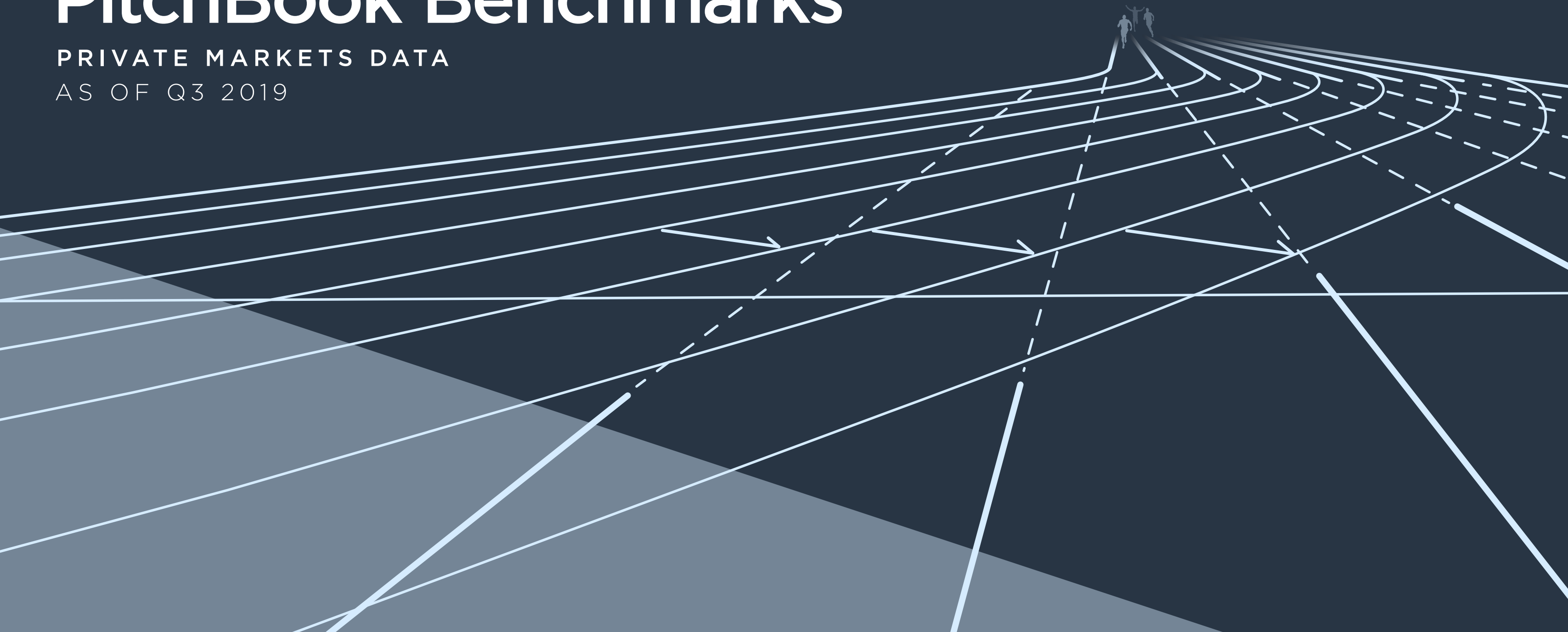




PitchBook Benchmarks

PRIVATE MARKETS DATA

AS OF Q3 2019





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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. Each edition of our Benchmarks also includes a section that highlights a specific aspect of fund performance. This time the focus is on distribution profiles across private market strategies, continuing a running series covering cash flow management. Links to the rest of the series can be found on [page 5](#).

In this report, you'll find detailed benchmark statistics across PE, VC, debt, real assets, funds of funds and secondaries strategies. To easily access the supporting data in this PDF, along with benchmark statistics for a host of other sub-strategies and geographies, be sure to download the four accompanying Excel data packs (PE, VC, Debt & Real Assets and Alternative Access Strategies). 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.

Methodology

Fund classifications

Private equity

- Buyout
- Growth/expansion
- Mezzanine
- Restructuring/turnaround
- Diversified PE

Venture capital

Real assets

- Real estate core
- Real estate core plus
- Real estate distressed
- Real estate opportunistic
- Real estate value added
- Energy
- Infrastructure
- Timber
- Mining

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.



Methodology

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 additional 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: Calculated 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 Q4 2018 through the end of Q3 2019, while the three-year horizon IRR is for the period beginning in Q4 2016 through the end of Q3 2019.

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-benchmarks). [PitchBook News & Analysis](#) also contains several articles with PME benchmarks and analysis. All PME figures are calculated using the Kaplan-Schoar PME method:

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

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



Basics of cash flow management: Distribution profiles across private market strategies

Links to previous installments

[Basics of cash flow management: PE contributions](#)

[Basics of cash flow management: PE distributions](#)

[Basics of cash flow management: Allocation construction](#)

[Basics of cash flow management: Contribution profiles across private market strategies](#)

Key takeaways

- Distribution rates have accelerated for every private fund strategy over the last decade, with newer vintages returning more capital earlier in the fund's life.
- There are fundamental differences in distribution profiles across private market strategies. Private debt and real asset funds, which often have income-producing features, distribute and reach full liquidation more quickly than other strategies. Secondaries funds are also quick to produce initial distributions but tend to have long tails, as they often have exposure to a multitude of underlying positions given the nature of the strategy.
- Distribution rates have exhibited significant cyclicity, with a high correlation to broader macroeconomic conditions. We expect this correlation to persist amid the market disruptions in the first half of 2020, leading to a slowdown in near-term distributions from the historically high levels of recent years.

Introduction

In the [previous installment](#) of our Basics of Cash Flow Management Series, we investigated capital call rates across private market strategies to provide insight into how LPs can better manage the uncalled portion of their private capital commitments.¹ But contributions are only one side of the equation. In order to maintain an allocation over time, LPs must also grapple with the challenge of reinvesting capital as it is distributed.

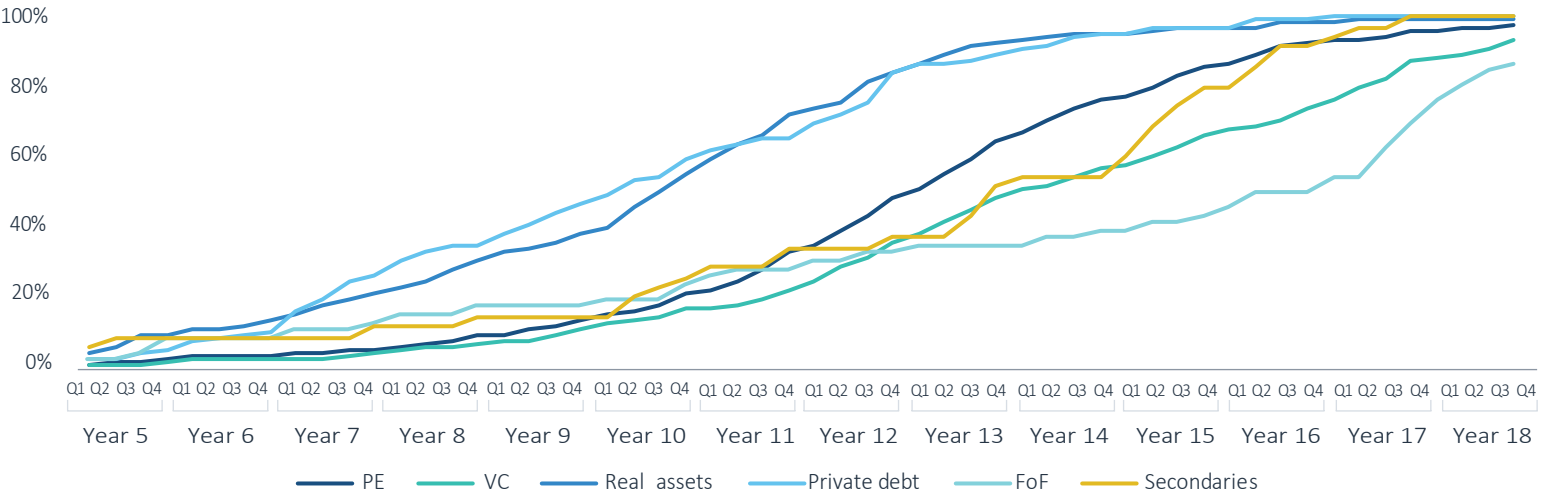
While the size and timing of capital calls are largely constrained by the initial commitment size and parameters outlined in the limited partnership agreement, distributions are much more variable in size and sporadic in frequency. As a result, while aggregate data can be a helpful guide in scenario planning, it is important to keep in mind that absolute performance is the biggest variable in distribution rates.

¹: For an in-depth analysis of PE distribution rates, please refer to the [second installment](#) of the Basics of Cash Flow Management series.



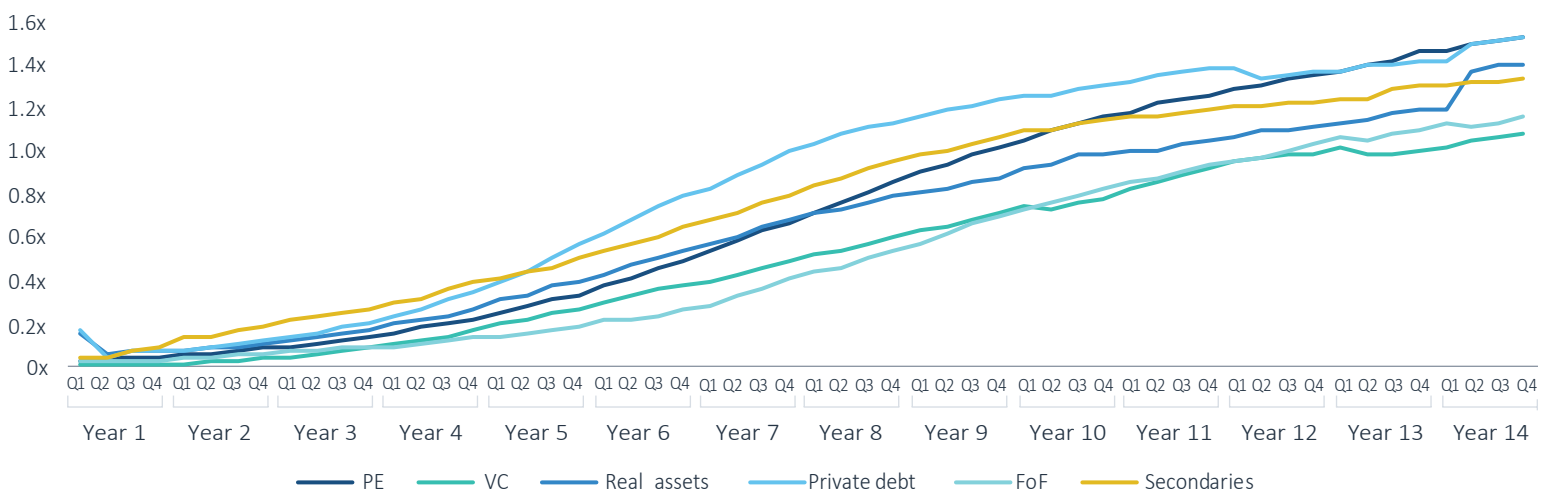
Private fund distribution overview

Proportion of private capital funds to fully liquidate by time since inception



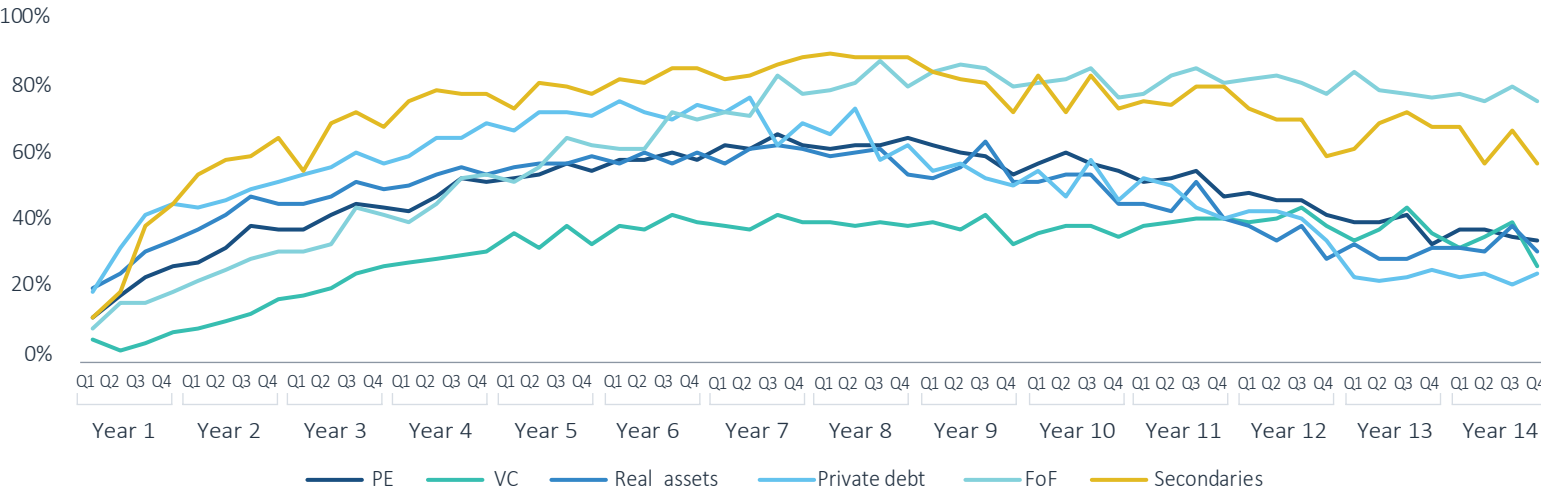
Source: PitchBook | Geography: Global
*As of September 30, 2019

