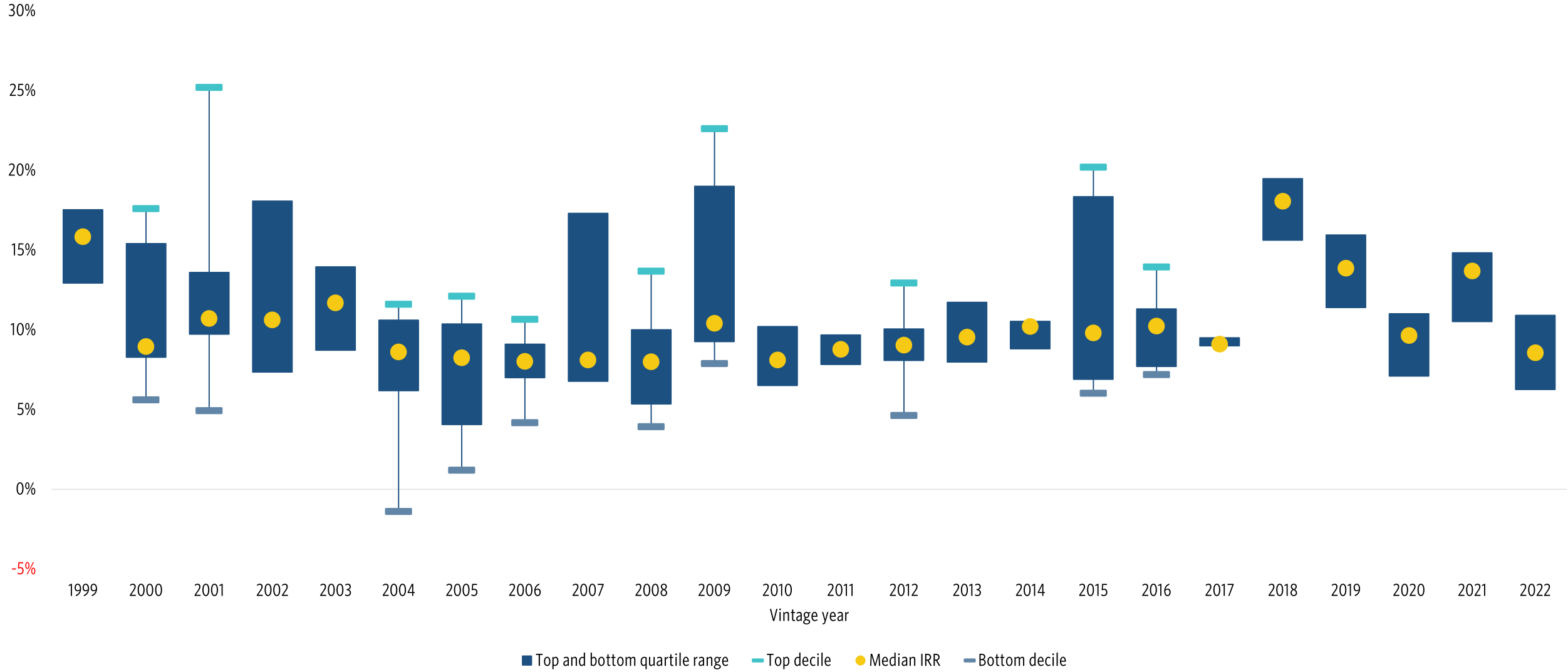
IRR quantiles

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	11.52%	13.64%	3		17.53%	15.84%	12.93%		6.35%	8
2000	6.95%	3.52%	4	17.59%	15.41%	8.95%	8.28%	5.60%	10.61%	11
2001	22.74%	16.45%	4	25.20%	13.60%	10.70%	9.73%	4.92%	9.66%	11
2002	13.03%	14.43%	5		18.07%	10.62%	7.35%		8.40%	6
2003	9.56%	9.56%	1		13.95%	11.68%	8.72%		4.01%	7
2004	5.64%	4.90%	5	11.59%	10.60%	8.60%	6.19%	-1.40%	6.71%	11
2005	14.06%	12.17%	7	12.10%	10.36%	8.24%	4.05%	1.19%	5.47%	14
2006	6.90%	5.92%	15	10.65%	9.10%	8.02%	6.99%	4.17%	3.15%	21
2007	10.85%	9.68%	8		17.30%	8.10%	6.77%		6.92%	9
2008	8.60%	6.67%	9	13.67%	10.00%	8.00%	5.35%	3.91%	4.37%	19
2009	11.30%	12.65%	11	22.61%	19.00%	10.40%	9.26%	7.88%	6.30%	13
2010	9.51%	10.16%	9		10.20%	8.10%	6.50%		5.02%	9
2011	6.39%	2.68%	7		9.68%	8.77%	7.82%		9.48%	7
2012	7.36%	8.19%	9	12.93%	10.05%	9.03%	8.08%	4.62%	5.00%	10
2013	10.73%	9.14%	6		11.73%	9.54%	7.98%		2.81%	8
2014	8.01%	8.25%	4		10.53%	10.20%	8.80%		1.77%	6
2015	11.54%	11.27%	9	20.19%	18.35%	9.80%	6.90%	6.02%	7.15%	10
2016	9.59%	12.56%	8	13.93%	11.31%	10.23%	7.71%	7.18%	6.76%	10
2017	8.67%	8.55%	5		9.50%	9.10%	9.00%		7.68%	5
2018	14.96%	12.76%	7		19.48%	18.05%	15.62%		3.65%	6
2019	7.52%	10.65%	5		15.95%	13.86%	11.40%		3.41%	8
2020	10.52%	10.12%	3		11.01%	9.64%	7.09%		3.75%	4
2021	15.62%	13.54%	8		14.83%	13.68%	10.52%		12.61%	8
2022	10.42%	9.80%	3		10.90%	8.56%	6.25%		2.93%	4

