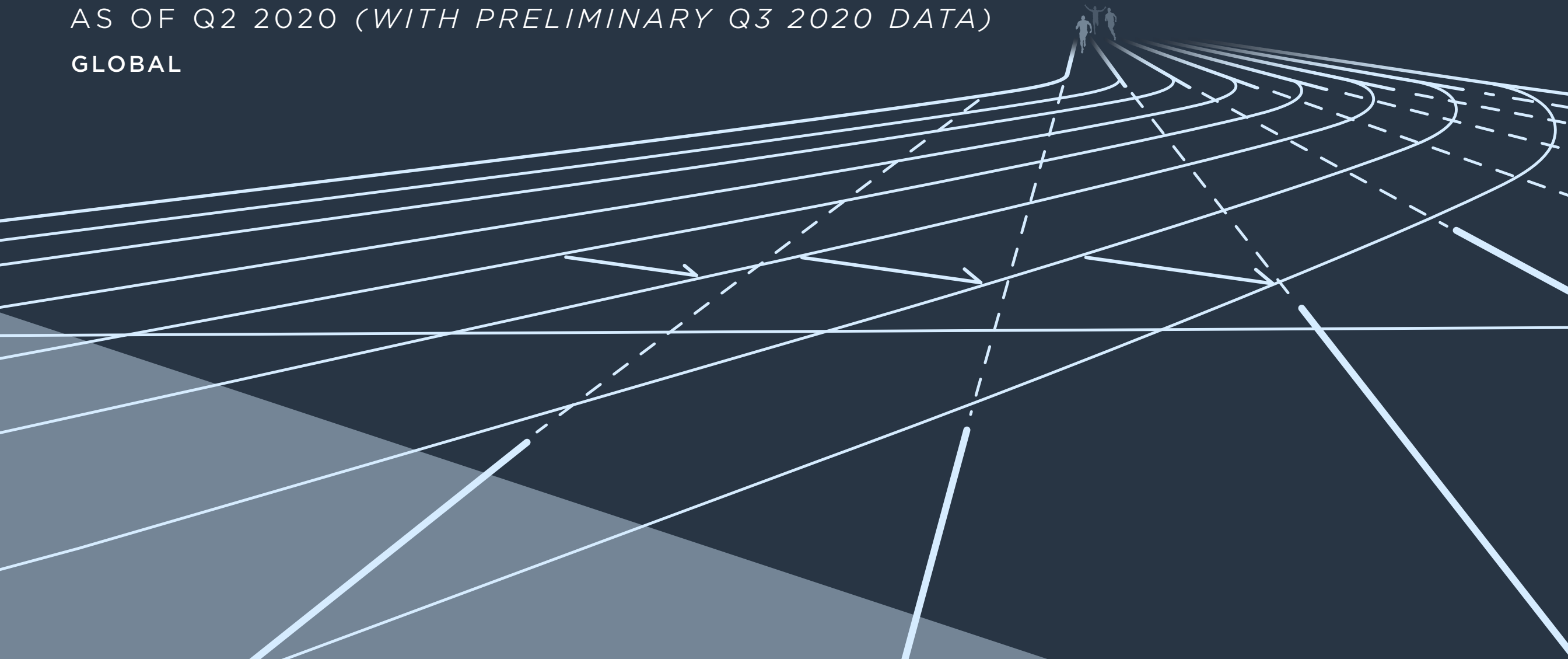




PitchBook Benchmarks

AS OF Q2 2020 (WITH PRELIMINARY Q3 2020 DATA)

GLOBAL





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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 are expanding PitchBook Benchmarks to include additional slices based on fund strategy and geography, enabling performance comparisons with more representative peer groups. This quarter we are introducing dedicated PitchBook Benchmarks for North America, Europe, Private Equity, and Venture Capital, with more to be released in the future. To easily access the supporting data in this PDF, be sure to download the four accompanying Excel data packs. Links for those packs and the other Benchmark reports are below:

Excel data packs:

- [Global](#)
- [Europe](#)
- [North America](#)
- [Private equity](#)
- [Venture capital](#)

PitchBook Benchmark PDFs:

- [Global](#)
- [Europe](#)
- [North America](#)
- [Private equity](#)
- [Venture capital](#)

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

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.

Commitment pacing and cash flow models, as well as custom benchmarking analysis, can be made available upon request for PitchBook clients.



Methodology

Fund classifications

Private equity

Buyout
Growth/expansion
Mezzanine
Restructuring/turnaround
Diversified PE

Venture capital

Real estate

Real estate core
Real estate core plus
Real estate value added
Real estate opportunistic
Real estate distressed

Real assets

Infrastructure core
Infrastructure value added
Infrastructure opportunistic
Infrastructure greenfield
Energy
Timber
Metals/mining
Agriculture

Private debt

Direct lending
Bridge financing
Distressed debt
Credit special situations
Infrastructure debt
Venture debt
Real estate debt

Funds of funds

Secondaries

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.

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.

Quarterly return: The percentage change in aggregate NAV is calculated 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.

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 IRR: Calculated as the aggregate percentage change in aggregate NAV for each group of funds in a sample, considering contributions and distributions during the quarter. Interpolated and extended data are not used in this calculation. Preliminary data is only available for global benchmarks and will be published when 60% or more of NAV is captured for all private capital funds. Note that individual fund strategies may vary from that 60% threshold.

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

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

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

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

Pooled calculations: Pooled calculations combine 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/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).

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

PitchBook introduces new commitment pacing and cash flow models

Greater transparency.
More flexibility.
Differentiated data.



PitchBook has leveraged our massive private fund database to develop several models to help limited partners (LPs) better navigate private markets. These new models offer foresight into planning for commitment pacing and preparing for capital calls, allowing the user to customize for their specific allocations and assumptions.

All the models introduced in this series are available to PitchBook clients. We welcome any questions, comments, or inquiries at benchmarks@pitchbook.com.

Download the full Basics of Cash Flow Management series.



Private capital



Private capital

Horizon IRRs

Strategy	Q3 2020*	Q2 2020	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	6.84%	5.76%	4.44%	9.49%	9.78%	12.03%	10.19%	9.57%
Private equity	9.81%	9.30%	8.04%	11.82%	12.18%	13.89%	12.04%	11.34%
Venture capital	10.50%	8.39%	13.76%	15.85%	10.35%	13.19%	10.07%	6.22%
Real estate	0.19%	-1.5%	2.6%	8.2%	9.6%	12.3%	6.8%	7.0%
Real assets	2.39%	2.36%	-6.68%	1.46%	3.43%	5.25%	4.99%	5.41%
Private debt	3.63%	1.69%	-0.28%	4.68%	5.20%	8.30%	7.90%	8.44%
Funds of funds	7.56%	3.78%	6.52%	11.46%	10.16%	10.26%	9.47%	8.31%
Secondaries	0.24%	-3.66%	-3.30%	8.44%	8.28%	11.57%	10.29%	10.47%
S&P 500	8.93%	20.54%	7.51%	10.79%	10.79%	13.87%	8.78%	5.96%
MSCI All Country World Index	8.25%	19.39%	2.64%	6.64%	7.04%	9.67%	6.96%	
MSCI World Small Cap Growth	10.19%	29.35%	5.02%	8.15%	8.01%	11.92%	8.80%	6.59%
Morningstar Global Real Estate	3.39%	12.19%	-10.37%	1.08%	3.56%	7.69%	5.46%	7.93%
Morningstar US Real Asset	-0.15%	6.52%	-2.59%	1.99%	1.41%	3.20%	4.37%	6.70%
Bloomberg Barclays Global High Yield Corporate	4.87%	11.36%	-0.12%	2.98%	4.46%	6.38%	6.74%	

*For private fund strategies these are preliminary quarterly returns

Source: PitchBook. Geography: Global. Data as of June 30, 2020

Note: all public index values are total return CAGRs



Private capital

Equal-weighted horizon IRRs

Strategy	Q3 2020*	Q2 2020	1-year	3-year	5-year	10-year	15-year	20-year
Private capital	6.22%	3.82%	5.49%	10.19%	9.54%	11.36%	9.80%	8.13%
Private equity	10.73%	6.43%	5.69%	11.22%	11.53%	12.57%	11.95%	10.25%
Venture capital	10.39%	6.14%	11.48%	14.63%	9.34%	12.31%	9.17%	5.12%
Real estate	-1.16%	-2.88%	4.93%	8.16%	9.36%	10.97%	6.82%	7.05%
Real assets	0.04%	0.92%	-1.58%	3.15%	4.45%	5.78%	6.34%	6.98%
Private debt	1.84%	1.74%	-0.40%	5.01%	5.58%	8.30%	7.78%	8.75%
Funds of funds	6.35%	4.30%	7.35%	12.51%	11.27%	12.06%	10.50%	9.59%
Secondaries	0.99%	0.63%	1.24%	8.39%	8.50%	11.68%	10.45%	10.15%
S&P 500	8.93%	20.54%	7.51%	10.79%	10.79%	13.87%	8.78%	5.96%
MSCI All Country World Index	8.25%	19.39%	2.64%	6.64%	7.04%	9.67%	6.96%	
MSCI World Small Cap Growth	10.19%	29.35%	5.02%	8.15%	8.01%	11.92%	8.80%	6.59%
Morningstar Global Real Estate	3.39%	12.19%	-10.37%	1.08%	3.56%	7.69%	5.46%	7.93%
Morningstar US Real Asset	-0.15%	6.52%	-2.59%	1.99%	1.41%	3.20%	4.37%	6.70%
Bloomberg Barclays Global High Yield Corporate	4.87%	11.36%	-0.12%	2.98%	4.46%	6.38%	6.74%	

*For private fund strategies these are preliminary quarterly returns
Source: PitchBook. Geography: Global. Data as of June 30, 2020
Note: all public index values are total return CAGRs

Private equity



Private equity

IRR by vintage

Pooled IRRs

IRR hurdle rates

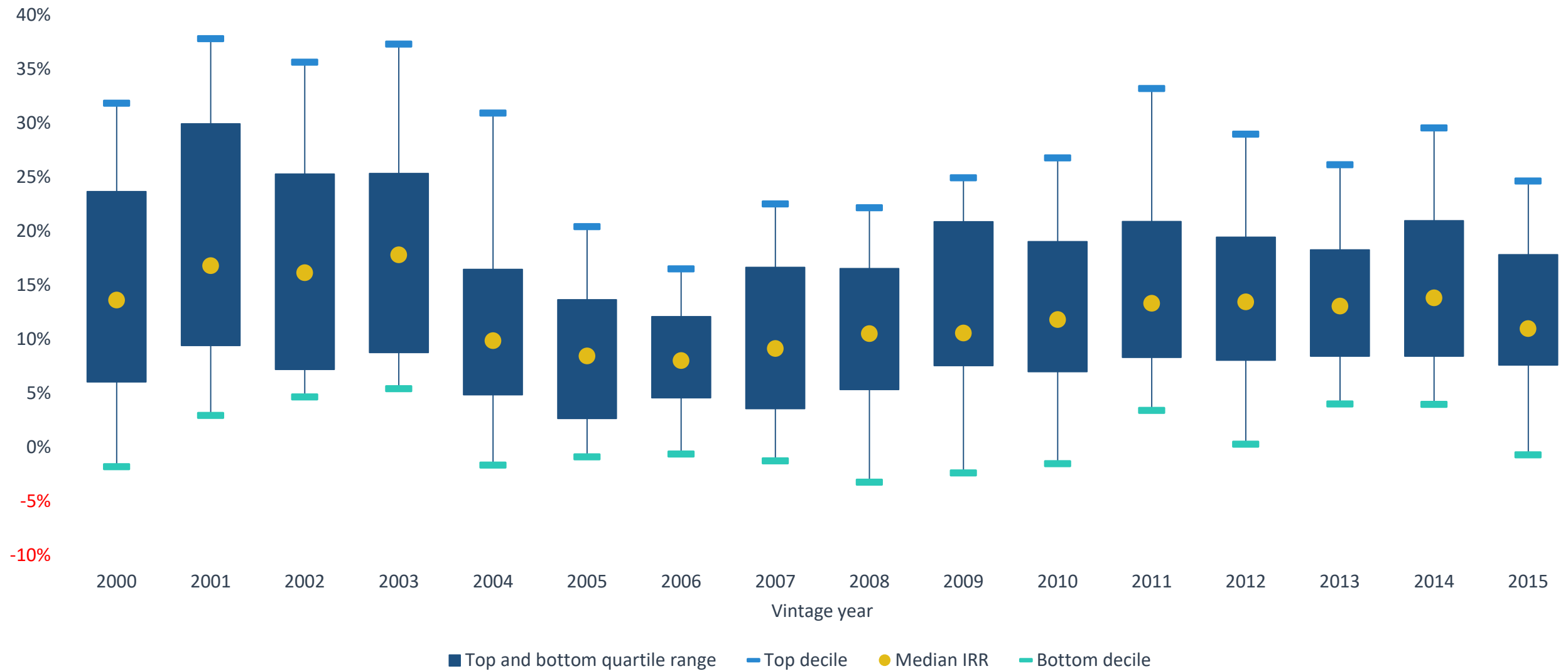
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
Pre-1996	19.97%	10.44%	6	36.55%	28.59%	16.67%	9.86%	-2.85%	18.35%	87
1996	11.34%	8.04%	24	23.46%	17.26%	5.96%	0.38%	-6.53%	13.77%	36
1997	9.78%	7.51%	25	26.85%	13.41%	7.46%	0.14%	-3.93%	15.94%	34
1998	6.52%	5.27%	42	20.31%	14.30%	8.19%	0.80%	-8.41%	10.90%	58
1999	9.88%	11.23%	40	24.58%	17.85%	11.79%	4.85%	-0.42%	11.60%	57
2000	15.93%	12.40%	51	31.81%	23.65%	13.60%	6.03%	-1.81%	12.48%	71
2001	24.26%	20.23%	35	37.78%	29.91%	16.78%	9.41%	2.93%	17.51%	43
2002	20.44%	16.70%	36	35.60%	25.27%	16.14%	7.20%	4.64%	20.62%	52
2003	18.08%	15.08%	24	37.28%	25.32%	17.79%	8.75%	5.41%	12.82%	34
2004	11.82%	10.95%	51	30.91%	16.46%	9.85%	4.85%	-1.66%	17.72%	60
2005	9.33%	9.02%	78	20.40%	13.64%	8.43%	2.66%	-0.90%	12.09%	96
2006	7.40%	7.20%	114	16.48%	12.08%	8.00%	4.58%	-0.64%	8.39%	146
2007	9.02%	9.32%	116	22.50%	16.64%	9.13%	3.56%	-1.27%	11.92%	143
2008	12.44%	10.09%	114	22.15%	16.52%	10.50%	5.32%	-3.25%	14.31%	136
2009	13.51%	13.96%	49	24.92%	20.85%	10.55%	7.55%	-2.39%	15.71%	62
2010	11.38%	10.50%	60	26.76%	19.01%	11.80%	6.98%	-1.54%	12.54%	63
2011	14.27%	14.54%	81	33.17%	20.88%	13.32%	8.30%	3.40%	17.77%	94
2012	14.54%	12.16%	108	28.95%	19.43%	13.44%	8.05%	0.27%	13.23%	110
2013	12.14%	12.81%	98	26.12%	18.26%	13.05%	8.43%	4.00%	11.44%	98
2014	16.97%	15.06%	101	29.52%	20.95%	13.81%	8.43%	3.96%	12.66%	99
2015	14.95%	13.45%	121	24.61%	17.81%	10.97%	7.59%	-0.71%	10.85%	118
2016	15.96%	15.16%	119	29.45%	23.16%	13.64%	8.11%	1.19%	13.73%	122
2017	13.50%	10.87%	126	28.37%	17.69%	8.76%	2.07%	-9.05%	22.54%	112
2018	4.76%	4.87%	131	35.88%	16.40%	4.64%	-12.68%	-34.50%	31.28%	116