Average DPI for private capital funds since inception



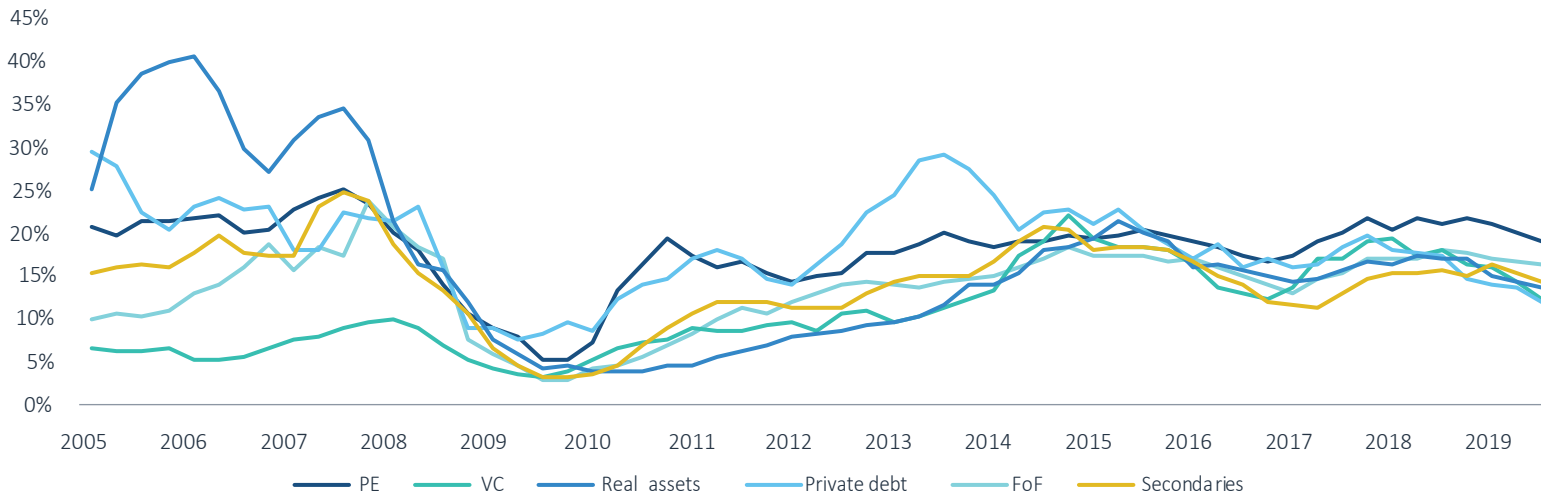
Source: PitchBook | Geography: Global
*As of September 30, 2019

Proportion of private capital funds making a distribution each quarter since inception



Source: PitchBook | Geography: Global
*As of September 30, 2019

Average rolling one-year distribution as proportion of private capital fund size²



Source: PitchBook | Geography: Global
*As of September 30, 2019

Note: Analysis based on distributions in each fund strategy's peak distribution years, defined respectively as: PE 6-10 years, VC and FoF 7-11 years, private debt, real assets and secondaries 4-8 years



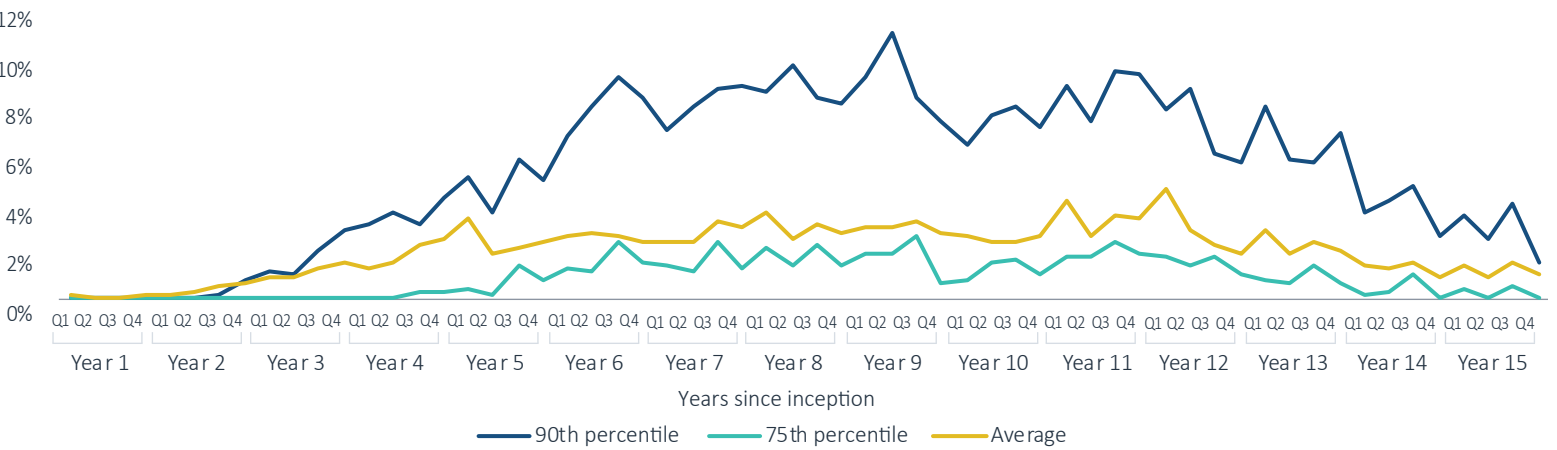
Venture capital

Due to the high failure rate of startups, VC undisputedly has the lowest performance floor of any private market strategy. Bottom-quartile funds generate an average DPI value of just 0.15x at Year 12. Even the median VC fund historically achieves a DPI of only 0.70x at Year 12 and will leave LPs in the red when all is said and done. Investors typically assume that higher-risk strategies are associated with greater payoffs. When it comes to VC, however, even the relative best performers often leave much to be desired, with the top-decile DPI values for VC funds often lagging the top-quartile returns for PE, private debt and real assets. To that end, while gaining access to the highest caliber managers is paramount in all private market strategies, it is particularly important in VC and often more difficult due to the capacity-constrained nature of the strategy. For successful venture funds, the payouts can be enormous; several such vehicles in our dataset distribute the entirety of their original size—and sometimes several multiples of it—in a single quarter.

The path to liquidity for successful venture investments tends to be long, resulting in distributions from VC funds being few and far between. The proportion of these funds making a distribution in a given quarter peaks at 40%, whereas vehicles in every other private market strategy have periods—typically between Years 6 through 9—when at least half of them are making a distribution each quarter. As a result, while the size of distributions peaks by Year 10 in most strategies, we find that distributions tend to be the most frequent and robust during Years 11 and 12 for VC funds, and only half of these vehicles fully liquidate by Year 14.

The data is likely to shift going forward, however, as VC funds have undergone a series of sea changes and continue to evolve. Deconstructing the data by vintage year underscores the extreme volatility experienced during the dotcom era; pre-2000 vintages produced distributions at a clip unlikely to be matched again, while the 2000-2003 vintage cohort suffered permanent impairment. After a prolonged downturn in VC performance following the dotcom boom, the rate of distributions has been quicker for vintages of the 2010s, which have benefited from a sustained economic expansion. Over the last decade, both absolute and relative distribution rates have grown considerably for old and new funds alike. In addition to economic tailwinds, VC funds have enjoyed a favorable exit environment with record levels of M&A activity, improvements in the IPO process and the development of more robust secondaries markets for both fund positions and private company equity.

Range of VC distributions as proportion of fund size since inception

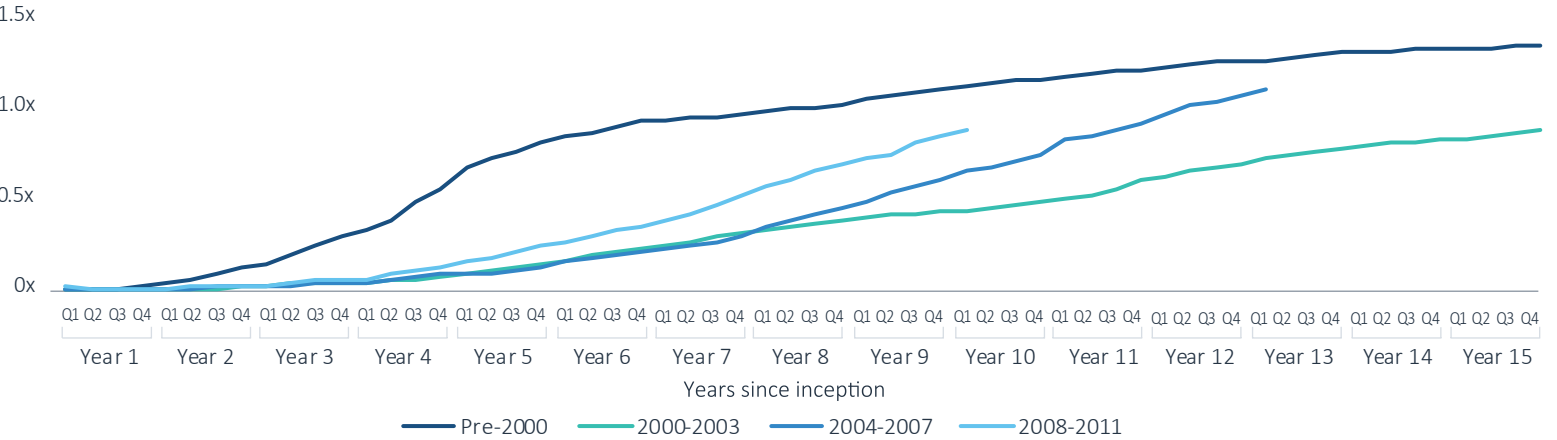


Source: PitchBook | Geography: Global

*As of September 30, 2019

Note: Data includes funds that did not make a distribution in the period..
(For example, if there is no median value, that means fewer than 50% of funds made a distribution.)

Average DPI for VC funds since inception by vintage year



Source: PitchBook | Geography: Global

*As of September 30, 2019



Real assets

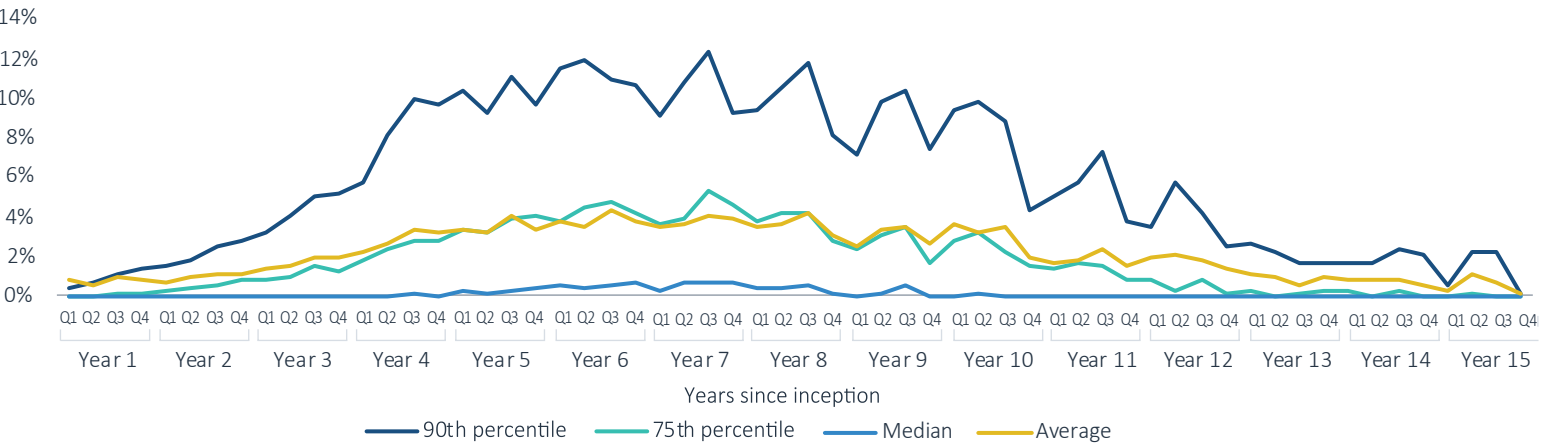
Real assets funds have become increasingly popular among institutional investors due to their low correlation with public equity markets and inflation-hedging attributes. Steady cash flows from rental income and infrastructure assets are attractive to many LPs looking to allocate to private market funds, particularly given the low-yield environment of the last decade; they also produce a relatively low standard deviation in quarterly distributions compared to many private fund strategies. Additionally, real assets funds boast a quicker average liquidation period, and strong performance is possible for top managers. Historically, the top-decile DPI for real assets funds clears 1.65x by Year 10, beating out all other strategies except PE (1.85x) and private debt (1.69x).

Even with the perception of steady cash flows, the boom and bust cycles that happen with real assets lead to relatively high volatility in aggregate return on capital. Real estate returns plummeted during the GFC, and oil & gas assets have been hammered by repeated collapses in energy commodities. All told, the strategy has had more duds than one might expect. The bottom-decile DPI reaches 0.23x at Year 10, the second-worst performance for that percentile group behind only risk-laden VC.

Much of the underperformance for real assets can be tied to the collapse of the real estate market at the end of the last cycle. That has weighed heavily on the relative performance between vintage years. The frothy real estate market prior to the GFC led to a quick return of capital for those invested in the 2000-2003 vintage cohort, averaging a 1.0x DPI by Year 4. Meanwhile, the 2008-2011 vintages needed 10 years on average before achieving the same multiple on invested capital .

