



EUROPE

PitchBook Benchmarks

AS OF Q3 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.

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	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
Venture capital		Funds of funds
Real estate Real estate core Real estate core plus Real estate value added Real estate opportunistic Real estate distressed		Secondaries

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

Data composition

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

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

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

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

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

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

Definitions and calculation methodologies

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

PitchBook introduces new cash flow forecasting and commitment pacing models

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

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

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

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



Private capital

Private capital

Horizon IRRs

Strategy	Q3 2021	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	3.90%	32.88%	17.21%	16.34%	12.98%	10.36%	11.98%
Private equity	6.39%	49.82%	25.68%	22.67%	15.41%	11.96%	14.17%
Venture capital	9.36%	36.11%	19.05%	16.58%	13.75%	11.58%	9.38%
Real estate	1.69%	11.98%	6.26%	9.05%	9.90%	5.02%	5.86%
Real assets	-2.91%	9.52%	8.98%	10.07%	8.39%	7.88%	9.76%
Private debt	-3.35%	6.85%	6.42%	5.93%	6.36%	6.07%	6.14%
Funds of funds	4.20%	35.77%	18.64%	14.73%	10.15%	6.50%	6.83%
Secondaries	11.20%	69.34%	15.35%	15.73%	12.74%	12.34%	12.86%
S&P 500	0.58%	30.00%	15.99%	16.90%	16.63%	10.37%	9.51%
Morningstar Europe	-0.89%	29.78%	9.06%	9.99%	9.16%	5.01%	7.90%
MSCI Europe Small Cap Growth	1.12%	31.74%	14.36%	14.60%	14.58%	9.11%	12.32%
Morningstar Developed Market Europe Real Estate	-1.62%	23.11%	6.19%	6.60%	9.40%	2.95%	9.10%
Morningstar US Real Assets	-0.43%	20.80%	5.52%	4.33%	3.76%	5.00%	6.72%
Bloomberg Barclays Pan-Europe High Yield	-1.66%	8.49%	4.59%	5.15%	6.21%	6.46%	9.80%

Source: PitchBook | Geography: Europe | Data as of September 30, 2021
Note: all public index values are total return CAGRs

Private capital

Equal-weighted horizon IRRs

Strategy	Q3 2021	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	2.52%	25.87%	14.26%	13.59%	11.47%	9.87%	11.17%
Private equity	7.62%	40.32%	21.82%	19.56%	14.19%	11.67%	14.24%
Venture capital	8.17%	39.95%	21.04%	16.16%	13.86%	11.92%	10.22%
Real estate	1.24%	11.06%	7.51%	8.95%	9.00%	6.23%	7.48%
Real assets	-0.47%	6.80%	5.73%	7.61%	6.71%	6.39%	7.40%
Private debt	-12.80%	9.08%	7.44%	7.16%	7.08%	6.68%	6.82%
Funds of funds	4.51%	39.11%	19.35%	16.72%	12.54%	10.33%	10.70%
Secondaries	5.79%	34.60%	10.29%	12.04%	11.42%	11.33%	11.77%
S&P 500	0.58%	30.00%	15.99%	16.90%	16.63%	10.37%	9.51%
Morningstar Europe	-0.89%	29.78%	9.06%	9.99%	9.16%	5.01%	7.90%
MSCI Europe Small Cap Growth	1.12%	31.74%	14.36%	14.60%	14.58%	9.11%	12.32%
Morningstar Developed Market Europe Real Estate	-1.62%	23.11%	6.19%	6.60%	9.40%	2.95%	9.10%
Morningstar US Real Assets	-0.43%	20.80%	5.52%	4.33%	3.76%	5.00%	6.72%
Bloomberg Barclays Pan-Europe High Yield	-1.66%	8.49%	4.59%	5.15%	6.21%	6.46%	9.80%

Source: PitchBook | Geography: Europe | Data as of September 30, 2021
Note: all public index values are total return CAGRs

Private equity

Private equity

IRR by vintage

Pooled IRRs

IRR quantiles

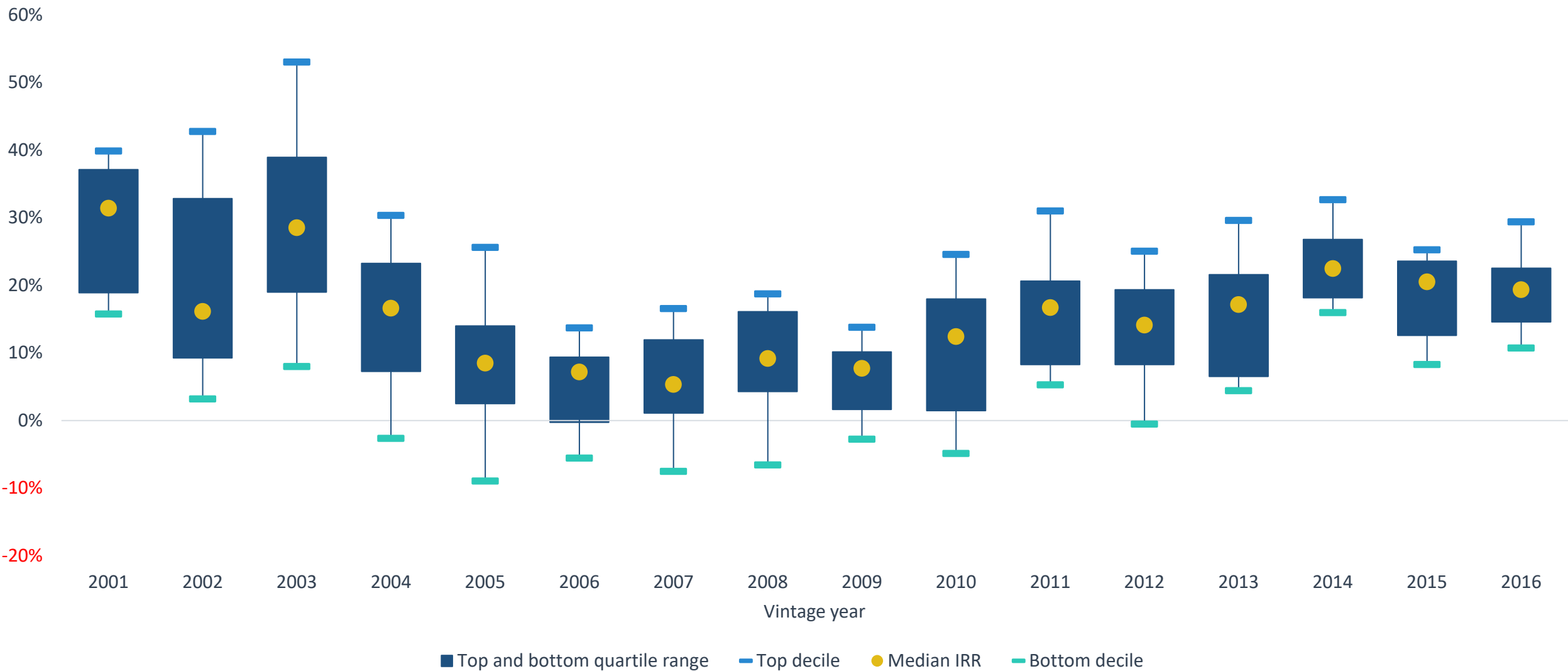
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	19.38%	23.15%	5	53.89%	34.92%	16.86%	8.53%	3.44%	23.90%	15
1998	14.98%	14.62%	3	27.67%	20.14%	15.09%	10.80%	6.71%	13.05%	16
1999	12.72%	11.80%	3	31.11%	22.70%	10.75%	5.68%	-3.24%	14.62%	15
2000	19.88%	19.31%	7	32.72%	28.59%	20.50%	7.71%	3.62%	11.89%	23
2001	34.21%	30.77%	7	39.86%	37.12%	31.41%	18.90%	15.74%	11.70%	15
2002	22.71%	23.20%	5	42.72%	32.84%	16.14%	9.25%	3.18%	19.97%	18
2003	21.81%	19.84%	5	53.00%	38.91%	28.50%	18.98%	7.99%	45.94%	24
2004	13.71%	16.26%	7	30.33%	23.25%	16.60%	7.27%	-2.64%	13.86%	10
2005	6.98%	5.25%	14	25.60%	14.00%	8.50%	2.49%	-8.96%	18.53%	25
2006	6.99%	5.02%	21	13.69%	9.39%	7.17%	-0.25%	-5.57%	8.02%	38
2007	6.91%	5.75%	18	16.56%	11.93%	5.33%	1.09%	-7.52%	10.29%	30
2008	12.09%	9.66%	26	18.71%	16.10%	9.18%	4.29%	-6.57%	20.83%	35
2009	5.41%	5.72%	10	13.78%	10.15%	7.72%	1.65%	-2.76%	21.14%	15
2010	7.47%	9.67%	14	24.56%	17.97%	12.41%	1.45%	-4.88%	11.67%	12
2011	15.32%	21.08%	13	30.99%	20.63%	16.70%	8.27%	5.26%	12.86%	18
2012	15.84%	12.83%	16	25.02%	19.36%	14.10%	8.27%	-0.52%	11.26%	19
2013	16.75%	14.23%	18	29.57%	21.57%	17.13%	6.52%	4.42%	10.41%	19
2014	21.58%	19.78%	13	32.64%	26.78%	22.46%	18.15%	15.95%	9.59%	12
2015	18.79%	14.39%	21	25.22%	23.56%	20.50%	12.59%	8.27%	6.96%	15
2016	22.47%	20.55%	26	29.37%	22.53%	19.35%	14.60%	10.72%	8.17%	24
2017	27.04%	26.47%	23	68.41%	49.46%	30.81%	18.03%	10.20%	24.89%	16
2018	36.76%	25.63%	24	54.25%	34.22%	24.01%	16.83%	1.47%	25.65%	24
2019	33.95%	35.76%	25	77.42%	34.42%	19.85%	7.01%	-10.73%	34.49%	23
2020	90.29%	44.64%	18	176.66%	107.57%	35.49%	-12.28%	-33.11%	101.82%	11

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



Private equity

IRR by vintage



Private equity

PMEs by vintage

S&P 500 index				Morningstar Europe Index			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	19.38%	9.33%	1.85	19.38%			5
1998	14.98%	8.44%	1.82	14.98%			3
1999	12.72%	7.75%	1.50	12.72%	6.21%	1.22	3
2000	19.88%	7.47%	1.66	19.88%	5.61%	1.35	7
2001	34.21%	8.36%	1.83	34.21%	6.48%	1.50	7
2002	22.71%	9.39%	1.39	22.71%	7.85%	1.13	5
2003	21.81%	11.46%	1.58	21.81%	9.44%	1.50	5
2004	13.71%	10.30%	1.37	13.71%	7.35%	1.43	7
2005	6.98%	10.49%	1.03	6.98%	6.71%	1.19	14
2006	6.99%	10.55%	0.93	6.99%	5.93%	1.22	21
2007	6.91%	10.37%	0.84	6.91%	4.48%	1.11	18
2008	12.09%	11.47%	0.95	12.09%	4.61%	1.29	26
2009	5.41%	16.92%	0.72	5.41%	10.76%	0.93	10
2010	7.47%	14.94%	0.79	7.47%	7.53%	1.03	14
2011	15.32%	14.63%	1.04	15.32%	6.82%	1.38	13
2012	15.84%	15.61%	1.07	15.84%	8.52%	1.37	16
2013	16.75%	15.70%	1.09	16.75%	7.67%	1.44	18
2014	21.58%	14.66%	1.24	21.58%	6.03%	1.59	13
2015	18.79%	14.64%	1.05	18.79%	7.78%	1.30	21
2016	22.47%	18.28%	1.10	22.47%	11.24%	1.32	26
2017	27.04%	17.51%	1.10	27.04%	11.17%	1.27	23
2018	36.76%	16.85%	1.15	36.76%	7.70%	1.26	24
2019	33.95%	23.58%	1.02	33.95%	15.39%	1.05	25
2020	90.29%	30.05%	1.18	90.29%	21.78%	1.20	18

