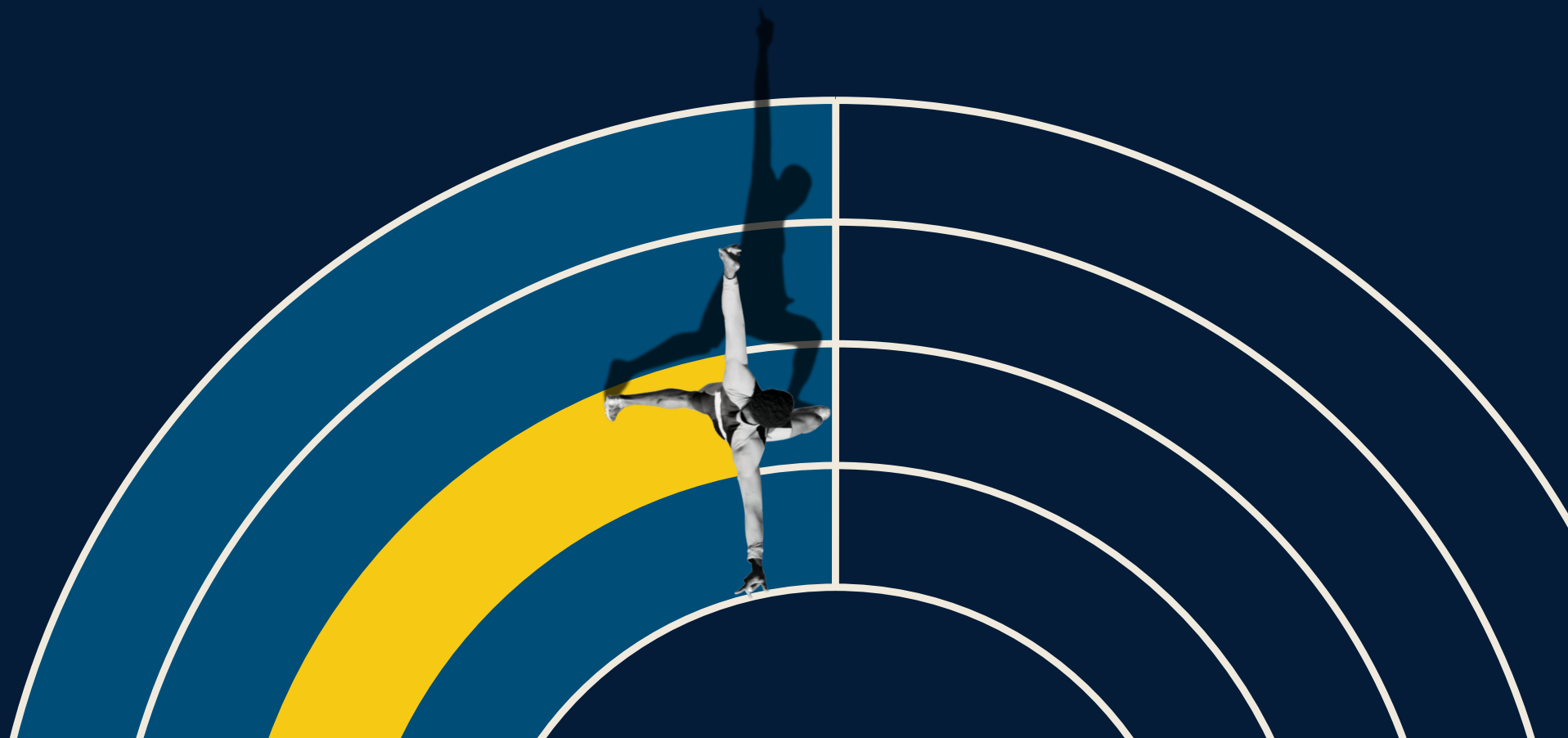




 GLOBAL

# PitchBook Benchmarks

AS OF Q4 2021



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# Introduction

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

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

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

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

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

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

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

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

<a href="#">Global</a>	<a href="#">Europe</a>	<a href="#">North America</a>	<a href="#">Private equity</a>
<a href="#">Venture capital</a>	<a href="#">Real estate</a>	<a href="#">Real assets</a>	<a href="#">Private debt</a>
<a href="#">Funds of funds</a>	<a href="#">Secondaries</a>		

## Additional PitchBook Benchmark PDFs:

<a href="#">Global</a>	<a href="#">Europe</a>	<a href="#">North America</a>	<a href="#">Private equity</a>
<a href="#">Venture capital</a>	<a href="#">Real estate</a>	<a href="#">Real assets</a>	<a href="#">Private debt</a>
<a href="#">Funds of funds</a>	<a href="#">Secondaries</a>		



# Methodology

## Fund classifications

<b>Private equity</b> Buyout Growth/expansion Restructuring/turnaround Diversified PE	<b>Real assets</b> Infrastructure core Infrastructure value added Infrastructure opportunistic Infrastructure greenfield Oil & gas Timber Metals/mining Agriculture	<b>Private debt</b> Direct lending Bridge financing Distressed debt Credit special situations Infrastructure debt Venture debt Real estate debt Mezzanine
<b>Venture capital</b>		
<b>Real estate</b> Real estate core Real estate core plus Real estate value added Real estate opportunistic Real estate distressed		<b>Funds of funds</b>  <b>Secondaries</b>

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

## Data composition

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

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

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

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

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

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

## Definitions and calculation methodologies

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

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

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

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



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

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

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

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

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

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

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

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

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

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

**Public market equivalent (PME) calculations:** PME metrics benchmark the performance of a fund (or group of funds) against an index. A white paper detailing the calculations and methodology behind the PME benchmarks can be found at [pitchbook.com](https://pitchbook.com/resources/whitepapers/public-market-equivalent-pme-benchmarks). [PitchBook News & Analysis](https://pitchbook.com/resources/news/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).

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

# PitchBook introduces new cash flow forecasting and commitment pacing models

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

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

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

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

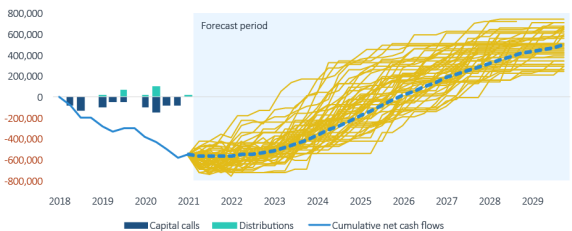


Table 3. Updated inputs for Old PE Fund to include “bad” and “good” case TVPI forecasts

Fund name	Old PE Fund
Strategy	Private equity
Access point	Primary
Total commitments	\$1,000,000
Fund length	12 years
Investment period	6 years
Current age	3 years
Current called	\$800,000
Current distributed	\$250,000
Bad case TVPI forecast	1.25x
Base case TVPI forecast	1.50x
Good case TVPI forecast	1.75x

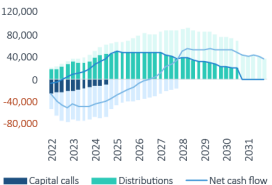
Source: PitchBook  
For illustrative purposes only

Figure 15. Simulated cash flow profiles for Old PE Fund



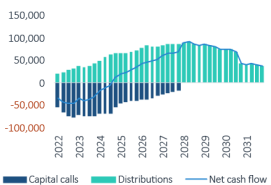
Source: PitchBook  
Note: The dotted blue net cash flow line is the baseline forecast  
For illustrative purposes only

Figure 8A. Cash flow forecast by fund\*



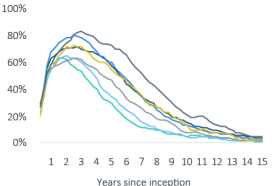
Source: PitchBook  
For illustrative purposes only  
\*Darker color: Old PE Fund; Lighter: New PE Fund

Figure 8B. Aggregate cash flow forecast\*



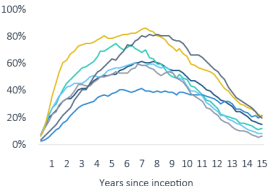
Source: PitchBook  
For illustrative purposes only  
\*Total (Old PE Fund plus New PE Fund)

Figure 9. Probability of a capital call quarterly



Source: PitchBook | Geography: Global

Figure 10. Probability of a distribution quarterly



Source: PitchBook | Geography: Global

# Private capital

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Private capital

Horizon IRRs

Strategy	Q1 2022*	Q4 2021	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	2.45%	6.94%	37.65%	20.93%	17.77%	14.86%	11.48%	12.33%
Private equity	1.56%	7.73%	46.62%	27.40%	22.50%	17.64%	13.28%	14.72%
Venture capital	-2.22%	5.09%	50.54%	33.73%	25.27%	17.81%	13.04%	10.41%
Real estate	7.64%	8.30%	24.79%	11.82%	11.22%	12.41%	7.10%	7.90%
Real assets	4.12%	6.42%	20.66%	6.37%	7.40%	6.63%	6.78%	7.34%
Private debt	0.57%	3.18%	14.92%	8.74%	8.30%	9.52%	8.41%	9.20%
Funds of funds	1.43%	3.52%	43.02%	24.84%	19.99%	14.56%	11.20%	11.25%
Secondaries	5.54%	8.44%	41.60%	18.74%	17.52%	14.25%	12.44%	12.81%
S&P 500	-4.60%	11.03%	28.71%	26.07%	18.47%	16.55%	10.66%	9.52%
Morningstar Global	-5.35%	6.16%	18.28%	20.53%	14.60%	12.40%	7.78%	8.90%
MSCI World Small Cap Growth	-11.05%	0.68%	10.46%	23.00%	16.08%	14.03%	9.53%	10.90%
Morningstar Global Real Estate	-5.39%	8.40%	21.98%	13.06%	9.47%	9.80%	4.61%	9.51%
Morningstar Real Assets	1.43%	6.80%	21.49%	10.48%	6.21%	3.89%	5.30%	7.02%
Morningstar Global High Yield	-4.98%	0.03%	3.09%	8.13%	6.01%	6.44%	6.70%	7.66%

\*For private fund strategies these are preliminary quarterly returns  
Source: PitchBook | Geography: Global | Data as of December 31, 2021  
*Note: all public index values are total return CAGRs*



Private capital

# Equal-weighted horizon IRRs

Strategy	Q1 2022*	Q4 2021	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	3.05%	5.85%	36.00%	20.38%	17.17%	14.03%	11.26%	11.14%
Private equity	3.03%	6.99%	37.31%	22.97%	19.71%	15.61%	12.79%	13.73%
Venture capital	-2.84%	7.05%	58.05%	31.34%	23.82%	16.59%	12.23%	9.37%
Real estate	8.69%	8.57%	21.36%	11.46%	10.62%	11.36%	7.10%	7.90%
Real assets	5.09%	3.08%	15.18%	5.82%	6.44%	6.13%	6.65%	8.05%
Private debt	2.89%	3.25%	12.58%	7.84%	8.32%	9.58%	8.30%	9.42%
Funds of funds	1.28%	2.87%	44.57%	26.12%	21.30%	16.19%	13.43%	13.17%
Secondaries	4.64%	5.41%	37.38%	18.62%	15.99%	13.18%	11.89%	11.93%
S&P 500	-4.60%	11.03%	28.71%	26.07%	18.47%	16.55%	10.66%	9.52%
Morningstar Global	-5.35%	6.16%	18.28%	20.53%	14.60%	12.40%	7.78%	8.90%
MSCI World Small Cap Growth	-11.05%	0.68%	10.46%	23.00%	16.08%	14.03%	9.53%	10.90%
Morningstar Global Real Estate	-5.39%	8.40%	21.98%	13.06%	9.47%	9.80%	4.61%	9.51%
Morningstar Real Assets	1.43%	6.80%	21.49%	10.48%	6.21%	3.89%	5.30%	7.02%
Morningstar Global High Yield	-4.98%	0.03%	3.09%	8.13%	6.01%	6.44%	6.70%	7.66%

\*For private fund strategies these are preliminary quarterly returns  
Source: PitchBook | Geography: Global | Data as of December 31, 2021  
*Note: all public index values are total return CAGRs*

Private capital

One-year horizon IRRs of select strategies

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021*	15-year horizon IRR
Secondaries 31.9%	Other PE 2.9%	Private debt 19.7%	Secondaries 20.5%	Secondaries 12.8%	Private debt 15.0%	Other PE 29.0%	Venture capital 19.3%	Funds of funds 13.0%	Other PE 18.9%	Other PE 29.3%	Other PE 32.4%	Growth-Expansion 17.5%	Growth-Expansion 37.0%	Growth-Expansion 51.4%	Growth-Expansion 15.9%
Buyout 25.5%	Real assets -3.0%	Other PE 17.8%	Growth-Expansion 18.6%	Real assets 12.2%	Secondaries 15.0%	Venture capital 21.1%	Real estate 16.5%	Venture capital 12.9%	Buyout 13.0%	Buyout 20.8%	Growth-Expansion 17.9%	Venture capital 17.2%	Venture capital 35.8%	Venture capital 50.5%	Other PE 14.8%
Other PE 23.0%	Secondaries -8.8%	Growth-Expansion 9.0%	Buyout 17.8%	Venture capital 10.8%	Buyout 14.4%	Buyout 17.9%	Buyout 13.2%	Buyout 12.8%	Real assets 12.5%	Growth-Expansion 18.4%	Venture capital 17.4%	Other PE 16.8%	Funds of funds 23.9%	Buyout 46.3%	Buyout 13.1%
Private capital 21.2%	Funds of funds -12.3%	Buyout 8.0%	Private debt 16.4%	Real estate 10.3%	Private capital 12.6%	Real estate 16.7%	Other PE 13.1%	Growth-Expansion 12.3%	Private capital 10.6%	Private capital 16.2%	Funds of funds 15.4%	Buyout 15.9%	Buyout 20.0%	Funds of funds 43.0%	Venture capital 13.0%
Real assets 19.8%	Venture capital -12.4%	Private capital 2.6%	Private capital 15.7%	Private capital 8.3%	Real estate 11.6%	Private capital 15.7%	Private capital 13.0%	Real estate 11.8%	Growth-Expansion 10.2%	Secondaries 16.2%	Secondaries 15.2%	Funds of funds 11.4%	Private capital 15.1%	Secondaries 41.6%	Secondaries 12.4%
Funds of funds 17.7%	Growth-Expansion -15.5%	Funds of funds 1.1%	Real estate 12.0%	Buyout 8.2%	Growth-Expansion 10.8%	Secondaries 13.7%	Growth-Expansion 12.7%	Private capital 10.0%	Real estate 9.9%	Real estate 14.1%	Buyout 10.2%	Private capital 11.4%	Other PE 12.7%	Private capital 37.6%	Private capital 11.5%
Private debt 14.3%	Private capital -20.7%	Venture capital 0.2%	Venture capital 12.0%	Growth-Expansion 7.7%	Other PE 9.7%	Growth-Expansion 13.3%	Funds of funds 12.6%	Secondaries 9.7%	Private debt 9.1%	Funds of funds 12.9%	Private capital 10.1%	Secondaries 10.2%	Secondaries 6.9%	Real estate 24.8%	Funds of funds 11.2%
Venture capital 13.0%	Buyout -21.8%	Real assets 0.1%	Real assets 11.8%	Funds of funds 6.0%	Funds of funds 8.3%	Private debt 13.0%	Secondaries 11.5%	Private debt 5.6%	Funds of funds 7.6%	Venture capital 10.7%	Real assets 8.4%	Real estate 7.7%	Private debt 3.8%	Other PE 24.6%	Private debt 8.4%
Real estate 12.8%	Private debt -26.3%	Secondaries -10.5%	Other PE 9.5%	Private debt 4.0%	Venture capital 7.0%	Funds of funds 12.1%	Private debt 10.7%	Other PE 3.4%	Secondaries 7.4%	Private debt 10.6%	Real estate 6.4%	Private debt 7.1%	Real estate 3.8%	Real assets 20.7%	Real estate 7.1%
Growth-Expansion 5.3%	Real estate -32.2%	Real estate -39.7%	Funds of funds 5.8%	Other PE 2.4%	Real assets 6.7%	Real assets 4.9%	Real assets 7.3%	Real assets -4.2%	Venture capital -0.2%	Real assets 10.3%	Private debt 4.5%	Real assets -0.4%	Real assets -0.4%	Private debt 14.9%	Real assets 6.8%