The real assets strategy continues to shift focus over time. Not only is capital accumulating in the largest funds, but the concentration of capital within substrategies is changing. Infrastructure and renewable energy have supplanted oil & gas the last few years, and real estate has its own dichotomy of risk-reward profiles among property sectors. These changes, exacerbated by the present crisis, will alter the cash flow characteristics for real assets funds in the future.

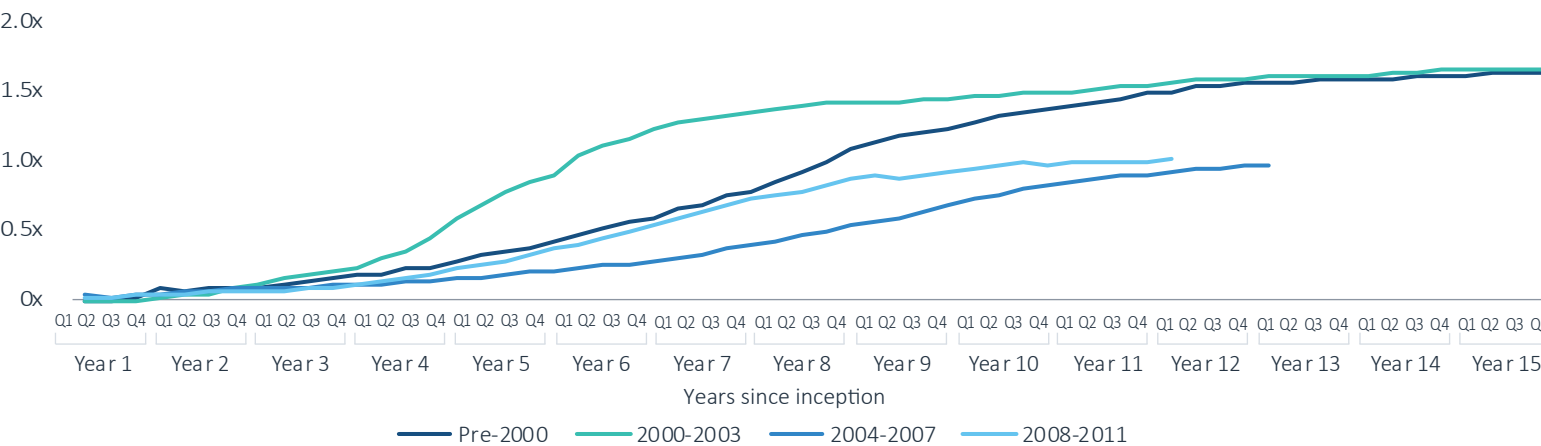
Range of real assets distributions as proportion of fund size since inception



Source: PitchBook | Geography: Global
*As of September 30, 2019

Note: Data includes funds that did not make a distribution in the period..
(For example, if there is no median value, that means fewer than 50% of funds made a distribution.)

Average DPI for real assets funds since inception by vintage year



Source: PitchBook | Geography: Global
*As of September 30, 2019



Private debt

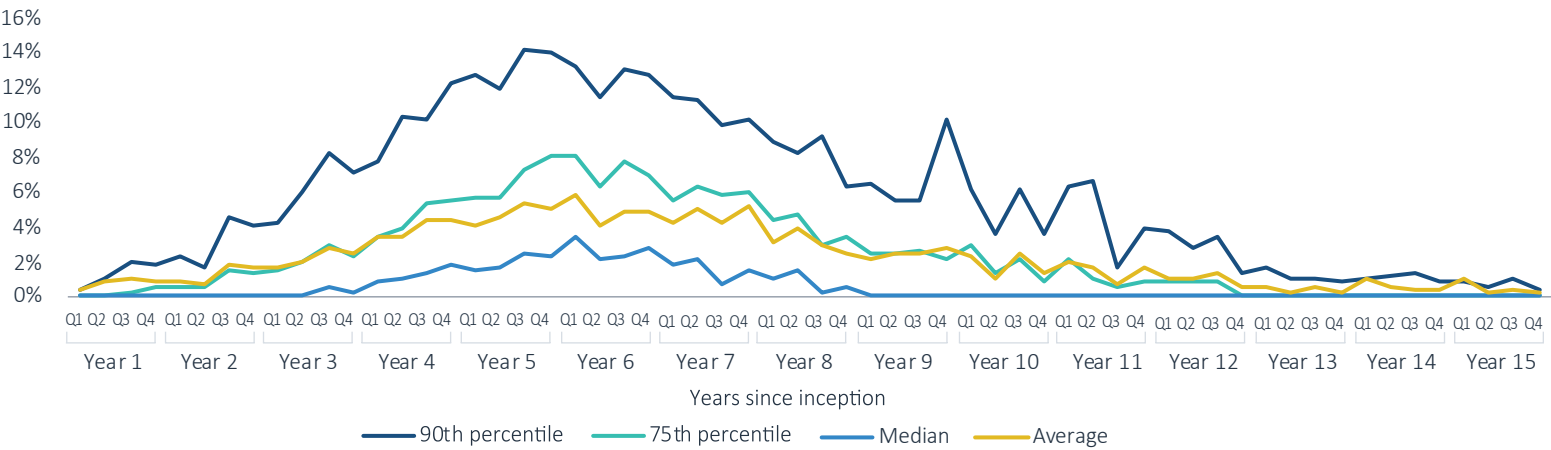
Given their focus on income generation, private debt funds tend to return capital more quickly than any other private market strategy. The amortizing nature of many of the underlying loans also enables a consistent return of principal over time, whereas investors typically have to wait for a full sale of the portfolio company. On average, private debt funds return the entirety of paid-in capital between seven and eight years from inception. This compares favorably even to real assets—a strategy also predicated on income generation—which reaches the same mark in Year 11.

Though the rate of distributions for debt funds is faster as a group, there are still important differences when assessing funds that deployed capital through different periods of the economic cycle. For example, early-cycle vintages raised during downturns (2000-2003 and 2008-2011) tend to reach a DPI of 1.0x around Year 6 on average, whereas late-cycle vintages (2004-2007) take about three years longer to reach this mark. Debt is hardly unique in this way—the global financial crisis (GFC) delayed distributions across strategies—but we are likely to see a similar delay with the advent of the current pandemic.

Private debt funds are also less likely to encounter “tail-end” situations and be extended past the 10- or 12-year mark that is typical of private fund structures. Unlike equity-linked investments, debt instruments tend to have fixed maturity dates and payment schedules, which make timely distributions more likely. From Years 3 to 9, at least 50% of debt funds make a distribution in any given quarter,² but beginning in Year 12, we see a sharp drop-off in that figure to less than 25%—lower than any other strategy.

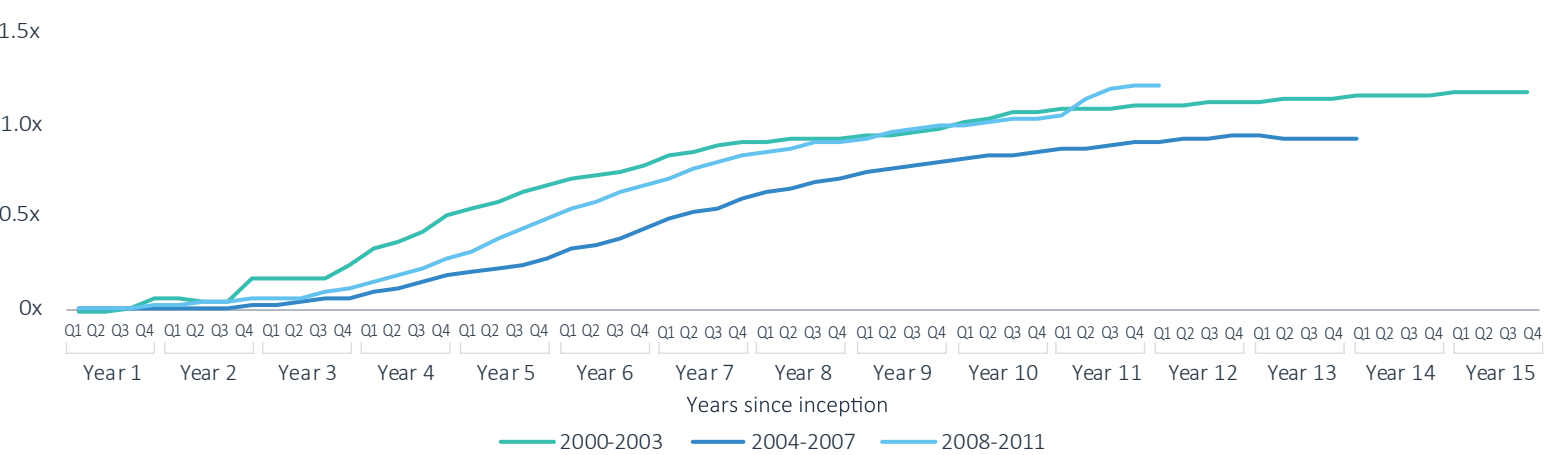
2: All except for one quarter

Range of private debt distributions as proportion of fund size since inception



Source: PitchBook | Geography: Global
*As of September 30, 2019
*Note: Data includes funds that did not make a distribution in the period..
(For example, if there is no median value, that means fewer than 50% of funds made a distribution.)*

Average DPI for private debt funds since inception by vintage year



Source: PitchBook | Geography: Global
*As of September 30, 2019

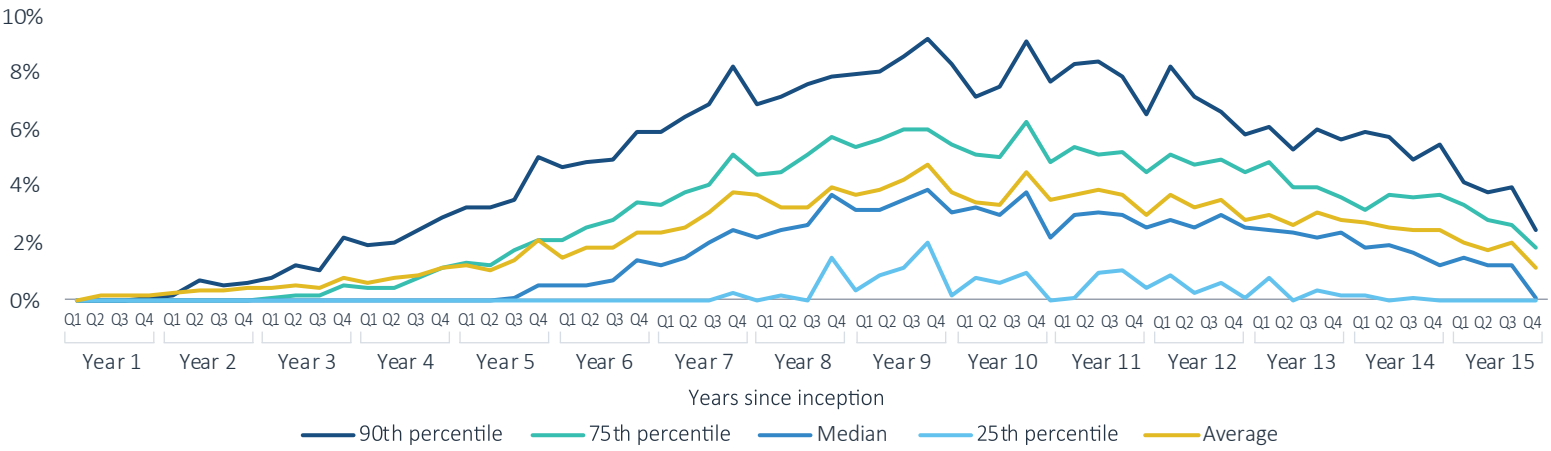


Funds of funds

The protracted nature of capital deployment necessitated by the fund-of-fund (FoF) structure, detailed in our [prior research](#), makes it one of the slowest private market strategies to return capital to investors. Distributions tend to start later for FoF, with the average DPI value not reaching 0.5x until midway through Year 8—a year and a half longer than the next slowest strategy. Additionally, the size of quarterly distributions for FoF crests in Years 9 and 10, compared to Year 6 or 7 for most other private market strategies. But thanks to their diversification across several underlying funds, which typically results in hundreds if not thousands of underlying positions, FoF provide some of the most consistent distribution patterns of any private fund strategy.

Beginning in Year 7, at least two-thirds of FoF make a distribution each quarter until they are fully liquidated. Distribution sizes tend to be consistent as well; the standard deviation of FoF quarterly distributions is roughly half that of PE funds. The tradeoff for this consistency is that distributions tend to be smaller, and it takes FoF longer than any other private market strategy to liquidate, with only half of funds liquidated by the end of Year 16. As with other private market strategies, distributions from FoF vintages of the mid-2000s were hampered by the great recession. In general, however, the trajectory of distributions for FoF has been fairly consistent across vintage years.