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

Private equity

Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	2.01x	2.01x	0.00x	1.98x	1.98x	0.00x	5
1998	1.85x	1.85x	0.00x	1.82x	1.82x	0.00x	3
1999	1.67x	1.67x	0.00x	1.70x	1.69x	0.01x	3
2000	1.95x	1.95x	0.00x	2.01x	2.00x	0.00x	7
2001	2.36x	2.33x	0.03x	2.24x	2.19x	0.05x	7
2002	1.89x	1.89x	0.00x	1.94x	1.93x	0.00x	5
2003	2.00x	1.99x	0.01x	2.16x	2.16x	0.01x	5
2004	1.66x	1.66x	0.00x	1.76x	1.76x	0.00x	7
2005	1.39x	1.35x	0.04x	1.29x	1.25x	0.04x	14
2006	1.49x	1.43x	0.06x	1.32x	1.27x	0.05x	21
2007	1.41x	1.37x	0.04x	1.31x	1.26x	0.06x	18
2008	1.70x	1.63x	0.07x	1.57x	1.49x	0.08x	26
2009	1.25x	1.11x	0.15x	1.27x	1.10x	0.18x	10
2010	1.34x	1.09x	0.24x	1.50x	1.20x	0.30x	14
2011	1.83x	1.40x	0.43x	2.13x	1.57x	0.56x	13
2012	1.74x	1.37x	0.37x	1.59x	1.23x	0.35x	16
2013	1.87x	1.06x	0.82x	1.69x	1.02x	0.68x	18
2014	2.12x	1.03x	1.08x	1.92x	0.92x	1.00x	13
2015	1.74x	0.71x	1.02x	1.52x	0.52x	1.01x	21
2016	1.74x	0.56x	1.18x	1.64x	0.54x	1.10x	26
2017	1.64x	0.25x	1.39x	1.63x	0.27x	1.36x	23
2018	1.60x	0.14x	1.46x	1.44x	0.17x	1.27x	24
2019	1.25x	0.06x	1.19x	1.40x	0.13x	1.27x	25
2020	1.32x	0.05x	1.28x	1.24x	0.04x	1.20x	18

Source: PitchBook | Geography: Europe | Data as of September 30, 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		2.06x	1.97x	1.87x			2.06x	1.97x	1.87x		5
1998			1.73x					1.73x			3
1999			1.85x					1.82x			3
2000		2.46x	2.00x	1.53x			2.46x	2.00x	1.53x		7
2001		2.56x	2.16x	2.10x			2.54x	2.12x	1.98x		7
2002		2.31x	1.94x	1.62x			2.31x	1.94x	1.62x		5
2003		2.75x	2.02x	1.68x			2.74x	2.01x	1.68x		5
2004		2.03x	1.83x	1.43x			2.02x	1.83x	1.43x		7
2005	1.71x	1.46x	1.31x	1.19x	0.87x	1.58x	1.40x	1.31x	1.06x	0.87x	14
2006	1.88x	1.50x	1.39x	0.98x	0.53x	1.87x	1.50x	1.35x	0.98x	0.49x	21
2007	1.92x	1.74x	1.31x	1.08x	0.67x	1.89x	1.72x	1.31x	0.82x	0.64x	18
2008	2.20x	1.89x	1.60x	1.29x	0.97x	2.05x	1.84x	1.50x	1.23x	0.91x	26
2009	1.61x	1.59x	1.46x	1.08x	0.69x	1.55x	1.45x	1.17x	1.00x	0.34x	10
2010	1.85x	1.71x	1.37x	0.98x	0.87x	1.68x	1.46x	1.06x	0.66x	0.45x	14
2011	3.17x	2.68x	1.78x	1.58x	1.47x	2.83x	1.80x	1.42x	1.17x	0.64x	13
2012	2.04x	1.86x	1.74x	1.37x	0.91x	1.73x	1.55x	1.37x	0.79x	0.69x	16
2013	2.47x	2.05x	1.46x	1.28x	1.16x	1.53x	1.28x	0.83x	0.66x	0.44x	18
2014	2.89x	1.99x	1.72x	1.50x	1.01x	1.50x	0.95x	0.81x	0.51x	0.15x	13
2015	1.84x	1.76x	1.51x	1.22x	1.02x	0.91x	0.61x	0.45x	0.33x	0.29x	21
2016	2.14x	1.74x	1.58x	1.45x	1.26x	1.11x	0.72x	0.35x	0.27x	0.08x	26
2017	2.15x	1.95x	1.52x	1.19x	1.08x	0.63x	0.43x	0.12x	0.01x	0.00x	23
2018	2.00x	1.66x	1.38x	1.14x	0.98x	0.46x	0.20x	0.02x	0.00x	0.00x	24
2019	2.06x	1.24x	1.17x	1.02x	0.92x	0.16x	0.09x	0.00x	0.00x	0.00x	25
2020	1.75x	1.43x	0.94x	0.76x	0.72x	0.26x	0.01x	0.00x	0.00x	0.00x	17

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

Private equity

Quarterly return

Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return
Q1 2001	-6.88%	Q1 2007	0.10%	Q1 2013	0.33%	Q1 2019	2.87%
Q2 2001	4.03%	Q2 2007	13.84%	Q2 2013	1.96%	Q2 2019	6.06%
Q3 2001	1.00%	Q3 2007	5.45%	Q3 2013	4.38%	Q3 2019	3.48%
Q4 2001	-4.36%	Q4 2007	4.71%	Q4 2013	7.17%	Q4 2019	8.00%
Q1 2002	8.73%	Q1 2008	2.52%	Q1 2014	4.35%	Q1 2020	-10.48%
Q2 2002	10.16%	Q2 2008	-2.41%	Q2 2014	5.64%	Q2 2020	7.45%
Q3 2002	-1.48%	Q3 2008	-13.61%	Q3 2014	-4.67%	Q3 2020	12.20%
Q4 2002	-1.37%	Q4 2008	-12.29%	Q4 2014	1.66%	Q4 2020	8.81%
Q1 2003	2.53%	Q1 2009	-14.47%	Q1 2015	-0.11%	Q1 2021	12.97%
Q2 2003	3.35%	Q2 2009	5.22%	Q2 2015	5.75%	Q2 2021	16.57%
Q3 2003	1.98%	Q3 2009	8.54%	Q3 2015	3.20%	Q3 2021	6.39%
Q4 2003	9.08%	Q4 2009	9.87%	Q4 2015	1.89%		
Q1 2004	4.35%	Q1 2010	-5.27%	Q1 2016	2.78%		
Q2 2004	11.69%	Q2 2010	-0.17%	Q2 2016	1.50%		
Q3 2004	3.53%	Q3 2010	9.19%	Q3 2016	4.64%		
Q4 2004	15.79%	Q4 2010	8.57%	Q4 2016	0.80%		
Q1 2005	-1.92%	Q1 2011	4.30%	Q1 2017	5.18%		
Q2 2005	12.15%	Q2 2011	5.03%	Q2 2017	6.47%		
Q3 2005	2.91%	Q3 2011	-5.29%	Q3 2017	9.14%		
Q4 2005	11.96%	Q4 2011	1.59%	Q4 2017	2.43%		
Q1 2006	2.39%	Q1 2012	5.20%	Q1 2018	3.56%		
Q2 2006	11.71%	Q2 2012	0.22%	Q2 2018	3.60%		
Q3 2006	4.91%	Q3 2012	3.18%	Q3 2018	3.95%		
Q4 2006	20.14%	Q4 2012	3.88%	Q4 2018	0.56%		

Venture capital

Venture capital

IRR by vintage

Pooled IRRs

IRR quantiles

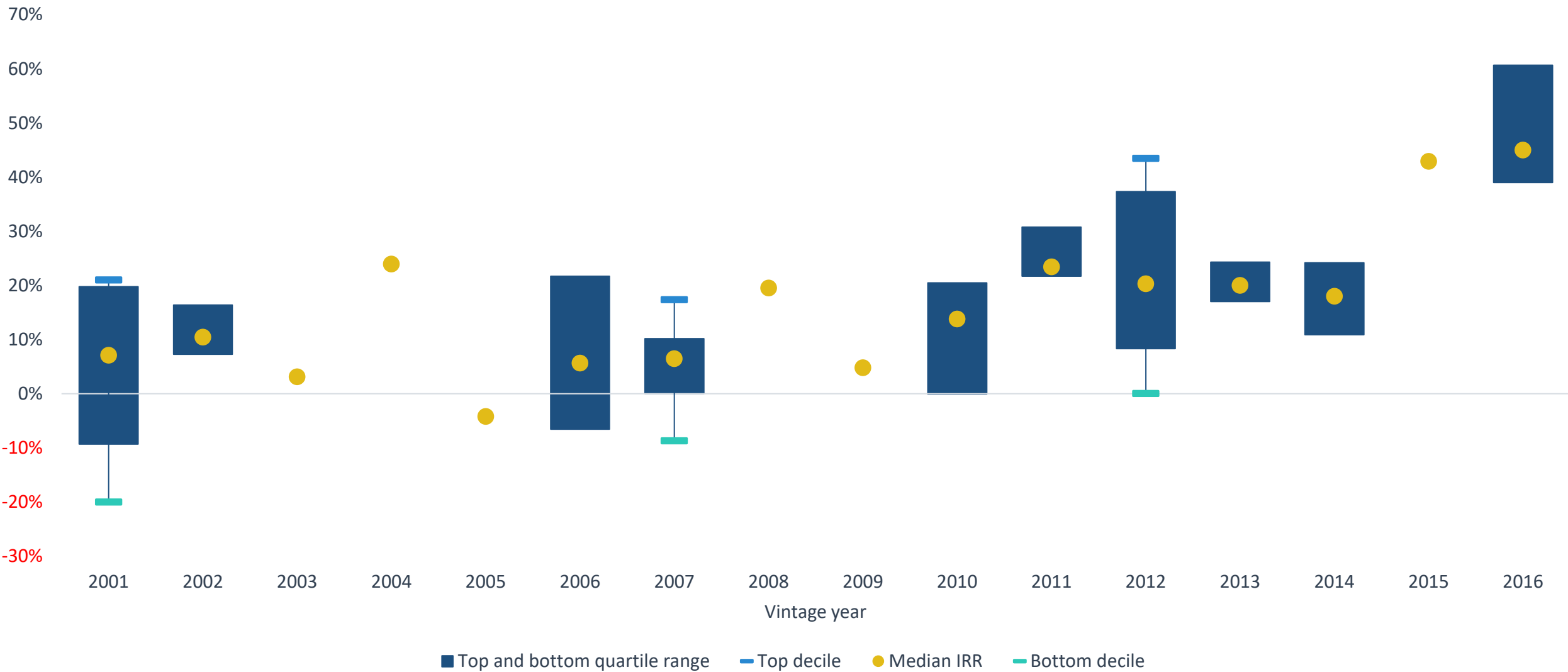
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997	2.57%	2.57%	1		14.00%	10.28%	2.82%		10.17%	5
1998					2.08%	-2.41%	-5.57%		7.12%	6
1999					1.65%	-3.80%	-8.16%		8.88%	4
2000	1.99%	1.99%	1		2.43%	-3.54%	-9.90%		16.20%	8
2001	3.36%	3.36%	1	21.00%	19.78%	7.10%	-9.32%	-20.02%	29.43%	11
2002	6.36%	6.36%	1		16.40%	10.45%	7.28%		42.52%	6
2003	2.12%	2.12%	1			3.13%			8.89%	3
2004						23.93%				1
2005						-4.20%			9.78%	3
2006					21.70%	5.65%	-6.54%		17.34%	9
2007	15.16%	13.94%	2	17.36%	10.17%	6.48%	0.01%	-8.72%	10.04%	13
2008	-12.53%	-5.81%	2			19.53%			1.82%	2
2009	-4.28%	-4.28%	1			4.80%				1
2010	2.33%	5.35%	2		20.50%	13.80%	-0.08%		14.93%	7
2011					30.80%	23.44%	21.72%		15.95%	6
2012	21.13%	17.95%	4	43.47%	37.32%	20.30%	8.33%	0.01%	30.33%	11
2013	1.62%	1.24%	2		24.33%	20.01%	17.01%		7.41%	4
2014	10.58%	16.13%	4		24.20%	18.00%	10.88%		11.16%	7
2015	18.62%	18.97%	5			42.93%			35.53%	2
2016	45.72%	46.15%	2		60.70%	45.00%	39.01%		60.70%	7
2017	20.70%	22.03%	5		35.18%	32.78%	27.66%		10.06%	4
2018	26.96%	22.01%	5		37.54%	21.28%	4.31%		21.89%	6
2019	58.52%	58.34%	2		85.65%	36.49%	15.04%		78.01%	4
2020	47.41%	59.82%	3		87.07%	40.98%	20.15%		76.80%	4