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Private equity

IRRs by vintage





Private equity

PMEs by vintage

S&P 500 index

MSCI All Country World Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1996	11.34%	8.54%	1.38	11.34%	6.50%	1.37	24
1997	9.78%	7.84%	1.38	9.78%	6.27%	1.34	25
1998	6.52%	6.85%	1.30	6.52%	5.60%	1.21	42
1999	9.88%	6.06%	1.37	9.88%	5.20%	1.26	40
2000	15.93%	5.68%	1.49	15.93%	4.49%	1.35	51
2001	24.26%	6.52%	1.69	24.26%	5.60%	1.54	35
2002	20.44%	7.50%	1.47	20.44%	6.77%	1.38	36
2003	18.08%	9.57%	1.47	18.08%	8.56%	1.42	24
2004	11.82%	8.23%	1.32	11.82%	6.80%	1.34	51
2005	9.33%	8.30%	1.17	9.33%	6.46%	1.27	78
2006	7.40%	8.21%	1.00	7.40%	5.75%	1.14	114
2007	9.02%	7.85%	0.95	9.02%	4.90%	1.10	116
2008	12.44%	8.82%	0.98	12.44%	5.17%	1.15	114
2009	13.51%	14.51%	0.98	13.51%	11.04%	1.14	49
2010	11.38%	12.10%	0.94	11.38%	7.85%	1.11	60
2011	14.27%	11.46%	1.06	14.27%	6.92%	1.24	81
2012	14.54%	12.17%	1.09	14.54%	8.04%	1.24	108
2013	12.14%	11.81%	1.04	12.14%	7.38%	1.17	98
2014	16.97%	10.01%	1.21	16.97%	5.95%	1.33	101
2015	14.95%	9.12%	1.11	14.95%	5.73%	1.21	121
2016	15.96%	12.30%	1.14	15.96%	9.29%	1.23	119
2017	13.50%	9.53%	1.10	13.50%	6.28%	1.16	126
2018	4.76%	5.24%	1.01	4.76%	0.06%	1.05	131

Source: PitchBook. Geography: Global . Data as of June 30, 2020



Private equity

Multiples by vintage

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
Pre-1996	1.69x	1.67x	0.02x	1.47x	1.40x	0.07x	6
1996	1.56x	1.56x	0.00x	1.39x	1.39x	0.00x	24
1997	1.59x	1.59x	0.00x	1.39x	1.39x	0.00x	25
1998	1.39x	1.38x	0.00x	1.28x	1.28x	0.00x	42
1999	1.53x	1.52x	0.00x	1.65x	1.64x	0.01x	40
2000	1.82x	1.81x	0.01x	1.71x	1.69x	0.02x	51
2001	2.18x	2.16x	0.01x	2.00x	1.98x	0.02x	35
2002	1.98x	1.96x	0.02x	1.79x	1.77x	0.02x	36
2003	1.87x	1.85x	0.02x	1.78x	1.75x	0.04x	24
2004	1.71x	1.66x	0.05x	1.64x	1.58x	0.06x	51
2005	1.56x	1.52x	0.04x	1.54x	1.49x	0.05x	78
2006	1.48x	1.42x	0.06x	1.44x	1.36x	0.08x	114
2007	1.50x	1.37x	0.13x	1.53x	1.41x	0.12x	116
2008	1.64x	1.50x	0.13x	1.53x	1.37x	0.16x	114
2009	1.65x	1.50x	0.15x	1.68x	1.46x	0.22x	49
2010	1.59x	1.18x	0.42x	1.54x	1.14x	0.40x	60
2011	1.72x	1.17x	0.55x	1.75x	1.18x	0.57x	81
2012	1.61x	1.00x	0.62x	1.50x	0.92x	0.58x	108
2013	1.43x	0.77x	0.66x	1.49x	0.76x	0.73x	98
2014	1.61x	0.71x	0.90x	1.55x	0.62x	0.93x	101
2015	1.38x	0.44x	0.94x	1.36x	0.41x	0.95x	121
2016	1.33x	0.24x	1.09x	1.32x	0.28x	1.04x	119
2017	1.18x	0.14x	1.05x	1.16x	0.18x	0.99x	126
2018	1.04x	0.06x	0.98x	1.05x	0.09x	0.95x	131

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Private equity

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
Pre-1996		1.82x	1.39x	0.96x			1.82x	1.20x	0.79x		6
1996	2.27x	1.83x	1.28x	0.95x	0.55x	2.27x	1.83x	1.28x	0.95x	0.55x	24
1997	2.02x	1.75x	1.46x	1.02x	0.76x	2.02x	1.75x	1.46x	1.02x	0.76x	25
1998	1.88x	1.57x	1.32x	0.93x	0.58x	1.88x	1.57x	1.30x	0.93x	0.58x	42
1999	2.38x	2.03x	1.61x	1.23x	0.99x	2.38x	1.97x	1.61x	1.22x	0.99x	40
2000	2.42x	2.09x	1.67x	1.31x	0.94x	2.42x	2.08x	1.66x	1.29x	0.83x	51
2001	2.93x	2.43x	2.01x	1.54x	1.28x	2.93x	2.43x	1.94x	1.54x	1.28x	35
2002	2.50x	2.16x	1.75x	1.34x	1.21x	2.48x	2.15x	1.75x	1.34x	1.21x	36
2003	3.04x	1.90x	1.67x	1.43x	0.80x	2.96x	1.90x	1.67x	1.39x	0.78x	24
2004	2.54x	1.99x	1.59x	1.28x	0.80x	2.54x	1.98x	1.57x	1.16x	0.80x	51
2005	2.29x	1.81x	1.47x	1.21x	0.91x	2.28x	1.74x	1.40x	1.14x	0.87x	78
2006	2.08x	1.65x	1.40x	1.17x	0.89x	2.01x	1.62x	1.36x	1.13x	0.64x	114
2007	2.21x	1.91x	1.48x	1.15x	0.90x	2.09x	1.81x	1.35x	0.99x	0.74x	116
2008	2.11x	1.85x	1.50x	1.23x	0.87x	2.00x	1.65x	1.36x	1.01x	0.68x	114
2009	2.44x	2.02x	1.56x	1.32x	0.91x	2.33x	1.86x	1.39x	1.15x	0.77x	49
2010	2.37x	1.89x	1.47x	1.17x	0.83x	1.86x	1.47x	1.17x	0.86x	0.44x	60
2011	2.89x	2.10x	1.56x	1.26x	1.03x	1.97x	1.49x	1.11x	0.63x	0.35x	81
2012	2.05x	1.80x	1.45x	1.21x	0.91x	1.52x	1.20x	0.89x	0.55x	0.32x	108
2013	1.94x	1.64x	1.47x	1.25x	1.02x	1.25x	1.05x	0.68x	0.42x	0.17x	98
2014	2.26x	1.71x	1.40x	1.18x	0.99x	1.28x	0.77x	0.53x	0.22x	0.04x	101
2015	1.89x	1.41x	1.30x	1.15x	0.93x	0.79x	0.58x	0.34x	0.14x	0.03x	121
2016	1.70x	1.51x	1.25x	1.10x	0.98x	0.66x	0.42x	0.19x	0.04x	0.00x	119
2017	1.41x	1.25x	1.13x	0.97x	0.86x	0.42x	0.19x	0.06x	0.00x	0.00x	126
2018	1.28x	1.13x	1.01x	0.89x	0.74x	0.26x	0.06x	0.01x	0.00x	0.00x	131

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Private equity

Quarterly return

Quarter end	1-quarter return
Q1 2001	-6.40%
Q2 2001	0.44%
Q3 2001	-3.64%
Q4 2001	-3.96%
Q1 2002	-0.75%
Q2 2002	-2.87%
Q3 2002	-2.82%
Q4 2002	-0.28%
Q1 2003	0.15%
Q2 2003	5.94%
Q3 2003	4.02%
Q4 2003	9.59%
Q1 2004	9.18%
Q2 2004	0.26%
Q3 2004	2.73%
Q4 2004	13.60%
Q1 2005	2.08%
Q2 2005	8.41%
Q3 2005	7.70%
Q4 2005	10.31%
Q1 2006	4.17%
Q2 2006	5.66%
Q3 2006	4.41%
Q4 2006	12.66%

Quarter end	1-quarter return
Q1 2007	5.41%
Q2 2007	8.87%
Q3 2007	4.38%
Q4 2007	3.18%
Q1 2008	0.07%
Q2 2008	-1.27%
Q3 2008	-8.28%
Q4 2008	-11.88%
Q1 2009	-7.75%
Q2 2009	4.32%
Q3 2009	5.10%
Q4 2009	7.71%
Q1 2010	2.83%
Q2 2010	1.31%
Q3 2010	4.83%
Q4 2010	7.78%
Q1 2011	5.26%
Q2 2011	4.57%
Q3 2011	-2.88%
Q4 2011	1.13%
Q1 2012	5.94%
Q2 2012	0.72%
Q3 2012	3.76%
Q4 2012	3.13%

Quarter end	1-quarter return
Q1 2013	3.18%
Q2 2013	2.95%
Q3 2013	4.89%
Q4 2013	5.73%
Q1 2014	4.65%
Q2 2014	5.03%
Q3 2014	0.16%
Q4 2014	3.31%
Q1 2015	3.43%
Q2 2015	5.59%
Q3 2015	0.65%
Q4 2015	1.98%
Q1 2016	1.69%
Q2 2016	4.42%
Q3 2016	4.42%
Q4 2016	1.45%
Q1 2017	4.66%
Q2 2017	5.40%
Q3 2017	4.45%
Q4 2017	4.63%
Q1 2018	4.08%
Q2 2018	3.32%
Q3 2018	3.31%
Q4 2018	-0.81%

Quarter end	1-quarter return
Q1 2019	4.76%
Q2 2019	3.03%
Q3 2019	3.29%
Q4 2019	4.88%
Q1 2020	-8.32%
Q2 2020	9.30%
Q3 2020*	9.81%