Range of FoF distributions as proportion of size since inception



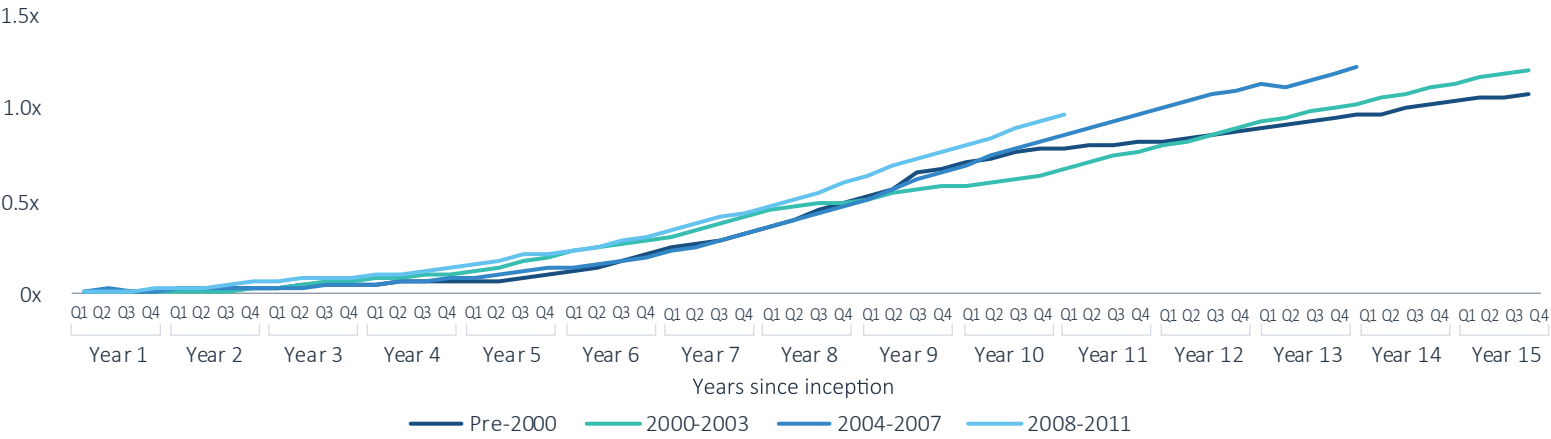
Source: PitchBook | Geography: Global

*As of September 30, 2019

Note: Data includes funds that did not make a distribution in the period..

(For example, if there is no median value, that means fewer than 50% of funds made a distribution.)

Average DPI for FoF since inception by vintage year



Source: PitchBook | Geography: Global

*As of September 30, 2019



Secondaries

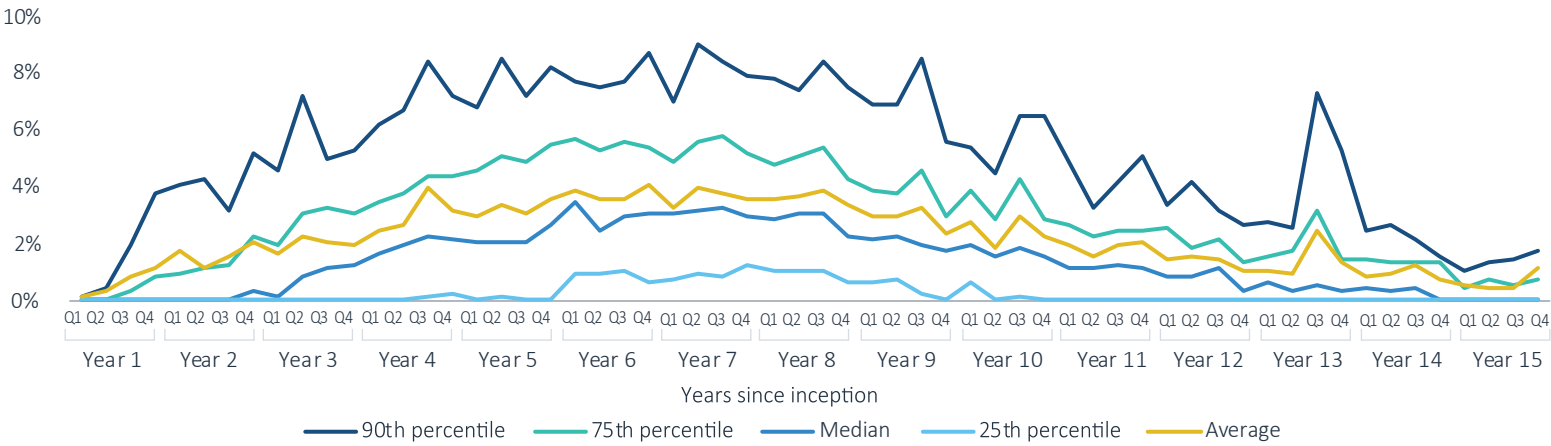
Secondaries have soared in popularity over the last decade due in large part to a range of perceived benefits, with perhaps the most important being J-curve mitigation. As we showed in the prior installment of this series, secondaries funds tend to call down capital at a similar rate to that of primary PE funds. Distributions from these vehicles, however, begin to flow much more quickly than for other strategies because the underlying positions are existing fund positions with mature underlying investments. As a result, secondaries funds achieve an average DPI of 0.19x by the end of Year 2—nearly double most other strategies. Despite the swiftness of the early distributions, which can help to reduce the initial J-curve, more than half of secondaries funds will take 13 years or longer to liquidate. We attribute this to the multitude of underlying positions associated with acquiring portfolios of LP stakes, which provides more opportunities for early distributions but also means that the chance for tail-end situations rises.

The secondaries market comprises the fewest funds and least amount of capital of any private market strategy covered in this analysis. Therefore, they provide an interesting case study because the space has evolved so rapidly and is heavily influenced by a relatively small number of players. The earliest secondaries funds largely focused on acquiring mature fund stakes, often at steep discounts, enabling unprecedented early distributions. In late-1990s and early 2000s vintages, secondaries funds achieve an average DPI of at least 1.0x by Year 7. Distributions naturally were slower and lower for the mid-2000 funds, which were largely deployed when the GFC hit, as GPs extended holding times and performance across strategies suffered. Distribution rates have rebounded for funds raised through and since the GFC, however. Absolute performance has also risen for these funds due to several factors, including discounted pricing in the early 2010s and an increasing use of leverage. Following this period of strong returns, we think distribution rates are likely to fall in aggregate not only because exits have slowed abruptly during the pandemic but because competition has pushed up pricing and forced secondaries investors to seek out less mature opportunities, resulting in a longer holding time.

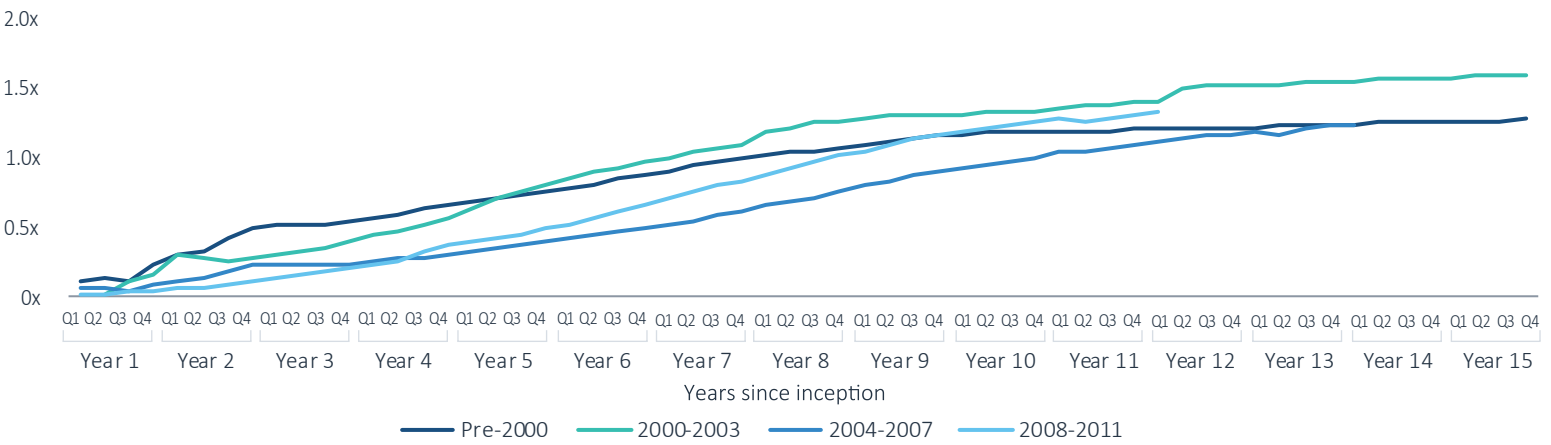
Conclusion

As mentioned throughout this analysis, distributions are highly dependent on the specific funds and the success or failure of the underlying deals in question. That said, data can be informative in understanding broad trends and how they evolve over time. Today’s environment, marked by truly unprecedented levels of uncertainty and ongoing market intervention, makes it challenging to extrapolate from historical data for answers. Despite this ambiguity, we think that distributions will fall for private market strategies in the near to medium term. One mitigating factor is that fund managers now have more levers than ever before to tap liquidity, including new developments in secondaries markets and lending structures to unlock cash while sometimes remaining invested. Even with these innovations, however, private market investors should brace themselves for a journey through a distribution desert.

Range of secondaries distributions as proportion of fund size since inception



Average DPI for secondaries since inception by vintage year



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- Get aggregate fund-level performance at a glance.

- Get access to individual LP reports and the underlying fund performance data that is used to construct our benchmarks.

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2 Secondary Commitment

^P Partial Commitment

Private capital





Private capital

Horizon IRRs

Strategy	1-year	3-year	5-year	10-year	15-year	18-year
Private capital	8.31%	12.23%	11.54%	12.63%	11.02%	10.53%
Private equity	9.56%	13.91%	13.75%	14.48%	13.02%	12.49%
Venture capital	10.64%	13.09%	11.64%	12.35%	9.48%	6.78%
Real assets	1.53%	8.30%	7.49%	9.13%	6.90%	6.96%
Debt	5.06%	7.32%	6.36%	9.26%	8.32%	8.76%
Fund-of-funds	32.17%	18.50%	15.24%	12.07%	10.88%	10.24%
Secondaries	8.61%	13.69%	11.57%	12.89%	11.39%	11.37%
S&P 500	4.25%	13.39%	11.13%	13.54%	8.90%	8.18%
Russell 3000	2.92%	12.83%	10.74%	13.39%	8.99%	8.48%
Russell 2000 Growth	-9.63%	9.79%	9.46%	12.63%	8.89%	9.18%
Morningstar US Real Assets	0.87%	2.00%	1.87%	4.17%	5.16%	6.59%
Bloomberg Barclays US Corporate High Yield	6.36%	6.07%	5.34%	7.96%	7.33%	8.20%

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs.



Private capital

Equal-weighted horizon IRRs

Strategy	1-year	3-year	5-year	10-year	15-year	18-year
Private capital	8.49%	11.75%	11.07%	11.66%	10.38%	9.13%
Private equity	9.32%	13.43%	12.75%	13.07%	13.01%	11.65%
Venture capital	10.66%	12.31%	10.96%	11.63%	8.64%	5.76%
Real assets	3.92%	8.34%	8.20%	8.81%	7.31%	7.51%
Debt	5.46%	7.46%	6.84%	9.30%	8.25%	9.21%
Fund-of-funds	14.50%	14.64%	13.47%	12.63%	11.07%	10.54%
Secondaries	8.53%	11.68%	10.30%	12.43%	11.10%	10.52%
S&P 500	4.25%	13.39%	11.13%	13.54%	8.90%	8.18%
Russell 3000	2.92%	12.83%	10.74%	13.39%	8.99%	8.48%
Russell 2000 Growth	-9.63%	9.79%	9.46%	12.63%	8.89%	9.18%
Morningstar US Real Assets	0.87%	2.00%	1.87%	4.17%	5.16%	6.59%
Bloomberg Barclays US Corporate High Yield	6.36%	6.07%	5.34%	7.96%	7.33%	8.20%

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs.

Private equity





Private equity

IRRs 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	19.98%	10.47%	6	35.97%	28.38%	17.90%	8.71%	-3.38%	14.66%	41
1996	12.19%	9.49%	23	25.86%	17.18%	6.72%	0.40%	-6.29%	18.28%	33
1997	9.59%	7.46%	25	16.17%	12.98%	7.90%	1.14%	-9.81%	11.02%	26
1998	6.49%	5.41%	40	19.97%	13.75%	7.65%	-0.86%	-9.82%	19.52%	45
1999	9.73%	10.82%	40	21.75%	16.99%	10.81%	4.82%	-6.80%	11.12%	51
2000	15.96%	12.46%	53	25.41%	21.78%	11.75%	4.82%	-3.32%	11.49%	58
2001	23.62%	19.15%	30	38.74%	26.22%	16.44%	10.79%	8.15%	18.99%	32
2002	18.79%	16.38%	34	33.44%	27.30%	17.10%	6.35%	2.29%	16.09%	33
2003	22.92%	15.85%	22	37.65%	24.01%	13.20%	6.93%	-0.61%	14.08%	23
2004	13.00%	11.45%	50	28.24%	16.20%	9.77%	4.03%	-0.31%	17.72%	49
2005	9.60%	9.39%	75	21.16%	13.53%	8.35%	3.97%	-1.42%	13.78%	80
2006	7.51%	7.11%	108	14.53%	11.60%	7.82%	4.50%	-2.35%	9.50%	112
2007	9.02%	9.46%	111	21.09%	16.16%	9.15%	4.62%	-0.51%	9.97%	118
2008	12.28%	10.21%	109	22.69%	16.57%	10.51%	4.32%	-4.51%	14.81%	118
2009	13.58%	14.08%	45	29.06%	21.90%	11.90%	9.10%	5.67%	10.83%	45
2010	12.71%	11.39%	62	26.27%	17.65%	10.99%	4.45%	-3.23%	13.17%	58

Source: PitchBook. Data as of September 30, 2019



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
2011	14.76%	13.81%	79	29.58%	21.74%	13.41%	9.31%	3.91%	18.21%	70
2012	15.59%	13.60%	111	30.54%	20.91%	14.36%	8.70%	1.73%	14.86%	99
2013	13.49%	13.32%	91	27.14%	19.74%	13.53%	8.85%	6.53%	10.34%	88
2014	17.64%	18.05%	98	31.29%	22.92%	15.48%	8.95%	6.74%	13.71%	89
2015	18.04%	16.09%	125	30.72%	20.26%	14.60%	9.94%	3.51%	11.81%	110
2016	17.48%	17.35%	117	33.34%	23.11%	14.56%	5.96%	-2.09%	17.41%	105
2017	15.16%	11.10%	124	29.98%	19.90%	10.14%	0.00%	-12.10%	20.09%	107