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Mezzanine & Bridge

IRRs by vintage



Source: PitchBook | Geography: Global | Data as of March 31, 2023

Mezzanine & Bridge

PMEs by vintage

Vintage year	S&P 500			Morningstar Global High Yield			Number of funds
	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	
1999	11.52%	6.91%	1.28	11.52%			3
2000	6.95%	6.61%	1.07	6.95%	6.08%	0.92	4
2001	22.74%	7.40%	1.48	22.74%	6.34%	1.34	4
2002	13.03%	8.30%	1.18	13.03%	6.73%	1.12	5
2003	9.56%	10.14%	1.33	9.56%	6.87%	1.07	1
2004	5.64%	9.01%	0.98	5.64%	5.91%	0.89	5
2005	14.06%	9.12%	1.48	14.06%	5.69%	1.23	7
2006	6.90%	9.08%	1.12	6.90%	5.84%	0.94	15
2007	10.85%	8.84%	1.13	10.85%	5.47%	1.05	8
2008	8.60%	9.70%	0.87	8.60%	5.92%	0.96	9
2009	11.30%	14.36%	0.89	11.30%	8.15%	1.10	11
2010	9.51%	12.45%	0.87	9.51%	5.23%	1.12	9
2011	6.39%	11.98%	0.83	6.39%	4.47%	1.04	7
2012	7.36%	12.56%	0.85	7.36%	4.42%	1.10	9
2013	10.73%	12.34%	0.95	10.73%	3.49%	1.22	6
2014	8.01%	11.13%	0.84	8.01%	2.91%	1.15	4
2015	11.54%	10.69%	0.96	11.54%	3.40%	1.24	9
2016	9.59%	12.86%	0.93	9.59%	4.81%	1.20	8
2017	8.67%	11.44%	0.89	8.67%	2.85%	1.23	5
2018	14.96%	9.83%	1.12	14.96%	1.81%	1.35	7
2019	7.52%	12.00%	0.94	7.52%	2.17%	1.13	5
2020	10.52%	11.18%	1.08	10.52%	1.37%	1.24	3
2021	15.62%	3.30%	1.11	15.62%	-3.83%	1.13	8
2022	10.42%	-8.87%	1.17	10.42%	-6.66%	1.17	3

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Mezzanine & Bridge

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1999	1.35x	1.35x	0.00x	1.51x	1.51x	0.00x	3
2000	1.32x	1.30x	0.02x	1.17x	1.16x	0.01x	4
2001	1.87x	1.87x	0.00x	1.97x	1.97x	0.00x	4
2002	1.42x	1.41x	0.01x	1.47x	1.46x	0.01x	5
2003	1.71x	1.71x	0.00x	1.71x	1.71x	0.00x	1
2004	1.34x	1.31x	0.03x	1.29x	1.27x	0.02x	5
2005	1.72x	1.67x	0.05x	2.30x	2.18x	0.12x	7
2006	1.23x	1.23x	0.00x	1.26x	1.24x	0.03x	15
2007	1.26x	1.26x	0.00x	1.33x	1.32x	0.01x	8
2008	1.37x	1.33x	0.04x	1.29x	1.24x	0.05x	9
2009	1.44x	1.41x	0.03x	1.46x	1.44x	0.02x	11
2010	1.37x	1.30x	0.07x	1.48x	1.37x	0.12x	9
2011	1.20x	1.16x	0.04x	1.09x	1.02x	0.07x	7
2012	1.27x	1.11x	0.17x	1.38x	1.14x	0.24x	9
2013	1.41x	1.32x	0.09x	1.32x	1.18x	0.14x	6
2014	1.35x	1.09x	0.26x	1.35x	1.11x	0.24x	4
2015	1.37x	0.94x	0.43x	1.38x	1.00x	0.38x	9
2016	1.29x	0.81x	0.48x	1.38x	0.88x	0.51x	8
2017	1.36x	0.48x	0.89x	1.32x	0.56x	0.76x	5
2018	1.35x	0.44x	0.92x	1.26x	0.62x	0.64x	7
2019	1.15x	0.42x	0.73x	1.20x	0.45x	0.75x	5
2020	1.20x	0.26x	0.95x	1.14x	0.13x	1.01x	3
2021	1.12x	0.16x	0.96x	1.10x	0.21x	0.89x	8
2022	1.10x	0.16x	0.94x	1.08x	0.19x	0.90x	3

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Mezzanine & Bridge

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			1.40x					1.40x			3
2000		1.51x	1.40x	1.05x			1.51x	1.38x	1.01x		4
2001		2.24x	1.79x	1.55x			2.24x	1.79x	1.54x		4
2002		1.51x	1.35x	1.33x			1.51x	1.35x	1.33x		5
2003			1.71x					1.71x			1
2004		1.44x	1.31x	1.23x			1.42x	1.27x	1.22x		5
2005		1.54x	1.48x	1.27x			1.53x	1.47x	1.25x		7
2006	1.43x	1.33x	1.27x	1.17x	1.00x	1.39x	1.33x	1.27x	1.17x	0.86x	15
2007		1.46x	1.24x	1.15x			1.44x	1.24x	1.15x		8
2008		1.37x	1.32x	1.22x			1.32x	1.24x	1.18x		9
2009	1.96x	1.58x	1.42x	1.25x	1.15x	1.88x	1.57x	1.39x	1.25x	1.14x	11
2010		1.64x	1.38x	1.31x			1.50x	1.28x	1.19x		9
2011		1.31x	1.14x	0.90x			1.27x	1.13x	0.77x		7
2012		1.47x	1.31x	1.24x			1.25x	1.18x	1.00x		9
2013		1.42x	1.26x	1.22x			1.29x	1.16x	1.10x		6
2014		1.36x	1.31x	1.30x			1.23x	1.13x	1.03x		4
2015		1.52x	1.33x	1.20x			1.03x	0.91x	0.85x		9
2016		1.34x	1.26x	1.23x			1.00x	0.91x	0.76x		8
2017		1.46x	1.32x	1.32x			0.59x	0.54x	0.42x		5
2018		1.37x	1.30x	1.27x			0.78x	0.76x	0.37x		7
2019		1.29x	1.18x	1.16x			0.53x	0.44x	0.29x		5
2020			1.12x					0.09x			3
2021		1.14x	1.11x	1.06x			0.17x	0.06x	0.02x		8
2022			1.07x					0.14x			3

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Mezzanine & Bridge

Quarterly return

Quarter end	1-quarter return
Q1 2001	-3.30%
Q2 2001	1.09%
Q3 2001	-4.07%
Q4 2001	-1.25%
Q1 2002	-3.96%
Q2 2002	-0.93%
Q3 2002	0.27%
Q4 2002	-2.52%
Q1 2003	1.13%
Q2 2003	2.01%
Q3 2003	3.26%
Q4 2003	6.71%
Q1 2004	3.63%
Q2 2004	4.14%
Q3 2004	0.96%
Q4 2004	7.13%
Q1 2005	4.03%
Q2 2005	6.83%
Q3 2005	3.82%
Q4 2005	5.31%
Q1 2006	4.73%
Q2 2006	3.92%
Q3 2006	4.40%
Q4 2006	3.33%