*Preliminary figure

Venture capital



Venture capital

IRR by vintage

Pooled IRRs

IRR hurdle rates

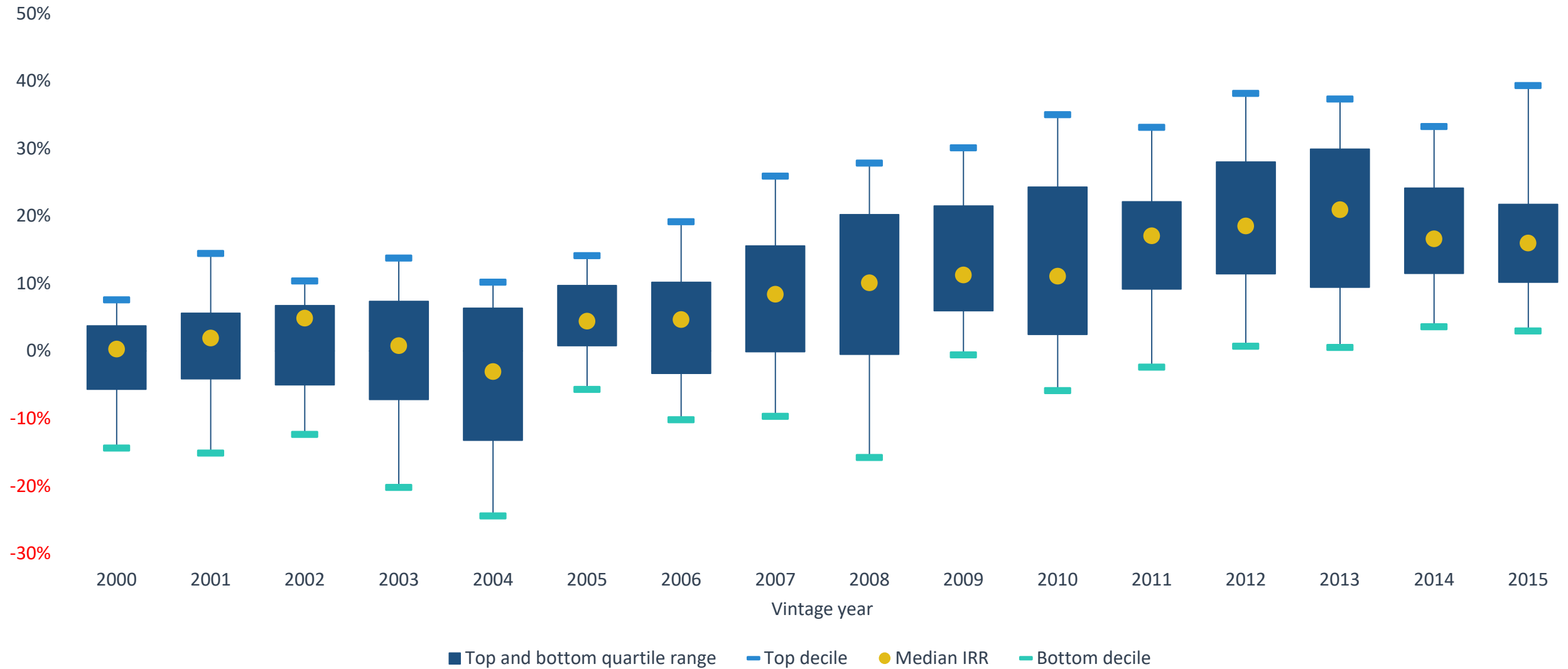
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
Pre-1996	61.44%	74.32%	3	71.32%	34.95%	14.91%	7.17%	-0.36%	62.97%	73
1996	91.71%	143.96%	8	124.02%	85.35%	25.27%	7.88%	-0.89%	58.93%	14
1997	5.93%	13.06%	15	126.18%	54.35%	17.63%	0.13%	-5.00%	119.23%	23
1998	6.39%	4.98%	20	48.87%	15.43%	9.22%	-7.71%	-10.82%	36.65%	23
1999	-2.13%	-3.17%	39	11.20%	6.40%	-4.40%	-11.33%	-16.70%	13.18%	51
2000	0.16%	-1.14%	58	7.57%	3.72%	0.29%	-5.68%	-14.41%	10.94%	78
2001	4.76%	2.60%	36	14.44%	5.60%	1.90%	-4.14%	-15.13%	11.26%	47
2002	3.06%	2.87%	17	10.37%	6.73%	4.85%	-5.04%	-12.37%	10.78%	28
2003	5.52%	1.11%	20	13.74%	7.36%	0.78%	-7.21%	-20.22%	36.02%	30
2004	3.72%	5.60%	24	10.19%	6.33%	-3.05%	-13.23%	-24.46%	20.48%	36
2005	7.22%	6.84%	30	14.12%	9.70%	4.41%	0.77%	-5.70%	17.57%	46
2006	5.12%	3.36%	42	19.13%	10.17%	4.66%	-3.34%	-10.19%	13.17%	56
2007	11.02%	11.10%	48	25.88%	15.55%	8.40%	-0.13%	-9.70%	15.14%	63
2008	13.21%	9.36%	55	27.81%	20.20%	10.10%	-0.50%	-15.81%	23.04%	68
2009	10.13%	8.13%	21	30.09%	21.50%	11.24%	5.97%	-0.58%	15.53%	28
2010	15.03%	17.52%	22	35.00%	24.27%	11.08%	2.46%	-5.90%	17.58%	31
2011	18.08%	16.56%	20	33.13%	22.10%	17.05%	9.17%	-2.40%	18.69%	51
2012	16.79%	16.07%	21	38.15%	28.00%	18.52%	11.44%	0.70%	20.65%	35
2013	20.04%	15.07%	24	37.33%	29.90%	20.93%	9.43%	0.50%	25.58%	42
2014	21.33%	21.46%	38	33.24%	24.15%	16.62%	11.49%	3.57%	80.86%	52
2015	18.10%	16.23%	45	39.32%	21.73%	15.99%	10.18%	2.94%	14.21%	62
2016	22.66%	24.68%	52	43.43%	30.10%	21.45%	9.61%	5.40%	14.62%	56
2017	23.60%	25.07%	41	48.00%	27.75%	16.72%	8.91%	4.88%	22.08%	51
2018	13.57%	12.31%	50	40.37%	25.63%	13.30%	-0.11%	-9.94%	21.77%	50

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Venture capital

IRRs by vintage





Venture capital

PMEs by vintage

S&P 500 index

MSCI World Small Cap Growth Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1996	91.71%	8.54%	2.65	91.71%	7.23%	2.57	8
1997	5.93%	7.84%	1.08	5.93%	7.51%	0.94	15
1998	6.39%	6.85%	1.17	6.39%	7.55%	0.97	20
1999	-2.13%	6.06%	0.75	-2.13%	7.91%	0.62	39
2000	0.16%	5.68%	0.73	0.16%	5.77%	0.57	58
2001	4.76%	6.52%	0.90	4.76%	7.82%	0.74	36
2002	3.06%	7.50%	0.87	3.06%	9.15%	0.74	17
2003	5.52%	9.57%	0.91	5.52%	11.12%	0.83	20
2004	3.72%	8.23%	0.81	3.72%	8.58%	0.77	24
2005	7.22%	8.30%	0.94	7.22%	8.13%	0.92	30
2006	5.12%	8.21%	0.79	5.12%	7.11%	0.80	42
2007	11.02%	7.85%	1.01	11.02%	6.61%	1.05	48
2008	13.21%	8.82%	1.01	13.21%	7.47%	1.08	55
2009	10.13%	14.51%	0.84	10.13%	13.81%	0.95	21
2010	15.03%	12.10%	1.08	15.03%	10.02%	1.22	22
2011	18.08%	11.46%	1.28	18.08%	7.99%	1.46	20
2012	16.79%	12.17%	1.27	16.79%	9.31%	1.44	21
2013	20.04%	11.81%	1.40	20.04%	8.90%	1.56	24
2014	21.33%	10.01%	1.46	21.33%	6.07%	1.61	38
2015	18.10%	9.12%	1.24	18.10%	6.83%	1.36	45
2016	22.66%	12.30%	1.31	22.66%	10.30%	1.43	52
2017	23.60%	9.53%	1.29	23.60%	7.02%	1.39	41
2018	13.57%	5.24%	1.09	13.57%	-0.51%	1.16	50

Source: PitchBook. Geography: Global . Data as of June 30, 2020



Venture capital

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
Pre-1996	2.68x	2.68x	0.00x	2.98x	2.98x	0.00x	3
1996	3.44x	3.42x	0.02x	4.47x	4.44x	0.03x	8
1997	1.23x	1.23x	0.00x	1.41x	1.41x	0.00x	15
1998	1.32x	1.30x	0.01x	1.21x	1.20x	0.01x	20
1999	0.86x	0.79x	0.07x	0.80x	0.76x	0.04x	39
2000	1.01x	0.95x	0.06x	0.92x	0.88x	0.04x	58
2001	1.37x	1.32x	0.05x	1.19x	1.12x	0.07x	36
2002	1.18x	1.16x	0.02x	1.19x	1.10x	0.09x	17
2003	1.39x	1.34x	0.05x	1.07x	1.04x	0.03x	20
2004	1.28x	1.18x	0.10x	1.44x	1.30x	0.14x	24
2005	1.62x	1.38x	0.24x	1.59x	1.31x	0.28x	30
2006	1.36x	1.15x	0.21x	1.25x	1.01x	0.23x	42
2007	1.84x	1.45x	0.39x	1.87x	1.47x	0.40x	48
2008	1.91x	1.59x	0.32x	1.65x	1.24x	0.41x	55
2009	1.81x	1.10x	0.71x	1.61x	0.92x	0.69x	21
2010	1.95x	1.27x	0.68x	2.20x	1.53x	0.67x	22
2011	2.26x	1.17x	1.10x	2.19x	1.00x	1.19x	20
2012	2.18x	0.87x	1.31x	2.14x	0.69x	1.45x	21
2013	2.03x	0.59x	1.44x	1.75x	0.45x	1.30x	24
2014	2.07x	0.36x	1.71x	1.99x	0.34x	1.65x	38
2015	1.60x	0.26x	1.35x	1.53x	0.25x	1.29x	45
2016	1.53x	0.11x	1.43x	1.64x	0.15x	1.49x	52
2017	1.43x	0.08x	1.35x	1.51x	0.10x	1.41x	41
2018	1.16x	0.06x	1.10x	1.17x	0.14x	1.04x	50

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Venture capital

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
Pre-1996			2.13x					2.13x			3
1996		4.15x	1.90x	1.41x			4.15x	1.82x	1.40x		8
1997	2.43x	1.71x	1.14x	0.87x	0.64x	2.43x	1.71x	1.14x	0.87x	0.64x	15
1998	1.80x	1.70x	1.21x	0.68x	0.47x	1.80x	1.70x	1.20x	0.68x	0.46x	20
1999	1.66x	1.13x	0.71x	0.39x	0.20x	1.37x	1.08x	0.71x	0.36x	0.20x	39
2000	1.46x	1.19x	0.93x	0.63x	0.37x	1.43x	1.13x	0.89x	0.55x	0.31x	58
2001	1.81x	1.48x	1.19x	0.77x	0.30x	1.81x	1.40x	1.09x	0.70x	0.26x	36
2002	1.77x	1.72x	1.18x	0.68x	0.50x	1.75x	1.61x	1.18x	0.57x	0.34x	17
2003	1.68x	1.44x	1.12x	0.52x	0.40x	1.68x	1.38x	1.10x	0.52x	0.40x	20
2004	1.79x	1.50x	0.98x	0.52x	0.34x	1.72x	1.26x	0.77x	0.42x	0.10x	24
2005	2.41x	1.70x	1.27x	1.06x	0.66x	2.06x	1.60x	1.14x	0.89x	0.51x	30
2006	2.12x	1.63x	1.27x	0.69x	0.46x	1.75x	1.41x	1.01x	0.56x	0.27x	42
2007	2.79x	2.29x	1.76x	0.97x	0.42x	2.56x	1.89x	1.30x	0.51x	0.13x	48
2008	2.75x	2.11x	1.44x	0.82x	0.24x	2.48x	1.65x	0.78x	0.42x	0.20x	55
2009	2.30x	1.93x	1.67x	1.10x	0.84x	1.57x	1.34x	0.86x	0.49x	0.30x	21
2010	3.45x	2.10x	1.69x	1.23x	0.77x	2.82x	1.68x	1.10x	0.54x	0.39x	22
2011	3.55x	3.15x	2.00x	1.46x	0.99x	1.63x	1.29x	0.98x	0.57x	0.21x	20
2012	2.88x	2.43x	1.91x	1.23x	0.98x	1.34x	0.93x	0.57x	0.23x	0.00x	21
2013	2.79x	2.26x	1.58x	1.33x	0.88x	1.21x	0.52x	0.27x	0.18x	0.00x	24
2014	3.20x	2.17x	1.80x	1.42x	1.05x	0.91x	0.51x	0.17x	0.05x	0.00x	38
2015	1.82x	1.75x	1.44x	1.22x	1.05x	0.67x	0.33x	0.12x	0.00x	0.00x	45
2016	2.23x	1.76x	1.42x	1.20x	1.09x	0.42x	0.17x	0.04x	0.00x	0.00x	52
2017	2.21x	1.65x	1.27x	1.10x	0.93x	0.25x	0.12x	0.03x	0.00x	0.00x	41
2018	1.52x	1.18x	1.04x	0.94x	0.85x	0.43x	0.01x	0.00x	0.00x	0.00x	50

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Venture capital

Quarterly return

Quarter end	1-quarter return
Q1 2001	-10.91%
Q2 2001	-9.69%
Q3 2001	-13.50%
Q4 2001	-11.64%
Q1 2002	-7.84%
Q2 2002	-12.18%
Q3 2002	-9.56%
Q4 2002	-10.56%
Q1 2003	-7.60%
Q2 2003	-1.67%
Q3 2003	-2.56%
Q4 2003	5.71%
Q1 2004	-2.49%
Q2 2004	0.77%
Q3 2004	-0.93%
Q4 2004	3.08%
Q1 2005	-1.85%
Q2 2005	0.46%
Q3 2005	4.78%
Q4 2005	2.60%
Q1 2006	3.13%
Q2 2006	0.82%
Q3 2006	1.90%
Q4 2006	6.97%

Quarter end	1-quarter return
Q1 2007	2.45%
Q2 2007	5.31%
Q3 2007	2.58%
Q4 2007	3.82%
Q1 2008	2.58%
Q2 2008	-2.08%
Q3 2008	-3.21%
Q4 2008	-8.83%
Q1 2009	-3.44%
Q2 2009	-0.36%
Q3 2009	0.60%
Q4 2009	3.39%
Q1 2010	1.41%
Q2 2010	-0.21%
Q3 2010	3.92%
Q4 2010	6.26%
Q1 2011	4.45%
Q2 2011	4.92%
Q3 2011	-0.16%
Q4 2011	1.79%
Q1 2012	4.26%
Q2 2012	1.00%
Q3 2012	-0.07%
Q4 2012	2.00%

Quarter end	1-quarter return
Q1 2013	2.18%
Q2 2013	4.40%
Q3 2013	5.12%
Q4 2013	7.49%
Q1 2014	5.79%
Q2 2014	3.78%
Q3 2014	2.52%
Q4 2014	6.82%
Q1 2015	4.68%
Q2 2015	6.16%
Q3 2015	0.24%
Q4 2015	2.44%
Q1 2016	-3.20%
Q2 2016	-0.02%
Q3 2016	2.97%
Q4 2016	0.73%
Q1 2017	2.63%
Q2 2017	1.97%
Q3 2017	4.15%
Q4 2017	3.10%
Q1 2018	6.24%
Q2 2018	6.36%
Q3 2018	3.71%
Q4 2018	1.75%

Quarter end	1-quarter return
Q1 2019	6.02%
Q2 2019	2.74%
Q3 2019	1.36%
Q4 2019	6.20%
Q1 2020	-1.36%
Q2 2020	8.39%
Q3 2020*	10.50%