Private equity

Multiples by vintage

Pooled multiples

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	1.57x	1.57x	0.00x	1.43x	1.43x	0.00x	23
1997	1.58x	1.58x	0.00x	1.40x	1.40x	0.00x	25
1998	1.39x	1.39x	0.00x	1.29x	1.28x	0.01x	40
1999	1.51x	1.51x	0.00x	1.61x	1.60x	0.01x	40
2000	1.83x	1.81x	0.01x	1.71x	1.69x	0.02x	53
2001	2.17x	2.16x	0.01x	1.99x	1.99x	0.01x	30
2002	1.90x	1.88x	0.01x	1.77x	1.75x	0.02x	34
2003	2.02x	1.98x	0.03x	1.80x	1.75x	0.05x	22
2004	1.77x	1.72x	0.05x	1.66x	1.61x	0.06x	50
2005	1.59x	1.52x	0.07x	1.57x	1.49x	0.08x	75
2006	1.49x	1.38x	0.11x	1.44x	1.31x	0.13x	108
2007	1.50x	1.31x	0.19x	1.54x	1.37x	0.17x	111
2008	1.63x	1.44x	0.18x	1.54x	1.32x	0.21x	109
2009	1.64x	1.46x	0.18x	1.68x	1.45x	0.24x	45
2010	1.58x	1.17x	0.41x	1.56x	1.08x	0.48x	62



Private equity

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
2011	1.70x	1.06x	0.64x	1.66x	1.00x	0.65x	79
2012	1.62x	0.86x	0.75x	1.53x	0.82x	0.71x	111
2013	1.42x	0.60x	0.82x	1.45x	0.62x	0.83x	91
2014	1.51x	0.52x	0.99x	1.53x	0.51x	1.02x	98
2015	1.39x	0.34x	1.05x	1.38x	0.33x	1.05x	125
2016	1.27x	0.20x	1.07x	1.29x	0.23x	1.06x	117
2017	1.16x	0.11x	1.05x	1.13x	0.15x	0.97x	124



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	
Pre-1996		1.82x	1.39x	0.96x			1.82x	1.20x	0.79x		6
1996	2.29x	1.83x	1.30x	1.09x	0.67x	2.29x	1.83x	1.30x	1.09x	0.67x	23
1997	2.02x	1.75x	1.46x	1.03x	0.76x	2.02x	1.75x	1.46x	1.03x	0.76x	25
1998	1.90x	1.59x	1.36x	0.95x	0.59x	1.90x	1.59x	1.30x	0.95x	0.59x	40
1999	2.27x	2.03x	1.57x	1.22x	0.93x	2.27x	1.96x	1.57x	1.18x	0.92x	40
2000	2.41x	2.09x	1.67x	1.33x	0.95x	2.41x	2.07x	1.66x	1.33x	0.86x	53
2001	2.95x	2.57x	1.90x	1.53x	1.22x	2.94x	2.54x	1.90x	1.51x	1.22x	30
2002	2.70x	2.17x	1.75x	1.33x	1.21x	2.68x	2.16x	1.75x	1.31x	1.15x	34
2003	3.11x	1.93x	1.71x	1.47x	0.80x	3.00x	1.93x	1.71x	1.40x	0.75x	22
2004	2.54x	2.00x	1.60x	1.34x	0.99x	2.54x	1.96x	1.57x	1.22x	0.80x	50
2005	2.31x	1.84x	1.50x	1.23x	0.86x	2.27x	1.77x	1.40x	1.14x	0.81x	75
2006	2.06x	1.66x	1.38x	1.17x	0.82x	1.86x	1.58x	1.34x	1.07x	0.51x	108
2007	2.23x	1.90x	1.48x	1.17x	0.95x	2.19x	1.72x	1.29x	0.98x	0.71x	111
2008	2.13x	1.83x	1.51x	1.19x	0.88x	1.97x	1.59x	1.32x	0.99x	0.58x	109
2009	2.46x	2.10x	1.65x	1.29x	1.01x	2.25x	1.82x	1.36x	1.11x	0.83x	45
2010	2.30x	1.81x	1.52x	1.17x	0.86x	1.78x	1.45x	0.99x	0.75x	0.44x	62

For RVPI data, please download the supplemental Excel pack



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	
2011	2.46x	1.97x	1.55x	1.28x	1.02x	1.76x	1.37x	1.00x	0.61x	0.26x	79
2012	2.05x	1.80x	1.52x	1.22x	1.04x	1.38x	1.11x	0.81x	0.54x	0.26x	111
2013	1.82x	1.64x	1.47x	1.24x	1.10x	1.19x	0.94x	0.50x	0.27x	0.14x	91
2014	2.12x	1.70x	1.40x	1.21x	1.13x	1.03x	0.71x	0.41x	0.15x	0.03x	98
2015	1.72x	1.45x	1.31x	1.16x	1.01x	0.66x	0.46x	0.23x	0.12x	0.02x	125
2016	1.60x	1.40x	1.22x	1.09x	0.98x	0.50x	0.30x	0.12x	0.00x	0.00x	117
2017	1.34x	1.19x	1.09x	0.97x	0.85x	0.34x	0.15x	0.04x	0.00x	0.00x	124

For RVPI data, please download the supplemental Excel pack



Private equity

PMEs by vintage

S&P 500 Index				Russell 3000 Index			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
1996	12.19%	8.79%	1.40	12.19%	8.84%	1.37	23
1997	9.59%	8.09%	1.38	9.59%	8.22%	1.33	25
1998	6.49%	7.06%	1.31	6.49%	7.23%	1.25	40
1999	9.73%	6.26%	1.36	9.73%	6.64%	1.32	40
2000	15.96%	5.87%	1.49	15.96%	6.11%	1.45	53
2001	23.62%	6.76%	1.69	23.62%	7.04%	1.65	30
2002	18.79%	7.80%	1.44	18.79%	8.04%	1.41	34
2003	22.92%	9.99%	1.57	22.92%	10.22%	1.55	22
2004	13.00%	8.60%	1.38	13.00%	8.70%	1.36	50
2005	9.60%	8.71%	1.19	9.60%	8.78%	1.17	75
2006	7.51%	8.63%	1.00	7.51%	8.56%	0.99	108
2007	9.02%	8.28%	0.95	9.02%	8.21%	0.94	111
2008	12.28%	9.36%	0.98	12.28%	9.37%	0.98	109
2009	13.58%	15.55%	0.97	13.58%	15.58%	0.97	45
2010	12.71%	13.05%	0.97	12.71%	12.89%	0.97	62

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Private equity

PMEs by vintage

S&P 500 Index				Russell 3000 Index			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
2011	14.76%	12.45%	1.05	14.76%	12.10%	1.06	79
2012	15.59%	13.37%	1.09	15.59%	13.07%	1.10	111
2013	13.49%	13.16%	1.04	13.49%	12.77%	1.06	91
2014	17.64%	11.32%	1.14	17.64%	10.71%	1.15	98
2015	18.04%	10.57%	1.11	18.04%	10.06%	1.12	125
2016	17.48%	14.93%	1.08	17.48%	14.84%	1.09	117
2017	15.16%	12.29%	1.04	15.16%	11.66%	1.04	124

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Private equity

Quarterly return

Quarter end	1-quarter benchmark return (%)
Q1 2001	-5.99%
Q2 2001	-0.21%
Q3 2001	-3.59%
Q4 2001	-4.05%
Q1 2002	-0.69%
Q2 2002	-2.75%
Q3 2002	-2.39%
Q4 2002	-0.38%
Q1 2003	0.49%
Q2 2003	5.79%
Q3 2003	4.01%
Q4 2003	8.95%
Q1 2004	8.71%
Q2 2004	0.72%
Q3 2004	3.10%
Q4 2004	12.69%
Q1 2005	2.60%
Q2 2005	8.62%
Q3 2005	7.58%

Quarter end	1-quarter benchmark return (%)
Q4 2005	10.07%
Q1 2006	4.33%
Q2 2006	5.51%
Q3 2006	4.13%
Q4 2006	12.60%
Q1 2007	5.58%
Q2 2007	8.32%
Q3 2007	4.14%
Q4 2007	3.82%
Q1 2008	-0.49%
Q2 2008	-1.48%
Q3 2008	-7.75%
Q4 2008	-11.08%
Q1 2009	-7.13%
Q2 2009	3.28%
Q3 2009	3.61%
Q4 2009	6.83%
Q1 2010	3.15%
Q2 2010	1.62%

Quarter end	1-quarter benchmark return (%)
Q3 2010	4.43%
Q4 2010	7.65%
Q1 2011	5.13%
Q2 2011	4.73%
Q3 2011	-2.78%
Q4 2011	1.29%
Q1 2012	5.65%
Q2 2012	0.73%
Q3 2012	3.80%
Q4 2012	3.37%
Q1 2013	3.11%
Q2 2013	3.07%
Q3 2013	4.70%
Q4 2013	5.62%
Q1 2014	4.49%
Q2 2014	4.87%
Q3 2014	0.27%
Q4 2014	3.63%
Q1 2015	3.23%

Quarter end	1-quarter benchmark return (%)
Q2 2015	5.20%
Q3 2015	0.37%
Q4 2015	2.76%
Q1 2016	1.92%
Q2 2016	4.30%
Q3 2016	4.49%
Q4 2016	1.49%
Q1 2017	4.56%
Q2 2017	5.18%
Q3 2017	4.30%
Q4 2017	4.68%
Q1 2018	4.08%
Q2 2018	3.14%
Q3 2018	2.93%
Q4 2018	-0.71%
Q1 2019	4.35%
Q2 2019	3.22%
Q3 2019	2.48%

Source: PitchBook. Data as of September 30, 2019

Venture capital





Venture capital

IRRs 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	40.14%	27.10%	13.82%	5.20%	-1.59%	24.06%	33
1996	91.71%	143.96%	8	140.87%	84.99%	25.27%	8.69%	4.91%	65.43%	10
1997	5.93%	13.06%	15	74.45%	36.38%	9.70%	0.13%	-4.69%	39.46%	15
1998	6.12%	4.93%	21	53.65%	15.75%	8.64%	-8.07%	-11.08%	39.33%	20
1999	-2.84%	-4.17%	37	9.02%	2.73%	-5.19%	-13.01%	-21.37%	13.70%	36
2000	0.02%	-1.23%	57	6.66%	2.45%	-0.90%	-5.75%	-14.95%	9.80%	59
2001	4.30%	2.51%	36	11.66%	5.40%	2.32%	-2.61%	-12.12%	10.54%	37
2002	3.13%	2.94%	17	9.42%	7.70%	5.40%	-6.70%	-10.95%	8.92%	17
2003	5.67%	1.42%	18	12.90%	6.60%	1.30%	-8.75%	-26.93%	21.49%	20
2004	3.96%	6.37%	21	10.01%	5.83%	1.00%	-10.52%	-18.98%	18.72%	24
2005	8.03%	7.18%	31	14.53%	10.25%	4.35%	1.92%	-2.66%	8.70%	32
2006	5.00%	2.95%	41	14.68%	9.50%	4.44%	-4.76%	-10.58%	12.43%	47
2007	12.37%	11.69%	45	28.15%	15.52%	9.20%	-0.91%	-9.30%	16.97%	47
2008	13.67%	10.08%	54	27.20%	20.11%	8.13%	-1.00%	-18.32%	22.78%	52
2009	9.60%	8.39%	20	23.65%	15.10%	10.00%	5.25%	-1.63%	10.10%	20
2010	16.88%	17.62%	25	36.95%	26.40%	12.48%	3.50%	-3.09%	17.35%	25

Source: PitchBook. Data as of September 30, 2019



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
2011	17.28%	15.50%	21	23.62%	21.20%	15.41%	0.72%	-5.01%	12.86%	26
2012	16.81%	15.74%	20	31.67%	28.28%	16.74%	11.96%	9.35%	22.12%	20
2013	19.01%	14.00%	23	35.82%	27.29%	17.38%	10.78%	3.72%	27.50%	27
2014	19.52%	21.41%	38	44.94%	24.10%	17.18%	10.30%	3.02%	66.50%	37
2015	18.57%	17.12%	45	37.04%	21.28%	13.65%	8.61%	3.93%	12.20%	46
2016	22.48%	27.51%	54	49.64%	31.30%	18.38%	8.84%	0.63%	18.95%	45
2017	20.63%	17.91%	36	40.08%	21.21%	14.52%	7.45%	0.50%	18.55%	32



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	3.41x	0.02x	4.47x	4.44x	0.03x	8
1997	1.23x	1.23x	0.00x	1.41x	1.41x	0.00x	15
1998	1.26x	1.25x	0.02x	1.19x	1.18x	0.02x	21
1999	0.81x	0.73x	0.08x	0.74x	0.69x	0.05x	37
2000	1.00x	0.95x	0.06x	0.92x	0.88x	0.04x	57
2001	1.32x	1.26x	0.06x	1.18x	1.10x	0.08x	36
2002	1.19x	1.17x	0.02x	1.19x	1.10x	0.09x	17
2003	1.42x	1.32x	0.10x	1.09x	1.02x	0.07x	18
2004	1.30x	1.16x	0.15x	1.52x	1.34x	0.18x	21
2005	1.69x	1.33x	0.36x	1.62x	1.21x	0.41x	31
2006	1.34x	1.08x	0.26x	1.21x	0.92x	0.29x	41
2007	1.91x	1.51x	0.39x	1.91x	1.46x	0.45x	45
2008	1.90x	1.50x	0.40x	1.67x	1.24x	0.43x	54
2009	1.70x	1.01x	0.69x	1.60x	0.89x	0.71x	20
2010	2.09x	1.17x	0.91x	2.20x	1.30x	0.90x	25