Quarter end	1-quarter return
Q1 2007	0.83%
Q2 2007	5.83%
Q3 2007	1.25%
Q4 2007	7.37%
Q1 2008	-0.43%
Q2 2008	1.50%
Q3 2008	-3.13%
Q4 2008	1.08%
Q1 2009	-5.24%
Q2 2009	2.31%
Q3 2009	4.15%
Q4 2009	6.96%
Q1 2010	8.57%
Q2 2010	7.93%
Q3 2010	6.99%
Q4 2010	5.94%
Q1 2011	6.05%
Q2 2011	8.69%
Q3 2011	0.10%
Q4 2011	-6.57%
Q1 2012	5.25%
Q2 2012	2.13%
Q3 2012	4.52%
Q4 2012	2.06%

Quarter end	1-quarter return
Q1 2013	3.04%
Q2 2013	1.82%
Q3 2013	4.02%
Q4 2013	-0.03%
Q1 2014	10.33%
Q2 2014	3.41%
Q3 2014	3.13%
Q4 2014	7.97%
Q1 2015	0.55%
Q2 2015	6.83%
Q3 2015	3.55%
Q4 2015	0.78%
Q1 2016	2.77%
Q2 2016	-0.71%
Q3 2016	3.48%
Q4 2016	1.22%
Q1 2017	1.93%
Q2 2017	2.79%
Q3 2017	1.29%
Q4 2017	1.37%
Q1 2018	7.05%
Q2 2018	-11.70%
Q3 2018	-1.31%
Q4 2018	0.27%

Quarter end	1-quarter return
Q1 2019	2.90%
Q2 2019	0.09%
Q3 2019	2.04%
Q4 2019	0.31%
Q1 2020	-6.47%
Q2 2020	4.07%
Q3 2020	1.90%
Q4 2020	5.67%
Q1 2021	4.90%
Q2 2021	9.78%
Q3 2021	0.40%
Q4 2021	2.24%
Q1 2022	3.16%
Q2 2022	-0.32%
Q3 2022	-7.88%
Q4 2022	9.84%
Q1 2023	2.21%
Q2 2023*	5.49%

*Preliminary figure

Source: PitchBook | Geography: Global

Distressed and special sits.

Distressed and special sits.

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	11.92%	11.92%	1			12.88%			3.13%	3
2000	16.40%	10.20%	4		18.53%	13.70%	6.65%		9.33%	4
2001	27.19%	29.57%	3		27.36%	24.28%	14.83%		15.62%	4
2002	17.02%	23.68%	4		25.25%	15.97%	11.23%		24.67%	7
2003	12.91%	12.35%	8	20.69%	18.57%	11.19%	8.05%	6.67%	7.92%	10
2004	-1.53%	1.22%	2			3.58%			16.10%	3
2005	5.26%	5.88%	5		8.80%	5.00%	3.94%		8.80%	5
2006	7.77%	7.62%	13	10.77%	8.65%	5.40%	2.09%	-1.42%	6.00%	15
2007	5.42%	5.27%	13	12.44%	8.95%	5.66%	1.77%	-0.68%	6.04%	14
2008	14.10%	12.80%	14	26.14%	16.50%	13.13%	9.65%	7.48%	7.39%	20
2009	9.41%	10.94%	8		13.52%	10.60%	9.00%		9.88%	9
2010	11.91%	11.96%	13	22.54%	15.65%	12.30%	8.02%	5.23%	8.14%	19
2011	8.05%	9.09%	9	10.88%	9.23%	8.08%	6.82%	5.80%	4.75%	12
2012	5.48%	4.38%	17	12.14%	9.18%	6.79%	3.44%	1.60%	4.20%	20
2013	6.69%	7.86%	13	14.28%	7.70%	6.17%	4.98%	0.99%	4.62%	18
2014	8.60%	10.44%	16	12.72%	10.71%	8.78%	7.72%	5.44%	7.23%	17
2015	7.40%	7.01%	21	10.67%	9.62%	8.10%	4.82%	1.67%	4.51%	23
2016	7.96%	7.72%	16	14.33%	12.47%	9.59%	7.60%	5.75%	4.17%	16
2017	8.15%	8.06%	21	21.28%	15.41%	10.37%	7.41%	6.80%	6.95%	20
2018	11.71%	12.27%	18	19.34%	15.78%	9.11%	7.67%	-3.16%	12.86%	22
2019	17.20%	13.70%	20	19.91%	16.48%	11.83%	9.97%	8.69%	6.04%	24
2020	6.89%	4.03%	21	21.81%	14.87%	9.78%	6.67%	5.34%	10.63%	25
2021	9.80%	12.73%	28	30.21%	16.37%	10.73%	5.87%	-2.08%	27.20%	35
2022	0.84%	0.71%	20	15.90%	4.59%	-1.01%	-3.62%	-8.69%	10.33%	17

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Distressed and special sits.

IRRs by vintage



Source: PitchBook | Geography: Global | Data as of March 31, 2023

Distressed and special sits.

PMEs by vintage

Vintage year	S&P 500			Morningstar Global High Yield			Number of funds
	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	
1999	11.92%	6.91%	1.89	11.92%			1
2000	16.40%	6.61%	1.33	16.40%	6.08%	1.12	4
2001	27.19%	7.40%	1.71	27.19%	6.34%	1.46	3
2002	17.02%	8.30%	1.40	17.02%	6.73%	1.25	4
2003	12.91%	10.14%	1.25	12.91%	6.87%	1.18	8
2004	-1.53%	9.01%	0.77	-1.53%	5.91%	0.79	2
2005	5.26%	9.12%	1.09	5.26%	5.69%	0.87	5
2006	7.77%	9.08%	0.99	7.77%	5.84%	0.94	13
2007	5.42%	8.84%	0.93	5.42%	5.47%	0.83	13
2008	14.10%	9.70%	1.09	14.10%	5.92%	0.99	14
2009	9.41%	14.36%	0.85	9.41%	8.15%	1.02	8
2010	11.91%	12.45%	0.92	11.91%	5.23%	1.17	13
2011	8.05%	11.98%	0.78	8.05%	4.47%	1.14	9
2012	5.48%	12.56%	0.76	5.48%	4.42%	1.01	17
2013	6.69%	12.34%	0.84	6.69%	3.49%	1.07	13
2014	8.60%	11.13%	0.87	8.60%	2.91%	1.21	16
2015	7.40%	10.69%	0.87	7.40%	3.40%	1.11	21
2016	7.96%	12.86%	0.86	7.96%	4.81%	1.17	16
2017	8.15%	11.44%	0.92	8.15%	2.85%	1.15	21
2018	11.71%	9.83%	1.00	11.71%	1.81%	1.29	18
2019	17.20%	12.00%	1.14	17.20%	2.17%	1.30	20
2020	6.89%	11.18%	1.04	6.89%	1.37%	1.14	21
2021	9.80%	3.30%	1.05	9.80%	-3.83%	1.08	28
2022	0.84%	-8.87%	1.01	0.84%	-6.66%	1.00	20

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Distressed and special sits.