*Preliminary figure

Real estate



Real estate

IRR by vintage

Pooled IRRs

IRR hurdle rates

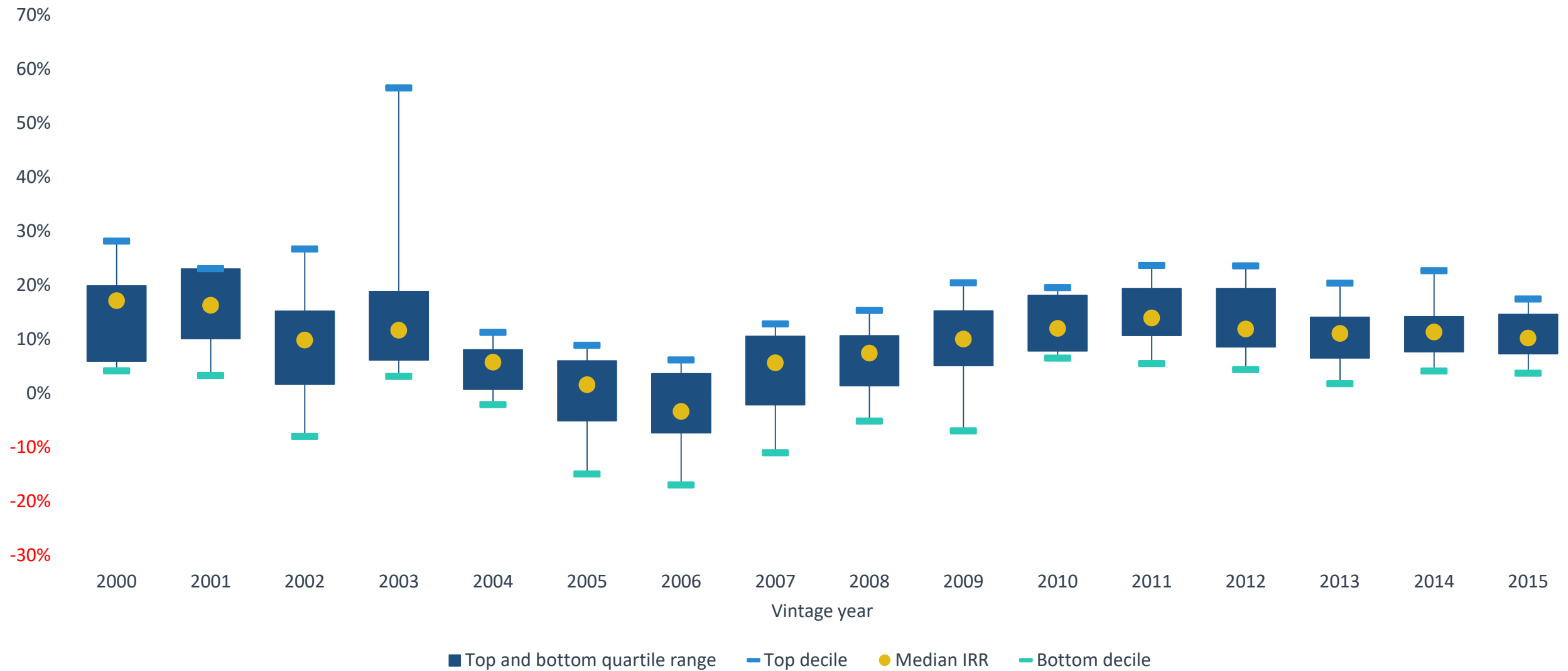
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
Pre-1996				22.08%	19.56%	10.14%	7.24%	6.12%	7.49%	12
1996	10.02%	7.45%	5		11.07%	8.94%	6.06%		4.77%	7
1997	13.89%	11.45%	5		16.19%	10.33%	4.60%		7.19%	8
1998	4.86%	5.49%	8	14.17%	9.86%	7.24%	2.64%	-1.01%	6.11%	12
1999	11.81%	9.15%	2		20.87%	18.00%	10.72%		9.12%	7
2000	16.28%	15.08%	12	28.12%	19.87%	17.10%	5.90%	4.12%	10.71%	13
2001	26.47%	17.48%	3	23.00%	22.99%	16.26%	10.07%	3.25%	8.48%	11
2002	8.57%	15.89%	3	26.67%	15.17%	9.80%	1.64%	-8.00%	19.38%	11
2003	7.63%	8.48%	4	56.46%	18.82%	11.62%	6.13%	3.09%	52.10%	18
2004	4.49%	5.93%	8	11.22%	8.01%	5.70%	0.70%	-2.15%	16.01%	22
2005	0.15%	-0.60%	25	8.83%	5.97%	1.57%	-5.10%	-14.98%	24.17%	42
2006	-1.55%	-2.05%	34	6.12%	3.60%	-3.38%	-7.35%	-17.00%	16.16%	52
2007	2.87%	1.54%	51	12.80%	10.53%	5.60%	-2.18%	-11.06%	11.22%	71
2008	6.21%	5.50%	35	15.29%	10.62%	7.39%	1.35%	-5.17%	10.68%	59
2009	8.01%	6.24%	18	20.42%	15.20%	10.00%	5.10%	-7.00%	12.55%	21
2010	15.78%	11.11%	24	19.50%	18.10%	11.95%	7.80%	6.45%	7.37%	41
2011	14.93%	14.88%	35	23.60%	19.36%	13.91%	10.68%	5.47%	8.21%	43
2012	14.41%	12.96%	45	23.54%	19.38%	11.86%	8.55%	4.34%	9.46%	57
2013	12.72%	10.72%	49	20.35%	14.07%	11.05%	6.51%	1.73%	12.87%	52
2014	9.13%	10.54%	50	22.63%	14.16%	11.30%	7.66%	4.08%	7.49%	55
2015	10.97%	10.21%	74	17.40%	14.57%	10.17%	7.28%	3.66%	5.89%	69
2016	10.57%	10.41%	55	18.59%	11.80%	8.61%	5.33%	-1.73%	9.56%	62
2017	17.81%	17.00%	57	15.82%	12.05%	9.20%	3.66%	-3.02%	11.47%	55
2018	6.42%	4.57%	68	14.66%	9.94%	1.60%	-9.39%	-23.61%	19.98%	66

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Real estate

IRRs by vintage





Real estate

PMEs by vintage

S&P 500 index

Morningstar Global Real Estate Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1996	10.02%	8.54%	1.14	10.02%			5
1997	13.89%	7.84%	1.42	13.89%			5
1998	4.86%	6.85%	1.23	4.86%			8
1999	11.81%	6.06%	1.72	11.81%	7.84%	1.02	2
2000	16.28%	5.68%	1.56	16.28%	7.76%	1.02	12
2001	26.47%	6.52%	1.51	26.47%	7.63%	1.10	3
2002	8.57%	7.50%	0.97	8.57%	8.16%	0.86	3
2003	7.63%	9.57%	1.02	7.63%	8.81%	0.90	4
2004	4.49%	8.23%	0.92	4.49%	6.52%	0.95	8
2005	0.15%	8.30%	0.68	0.15%	5.57%	0.79	25
2006	-1.55%	8.21%	0.53	-1.55%	4.10%	0.66	34
2007	2.87%	7.85%	0.67	2.87%	1.97%	0.76	51
2008	6.21%	8.82%	0.76	6.21%	3.59%	0.87	35
2009	8.01%	14.51%	0.79	8.01%	11.34%	0.91	18
2010	15.78%	12.10%	1.03	15.78%	6.88%	1.15	24
2011	14.93%	11.46%	1.05	14.93%	5.19%	1.23	35
2012	14.41%	12.17%	1.07	14.41%	5.89%	1.29	45
2013	12.72%	11.81%	1.04	12.72%	3.57%	1.23	49
2014	9.13%	10.01%	0.93	9.13%	4.00%	1.16	50
2015	10.97%	9.12%	1.01	10.97%	1.55%	1.21	74
2016	10.57%	12.30%	1.03	10.57%	3.91%	1.23	55
2017	17.81%	9.53%	1.14	17.81%	1.69%	1.32	57
2018	6.42%	5.24%	1.01	6.42%	-2.23%	1.15	68



Real estate

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
Pre-1996							
1996	1.47x	1.47x	0.00x	1.49x	1.49x	0.00x	5
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	1.77x	1.77x	0.00x	1.73x	1.72x	0.01x	12
2001	1.84x	1.83x	0.01x	1.56x	1.55x	0.01x	3
2002	1.23x	1.21x	0.02x	1.51x	1.37x	0.14x	3
2003	1.25x	1.24x	0.01x	1.27x	1.26x	0.01x	4
2004	1.25x	1.18x	0.07x	1.40x	1.27x	0.13x	8
2005	1.01x	0.98x	0.03x	0.97x	0.94x	0.03x	25
2006	0.90x	0.82x	0.08x	0.86x	0.78x	0.08x	34
2007	1.17x	1.13x	0.04x	1.08x	1.04x	0.04x	51
2008	1.28x	1.19x	0.09x	1.26x	1.19x	0.07x	35
2009	1.34x	1.21x	0.13x	1.29x	1.17x	0.12x	18
2010	1.49x	1.41x	0.07x	1.48x	1.28x	0.20x	24
2011	1.60x	1.35x	0.25x	1.66x	1.41x	0.25x	35
2012	1.57x	1.30x	0.27x	1.48x	1.21x	0.27x	45
2013	1.40x	1.01x	0.39x	1.37x	0.93x	0.44x	49
2014	1.34x	0.79x	0.55x	1.40x	0.71x	0.69x	50
2015	1.29x	0.55x	0.75x	1.30x	0.59x	0.71x	74
2016	1.23x	0.33x	0.90x	1.26x	0.40x	0.86x	55
2017	1.26x	0.35x	0.91x	1.29x	0.37x	0.92x	57
2018	1.06x	0.17x	0.90x	1.05x	0.20x	0.85x	68

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Real estate

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
Pre-1996											
1996		1.58x	1.46x	1.13x			1.58x	1.46x	1.13x		5
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	2.66x	1.71x	1.48x	1.31x	1.20x	2.66x	1.71x	1.48x	1.30x	1.12x	12
2001			1.52x					1.51x			3
2002			1.38x					1.38x			3
2003		1.36x	1.28x	1.19x			1.36x	1.26x	1.15x		4
2004		1.94x	1.25x	1.05x			1.64x	1.22x	0.91x		8
2005	1.40x	1.14x	1.00x	0.69x	0.48x	1.40x	1.10x	0.98x	0.65x	0.47x	25
2006	1.53x	1.05x	0.74x	0.47x	0.32x	1.29x	1.00x	0.69x	0.36x	0.23x	34
2007	1.63x	1.38x	1.15x	0.84x	0.44x	1.61x	1.33x	1.10x	0.75x	0.43x	51
2008	1.67x	1.53x	1.37x	1.05x	0.62x	1.63x	1.47x	1.23x	1.00x	0.51x	35
2009	1.94x	1.50x	1.31x	1.17x	0.51x	1.84x	1.49x	1.26x	0.70x	0.45x	18
2010	1.77x	1.63x	1.52x	1.32x	1.19x	1.68x	1.56x	1.40x	1.07x	0.76x	24
2011	2.16x	1.88x	1.58x	1.45x	1.22x	2.02x	1.76x	1.30x	1.06x	0.93x	35
2012	1.92x	1.52x	1.43x	1.35x	1.18x	1.76x	1.49x	1.30x	0.96x	0.64x	45
2013	1.64x	1.54x	1.44x	1.20x	1.08x	1.54x	1.27x	1.00x	0.48x	0.32x	49
2014	1.64x	1.52x	1.35x	1.20x	1.12x	1.22x	1.00x	0.73x	0.40x	0.17x	50
2015	1.54x	1.42x	1.29x	1.16x	1.09x	1.18x	0.89x	0.41x	0.22x	0.10x	74
2016	1.53x	1.35x	1.19x	1.10x	0.96x	0.67x	0.53x	0.38x	0.11x	0.03x	55
2017	1.33x	1.25x	1.13x	1.04x	0.93x	0.67x	0.31x	0.13x	0.05x	0.00x	57
2018	1.18x	1.13x	1.01x	0.90x	0.77x	0.41x	0.18x	0.04x	0.00x	0.00x	68

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Real estate

Quarterly return

Quarter end	1-quarter return
Q1 2001	4.40%
Q2 2001	1.41%
Q3 2001	0.28%
Q4 2001	1.32%
Q1 2002	2.11%
Q2 2002	1.30%
Q3 2002	0.36%
Q4 2002	-0.90%
Q1 2003	-2.17%
Q2 2003	0.92%
Q3 2003	4.90%
Q4 2003	9.72%
Q1 2004	-4.22%
Q2 2004	4.74%
Q3 2004	0.76%
Q4 2004	19.10%
Q1 2005	-3.52%
Q2 2005	5.24%
Q3 2005	9.65%
Q4 2005	13.74%
Q1 2006	2.49%
Q2 2006	6.98%
Q3 2006	9.40%
Q4 2006	21.04%

Quarter end	1-quarter return
Q1 2007	2.57%
Q2 2007	1.42%
Q3 2007	1.80%
Q4 2007	6.23%
Q1 2008	-4.41%
Q2 2008	-4.49%
Q3 2008	-8.75%
Q4 2008	-16.71%
Q1 2009	-24.93%
Q2 2009	-13.84%
Q3 2009	-7.53%
Q4 2009	-6.56%
Q1 2010	-7.01%
Q2 2010	7.80%
Q3 2010	2.70%
Q4 2010	8.16%
Q1 2011	6.09%
Q2 2011	3.78%
Q3 2011	0.42%
Q4 2011	0.42%
Q1 2012	4.40%
Q2 2012	0.23%
Q3 2012	5.34%
Q4 2012	2.08%

Quarter end	1-quarter return
Q1 2013	3.24%
Q2 2013	4.53%
Q3 2013	0.95%
Q4 2013	7.40%
Q1 2014	3.21%
Q2 2014	3.93%
Q3 2014	2.82%
Q4 2014	4.01%
Q1 2015	1.98%
Q2 2015	4.62%
Q3 2015	2.50%
Q4 2015	1.61%
Q1 2016	2.86%
Q2 2016	1.72%
Q3 2016	3.10%
Q4 2016	1.30%
Q1 2017	4.15%
Q2 2017	2.92%
Q3 2017	3.84%
Q4 2017	2.44%
Q1 2018	2.32%
Q2 2018	2.76%
Q3 2018	1.48%
Q4 2018	1.17%

Quarter end	1-quarter return
Q1 2019	5.22%
Q2 2019	1.35%
Q3 2019	3.08%
Q4 2019	1.32%
Q1 2020	-0.12%
Q2 2020	-1.45%
Q3 2020*	0.19%