Venture capital

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
2011	2.06x	0.89x	1.17x	1.98x	0.68x	1.30x	21
2012	2.04x	0.71x	1.34x	1.95x	0.48x	1.47x	20
2013	1.78x	0.43x	1.34x	1.56x	0.33x	1.23x	23
2014	1.76x	0.24x	1.52x	1.78x	0.23x	1.56x	38
2015	1.50x	0.17x	1.32x	1.45x	0.17x	1.28x	45
2016	1.37x	0.08x	1.28x	1.52x	0.13x	1.40x	54
2017	1.26x	0.02x	1.24x	1.28x	0.02x	1.26x	36



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	
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	1.65x	1.23x	0.69x	0.47x	1.80x	1.58x	1.23x	0.69x	0.44x	21
1999	1.46x	1.04x	0.68x	0.38x	0.19x	1.33x	0.86x	0.68x	0.36x	0.19x	37
2000	1.43x	1.18x	0.94x	0.62x	0.37x	1.43x	1.13x	0.91x	0.55x	0.30x	57
2001	1.81x	1.49x	1.20x	0.77x	0.29x	1.81x	1.40x	1.08x	0.69x	0.26x	36
2002	1.78x	1.74x	1.18x	0.68x	0.50x	1.78x	1.61x	1.18x	0.57x	0.34x	17
2003	1.65x	1.45x	1.15x	0.58x	0.39x	1.50x	1.34x	1.08x	0.58x	0.39x	18
2004	1.70x	1.48x	1.02x	0.54x	0.37x	1.54x	1.19x	0.79x	0.42x	0.09x	21
2005	2.39x	1.73x	1.31x	1.12x	0.66x	2.04x	1.49x	1.05x	0.83x	0.50x	31
2006	2.16x	1.63x	1.11x	0.65x	0.39x	1.63x	1.41x	0.88x	0.48x	0.20x	41
2007	2.92x	2.27x	1.81x	0.95x	0.46x	2.52x	1.78x	1.34x	0.53x	0.10x	45
2008	2.81x	2.04x	1.41x	0.91x	0.28x	2.48x	1.72x	0.77x	0.38x	0.20x	54
2009	2.39x	1.92x	1.64x	1.08x	0.85x	1.51x	1.16x	0.80x	0.44x	0.24x	20
2010	3.40x	2.89x	1.89x	1.28x	0.85x	2.32x	1.50x	0.99x	0.56x	0.41x	25

For RVPI data, please download the supplemental Excel pack



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	
2011	3.37x	2.36x	1.89x	1.40x	0.99x	1.36x	1.02x	0.64x	0.18x	0.10x	21
2012	2.52x	2.22x	1.80x	1.28x	0.65x	0.97x	0.68x	0.31x	0.12x	0.00x	20
2013	2.29x	1.82x	1.54x	1.42x	0.76x	0.87x	0.41x	0.21x	0.04x	0.00x	23
2014	2.75x	1.99x	1.63x	1.33x	1.09x	0.52x	0.32x	0.11x	0.04x	0.00x	38
2015	1.84x	1.64x	1.36x	1.20x	1.03x	0.62x	0.24x	0.02x	0.00x	0.00x	45
2016	1.94x	1.57x	1.31x	1.13x	1.04x	0.39x	0.11x	0.00x	0.00x	0.00x	54
2017	1.73x	1.32x	1.18x	1.09x	0.95x	0.06x	0.01x	0.00x	0.00x	0.00x	36

For RVPI data, please download the supplemental Excel pack



Venture capital

PMEs by vintage

S&P 500 Index				Russell 2000 Growth			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
1996	91.71%	8.79%	2.65	91.71%	7.98%	2.93	8
1997	5.93%	8.09%	1.08	5.93%	7.65%	0.96	15
1998	6.12%	7.06%	1.16	6.12%	6.89%	0.94	21
1999	-2.84%	6.26%	0.70	-2.84%	7.69%	0.55	37
2000	0.02%	5.87%	0.72	0.02%	6.47%	0.61	57
2001	4.30%	6.76%	0.89	4.30%	7.47%	0.81	36
2002	3.13%	7.80%	0.87	3.13%	7.76%	0.81	17
2003	5.67%	9.99%	0.92	5.67%	9.93%	0.91	18
2004	3.96%	8.60%	0.81	3.96%	7.34%	0.82	21
2005	8.03%	8.71%	0.97	8.03%	7.25%	1.02	31
2006	5.00%	8.63%	0.79	5.00%	6.52%	0.82	41
2007	12.37%	8.28%	1.05	12.37%	6.18%	1.12	45
2008	13.67%	9.36%	1.02	13.67%	7.87%	1.12	54
2009	9.60%	15.55%	0.80	9.60%	13.55%	0.93	20
2010	16.88%	13.05%	1.13	16.88%	10.19%	1.34	25

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Venture capital

PMEs by vintage

S&P 500 Index				Russell 2000 Growth			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
2011	17.28%	12.45%	1.19	17.28%	8.36%	1.44	21
2012	16.81%	13.37%	1.20	16.81%	9.31%	1.47	20
2013	19.01%	13.16%	1.24	19.01%	8.47%	1.46	23
2014	19.52%	11.32%	1.24	19.52%	5.13%	1.43	38
2015	18.57%	10.57%	1.15	18.57%	4.99%	1.26	45
2016	22.48%	14.93%	1.16	22.48%	10.39%	1.23	54
2017	20.63%	12.29%	1.11	20.63%	8.96%	1.19	36

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Venture capital

Quarterly return

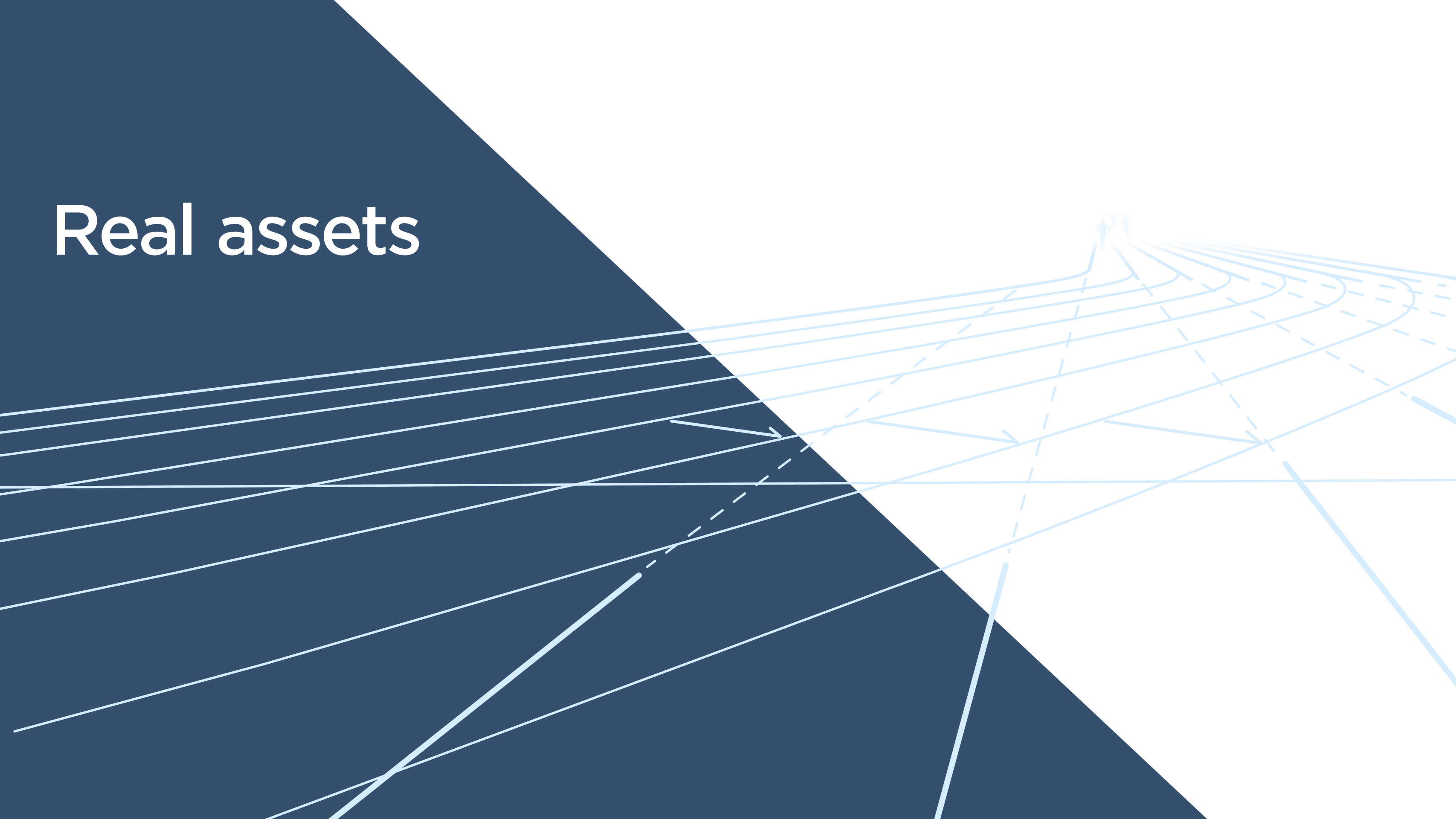
Quarter end	1-quarter benchmark return (%)
Q1 2001	-11.92%
Q2 2001	-9.47%
Q3 2001	-12.78%
Q4 2001	-11.63%
Q1 2002	-8.24%
Q2 2002	-12.21%
Q3 2002	-9.14%
Q4 2002	-9.97%
Q1 2003	-7.76%
Q2 2003	-2.15%
Q3 2003	-2.64%
Q4 2003	1.31%
Q1 2004	0.65%
Q2 2004	0.95%
Q3 2004	-0.86%
Q4 2004	2.76%
Q1 2005	-1.71%
Q2 2005	0.54%
Q3 2005	4.99%

Quarter end	1-quarter benchmark return (%)
Q4 2005	2.91%
Q1 2006	3.08%
Q2 2006	1.06%
Q3 2006	1.93%
Q4 2006	6.23%
Q1 2007	2.22%
Q2 2007	4.67%
Q3 2007	2.59%
Q4 2007	3.56%
Q1 2008	2.27%
Q2 2008	-2.18%
Q3 2008	-3.07%
Q4 2008	-8.57%
Q1 2009	-3.63%
Q2 2009	-0.49%
Q3 2009	0.55%
Q4 2009	2.95%
Q1 2010	1.10%
Q2 2010	0.31%

Quarter end	1-quarter benchmark return (%)
Q3 2010	3.19%
Q4 2010	5.79%
Q1 2011	4.58%
Q2 2011	4.55%
Q3 2011	-0.12%
Q4 2011	1.82%
Q1 2012	4.29%
Q2 2012	1.07%
Q3 2012	-0.06%
Q4 2012	2.04%
Q1 2013	2.23%
Q2 2013	4.41%
Q3 2013	4.99%
Q4 2013	7.10%
Q1 2014	5.89%
Q2 2014	3.81%
Q3 2014	2.55%
Q4 2014	6.57%
Q1 2015	4.36%

Quarter end	1-quarter benchmark return (%)
Q2 2015	5.82%
Q3 2015	0.25%
Q4 2015	2.29%
Q1 2016	-3.17%
Q2 2016	-0.18%
Q3 2016	2.54%
Q4 2016	0.62%
Q1 2017	2.43%
Q2 2017	1.84%
Q3 2017	3.98%
Q4 2017	2.92%
Q1 2018	6.21%
Q2 2018	6.22%
Q3 2018	3.37%
Q4 2018	1.52%
Q1 2019	5.31%
Q2 2019	2.65%
Q3 2019	0.76%

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		21.62%	17.35%	12.70%		8.37%	4
1996	10.65%	10.14%	3		13.37%	8.94%	7.39%		7.68%	5
1997	15.58%	12.46%	6		16.06%	10.95%	6.27%		7.90%	6
1998	9.84%	9.90%	9	25.27%	15.50%	10.35%	7.38%	-1.72%	10.91%	10
1999	12.19%	12.29%	3		18.10%	11.04%	8.50%		9.18%	5
2000	11.94%	10.92%	9	22.44%	19.69%	17.00%	7.19%	3.25%	8.90%	11
2001	35.74%	34.23%	4		29.15%	16.50%	11.10%		16.49%	5
2002	23.99%	25.92%	5		26.98%	16.60%	4.73%		18.30%	9
2003	19.26%	19.95%	6	31.25%	25.89%	13.99%	9.52%	8.41%	10.10%	10
2004	9.60%	8.93%	9	36.32%	11.29%	6.29%	0.33%	-2.85%	21.46%	17
2005	2.27%	2.40%	32	17.71%	7.00%	2.06%	-3.36%	-7.09%	19.76%	36
2006	-1.08%	-1.82%	41	7.86%	3.51%	-2.10%	-7.96%	-15.43%	10.45%	47
2007	3.66%	2.51%	66	12.49%	9.82%	2.80%	-1.57%	-11.69%	10.65%	70
2008	5.40%	5.45%	61	17.67%	11.33%	6.11%	0.51%	-6.97%	9.20%	66
2009	6.00%	5.90%	35	16.10%	12.42%	8.63%	-2.73%	-12.90%	14.27%	31
2010	8.84%	8.55%	37	18.30%	13.32%	9.82%	6.55%	-2.40%	8.36%	38