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1999	1.53x	1.53x	0.00x	1.53x	1.53x	0.00x	1
2000	1.48x	1.48x	0.01x	1.36x	1.35x	0.01x	4
2001	2.18x	2.18x	0.00x	2.23x	2.23x	0.00x	3
2002	1.91x	1.87x	0.04x	2.01x	1.97x	0.04x	4
2003	1.71x	1.70x	0.00x	1.70x	1.69x	0.00x	8
2004	0.96x	0.95x	0.01x	1.04x	1.03x	0.01x	2
2005	1.33x	1.32x	0.01x	1.34x	1.26x	0.08x	5
2006	1.56x	1.52x	0.04x	1.54x	1.51x	0.03x	13
2007	1.26x	1.25x	0.01x	1.27x	1.26x	0.01x	13
2008	1.66x	1.66x	0.00x	1.56x	1.55x	0.01x	14
2009	1.41x	1.36x	0.05x	1.40x	1.35x	0.05x	8
2010	1.47x	1.44x	0.03x	1.45x	1.41x	0.05x	13
2011	1.49x	1.22x	0.26x	1.42x	1.28x	0.15x	9
2012	1.23x	1.13x	0.10x	1.19x	1.04x	0.16x	17
2013	1.26x	1.10x	0.17x	1.31x	1.05x	0.27x	13
2014	1.44x	0.96x	0.48x	1.43x	1.10x	0.34x	16
2015	1.27x	0.81x	0.47x	1.27x	0.78x	0.48x	21
2016	1.30x	0.51x	0.79x	1.26x	0.76x	0.50x	16
2017	1.23x	0.58x	0.64x	1.23x	0.59x	0.64x	21
2018	1.36x	0.52x	0.84x	1.33x	0.61x	0.71x	18
2019	1.28x	0.52x	0.76x	1.24x	0.46x	0.78x	20
2020	1.10x	0.20x	0.90x	1.06x	0.26x	0.80x	21
2021	1.10x	0.18x	0.93x	1.16x	0.28x	0.88x	28
2022	1.01x	0.11x	0.90x	1.00x	0.12x	0.89x	20

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Distressed and special sits.

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			1.53x					1.53x			1
2000		1.50x	1.48x	1.34x			1.50x	1.44x	1.28x		4
2001			1.88x					1.88x			3
2002		2.39x	2.04x	1.66x			2.26x	1.95x	1.66x		4
2003		1.79x	1.54x	1.47x			1.79x	1.54x	1.47x		8
2004			1.14x					1.13x			2
2005		1.58x	1.52x	1.34x			1.52x	1.34x	1.24x		5
2006	1.96x	1.65x	1.36x	1.19x	1.10x	1.95x	1.65x	1.31x	1.19x	1.10x	13
2007	1.68x	1.39x	1.24x	1.10x	0.98x	1.68x	1.38x	1.24x	1.06x	0.97x	13
2008	2.04x	1.73x	1.44x	1.33x	1.19x	2.04x	1.73x	1.41x	1.30x	1.19x	14
2009		1.62x	1.43x	1.35x			1.62x	1.42x	1.26x		8
2010	1.71x	1.50x	1.45x	1.32x	1.24x	1.69x	1.47x	1.34x	1.24x	1.19x	13
2011		1.64x	1.49x	1.22x			1.25x	1.17x	1.10x		9
2012	1.52x	1.34x	1.17x	1.07x	1.04x	1.41x	1.18x	1.07x	0.99x	0.73x	17
2013	1.65x	1.36x	1.29x	1.19x	1.03x	1.35x	1.25x	1.12x	0.94x	0.50x	13
2014	1.95x	1.50x	1.33x	1.22x	1.17x	1.29x	1.20x	1.11x	0.89x	0.80x	16
2015	1.55x	1.42x	1.28x	1.08x	1.02x	1.01x	0.90x	0.79x	0.66x	0.52x	21
2016	1.52x	1.43x	1.25x	1.14x	1.12x	1.24x	1.01x	0.68x	0.49x	0.27x	16
2017	1.55x	1.43x	1.24x	1.02x	0.86x	0.81x	0.69x	0.57x	0.48x	0.43x	21
2018	1.64x	1.48x	1.29x	1.22x	1.13x	1.05x	0.83x	0.47x	0.37x	0.20x	18
2019	1.47x	1.34x	1.20x	1.13x	1.09x	0.73x	0.62x	0.38x	0.26x	0.10x	20
2020	1.32x	1.12x	1.10x	1.04x	0.75x	0.60x	0.48x	0.10x	0.04x	0.00x	21
2021	1.40x	1.19x	1.10x	1.04x	1.00x	0.48x	0.28x	0.11x	0.01x	0.00x	28
2022	1.18x	1.04x	0.98x	0.96x	0.86x	0.23x	0.12x	0.05x	0.00x	0.00x	20

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Distressed and special sits.