*Preliminary figure

Real assets



Real assets

IRR by vintage

Pooled IRRs

IRR hurdle rates

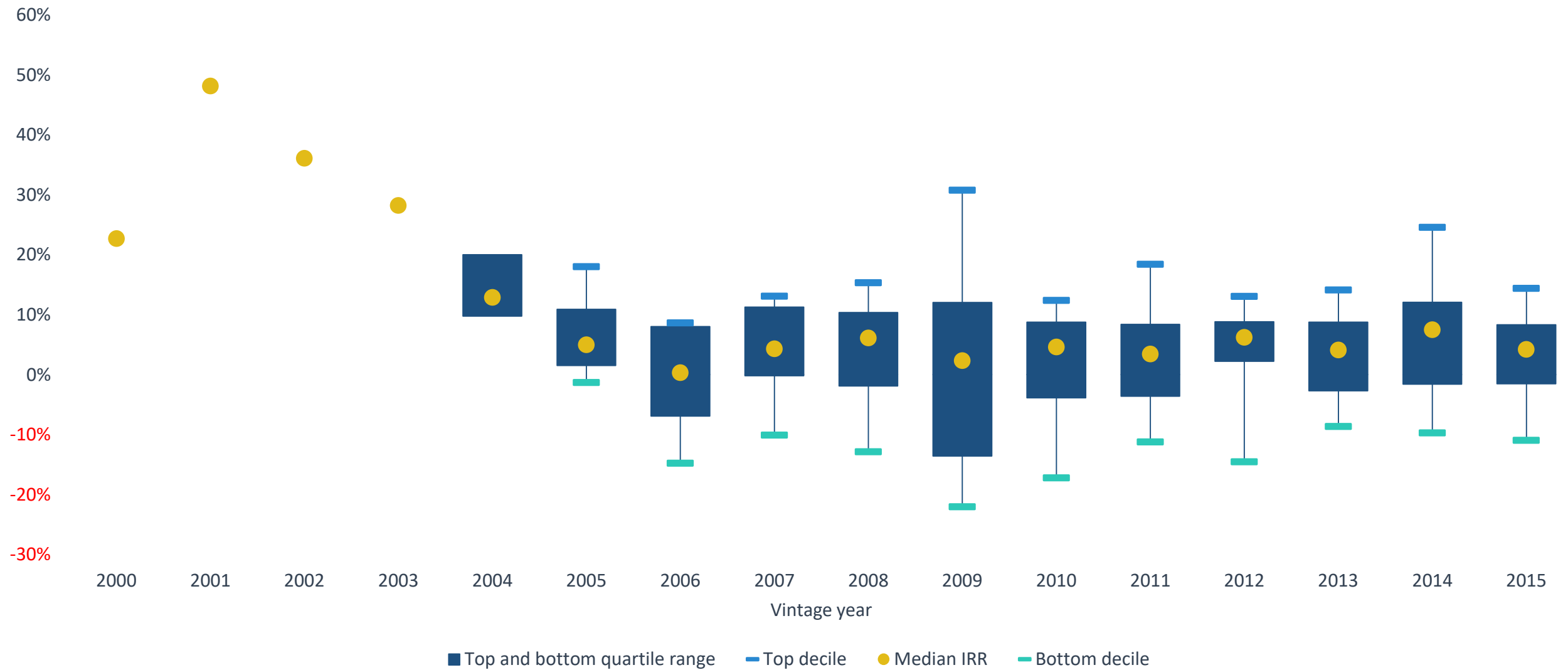
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
Pre-1996	18.01%	18.01%	1		16.93%	11.62%	4.25%		12.03%	8
1996					24.27%	17.47%	10.53%		8.01%	4
1997	17.99%		3		28.02%	20.25%	10.75%		17.05%	6
1998	16.47%	18.18%	3		28.68%	20.23%	9.81%		12.88%	6
1999	25.42%	25.42%	1		17.53%	11.50%	8.28%		8.37%	4
2000						22.67%				1
2001	49.72%	49.72%	1			48.10%				1
2002	31.17%	34.54%	3			36.05%			16.02%	3
2003	28.93%	29.44%	2			28.20%			4.11%	3
2004	23.22%	20.81%	4		20.00%	12.87%	9.75%		20.98%	8
2005	7.30%	7.72%	10	17.99%	10.88%	4.98%	1.52%	-1.33%	8.65%	14
2006	-0.46%	-1.01%	12	8.60%	8.02%	0.31%	-6.93%	-14.80%	15.37%	11
2007	4.79%	5.57%	19	13.07%	11.25%	4.30%	-0.18%	-10.10%	14.71%	25
2008	5.93%	4.61%	23	15.30%	10.34%	6.11%	-1.89%	-12.87%	11.43%	21
2009	2.51%	3.57%	14	30.73%	12.01%	2.33%	-13.57%	-22.06%	76.13%	16
2010	5.35%	5.21%	22	12.36%	8.75%	4.58%	-3.89%	-17.22%	24.07%	23
2011	4.34%	3.45%	24	18.39%	8.39%	3.43%	-3.61%	-11.23%	12.51%	20
2012	3.98%	5.12%	28	13.04%	8.81%	6.20%	2.22%	-14.56%	22.16%	27
2013	7.25%	5.73%	28	14.10%	8.73%	4.09%	-2.71%	-8.68%	8.93%	28
2014	5.80%	4.97%	46	24.52%	12.06%	7.48%	-1.60%	-9.74%	14.31%	45
2015	2.36%	7.39%	36	14.36%	8.30%	4.20%	-1.54%	-10.99%	43.71%	27
2016	7.89%	13.53%	46	13.10%	12.25%	8.20%	1.79%	-15.19%	67.70%	36
2017	3.20%	1.71%	36	13.29%	5.39%	0.89%	-13.39%	-32.68%	18.54%	29
2018	4.61%	3.44%	42	14.74%	10.16%	2.36%	-15.66%	-28.99%	25.99%	31

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Real assets

IRRs by vintage





Real assets

PMEs by vintage

S&P 500 index

Morningstar US Real Assets Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1996							
1997	17.99%	7.84%	2.13	17.99%			3
1998	16.47%	6.85%	1.87	16.47%			3
1999	25.42%	6.06%	1.76	25.42%			1
2000							
2001	49.72%	6.52%	2.35	49.72%	6.17%	2.09	1
2002	31.17%	7.50%	1.46	31.17%	6.09%	1.42	3
2003	28.93%	9.57%	1.74	28.93%	5.76%	1.69	2
2004	23.22%	8.23%	1.53	23.22%	4.99%	1.39	4
2005	7.30%	8.30%	1.10	7.30%	4.45%	1.06	10
2006	-0.46%	8.21%	0.69	-0.46%	4.05%	0.77	12
2007	4.79%	7.85%	0.82	4.79%	3.77%	1.00	19
2008	5.93%	8.82%	0.75	5.93%	2.92%	1.11	23
2009	2.51%	14.51%	0.64	2.51%	4.52%	0.98	14
2010	5.35%	12.10%	0.71	5.35%	3.06%	1.16	22
2011	4.34%	11.46%	0.73	4.34%	1.66%	1.13	24
2012	3.98%	12.17%	0.76	3.98%	1.04%	1.10	28
2013	7.25%	11.81%	0.89	7.25%	0.87%	1.24	28
2014	5.80%	10.01%	0.90	5.80%	1.18%	1.13	46
2015	2.36%	9.12%	0.85	2.36%	0.70%	1.03	36
2016	7.89%	12.30%	0.97	7.89%	2.30%	1.15	46
2017	3.20%	9.53%	0.95	3.20%	1.20%	1.05	36
2018	4.61%	5.24%	0.99	4.61%	0.62%	1.06	42

Source: PitchBook. Geography: Global . Data as of June 30, 2020



Real assets

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
Pre-1996	2.47x	2.47x	0.00x	2.47x	2.47x	0.00x	1
1996							
1997	2.62x	2.18x	0.44x	4.40x	3.77x	0.62x	3
1998	1.97x	1.95x	0.02x	2.13x	2.12x	0.01x	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	2.30x	2.30x	0.00x	2.39x	2.39x	0.00x	2
2004	1.75x	1.75x	0.00x	1.77x	1.77x	0.00x	4
2005	1.43x	1.38x	0.05x	1.46x	1.41x	0.05x	10
2006	0.98x	0.91x	0.07x	0.95x	0.89x	0.07x	12
2007	1.22x	1.16x	0.06x	1.34x	1.17x	0.17x	19
2008	1.35x	1.14x	0.21x	1.27x	0.96x	0.30x	23
2009	1.12x	0.88x	0.25x	1.18x	0.79x	0.39x	14
2010	1.30x	0.82x	0.48x	1.32x	0.69x	0.63x	22
2011	1.20x	0.74x	0.46x	1.18x	0.65x	0.53x	24
2012	1.15x	0.67x	0.48x	1.22x	0.68x	0.54x	28
2013	1.29x	0.50x	0.79x	1.21x	0.53x	0.68x	28
2014	1.16x	0.44x	0.72x	1.16x	0.42x	0.74x	46
2015	1.05x	0.30x	0.75x	1.20x	0.36x	0.84x	36
2016	1.17x	0.27x	0.90x	1.33x	0.56x	0.77x	46
2017	1.05x	0.16x	0.88x	1.03x	0.15x	0.87x	36
2018	1.05x	0.12x	0.93x	1.05x	0.15x	0.90x	42

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Real assets

Multiples by vintage

Vintage year	TVPI					DPI					Number of funds
	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	
Pre-1996			2.47x					2.47x			1
1996											
1997			3.56x					2.20x			3
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			2.39x					2.39x			2
2004		1.91x	1.74x	1.60x			1.91x	1.74x	1.60x		4
2005	2.28x	1.70x	1.31x	1.05x	0.91x	2.19x	1.70x	1.29x	1.05x	0.90x	10
2006	1.45x	1.16x	0.91x	0.74x	0.60x	1.45x	1.02x	0.89x	0.56x	0.54x	12
2007	2.06x	1.65x	1.15x	0.97x	0.91x	1.76x	1.46x	1.05x	0.96x	0.77x	19
2008	2.20x	1.74x	1.07x	0.70x	0.53x	1.83x	1.32x	0.74x	0.53x	0.19x	23
2009	2.01x	1.51x	1.21x	0.66x	0.47x	1.29x	1.12x	0.66x	0.34x	0.22x	14
2010	1.99x	1.71x	1.30x	0.94x	0.65x	1.36x	0.94x	0.62x	0.32x	0.25x	22
2011	1.77x	1.35x	1.24x	0.87x	0.49x	1.26x	0.94x	0.56x	0.34x	0.13x	24
2012	1.71x	1.52x	1.29x	1.08x	0.65x	1.31x	0.93x	0.64x	0.28x	0.11x	28
2013	1.66x	1.51x	1.20x	0.98x	0.73x	1.05x	0.73x	0.41x	0.30x	0.17x	28
2014	1.56x	1.38x	1.16x	0.98x	0.65x	0.79x	0.54x	0.38x	0.16x	0.04x	46
2015	1.52x	1.32x	1.19x	0.99x	0.81x	0.69x	0.46x	0.24x	0.12x	0.02x	36
2016	1.55x	1.30x	1.18x	1.02x	0.81x	0.88x	0.40x	0.25x	0.14x	0.05x	46
2017	1.32x	1.13x	0.96x	0.75x	0.67x	0.32x	0.15x	0.07x	0.01x	0.00x	36
2018	1.46x	1.17x	1.00x	0.86x	0.60x	0.37x	0.17x	0.05x	0.00x	0.00x	42

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Real assets

Quarterly return

Quarter end	1-quarter return
Q1 2001	-2.91%
Q2 2001	6.09%
Q3 2001	-3.58%
Q4 2001	-3.70%
Q1 2002	11.35%
Q2 2002	-0.30%
Q3 2002	-1.87%
Q4 2002	1.14%
Q1 2003	-3.03%
Q2 2003	5.01%
Q3 2003	1.34%
Q4 2003	10.98%
Q1 2004	4.82%
Q2 2004	3.72%
Q3 2004	0.98%
Q4 2004	27.04%
Q1 2005	17.43%
Q2 2005	34.76%
Q3 2005	11.52%
Q4 2005	2.44%
Q1 2006	2.67%
Q2 2006	12.39%
Q3 2006	6.50%
Q4 2006	7.26%

Quarter end	1-quarter return
Q1 2007	3.43%
Q2 2007	4.03%
Q3 2007	9.53%
Q4 2007	9.94%
Q1 2008	1.37%
Q2 2008	2.67%
Q3 2008	6.27%
Q4 2008	-9.08%
Q1 2009	-2.49%
Q2 2009	-0.83%
Q3 2009	3.51%
Q4 2009	3.31%
Q1 2010	-0.40%
Q2 2010	-1.07%
Q3 2010	4.24%
Q4 2010	8.22%
Q1 2011	5.01%
Q2 2011	3.89%
Q3 2011	-1.82%
Q4 2011	4.31%
Q1 2012	1.78%
Q2 2012	-1.47%
Q3 2012	0.35%
Q4 2012	2.18%

Quarter end	1-quarter return
Q1 2013	3.65%
Q2 2013	-0.56%
Q3 2013	2.83%
Q4 2013	1.34%
Q1 2014	3.69%
Q2 2014	6.52%
Q3 2014	3.67%
Q4 2014	-4.49%
Q1 2015	-1.18%
Q2 2015	2.40%
Q3 2015	-3.11%
Q4 2015	0.35%
Q1 2016	-2.49%
Q2 2016	5.13%
Q3 2016	2.73%
Q4 2016	4.38%
Q1 2017	3.70%
Q2 2017	2.58%
Q3 2017	1.72%
Q4 2017	2.11%
Q1 2018	2.94%
Q2 2018	2.76%
Q3 2018	5.07%
Q4 2018	-1.92%

Quarter end	1-quarter return
Q1 2019	1.39%
Q2 2019	-0.62%
Q3 2019	-0.24%
Q4 2019	-0.71%
Q1 2020	-9.62%
Q2 2020	2.36%
Q3 2020*	2.39%