Source: PitchBook. Data as of September 30, 2019



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
2011	11.42%	9.33%	54	23.90%	19.28%	11.33%	3.44%	-5.41%	12.35%	51
2012	9.99%	10.30%	67	23.40%	16.52%	11.54%	8.38%	2.31%	17.56%	66
2013	11.24%	10.50%	71	19.62%	14.92%	10.96%	6.28%	-1.40%	12.80%	58
2014	10.71%	11.37%	95	22.35%	15.21%	11.68%	8.60%	6.35%	9.52%	85
2015	9.55%	12.19%	119	22.60%	17.22%	12.86%	8.37%	6.13%	20.68%	91
2016	11.54%	11.85%	102	21.31%	13.60%	10.32%	6.42%	0.14%	42.98%	90
2017	9.37%	10.62%	81	24.70%	13.37%	9.01%	0.83%	-16.86%	19.16%	63



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	1.48x	1.48x	0.00x	1.65x	1.65x	0.00x	3
1997	1.98x	1.86x	0.12x	2.12x	1.76x	0.36x	6
1998	1.50x	1.50x	0.01x	1.53x	1.53x	0.01x	9
1999	1.93x	1.92x	0.01x	1.87x	1.83x	0.03x	3
2000	1.47x	1.47x	0.00x	1.41x	1.41x	0.00x	9
2001	2.20x	2.20x	0.01x	2.24x	2.23x	0.01x	4
2002	1.63x	1.63x	0.00x	1.68x	1.68x	0.00x	5
2003	1.65x	1.64x	0.02x	1.80x	1.77x	0.04x	6
2004	1.40x	1.39x	0.01x	1.44x	1.40x	0.05x	9
2005	1.14x	1.07x	0.06x	1.15x	1.06x	0.08x	32
2006	0.94x	0.85x	0.09x	0.89x	0.77x	0.12x	41
2007	1.21x	1.15x	0.06x	1.14x	1.06x	0.08x	66
2008	1.26x	1.07x	0.20x	1.28x	1.06x	0.22x	61
2009	1.26x	1.02x	0.23x	1.28x	1.02x	0.26x	35
2010	1.40x	1.03x	0.36x	1.43x	0.97x	0.46x	37



Real assets

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
2011	1.49x	1.04x	0.45x	1.41x	0.99x	0.43x	54
2012	1.37x	0.83x	0.54x	1.39x	0.91x	0.48x	67
2013	1.37x	0.75x	0.62x	1.35x	0.72x	0.64x	71
2014	1.29x	0.49x	0.80x	1.35x	0.49x	0.87x	95
2015	1.20x	0.41x	0.79x	1.31x	0.45x	0.86x	119
2016	1.19x	0.25x	0.95x	1.23x	0.32x	0.90x	102
2017	1.11x	0.11x	1.00x	1.14x	0.15x	0.99x	81



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	
Pre-1996			2.47x					2.47x			1
1996			1.46x					1.46x			3
1997		2.19x	1.82x	1.33x			2.04x	1.60x	1.33x		6
1998		1.63x	1.47x	1.31x			1.63x	1.42x	1.31x		9
1999			2.20x					2.19x			3
2000		1.57x	1.46x	1.34x			1.57x	1.46x	1.34x		9
2001		2.70x	2.32x	1.88x			2.70x	2.32x	1.87x		4
2002		2.07x	1.81x	1.38x			2.07x	1.81x	1.38x		5
2003		2.00x	1.67x	1.36x			1.99x	1.66x	1.36x		6
2004		1.91x	1.47x	1.02x			1.64x	1.47x	1.02x		9
2005	1.99x	1.31x	1.02x	0.74x	0.59x	1.73x	1.29x	0.99x	0.68x	0.43x	32
2006	1.48x	1.14x	0.88x	0.56x	0.38x	1.25x	0.99x	0.71x	0.50x	0.21x	41
2007	1.67x	1.43x	1.15x	0.92x	0.53x	1.62x	1.36x	1.08x	0.82x	0.35x	66
2008	1.87x	1.58x	1.19x	0.94x	0.57x	1.68x	1.38x	1.02x	0.67x	0.46x	61
2009	2.03x	1.50x	1.32x	1.16x	0.49x	1.73x	1.39x	1.05x	0.47x	0.29x	35
2010	1.89x	1.66x	1.42x	1.22x	1.06x	1.62x	1.39x	0.96x	0.69x	0.29x	37

For RVPI data, please download the supplemental Excel pack



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	
2011	1.99x	1.70x	1.44x	1.22x	0.85x	1.72x	1.41x	1.03x	0.45x	0.20x	54
2012	1.85x	1.50x	1.40x	1.27x	1.03x	1.49x	1.31x	0.94x	0.58x	0.14x	67
2013	1.63x	1.54x	1.39x	1.19x	0.98x	1.30x	1.08x	0.61x	0.32x	0.17x	71
2014	1.67x	1.45x	1.30x	1.20x	1.05x	1.02x	0.70x	0.39x	0.18x	0.05x	95
2015	1.52x	1.39x	1.29x	1.17x	1.08x	1.00x	0.66x	0.32x	0.11x	0.01x	119
2016	1.48x	1.30x	1.17x	1.09x	0.91x	0.66x	0.39x	0.19x	0.05x	0.00x	102
2017	1.37x	1.21x	1.09x	0.99x	0.85x	0.34x	0.17x	0.06x	0.01x	0.00x	81

For RVPI data, please download the supplemental Excel pack



Real assets

PMEs by vintage

S&P 500 Index				Morningstar US Real Assets			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
1996	10.65%	8.79%	1.16	10.65%			3
1997	15.58%	8.09%	1.61	15.58%			6
1998	9.84%	7.06%	1.48	9.84%			9
1999	12.19%	6.26%	1.72	12.19%			3
2000	11.94%	5.87%	1.32	11.94%			9
2001	35.74%	6.76%	1.79	35.74%	6.70%	1.62	4
2002	23.99%	7.80%	1.27	23.99%	6.65%	1.24	5
2003	19.26%	9.99%	1.37	19.26%	6.33%	1.28	6
2004	9.60%	8.60%	1.16	9.60%	5.57%	1.08	9
2005	2.27%	8.71%	0.79	2.27%	5.03%	0.84	32
2006	-1.08%	8.63%	0.63	-1.08%	4.64%	0.71	41
2007	3.66%	8.28%	0.73	3.66%	4.39%	0.93	66
2008	5.40%	9.36%	0.74	5.40%	3.54%	1.05	61
2009	6.00%	15.55%	0.75	6.00%	5.33%	1.09	35
2010	8.84%	13.05%	0.84	8.84%	3.83%	1.23	37

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year. Some PME values are unavailable because the vintage year predates the inception of the Morningstar US Real Assets Index.



Real assets

PMEs by vintage

S&P 500 Index				Morningstar US Real Assets			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
2011	11.42%	12.45%	0.94	11.42%	2.38%	1.39	54
2012	9.99%	13.37%	0.92	9.99%	1.79%	1.29	67
2013	11.24%	13.16%	0.98	11.24%	1.71%	1.29	71
2014	10.71%	11.32%	0.97	10.71%	2.22%	1.21	95
2015	9.55%	10.57%	0.95	9.55%	1.88%	1.13	119
2016	11.54%	14.93%	0.98	11.54%	4.21%	1.13	102
2017	9.37%	12.29%	0.98	9.37%	3.51%	1.06	81

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Real assets

Quarterly return

Quarter end	1-quarter benchmark return (%)
Q1 2001	2.95%
Q2 2001	1.75%
Q3 2001	-1.00%
Q4 2001	3.47%
Q1 2002	4.18%
Q2 2002	1.09%
Q3 2002	0.05%
Q4 2002	0.04%
Q1 2003	-2.29%
Q2 2003	2.06%
Q3 2003	3.28%
Q4 2003	11.01%
Q1 2004	-1.26%
Q2 2004	4.74%
Q3 2004	1.71%
Q4 2004	20.44%
Q1 2005	2.98%
Q2 2005	14.88%
Q3 2005	8.87%

Quarter end	1-quarter benchmark return (%)
Q4 2005	9.85%
Q1 2006	3.58%
Q2 2006	7.76%
Q3 2006	8.01%
Q4 2006	19.68%
Q1 2007	1.30%
Q2 2007	1.37%
Q3 2007	3.25%
Q4 2007	6.98%
Q1 2008	-3.97%
Q2 2008	-2.56%
Q3 2008	-4.27%
Q4 2008	-12.32%
Q1 2009	-14.05%
Q2 2009	-8.07%
Q3 2009	-3.58%
Q4 2009	-2.17%
Q1 2010	-3.96%
Q2 2010	0.56%

Quarter end	1-quarter benchmark return (%)
Q3 2010	4.77%
Q4 2010	8.59%
Q1 2011	4.69%
Q2 2011	3.87%
Q3 2011	0.24%
Q4 2011	2.56%
Q1 2012	3.46%
Q2 2012	-0.25%
Q3 2012	3.12%
Q4 2012	2.51%
Q1 2013	3.50%
Q2 2013	2.90%
Q3 2013	1.28%
Q4 2013	4.47%
Q1 2014	3.02%
Q2 2014	4.76%
Q3 2014	2.80%
Q4 2014	-0.19%
Q1 2015	0.91%

Quarter end	1-quarter benchmark return (%)
Q2 2015	3.67%
Q3 2015	0.23%
Q4 2015	0.02%
Q1 2016	1.26%
Q2 2016	3.17%
Q3 2016	3.07%
Q4 2016	2.90%
Q1 2017	3.81%
Q2 2017	3.14%
Q3 2017	2.69%
Q4 2017	2.75%
Q1 2018	2.23%
Q2 2018	2.96%
Q3 2018	2.37%
Q4 2018	-0.55%
Q1 2019	2.86%
Q2 2019	0.71%
Q3 2019	-1.45%

Private debt





Private debt

IRRs 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					17.50%	14.80%	10.27%		11.23%	5
1996	6.01%	6.01%	1			5.40%				1
1997	10.82%	16.51%	3			8.48%			16.42%	3
1998						6.01%				1
1999	11.58%	11.01%	2			10.53%			2.02%	2
2000	8.01%	0.83%	4		7.97%	1.82%	-5.22%		15.49%	4
2001	27.52%	29.86%	3		27.32%	24.28%	14.83%		15.58%	4
2002	17.50%	22.66%	4		17.40%	15.86%	15.60%		29.00%	5
2003	11.47%	10.24%	6		11.75%	9.49%	7.40%		8.39%	7
2004	8.32%	10.22%	4		14.01%	10.69%	10.63%		14.77%	5
2005	6.06%	5.81%	7		8.60%	4.80%	2.98%		6.16%	8
2006	5.82%	3.41%	12	8.17%	5.21%	3.20%	0.75%	-2.59%	5.42%	13
2007	6.87%	6.51%	20	12.68%	8.97%	5.79%	2.20%	-1.07%	7.33%	24
2008	13.17%	13.27%	15	17.38%	14.84%	13.00%	8.41%	7.45%	12.96%	18
2009	8.49%	7.85%	12	14.42%	13.21%	9.20%	5.52%	1.90%	4.99%	11
2010	12.02%	12.39%	18	19.48%	16.23%	12.72%	8.40%	6.37%	5.04%	18

Source: PitchBook. Data as of September 30, 2019



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
2011	9.08%	9.67%	15	12.75%	10.92%	8.77%	7.35%	5.93%	4.32%	16
2012	6.68%	7.98%	28	14.55%	11.51%	8.84%	6.38%	2.60%	5.36%	24
2013	5.41%	6.99%	33	12.75%	9.97%	8.45%	6.90%	5.05%	3.27%	33
2014	6.44%	7.29%	36	12.31%	10.52%	8.92%	7.32%	3.62%	3.27%	29
2015	6.03%	6.74%	53	13.10%	11.37%	9.37%	6.78%	4.27%	6.90%	46
2016	7.51%	8.44%	42	19.08%	11.30%	8.40%	7.21%	0.44%	12.10%	29
2017	9.28%	11.25%	59	22.38%	13.79%	9.45%	6.60%	4.72%	14.40%	48

Source: PitchBook. Data as of September 30, 2019



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	1.69x	1.69x	0.00x	2.18x	2.18x	0.00x	3
1998							
1999	1.49x	1.48x	0.01x	1.48x	1.45x	0.03x	2
2000	1.26x	1.26x	0.00x	1.04x	1.04x	0.00x	4
2001	2.08x	2.08x	0.00x	2.15x	2.15x	0.00x	3
2002	1.71x	1.71x	0.00x	1.80x	1.79x	0.00x	4
2003	1.70x	1.60x	0.09x	1.61x	1.51x	0.10x	6
2004	1.34x	1.32x	0.02x	1.47x	1.45x	0.02x	4
2005	1.35x	1.34x	0.02x	1.30x	1.26x	0.04x	7
2006	1.42x	1.32x	0.10x	1.21x	1.17x	0.04x	12
2007	1.35x	1.30x	0.05x	1.32x	1.27x	0.05x	20
2008	1.63x	1.58x	0.06x	1.63x	1.56x	0.07x	15
2009	1.38x	1.23x	0.15x	1.32x	1.16x	0.16x	12
2010	1.53x	1.41x	0.12x	1.47x	1.33x	0.14x	18



Private debt

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
2011	1.45x	1.10x	0.35x	1.43x	1.16x	0.28x	15
2012	1.25x	0.96x	0.29x	1.30x	0.97x	0.32x	28
2013	1.17x	0.77x	0.39x	1.22x	0.76x	0.46x	33
2014	1.22x	0.52x	0.70x	1.23x	0.56x	0.68x	36
2015	1.13x	0.39x	0.74x	1.16x	0.42x	0.74x	53
2016	1.12x	0.29x	0.83x	1.15x	0.34x	0.81x	42
2017	1.12x	0.19x	0.93x	1.13x	0.22x	0.91x	59