# Private equity

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Private equity

# IRR by vintage

Pooled IRRs

IRR quantiles

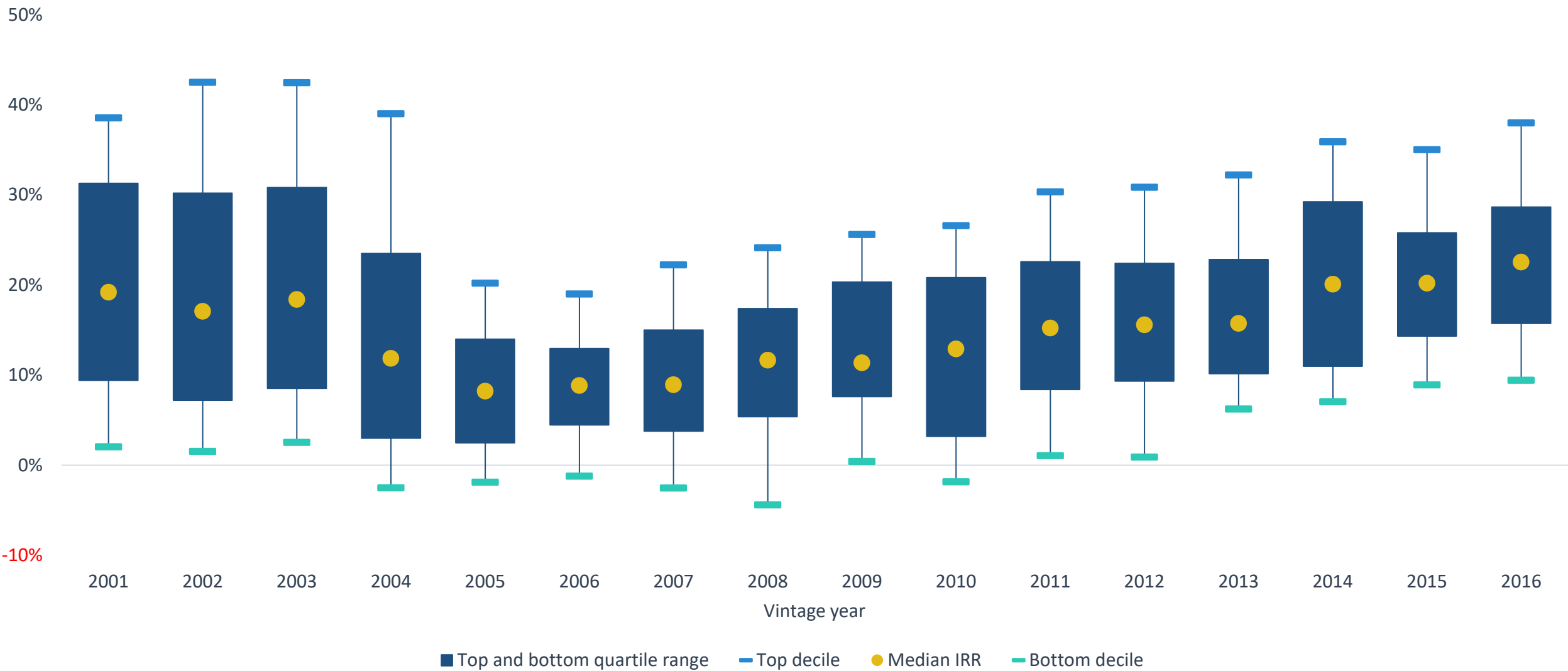
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	9.69%	7.25%	23	35.10%	16.75%	9.60%	0.07%	-5.68%	25.60%	66
1998	6.62%	5.28%	40	21.98%	15.29%	9.21%	2.29%	-8.24%	20.51%	88
1999	11.23%	11.25%	38	24.59%	17.77%	11.16%	4.51%	-1.66%	11.69%	84
2000	15.77%	13.31%	49	31.51%	23.64%	13.65%	8.38%	0.78%	12.17%	104
2001	23.68%	19.48%	30	38.54%	31.30%	19.19%	9.42%	2.04%	17.47%	65
2002	21.26%	18.87%	30	42.50%	30.20%	17.07%	7.21%	1.52%	18.73%	59
2003	16.72%	14.14%	29	42.45%	30.83%	18.39%	8.52%	2.54%	35.26%	66
2004	11.42%	10.31%	43	39.01%	23.51%	11.85%	3.00%	-2.53%	19.95%	70
2005	9.66%	9.84%	69	20.20%	14.00%	8.23%	2.49%	-1.90%	14.11%	108
2006	7.68%	7.84%	102	19.00%	12.96%	8.85%	4.47%	-1.23%	10.31%	148
2007	9.83%	10.07%	105	22.24%	15.01%	8.93%	3.77%	-2.55%	11.88%	156
2008	13.54%	11.52%	104	24.14%	17.40%	11.65%	5.38%	-4.42%	17.84%	129
2009	13.10%	13.94%	39	25.60%	20.35%	11.38%	7.61%	0.40%	15.87%	51
2010	12.30%	11.05%	52	26.58%	20.82%	12.90%	3.19%	-1.84%	13.43%	62
2011	15.94%	16.10%	74	30.33%	22.59%	15.22%	8.40%	1.06%	17.35%	94
2012	16.81%	15.02%	95	30.85%	22.40%	15.59%	9.33%	0.90%	14.82%	108
2013	17.22%	16.08%	94	32.20%	22.84%	15.73%	10.16%	6.23%	10.67%	103
2014	21.95%	19.97%	87	35.90%	29.25%	20.10%	10.98%	7.03%	15.27%	84
2015	21.62%	20.06%	111	35.03%	25.79%	20.20%	14.33%	8.90%	10.40%	106
2016	24.62%	23.38%	114	37.99%	28.65%	22.54%	15.73%	9.42%	13.56%	114
2017	33.58%	29.42%	123	51.54%	36.93%	26.05%	17.87%	8.17%	18.42%	116
2018	31.84%	26.97%	117	55.00%	42.60%	26.57%	17.18%	12.95%	22.09%	131
2019	43.90%	35.04%	148	76.76%	48.67%	27.76%	13.45%	-0.55%	33.28%	150
2020	53.72%	39.35%	100	87.70%	50.26%	27.69%	6.10%	-5.13%	44.50%	104

Source: PitchBook | Geography: Global | Data as of December 31, 2021



Private equity

IRR by vintage



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
1997	9.69%	9.43%	1.37	9.69%			23
1998	6.62%	8.54%	1.31	6.62%			40
1999	11.23%	7.87%	1.44	11.23%	7.45%	1.27	38
2000	15.77%	7.59%	1.49	15.77%	6.81%	1.31	49
2001	23.68%	8.48%	1.67	23.68%	7.83%	1.48	30
2002	21.26%	9.51%	1.51	21.26%	8.98%	1.38	30
2003	16.72%	11.55%	1.46	16.72%	10.71%	1.39	29
2004	11.42%	10.41%	1.29	11.42%	9.09%	1.28	43
2005	9.66%	10.62%	1.17	9.66%	8.88%	1.25	69
2006	7.68%	10.67%	0.99	7.68%	8.31%	1.12	102
2007	9.83%	10.51%	0.96	9.83%	7.68%	1.10	105
2008	13.54%	11.60%	1.01	13.54%	8.16%	1.17	104
2009	13.10%	16.96%	0.95	13.10%	13.68%	1.11	39
2010	12.30%	15.02%	0.92	12.30%	10.91%	1.10	52
2011	15.94%	14.73%	1.06	15.94%	10.26%	1.25	74
2012	16.81%	15.69%	1.09	16.81%	11.59%	1.25	95
2013	17.22%	15.79%	1.10	17.22%	11.39%	1.25	94
2014	21.95%	14.80%	1.24	21.95%	10.64%	1.40	87
2015	21.62%	14.80%	1.14	21.62%	11.23%	1.26	111
2016	24.62%	18.30%	1.17	24.62%	14.96%	1.29	114
2017	33.58%	17.57%	1.26	33.58%	13.93%	1.37	123
2018	31.84%	16.98%	1.09	31.84%	11.96%	1.16	117
2019	43.90%	23.14%	1.16	43.90%	18.26%	1.22	148
2020	53.72%	28.37%	1.10	53.72%	23.53%	1.13	100

Private equity

# Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.59x	1.59x	0.00x	1.38x	1.37x	0.00x	23
1998	1.39x	1.39x	0.00x	1.28x	1.28x	0.00x	40
1999	1.64x	1.61x	0.02x	1.70x	1.66x	0.04x	38
2000	1.85x	1.83x	0.02x	1.80x	1.78x	0.03x	49
2001	2.16x	2.15x	0.01x	1.93x	1.91x	0.02x	30
2002	2.03x	2.01x	0.01x	1.93x	1.92x	0.01x	30
2003	1.90x	1.88x	0.01x	1.79x	1.76x	0.02x	29
2004	1.68x	1.63x	0.05x	1.59x	1.53x	0.06x	43
2005	1.63x	1.58x	0.05x	1.63x	1.56x	0.07x	69
2006	1.53x	1.46x	0.07x	1.52x	1.44x	0.08x	102
2007	1.62x	1.53x	0.10x	1.62x	1.51x	0.11x	105
2008	1.74x	1.65x	0.10x	1.66x	1.52x	0.14x	104
2009	1.67x	1.55x	0.12x	1.74x	1.56x	0.18x	39
2010	1.76x	1.40x	0.36x	1.68x	1.30x	0.38x	52
2011	1.99x	1.51x	0.47x	1.99x	1.49x	0.50x	74
2012	1.90x	1.22x	0.68x	1.77x	1.21x	0.57x	95
2013	1.90x	1.10x	0.80x	1.85x	1.07x	0.78x	94
2014	2.14x	1.09x	1.05x	2.06x	1.05x	1.01x	87
2015	1.88x	0.90x	0.97x	1.85x	0.83x	1.03x	111
2016	1.91x	0.68x	1.23x	1.84x	0.67x	1.17x	114
2017	1.88x	0.41x	1.47x	1.79x	0.45x	1.34x	123
2018	1.50x	0.20x	1.29x	1.50x	0.23x	1.27x	117
2019	1.48x	0.15x	1.33x	1.44x	0.18x	1.26x	148
2020	1.22x	0.05x	1.17x	1.26x	0.09x	1.17x	100

Source: PitchBook | Geography: Global | Data as of December 31, 2021

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	
1997	2.04x	1.78x	1.43x	1.02x	0.72x	2.04x	1.78x	1.43x	1.02x	0.72x	23
1998	1.90x	1.59x	1.36x	0.92x	0.57x	1.90x	1.59x	1.35x	0.92x	0.57x	40
1999	2.54x	2.11x	1.63x	1.20x	0.98x	2.45x	2.08x	1.63x	1.18x	0.98x	38
2000	2.73x	2.19x	1.71x	1.35x	0.98x	2.73x	2.18x	1.71x	1.35x	0.84x	49
2001	2.65x	2.35x	2.01x	1.54x	0.76x	2.64x	2.35x	1.91x	1.54x	0.75x	30
2002	3.06x	2.31x	1.94x	1.49x	1.25x	2.96x	2.31x	1.93x	1.49x	1.24x	30
2003	2.82x	1.95x	1.71x	1.40x	1.08x	2.80x	1.95x	1.71x	1.38x	0.90x	29
2004	2.54x	1.98x	1.59x	1.16x	0.64x	2.53x	1.98x	1.56x	1.09x	0.63x	43
2005	2.38x	1.87x	1.52x	1.24x	0.96x	2.32x	1.86x	1.48x	1.16x	0.90x	69
2006	2.13x	1.83x	1.49x	1.20x	0.91x	2.09x	1.72x	1.44x	1.14x	0.79x	102
2007	2.44x	2.03x	1.51x	1.24x	0.93x	2.26x	1.90x	1.48x	1.13x	0.81x	105
2008	2.27x	2.02x	1.65x	1.29x	0.86x	2.18x	1.96x	1.46x	1.18x	0.71x	104
2009	2.63x	2.06x	1.67x	1.36x	0.97x	2.43x	2.01x	1.50x	1.06x	0.84x	39
2010	2.95x	1.96x	1.52x	1.11x	0.88x	2.42x	1.62x	1.16x	0.83x	0.44x	52
2011	3.32x	2.29x	1.81x	1.52x	1.04x	2.79x	1.88x	1.40x	0.87x	0.47x	74
2012	2.63x	2.16x	1.73x	1.35x	1.04x	2.14x	1.65x	1.11x	0.77x	0.49x	95
2013	2.43x	2.04x	1.72x	1.45x	1.28x	1.75x	1.34x	1.04x	0.75x	0.29x	94
2014	3.68x	2.32x	1.75x	1.47x	1.10x	2.01x	1.47x	0.98x	0.50x	0.11x	87
2015	2.55x	2.06x	1.72x	1.43x	1.11x	1.42x	1.12x	0.69x	0.39x	0.19x	111
2016	2.42x	2.07x	1.74x	1.50x	1.26x	1.35x	0.91x	0.50x	0.29x	0.09x	114
2017	2.53x	2.03x	1.57x	1.31x	1.16x	0.92x	0.62x	0.33x	0.15x	0.02x	123
2018	1.91x	1.65x	1.41x	1.27x	1.12x	0.56x	0.32x	0.12x	0.02x	0.00x	117
2019	1.80x	1.55x	1.28x	1.13x	0.99x	0.39x	0.18x	0.04x	0.00x	0.00x	148
2020	1.62x	1.32x	1.16x	1.00x	0.91x	0.26x	0.08x	0.00x	0.00x	0.00x	99

Source: PitchBook | Geography: Global | Data as of December 31, 2021



Private equity

Quarterly return

Quarter end	1-quarter return
Q1 2001	-6.85%
Q2 2001	1.65%
Q3 2001	-5.64%
Q4 2001	-3.04%
Q1 2002	0.79%
Q2 2002	-3.08%
Q3 2002	-3.44%
Q4 2002	-0.32%
Q1 2003	0.02%
Q2 2003	6.32%
Q3 2003	4.10%
Q4 2003	9.94%
Q1 2004	9.08%
Q2 2004	-0.16%
Q3 2004	3.19%
Q4 2004	13.97%
Q1 2005	2.05%
Q2 2005	8.69%
Q3 2005	7.25%
Q4 2005	10.66%
Q1 2006	4.17%
Q2 2006	5.50%
Q3 2006	4.64%
Q4 2006	13.25%

Quarter end	1-quarter return
Q1 2007	4.72%
Q2 2007	10.19%
Q3 2007	3.86%
Q4 2007	3.25%
Q1 2008	-0.28%
Q2 2008	-1.27%
Q3 2008	-8.57%
Q4 2008	-12.07%
Q1 2009	-7.41%
Q2 2009	4.47%
Q3 2009	5.17%
Q4 2009	7.56%
Q1 2010	2.37%
Q2 2010	1.74%
Q3 2010	4.41%
Q4 2010	8.15%
Q1 2011	5.07%
Q2 2011	4.53%
Q3 2011	-3.18%
Q4 2011	1.66%
Q1 2012	5.95%
Q2 2012	0.80%
Q3 2012	3.62%
Q4 2012	3.08%