Quarterly return

Quarter end	1-quarter return
Q1 2001	5.96%
Q2 2001	2.43%
Q3 2001	1.64%
Q4 2001	2.24%
Q1 2002	5.02%
Q2 2002	-3.66%
Q3 2002	-0.83%
Q4 2002	2.74%
Q1 2003	3.85%
Q2 2003	7.56%
Q3 2003	-2.17%
Q4 2003	10.08%
Q1 2004	5.77%
Q2 2004	8.57%
Q3 2004	4.47%
Q4 2004	18.75%
Q1 2005	3.32%
Q2 2005	-5.11%
Q3 2005	7.21%
Q4 2005	3.14%
Q1 2006	3.78%
Q2 2006	4.54%
Q3 2006	1.77%
Q4 2006	10.90%

Quarter end	1-quarter return
Q1 2007	2.04%
Q2 2007	9.69%
Q3 2007	2.60%
Q4 2007	-0.78%
Q1 2008	-2.62%
Q2 2008	-0.31%
Q3 2008	-10.96%
Q4 2008	-19.13%
Q1 2009	-3.45%
Q2 2009	13.50%
Q3 2009	14.35%
Q4 2009	5.25%
Q1 2010	5.93%
Q2 2010	0.60%
Q3 2010	3.47%
Q4 2010	8.01%
Q1 2011	4.78%
Q2 2011	0.71%
Q3 2011	-8.14%
Q4 2011	3.10%
Q1 2012	6.32%
Q2 2012	-1.20%
Q3 2012	9.41%
Q4 2012	-0.12%

Quarter end	1-quarter return
Q1 2013	5.76%
Q2 2013	1.93%
Q3 2013	3.32%
Q4 2013	1.03%
Q1 2014	4.18%
Q2 2014	2.29%
Q3 2014	1.13%
Q4 2014	-1.12%
Q1 2015	7.23%
Q2 2015	-3.55%
Q3 2015	-1.48%
Q4 2015	-1.03%
Q1 2016	1.71%
Q2 2016	0.96%
Q3 2016	4.27%
Q4 2016	4.42%
Q1 2017	2.68%
Q2 2017	1.38%
Q3 2017	2.10%
Q4 2017	3.80%
Q1 2018	2.41%
Q2 2018	4.53%
Q3 2018	0.46%
Q4 2018	-0.56%

Quarter end	1-quarter return
Q1 2019	2.03%
Q2 2019	1.46%
Q3 2019	2.22%
Q4 2019	1.85%
Q1 2020	-11.70%
Q2 2020	3.72%
Q3 2020	5.05%
Q4 2020	2.73%
Q1 2021	9.53%
Q2 2021	8.14%
Q3 2021	3.51%
Q4 2021	3.13%
Q1 2022	3.09%
Q2 2022	-0.94%
Q3 2022	0.27%
Q4 2022	1.53%
Q1 2023	0.74%
Q2 2023*	-4.23%