*Preliminary figure

Private debt



Private debt

IRR by vintage

Pooled IRRs

IRR hurdle rates

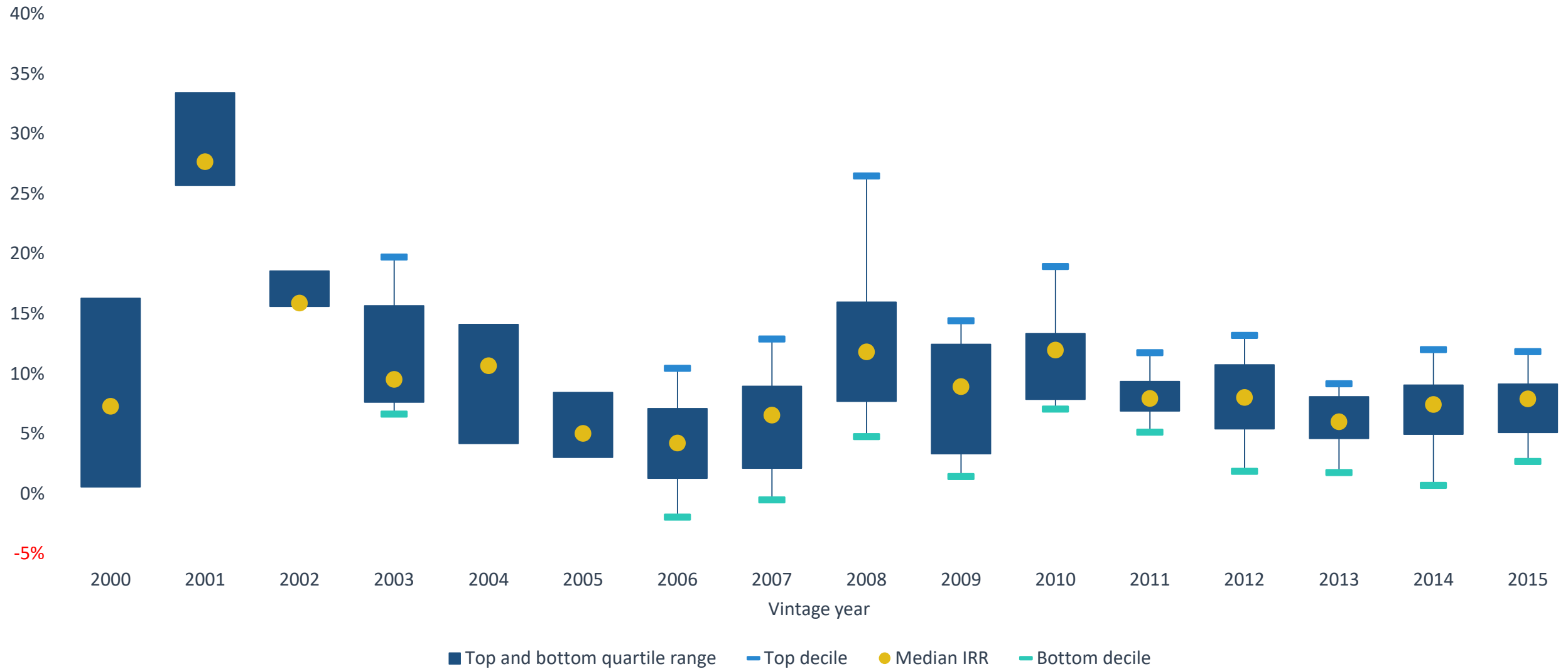
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
Pre-1996					18.20%	13.05%	7.99%		20.76%	8
1996	6.01%	6.01%	1			5.40%				1
1997	10.84%	16.52%	3		35.20%	21.68%	9.80%		22.64%	5
1998						10.66%			6.56%	2
1999	11.58%	11.00%	2			10.53%			2.02%	2
2000	8.01%	0.83%	4		16.26%	7.25%	0.55%		14.06%	6
2001	27.61%	29.93%	3		33.39%	27.65%	25.68%		12.02%	4
2002	17.90%	23.05%	4		18.53%	15.86%	15.60%		28.89%	5
2003	13.22%	13.43%	8	19.70%	15.64%	9.50%	7.61%	6.60%	7.52%	11
2004	6.38%	8.92%	5		14.09%	10.63%	4.16%		11.84%	9
2005	6.04%	5.77%	7		8.42%	5.00%	3.00%		6.25%	8
2006	6.66%	5.41%	13	10.42%	7.08%	4.20%	1.27%	-1.98%	6.63%	15
2007	6.25%	6.00%	21	12.87%	8.93%	6.52%	2.10%	-0.54%	6.67%	23
2008	14.41%	13.35%	19	26.45%	15.95%	11.79%	7.67%	4.73%	15.71%	26
2009	8.25%	8.40%	12	14.39%	12.44%	8.90%	3.30%	1.40%	8.27%	11
2010	14.62%	11.93%	23	18.91%	13.32%	11.95%	7.84%	7.02%	7.81%	30
2011	8.42%	9.47%	16	11.73%	9.33%	7.91%	6.87%	5.10%	3.85%	23
2012	6.87%	6.86%	30	13.16%	10.72%	8.00%	5.38%	1.84%	4.92%	36
2013	5.30%	6.05%	37	9.14%	8.05%	5.97%	4.57%	1.74%	3.37%	40
2014	5.07%	6.20%	42	11.97%	9.03%	7.40%	4.93%	0.67%	4.48%	41
2015	5.37%	5.05%	56	11.80%	9.12%	7.88%	5.08%	2.66%	7.02%	43
2016	5.97%	6.49%	46	12.10%	10.29%	7.80%	5.35%	-7.09%	33.17%	36
2017	5.09%	6.46%	61	16.32%	11.17%	8.00%	4.70%	-3.66%	9.03%	65
2018	-1.34%	2.20%	57	12.00%	9.42%	6.59%	-0.17%	-7.59%	23.23%	51

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Private debt

IRRs by vintage





Private debt

PMEs by vintage

S&P 500 index

Bloomberg Barclays Global High Yield Corporate Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1996	6.01%	8.54%	1.36	6.01%			1
1997	10.84%	7.84%	1.55	10.84%			3
1998							
1999	11.58%	6.06%	1.76	11.58%			2
2000	8.01%	5.68%	1.19	8.01%			4
2001	27.61%	6.52%	1.62	27.61%	7.05%	1.39	3
2002	17.90%	7.50%	1.32	17.90%	7.55%	1.18	4
2003	13.22%	9.57%	1.34	13.22%	7.70%	1.23	8
2004	6.38%	8.23%	1.05	6.38%	6.61%	0.97	5
2005	6.04%	8.30%	1.16	6.04%	6.38%	0.90	7
2006	6.66%	8.21%	0.92	6.66%	6.51%	0.85	13
2007	6.25%	7.85%	0.96	6.25%	6.04%	0.83	21
2008	14.41%	8.82%	1.06	14.41%	6.69%	0.99	19
2009	8.25%	14.51%	0.82	8.25%	9.81%	0.97	12
2010	14.62%	12.10%	0.99	14.62%	5.84%	1.24	23
2011	8.42%	11.46%	0.82	8.42%	4.89%	1.10	16
2012	6.87%	12.17%	0.81	6.87%	4.98%	1.07	30
2013	5.30%	11.81%	0.85	5.30%	3.65%	1.03	37
2014	5.07%	10.01%	0.84	5.07%	2.92%	1.03	42
2015	5.37%	9.12%	0.90	5.37%	3.72%	1.04	56
2016	5.97%	12.30%	0.95	5.97%	5.99%	1.06	46
2017	5.09%	9.53%	0.97	5.09%	2.89%	1.06	61
2018	-1.34%	5.24%	0.94	-1.34%	0.44%	0.99	57

Source: PitchBook. Geography: Global . Data as of June 30, 2020



Private debt

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
Pre-1996							
1996	1.45x	1.45x	0.00x	1.45x	1.45x	0.00x	1
1997	1.70x	1.69x	0.01x	2.20x	2.18x	0.02x	3
1998							
1999	1.49x	1.48x	0.01x	1.48x	1.45x	0.03x	2
2000	1.26x	1.26x	0.00x	1.03x	1.03x	0.00x	4
2001	2.14x	2.14x	0.00x	2.20x	2.20x	0.00x	3
2002	1.78x	1.78x	0.00x	1.88x	1.88x	0.00x	4
2003	1.86x	1.77x	0.09x	1.95x	1.86x	0.08x	8
2004	1.27x	1.25x	0.01x	1.40x	1.39x	0.01x	5
2005	1.35x	1.34x	0.02x	1.30x	1.26x	0.04x	7
2006	1.50x	1.35x	0.15x	1.37x	1.23x	0.15x	13
2007	1.32x	1.28x	0.03x	1.29x	1.26x	0.03x	21
2008	1.68x	1.64x	0.04x	1.61x	1.56x	0.05x	19
2009	1.36x	1.30x	0.06x	1.33x	1.24x	0.09x	12
2010	1.53x	1.46x	0.07x	1.46x	1.38x	0.08x	23
2011	1.41x	1.14x	0.27x	1.41x	1.22x	0.19x	16
2012	1.28x	1.08x	0.20x	1.29x	1.00x	0.29x	30
2013	1.17x	0.90x	0.27x	1.21x	0.87x	0.33x	37
2014	1.18x	0.63x	0.55x	1.21x	0.69x	0.52x	42
2015	1.14x	0.49x	0.65x	1.13x	0.50x	0.64x	56
2016	1.10x	0.31x	0.79x	1.12x	0.36x	0.76x	46
2017	1.08x	0.24x	0.84x	1.10x	0.27x	0.83x	61
2018	0.99x	0.13x	0.86x	1.02x	0.18x	0.85x	57

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Private debt

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
Pre-1996											
1996			1.45x					1.45x			1
1997			1.49x					1.49x			3
1998											
1999			1.48x					1.44x			2
2000		1.32x	1.09x	0.79x			1.32x	1.09x	0.79x		4
2001			1.88x					1.88x			3
2002		1.89x	1.71x	1.70x			1.89x	1.71x	1.70x		4
2003		1.98x	1.54x	1.47x			1.68x	1.49x	1.43x		8
2004		1.65x	1.64x	1.14x			1.65x	1.63x	1.14x		5
2005		1.47x	1.34x	1.25x			1.47x	1.34x	1.14x		7
2006	1.74x	1.36x	1.19x	1.10x	0.93x	1.65x	1.36x	1.18x	1.10x	0.92x	13
2007	1.68x	1.49x	1.24x	1.10x	0.96x	1.68x	1.49x	1.23x	1.06x	0.96x	21
2008	2.32x	1.77x	1.52x	1.18x	1.15x	2.30x	1.71x	1.51x	1.18x	1.11x	19
2009	1.64x	1.56x	1.40x	1.12x	1.05x	1.64x	1.56x	1.25x	1.05x	0.92x	12
2010	1.80x	1.62x	1.39x	1.27x	1.20x	1.70x	1.48x	1.37x	1.20x	1.12x	23
2011	1.71x	1.54x	1.37x	1.19x	1.09x	1.59x	1.37x	1.12x	1.05x	0.92x	16
2012	1.59x	1.43x	1.27x	1.13x	1.05x	1.36x	1.24x	1.08x	0.93x	0.46x	30
2013	1.41x	1.31x	1.19x	1.11x	0.99x	1.13x	1.07x	0.95x	0.78x	0.55x	37
2014	1.41x	1.28x	1.19x	1.12x	1.00x	1.11x	0.87x	0.70x	0.48x	0.26x	42
2015	1.27x	1.24x	1.17x	1.09x	0.94x	0.79x	0.67x	0.48x	0.30x	0.20x	56
2016	1.29x	1.21x	1.13x	1.05x	0.94x	0.72x	0.47x	0.29x	0.13x	0.03x	46
2017	1.27x	1.15x	1.10x	1.06x	0.96x	0.53x	0.40x	0.22x	0.14x	0.07x	61
2018	1.12x	1.10x	1.05x	0.99x	0.90x	0.42x	0.24x	0.07x	0.02x	0.00x	57

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Private debt

Quarterly return

Quarter end	1-quarter return
Q1 2001	1.98%
Q2 2001	5.82%
Q3 2001	1.02%
Q4 2001	-0.74%
Q1 2002	3.06%
Q2 2002	1.35%
Q3 2002	-1.83%
Q4 2002	1.32%
Q1 2003	3.13%
Q2 2003	7.51%
Q3 2003	-2.24%
Q4 2003	10.28%
Q1 2004	7.71%
Q2 2004	7.65%
Q3 2004	4.48%
Q4 2004	17.96%
Q1 2005	5.35%
Q2 2005	-4.69%
Q3 2005	6.23%
Q4 2005	2.58%
Q1 2006	3.68%
Q2 2006	6.02%
Q3 2006	2.55%
Q4 2006	10.46%

Quarter end	1-quarter return
Q1 2007	2.77%
Q2 2007	8.57%
Q3 2007	2.84%
Q4 2007	0.22%
Q1 2008	-1.80%
Q2 2008	-1.45%
Q3 2008	-8.33%
Q4 2008	-17.31%
Q1 2009	-4.70%
Q2 2009	10.10%
Q3 2009	12.03%
Q4 2009	6.65%
Q1 2010	6.11%
Q2 2010	1.50%
Q3 2010	3.54%
Q4 2010	7.86%
Q1 2011	2.95%
Q2 2011	2.55%
Q3 2011	-4.73%
Q4 2011	1.56%
Q1 2012	-1.01%
Q2 2012	2.21%
Q3 2012	4.18%
Q4 2012	3.37%

Quarter end	1-quarter return
Q1 2013	5.13%
Q2 2013	2.96%
Q3 2013	2.97%
Q4 2013	2.01%
Q1 2014	1.86%
Q2 2014	2.33%
Q3 2014	3.21%
Q4 2014	0.36%
Q1 2015	5.89%
Q2 2015	-0.89%
Q3 2015	-0.15%
Q4 2015	-1.09%
Q1 2016	1.77%
Q2 2016	0.89%
Q3 2016	4.32%
Q4 2016	1.35%
Q1 2017	2.21%
Q2 2017	2.86%
Q3 2017	2.01%
Q4 2017	4.24%
Q1 2018	2.48%
Q2 2018	2.80%
Q3 2018	-0.34%
Q4 2018	-0.15%

Quarter end	1-quarter return
Q1 2019	1.57%
Q2 2019	1.57%
Q3 2019	1.23%
Q4 2019	2.62%
Q1 2020	-6.75%
Q2 2020	1.69%
Q3 2020*	3.63%