Quarter end	1-quarter return
Q1 2013	3.19%
Q2 2013	2.99%
Q3 2013	4.73%
Q4 2013	6.07%
Q1 2014	4.64%
Q2 2014	5.05%
Q3 2014	-0.05%
Q4 2014	3.17%
Q1 2015	3.48%
Q2 2015	5.69%
Q3 2015	0.48%
Q4 2015	2.09%
Q1 2016	1.60%
Q2 2016	4.80%
Q3 2016	4.17%
Q4 2016	1.43%
Q1 2017	4.60%
Q2 2017	5.57%
Q3 2017	4.64%
Q4 2017	4.77%
Q1 2018	4.10%
Q2 2018	3.92%
Q3 2018	3.47%
Q4 2018	-0.81%

Quarter end	1-quarter return
Q1 2019	4.71%
Q2 2019	3.18%
Q3 2019	3.33%
Q4 2019	4.62%
Q1 2020	-8.01%
Q2 2020	9.36%
Q3 2020	12.51%
Q4 2020	7.00%
Q1 2021	15.12%
Q2 2021	14.33%
Q3 2021	5.75%
Q4 2021	7.73%
Q1 2022*	1.56%

\*Preliminary figure

# Venture capital

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Venture capital

# IRRs by vintage

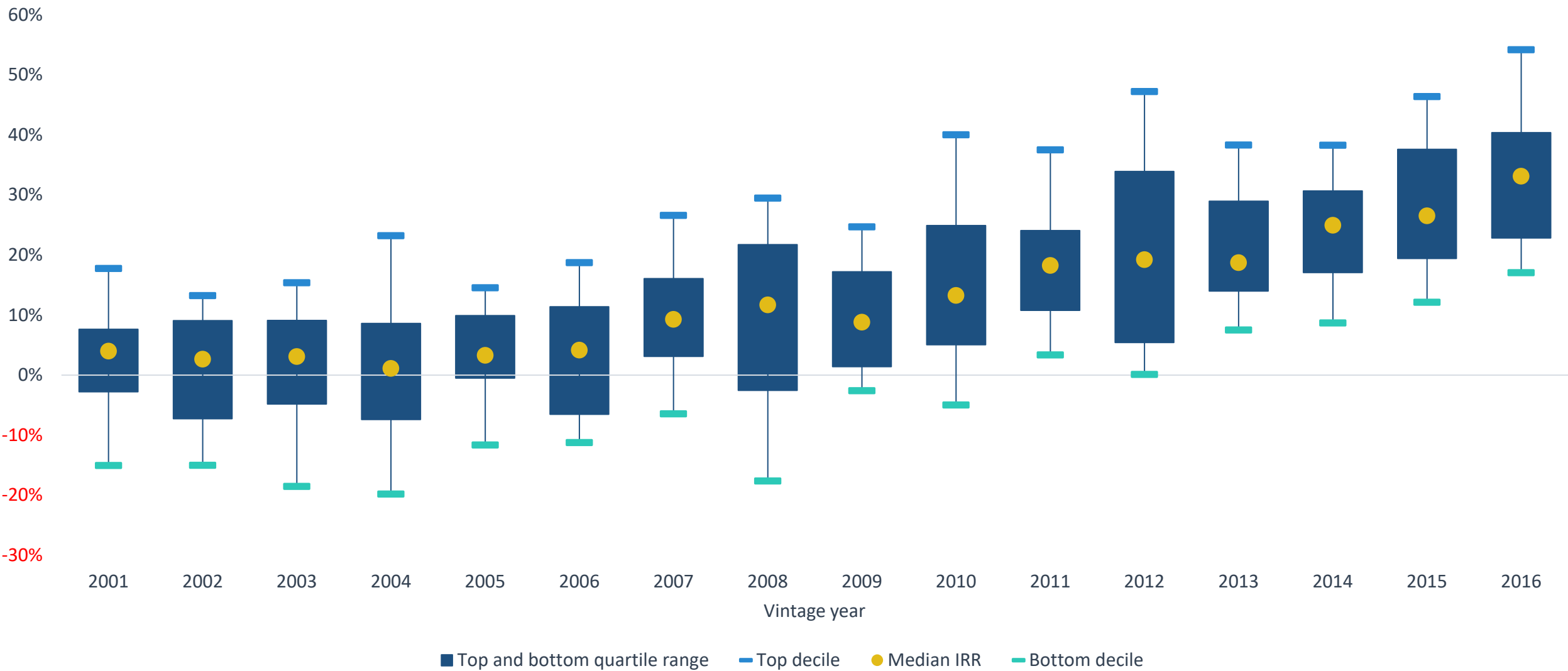
Pooled IRRs				IRR quantiles						
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	6.01%	12.99%	15	127.52%	53.99%	20.53%	0.90%	-7.61%	87.54%	54
1998	6.10%	5.24%	21	48.48%	16.49%	2.29%	-7.76%	-11.11%	33.38%	46
1999	-2.26%	-3.45%	36	8.96%	2.46%	-4.30%	-12.43%	-18.74%	11.40%	70
2000	-0.18%	-1.50%	61	10.56%	4.68%	-0.53%	-5.60%	-13.91%	12.04%	117
2001	4.81%	3.22%	33	17.75%	7.65%	4.00%	-2.79%	-15.06%	19.40%	68
2002	2.89%	2.27%	20	13.22%	9.09%	2.66%	-7.25%	-15.03%	19.82%	44
2003	5.52%	1.40%	21	15.36%	9.11%	3.10%	-4.82%	-18.52%	35.43%	39
2004	4.59%	7.69%	22	23.20%	8.60%	1.10%	-7.40%	-19.80%	18.51%	41
2005	8.93%	8.18%	29	14.54%	9.90%	3.30%	-0.50%	-11.64%	18.09%	53
2006	5.81%	3.80%	40	18.70%	11.40%	4.16%	-6.54%	-11.25%	14.85%	65
2007	11.28%	11.15%	50	26.59%	16.09%	9.29%	3.12%	-6.45%	13.50%	78
2008	13.59%	10.60%	49	29.47%	21.73%	11.70%	-2.55%	-17.63%	24.26%	60
2009	12.87%	9.69%	22	24.66%	17.20%	8.80%	1.40%	-2.62%	11.64%	27
2010	17.26%	19.24%	22	40.01%	24.91%	13.25%	5.06%	-5.00%	18.11%	37
2011	22.07%	23.38%	19	37.49%	24.07%	18.25%	10.79%	3.36%	17.98%	44
2012	21.40%	22.65%	19	47.21%	33.92%	19.21%	5.42%	0.11%	22.21%	36
2013	23.01%	18.38%	21	38.28%	28.96%	18.70%	14.00%	7.52%	16.01%	40
2014	26.05%	23.49%	40	38.27%	30.68%	24.95%	17.09%	8.68%	56.20%	50
2015	26.28%	25.82%	43	46.35%	37.61%	26.52%	19.41%	12.12%	15.50%	62
2016	37.15%	39.38%	47	54.18%	40.36%	33.10%	22.83%	17.04%	26.50%	63
2017	37.72%	37.07%	38	68.06%	50.79%	31.94%	22.63%	14.84%	21.47%	54
2018	35.45%	24.90%	45	70.00%	58.67%	38.19%	26.30%	17.46%	25.45%	69
2019	57.89%	49.26%	42	106.41%	75.15%	45.06%	27.13%	17.33%	46.77%	63
2020	52.32%	49.68%	40	92.75%	58.95%	39.70%	13.90%	-2.69%	50.12%	68

Source: PitchBook | Geography: Global | Data as of December 31, 2021



Venture capital

# IRRs by vintage



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
1997	6.01%	9.43%	1.06	6.01%	9.20%	0.94	15
1998	6.10%	8.54%	1.15	6.10%	9.31%	0.96	21
1999	-2.26%	7.87%	0.76	-2.26%	9.73%	0.63	36
2000	-0.18%	7.59%	0.72	-0.18%	7.79%	0.56	61
2001	4.81%	8.48%	0.90	4.81%	9.82%	0.73	33
2002	2.89%	9.51%	0.82	2.89%	11.17%	0.68	20
2003	5.52%	11.55%	0.92	5.52%	13.13%	0.83	21
2004	4.59%	10.41%	0.84	4.59%	10.87%	0.79	22
2005	8.93%	10.62%	0.98	8.93%	10.59%	0.99	29
2006	5.81%	10.67%	0.79	5.81%	9.81%	0.80	40
2007	11.28%	10.51%	0.99	11.28%	9.53%	1.03	50
2008	13.59%	11.60%	0.99	13.59%	10.53%	1.05	49
2009	12.87%	16.96%	0.91	12.87%	16.52%	1.01	22
2010	17.26%	15.02%	1.11	17.26%	13.36%	1.24	22
2011	22.07%	14.73%	1.46	22.07%	11.87%	1.62	19
2012	21.40%	15.69%	1.42	21.40%	13.43%	1.58	19
2013	23.01%	15.79%	1.40	23.01%	13.56%	1.52	21
2014	26.05%	14.80%	1.60	26.05%	11.78%	1.72	40
2015	26.28%	14.80%	1.36	26.28%	13.27%	1.45	43
2016	37.15%	18.30%	1.64	37.15%	17.17%	1.74	47
2017	37.72%	17.57%	1.49	37.72%	16.24%	1.57	38
2018	35.45%	16.98%	1.36	35.45%	13.74%	1.43	45
2019	57.89%	23.14%	1.37	57.89%	20.89%	1.42	42
2020	52.32%	28.37%	1.13	52.32%	28.86%	1.18	40

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Venture capital

# Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.23x	1.23x	0.00x	1.41x	1.41x	0.00x	15
1998	1.28x	1.26x	0.02x	1.22x	1.20x	0.02x	21
1999	0.85x	0.81x	0.04x	0.79x	0.78x	0.01x	36
2000	0.99x	0.96x	0.02x	0.90x	0.88x	0.02x	61
2001	1.38x	1.30x	0.08x	1.25x	1.16x	0.10x	33
2002	1.20x	1.18x	0.02x	1.16x	1.03x	0.13x	20
2003	1.39x	1.35x	0.04x	1.09x	1.07x	0.02x	21
2004	1.37x	1.31x	0.06x	1.68x	1.56x	0.12x	22
2005	1.90x	1.55x	0.35x	1.87x	1.47x	0.39x	29
2006	1.44x	1.27x	0.17x	1.31x	1.10x	0.21x	40
2007	1.92x	1.56x	0.36x	1.92x	1.56x	0.36x	50
2008	2.08x	1.73x	0.35x	1.88x	1.45x	0.43x	49
2009	2.25x	1.49x	0.76x	1.89x	1.05x	0.84x	22
2010	2.39x	1.45x	0.94x	2.63x	1.69x	0.94x	22
2011	3.53x	2.22x	1.31x	3.94x	2.51x	1.43x	19
2012	3.35x	1.39x	1.95x	3.80x	1.60x	2.20x	19
2013	2.80x	1.07x	1.73x	2.40x	0.81x	1.59x	21
2014	3.35x	1.04x	2.31x	3.16x	1.03x	2.12x	40
2015	2.56x	0.60x	1.96x	2.51x	0.61x	1.90x	43
2016	2.86x	0.51x	2.35x	3.03x	0.65x	2.38x	47
2017	2.43x	0.38x	2.04x	2.51x	0.36x	2.15x	38
2018	2.01x	0.13x	1.88x	1.96x	0.16x	1.80x	45
2019	1.84x	0.09x	1.75x	1.72x	0.06x	1.66x	42
2020	1.35x	0.05x	1.30x	1.35x	0.06x	1.29x	40

Source: PitchBook | Geography: Global | Data as of December 31, 2021

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	
1997	2.43x	1.71x	1.14x	0.87x	0.65x	2.43x	1.71x	1.14x	0.87x	0.65x	15
1998	1.80x	1.66x	1.23x	0.69x	0.47x	1.80x	1.65x	1.23x	0.69x	0.47x	21
1999	1.49x	1.06x	0.72x	0.39x	0.21x	1.43x	1.06x	0.72x	0.38x	0.21x	36
2000	1.43x	1.18x	0.92x	0.62x	0.36x	1.43x	1.13x	0.91x	0.56x	0.25x	61
2001	2.05x	1.62x	1.27x	0.79x	0.37x	1.85x	1.56x	1.10x	0.72x	0.35x	33
2002	1.77x	1.62x	1.22x	0.67x	0.37x	1.73x	1.60x	1.12x	0.54x	0.26x	20
2003	1.65x	1.44x	1.15x	0.54x	0.40x	1.65x	1.42x	1.12x	0.54x	0.40x	21
2004	2.50x	1.64x	1.03x	0.69x	0.42x	1.85x	1.47x	1.02x	0.58x	0.42x	22
2005	2.50x	1.79x	1.29x	1.16x	0.54x	2.23x	1.64x	1.23x	0.98x	0.51x	29
2006	2.43x	1.89x	1.17x	0.67x	0.38x	2.13x	1.49x	1.03x	0.54x	0.29x	40
2007	2.87x	2.49x	1.67x	0.98x	0.49x	2.65x	2.09x	1.45x	0.56x	0.28x	50
2008	3.65x	2.29x	1.51x	0.77x	0.22x	3.27x	1.87x	0.90x	0.39x	0.21x	49
2009	2.65x	2.12x	1.82x	1.13x	0.86x	2.25x	1.41x	0.89x	0.52x	0.39x	22
2010	3.73x	3.04x	2.02x	1.60x	0.77x	3.15x	1.80x	1.23x	0.73x	0.46x	22
2011	5.74x	3.60x	2.24x	1.78x	0.80x	3.08x	2.21x	1.40x	0.81x	0.42x	19
2012	5.79x	3.19x	2.13x	1.43x	0.79x	2.36x	1.81x	1.04x	0.48x	0.22x	19
2013	4.50x	2.87x	2.39x	1.35x	0.78x	1.85x	1.08x	0.64x	0.27x	0.21x	21
2014	6.22x	3.88x	2.78x	1.87x	1.37x	1.73x	1.31x	1.05x	0.28x	0.08x	40
2015	4.06x	2.91x	2.33x	1.63x	1.27x	1.46x	0.87x	0.37x	0.13x	0.00x	43
2016	5.40x	3.57x	2.47x	1.88x	1.48x	1.61x	0.78x	0.36x	0.13x	0.00x	47
2017	4.01x	2.76x	2.33x	1.66x	1.20x	0.98x	0.63x	0.16x	0.04x	0.00x	38
2018	3.13x	2.21x	1.71x	1.27x	0.95x	0.50x	0.16x	0.00x	0.00x	0.00x	45
2019	2.41x	1.91x	1.42x	1.27x	1.16x	0.10x	0.02x	0.00x	0.00x	0.00x	42
2020	1.99x	1.47x	1.24x	1.01x	0.91x	0.13x	0.01x	0.00x	0.00x	0.00x	40