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



Venture capital

IRR by vintage



Venture capital

PMEs by vintage

S&P 500 index				MSCI Europe Small Cap Growth Index			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997	2.57%	9.33%	1.06	2.57%	8.57%	1.10	1
1998							
1999							
2000	1.99%	7.47%	0.80	1.99%	6.87%	0.59	1
2001	3.36%	8.36%	0.78	3.36%	9.67%	0.56	1
2002	6.36%	9.39%	1.02	6.36%	12.04%	0.76	1
2003	2.12%	11.46%	0.70	2.12%	14.20%	0.65	1
2004							
2005							
2006							
2007	15.16%	10.37%	1.20	15.16%	8.24%	1.28	2
2008	-12.53%	11.47%	0.24	-12.53%	9.34%	0.27	2
2009	-4.28%	16.92%	0.28	-4.28%	16.91%	0.30	1
2010	2.33%	14.94%	0.58	2.33%	13.10%	0.62	2
2011							
2012	21.13%	15.61%	1.29	21.13%	14.16%	1.40	4
2013	1.62%	15.70%	0.54	1.62%	13.51%	0.58	2
2014	10.58%	14.66%	0.80	10.58%	11.12%	0.86	4
2015	18.62%	14.64%	1.06	18.62%	13.89%	1.12	5
2016	45.72%	18.28%	2.06	45.72%	15.76%	2.15	2
2017	20.70%	17.51%	1.03	20.70%	17.30%	1.05	5
2018	26.96%	16.85%	1.14	26.96%	12.53%	1.16	5
2019	58.52%	23.58%	1.51	58.52%	25.12%	1.45	2
2020	47.41%	30.05%	1.08	47.41%	36.60%	1.05	3

Venture capital

Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997	1.14x	1.14x	0.00x	1.14x	1.14x	0.00x	1
1998							
1999							
2000	1.20x	1.20x	0.00x	1.20x	1.20x	0.00x	1
2001	1.32x	1.28x	0.04x	1.32x	1.28x	0.04x	1
2002	1.46x	1.46x	0.00x	1.46x	1.46x	0.00x	1
2003	1.15x	1.12x	0.03x	1.15x	1.12x	0.03x	1
2004							
2005							
2006							
2007	2.12x	1.70x	0.42x	2.15x	1.72x	0.43x	2
2008	0.45x	0.34x	0.11x	0.72x	0.49x	0.23x	2
2009	0.75x	0.39x	0.36x	0.75x	0.39x	0.36x	1
2010	1.12x	0.76x	0.36x	1.30x	0.92x	0.38x	2
2011							
2012	2.69x	0.46x	2.23x	2.29x	0.39x	1.90x	4
2013	1.08x	0.18x	0.89x	1.06x	0.18x	0.88x	2
2014	1.49x	0.17x	1.32x	1.75x	0.08x	1.67x	4
2015	1.77x	0.49x	1.28x	1.80x	0.62x	1.18x	5
2016	3.47x	0.99x	2.49x	3.51x	1.00x	2.51x	2
2017	1.75x	0.03x	1.71x	1.60x	0.06x	1.54x	5
2018	1.71x	0.15x	1.57x	1.59x	0.08x	1.51x	5
2019	2.21x	0.00x	2.21x	2.20x	0.00x	2.20x	2
2020	1.32x	0.01x	1.31x	1.34x	0.03x	1.31x	3

Source: PitchBook | Geography: Europe | Data as of September 30, 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			1.14x					1.14x			1
1998											
1999											
2000			1.20x					1.20x			1
2001			1.32x					1.28x			1
2002			1.46x					1.46x			1
2003			1.15x					1.12x			1
2004											
2005											
2006											
2007			2.15x					1.72x			2
2008			0.69x					0.48x			2
2009			0.75x					0.39x			1
2010			1.30x					0.91x			2
2011											
2012		3.14x	1.92x	0.75x			0.52x	0.37x	0.23x		4
2013			1.08x					0.18x			2
2014		2.05x	1.60x	1.23x			0.19x	0.08x	0.00x		4
2015		2.17x	1.82x	1.21x			0.88x	0.53x	0.37x		5
2016			3.32x					0.93x			2
2017		1.81x	1.10x	1.10x			0.09x	0.02x	0.01x		5
2018		1.85x	1.69x	1.23x			0.03x	0.00x	0.00x		5
2019			1.94x					0.00x			2
2020			1.22x					0.00x			3

Source: PitchBook | Geography: Europe | Data as of September 30, 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	-2.36%	Q1 2007	4.36%	Q1 2013	4.67%	Q1 2019	2.72%
Q2 2001	3.03%	Q2 2007	1.65%	Q2 2013	7.41%	Q2 2019	5.62%
Q3 2001	-6.89%	Q3 2007	-0.90%	Q3 2013	-0.14%	Q3 2019	2.20%
Q4 2001	0.70%	Q4 2007	0.14%	Q4 2013	4.95%	Q4 2019	4.97%
Q1 2002	3.89%	Q1 2008	0.39%	Q1 2014	9.10%	Q1 2020	-9.75%
Q2 2002	4.44%	Q2 2008	-2.29%	Q2 2014	-2.36%	Q2 2020	12.97%
Q3 2002	-0.18%	Q3 2008	-5.50%	Q3 2014	-2.41%	Q3 2020	2.35%
Q4 2002	-1.05%	Q4 2008	-13.12%	Q4 2014	2.72%	Q4 2020	23.32%
Q1 2003	-1.18%	Q1 2009	3.88%	Q1 2015	-4.41%	Q1 2021	8.58%
Q2 2003	-3.99%	Q2 2009	5.58%	Q2 2015	1.36%	Q2 2021	6.82%
Q3 2003	0.06%	Q3 2009	-1.45%	Q3 2015	14.78%	Q3 2021	9.36%
Q4 2003	9.78%	Q4 2009	-2.21%	Q4 2015	-10.14%		
Q1 2004	-4.07%	Q1 2010	-13.71%	Q1 2016	1.45%		
Q2 2004	-0.49%	Q2 2010	-2.14%	Q2 2016	2.00%		
Q3 2004	4.87%	Q3 2010	5.61%	Q3 2016	10.63%		
Q4 2004	3.60%	Q4 2010	19.33%	Q4 2016	-3.81%		
Q1 2005	-3.67%	Q1 2011	5.59%	Q1 2017	9.47%		
Q2 2005	1.48%	Q2 2011	5.28%	Q2 2017	-0.31%		
Q3 2005	-3.60%	Q3 2011	-0.77%	Q3 2017	4.47%		
Q4 2005	4.11%	Q4 2011	4.37%	Q4 2017	1.66%		
Q1 2006	10.12%	Q1 2012	3.81%	Q1 2018	11.33%		
Q2 2006	5.46%	Q2 2012	5.62%	Q2 2018	10.49%		
Q3 2006	-2.57%	Q3 2012	-2.30%	Q3 2018	-3.89%		
Q4 2006	10.02%	Q4 2012	-0.08%	Q4 2018	0.85%		