*Preliminary figure

Source: PitchBook | Geography: Global

Infrastructure and real estate

Infrastructure and real estate

IRRs by vintage

Pooled IRRs

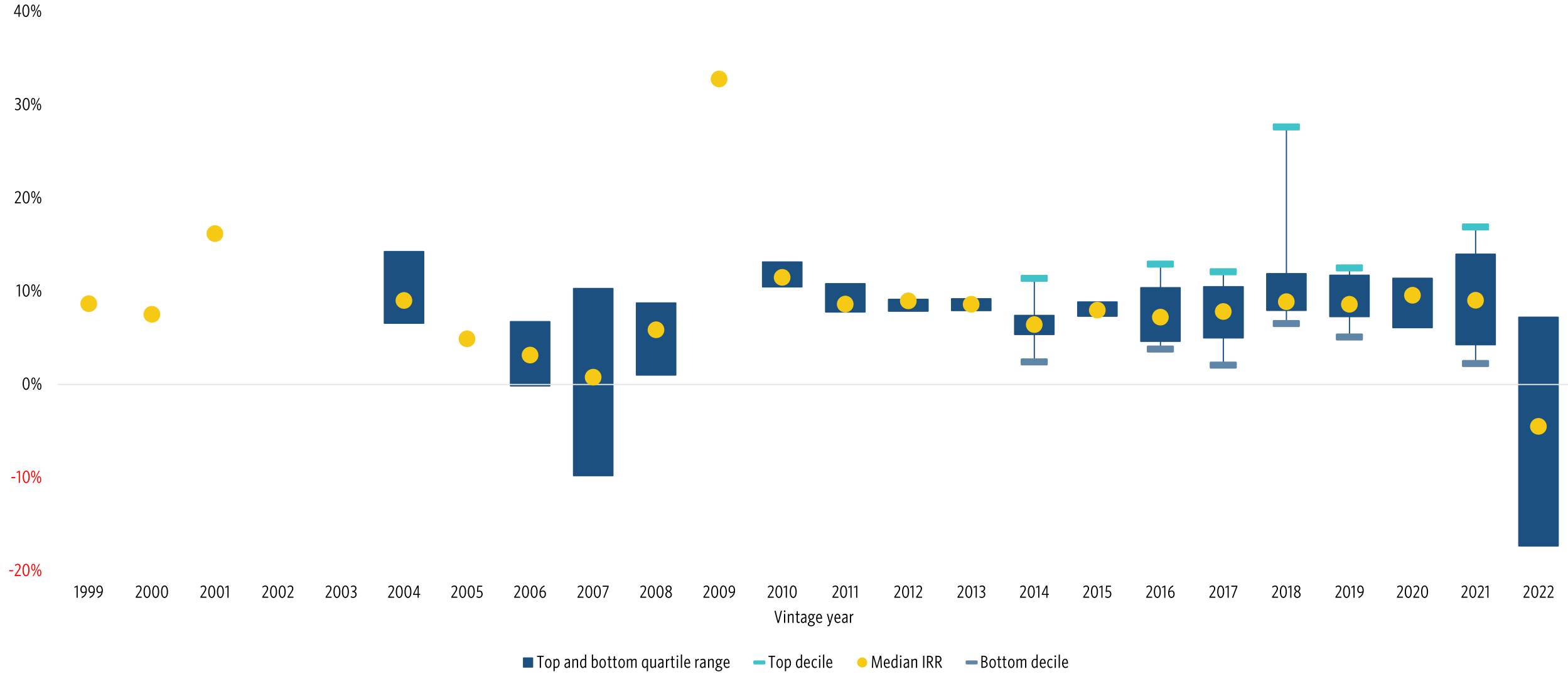
IRR quantiles

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						8.65%			1.48%	2
2000						7.50%				1
2001						16.17%			3.34%	2
2002										
2003										
2004	3.07%	3.07%	1		14.25%	8.99%	6.55%		9.24%	4
2005	5.80%	5.80%	1			4.88%			1.98%	3
2006	-8.55%	-4.99%	2		6.73%	3.12%	-0.16%		8.37%	5
2007	-2.44%	3.67%	5		10.29%	0.75%	-9.79%		12.07%	6
2008	6.59%	6.92%	6		8.72%	5.84%	1.00%		35.60%	9
2009						32.75%			29.68%	2
2010	8.43%	9.19%	5		13.12%	11.46%	10.45%		2.77%	7
2011	7.27%	7.03%	2		10.80%	8.61%	7.75%		2.43%	6
2012	6.47%	7.53%	7		9.11%	8.95%	7.85%		2.12%	6
2013	7.76%	7.81%	7		9.19%	8.59%	7.91%		4.00%	9
2014	7.68%	8.56%	13	11.36%	7.39%	6.40%	5.35%	2.40%	6.00%	13
2015	8.21%	7.65%	8		8.85%	7.95%	7.30%		2.39%	8
2016	8.23%	10.47%	11	12.90%	10.37%	7.20%	4.61%	3.77%	9.05%	10
2017	7.33%	6.80%	15	12.06%	10.47%	7.80%	4.98%	2.05%	6.02%	16
2018	9.61%	11.58%	13	27.61%	11.88%	8.87%	7.93%	6.52%	11.42%	14
2019	13.31%	12.36%	10	12.49%	11.70%	8.59%	7.27%	5.06%	5.41%	11
2020	7.53%	14.03%	9		11.37%	9.54%	6.09%		3.37%	9
2021	8.36%	6.05%	11	16.87%	13.97%	9.01%	4.26%	2.23%	8.17%	12
2022	3.24%	2.02%	7		7.20%	-4.53%	-17.34%		24.54%	4

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Infrastructure and real estate

IRRs by vintage



Source: PitchBook | Geography: Global | Data as of March 31, 2023

Infrastructure and real estate

PMEs by vintage

Vintage year	S&P 500			Morningstar Global High Yield			Number of funds
	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	
1999							
2000							
2001							
2002							
2003							
2004	3.07%	9.01%	0.88	3.07%	5.91%	0.84	1
2005	5.80%	9.12%	1.04	5.80%	5.69%	0.96	1
2006	-8.55%	9.08%	0.43	-8.55%	5.84%	0.39	2
2007	-2.44%	8.84%	0.55	-2.44%	5.47%	0.55	5
2008	6.59%	9.70%	0.76	6.59%	5.92%	0.90	6
2009							
2010	8.43%	12.45%	0.84	8.43%	5.23%	1.08	5
2011	7.27%	11.98%	0.84	7.27%	4.47%	0.94	2
2012	6.47%	12.56%	0.84	6.47%	4.42%	1.06	7
2013	7.76%	12.34%	0.91	7.76%	3.49%	1.07	7
2014	7.68%	11.13%	0.87	7.68%	2.91%	1.10	13
2015	8.21%	10.69%	0.92	8.21%	3.40%	1.12	8
2016	8.23%	12.86%	0.90	8.23%	4.81%	1.11	11
2017	7.33%	11.44%	0.88	7.33%	2.85%	1.12	15
2018	9.61%	9.83%	1.00	9.61%	1.81%	1.18	13
2019	13.31%	12.00%	1.04	13.31%	2.17%	1.23	10
2020	7.53%	11.18%	1.03	7.53%	1.37%	1.12	9
2021	8.36%	3.30%	1.08	8.36%	-3.83%	1.10	11
2022	3.24%	-8.87%	1.04	3.24%	-6.66%	1.02	7

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Infrastructure and real estate

Multiples by vintage

Vintage year	Pooled multiples			Equal-weighted pooled multiples			Number of funds
	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999							
2000							
2001							
2002							
2003							
2004	1.14x	1.14x	0.00x	1.14x	1.14x	0.00x	1
2005	1.17x	1.17x	0.00x	1.17x	1.17x	0.00x	1
2006	0.62x	0.62x	0.00x	0.77x	0.77x	0.00x	2
2007	0.90x	0.88x	0.02x	1.15x	1.14x	0.01x	5
2008	1.33x	1.15x	0.18x	1.31x	1.20x	0.11x	6
2009							
2010	1.34x	1.33x	0.01x	1.40x	1.38x	0.02x	5
2011	1.19x	1.18x	0.01x	1.17x	1.16x	0.01x	2
2012	1.22x	1.15x	0.07x	1.25x	1.19x	0.06x	7
2013	1.18x	1.17x	0.01x	1.21x	1.20x	0.02x	7
2014	1.29x	1.04x	0.25x	1.32x	1.09x	0.23x	13
2015	1.25x	0.89x	0.35x	1.24x	0.94x	0.30x	8
2016	1.22x	0.91x	0.31x	1.28x	1.00x	0.29x	11
2017	1.20x	0.76x	0.44x	1.19x	0.75x	0.44x	15
2018	1.20x	0.46x	0.74x	1.22x	0.62x	0.60x	13
2019	1.26x	0.48x	0.78x	1.22x	0.43x	0.78x	10
2020	1.10x	0.25x	0.85x	1.19x	0.23x	0.97x	9
2021	1.07x	0.21x	0.86x	1.05x	0.23x	0.82x	11
2022	1.02x	0.02x	1.00x	1.01x	0.02x	1.00x	7

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Infrastructure and real estate

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											
2000											
2001											
2002											
2003											
2004			1.14x					1.14x			1
2005			1.17x					1.17x			1
2006			0.80x					0.80x			2
2007		1.48x	1.21x	0.82x			1.48x	1.21x	0.82x		5
2008		1.47x	1.24x	1.16x			1.44x	1.17x	1.07x		6
2009											
2010		1.43x	1.38x	1.35x			1.41x	1.38x	1.35x		5
2011			1.17x					1.16x			2
2012		1.30x	1.22x	1.15x			1.23x	1.18x	1.12x		7
2013		1.31x	1.20x	1.14x			1.27x	1.20x	1.14x		7
2014	1.78x	1.46x	1.25x	1.10x	1.07x	1.43x	1.27x	1.08x	1.00x	0.59x	13
2015		1.28x	1.25x	1.16x			1.10x	1.02x	0.79x		8
2016	1.38x	1.31x	1.21x	1.16x	1.13x	1.31x	1.20x	0.96x	0.74x	0.56x	11
2017	1.46x	1.27x	1.20x	1.13x	1.04x	1.12x	0.95x	0.70x	0.58x	0.53x	15
2018	1.46x	1.31x	1.15x	1.12x	0.96x	1.09x	0.75x	0.52x	0.32x	0.21x	13
2019	1.32x	1.26x	1.18x	1.13x	1.10x	0.60x	0.54x	0.50x	0.14x	0.06x	10
2020		1.17x	1.12x	1.07x			0.32x	0.21x	0.07x		9
2021	1.09x	1.08x	1.06x	1.03x	1.02x	0.45x	0.39x	0.18x	0.06x	0.00x	11
2022		1.06x	1.02x	0.91x			0.02x	0.00x	0.00x		7