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Venture capital

Quarterly return

Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return
Q1 2001	-11.24%	Q1 2007	2.06%	Q1 2013	2.40%	Q1 2019	7.05%
Q2 2001	-8.91%	Q2 2007	5.79%	Q2 2013	4.62%	Q2 2019	2.56%
Q3 2001	-14.72%	Q3 2007	2.06%	Q3 2013	5.38%	Q3 2019	1.80%
Q4 2001	-11.10%	Q4 2007	4.03%	Q4 2013	8.49%	Q4 2019	6.03%
Q1 2002	-7.38%	Q1 2008	2.61%	Q1 2014	4.99%	Q1 2020	-1.22%
Q2 2002	-12.59%	Q2 2008	-2.29%	Q2 2014	3.18%	Q2 2020	8.84%
Q3 2002	-7.95%	Q3 2008	-3.09%	Q3 2014	2.63%	Q3 2020	11.66%
Q4 2002	-13.29%	Q4 2008	-9.36%	Q4 2014	6.98%	Q4 2020	17.23%
Q1 2003	-5.94%	Q1 2009	-3.51%	Q1 2015	4.66%	Q1 2021	20.88%
Q2 2003	-1.71%	Q2 2009	-0.07%	Q2 2015	7.17%	Q2 2021	13.41%
Q3 2003	-2.19%	Q3 2009	1.55%	Q3 2015	-0.79%	Q3 2021	7.80%
Q4 2003	2.81%	Q4 2009	2.71%	Q4 2015	2.13%	Q4 2021	5.09%
Q1 2004	0.14%	Q1 2010	1.39%	Q1 2016	-3.73%	Q1 2022*	-2.22%
Q2 2004	0.64%	Q2 2010	-0.28%	Q2 2016	0.56%	*Preliminary figure	
Q3 2004	-0.69%	Q3 2010	4.11%	Q3 2016	3.32%		
Q4 2004	3.10%	Q4 2010	6.59%	Q4 2016	0.67%		
Q1 2005	-1.88%	Q1 2011	5.03%	Q1 2017	2.50%		
Q2 2005	0.75%	Q2 2011	4.48%	Q2 2017	2.06%		
Q3 2005	4.99%	Q3 2011	-0.15%	Q3 2017	3.83%		
Q4 2005	2.51%	Q4 2011	1.43%	Q4 2017	3.06%		
Q1 2006	2.94%	Q1 2012	4.37%	Q1 2018	7.17%		
Q2 2006	1.16%	Q2 2012	1.21%	Q2 2018	5.41%		
Q3 2006	1.73%	Q3 2012	-0.38%	Q3 2018	3.66%		
Q4 2006	7.54%	Q4 2012	2.00%	Q4 2018	0.90%		



# Real estate

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Real estate

# IRR by vintage

Pooled IRRs

IRR quantiles

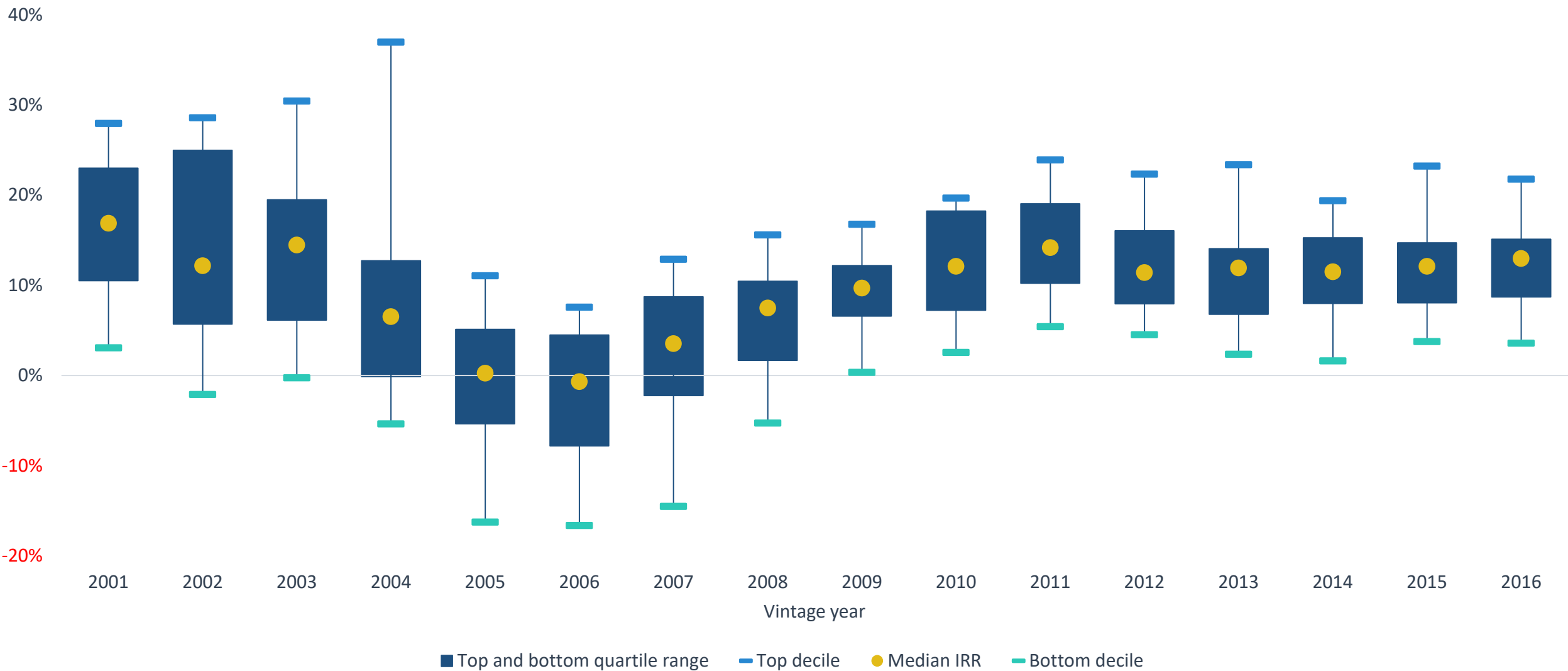
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	13.89%	11.45%	5	17.61%	15.98%	7.17%	2.90%	-1.84%	16.06%	16
1998	4.86%	5.48%	8	17.25%	13.45%	8.70%	6.48%	2.17%	6.88%	23
1999	11.81%	9.15%	2	18.23%	15.79%	10.22%	9.06%	1.97%	7.49%	20
2000	16.43%	16.18%	11	28.48%	24.13%	16.32%	10.98%	6.15%	10.05%	22
2001	28.05%	24.31%	2	27.95%	23.00%	16.88%	10.52%	3.05%	9.37%	18
2002	8.55%	15.74%	3	28.57%	24.98%	12.16%	5.68%	-2.11%	16.87%	18
2003	6.32%	5.02%	4	30.42%	19.50%	14.47%	6.13%	-0.26%	41.88%	30
2004	5.12%	6.58%	9	36.97%	12.72%	6.52%	-0.14%	-5.37%	20.96%	32
2005	0.06%	-0.50%	27	11.05%	5.11%	0.25%	-5.35%	-16.27%	27.12%	48
2006	-3.80%	-2.37%	31	7.56%	4.49%	-0.70%	-7.80%	-16.66%	11.50%	65
2007	3.70%	1.86%	53	12.89%	8.74%	3.53%	-2.24%	-14.53%	11.37%	77
2008	6.29%	5.28%	33	15.58%	10.46%	7.48%	1.67%	-5.28%	11.82%	57
2009	9.12%	8.60%	20	16.76%	12.20%	9.70%	6.59%	0.33%	8.83%	28
2010	16.23%	14.97%	20	19.65%	18.24%	12.10%	7.23%	2.54%	7.63%	35
2011	15.39%	14.13%	38	23.90%	19.03%	14.17%	10.22%	5.40%	8.29%	51
2012	13.59%	12.42%	45	22.32%	16.04%	11.40%	7.96%	4.51%	9.80%	59
2013	11.12%	9.85%	48	23.38%	14.07%	11.91%	6.78%	2.35%	8.41%	45
2014	10.44%	11.40%	53	19.38%	15.26%	11.50%	7.98%	1.61%	8.54%	48
2015	12.81%	10.31%	71	23.20%	14.71%	12.09%	8.06%	3.75%	7.20%	66
2016	15.48%	12.42%	53	21.77%	15.12%	12.97%	8.72%	3.58%	8.63%	55
2017	14.12%	13.58%	63	29.69%	19.90%	14.47%	9.25%	5.60%	10.81%	60
2018	15.19%	14.96%	72	25.31%	19.52%	13.61%	6.87%	-0.76%	12.15%	68
2019	26.10%	18.20%	53	47.10%	31.71%	16.60%	8.11%	-2.00%	28.81%	51
2020	19.97%	17.82%	29	45.29%	27.94%	15.32%	2.19%	-7.44%	24.92%	36

Source: PitchBook | Geography: Global | Data as of December 31, 2021



Real estate

IRR by vintage



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
1997	13.89%	9.43%	1.42	13.89%			5
1998	4.86%	8.54%	1.23	4.86%			8
1999	11.81%	7.87%	1.72	11.81%	8.89%	1.02	2
2000	16.43%	7.59%	1.57	16.43%	8.87%	1.03	11
2001	28.05%	8.48%	1.54	28.05%	8.79%	1.12	2
2002	8.55%	9.51%	0.97	8.55%	9.35%	0.85	3
2003	6.32%	11.55%	0.99	6.32%	10.02%	0.85	4
2004	5.12%	10.41%	0.94	5.12%	7.96%	0.95	9
2005	0.06%	10.62%	0.69	0.06%	7.18%	0.80	27
2006	-3.80%	10.67%	0.40	-3.80%	5.93%	0.48	31
2007	3.70%	10.51%	0.71	3.70%	4.10%	0.80	53
2008	6.29%	11.60%	0.75	6.29%	5.73%	0.85	33
2009	9.12%	16.96%	0.81	9.12%	12.86%	0.94	20
2010	16.23%	15.02%	1.04	16.23%	9.03%	1.15	20
2011	15.39%	14.73%	1.03	15.39%	7.74%	1.23	38
2012	13.59%	15.69%	1.01	13.59%	8.62%	1.22	45
2013	11.12%	15.79%	0.94	11.12%	6.95%	1.13	48
2014	10.44%	14.80%	0.88	10.44%	7.76%	1.12	53
2015	12.81%	14.80%	0.92	12.81%	6.34%	1.17	71
2016	15.48%	18.30%	0.96	15.48%	9.03%	1.22	53
2017	14.12%	17.57%	0.90	14.12%	8.52%	1.14	63
2018	15.19%	16.98%	0.90	15.19%	7.85%	1.07	72
2019	26.10%	23.14%	1.03	26.10%	9.29%	1.18	53
2020	19.97%	28.37%	0.95	19.97%	10.47%	1.01	29

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Real estate

# Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.71x	1.71x	0.00x	1.58x	1.58x	0.00x	5
1998	1.21x	1.21x	0.00x	1.25x	1.25x	0.00x	8
1999	1.91x	1.91x	0.00x	1.65x	1.65x	0.00x	2
2000	1.76x	1.76x	0.00x	1.77x	1.77x	0.00x	11
2001	1.88x	1.88x	0.00x	1.77x	1.77x	0.00x	2
2002	1.23x	1.21x	0.02x	1.51x	1.37x	0.14x	3
2003	1.21x	1.21x	0.00x	1.17x	1.16x	0.01x	4
2004	1.28x	1.21x	0.06x	1.43x	1.30x	0.13x	9
2005	1.00x	0.99x	0.02x	0.97x	0.96x	0.01x	27
2006	0.75x	0.69x	0.06x	0.84x	0.78x	0.05x	31
2007	1.20x	1.16x	0.04x	1.10x	1.05x	0.05x	53
2008	1.28x	1.22x	0.06x	1.25x	1.21x	0.05x	33
2009	1.44x	1.33x	0.11x	1.42x	1.32x	0.10x	20
2010	1.52x	1.48x	0.04x	1.85x	1.43x	0.42x	20
2011	1.68x	1.43x	0.26x	1.69x	1.44x	0.25x	38
2012	1.56x	1.33x	0.24x	1.49x	1.27x	0.21x	45
2013	1.40x	1.08x	0.31x	1.39x	1.03x	0.36x	48
2014	1.46x	0.96x	0.50x	1.53x	0.89x	0.64x	53
2015	1.46x	0.81x	0.65x	1.38x	0.81x	0.57x	71
2016	1.52x	0.59x	0.93x	1.44x	0.64x	0.80x	53
2017	1.41x	0.53x	0.88x	1.42x	0.54x	0.87x	63
2018	1.26x	0.26x	0.99x	1.28x	0.35x	0.93x	72
2019	1.35x	0.18x	1.17x	1.25x	0.24x	1.01x	53
2020	1.12x	0.11x	1.01x	1.12x	0.08x	1.04x	29

Source: PitchBook | Geography: Global | Data as of December 31, 2021

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	
1997		1.50x	1.42x	1.27x			1.50x	1.41x	1.27x		5
1998		1.39x	1.31x	1.21x			1.39x	1.31x	1.18x		8
1999			1.66x					1.66x			2
2000	2.75x	1.76x	1.51x	1.35x	1.20x	2.74x	1.76x	1.51x	1.35x	1.19x	11
2001			1.75x					1.75x			2
2002			1.38x					1.38x			3
2003		1.27x	1.18x	1.09x			1.26x	1.17x	1.08x		4
2004		1.91x	1.34x	1.12x			1.60x	1.34x	0.93x		9
2005	1.37x	1.12x	0.98x	0.74x	0.51x	1.37x	1.10x	0.95x	0.72x	0.49x	27
2006	1.58x	1.11x	0.67x	0.46x	0.28x	1.31x	1.04x	0.67x	0.37x	0.22x	31
2007	1.66x	1.37x	1.15x	0.83x	0.38x	1.64x	1.35x	1.10x	0.73x	0.37x	53
2008	1.68x	1.54x	1.33x	1.07x	0.58x	1.64x	1.53x	1.23x	1.05x	0.51x	33
2009	1.91x	1.55x	1.39x	1.30x	1.10x	1.86x	1.55x	1.36x	1.18x	0.61x	20
2010	2.08x	1.77x	1.58x	1.32x	1.21x	1.76x	1.63x	1.50x	1.16x	0.95x	20
2011	2.19x	1.90x	1.61x	1.45x	1.19x	2.04x	1.75x	1.47x	1.20x	0.87x	38
2012	1.91x	1.56x	1.45x	1.36x	1.19x	1.85x	1.50x	1.33x	1.01x	0.76x	45
2013	1.68x	1.60x	1.43x	1.19x	1.03x	1.57x	1.38x	1.15x	0.61x	0.44x	48
2014	1.87x	1.61x	1.46x	1.27x	1.12x	1.38x	1.22x	0.92x	0.60x	0.31x	53
2015	1.69x	1.57x	1.36x	1.21x	1.14x	1.44x	1.23x	0.88x	0.35x	0.14x	71
2016	1.95x	1.56x	1.38x	1.27x	0.97x	1.15x	0.79x	0.55x	0.30x	0.09x	53
2017	1.83x	1.56x	1.39x	1.20x	1.03x	1.25x	0.71x	0.42x	0.17x	0.06x	63
2018	1.61x	1.40x	1.22x	1.10x	0.94x	0.75x	0.44x	0.20x	0.07x	0.00x	72
2019	1.49x	1.34x	1.21x	1.07x	1.01x	0.39x	0.27x	0.12x	0.01x	0.00x	53
2020	1.29x	1.20x	1.09x	1.00x	0.95x	0.38x	0.12x	0.02x	0.00x	0.00x	29