Real estate

Real estate

IRRs by vintage

Pooled IRRs

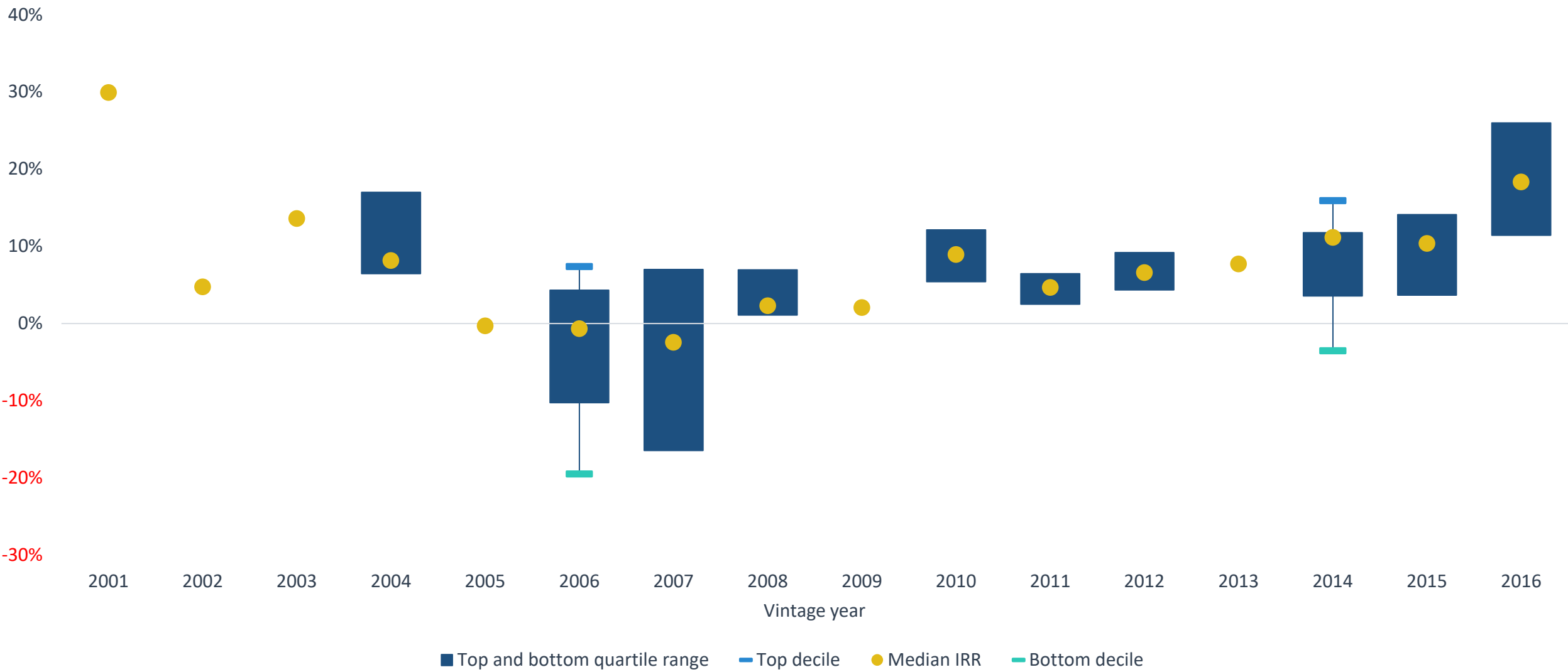
IRR quantiles

Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997										
1998						22.00%				1
1999										
2000	40.51%	40.51%	1			33.25%			6.72%	2
2001	32.63%	32.63%	1			29.92%			1.63%	2
2002						4.73%				1
2003						13.60%			5.50%	3
2004	8.13%	8.13%	1		17.00%	8.14%	6.47%		17.10%	5
2005	-0.48%	-0.48%	1			-0.31%			62.69%	3
2006	-14.49%	-12.17%	5	7.38%	4.31%	-0.67%	-10.25%	-19.49%	18.51%	12
2007	-3.28%	-1.04%	6		7.00%	-2.44%	-16.45%		13.53%	9
2008	8.01%	4.31%	4		6.97%	2.30%	1.09%		9.18%	7
2009						2.06%			6.26%	3
2010	7.70%	9.97%	5		12.14%	8.93%	5.43%		4.65%	6
2011	6.20%	5.41%	4		6.47%	4.65%	2.50%		4.70%	4
2012	7.12%	7.01%	2		9.20%	6.60%	4.35%		3.70%	4
2013	10.26%	8.18%	5			7.70%			10.95%	3
2014	7.89%	8.74%	14	15.92%	11.78%	11.16%	3.58%	-3.54%	10.41%	10
2015	11.73%	10.81%	15		14.10%	10.36%	3.67%		7.82%	9
2016	18.57%	12.42%	10		25.99%	18.33%	11.43%		10.77%	4
2017	12.65%	13.22%	9		12.38%	11.44%	10.72%		10.82%	5
2018	8.93%	11.07%	14		14.75%	11.40%	2.54%		10.46%	7
2019	16.90%	0.61%	8			5.10%			13.99%	3
2020	3.99%	8.83%	5			-1.18%			7.06%	2



Real estate

IRR by vintage



Real estate

PMEs by vintage

S&P 500 index				Morningstar Developed Market Europe Real Estate Index			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997							
1998							
1999							
2000	40.51%	7.47%	3.83	40.51%	8.93%	2.49	1
2001	32.63%	8.36%	1.64	32.63%	8.63%	1.15	1
2002							
2003							
2004	8.13%	10.30%	1.11	8.13%	7.26%	1.70	1
2005	-0.48%	10.49%	0.73	-0.48%	5.72%	0.80	1
2006	-14.49%	10.55%	0.15	-14.49%	4.71%	0.17	5
2007	-3.28%	10.37%	0.46	-3.28%	2.05%	0.54	6
2008	8.01%	11.47%	0.80	8.01%	4.53%	0.91	4
2009							
2010	7.70%	14.94%	0.81	7.70%	9.13%	0.96	5
2011	6.20%	14.63%	0.68	6.20%	8.23%	0.90	4
2012	7.12%	15.61%	0.85	7.12%	10.20%	1.00	2
2013	10.26%	15.70%	0.91	10.26%	8.78%	1.11	5
2014	7.89%	14.66%	0.77	7.89%	7.15%	1.03	14
2015	11.73%	14.64%	0.88	11.73%	6.58%	1.12	15
2016	18.57%	18.28%	1.02	18.57%	8.85%	1.25	10
2017	12.65%	17.51%	0.90	12.65%	11.38%	1.03	9
2018	8.93%	16.85%	0.83	8.93%	7.11%	0.96	14
2019	16.90%	23.58%	0.90	16.90%	12.12%	0.96	8
2020	3.99%	30.05%	0.76	3.99%	13.41%	0.82	5

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

Real estate

Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997							
1998							
1999							
2000	4.01x	3.99x	0.02x	4.01x	3.99x	0.02x	1
2001	1.99x	1.99x	0.00x	1.99x	1.99x	0.00x	1
2002							
2003							
2004	2.07x	1.76x	0.31x	2.07x	1.76x	0.31x	1
2005	0.98x	0.98x	0.00x	0.98x	0.98x	0.00x	1
2006	0.30x	0.28x	0.01x	0.32x	0.30x	0.02x	5
2007	0.84x	0.82x	0.02x	0.95x	0.93x	0.02x	6
2008	1.34x	1.26x	0.07x	1.18x	1.13x	0.05x	4
2009							
2010	1.31x	1.21x	0.10x	1.46x	1.39x	0.07x	5
2011	1.40x	1.02x	0.38x	1.39x	0.88x	0.51x	4
2012	1.23x	1.12x	0.12x	1.23x	1.11x	0.12x	2
2013	1.39x	0.99x	0.40x	1.30x	0.77x	0.53x	5
2014	1.42x	0.77x	0.64x	1.39x	0.85x	0.54x	14
2015	1.41x	0.63x	0.77x	1.39x	0.79x	0.60x	15
2016	1.57x	0.50x	1.07x	1.43x	0.58x	0.85x	10
2017	1.24x	0.46x	0.78x	1.32x	0.43x	0.88x	9
2018	1.15x	0.19x	0.97x	1.21x	0.21x	1.00x	14
2019	1.16x	0.07x	1.09x	1.01x	0.08x	0.93x	8
2020	1.05x	0.09x	0.95x	1.09x	0.10x	1.00x	5

Source: PitchBook | Geography: Europe | Data as of September 30, 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											
1998											
1999											
2000			4.01x					3.99x			1
2001			1.99x					1.99x			1
2002											
2003											
2004			2.07x					1.76x			1
2005			0.98x					0.98x			1
2006		0.56x	0.29x	0.09x			0.54x	0.28x	0.04x		5
2007		1.25x	1.01x	0.55x			1.22x	0.96x	0.55x		6
2008		1.21x	1.09x	1.05x			1.17x	1.06x	1.02x		4
2009											
2010		1.33x	1.25x	1.22x			1.30x	1.22x	1.16x		5
2011		1.41x	1.40x	1.38x			1.17x	1.10x	0.82x		4
2012			1.22x					1.09x			2
2013		1.54x	1.47x	1.19x			1.06x	0.62x	0.49x		5
2014	1.81x	1.64x	1.41x	1.23x	1.06x	1.42x	0.92x	0.83x	0.64x	0.26x	14
2015	1.63x	1.47x	1.41x	1.24x	1.16x	1.36x	1.23x	0.90x	0.37x	0.16x	15
2016	1.93x	1.62x	1.32x	1.26x	1.15x	1.00x	0.59x	0.46x	0.33x	0.27x	10
2017		1.51x	1.21x	1.18x			0.54x	0.37x	0.20x		9
2018	1.40x	1.32x	1.23x	1.03x	0.90x	0.52x	0.21x	0.01x	0.00x	0.00x	14
2019		1.10x	1.05x	0.94x			0.11x	0.04x	0.01x		8
2020		1.20x	1.19x	1.06x			0.33x	0.00x	0.00x		5

Source: PitchBook | Geography: Europe | Data as of September 30, 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	-2.50%	Q1 2007	27.02%	Q1 2013	-1.51%	Q1 2019	0.18%
Q2 2001	-3.21%	Q2 2007	5.91%	Q2 2013	1.26%	Q2 2019	2.83%
Q3 2001	-0.72%	Q3 2007	-5.46%	Q3 2013	1.23%	Q3 2019	2.28%
Q4 2001	-0.33%	Q4 2007	-0.02%	Q4 2013	4.90%	Q4 2019	2.74%
Q1 2002	1.27%	Q1 2008	-6.07%	Q1 2014	2.75%	Q1 2020	-7.46%
Q2 2002	8.17%	Q2 2008	-17.03%	Q2 2014	7.86%	Q2 2020	1.55%
Q3 2002	1.88%	Q3 2008	-7.71%	Q3 2014	-3.20%	Q3 2020	4.95%
Q4 2002	-1.38%	Q4 2008	-50.49%	Q4 2014	3.80%	Q4 2020	7.03%
Q1 2003	1.84%	Q1 2009	-65.87%	Q1 2015	-5.87%	Q1 2021	-1.48%
Q2 2003	5.60%	Q2 2009	-32.79%	Q2 2015	9.34%	Q2 2021	6.07%
Q3 2003	13.50%	Q3 2009	6.26%	Q3 2015	3.40%	Q3 2021	1.69%
Q4 2003	15.04%	Q4 2009	-4.80%	Q4 2015	-0.30%		
Q1 2004	2.74%	Q1 2010	-1.11%	Q1 2016	3.48%		
Q2 2004	4.85%	Q2 2010	-7.27%	Q2 2016	1.50%		
Q3 2004	4.40%	Q3 2010	4.97%	Q3 2016	2.94%		
Q4 2004	18.50%	Q4 2010	9.33%	Q4 2016	-1.28%		
Q1 2005	1.68%	Q1 2011	4.65%	Q1 2017	5.48%		
Q2 2005	0.03%	Q2 2011	0.14%	Q2 2017	8.21%		
Q3 2005	11.14%	Q3 2011	-2.27%	Q3 2017	8.14%		
Q4 2005	14.52%	Q4 2011	0.15%	Q4 2017	3.16%		
Q1 2006	1.18%	Q1 2012	3.99%	Q1 2018	0.96%		
Q2 2006	4.90%	Q2 2012	-0.26%	Q2 2018	2.31%		
Q3 2006	22.56%	Q3 2012	2.81%	Q3 2018	2.04%		
Q4 2006	14.31%	Q4 2012	2.43%	Q4 2018	-0.16%		