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Infrastructure and real estate

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	
Q2 2005	
Q3 2005	
Q4 2005	
Q1 2006	
Q2 2006	6.11%
Q3 2006	16.99%
Q4 2006	2.08%

Quarter end	1-quarter return
Q1 2007	3.40%
Q2 2007	4.38%
Q3 2007	-0.10%
Q4 2007	-2.84%
Q1 2008	-9.70%
Q2 2008	-2.85%
Q3 2008	-9.14%
Q4 2008	-20.01%
Q1 2009	-12.60%
Q2 2009	-1.00%
Q3 2009	-10.19%
Q4 2009	-0.07%
Q1 2010	0.09%
Q2 2010	2.08%
Q3 2010	9.89%
Q4 2010	11.92%
Q1 2011	-6.10%
Q2 2011	5.65%
Q3 2011	4.80%
Q4 2011	3.70%
Q1 2012	2.08%
Q2 2012	0.07%
Q3 2012	2.10%
Q4 2012	4.35%

Quarter end	1-quarter return
Q1 2013	1.48%
Q2 2013	3.48%
Q3 2013	1.40%
Q4 2013	4.45%
Q1 2014	-0.46%
Q2 2014	2.57%
Q3 2014	0.59%
Q4 2014	2.08%
Q1 2015	1.23%
Q2 2015	5.98%
Q3 2015	-0.73%
Q4 2015	2.36%
Q1 2016	0.01%
Q2 2016	3.77%
Q3 2016	1.69%
Q4 2016	-2.48%
Q1 2017	4.09%
Q2 2017	2.20%
Q3 2017	1.31%
Q4 2017	0.15%
Q1 2018	5.48%
Q2 2018	1.43%
Q3 2018	-0.46%
Q4 2018	7.38%

Quarter end	1-quarter return
Q1 2019	-0.31%
Q2 2019	2.82%
Q3 2019	-1.32%
Q4 2019	6.44%
Q1 2020	-4.13%
Q2 2020	-0.75%
Q3 2020	4.94%
Q4 2020	1.42%
Q1 2021	1.23%
Q2 2021	11.26%
Q3 2021	-4.95%
Q4 2021	1.76%
Q1 2022	1.93%
Q2 2022	-0.29%
Q3 2022	2.41%
Q4 2022	2.02%
Q1 2023	4.59%
Q2 2023*	8.26%

*Preliminary figure

Source: PitchBook | Geography: Global

Venture debt

Venture debt

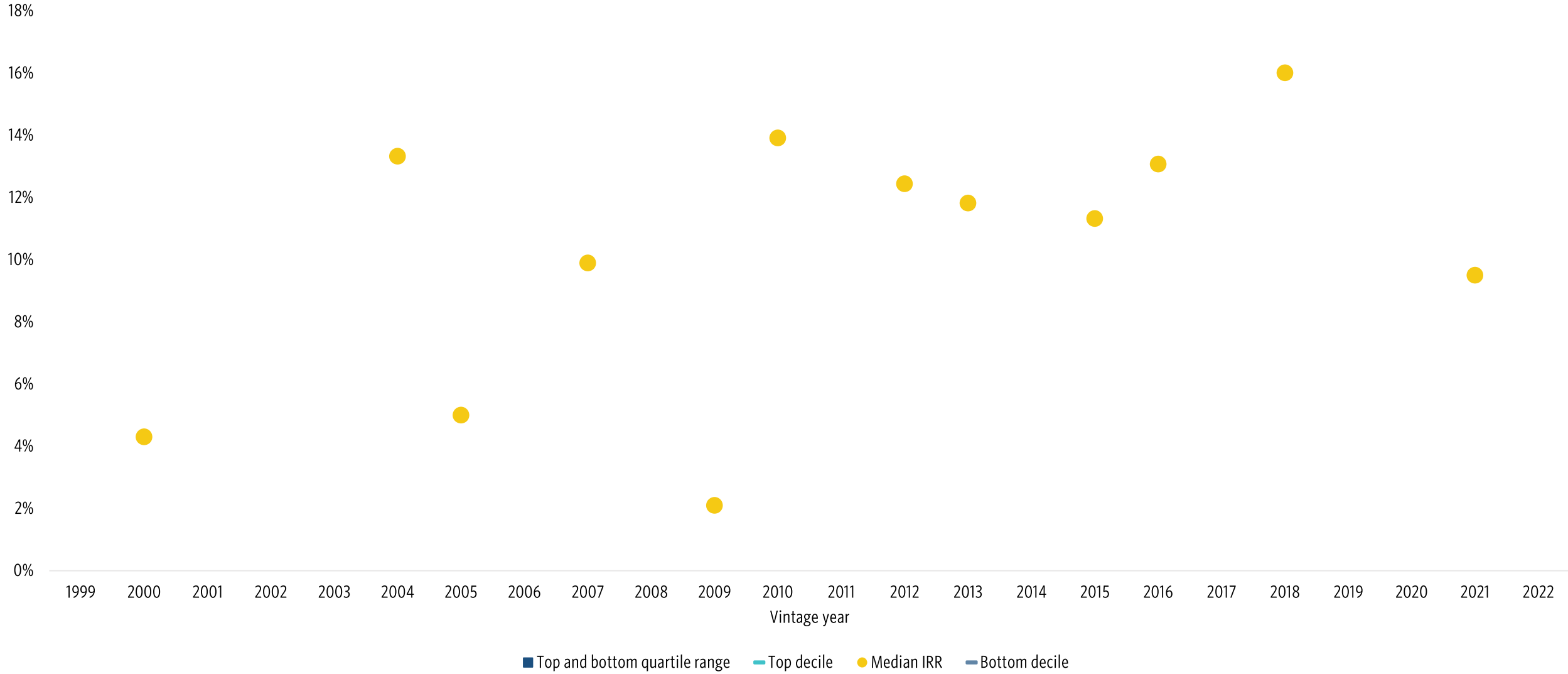
IRRs by vintage

Vintage year	Pooled IRRs			IRR quantiles						
	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										
2000	5.42%	5.42%	1			4.30%				1
2001										
2002										
2003										
2004	15.63%	13.97%	2			13.33%			3.73%	2
2005	4.13%	4.13%	1			5.00%				1
2006										
2007	8.18%	8.18%	1			9.89%				1
2008										
2009	1.50%	1.50%	1			2.10%				1
2010	13.90%	13.90%	1			13.91%				1
2011										0
2012						12.44%				1
2013	11.92%	11.92%	1			11.82%				1
2014										
2015	9.78%	4.08%	2			11.32%				1
2016	12.55%	12.55%	1			13.07%				1
2017	-6.50%	-6.50%	1							0
2018	16.17%	16.17%	1			16.01%				1
2019	-27.21%	-27.21%	1							
2020										0
2021	11.85%	11.85%	1			9.50%				1
2022										