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Real estate

Quarterly return

Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return
Q1 2001	4.41%	Q1 2007	2.24%	Q1 2013	3.21%	Q1 2019	1.62%
Q2 2001	1.42%	Q2 2007	8.92%	Q2 2013	4.44%	Q2 2019	1.87%
Q3 2001	0.29%	Q3 2007	1.63%	Q3 2013	1.41%	Q3 2019	3.13%
Q4 2001	1.30%	Q4 2007	5.51%	Q4 2013	6.57%	Q4 2019	1.78%
Q1 2002	2.12%	Q1 2008	-2.46%	Q1 2014	3.61%	Q1 2020	-1.54%
Q2 2002	1.33%	Q2 2008	-4.67%	Q2 2014	3.23%	Q2 2020	-0.58%
Q3 2002	0.39%	Q3 2008	-8.09%	Q3 2014	2.91%	Q3 2020	2.70%
Q4 2002	-0.93%	Q4 2008	-19.40%	Q4 2014	4.25%	Q4 2020	1.95%
Q1 2003	-2.17%	Q1 2009	-24.36%	Q1 2015	1.56%	Q1 2021	5.02%
Q2 2003	0.92%	Q2 2009	-14.26%	Q2 2015	4.66%	Q2 2021	5.16%
Q3 2003	4.93%	Q3 2009	-7.12%	Q3 2015	2.34%	Q3 2021	7.21%
Q4 2003	9.78%	Q4 2009	-5.69%	Q4 2015	1.27%	Q4 2021	8.30%
Q1 2004	-4.24%	Q1 2010	-7.13%	Q1 2016	2.70%	Q1 2022*	7.64%
Q2 2004	4.77%	Q2 2010	7.26%	Q2 2016	2.24%	*Preliminary figure	
Q3 2004	0.76%	Q3 2010	4.50%	Q3 2016	3.01%		
Q4 2004	19.13%	Q4 2010	8.25%	Q4 2016	1.47%		
Q1 2005	-3.53%	Q1 2011	5.63%	Q1 2017	3.92%		
Q2 2005	5.26%	Q2 2011	4.34%	Q2 2017	3.31%		
Q3 2005	9.67%	Q3 2011	-0.09%	Q3 2017	4.13%		
Q4 2005	13.69%	Q4 2011	0.14%	Q4 2017	2.22%		
Q1 2006	2.71%	Q1 2012	4.53%	Q1 2018	2.34%		
Q2 2006	7.99%	Q2 2012	0.13%	Q2 2018	2.44%		
Q3 2006	9.89%	Q3 2012	5.23%	Q3 2018	1.63%		
Q4 2006	20.47%	Q4 2012	2.27%	Q4 2018	-0.55%		

# Real assets

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Real assets

# IRR by vintage

Pooled IRRs

IRR quantiles

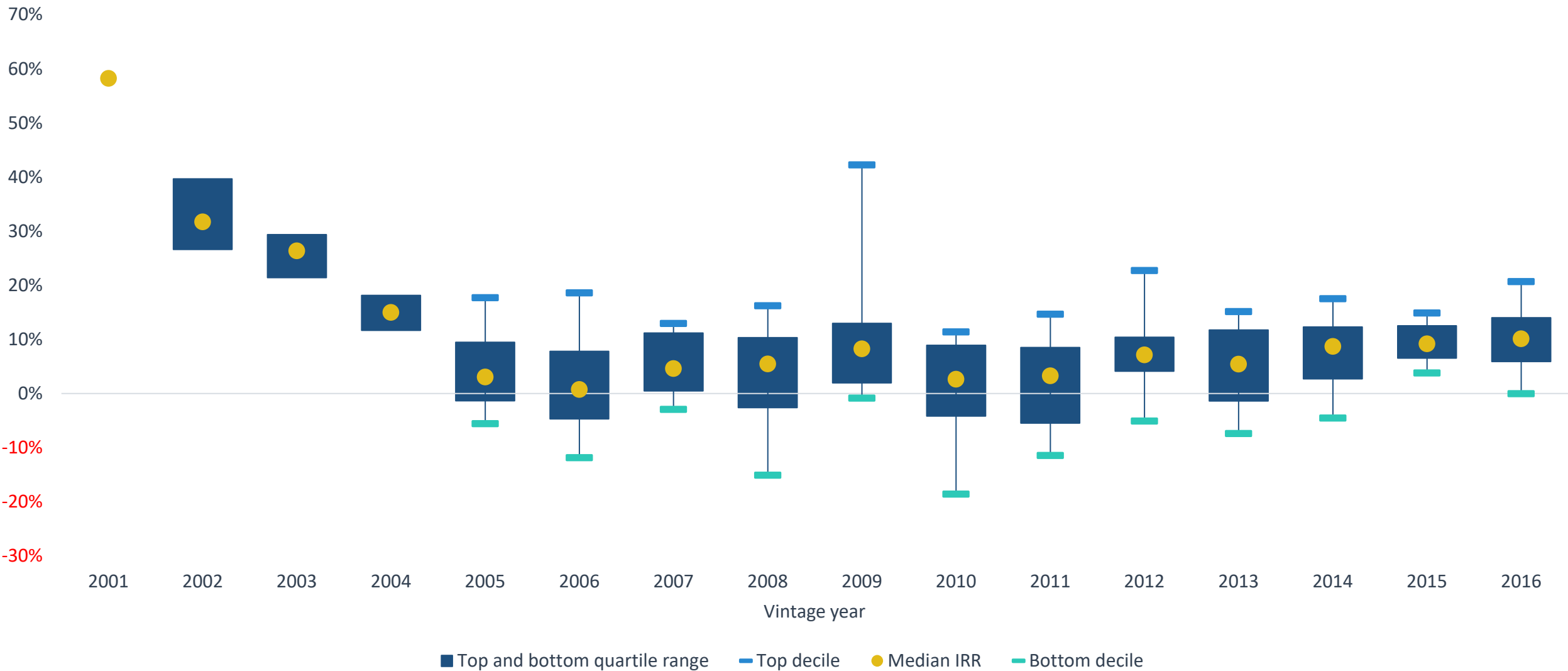
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	15.79%	12.14%	2		21.92%	13.71%	8.53%		13.95%	8
1998	16.83%	18.64%	3	26.10%	23.98%	17.42%	14.76%	6.85%	9.40%	10
1999	25.39%	25.39%	1		24.00%	14.70%	8.00%		12.97%	5
2000					42.51%	24.43%	21.70%		22.64%	6
2001	49.72%	49.72%	1			58.25%			15.63%	2
2002	30.86%	34.13%	3		39.67%	31.70%	26.61%		11.73%	4
2003	29.00%	29.52%	2		29.38%	26.35%	21.40%		25.51%	8
2004	22.61%	20.34%	4		18.15%	15.00%	11.68%		8.18%	8
2005	8.25%	9.34%	9	17.71%	9.46%	3.05%	-1.34%	-5.59%	9.55%	16
2006	5.54%	1.68%	13	18.60%	7.80%	0.73%	-4.71%	-11.87%	15.61%	16
2007	4.23%	4.47%	19	12.92%	11.18%	4.60%	0.49%	-2.94%	12.49%	27
2008	1.71%	2.29%	21	16.20%	10.34%	5.46%	-2.60%	-15.10%	12.05%	21
2009	4.50%	5.26%	11	42.24%	12.97%	8.24%	1.97%	-0.86%	84.37%	12
2010	4.84%	5.98%	22	11.39%	8.93%	2.64%	-4.18%	-18.60%	13.71%	22
2011	3.49%	2.41%	21	14.64%	8.50%	3.28%	-5.47%	-11.47%	23.45%	25
2012	6.14%	6.62%	24	22.73%	10.41%	7.15%	4.12%	-5.10%	24.74%	24
2013	8.77%	6.35%	30	15.14%	11.75%	5.41%	-1.39%	-7.40%	14.48%	26
2014	8.35%	6.54%	42	17.50%	12.31%	8.70%	2.69%	-4.55%	9.29%	41
2015	8.39%	8.18%	37	14.85%	12.53%	9.17%	6.54%	3.80%	37.61%	24
2016	10.37%	14.43%	45	20.68%	14.00%	10.10%	5.90%	-0.05%	9.73%	35
2017	12.01%	8.73%	37	20.58%	16.84%	9.43%	4.15%	-6.52%	11.62%	35
2018	9.84%	7.58%	46	27.35%	18.04%	7.67%	2.98%	-3.10%	12.13%	36
2019	14.00%	14.89%	30	77.02%	34.77%	12.71%	6.61%	-1.29%	35.23%	34
2020	19.88%	26.74%	20	86.12%	30.88%	17.30%	4.42%	-2.51%	73.67%	19

Source: PitchBook | Geography: Global | Data as of December 31, 2021



Real assets

# IRR by vintage



Real assets

# PMEs by vintage

S&P 500Morningstar Real Assets

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	15.79%	9.43%	2.00	15.79%			2
1998	16.83%	8.54%	1.92	16.83%			3
1999	25.39%	7.87%	1.82	25.39%			1
2000							
2001	49.72%	8.48%	2.35	49.72%	6.93%	2.09	1
2002	30.86%	9.51%	1.45	30.86%	6.90%	1.40	3
2003	29.00%	11.55%	1.75	29.00%	6.63%	1.69	2
2004	22.61%	10.41%	1.51	22.61%	5.98%	1.38	4
2005	8.25%	10.62%	1.15	8.25%	5.53%	1.09	9
2006	5.54%	10.67%	0.89	5.54%	5.23%	1.03	13
2007	4.23%	10.51%	0.78	4.23%	5.06%	0.97	19
2008	1.71%	11.60%	0.57	1.71%	4.39%	0.88	21
2009	4.50%	16.96%	0.67	4.50%	5.94%	1.04	11
2010	4.84%	15.02%	0.64	4.84%	4.77%	1.08	22
2011	3.49%	14.73%	0.62	3.49%	3.70%	1.02	21
2012	6.14%	15.69%	0.74	6.14%	3.38%	1.11	24
2013	8.77%	15.79%	0.79	8.77%	3.50%	1.23	30
2014	8.35%	14.80%	0.79	8.35%	4.10%	1.12	42
2015	8.39%	14.80%	0.78	8.39%	4.15%	1.09	37
2016	10.37%	18.30%	0.81	10.37%	5.99%	1.12	45
2017	12.01%	17.57%	0.85	12.01%	6.00%	1.10	37
2018	9.84%	16.98%	0.82	9.84%	6.95%	1.02	46
2019	14.00%	23.14%	0.88	14.00%	8.81%	1.02	30
2020	19.88%	28.37%	0.96	19.88%	12.99%	1.03	20

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Real assets

# Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	2.65x	2.10x	0.55x	3.11x	1.99x	1.13x	2
1998	2.01x	1.99x	0.02x	2.20x	2.18x	0.02x	3
1999	2.59x	2.47x	0.12x	2.59x	2.47x	0.12x	1
2000							
2001	2.84x	2.84x	0.00x	2.84x	2.84x	0.00x	1
2002	1.91x	1.91x	0.00x	1.98x	1.98x	0.00x	3
2003	2.31x	2.30x	0.01x	2.41x	2.39x	0.02x	2
2004	1.75x	1.75x	0.00x	1.77x	1.77x	0.00x	4
2005	1.45x	1.40x	0.05x	1.51x	1.45x	0.06x	9
2006	1.32x	1.22x	0.10x	1.09x	1.02x	0.07x	13
2007	1.22x	1.19x	0.03x	1.25x	1.20x	0.06x	19
2008	1.10x	0.96x	0.14x	1.14x	0.90x	0.24x	21
2009	1.24x	1.00x	0.24x	1.28x	0.94x	0.34x	11
2010	1.29x	0.97x	0.32x	1.35x	0.86x	0.49x	22
2011	1.18x	0.72x	0.46x	1.14x	0.65x	0.49x	21
2012	1.27x	0.85x	0.43x	1.32x	0.80x	0.52x	24
2013	1.46x	0.74x	0.71x	1.31x	0.67x	0.64x	30
2014	1.33x	0.59x	0.74x	1.28x	0.54x	0.74x	42
2015	1.31x	0.45x	0.87x	1.31x	0.46x	0.84x	37
2016	1.36x	0.34x	1.01x	1.51x	0.61x	0.91x	45
2017	1.31x	0.25x	1.06x	1.24x	0.24x	1.00x	37
2018	1.20x	0.16x	1.04x	1.17x	0.18x	0.99x	46
2019	1.17x	0.15x	1.02x	1.22x	0.17x	1.05x	30
2020	1.13x	0.07x	1.06x	1.29x	0.08x	1.21x	20

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Real assets

# 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	
1997			3.10x					1.99x			2
1998			1.92x					1.92x			3
1999			2.59x					2.47x			1
2000											
2001			2.84x					2.84x			1
2002			2.07x					2.07x			3
2003			2.41x					2.39x			2
2004		1.91x	1.74x	1.60x			1.91x	1.74x	1.60x		4
2005		1.74x	1.32x	1.02x			1.74x	1.29x	1.02x		9
2006	1.79x	1.17x	0.97x	0.75x	0.62x	1.79x	1.16x	0.95x	0.61x	0.54x	13
2007	1.82x	1.47x	1.15x	1.01x	0.91x	1.76x	1.40x	1.13x	0.98x	0.78x	19
2008	1.89x	1.39x	0.94x	0.63x	0.54x	1.84x	1.23x	0.65x	0.52x	0.14x	21
2009	2.20x	1.48x	1.25x	1.01x	0.54x	1.44x	1.21x	1.05x	0.39x	0.24x	11
2010	2.33x	1.83x	1.36x	0.82x	0.65x	1.62x	1.18x	0.68x	0.45x	0.29x	22
2011	1.88x	1.40x	1.21x	0.90x	0.35x	1.14x	0.98x	0.56x	0.35x	0.10x	21
2012	1.94x	1.51x	1.31x	1.18x	0.88x	1.35x	1.18x	0.81x	0.36x	0.14x	24
2013	1.86x	1.60x	1.28x	0.89x	0.72x	1.39x	1.00x	0.51x	0.34x	0.17x	30
2014	1.71x	1.49x	1.28x	1.06x	0.87x	1.05x	0.73x	0.49x	0.28x	0.11x	42
2015	1.71x	1.43x	1.34x	1.14x	1.00x	0.92x	0.58x	0.41x	0.20x	0.09x	37
2016	2.07x	1.57x	1.29x	1.13x	0.99x	0.88x	0.53x	0.37x	0.18x	0.07x	45
2017	1.68x	1.42x	1.21x	1.01x	0.85x	0.48x	0.30x	0.15x	0.05x	0.01x	37
2018	1.49x	1.30x	1.15x	1.04x	0.95x	0.46x	0.27x	0.08x	0.04x	0.00x	46
2019	1.50x	1.25x	1.14x	1.02x	0.80x	0.42x	0.24x	0.11x	0.02x	0.00x	30
2020	1.32x	1.24x	1.08x	1.01x	0.95x	0.18x	0.08x	0.00x	0.00x	0.00x	20

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Real assets

Quarterly return

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

Quarter end	1-quarter return
Q1 2007	4.18%
Q2 2007	6.07%
Q3 2007	6.99%
Q4 2007	8.79%
Q1 2008	2.03%
Q2 2008	4.11%
Q3 2008	2.90%
Q4 2008	-5.78%
Q1 2009	-3.91%
Q2 2009	-0.19%
Q3 2009	3.85%
Q4 2009	3.62%
Q1 2010	-0.34%
Q2 2010	0.15%
Q3 2010	4.07%
Q4 2010	8.52%
Q1 2011	4.75%
Q2 2011	4.20%
Q3 2011	-1.58%
Q4 2011	4.57%
Q1 2012	2.21%
Q2 2012	-2.18%
Q3 2012	0.75%
Q4 2012	3.71%

Quarter end	1-quarter return
Q1 2013	3.78%
Q2 2013	-0.75%
Q3 2013	2.52%
Q4 2013	1.47%
Q1 2014	3.76%
Q2 2014	6.84%
Q3 2014	2.89%
Q4 2014	-4.64%
Q1 2015	-1.37%
Q2 2015	2.24%
Q3 2015	-3.24%
Q4 2015	-2.22%
Q1 2016	-0.30%
Q2 2016	5.24%
Q3 2016	2.84%
Q4 2016	4.73%
Q1 2017	3.63%
Q2 2017	2.51%
Q3 2017	1.90%
Q4 2017	1.98%
Q1 2018	2.65%
Q2 2018	2.88%
Q3 2018	4.90%
Q4 2018	-1.76%