Real assets

Real assets

IRR by vintage

Pooled IRRs

IRR quantiles

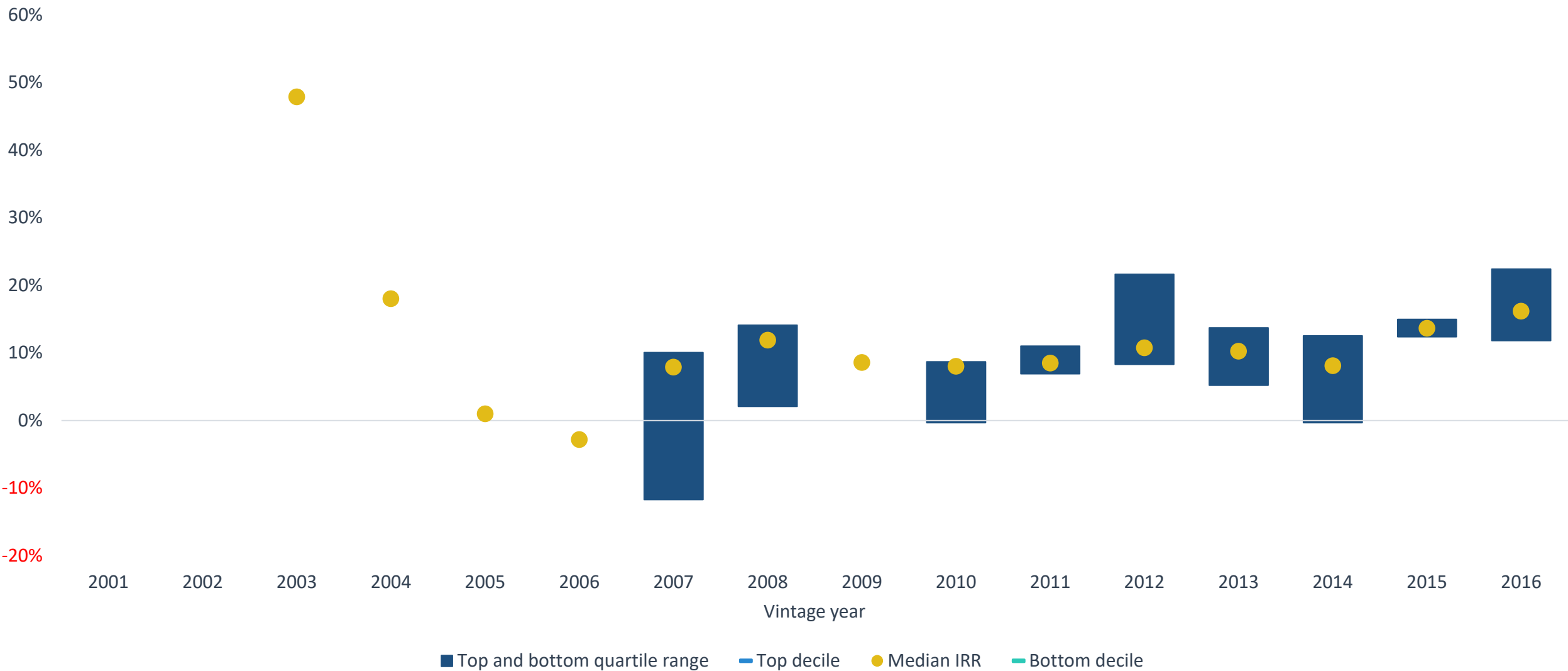
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997						-13.13%				1
1998										
1999										
2000										
2001										
2002										
2003						47.85%			32.74%	2
2004						18.00%				1
2005						0.98%			14.00%	2
2006	-5.94%	-5.04%	2			-2.83%			0.45%	2
2007	8.49%	8.49%	1		10.06%	7.89%	-11.70%		21.27%	6
2008	12.13%	12.13%	1		14.10%	11.87%	2.09%		18.14%	4
2009	7.99%	7.77%	2			8.58%			2.20%	3
2010	6.85%	7.75%	6		8.69%	8.00%	-0.31%		9.47%	5
2011	3.95%	3.18%	5		11.02%	8.50%	6.90%		3.54%	5
2012	10.01%	11.76%	5		21.65%	10.75%	8.30%		23.33%	4
2013	11.01%	4.67%	12		13.73%	10.25%	5.23%		8.01%	6
2014	8.75%	5.06%	5		12.52%	8.10%	-0.31%		7.51%	6
2015	10.13%	10.18%	9		14.97%	13.64%	12.37%		2.33%	4
2016	11.32%	9.35%	12		22.40%	16.15%	11.83%		10.14%	4
2017	8.12%	6.12%	16		10.60%	9.60%	6.10%		7.02%	7
2018	0.22%	2.02%	15			-4.57%			9.91%	2
2019	-3.10%	-0.53%	8			14.86%			7.53%	2
2020	7.17%	-0.29%	7			38.74%			159.43%	3

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



Real assets

IRR by vintage



Real assets

PMEs by vintage

S&P 500 index				Morningstar US Real Asset Index			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997							
1998							
1999							
2000							
2001							
2002							
2003							
2004							
2005							
2006	-5.94%	10.55%	0.39	-5.94%	5.18%	0.49	2
2007	8.49%	10.37%	1.03	8.49%	5.00%	1.44	1
2008	12.13%	11.47%	0.84	12.13%	4.31%	1.82	1
2009	7.99%	16.92%	0.79	7.99%	5.89%	1.26	2
2010	6.85%	14.94%	0.69	6.85%	4.69%	1.21	6
2011	3.95%	14.63%	0.57	3.95%	3.59%	1.03	5
2012	10.01%	15.61%	0.81	10.01%	3.24%	1.33	5
2013	11.01%	15.70%	0.89	11.01%	3.35%	1.38	12
2014	8.75%	14.66%	0.78	8.75%	3.95%	1.28	5
2015	10.13%	14.64%	0.83	10.13%	3.98%	1.16	9
2016	11.32%	18.28%	0.83	11.32%	5.88%	1.14	12
2017	8.12%	17.51%	0.77	8.12%	5.86%	1.01	16
2018	0.22%	16.85%	0.66	0.22%	6.84%	0.84	15
2019	-3.10%	23.58%	0.72	-3.10%	8.84%	0.84	8
2020	7.17%	30.05%	0.82	7.17%	13.76%	0.92	7

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

Real assets

Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997							
1998							
1999							
2000							
2001							
2002							
2003							
2004							
2005							
2006	0.67x	0.66x	0.01x	0.76x	0.75x	0.01x	2
2007	1.92x	1.92x	0.00x	1.92x	1.92x	0.00x	1
2008	2.87x	2.25x	0.62x	2.87x	2.25x	0.62x	1
2009	1.40x	1.21x	0.20x	1.32x	1.19x	0.13x	2
2010	1.48x	0.66x	0.82x	1.62x	0.76x	0.85x	6
2011	1.26x	0.41x	0.85x	1.20x	0.55x	0.65x	5
2012	1.56x	0.83x	0.74x	1.64x	0.95x	0.68x	5
2013	1.58x	1.00x	0.57x	1.23x	0.58x	0.64x	12
2014	1.52x	0.71x	0.81x	1.30x	0.54x	0.76x	5
2015	1.38x	0.44x	0.94x	1.38x	0.39x	0.99x	9
2016	1.39x	0.18x	1.21x	1.35x	0.22x	1.13x	12
2017	1.21x	0.19x	1.02x	1.16x	0.15x	1.01x	16
2018	1.00x	0.09x	0.91x	1.04x	0.14x	0.90x	15
2019	0.97x	0.03x	0.93x	0.99x	0.09x	0.91x	8
2020	1.07x	0.06x	1.01x	1.00x	0.05x	0.95x	7

Source: PitchBook | Geography: Europe | Data as of September 30, 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											
1998											
1999											
2000											
2001											
2002											
2003											
2004											
2005											
2006			0.77x					0.76x			2
2007			1.92x					1.92x			1
2008			2.87x					2.25x			1
2009			1.35x					1.20x			2
2010		1.62x	1.56x	1.31x			1.13x	0.87x	0.42x		6
2011		1.43x	1.24x	0.90x			0.59x	0.44x	0.33x		5
2012		1.62x	1.51x	1.48x			1.16x	0.83x	0.40x		5
2013	1.88x	1.49x	1.24x	0.85x	0.61x	1.34x	1.04x	0.34x	0.15x	0.04x	12
2014		1.53x	1.48x	1.05x			0.61x	0.55x	0.46x		5
2015		1.40x	1.34x	1.30x			0.57x	0.38x	0.26x		9
2016	1.72x	1.42x	1.28x	1.19x	1.02x	0.33x	0.24x	0.18x	0.15x	0.10x	12
2017	1.46x	1.32x	1.12x	1.01x	0.92x	0.42x	0.13x	0.07x	0.04x	0.01x	16
2018	1.19x	1.14x	1.08x	0.95x	0.79x	0.39x	0.13x	0.08x	0.04x	0.03x	15
2019		1.10x	1.03x	0.92x			0.13x	0.08x	0.03x		8
2020		1.09x	0.95x	0.60x			0.03x	0.00x	0.00x		7

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

Real assets

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	
Q3 2008	
Q4 2008	
Q1 2009	-0.32%
Q2 2009	-6.08%
Q3 2009	5.61%
Q4 2009	0.35%
Q1 2010	-7.27%
Q2 2010	-5.06%
Q3 2010	-0.05%
Q4 2010	5.31%
Q1 2011	13.26%
Q2 2011	1.32%
Q3 2011	-3.76%
Q4 2011	4.80%
Q1 2012	1.23%
Q2 2012	-3.50%
Q3 2012	-7.20%
Q4 2012	-0.73%

Quarter end	1-quarter return
Q1 2013	7.83%
Q2 2013	-13.28%
Q3 2013	5.96%
Q4 2013	-2.45%
Q1 2014	3.00%
Q2 2014	0.04%
Q3 2014	16.98%
Q4 2014	2.14%
Q1 2015	0.73%
Q2 2015	4.37%
Q3 2015	1.85%
Q4 2015	1.66%
Q1 2016	4.14%
Q2 2016	2.22%
Q3 2016	-4.78%
Q4 2016	5.53%
Q1 2017	2.90%
Q2 2017	4.21%
Q3 2017	4.04%
Q4 2017	-3.51%
Q1 2018	6.77%
Q2 2018	4.67%
Q3 2018	0.35%
Q4 2018	6.14%

Quarter end	1-quarter return
Q1 2019	4.21%
Q2 2019	0.11%
Q3 2019	2.55%
Q4 2019	3.87%
Q1 2020	-2.15%
Q2 2020	3.21%
Q3 2020	1.83%
Q4 2020	5.99%
Q1 2021	-0.34%
Q2 2021	7.38%
Q3 2021	-2.91%

Private debt

Private debt

IRR by vintage

Pooled IRRs

IRR quantiles

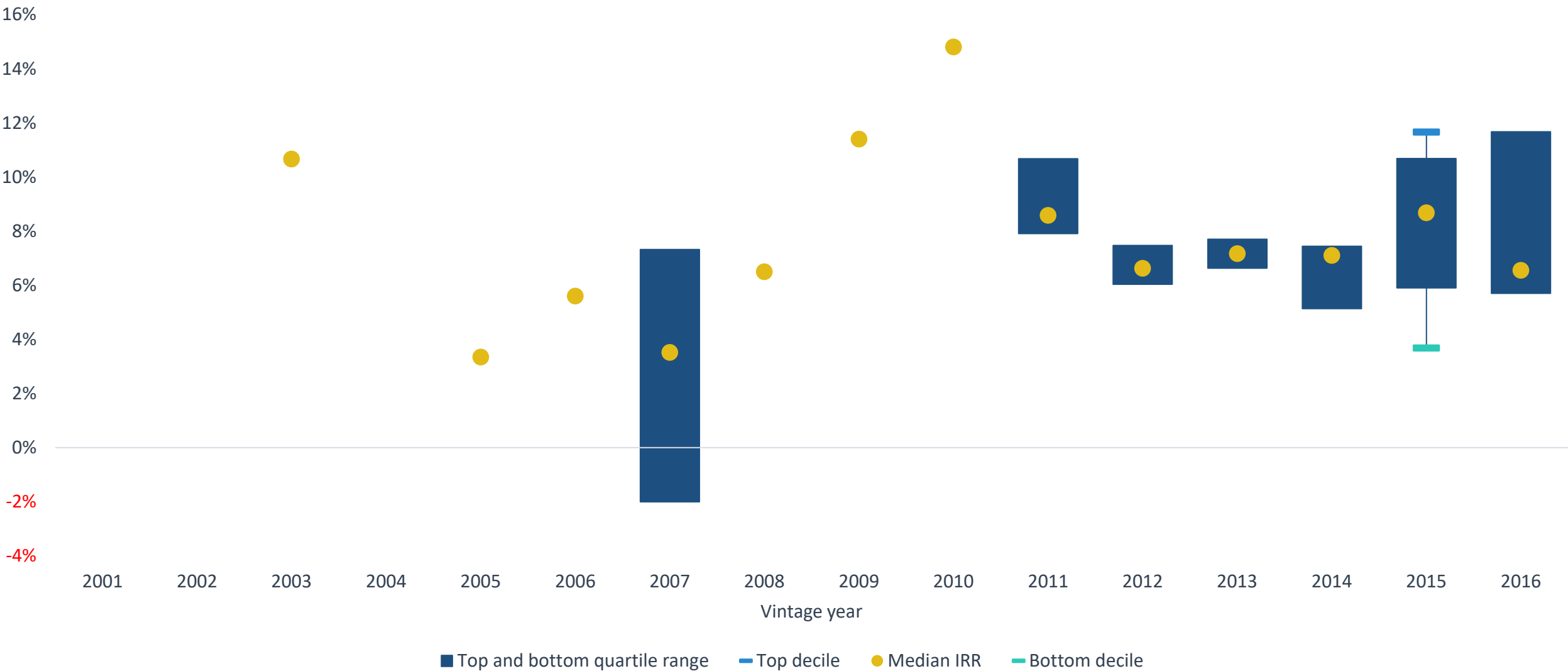
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997										
1998					7.83%	4.25%	4.14%		2.86%	5
1999						17.11%				1
2000	6.12%	6.12%	1		12.45%	10.05%	7.78%		4.05%	4
2001										
2002										
2003						10.67%			3.87%	2
2004										
2005	3.16%	3.16%	1			3.35%			0.36%	2
2006	7.91%	7.91%	1			5.60%			8.19%	3
2007	-0.89%	-1.87%	3		7.33%	3.52%	-2.01%		7.99%	4
2008	2.80%	2.85%	3			6.50%			1.48%	2
2009	8.45%	8.45%	4			11.40%			5.23%	3
2010	8.11%	9.25%	4			14.81%			7.20%	2
2011	8.30%	8.31%	5		10.68%	8.59%	7.91%		2.46%	6
2012	6.49%	4.93%	6		7.47%	6.63%	6.04%		3.94%	8
2013	3.42%	5.55%	10		7.70%	7.17%	6.63%		0.80%	5
2014	5.18%	6.66%	12		7.44%	7.10%	5.14%		1.96%	7
2015	7.74%	6.92%	16	11.66%	10.69%	8.68%	5.90%	3.68%	5.72%	13
2016	6.02%	12.85%	12		11.68%	6.55%	5.71%		4.65%	7
2017	3.27%	6.95%	15	16.18%	12.95%	10.84%	7.79%	6.94%	5.83%	11
2018	8.49%	5.66%	14	12.46%	9.97%	8.41%	6.66%	5.13%	3.43%	10
2019	10.90%	12.42%	10	22.90%	20.34%	14.61%	11.01%	9.45%	8.74%	11
2020	16.44%	11.36%	6		10.38%	9.33%	8.81%		3.61%	5