*Preliminary figure

Funds of funds



Funds of funds

IRR by vintage

Pooled IRRs

IRR hurdle rates

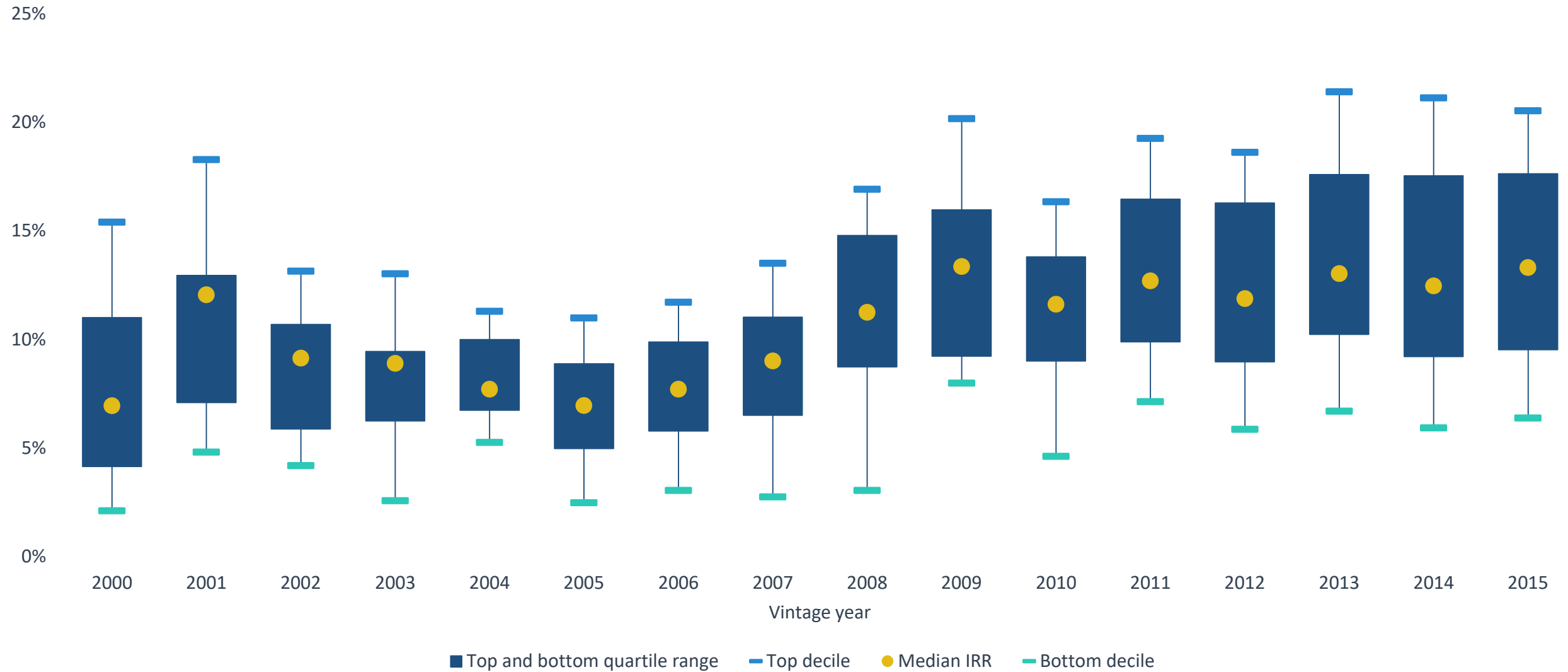
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
Pre-1996				31.09%	18.68%	10.08%	1.81%	1.00%	16.55%	12
1996						14.24%				1
1997	-13.55%	-13.55%	1		12.68%	3.79%	-1.26%		10.95%	6
1998	7.86%	7.64%	3	24.44%	10.57%	7.52%	4.83%	1.87%	8.47%	10
1999	5.48%	4.87%	8	16.66%	11.96%	4.26%	2.50%	-1.23%	6.73%	19
2000	5.64%	6.39%	9	15.39%	11.00%	6.94%	4.14%	2.10%	5.25%	26
2001	10.75%	8.13%	9	18.27%	12.94%	12.04%	7.08%	4.80%	5.26%	28
2002	8.01%	6.28%	4	13.13%	10.68%	9.13%	5.87%	4.18%	3.88%	18
2003	7.76%	5.73%	6	13.01%	9.43%	8.89%	6.24%	2.56%	3.86%	20
2004	7.80%	7.64%	9	11.28%	9.98%	7.70%	6.73%	5.25%	3.43%	41
2005	6.88%	6.54%	18	10.98%	8.87%	6.95%	4.97%	2.47%	11.95%	52
2006	8.31%	7.81%	35	11.70%	9.88%	7.70%	5.77%	3.04%	3.67%	71
2007	9.01%	8.17%	37	13.49%	11.02%	9.00%	6.50%	2.74%	5.21%	75
2008	4.24%	10.65%	40	16.90%	14.78%	11.24%	8.73%	3.04%	5.82%	71
2009	12.26%	12.92%	30	20.16%	15.96%	13.35%	9.22%	7.97%	5.04%	40
2010	11.14%	11.52%	30	16.33%	13.79%	11.61%	9.00%	4.61%	7.14%	44
2011	13.18%	14.49%	45	19.25%	16.45%	12.69%	9.88%	7.13%	6.66%	56
2012	13.52%	13.55%	39	18.61%	16.28%	11.87%	8.96%	5.85%	6.04%	36
2013	13.05%	12.10%	47	21.39%	17.58%	13.03%	10.23%	6.69%	6.11%	34
2014	13.57%	13.65%	48	21.11%	17.53%	12.45%	9.21%	5.92%	5.77%	52
2015	15.19%	14.22%	43	20.52%	17.62%	13.30%	9.52%	6.37%	5.98%	47
2016	14.70%	13.11%	38	18.92%	16.32%	13.42%	8.05%	4.52%	6.82%	39
2017	8.90%	11.02%	26	23.66%	17.64%	8.64%	6.13%	2.89%	8.66%	28
2018	6.23%	5.83%	30	20.79%	14.17%	7.42%	1.31%	-1.82%	11.62%	22

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Funds of funds

IRRs by vintage





Funds of funds

PMEs by vintage

S&P 500 index

MSCI All Country World Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1996							
1997	-13.55%	7.84%	0.38	-13.55%	6.27%	0.34	1
1998	7.86%	6.85%	1.25	7.86%	5.60%	1.12	3
1999	5.48%	6.06%	1.05	5.48%	5.20%	0.96	8
2000	5.64%	5.68%	0.99	5.64%	4.49%	0.93	9
2001	10.75%	6.52%	1.12	10.75%	5.60%	1.07	9
2002	8.01%	7.50%	1.06	8.01%	6.77%	1.05	4
2003	7.76%	9.57%	1.05	7.76%	8.56%	1.14	6
2004	7.80%	8.23%	1.01	7.80%	6.80%	1.10	9
2005	6.88%	8.30%	0.93	6.88%	6.46%	1.06	18
2006	8.31%	8.21%	0.89	8.31%	5.75%	1.07	35
2007	9.01%	7.85%	0.88	9.01%	4.90%	1.07	37
2008	4.24%	8.82%	0.64	4.24%	5.17%	0.78	40
2009	12.26%	14.51%	0.97	12.26%	11.04%	1.16	30
2010	11.14%	12.10%	0.94	11.14%	7.85%	1.13	30
2011	13.18%	11.46%	1.04	13.18%	6.92%	1.23	45
2012	13.52%	12.17%	1.10	13.52%	8.04%	1.29	39
2013	13.05%	11.81%	1.09	13.05%	7.38%	1.23	47
2014	13.57%	10.01%	1.12	13.57%	5.95%	1.25	48
2015	15.19%	9.12%	1.14	15.19%	5.73%	1.25	43
2016	14.70%	12.30%	1.12	14.70%	9.29%	1.21	38
2017	8.90%	9.53%	1.03	8.90%	6.28%	1.10	26
2018	6.23%	5.24%	1.02	6.23%	0.06%	1.07	30

Source: PitchBook. Geography: Global . Data as of June 30, 2020



Funds of funds

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
Pre-1996							
1996							
1997	0.42x	0.42x	0.00x	0.42x	0.42x	0.00x	1
1998	1.48x	1.48x	0.01x	1.51x	1.50x	0.01x	3
1999	1.35x	1.33x	0.02x	1.32x	1.29x	0.03x	8
2000	1.34x	1.31x	0.03x	1.38x	1.35x	0.03x	9
2001	1.65x	1.55x	0.10x	1.56x	1.38x	0.18x	9
2002	1.46x	1.41x	0.05x	1.34x	1.31x	0.03x	4
2003	1.61x	1.52x	0.09x	1.41x	1.33x	0.08x	6
2004	1.51x	1.40x	0.11x	1.53x	1.40x	0.14x	9
2005	1.46x	1.32x	0.13x	1.45x	1.29x	0.17x	18
2006	1.63x	1.36x	0.26x	1.60x	1.37x	0.23x	35
2007	1.65x	1.30x	0.36x	1.55x	1.26x	0.29x	37
2008	1.25x	0.93x	0.32x	1.73x	1.17x	0.55x	40
2009	1.73x	1.05x	0.68x	1.77x	1.20x	0.58x	30
2010	1.66x	1.05x	0.61x	1.72x	0.95x	0.77x	30
2011	1.70x	0.81x	0.89x	1.84x	0.84x	1.00x	45
2012	1.70x	0.62x	1.09x	1.69x	0.65x	1.04x	39
2013	1.52x	0.43x	1.09x	1.52x	0.40x	1.12x	47
2014	1.50x	0.31x	1.20x	1.53x	0.36x	1.17x	48
2015	1.39x	0.23x	1.16x	1.39x	0.25x	1.15x	43
2016	1.34x	0.18x	1.16x	1.30x	0.16x	1.14x	38
2017	1.13x	0.07x	1.06x	1.17x	0.07x	1.10x	26
2018	1.07x	0.08x	0.99x	1.06x	0.10x	0.96x	30

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Funds of funds

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
Pre-1996											
1996											
1997			0.42x					0.42x			1
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	1.23x			1.57x	1.48x	1.15x		9
2001		1.70x	1.51x	1.47x			1.70x	1.44x	1.27x		9
2002		1.49x	1.42x	1.28x			1.43x	1.40x	1.28x		4
2003		1.62x	1.53x	1.27x			1.48x	1.46x	1.22x		6
2004		1.55x	1.47x	1.38x			1.42x	1.36x	1.32x		9
2005	1.78x	1.58x	1.47x	1.37x	1.20x	1.66x	1.42x	1.30x	1.19x	0.88x	18
2006	1.89x	1.78x	1.62x	1.43x	1.30x	1.75x	1.49x	1.30x	1.22x	1.12x	35
2007	1.95x	1.81x	1.56x	1.25x	1.08x	1.64x	1.44x	1.31x	1.01x	0.84x	37
2008	2.36x	2.01x	1.68x	1.40x	1.03x	1.67x	1.40x	1.16x	0.92x	0.56x	40
2009	2.23x	1.98x	1.72x	1.56x	1.39x	1.75x	1.51x	1.10x	0.91x	0.75x	30
2010	2.48x	1.78x	1.62x	1.48x	1.25x	1.36x	1.12x	0.93x	0.75x	0.60x	30
2011	2.55x	1.94x	1.71x	1.42x	1.21x	1.16x	1.01x	0.86x	0.71x	0.38x	45
2012	2.41x	2.11x	1.50x	1.35x	1.22x	1.19x	0.81x	0.56x	0.33x	0.27x	39
2013	2.09x	1.64x	1.47x	1.26x	1.05x	0.77x	0.55x	0.33x	0.17x	0.12x	47
2014	2.07x	1.85x	1.42x	1.24x	1.11x	0.78x	0.34x	0.26x	0.19x	0.09x	48
2015	1.68x	1.53x	1.37x	1.22x	1.12x	0.45x	0.31x	0.19x	0.09x	0.02x	43
2016	1.55x	1.41x	1.26x	1.15x	1.10x	0.37x	0.13x	0.08x	0.04x	0.00x	38
2017	1.36x	1.22x	1.13x	1.07x	1.02x	0.15x	0.11x	0.04x	0.01x	0.00x	26
2018	1.36x	1.12x	1.02x	0.99x	0.94x	0.20x	0.04x	0.00x	0.00x	0.00x	30

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Funds of funds

Quarterly return

Quarter end	1-quarter return
Q1 2001	-11.54%
Q2 2001	-3.81%
Q3 2001	-10.35%
Q4 2001	-10.87%
Q1 2002	-7.03%
Q2 2002	-8.24%
Q3 2002	-8.07%
Q4 2002	-4.96%
Q1 2003	-8.45%
Q2 2003	3.84%
Q3 2003	0.26%
Q4 2003	-5.58%
Q1 2004	4.33%
Q2 2004	1.82%
Q3 2004	4.86%
Q4 2004	6.00%
Q1 2005	1.98%
Q2 2005	5.83%
Q3 2005	5.79%
Q4 2005	8.05%
Q1 2006	4.49%
Q2 2006	6.30%
Q3 2006	4.65%
Q4 2006	8.79%

Quarter end	1-quarter return
Q1 2007	0.15%
Q2 2007	11.57%
Q3 2007	4.19%
Q4 2007	3.66%
Q1 2008	9.88%
Q2 2008	-2.02%
Q3 2008	-6.24%
Q4 2008	-10.88%
Q1 2009	-2.11%
Q2 2009	-5.08%
Q3 2009	5.37%
Q4 2009	2.71%
Q1 2010	5.50%
Q2 2010	0.25%
Q3 2010	4.00%
Q4 2010	2.78%
Q1 2011	3.42%
Q2 2011	5.84%
Q3 2011	-1.87%
Q4 2011	-0.20%
Q1 2012	5.40%
Q2 2012	0.94%
Q3 2012	-0.50%
Q4 2012	3.40%

Quarter end	1-quarter return
Q1 2013	2.43%
Q2 2013	3.13%
Q3 2013	2.97%
Q4 2013	3.93%
Q1 2014	2.12%
Q2 2014	6.89%
Q3 2014	1.31%
Q4 2014	2.41%
Q1 2015	3.44%
Q2 2015	6.31%
Q3 2015	2.24%
Q4 2015	0.05%
Q1 2016	1.45%
Q2 2016	1.38%
Q3 2016	4.09%
Q4 2016	0.35%
Q1 2017	3.27%
Q2 2017	3.84%
Q3 2017	3.72%
Q4 2017	1.71%
Q1 2018	5.24%
Q2 2018	5.33%
Q3 2018	3.34%
Q4 2018	1.56%

Quarter end	1-quarter return
Q1 2019	2.91%
Q2 2019	3.64%
Q3 2019	1.51%
Q4 2019	2.86%
Q1 2020	-1.53%
Q2 2020	3.78%
Q3 2020*	7.56%