Quarter end	1-quarter return
Q1 2019	1.36%
Q2 2019	-1.11%
Q3 2019	-0.31%
Q4 2019	-0.03%
Q1 2020	-9.65%
Q2 2020	3.08%
Q3 2020	1.82%
Q4 2020	4.20%
Q1 2021	4.43%
Q2 2021	7.70%
Q3 2021	2.60%
Q4 2021	6.42%
Q1 2022*	4.12%

\*Preliminary figure

# Private debt

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Private debt

IRRs by vintage

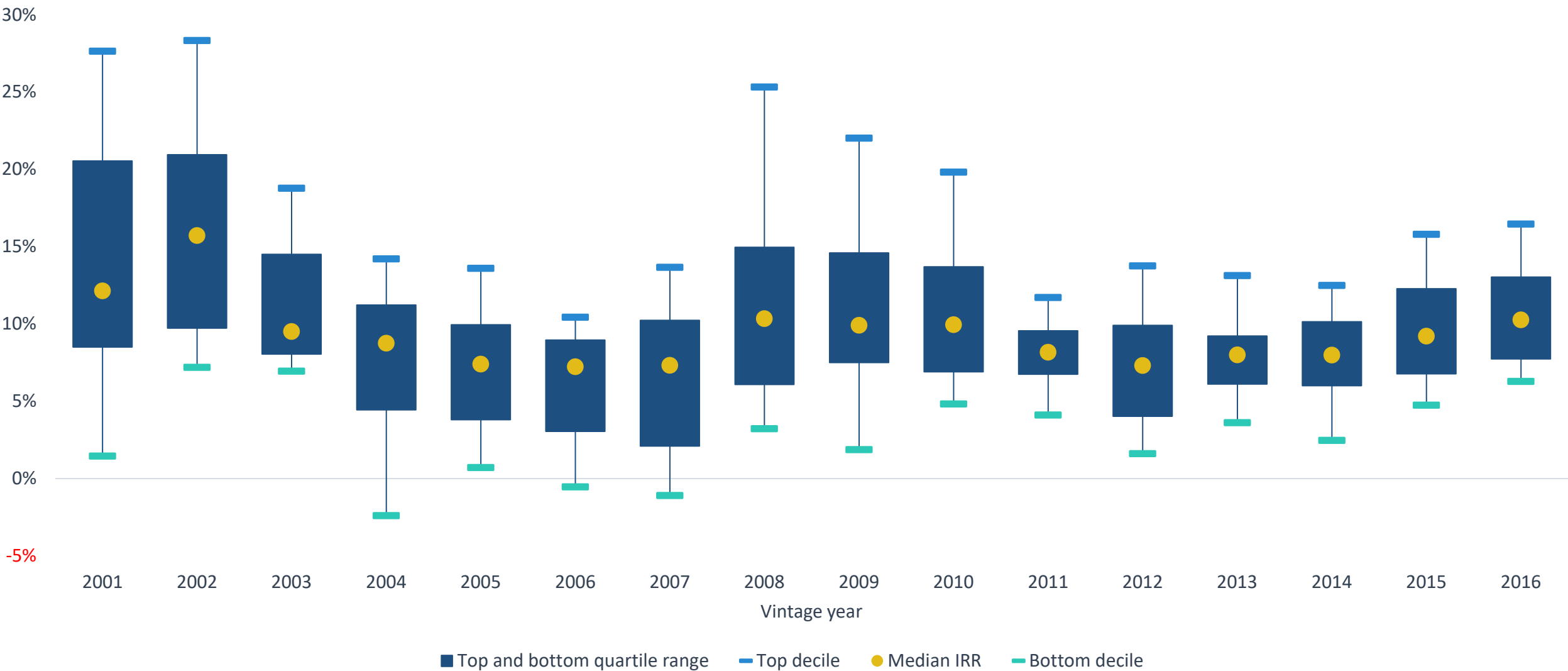
Pooled IRRs				IRR quantiles						
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	10.16%	13.11%	6	53.02%	25.06%	10.65%	8.16%	5.51%	20.55%	12
1998	3.40%	4.10%	3	11.80%	9.30%	5.69%	3.80%	1.96%	6.90%	15
1999	12.47%	13.16%	4	20.51%	17.53%	12.69%	9.55%	7.75%	6.94%	12
2000	8.88%	4.65%	7	18.76%	15.96%	8.73%	6.72%	1.79%	9.77%	16
2001	25.56%	22.10%	7	27.65%	20.55%	12.13%	8.50%	1.45%	10.88%	16
2002	16.02%	18.05%	11	28.33%	20.95%	15.71%	9.73%	7.19%	18.51%	14
2003	13.45%	13.30%	8	18.77%	14.50%	9.50%	8.05%	6.94%	6.33%	17
2004	6.25%	7.30%	10	14.21%	11.22%	8.76%	4.44%	-2.40%	9.08%	20
2005	8.49%	9.62%	15	13.60%	9.95%	7.40%	3.80%	0.71%	6.34%	23
2006	6.74%	5.64%	28	10.43%	8.96%	7.23%	3.06%	-0.54%	5.77%	35
2007	5.72%	5.74%	27	13.66%	10.24%	7.32%	2.10%	-1.10%	8.76%	31
2008	13.08%	11.42%	29	25.33%	14.96%	10.34%	6.09%	3.22%	17.27%	42
2009	8.86%	10.35%	23	22.02%	14.60%	9.91%	7.50%	1.87%	10.65%	25
2010	13.57%	12.07%	33	19.82%	13.70%	9.95%	6.90%	4.83%	8.09%	40
2011	7.21%	7.36%	25	11.70%	9.55%	8.16%	6.75%	4.10%	6.07%	31
2012	6.76%	6.57%	36	13.75%	9.91%	7.30%	4.02%	1.61%	5.64%	47
2013	5.93%	6.92%	41	13.12%	9.23%	7.99%	6.11%	3.60%	6.43%	47
2014	6.39%	7.72%	52	12.49%	10.14%	7.98%	6.00%	2.46%	4.10%	45
2015	7.72%	6.80%	65	15.80%	12.28%	9.21%	6.77%	4.74%	5.14%	54
2016	10.03%	9.51%	53	16.45%	13.03%	10.26%	7.73%	6.28%	10.07%	48
2017	8.64%	9.00%	65	19.21%	13.54%	10.05%	7.87%	5.21%	7.75%	64
2018	9.17%	10.51%	64	22.25%	14.63%	10.23%	7.86%	5.44%	9.62%	59
2019	17.00%	14.78%	60	31.41%	20.08%	12.94%	9.20%	6.62%	10.12%	66
2020	17.31%	16.73%	37	47.24%	25.80%	14.32%	7.70%	1.25%	23.70%	48





Private debt

# IRR by vintage



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
1997	10.16%	9.43%	1.51	10.16%			6
1998	3.40%	8.54%	1.11	3.40%			3
1999	12.47%	7.87%	1.69	12.47%			4
2000	8.88%	7.59%	1.17	8.88%	6.93%	0.97	7
2001	25.56%	8.48%	1.60	25.56%	7.24%	1.40	7
2002	16.02%	9.51%	1.30	16.02%	7.71%	1.21	11
2003	13.45%	11.55%	1.35	13.45%	7.91%	1.23	8
2004	6.25%	10.41%	1.03	6.25%	6.94%	0.95	10
2005	8.49%	10.62%	1.23	8.49%	6.76%	1.02	15
2006	6.74%	10.67%	1.00	6.74%	6.99%	0.90	28
2007	5.72%	10.51%	0.95	5.72%	6.65%	0.85	27
2008	13.08%	11.60%	1.03	13.08%	7.24%	0.99	29
2009	8.86%	16.96%	0.83	8.86%	9.83%	1.00	23
2010	13.57%	15.02%	0.97	13.57%	6.70%	1.21	33
2011	7.21%	14.73%	0.78	7.21%	5.97%	1.03	25
2012	6.76%	15.69%	0.78	6.76%	6.07%	1.05	36
2013	5.93%	15.79%	0.82	5.93%	5.18%	1.03	41
2014	6.39%	14.80%	0.77	6.39%	4.71%	1.03	52
2015	7.72%	14.80%	0.81	7.72%	5.58%	1.05	65
2016	10.03%	18.30%	0.84	10.03%	7.72%	1.09	53
2017	8.64%	17.57%	0.81	8.64%	5.80%	1.05	65
2018	9.17%	16.98%	0.80	9.17%	5.16%	1.05	64
2019	17.00%	23.14%	0.92	17.00%	6.93%	1.13	60
2020	17.31%	28.37%	0.93	17.31%	8.31%	1.07	37

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Private debt

# Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.62x	1.62x	0.00x	1.83x	1.83x	0.00x	6
1998	1.19x	1.18x	0.01x	1.22x	1.20x	0.02x	3
1999	1.50x	1.49x	0.00x	1.57x	1.56x	0.01x	4
2000	1.36x	1.34x	0.01x	1.21x	1.20x	0.01x	7
2001	2.03x	2.03x	0.00x	2.06x	2.06x	0.00x	7
2002	1.77x	1.73x	0.04x	1.74x	1.71x	0.03x	11
2003	1.83x	1.83x	0.00x	1.92x	1.92x	0.00x	8
2004	1.30x	1.28x	0.01x	1.39x	1.37x	0.02x	10
2005	1.57x	1.49x	0.08x	1.79x	1.62x	0.18x	15
2006	1.38x	1.30x	0.08x	1.32x	1.23x	0.09x	28
2007	1.22x	1.21x	0.01x	1.25x	1.23x	0.02x	27
2008	1.62x	1.58x	0.04x	1.50x	1.45x	0.05x	29
2009	1.38x	1.33x	0.05x	1.39x	1.34x	0.06x	23
2010	1.49x	1.42x	0.07x	1.48x	1.37x	0.11x	33
2011	1.31x	1.09x	0.22x	1.31x	1.10x	0.21x	25
2012	1.29x	1.11x	0.18x	1.29x	1.03x	0.26x	36
2013	1.21x	1.00x	0.21x	1.26x	0.98x	0.28x	41
2014	1.27x	0.80x	0.47x	1.32x	0.88x	0.44x	52
2015	1.26x	0.69x	0.56x	1.24x	0.69x	0.55x	65
2016	1.26x	0.52x	0.74x	1.25x	0.59x	0.66x	53
2017	1.21x	0.46x	0.75x	1.21x	0.47x	0.74x	65
2018	1.19x	0.24x	0.95x	1.21x	0.37x	0.84x	64
2019	1.24x	0.33x	0.91x	1.20x	0.32x	0.88x	60
2020	1.12x	0.16x	0.96x	1.13x	0.20x	0.93x	37

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Private debt

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	
1997		1.73x	1.59x	1.43x			1.73x	1.59x	1.43x		6
1998			1.25x					1.24x			3
1999		1.59x	1.47x	1.45x			1.59x	1.44x	1.40x		4
2000		1.51x	1.29x	1.11x			1.51x	1.24x	1.09x		7
2001		2.47x	1.88x	1.59x			2.47x	1.88x	1.59x		7
2002	2.42x	1.89x	1.69x	1.43x	1.33x	2.21x	1.89x	1.69x	1.43x	1.33x	11
2003		1.77x	1.54x	1.47x			1.77x	1.54x	1.47x		8
2004	1.92x	1.65x	1.54x	1.17x	0.65x	1.91x	1.65x	1.48x	1.17x	0.63x	10
2005	1.57x	1.53x	1.34x	1.25x	0.91x	1.56x	1.51x	1.34x	1.22x	0.81x	15
2006	1.68x	1.41x	1.27x	1.12x	0.87x	1.68x	1.34x	1.25x	1.12x	0.83x	28
2007	1.68x	1.53x	1.24x	1.07x	0.73x	1.68x	1.49x	1.23x	1.06x	0.70x	27
2008	1.99x	1.72x	1.34x	1.19x	1.04x	1.99x	1.68x	1.33x	1.15x	1.02x	29
2009	1.90x	1.54x	1.43x	1.20x	1.06x	1.81x	1.54x	1.33x	1.16x	0.99x	23
2010	1.75x	1.60x	1.40x	1.32x	1.23x	1.71x	1.51x	1.32x	1.18x	1.13x	33
2011	1.67x	1.47x	1.28x	1.14x	0.99x	1.38x	1.20x	1.13x	0.90x	0.67x	25
2012	1.61x	1.39x	1.29x	1.13x	1.05x	1.38x	1.24x	1.09x	0.90x	0.63x	36
2013	1.70x	1.34x	1.24x	1.11x	0.96x	1.36x	1.15x	1.05x	0.81x	0.59x	41
2014	1.68x	1.43x	1.27x	1.09x	1.01x	1.26x	1.04x	0.84x	0.62x	0.36x	52
2015	1.44x	1.37x	1.22x	1.13x	0.99x	1.06x	0.91x	0.73x	0.48x	0.34x	65
2016	1.45x	1.33x	1.25x	1.13x	1.05x	0.99x	0.75x	0.52x	0.30x	0.14x	53
2017	1.43x	1.32x	1.19x	1.12x	1.01x	0.78x	0.61x	0.46x	0.27x	0.15x	65
2018	1.43x	1.28x	1.15x	1.10x	1.03x	0.75x	0.46x	0.31x	0.11x	0.07x	64
2019	1.41x	1.26x	1.16x	1.10x	1.04x	0.65x	0.46x	0.26x	0.09x	0.04x	60
2020	1.23x	1.17x	1.11x	1.08x	0.99x	0.45x	0.27x	0.11x	0.02x	0.00x	37

Private debt

Quarterly return

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

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

Quarter end	1-quarter return
Q1 2013	5.22%
Q2 2013	2.38%
Q3 2013	3.44%
Q4 2013	1.14%
Q1 2014	3.98%
Q2 2014	2.29%
Q3 2014	2.54%
Q4 2014	1.79%
Q1 2015	5.49%
Q2 2015	-0.80%
Q3 2015	0.31%
Q4 2015	-0.08%
Q1 2016	2.02%
Q2 2016	0.37%
Q3 2016	4.60%
Q4 2016	1.95%
Q1 2017	2.19%
Q2 2017	2.86%
Q3 2017	2.15%
Q4 2017	3.80%
Q1 2018	3.26%
Q2 2018	-0.30%
Q3 2018	-0.56%
Q4 2018	0.97%

Quarter end	1-quarter return
Q1 2019	1.48%
Q2 2019	1.45%
Q3 2019	1.52%
Q4 2019	2.22%
Q1 2020	-6.94%
Q2 2020	2.53%
Q3 2020	2.95%
Q4 2020	4.17%
Q1 2021	4.53%
Q2 2021	7.67%
Q3 2021	0.58%
Q4 2021	3.18%
Q1 2022*	0.57%