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



Private debt

IRR by vintage



Private debt

PMEs by vintage

S&P 500 index				Bloomberg Barclays Pan-Europe High Yield Index			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997							
1998							
1999							
2000	6.12%	7.47%	0.99	6.12%	7.12%	0.71	1
2001							
2002							
2003							
2004							
2005	3.16%	10.49%	0.89	3.16%	6.55%	0.72	1
2006	7.91%	10.55%	1.23	7.91%	7.09%	0.91	1
2007	-0.89%	10.37%	0.68	-0.89%	6.22%	0.65	3
2008	2.80%	11.47%	0.56	2.80%	6.40%	0.80	3
2009	8.45%	16.92%	0.89	8.45%	10.71%	1.04	4
2010	8.11%	14.94%	0.79	8.11%	5.58%	1.16	4
2011	8.30%	14.63%	0.78	8.30%	4.84%	1.15	5
2012	6.49%	15.61%	0.80	6.49%	5.60%	1.10	6
2013	3.42%	15.70%	0.79	3.42%	3.99%	1.02	10
2014	5.18%	14.66%	0.75	5.18%	2.55%	1.03	12
2015	7.74%	14.64%	0.82	7.74%	4.86%	1.09	16
2016	6.02%	18.28%	0.76	6.02%	6.48%	1.02	12
2017	3.27%	17.51%	0.71	3.27%	6.59%	0.95	15
2018	8.49%	16.85%	0.78	8.49%	2.74%	1.03	14
2019	10.90%	23.58%	0.84	10.90%	7.50%	1.02	10
2020	16.44%	30.05%	0.92	16.44%	11.40%	1.04	6

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

Private debt

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997							
1998							
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	0.97x	0.96x	0.01x	0.93x	0.92x	0.01x	3
2008	1.18x	0.87x	0.30x	1.17x	0.92x	0.25x	3
2009	1.31x	1.30x	0.01x	1.31x	1.28x	0.02x	4
2010	1.42x	1.14x	0.28x	1.40x	1.17x	0.23x	4
2011	1.42x	0.94x	0.48x	1.34x	0.98x	0.37x	5
2012	1.26x	1.15x	0.10x	1.19x	1.06x	0.13x	6
2013	1.11x	0.93x	0.18x	1.18x	0.93x	0.24x	10
2014	1.20x	0.77x	0.43x	1.30x	0.80x	0.50x	12
2015	1.25x	0.72x	0.53x	1.24x	0.72x	0.52x	16
2016	1.17x	0.46x	0.72x	1.37x	0.65x	0.71x	12
2017	1.08x	0.35x	0.73x	1.16x	0.31x	0.85x	15
2018	1.17x	0.15x	1.02x	1.12x	0.20x	0.92x	14
2019	1.14x	0.18x	0.96x	1.16x	0.19x	0.97x	10
2020	1.11x	0.15x	0.96x	1.08x	0.31x	0.77x	6

Source: PitchBook | Geography: Europe | Data as of September 30, 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											
1998											
1999											
2000			1.29x					1.24x			1
2001											
2002											
2003											
2004											
2005			1.21x					1.20x			1
2006			1.65x					1.65x			1
2007			1.07x					1.06x			3
2008			1.20x					1.02x			3
2009		1.48x	1.33x	1.17x			1.40x	1.28x	1.17x		4
2010		1.44x	1.40x	1.35x			1.30x	1.20x	1.08x		4
2011		1.43x	1.32x	1.31x			1.13x	1.03x	0.83x		5
2012		1.32x	1.16x	1.06x			1.22x	1.13x	0.93x		6
2013	1.40x	1.33x	1.16x	1.11x	0.93x	1.14x	1.11x	1.07x	0.70x	0.63x	10
2014	1.63x	1.32x	1.16x	1.10x	1.07x	1.16x	1.05x	0.88x	0.59x	0.16x	12
2015	1.42x	1.30x	1.22x	1.15x	1.11x	1.04x	0.90x	0.78x	0.54x	0.34x	16
2016	1.53x	1.30x	1.20x	1.13x	1.02x	0.96x	0.66x	0.47x	0.28x	0.14x	12
2017	1.34x	1.23x	1.16x	1.10x	0.98x	0.52x	0.47x	0.27x	0.10x	0.08x	15
2018	1.22x	1.21x	1.14x	1.09x	0.92x	0.43x	0.32x	0.14x	0.09x	0.02x	14
2019	1.21x	1.17x	1.13x	1.10x	1.08x	0.31x	0.20x	0.11x	0.08x	0.00x	10
2020		1.12x	1.01x	0.93x			0.54x	0.26x	0.12x		6

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

Private debt

Quarterly return

Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return	Quarter end	1-quarter return
Q1 2001	-0.24%	Q1 2007	0.86%	Q1 2013	4.99%	Q1 2019	1.74%
Q2 2001	-4.00%	Q2 2007	17.38%	Q2 2013	-3.61%	Q2 2019	-0.26%
Q3 2001	-0.83%	Q3 2007	-11.45%	Q3 2013	2.86%	Q3 2019	3.40%
Q4 2001	0.88%	Q4 2007	-3.04%	Q4 2013	1.60%	Q4 2019	5.29%
Q1 2002	-30.47%	Q1 2008	11.55%	Q1 2014	4.89%	Q1 2020	-3.62%
Q2 2002	9.13%	Q2 2008	-5.75%	Q2 2014	0.24%	Q2 2020	2.32%
Q3 2002	0.12%	Q3 2008	-9.88%	Q3 2014	-0.69%	Q3 2020	1.34%
Q4 2002	0.00%	Q4 2008	-7.85%	Q4 2014	0.09%	Q4 2020	2.04%
Q1 2003	0.00%	Q1 2009	-3.25%	Q1 2015	21.98%	Q1 2021	5.42%
Q2 2003	0.00%	Q2 2009	11.04%	Q2 2015	-12.59%	Q2 2021	3.25%
Q3 2003	0.98%	Q3 2009	11.64%	Q3 2015	4.94%	Q3 2021	-3.35%
Q4 2003	0.52%	Q4 2009	3.49%	Q4 2015	-2.49%		
Q1 2004	6.97%	Q1 2010	-1.06%	Q1 2016	4.97%		
Q2 2004	2.22%	Q2 2010	-7.20%	Q2 2016	-0.61%		
Q3 2004	-0.04%	Q3 2010	10.70%	Q3 2016	5.19%		
Q4 2004	4.47%	Q4 2010	3.39%	Q4 2016	-2.85%		
Q1 2005	3.87%	Q1 2011	5.42%	Q1 2017	-1.90%		
Q2 2005	-0.92%	Q2 2011	-3.91%	Q2 2017	8.19%		
Q3 2005	-1.30%	Q3 2011	-2.17%	Q3 2017	4.77%		
Q4 2005	2.04%	Q4 2011	-1.57%	Q4 2017	0.54%		
Q1 2006	1.08%	Q1 2012	2.13%	Q1 2018	3.75%		
Q2 2006	25.28%	Q2 2012	1.64%	Q2 2018	-0.45%		
Q3 2006	19.52%	Q3 2012	2.20%	Q3 2018	-1.18%		
Q4 2006	2.02%	Q4 2012	7.73%	Q4 2018	-1.54%		