*Preliminary figure

Secondaries



Secondaries

IRR by vintage

Pooled IRRs

IRR hurdle rates

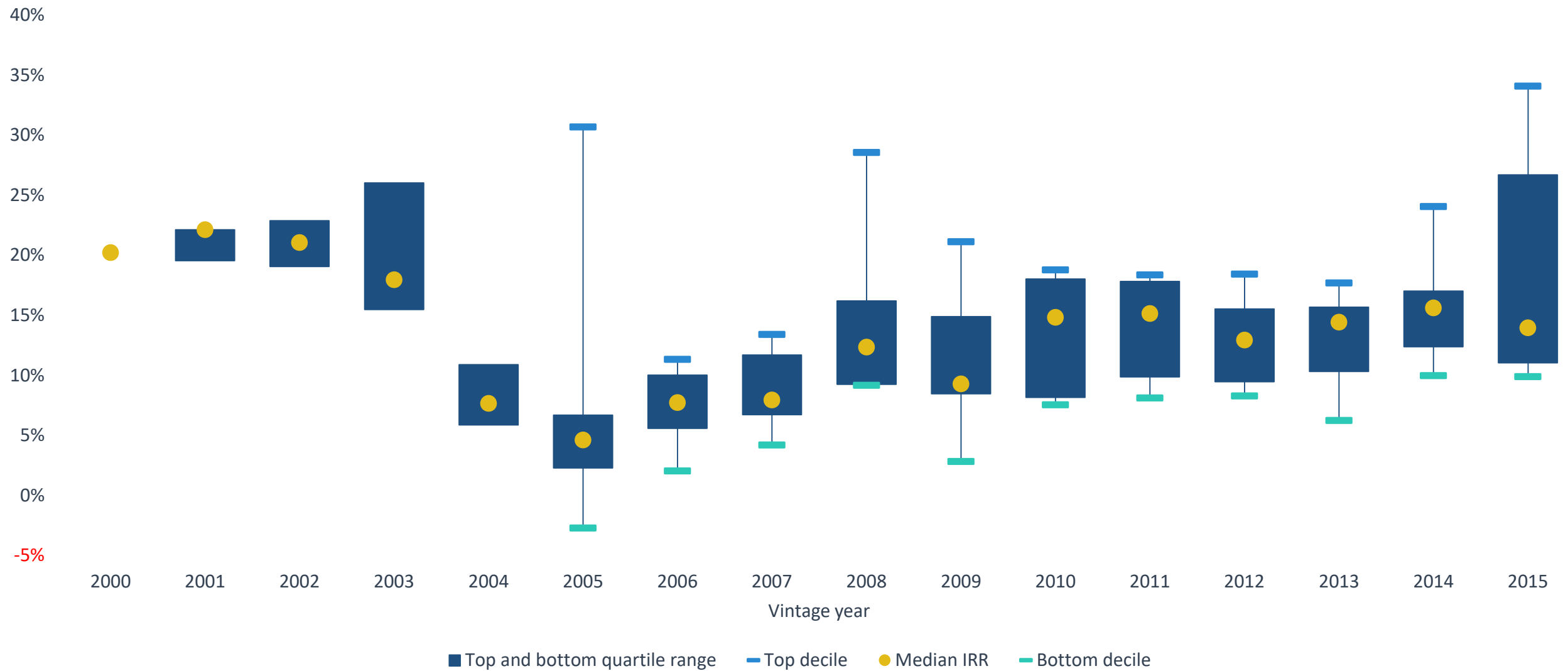
Vintage year	Pooled IRR	Equal-weighted pooled IRR	Number of funds	Top decile	Top quartile	Median IRR	Bottom quartile	Bottom decile	Standard deviation	Number of funds
Pre-1996					33.58%	28.69%	18.86%		13.64%	9
1996	18.56%	18.56%	1			31.48%			16.00%	3
1997	16.60%	16.60%	1			9.61%			9.89%	2
1998	8.97%	11.56%	3		8.02%	5.38%	4.39%		8.35%	7
1999	7.33%	5.51%	3	39.38%	17.58%	11.25%	5.61%	-3.08%	15.06%	10
2000	15.09%	14.35%	3			20.20%			10.00%	3
2001	14.20%	16.13%	2		22.11%	22.11%	19.52%		5.41%	5
2002	16.04%	18.05%	4		22.86%	21.03%	19.05%		14.83%	6
2003	37.92%	37.92%	1		26.00%	17.93%	15.46%		7.20%	9
2004	9.60%	8.35%	6		10.87%	7.65%	5.85%		11.30%	6
2005	6.22%	5.95%	10	30.66%	6.67%	4.60%	2.28%	-2.74%	14.85%	15
2006	5.79%	5.66%	10	11.30%	10.00%	7.71%	5.56%	2.02%	4.44%	15
2007	6.22%	9.17%	11	13.39%	11.67%	7.92%	6.70%	4.17%	7.76%	15
2008	11.42%	11.93%	16	28.54%	16.18%	12.33%	9.23%	9.15%	9.81%	12
2009	10.62%	10.54%	12	21.10%	14.87%	9.26%	8.45%	2.81%	7.25%	12
2010	11.75%	12.78%	4	18.76%	18.00%	14.80%	8.15%	7.53%	5.68%	13
2011	14.49%	13.46%	11	18.33%	17.80%	15.12%	9.85%	8.09%	4.50%	15
2012	11.79%	11.54%	12	18.40%	15.51%	12.92%	9.45%	8.26%	4.53%	13
2013	8.17%	8.89%	15	17.66%	15.66%	14.40%	10.30%	6.22%	12.45%	17
2014	13.91%	13.80%	11	24.02%	17.00%	15.60%	12.36%	9.96%	6.75%	12
2015	7.49%	17.93%	11	34.05%	26.68%	13.94%	11.03%	9.86%	12.24%	10
2016	17.09%	19.50%	16	40.29%	25.70%	16.90%	10.52%	9.08%	13.33%	21
2017	15.61%	13.51%	16	32.12%	18.82%	13.61%	6.78%	1.23%	12.46%	23
2018	17.37%	24.04%	11	80.93%	49.32%	31.03%	15.00%	6.81%	39.09%	10

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Secondaries

IRRs by vintage





Secondaries

PMEs by vintage

S&P 500 index

MSCI All Country World Index

Vintage year	Pooled IRR	Index return	KS-PME	Pooled IRR	Index return	KS-PME	Number of funds
1996	18.56%	8.54%	1.28	18.56%	6.50%	1.29	1
1997	16.60%	7.84%	1.36	16.60%	6.27%	1.40	1
1998	8.97%	6.85%	1.27	8.97%	5.60%	1.21	3
1999	7.33%	6.06%	1.23	7.33%	5.20%	1.17	3
2000	15.09%	5.68%	1.38	15.09%	4.49%	1.25	3
2001	14.20%	6.52%	1.20	14.20%	5.60%	1.12	2
2002	16.04%	7.50%	1.23	16.04%	6.77%	1.16	4
2003	37.92%	9.57%	1.56	37.92%	8.56%	1.46	1
2004	9.60%	8.23%	1.10	9.60%	6.80%	1.15	6
2005	6.22%	8.30%	0.94	6.22%	6.46%	1.04	10
2006	5.79%	8.21%	0.91	5.79%	5.75%	1.01	10
2007	6.22%	7.85%	0.84	6.22%	4.90%	0.94	11
2008	11.42%	8.82%	0.91	11.42%	5.17%	1.04	16
2009	10.62%	14.51%	0.89	10.62%	11.04%	1.02	12
2010	11.75%	12.10%	0.95	11.75%	7.85%	1.09	4
2011	14.49%	11.46%	1.02	14.49%	6.92%	1.18	11
2012	11.79%	12.17%	0.96	11.79%	8.04%	1.09	12
2013	8.17%	11.81%	0.91	8.17%	7.38%	1.03	15
2014	13.91%	10.01%	1.07	13.91%	5.95%	1.16	11
2015	7.49%	9.12%	0.98	7.49%	5.73%	1.06	11
2016	17.09%	12.30%	1.15	17.09%	9.29%	1.24	16
2017	15.61%	9.53%	1.11	15.61%	6.28%	1.18	16
2018	17.37%	5.24%	1.10	17.37%	0.06%	1.14	11

Source: PitchBook. Geography: Global . Data as of June 30, 2020



Secondaries

Multiples by vintage

Pooled multiples

Equal-weighted pooled multiples

Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
Pre-1996							
1996	1.55x	1.55x	0.00x	1.55x	1.55x	0.00x	1
1997	1.59x	1.59x	0.00x	1.59x	1.59x	0.00x	1
1998	1.33x	1.33x	0.00x	1.35x	1.35x	0.00x	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	0.01x	2
2002	1.51x	1.50x	0.00x	1.53x	1.53x	0.00x	4
2003	1.79x	1.79x	0.00x	1.79x	1.79x	0.00x	1
2004	1.44x	1.39x	0.05x	1.37x	1.32x	0.04x	6
2005	1.37x	1.33x	0.04x	1.36x	1.31x	0.04x	10
2006	1.31x	1.25x	0.07x	1.30x	1.24x	0.06x	10
2007	1.30x	1.15x	0.15x	1.44x	1.30x	0.14x	11
2008	1.57x	1.41x	0.15x	1.59x	1.41x	0.18x	16
2009	1.41x	1.27x	0.13x	1.47x	1.27x	0.21x	12
2010	1.44x	1.36x	0.07x	1.49x	1.33x	0.16x	4
2011	1.59x	1.30x	0.29x	1.59x	1.16x	0.43x	11
2012	1.45x	1.09x	0.36x	1.41x	1.01x	0.40x	12
2013	1.30x	0.91x	0.39x	1.33x	0.75x	0.58x	15
2014	1.32x	0.68x	0.64x	1.46x	0.64x	0.82x	11
2015	1.14x	0.34x	0.80x	1.34x	0.73x	0.62x	11
2016	1.34x	0.37x	0.96x	1.39x	0.45x	0.94x	16
2017	1.20x	0.26x	0.94x	1.19x	0.27x	0.93x	16
2018	1.11x	0.17x	0.94x	1.22x	0.20x	1.02x	11

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Secondaries

Multiples by vintage

TVPI

DPI

Vintage year	Top decile	Top quartile	Median TVPI	Bottom quartile	Bottom decile	Top decile	Top quartile	Median DPI	Bottom quartile	Bottom decile	Number of funds
Pre-1996											
1996			1.55x					1.55x			1
1997			1.59x					1.59x			1
1998			1.32x					1.32x			3
1999			1.26x					1.25x			3
2000			1.74x					1.74x			3
2001			1.62x					1.62x			2
2002		1.58x	1.54x	1.49x			1.57x	1.54x	1.49x		4
2003			1.79x					1.79x			1
2004		1.59x	1.40x	1.29x			1.50x	1.35x	1.24x		6
2005	1.70x	1.58x	1.31x	1.27x	1.09x	1.67x	1.41x	1.29x	1.26x	1.09x	10
2006	1.55x	1.43x	1.29x	1.20x	1.09x	1.44x	1.34x	1.27x	1.16x	1.05x	10
2007	1.71x	1.55x	1.40x	1.35x	1.16x	1.54x	1.34x	1.31x	1.13x	0.95x	11
2008	1.78x	1.73x	1.51x	1.40x	1.37x	1.68x	1.46x	1.40x	1.27x	1.05x	16
2009	1.72x	1.67x	1.38x	1.27x	1.10x	1.65x	1.47x	1.31x	1.09x	0.79x	12
2010		1.53x	1.46x	1.42x			1.45x	1.34x	1.23x		4
2011	1.88x	1.67x	1.62x	1.41x	1.29x	1.35x	1.31x	1.10x	1.04x	0.96x	11
2012	1.58x	1.53x	1.40x	1.31x	1.27x	1.22x	1.17x	1.06x	0.85x	0.70x	12
2013	1.67x	1.45x	1.38x	1.21x	1.16x	1.05x	0.97x	0.79x	0.58x	0.39x	15
2014	1.56x	1.37x	1.32x	1.26x	1.20x	1.01x	0.91x	0.69x	0.50x	0.27x	11
2015	1.53x	1.49x	1.34x	1.25x	1.18x	1.34x	0.86x	0.77x	0.34x	0.22x	11
2016	1.68x	1.44x	1.29x	1.26x	1.18x	0.87x	0.62x	0.38x	0.21x	0.09x	16
2017	1.36x	1.28x	1.19x	1.07x	1.04x	0.38x	0.32x	0.23x	0.14x	0.05x	16
2018	1.54x	1.37x	1.25x	1.16x	1.07x	0.30x	0.29x	0.11x	0.07x	0.00x	11

Source: PitchBook. Geography: Global. Data as of June 30, 2020



Secondaries

Quarterly return

Quarter end	1-quarter return
Q1 2001	-3.14%
Q2 2001	-3.73%
Q3 2001	1.63%
Q4 2001	-3.31%
Q1 2002	4.07%
Q2 2002	2.13%
Q3 2002	-6.34%
Q4 2002	-4.65%
Q1 2003	-3.16%
Q2 2003	1.78%
Q3 2003	0.69%
Q4 2003	13.75%
Q1 2004	-2.14%
Q2 2004	5.37%
Q3 2004	6.15%
Q4 2004	7.15%
Q1 2005	6.08%
Q2 2005	2.75%
Q3 2005	4.60%
Q4 2005	1.92%
Q1 2006	8.28%
Q2 2006	4.56%
Q3 2006	3.99%
Q4 2006	6.35%

Quarter end	1-quarter return
Q1 2007	3.95%
Q2 2007	11.56%
Q3 2007	9.10%
Q4 2007	4.38%
Q1 2008	2.50%
Q2 2008	-2.99%
Q3 2008	1.56%
Q4 2008	-6.32%
Q1 2009	-8.72%
Q2 2009	-4.15%
Q3 2009	-0.24%
Q4 2009	0.59%
Q1 2010	1.19%
Q2 2010	7.28%
Q3 2010	5.11%
Q4 2010	6.26%
Q1 2011	6.83%
Q2 2011	5.47%
Q3 2011	4.56%
Q4 2011	-3.72%
Q1 2012	4.10%
Q2 2012	2.74%
Q3 2012	4.84%
Q4 2012	2.05%

Quarter end	1-quarter return
Q1 2013	3.21%
Q2 2013	3.49%
Q3 2013	2.05%
Q4 2013	4.83%
Q1 2014	4.14%
Q2 2014	3.66%
Q3 2014	3.30%
Q4 2014	3.72%
Q1 2015	1.70%
Q2 2015	7.15%
Q3 2015	1.34%
Q4 2015	-0.17%
Q1 2016	0.41%
Q2 2016	3.05%
Q3 2016	1.08%
Q4 2016	2.57%
Q1 2017	3.57%
Q2 2017	4.10%
Q3 2017	3.32%
Q4 2017	3.59%
Q1 2018	2.52%
Q2 2018	6.86%
Q3 2018	4.14%
Q4 2018	0.29%

Quarter end	1-quarter return
Q1 2019	2.56%
Q2 2019	5.03%
Q3 2019	1.00%
Q4 2019	3.73%
Q1 2020	-3.63%
Q2 2020	-3.66%
Q3 2020*	0.24%

*Preliminary figure



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