\*Preliminary figure

# Funds of funds

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Funds of funds

# IRRs by vintage

Pooled IRRs

IRR quantiles

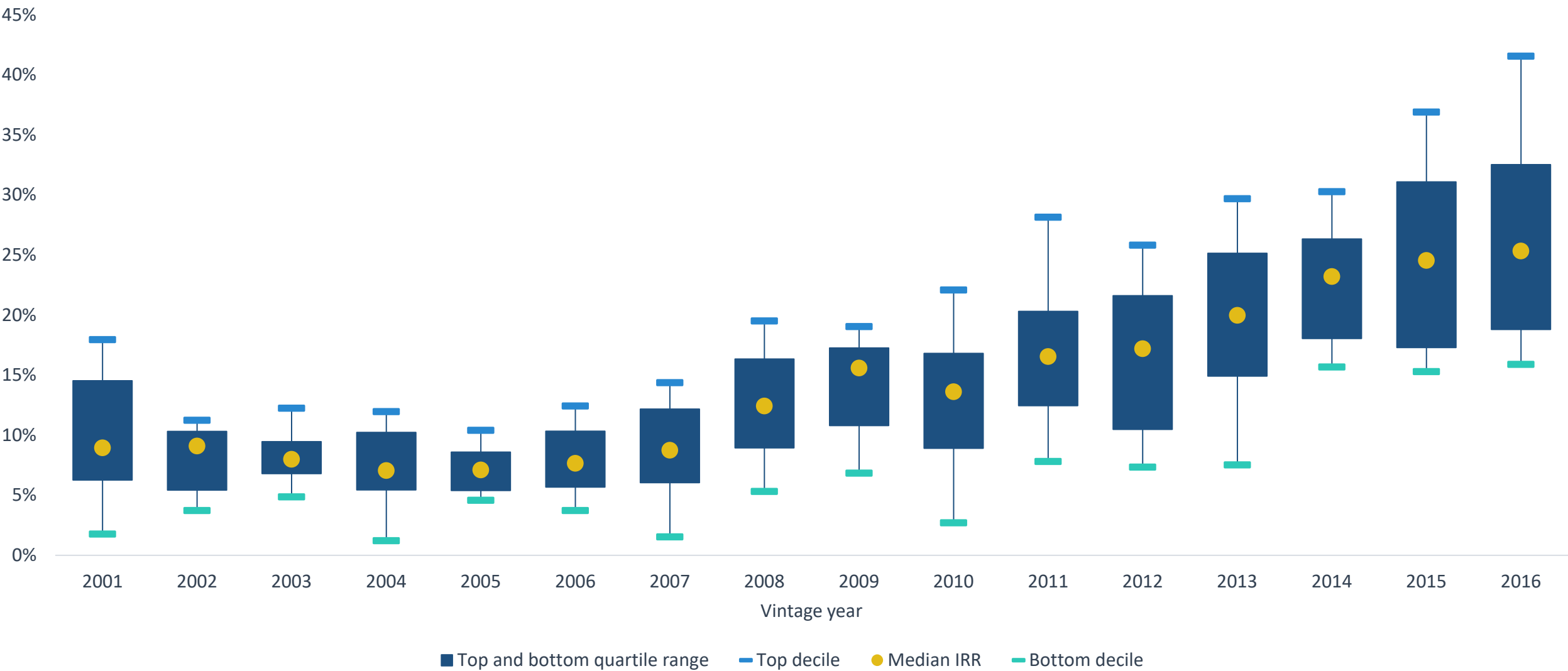
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	-13.89%	-13.86%	2	77.88%	21.72%	12.20%	3.03%	-4.14%	29.64%	19
1998	7.86%	7.64%	3	19.48%	9.89%	6.99%	3.71%	1.72%	8.47%	15
1999	5.50%	4.95%	8	16.03%	11.64%	5.20%	2.35%	0.02%	5.88%	33
2000	5.59%	6.34%	9	13.27%	10.60%	6.70%	3.71%	0.78%	5.55%	39
2001	10.68%	7.77%	9	17.95%	14.53%	8.94%	6.27%	1.76%	9.14%	35
2002	8.08%	7.72%	3	11.23%	10.32%	9.10%	5.43%	3.72%	5.57%	22
2003	7.29%	5.81%	7	12.23%	9.47%	8.00%	6.79%	4.86%	4.04%	24
2004	8.31%	8.18%	9	11.96%	10.23%	7.06%	5.45%	1.21%	7.88%	43
2005	7.27%	7.32%	18	10.40%	8.59%	7.10%	5.40%	4.58%	10.83%	61
2006	8.84%	8.40%	36	12.43%	10.34%	7.66%	5.68%	3.73%	3.80%	68
2007	10.25%	9.16%	42	14.37%	12.18%	8.75%	6.05%	1.53%	6.43%	78
2008	4.05%	11.76%	38	19.50%	16.34%	12.42%	8.94%	5.31%	6.00%	64
2009	14.11%	13.64%	30	19.03%	17.26%	15.60%	10.80%	6.83%	5.54%	38
2010	14.07%	14.66%	32	22.08%	16.81%	13.61%	8.91%	2.70%	7.04%	46
2011	16.61%	18.29%	42	28.14%	20.30%	16.55%	12.46%	7.80%	7.36%	49
2012	18.36%	18.10%	40	25.82%	21.61%	17.20%	10.48%	7.34%	7.79%	39
2013	18.96%	18.89%	45	29.68%	25.15%	19.98%	14.91%	7.52%	8.42%	38
2014	20.45%	22.43%	42	30.27%	26.34%	23.20%	18.05%	15.68%	6.11%	39
2015	25.87%	24.11%	43	36.90%	31.09%	24.55%	17.30%	15.28%	9.64%	48
2016	24.98%	26.08%	32	41.55%	32.53%	25.34%	18.80%	15.88%	10.91%	34
2017	34.51%	33.94%	29	46.56%	36.95%	28.00%	22.72%	17.29%	12.44%	27
2018	28.75%	31.35%	30	46.22%	35.76%	27.80%	19.20%	8.66%	14.44%	35
2019	41.41%	35.68%	26	73.47%	49.79%	41.91%	24.82%	14.48%	27.18%	29
2020	50.21%	32.00%	18	87.47%	63.70%	28.11%	10.15%	-3.09%	50.30%	22

Source: PitchBook | Geography: Global | Data as of December 31, 2021



Funds of funds

# IRR by vintage





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
1997	-13.89%	9.43%	0.26	-13.89%			2
1998	7.86%	8.54%	1.25	7.86%			3
1999	5.50%	7.87%	1.05	5.50%	7.45%	0.92	8
2000	5.59%	7.59%	0.99	5.59%	6.81%	0.90	9
2001	10.68%	8.48%	1.11	10.68%	7.83%	1.03	9
2002	8.08%	9.51%	1.06	8.08%	8.98%	1.02	3
2003	7.29%	11.55%	1.01	7.29%	10.71%	1.07	7
2004	8.31%	10.41%	1.01	8.31%	9.09%	1.09	9
2005	7.27%	10.62%	0.93	7.27%	8.88%	1.04	18
2006	8.84%	10.67%	0.88	8.84%	8.31%	1.04	36
2007	10.25%	10.51%	0.88	10.25%	7.68%	1.06	42
2008	4.05%	11.60%	0.57	4.05%	8.16%	0.70	38
2009	14.11%	16.96%	0.96	14.11%	13.68%	1.17	30
2010	14.07%	15.02%	0.98	14.07%	10.91%	1.19	32
2011	16.61%	14.73%	1.07	16.61%	10.26%	1.29	42
2012	18.36%	15.69%	1.16	18.36%	11.59%	1.39	40
2013	18.96%	15.79%	1.15	18.96%	11.39%	1.33	45
2014	20.45%	14.80%	1.17	20.45%	10.64%	1.35	42
2015	25.87%	14.80%	1.26	25.87%	11.23%	1.42	43
2016	24.98%	18.30%	1.19	24.98%	14.96%	1.33	32
2017	34.51%	17.57%	1.24	34.51%	13.93%	1.34	29
2018	28.75%	16.98%	1.12	28.75%	11.96%	1.21	30
2019	41.41%	23.14%	1.17	41.41%	18.26%	1.23	26
2020	50.21%	28.37%	1.16	50.21%	23.53%	1.21	18

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Funds of funds

# Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	0.31x	0.31x	0.00x	0.32x	0.32x	0.00x	2
1998	1.49x	1.48x	0.01x	1.51x	1.50x	0.01x	3
1999	1.36x	1.33x	0.03x	1.34x	1.29x	0.05x	8
2000	1.34x	1.32x	0.02x	1.38x	1.36x	0.02x	9
2001	1.65x	1.56x	0.09x	1.52x	1.44x	0.08x	9
2002	1.46x	1.45x	0.01x	1.45x	1.44x	0.01x	3
2003	1.57x	1.54x	0.03x	1.42x	1.38x	0.04x	7
2004	1.59x	1.48x	0.11x	1.63x	1.48x	0.15x	9
2005	1.51x	1.44x	0.08x	1.54x	1.44x	0.10x	18
2006	1.73x	1.50x	0.24x	1.70x	1.49x	0.21x	36
2007	1.85x	1.47x	0.38x	1.71x	1.41x	0.30x	42
2008	1.28x	0.97x	0.31x	1.97x	1.42x	0.55x	38
2009	2.13x	1.32x	0.81x	2.03x	1.37x	0.66x	30
2010	2.11x	1.36x	0.75x	2.28x	1.32x	0.96x	32
2011	2.26x	1.22x	1.04x	2.51x	1.35x	1.17x	42
2012	2.43x	1.01x	1.42x	2.39x	1.01x	1.37x	40
2013	2.22x	0.83x	1.39x	2.25x	0.86x	1.40x	45
2014	2.21x	0.70x	1.51x	2.45x	0.78x	1.68x	42
2015	2.22x	0.42x	1.80x	1.97x	0.37x	1.60x	43
2016	2.05x	0.36x	1.69x	2.06x	0.35x	1.72x	32
2017	1.84x	0.24x	1.61x	1.87x	0.25x	1.62x	29
2018	1.67x	0.15x	1.53x	1.71x	0.19x	1.52x	30
2019	1.57x	0.07x	1.50x	1.45x	0.04x	1.41x	26
2020	1.37x	0.06x	1.31x	1.30x	0.08x	1.21x	18

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Funds of funds

# 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	
1997			0.32x					0.32x			2
1998			1.56x					1.56x			3
1999		1.46x	1.24x	1.14x			1.46x	1.21x	1.14x		8
2000		1.57x	1.50x	1.21x			1.57x	1.48x	1.19x		9
2001		1.70x	1.64x	1.48x			1.70x	1.48x	1.33x		9
2002			1.41x					1.41x			3
2003		1.63x	1.51x	1.31x			1.55x	1.49x	1.30x		7
2004		1.62x	1.55x	1.40x			1.50x	1.49x	1.36x		9
2005	1.84x	1.67x	1.53x	1.39x	1.32x	1.70x	1.59x	1.44x	1.32x	1.20x	18
2006	2.15x	1.86x	1.68x	1.44x	1.29x	1.83x	1.67x	1.52x	1.27x	1.19x	36
2007	2.35x	1.99x	1.59x	1.38x	0.98x	1.90x	1.72x	1.42x	1.17x	0.80x	42
2008	3.17x	2.34x	1.88x	1.41x	0.99x	2.16x	1.76x	1.38x	1.01x	0.64x	38
2009	2.61x	2.41x	2.01x	1.76x	1.48x	2.05x	1.64x	1.36x	1.05x	0.87x	30
2010	4.41x	2.40x	1.87x	1.62x	1.27x	1.95x	1.52x	1.29x	1.08x	0.78x	32
2011	4.65x	2.66x	2.08x	1.66x	1.37x	2.34x	1.53x	1.20x	1.01x	0.61x	42
2012	3.67x	3.25x	2.03x	1.43x	1.30x	1.73x	1.20x	0.99x	0.62x	0.40x	40
2013	3.59x	2.60x	2.25x	1.61x	1.24x	1.44x	1.07x	0.80x	0.55x	0.24x	45
2014	4.01x	3.02x	2.23x	1.75x	1.32x	1.17x	0.95x	0.64x	0.42x	0.25x	42
2015	3.26x	2.62x	2.03x	1.68x	1.29x	0.93x	0.53x	0.42x	0.28x	0.15x	43
2016	2.89x	2.43x	1.93x	1.66x	1.42x	0.63x	0.54x	0.26x	0.15x	0.06x	32
2017	2.29x	2.18x	1.88x	1.56x	1.31x	0.57x	0.28x	0.12x	0.08x	0.03x	29
2018	2.09x	1.84x	1.66x	1.42x	1.32x	0.38x	0.20x	0.10x	0.03x	0.00x	30
2019	1.79x	1.64x	1.44x	1.29x	1.12x	0.13x	0.07x	0.03x	0.00x	0.00x	26
2020	1.82x	1.36x	1.24x	1.04x	0.77x	0.16x	0.10x	0.03x	0.00x	0.00x	17

Source: PitchBook | Geography: Global | Data as of December 31, 2021

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	-10.12%	Q1 2007	1.61%	Q1 2013	2.52%	Q1 2019	2.52%
Q2 2001	-5.57%	Q2 2007	10.77%	Q2 2013	3.26%	Q2 2019	3.40%
Q3 2001	-10.00%	Q3 2007	3.72%	Q3 2013	2.74%	Q3 2019	0.81%
Q4 2001	-5.99%	Q4 2007	3.73%	Q4 2013	3.82%	Q4 2019	4.37%
Q1 2002	-9.57%	Q1 2008	8.88%	Q1 2014	2.26%	Q1 2020	-0.71%
Q2 2002	-5.84%	Q2 2008	-2.04%	Q2 2014	6.83%	Q2 2020	3.88%
Q3 2002	-7.21%	Q3 2008	-6.48%	Q3 2014	1.48%	Q3 2020	8.25%
Q4 2002	-5.03%	Q4 2008	-10.57%	Q4 2014	1.60%	Q4 2020	11.94%
Q1 2003	-8.48%	Q1 2009	-2.05%	Q1 2015	4.10%	Q1 2021	12.40%
Q2 2003	4.03%	Q2 2009	-4.87%	Q2 2015	5.75%	Q2 2021	16.96%
Q3 2003	0.10%	Q3 2009	5.28%	Q3 2015	2.59%	Q3 2021	7.74%
Q4 2003	-5.75%	Q4 2009	2.84%	Q4 2015	0.04%	Q4 2021	3.52%
Q1 2004	4.45%	Q1 2010	5.14%	Q1 2016	1.41%	Q1 2022*	1.43%
Q2 2004	1.67%	Q2 2010	-0.79%	Q2 2016	1.03%	*Preliminary figure	
Q3 2004	4.82%	Q3 2010	4.80%	Q3 2016	4.08%		
Q4 2004	6.68%	Q4 2010	2.68%	Q4 2016	0.81%		
Q1 2005	2.02%	Q1 2011	3.60%	Q1 2017	3.26%		
Q2 2005	5.92%	Q2 2011	5.67%	Q2 2017	3.88%		
Q3 2005	5.62%	Q3 2011	-1.86%	Q3 2017	3.65%		
Q4 2005	7.57%	Q4 2011	-0.23%	Q4 2017	1.57%		
Q1 2006	4.90%	Q1 2012	5.33%	Q1 2018	5.35%		
Q2 2006	6.13%	Q2 2012	0.98%	Q2 2018	5.52%		
Q3 2006	4.65%	Q3 2012	-0.46%	Q3 2018	3.06%		
Q4 2006	8.53%	Q4 2012	3.16%	Q4 2018	1.49%		