Funds of funds

Funds of funds

IRRs by vintage

Pooled IRRs

IRR quantiles

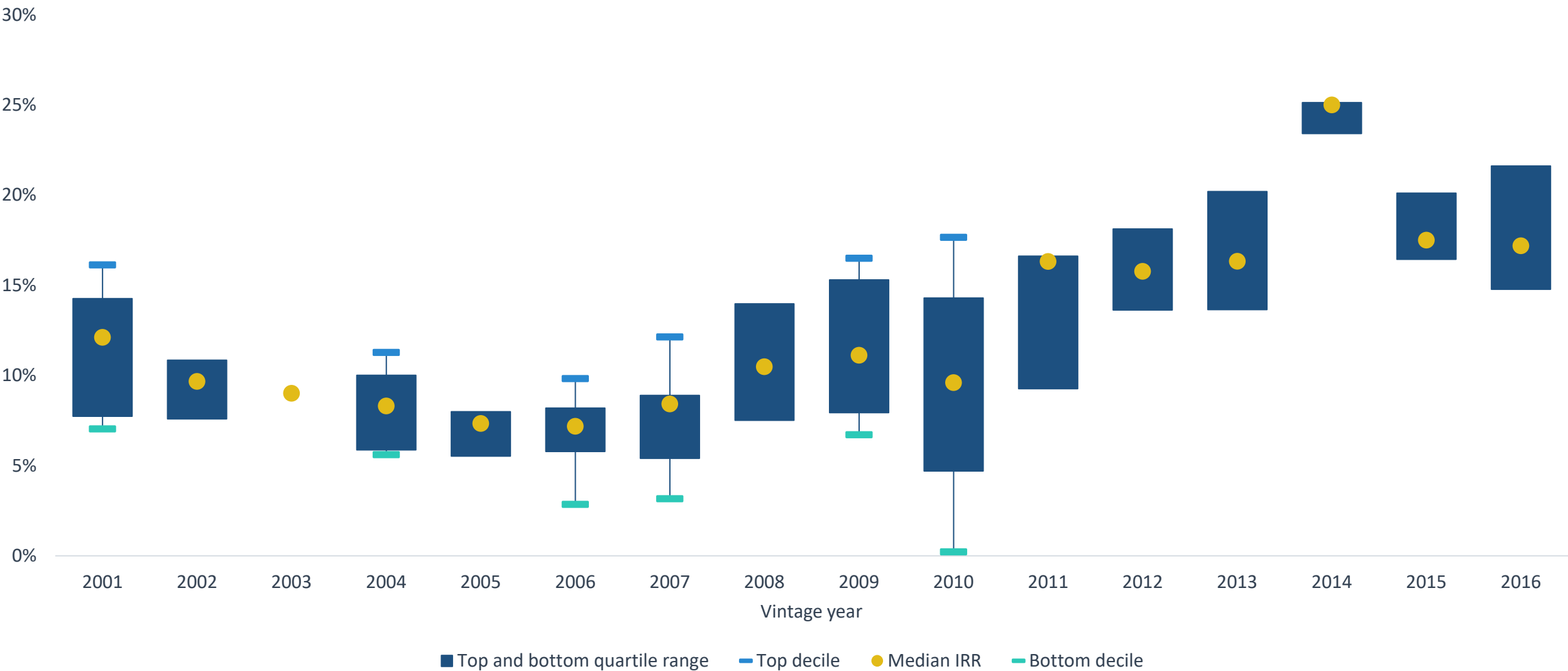
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
1997						9.70%			6.79%	2
1998	8.66%	8.66%	1		15.26%	11.73%	9.26%		8.63%	4
1999	1.91%	1.91%	1		12.46%	8.90%	5.75%		6.22%	5
2000				11.88%	10.85%	7.43%	6.27%	1.14%	6.13%	10
2001	11.23%	10.34%	2	16.13%	14.26%	12.12%	7.73%	7.03%	4.16%	12
2002					10.85%	9.67%	7.59%		3.10%	4
2003						9.01%			6.99%	3
2004	7.60%	7.21%	4	11.27%	10.02%	8.30%	5.88%	5.60%	2.39%	11
2005	5.59%	5.82%	3		7.99%	7.34%	5.53%		1.65%	6
2006	8.69%	7.30%	4	9.82%	8.19%	7.18%	5.78%	2.85%	3.42%	10
2007	6.63%	5.96%	9	12.13%	8.90%	8.42%	5.40%	3.16%	3.48%	17
2008	-5.32%	4.55%	5		13.98%	10.48%	7.52%		4.49%	8
2009	12.31%	12.48%	8	16.50%	15.30%	11.12%	7.94%	6.72%	4.20%	11
2010	11.77%	14.25%	8	17.65%	14.30%	9.60%	4.70%	0.22%	7.31%	13
2011	16.42%	13.87%	4		16.62%	16.32%	9.27%		6.54%	6
2012	12.37%	15.57%	5		18.12%	15.77%	13.63%		5.18%	6
2013	16.35%	14.40%	5		20.20%	16.33%	13.65%		6.20%	7
2014	19.47%	19.59%	6		25.13%	25.00%	23.41%		4.48%	5
2015	17.28%	14.46%	5		20.11%	17.50%	16.45%		3.98%	6
2016	10.23%	11.02%	4		21.62%	17.19%	14.77%		5.62%	6
2017	32.36%	31.14%	5		36.80%	32.90%	26.03%		9.04%	6
2018	29.20%	32.73%	4		28.80%	14.40%	7.08%		13.52%	5
2019	28.01%	33.94%	2			26.83%			10.83%	2
2020	286.75%	286.75%	1			39.10%			28.96%	3

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



Funds of funds

IRR by vintage



Funds of funds

PMEs by vintage

S&P 500 index				Morningstar Europe Index			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997							
1998	8.66%	8.44%	1.50	8.66%			1
1999	1.91%	7.75%	0.88	1.91%	6.21%	0.72	1
2000							
2001	11.23%	8.36%	1.15	11.23%	6.48%	1.18	2
2002							
2003							
2004	7.60%	10.30%	0.99	7.60%	7.35%	1.13	4
2005	5.59%	10.49%	0.81	5.59%	6.71%	1.07	3
2006	8.69%	10.55%	0.83	8.69%	5.93%	1.18	4
2007	6.63%	10.37%	0.74	6.63%	4.48%	1.08	9
2008	-5.32%	11.47%	0.34	-5.32%	4.61%	0.48	5
2009	12.31%	16.92%	0.89	12.31%	10.76%	1.28	8
2010	11.77%	14.94%	0.89	11.77%	7.53%	1.26	8
2011	16.42%	14.63%	1.07	16.42%	6.82%	1.54	4
2012	12.37%	15.61%	0.91	12.37%	8.52%	1.21	5
2013	16.35%	15.70%	1.02	16.35%	7.67%	1.35	5
2014	19.47%	14.66%	1.10	19.47%	6.03%	1.37	6
2015	17.28%	14.64%	0.98	17.28%	7.78%	1.20	5
2016	10.23%	18.28%	0.78	10.23%	11.24%	0.95	4
2017	32.36%	17.51%	1.18	32.36%	11.17%	1.35	5
2018	29.20%	16.85%	1.14	29.20%	7.70%	1.29	4
2019	28.01%	23.58%	0.99	28.01%	15.39%	1.06	2
2020	286.75%	30.05%	1.48	286.75%	21.78%	1.52	1

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

Funds of funds

Multiples by vintage

Pooled multiplesEqual-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997							
1998	1.74x	1.71x	0.03x	1.74x	1.71x	0.03x	1
1999	1.11x	1.11x	0.00x	1.11x	1.11x	0.00x	1
2000							
2001	1.69x	1.60x	0.09x	1.68x	1.56x	0.12x	2
2002							
2003							
2004	1.48x	1.44x	0.03x	1.46x	1.42x	0.05x	4
2005	1.39x	1.31x	0.09x	1.45x	1.19x	0.26x	3
2006	1.68x	1.49x	0.19x	1.59x	1.33x	0.26x	4
2007	1.52x	1.22x	0.30x	1.46x	1.16x	0.30x	9
2008	0.73x	0.63x	0.10x	1.27x	0.97x	0.30x	5
2009	1.89x	1.01x	0.88x	1.91x	1.05x	0.86x	8
2010	1.78x	1.27x	0.51x	2.20x	1.14x	1.06x	8
2011	2.21x	1.07x	1.14x	2.06x	0.86x	1.20x	4
2012	1.62x	0.67x	0.94x	1.93x	0.79x	1.14x	5
2013	1.88x	0.60x	1.28x	1.86x	0.56x	1.30x	5
2014	1.88x	0.64x	1.24x	1.88x	0.55x	1.33x	6
2015	1.64x	0.45x	1.19x	1.56x	0.33x	1.24x	5
2016	1.39x	0.19x	1.19x	1.39x	0.22x	1.17x	4
2017	1.74x	0.18x	1.56x	1.71x	0.17x	1.54x	5
2018	1.59x	0.19x	1.40x	1.59x	0.26x	1.33x	4
2019	1.34x	0.00x	1.34x	1.47x	0.00x	1.47x	2
2020	1.62x	0.00x	1.62x	1.62x	0.00x	1.62x	1

Source: PitchBook | Geography: Europe | Data as of September 30, 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											
1998			1.74x					1.71x			1
1999			1.11x					1.11x			1
2000											
2001			1.68x					1.56x			2
2002											
2003											
2004		1.52x	1.47x	1.41x			1.47x	1.40x	1.35x		4
2005			1.39x					1.24x			3
2006		1.77x	1.61x	1.42x			1.36x	1.27x	1.24x		4
2007		1.66x	1.38x	1.19x			1.37x	1.16x	0.95x		9
2008		1.42x	1.37x	1.31x			1.14x	1.05x	1.05x		5
2009		2.11x	1.95x	1.50x			1.25x	0.95x	0.81x		8
2010		2.47x	1.82x	1.52x			1.37x	1.16x	0.88x		8
2011		2.32x	2.16x	1.88x			1.11x	1.00x	0.74x		4
2012		2.65x	1.83x	1.51x			0.89x	0.73x	0.70x		5
2013		1.99x	1.75x	1.70x			0.72x	0.69x	0.31x		5
2014		2.17x	1.99x	1.72x			0.57x	0.49x	0.30x		6
2015		1.89x	1.65x	1.45x			0.41x	0.32x	0.28x		5
2016		1.53x	1.39x	1.29x			0.26x	0.18x	0.14x		4
2017		1.88x	1.66x	1.48x			0.11x	0.03x	0.02x		5
2018		1.74x	1.54x	1.36x			0.25x	0.12x	0.07x		4
2019			1.50x					0.00x			2
2020			1.62x					0.00x			1

Source: PitchBook | Geography: Europe | Data as of September 30, 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		Q1 2007	4.46%	Q1 2013	2.79%	Q1 2019	1.06%
Q2 2001	0.00%	Q2 2007	2.28%	Q2 2013	3.29%	Q2 2019	2.25%
Q3 2001	-5.10%	Q3 2007	6.08%	Q3 2013	1.12%	Q3 2019	-1.55%
Q4 2001	0.00%	Q4 2007	5.75%	Q4 2013	-0.44%	Q4 2019	10.65%
Q1 2002	-3.37%	Q1 2008	3.63%	Q1 2014	-2.68%	Q1 2020	-4.70%
Q2 2002	12.62%	Q2 2008	-3.11%	Q2 2014	12.77%	Q2 2020	3.02%
Q3 2002	0.89%	Q3 2008	-9.38%	Q3 2014	-1.10%	Q3 2020	11.16%
Q4 2002	-6.78%	Q4 2008	-13.78%	Q4 2014	-7.76%	Q4 2020	9.41%
Q1 2003	5.13%	Q1 2009	-4.55%	Q1 2015	8.94%	Q1 2021	9.73%
Q2 2003	25.38%	Q2 2009	-16.26%	Q2 2015	9.96%	Q2 2021	11.91%
Q3 2003	-9.36%	Q3 2009	2.73%	Q3 2015	3.00%	Q3 2021	4.20%
Q4 2003	8.42%	Q4 2009	7.05%	Q4 2015	-3.60%		
Q1 2004	8.89%	Q1 2010	3.95%	Q1 2016	0.95%		
Q2 2004	-2.43%	Q2 2010	-1.87%	Q2 2016	2.16%		
Q3 2004	14.87%	Q3 2010	11.17%	Q3 2016	7.36%		
Q4 2004	4.54%	Q4 2010	-2.44%	Q4 2016	-0.86%		
Q1 2005	-2.38%	Q1 2011	5.80%	Q1 2017	1.18%		
Q2 2005	2.03%	Q2 2011	5.69%	Q2 2017	8.20%		
Q3 2005	10.55%	Q3 2011	-4.14%	Q3 2017	6.90%		
Q4 2005	12.65%	Q4 2011	-0.20%	Q4 2017	-2.58%		
Q1 2006	10.17%	Q1 2012	8.53%	Q1 2018	6.28%		
Q2 2006	6.90%	Q2 2012	0.05%	Q2 2018	1.70%		
Q3 2006	16.19%	Q3 2012	-0.05%	Q3 2018	-0.34%		
Q4 2006	11.14%	Q4 2012	3.66%	Q4 2018	4.11%		