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Venture debt

IRRs by vintage



Source: PitchBook | Geography: Global | Data as of March 31, 2023

Venture debt

PMEs by vintage

Vintage year	S&P 500			Morningstar Global High Yield			Number of funds
	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	
1999							
2000	5.42%	6.61%	1.23	5.42%	6.08%	0.92	1
2001							
2002							
2003							
2004	15.63%	9.01%	1.71	15.63%	5.91%	1.39	2
2005	4.13%	9.12%	1.04	4.13%	5.69%	0.85	1
2006							
2007	8.18%	8.84%	1.16	8.18%	5.47%	1.00	1
2008							
2009	1.50%	14.36%	0.60	1.50%	8.15%	0.76	1
2010	13.90%	12.45%	0.97	13.90%	5.23%	1.40	1
2011							
2012							
2013	11.92%	12.34%	0.98	11.92%	3.49%	1.42	1
2014							
2015	9.78%	10.69%	0.90	9.78%	3.40%	1.24	2
2016	12.55%	12.86%	1.01	12.55%	4.81%	1.29	1
2017	-6.50%	11.44%	0.59	-6.50%	2.85%	0.75	1
2018	16.17%	9.83%	1.17	16.17%	1.81%	1.42	1
2019	-27.21%	12.00%	0.45	-27.21%	2.17%	0.53	1
2020							
2021	11.85%	3.30%	1.12	11.85%	-3.83%	1.10	1
2022							

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Venture debt

Multiples by vintage

Vintage year	Pooled multiples			Equal-weighted pooled multiples			Number of funds
	TVPI	DPI	RVPI	TVPI	DPI	RVPI	
1999							
2000	1.27x	1.24x	0.03x	1.27x	1.24x	0.03x	1
2001							
2002							
2003							
2004	1.87x	1.86x	0.01x	1.79x	1.78x	0.01x	2
2005	1.24x	1.05x	0.18x	1.24x	1.05x	0.18x	1
2006							
2007	1.57x	1.49x	0.08x	1.57x	1.49x	0.08x	1
2008							
2009	1.07x	0.96x	0.10x	1.07x	0.96x	0.10x	1
2010	1.93x	1.71x	0.22x	1.93x	1.71x	0.22x	1
2011							
2012							
2013	1.74x	1.30x	0.44x	1.74x	1.30x	0.44x	1
2014							
2015	1.45x	0.82x	0.62x	1.18x	0.67x	0.51x	2
2016	1.41x	0.92x	0.49x	1.41x	0.92x	0.49x	1
2017	0.79x	0.19x	0.60x	0.79x	0.19x	0.60x	1
2018	1.44x	0.30x	1.14x	1.44x	0.30x	1.14x	1
2019	0.51x	0.05x	0.46x	0.51x	0.05x	0.46x	1
2020							
2021	1.07x	0.05x	1.03x	1.07x	0.05x	1.03x	1
2022							

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Venture 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											
2000			1.27x					1.24x			1
2001											
2002											
2003											
2004			1.78x					1.77x			2
2005			1.24x					1.05x			1
2006											
2007			1.57x					1.49x			1
2008											
2009			1.07x					0.96x			1
2010			1.93x					1.71x			1
2011											
2012											
2013			1.74x					1.30x			1
2014											
2015			1.17x					0.67x			2
2016			1.41x					0.92x			1
2017			0.79x					0.19x			1
2018			1.44x					0.30x			1
2019			0.51x					0.05x			1
2020											
2021			1.07x					0.05x			1
2022											

Source: PitchBook | Geography: Global | Data as of March 31, 2023

Venture debt

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	
Q2 2005	
Q3 2005	
Q4 2005	
Q1 2006	
Q2 2006	
Q3 2006	
Q4 2006	

Quarter end	1-quarter return
Q1 2007	2.95%
Q2 2007	2.26%
Q3 2007	4.94%
Q4 2007	11.25%
Q1 2008	2.03%
Q2 2008	1.66%
Q3 2008	-0.45%
Q4 2008	-6.16%
Q1 2009	0.37%
Q2 2009	0.97%
Q3 2009	4.04%
Q4 2009	4.00%
Q1 2010	1.04%
Q2 2010	1.47%
Q3 2010	6.22%
Q4 2010	33.64%
Q1 2011	3.30%
Q2 2011	19.50%
Q3 2011	-0.46%
Q4 2011	-0.45%
Q1 2012	16.63%
Q2 2012	-11.44%
Q3 2012	6.49%
Q4 2012	-31.90%

Quarter end	1-quarter return
Q1 2013	-0.40%
Q2 2013	1.04%
Q3 2013	-0.44%
Q4 2013	8.74%
Q1 2014	4.24%
Q2 2014	8.53%
Q3 2014	1.86%
Q4 2014	4.19%
Q1 2015	1.40%
Q2 2015	-0.30%
Q3 2015	-0.63%
Q4 2015	2.31%
Q1 2016	2.87%
Q2 2016	5.78%
Q3 2016	2.26%
Q4 2016	3.20%
Q1 2017	2.55%
Q2 2017	-0.20%
Q3 2017	3.99%
Q4 2017	3.66%
Q1 2018	0.22%
Q2 2018	3.11%
Q3 2018	2.81%
Q4 2018	0.31%

Quarter end	1-quarter return
Q1 2019	-1.48%
Q2 2019	-0.25%
Q3 2019	1.14%
Q4 2019	2.15%
Q1 2020	-4.49%
Q2 2020	6.65%
Q3 2020	14.98%
Q4 2020	17.45%
Q1 2021	-4.06%
Q2 2021	7.95%
Q3 2021	4.95%
Q4 2021	8.43%
Q1 2022	-3.92%
Q2 2022	-2.89%
Q3 2022	0.90%
Q4 2022	-1.02%
Q1 2023	1.10%
Q2 2023*	-8.74%

*Preliminary figure

Source: PitchBook | Geography: Global

Additional research

Market updates



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