# Secondaries

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Secondaries

IRRs by vintage

Pooled IRRs

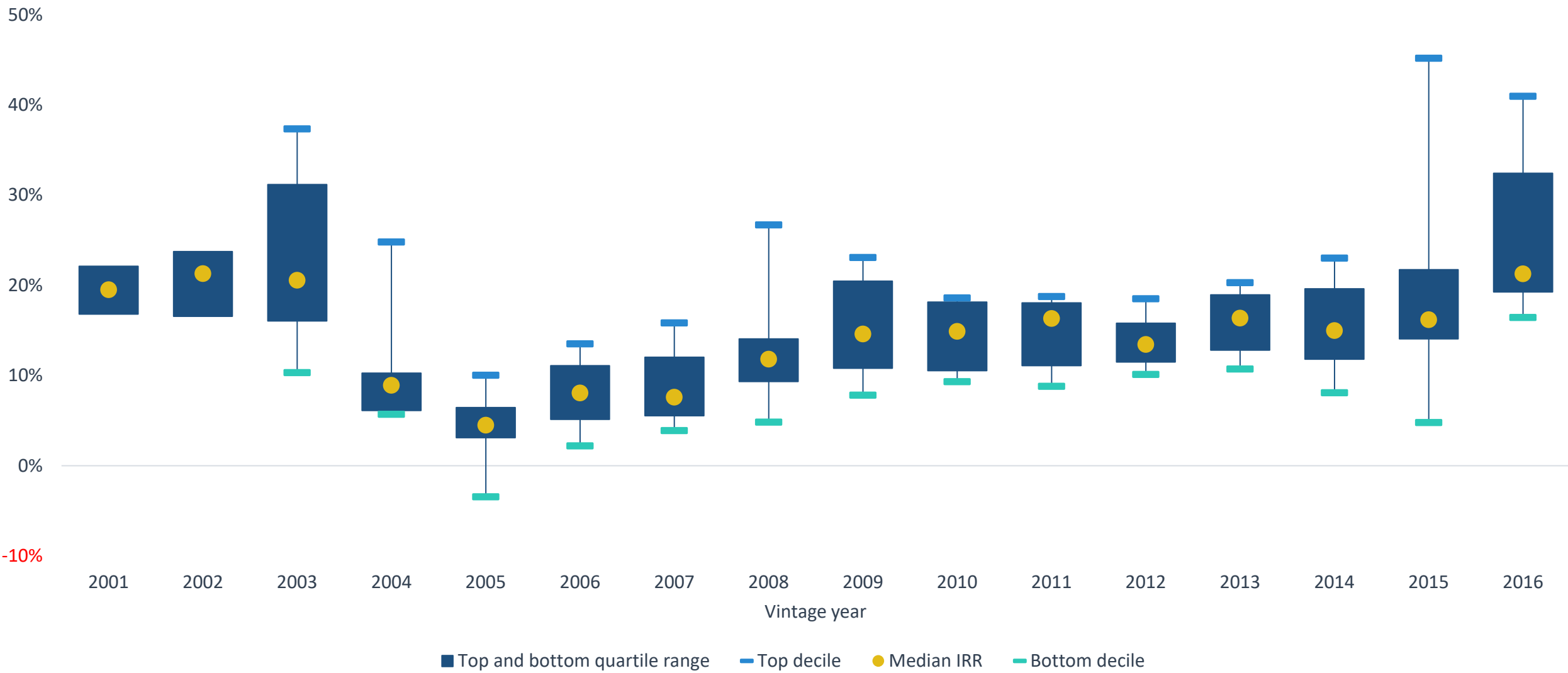
IRR quantiles

Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	16.60%	16.60%	1			9.61%			9.89%	2
1998	9.03%	11.69%	3		7.89%	6.19%	4.56%		8.28%	8
1999	7.31%	5.49%	3	31.00%	17.15%	8.62%	0.85%	-3.09%	14.86%	11
2000	15.09%	14.35%	3		19.45%	18.60%	10.90%		6.63%	7
2001	14.10%	16.01%	2		22.11%	19.52%	16.80%		5.50%	5
2002	16.07%	18.06%	4		23.76%	21.29%	16.57%		13.44%	8
2003	37.92%	37.92%	1	37.33%	31.18%	20.56%	16.04%	10.33%	17.15%	10
2004	11.16%	11.09%	5	24.80%	10.28%	8.90%	6.13%	5.70%	12.06%	11
2005	6.54%	6.11%	10	10.03%	6.46%	4.49%	3.10%	-3.45%	5.80%	14
2006	6.37%	6.93%	10	13.50%	11.10%	8.06%	5.14%	2.20%	4.92%	16
2007	5.85%	9.71%	9	15.83%	12.04%	7.58%	5.54%	3.90%	8.82%	12
2008	11.19%	11.70%	16	26.69%	14.07%	11.82%	9.34%	4.82%	8.39%	14
2009	11.40%	10.49%	11	23.09%	20.48%	14.60%	10.80%	7.82%	7.83%	10
2010	11.94%	13.52%	5	18.60%	18.14%	14.90%	10.54%	9.31%	9.27%	12
2011	15.09%	13.37%	12	18.74%	18.06%	16.31%	11.10%	8.80%	4.47%	13
2012	14.73%	12.18%	11	18.50%	15.81%	13.43%	11.50%	10.10%	3.60%	13
2013	9.20%	11.01%	14	20.28%	18.96%	16.36%	12.82%	10.71%	10.92%	18
2014	17.13%	20.04%	12	23.02%	19.63%	14.98%	11.81%	8.09%	9.21%	13
2015	13.39%	19.16%	10	45.17%	21.74%	16.19%	14.08%	4.78%	15.38%	10
2016	24.09%	26.26%	20	40.96%	32.44%	21.27%	19.27%	16.44%	11.86%	24
2017	21.45%	18.52%	14	34.74%	28.81%	24.42%	20.51%	12.33%	15.96%	18
2018	42.90%	34.96%	12	87.72%	70.47%	58.80%	28.98%	12.61%	30.10%	14
2019	53.23%	50.11%	11	67.89%	64.14%	42.65%	26.65%	25.34%	20.16%	12
2020	66.82%	56.05%	10	115.84%	92.27%	89.79%	35.18%	12.50%	42.49%	13



Secondaries

# IRR by vintage



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
1997	16.60%	9.43%	1.36	16.60%			1
1998	9.03%	8.54%	1.27	9.03%			3
1999	7.31%	7.87%	1.23	7.31%	7.45%	1.13	3
2000	15.09%	7.59%	1.38	15.09%	6.81%	1.22	3
2001	14.10%	8.48%	1.19	14.10%	7.83%	1.08	2
2002	16.07%	9.51%	1.23	16.07%	8.98%	1.14	4
2003	37.92%	11.55%	1.56	37.92%	10.71%	1.44	1
2004	11.16%	10.41%	1.15	11.16%	9.09%	1.18	5
2005	6.54%	10.62%	0.94	6.54%	8.88%	1.03	10
2006	6.37%	10.67%	0.91	6.37%	8.31%	1.00	10
2007	5.85%	10.51%	0.79	5.85%	7.68%	0.88	9
2008	11.19%	11.60%	0.91	11.19%	8.16%	1.03	16
2009	11.40%	16.96%	0.89	11.40%	13.68%	1.01	11
2010	11.94%	15.02%	0.94	11.94%	10.91%	1.08	5
2011	15.09%	14.73%	1.01	15.09%	10.26%	1.16	12
2012	14.73%	15.69%	1.02	14.73%	11.59%	1.14	11
2013	9.20%	15.79%	0.87	9.20%	11.39%	0.98	14
2014	17.13%	14.80%	1.04	17.13%	10.64%	1.13	12
2015	13.39%	14.80%	0.90	13.39%	11.23%	1.00	10
2016	24.09%	18.30%	1.12	24.09%	14.96%	1.23	20
2017	21.45%	17.57%	1.04	21.45%	13.93%	1.13	14
2018	42.90%	16.98%	1.21	42.90%	11.96%	1.28	12
2019	53.23%	23.14%	1.31	53.23%	18.26%	1.38	11
2020	66.82%	28.37%	1.21	66.82%	23.53%	1.26	10



Secondaries

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.59x	1.59x	0.00x	1.59x	1.59x	0.00x	1
1998	1.34x	1.33x	0.01x	1.38x	1.35x	0.03x	3
1999	1.24x	1.24x	0.00x	1.19x	1.19x	0.00x	3
2000	1.64x	1.64x	0.00x	1.62x	1.62x	0.00x	3
2001	1.55x	1.54x	0.01x	1.62x	1.61x	0.00x	2
2002	1.50x	1.50x	0.00x	1.53x	1.52x	0.00x	4
2003	1.79x	1.79x	0.00x	1.79x	1.79x	0.00x	1
2004	1.53x	1.47x	0.06x	1.52x	1.46x	0.05x	5
2005	1.40x	1.38x	0.03x	1.38x	1.35x	0.03x	10
2006	1.37x	1.31x	0.06x	1.42x	1.29x	0.13x	10
2007	1.30x	1.15x	0.15x	1.49x	1.36x	0.14x	9
2008	1.56x	1.44x	0.13x	1.60x	1.45x	0.15x	16
2009	1.56x	1.45x	0.12x	1.51x	1.35x	0.16x	11
2010	1.46x	1.39x	0.07x	1.54x	1.40x	0.15x	5
2011	1.67x	1.43x	0.24x	1.64x	1.29x	0.35x	12
2012	1.59x	1.31x	0.28x	1.48x	1.15x	0.33x	11
2013	1.38x	1.01x	0.37x	1.52x	0.99x	0.53x	14
2014	1.58x	0.95x	0.63x	1.91x	1.29x	0.62x	12
2015	1.43x	0.60x	0.83x	1.48x	0.95x	0.53x	10
2016	1.72x	0.68x	1.03x	1.86x	0.74x	1.12x	20
2017	1.55x	0.45x	1.10x	1.50x	0.43x	1.07x	14
2018	1.56x	0.21x	1.35x	1.73x	0.32x	1.41x	12
2019	1.68x	0.39x	1.28x	1.67x	0.33x	1.34x	11
2020	1.45x	0.18x	1.27x	1.49x	0.15x	1.34x	10

Source: PitchBook | Geography: Global | Data as of December 31, 2021

Secondaries

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	
1997			1.59x					1.59x			1
1998			1.32x					1.32x			3
1999			1.25x					1.25x			3
2000			1.74x					1.74x			3
2001			1.62x					1.62x			2
2002		1.58x	1.54x	1.49x			1.57x	1.54x	1.49x		4
2003			1.79x					1.79x			1
2004		1.66x	1.47x	1.41x			1.57x	1.39x	1.35x		5
2005	1.71x	1.60x	1.33x	1.29x	1.09x	1.70x	1.42x	1.33x	1.27x	1.09x	10
2006	1.96x	1.55x	1.40x	1.23x	1.10x	1.53x	1.43x	1.29x	1.16x	1.08x	10
2007		1.43x	1.36x	1.32x			1.36x	1.32x	1.11x		9
2008	1.83x	1.75x	1.51x	1.41x	1.30x	1.68x	1.53x	1.45x	1.31x	1.07x	16
2009	1.76x	1.74x	1.37x	1.22x	1.05x	1.74x	1.57x	1.37x	1.11x	0.78x	11
2010		1.62x	1.50x	1.49x			1.46x	1.41x	1.36x		5
2011	2.08x	1.69x	1.62x	1.45x	1.38x	1.52x	1.44x	1.25x	1.14x	1.10x	12
2012	1.71x	1.66x	1.40x	1.35x	1.25x	1.45x	1.35x	1.16x	1.00x	0.86x	11
2013	1.79x	1.72x	1.46x	1.38x	1.28x	1.19x	1.15x	1.02x	0.86x	0.70x	14
2014	1.72x	1.66x	1.51x	1.43x	1.33x	1.22x	1.16x	1.05x	0.83x	0.62x	12
2015	1.94x	1.64x	1.39x	1.34x	1.22x	1.43x	1.35x	0.89x	0.63x	0.42x	10
2016	2.40x	1.96x	1.74x	1.52x	1.39x	1.41x	0.92x	0.64x	0.45x	0.31x	20
2017	1.66x	1.66x	1.61x	1.28x	1.17x	0.62x	0.53x	0.45x	0.30x	0.17x	14
2018	1.85x	1.69x	1.56x	1.39x	1.13x	0.56x	0.36x	0.17x	0.14x	0.04x	12
2019	1.79x	1.74x	1.69x	1.51x	1.26x	0.51x	0.40x	0.32x	0.18x	0.16x	11
2020	1.80x	1.74x	1.48x	1.26x	1.23x	0.32x	0.23x	0.08x	0.01x	0.00x	10

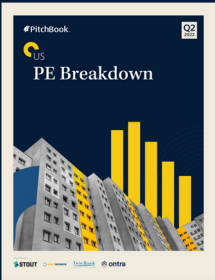
Secondaries

Quarterly return

Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return
Q1 2001	-3.16%	Q1 2007	4.20%	Q1 2013	3.21%	Q1 2019	2.44%
Q2 2001	-3.72%	Q2 2007	11.35%	Q2 2013	3.54%	Q2 2019	4.98%
Q3 2001	1.65%	Q3 2007	8.36%	Q3 2013	1.70%	Q3 2019	1.03%
Q4 2001	-3.32%	Q4 2007	4.26%	Q4 2013	4.93%	Q4 2019	3.19%
Q1 2002	4.02%	Q1 2008	1.71%	Q1 2014	3.52%	Q1 2020	-3.51%
Q2 2002	2.08%	Q2 2008	-2.72%	Q2 2014	1.84%	Q2 2020	-3.96%
Q3 2002	-6.33%	Q3 2008	1.70%	Q3 2014	2.56%	Q3 2020	3.03%
Q4 2002	-4.72%	Q4 2008	-6.06%	Q4 2014	2.75%	Q4 2020	11.01%
Q1 2003	-3.00%	Q1 2009	-8.97%	Q1 2015	2.39%	Q1 2021	7.85%
Q2 2003	1.35%	Q2 2009	-3.61%	Q2 2015	6.27%	Q2 2021	13.73%
Q3 2003	1.54%	Q3 2009	0.34%	Q3 2015	0.82%	Q3 2021	8.41%
Q4 2003	2.47%	Q4 2009	1.86%	Q4 2015	-0.06%	Q4 2021	8.44%
Q1 2004	8.86%	Q1 2010	1.33%	Q1 2016	0.01%	Q1 2022*	5.54%
Q2 2004	4.93%	Q2 2010	6.22%	Q2 2016	2.53%	*Preliminary figure	
Q3 2004	6.66%	Q3 2010	6.08%	Q3 2016	1.40%		
Q4 2004	6.11%	Q4 2010	5.19%	Q4 2016	3.09%		
Q1 2005	6.89%	Q1 2011	6.92%	Q1 2017	3.56%		
Q2 2005	2.03%	Q2 2011	5.62%	Q2 2017	4.54%		
Q3 2005	4.72%	Q3 2011	4.77%	Q3 2017	3.31%		
Q4 2005	2.03%	Q4 2011	-4.05%	Q4 2017	3.75%		
Q1 2006	8.03%	Q1 2012	4.11%	Q1 2018	2.63%		
Q2 2006	4.83%	Q2 2012	2.74%	Q2 2018	7.14%		
Q3 2006	3.79%	Q3 2012	4.91%	Q3 2018	3.72%		
Q4 2006	6.72%	Q4 2012	2.12%	Q4 2018	0.87%		

# Additional research

## Fund performance



### US PE Breakdown

Download the report [here](#)



### Global Markets Snapshot

Download the report [here](#)



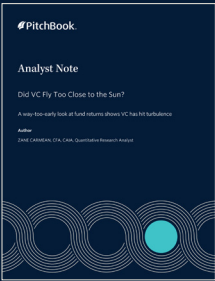
### Global Real Assets

Download the report [here](#)



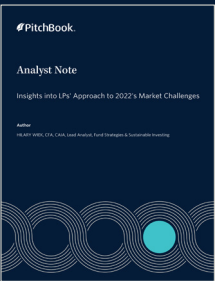
### Venture Monitor First Look

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### PitchBook Analyst Note: Did VC Fly Too Close to the Sun?

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### Insights into LPs' Approach to 2022's Market Challenges

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