Secondaries

Secondaries

IRR by vintage

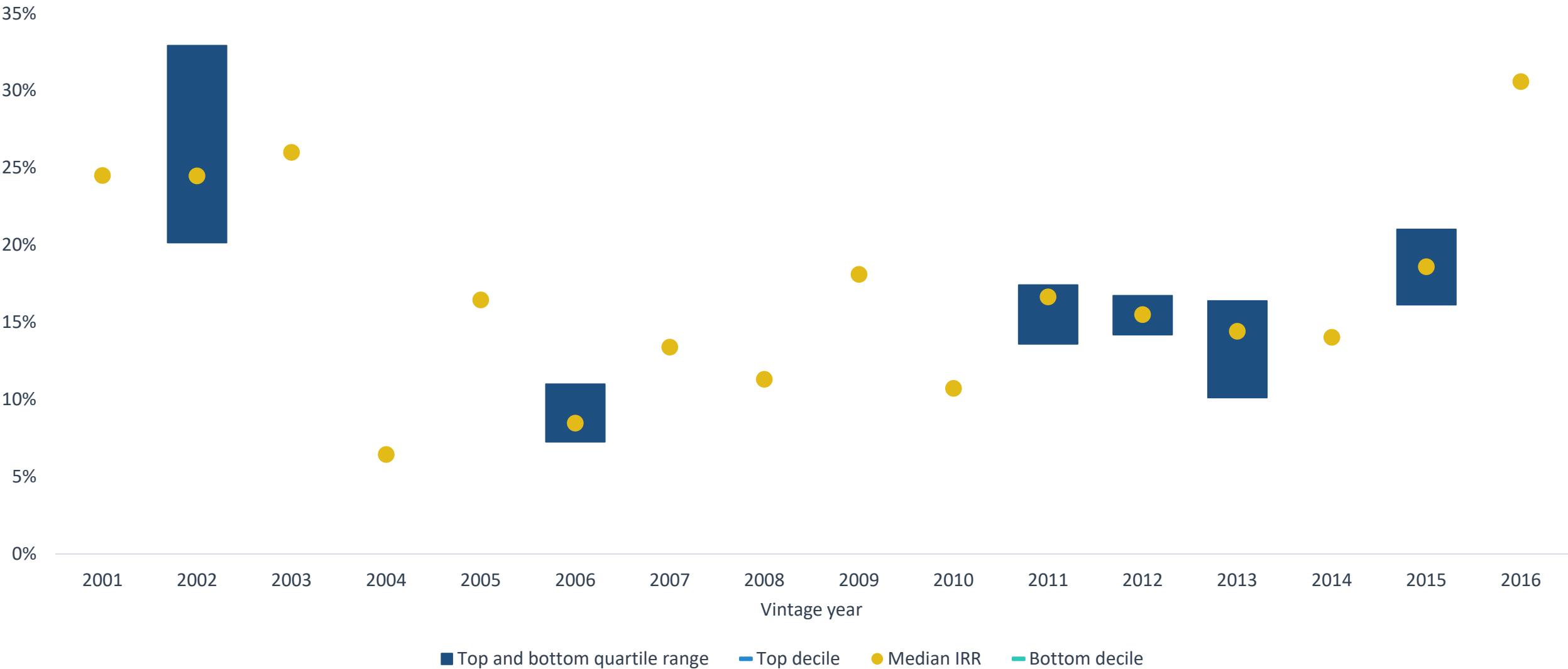
Pooled IRRsIRR quantiles

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										
1998	29.63%	29.63%	1			25.00%				1
1999	14.07%	14.07%	1			15.90%			24.91%	3
2000	20.45%	20.45%	1			17.20%			7.35%	2
2001						24.51%			3.39%	2
2002	12.11%	12.11%	1		32.93%	24.48%	20.16%		18.03%	4
2003						26.00%			26.65%	3
2004	4.64%	4.64%	1			6.44%			1.05%	2
2005	6.00%	6.00%	1			16.44%			19.13%	3
2006	7.10%	5.36%	5		11.00%	8.47%	7.26%		4.99%	9
2007						13.39%				1
2008	9.41%	9.70%	5			11.30%			0.14%	2
2009	11.52%	16.01%	2			18.10%			6.64%	3
2010	13.99%	11.39%	2			10.72%			3.45%	3
2011	15.65%	16.85%	3		17.43%	16.65%	13.59%		6.00%	4
2012	16.22%	16.24%	2		16.73%	15.49%	14.20%		3.37%	4
2013	10.89%	9.08%	7		16.40%	14.41%	10.13%		5.35%	8
2014	11.06%	10.65%	4			14.03%			4.97%	3
2015	18.85%	19.75%	6		21.03%	18.60%	16.14%		4.25%	4
2016	19.60%	17.71%	2			30.58%			14.74%	2
2017	16.48%	21.98%	4		27.13%	25.50%	15.55%		9.69%	6
2018	60.08%	58.79%	3			63.13%			25.18%	3
2019	40.41%	48.67%	2			31.57%				1
2020	8.11%	84.28%	3		124.25%	100.30%	78.74%		62.97%	4



Secondaries

IRR by vintage



Secondaries

PMEs by vintage

S&P 500 index				Morningstar Europe Index			
Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1997							
1998	29.63%	8.44%	1.30	29.63%			1
1999	14.07%	7.75%	1.44	14.07%	6.21%	1.26	1
2000	20.45%	7.47%	1.52	20.45%	5.61%	1.26	1
2001							
2002	12.11%	9.39%	1.13	12.11%	7.85%	1.05	1
2003							
2004	4.64%	10.30%	0.80	4.64%	7.35%	1.00	1
2005	6.00%	10.49%	0.96	6.00%	6.71%	1.47	1
2006	7.10%	10.55%	0.92	7.10%	5.93%	1.11	5
2007							
2008	9.41%	11.47%	0.82	9.41%	4.61%	1.09	5
2009	11.52%	16.92%	0.91	11.52%	10.76%	1.17	2
2010	13.99%	14.94%	1.00	13.99%	7.53%	1.29	2
2011	15.65%	14.63%	1.05	15.65%	6.82%	1.46	3
2012	16.22%	15.61%	1.06	16.22%	8.52%	1.34	2
2013	10.89%	15.70%	0.91	10.89%	7.67%	1.17	7
2014	11.06%	14.66%	0.90	11.06%	6.03%	1.10	4
2015	18.85%	14.64%	1.02	18.85%	7.78%	1.25	6
2016	19.60%	18.28%	1.04	19.60%	11.24%	1.26	2
2017	16.48%	17.51%	0.92	16.48%	11.17%	1.09	4
2018	60.08%	16.85%	1.34	60.08%	7.70%	1.46	3
2019	40.41%	23.58%	1.25	40.41%	15.39%	1.38	2
2020	8.11%	30.05%	0.89	8.11%	21.78%	0.91	3

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

Secondaries

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
1997							
1998	1.54x	1.46x	0.09x	1.54x	1.46x	0.09x	1
1999	1.43x	1.43x	0.00x	1.43x	1.43x	0.00x	1
2000	1.81x	1.81x	0.00x	1.81x	1.81x	0.00x	1
2001							
2002	1.36x	1.36x	0.00x	1.36x	1.36x	0.00x	1
2003							
2004	1.34x	1.32x	0.02x	1.34x	1.32x	0.02x	1
2005	1.65x	1.65x	0.00x	1.65x	1.65x	0.00x	1
2006	1.38x	1.33x	0.05x	1.26x	1.22x	0.03x	5
2007							
2008	1.57x	1.28x	0.29x	1.61x	1.28x	0.33x	5
2009	1.56x	1.39x	0.17x	1.95x	1.72x	0.24x	2
2010	1.56x	1.51x	0.04x	1.52x	1.36x	0.16x	2
2011	1.94x	1.40x	0.54x	2.14x	1.50x	0.63x	3
2012	1.76x	1.33x	0.43x	1.65x	1.07x	0.58x	2
2013	1.47x	1.09x	0.38x	1.43x	0.78x	0.65x	7
2014	1.38x	0.75x	0.63x	1.42x	0.74x	0.69x	4
2015	1.61x	0.61x	1.00x	1.69x	0.95x	0.74x	6
2016	1.70x	0.38x	1.33x	1.60x	0.66x	0.95x	2
2017	1.42x	0.18x	1.23x	1.60x	0.31x	1.29x	4
2018	1.80x	0.14x	1.66x	1.88x	0.08x	1.80x	3
2019	1.71x	0.29x	1.42x	1.80x	0.21x	1.59x	2
2020	1.04x	0.12x	0.91x	1.64x	0.13x	1.51x	3

Source: PitchBook | Geography: Europe | Data as of September 30, 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											
1998			1.54x					1.46x			1
1999			1.43x					1.43x			1
2000			1.81x					1.81x			1
2001											
2002			1.36x					1.36x			1
2003											
2004			1.34x					1.32x			1
2005			1.65x					1.65x			1
2006		1.55x	1.29x	1.21x			1.45x	1.27x	1.21x		5
2007											
2008		1.73x	1.66x	1.51x			1.53x	1.43x	1.17x		5
2009			2.00x					1.76x			2
2010			1.52x					1.35x			2
2011			2.11x					1.42x			3
2012			1.67x					1.11x			2
2013		1.57x	1.45x	1.31x			1.20x	0.85x	0.50x		7
2014		1.52x	1.42x	1.32x			0.87x	0.71x	0.57x		4
2015		1.82x	1.62x	1.57x			1.36x	0.86x	0.62x		6
2016			1.63x					0.58x			2
2017		1.69x	1.57x	1.47x			0.38x	0.36x	0.28x		4
2018			1.79x					0.10x			3
2019			1.83x					0.18x			2
2020			1.61x					0.13x			3

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		Q1 2007	6.62%	Q1 2013	3.53%	Q1 2019	0.11%
Q2 2001		Q2 2007	7.74%	Q2 2013	4.78%	Q2 2019	9.53%
Q3 2001		Q3 2007	8.56%	Q3 2013	-1.03%	Q3 2019	-0.43%
Q4 2001		Q4 2007	7.02%	Q4 2013	7.86%	Q4 2019	0.94%
Q1 2002	12.03%	Q1 2008	1.53%	Q1 2014	3.33%	Q1 2020	-2.48%
Q2 2002	1.53%	Q2 2008	0.03%	Q2 2014	2.57%	Q2 2020	-13.31%
Q3 2002	-10.51%	Q3 2008	-6.33%	Q3 2014	2.70%	Q3 2020	1.50%
Q4 2002	-2.33%	Q4 2008	-3.77%	Q4 2014	3.43%	Q4 2020	11.02%
Q1 2003	3.04%	Q1 2009	-15.82%	Q1 2015	4.13%	Q1 2021	9.63%
Q2 2003	8.33%	Q2 2009	-2.80%	Q2 2015	7.07%	Q2 2021	28.72%
Q3 2003	-0.30%	Q3 2009	2.50%	Q3 2015	-2.75%	Q3 2021	11.20%
Q4 2003	5.39%	Q4 2009	4.49%	Q4 2015	0.35%		
Q1 2004	5.75%	Q1 2010	0.29%	Q1 2016	-0.20%		
Q2 2004	3.14%	Q2 2010	-0.03%	Q2 2016	5.95%		
Q3 2004	13.61%	Q3 2010	6.29%	Q3 2016	0.92%		
Q4 2004	8.60%	Q4 2010	6.53%	Q4 2016	2.87%		
Q1 2005	5.54%	Q1 2011	5.35%	Q1 2017	4.59%		
Q2 2005	-4.66%	Q2 2011	8.81%	Q2 2017	5.14%		
Q3 2005	2.02%	Q3 2011	5.99%	Q3 2017	1.05%		
Q4 2005	1.47%	Q4 2011	-13.46%	Q4 2017	3.50%		
Q1 2006	7.86%	Q1 2012	10.23%	Q1 2018	1.42%		
Q2 2006	3.40%	Q2 2012	0.53%	Q2 2018	8.50%		
Q3 2006	-0.24%	Q3 2012	9.24%	Q3 2018	3.40%		
Q4 2006	9.18%	Q4 2012	1.07%	Q4 2018	-1.62%		

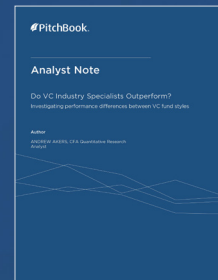
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Fund performance



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