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	
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	1.70x	1.60x			1.88x	1.70x	1.60x		4
2003		1.79x	1.54x	1.49x			1.56x	1.49x	1.38x		6
2004		1.71x	1.65x	1.40x			1.70x	1.64x	1.38x		4
2005		1.48x	1.34x	1.26x			1.47x	1.33x	1.15x		7
2006	1.62x	1.38x	1.15x	1.06x	0.91x	1.60x	1.27x	1.15x	1.06x	0.90x	12
2007	1.69x	1.50x	1.30x	1.18x	1.05x	1.69x	1.49x	1.24x	1.08x	0.96x	20
2008	2.08x	1.77x	1.52x	1.35x	1.17x	2.06x	1.71x	1.51x	1.31x	1.15x	15
2009	1.60x	1.47x	1.29x	1.12x	1.05x	1.60x	1.43x	1.16x	1.05x	0.68x	12
2010	1.75x	1.62x	1.39x	1.28x	1.23x	1.65x	1.47x	1.34x	1.17x	0.95x	18

For RVPI data, please download the supplemental Excel pack



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	
2011	1.81x	1.56x	1.35x	1.22x	1.15x	1.59x	1.33x	1.13x	0.95x	0.78x	15
2012	1.62x	1.34x	1.27x	1.10x	1.07x	1.35x	1.21x	0.95x	0.79x	0.56x	28
2013	1.41x	1.31x	1.19x	1.09x	1.01x	1.13x	0.97x	0.81x	0.65x	0.38x	33
2014	1.54x	1.28x	1.20x	1.13x	1.06x	0.97x	0.75x	0.54x	0.31x	0.20x	36
2015	1.28x	1.25x	1.18x	1.12x	0.99x	0.70x	0.60x	0.40x	0.24x	0.16x	53
2016	1.28x	1.21x	1.13x	1.07x	1.00x	0.62x	0.47x	0.28x	0.10x	0.05x	42
2017	1.27x	1.15x	1.09x	1.06x	0.98x	0.46x	0.31x	0.16x	0.07x	0.01x	59

For RVPI data, please download the supplemental Excel pack



Private debt

PMEs by vintage

S&P 500 Index				Bloomberg Barclays US Corporate High Yield			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
1996	6.01%	8.79%	1.36	6.01%			1
1997	10.82%	8.09%	1.54	10.82%			3
1998							
1999	11.58%	6.26%	1.76	11.58%	6.85%	1.19	2
2000	8.01%	5.87%	1.19	8.01%	7.12%	0.94	4
2001	27.52%	6.76%	1.60	27.52%	7.52%	1.42	3
2002	17.50%	7.80%	1.28	17.50%	8.01%	1.19	4
2003	11.47%	9.99%	1.24	11.47%	8.40%	1.16	6
2004	8.32%	8.60%	1.14	8.32%	7.32%	1.05	4
2005	6.06%	8.71%	1.16	6.06%	7.18%	0.91	7
2006	5.82%	8.63%	0.89	5.82%	7.40%	0.80	12
2007	6.87%	8.28%	0.99	6.87%	7.06%	0.86	20
2008	13.17%	9.36%	1.02	13.17%	7.92%	0.95	15
2009	8.49%	15.55%	0.82	8.49%	11.17%	0.96	12
2010	12.02%	13.05%	0.91	12.02%	7.37%	1.18	18

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.
Some PME's are unavailable because the vintage year predates the inception of the Morningstar US Real Assets Index.



Private debt

PMEs by vintage

S&P 500 Index				Bloomberg Barclays US Corporate High Yield			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
2011	9.08%	12.45%	0.83	9.08%	6.42%	1.09	15
2012	6.68%	13.37%	0.81	6.68%	6.47%	1.02	28
2013	5.41%	13.16%	0.84	5.41%	5.42%	0.99	33
2014	6.44%	11.32%	0.86	6.44%	5.07%	1.02	36
2015	6.03%	10.57%	0.89	6.03%	5.70%	0.99	53
2016	7.51%	14.93%	0.93	7.51%	9.47%	1.01	42
2017	9.28%	12.29%	0.97	9.28%	5.50%	1.03	59

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Private debt

Quarterly return

Quarter end	1-quarter benchmark return (%)
Q1 2001	1.59%
Q2 2001	4.57%
Q3 2001	0.68%
Q4 2001	2.31%
Q1 2002	3.28%
Q2 2002	1.53%
Q3 2002	-1.49%
Q4 2002	1.34%
Q1 2003	3.29%
Q2 2003	7.31%
Q3 2003	-1.44%
Q4 2003	11.32%
Q1 2004	7.28%
Q2 2004	7.13%
Q3 2004	4.55%
Q4 2004	13.68%
Q1 2005	5.66%
Q2 2005	-3.61%
Q3 2005	8.02%

Quarter end	1-quarter benchmark return (%)
Q4 2005	4.18%
Q1 2006	3.35%
Q2 2006	5.56%
Q3 2006	1.63%
Q4 2006	11.07%
Q1 2007	3.90%
Q2 2007	9.03%
Q3 2007	0.62%
Q4 2007	0.02%
Q1 2008	-1.76%
Q2 2008	-1.49%
Q3 2008	-8.18%
Q4 2008	-18.37%
Q1 2009	-4.47%
Q2 2009	10.34%
Q3 2009	11.18%
Q4 2009	7.92%
Q1 2010	4.54%
Q2 2010	0.24%

Quarter end	1-quarter benchmark return (%)
Q3 2010	1.68%
Q4 2010	7.84%
Q1 2011	3.50%
Q2 2011	2.32%
Q3 2011	-4.28%
Q4 2011	8.68%
Q1 2012	-1.99%
Q2 2012	0.73%
Q3 2012	4.97%
Q4 2012	3.08%
Q1 2013	4.56%
Q2 2013	1.77%
Q3 2013	2.68%
Q4 2013	2.66%
Q1 2014	2.43%
Q2 2014	2.08%
Q3 2014	2.91%
Q4 2014	0.01%
Q1 2015	6.57%

Quarter end	1-quarter benchmark return (%)
Q2 2015	-1.81%
Q3 2015	-1.37%
Q4 2015	-0.43%
Q1 2016	2.26%
Q2 2016	0.18%
Q3 2016	4.04%
Q4 2016	0.92%
Q1 2017	2.40%
Q2 2017	2.28%
Q3 2017	1.71%
Q4 2017	3.45%
Q1 2018	2.23%
Q2 2018	3.36%
Q3 2018	0.44%
Q4 2018	1.09%
Q1 2019	1.09%
Q2 2019	1.40%
Q3 2019	1.38%

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						11.40%			4.34%	3
1996						16.10%				1
1997	-5.97%	-6.25%	2			-1.80%			14.48%	3
1998	7.86%	7.64%	3		8.60%	7.24%	4.03%		3.70%	5
1999	5.37%	4.58%	8		5.20%	3.90%	2.55%		5.37%	9
2000	4.63%	5.30%	8	12.10%	10.13%	6.26%	4.14%	1.81%	5.43%	10
2001	13.93%	9.19%	7	16.62%	13.50%	11.00%	7.76%	5.43%	4.57%	15
2002	7.96%	6.28%	4		9.71%	9.00%	4.30%		4.58%	9
2003	7.74%	5.77%	6	9.72%	8.93%	7.50%	6.23%	2.73%	3.35%	12
2004	7.90%	7.60%	11	11.23%	9.35%	7.20%	6.09%	5.05%	3.06%	28
2005	7.14%	7.49%	16	10.59%	8.41%	7.10%	5.55%	3.58%	2.87%	31
2006	8.08%	7.69%	29	11.67%	10.36%	8.06%	5.79%	2.85%	4.37%	48
2007	9.48%	8.52%	33	13.79%	11.76%	9.40%	6.75%	3.13%	5.40%	42
2008	3.14%	11.76%	31	18.63%	15.12%	12.10%	9.25%	4.31%	5.53%	43
2009	26.17%	16.72%	30	18.53%	16.08%	13.90%	10.50%	7.15%	4.89%	33
2010	12.09%	12.04%	31	15.32%	14.66%	13.05%	9.79%	7.60%	3.75%	31

Source: PitchBook. Data as of September 30, 2019



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
2011	12.96%	13.71%	40	20.06%	17.53%	13.85%	11.66%	8.54%	6.41%	43
2012	13.90%	14.66%	33	19.42%	15.78%	12.62%	9.00%	7.63%	5.32%	29
2013	15.34%	13.86%	46	23.49%	17.88%	14.41%	10.34%	5.74%	6.51%	38
2014	14.62%	14.42%	42	23.45%	18.22%	15.80%	13.42%	8.96%	14.64%	44
2015	14.80%	15.53%	44	25.00%	19.40%	13.75%	10.63%	6.50%	7.61%	41
2016	16.17%	14.31%	39	20.60%	14.97%	12.21%	8.23%	5.42%	6.93%	36
2017	8.06%	10.85%	23	16.04%	12.64%	9.08%	2.35%	-6.60%	11.55%	22



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	0.47x	0.31x	0.16x	0.46x	0.32x	0.14x	2
1998	1.48x	1.48x	0.01x	1.51x	1.50x	0.01x	3
1999	1.34x	1.33x	0.01x	1.29x	1.28x	0.01x	8
2000	1.28x	1.24x	0.04x	1.32x	1.29x	0.04x	8
2001	1.71x	1.68x	0.03x	1.61x	1.45x	0.16x	7
2002	1.46x	1.40x	0.06x	1.34x	1.30x	0.04x	4
2003	1.60x	1.50x	0.11x	1.41x	1.32x	0.09x	6
2004	1.53x	1.37x	0.16x	1.56x	1.33x	0.23x	11
2005	1.47x	1.31x	0.17x	1.51x	1.29x	0.22x	16
2006	1.60x	1.29x	0.31x	1.58x	1.29x	0.29x	29
2007	1.66x	1.23x	0.43x	1.57x	1.21x	0.35x	33
2008	1.19x	0.81x	0.37x	1.79x	1.10x	0.68x	31
2009	3.66x	2.88x	0.77x	2.12x	1.48x	0.64x	30
2010	1.69x	0.93x	0.76x	1.70x	0.84x	0.87x	31



Funds of funds

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
2011	1.62x	0.68x	0.94x	1.69x	0.68x	1.02x	40
2012	1.62x	0.50x	1.12x	1.65x	0.56x	1.09x	33
2013	1.54x	0.38x	1.15x	1.50x	0.32x	1.18x	46
2014	1.44x	0.26x	1.18x	1.45x	0.33x	1.12x	42
2015	1.33x	0.21x	1.11x	1.35x	0.22x	1.13x	44
2016	1.27x	0.14x	1.14x	1.24x	0.11x	1.12x	39
2017	1.09x	0.06x	1.03x	1.13x	0.06x	1.06x	23



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	
Pre-1996											
1996											
1997			0.46x					0.32x			2
1998			1.56x					1.56x			3
1999		1.47x	1.24x	1.10x			1.46x	1.21x	1.10x		8
2000		1.53x	1.36x	1.11x			1.51x	1.34x	1.01x		8
2001		1.72x	1.64x	1.54x			1.70x	1.54x	1.30x		7
2002		1.48x	1.41x	1.28x			1.42x	1.38x	1.27x		4
2003		1.61x	1.53x	1.28x			1.47x	1.43x	1.21x		6
2004	1.79x	1.56x	1.53x	1.45x	1.43x	1.57x	1.46x	1.33x	1.26x	1.12x	11
2005	1.80x	1.62x	1.46x	1.37x	1.30x	1.65x	1.40x	1.30x	1.16x	1.03x	16
2006	1.93x	1.79x	1.61x	1.38x	1.20x	1.66x	1.41x	1.31x	1.15x	1.07x	29
2007	1.98x	1.80x	1.57x	1.38x	1.03x	1.53x	1.39x	1.25x	1.08x	0.79x	33
2008	2.46x	2.12x	1.74x	1.46x	1.14x	1.52x	1.33x	1.13x	0.89x	0.67x	31
2009	2.43x	1.96x	1.70x	1.58x	1.39x	1.84x	1.36x	1.09x	0.86x	0.65x	30
2010	2.22x	1.78x	1.63x	1.50x	1.40x	1.15x	1.05x	0.86x	0.64x	0.52x	31

For RVPI data, please download the supplemental Excel pack



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	
2011	2.11x	1.84x	1.63x	1.41x	1.23x	1.00x	0.83x	0.67x	0.51x	0.26x	40
2012	2.22x	1.80x	1.49x	1.37x	1.24x	1.11x	0.75x	0.50x	0.27x	0.17x	33
2013	1.96x	1.63x	1.45x	1.27x	1.14x	0.62x	0.47x	0.25x	0.15x	0.03x	46
2014	1.82x	1.58x	1.41x	1.21x	1.15x	0.71x	0.32x	0.22x	0.12x	0.02x	42
2015	1.65x	1.52x	1.35x	1.24x	1.07x	0.48x	0.30x	0.17x	0.05x	0.01x	44
2016	1.41x	1.30x	1.21x	1.14x	1.08x	0.20x	0.12x	0.07x	0.00x	0.00x	39
2017	1.23x	1.18x	1.11x	1.06x	0.95x	0.14x	0.09x	0.02x	0.00x	0.00x	23

For RVPI data, please download the supplemental Excel pack



Funds of funds

PMEs by vintage

S&P 500 Index				Russell 3000 Index			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
1996							
1997	-5.97%	8.09%	0.31	-5.97%	8.22%	0.29	2
1998	7.86%	7.06%	1.25	7.86%	7.23%	1.21	3
1999	5.37%	6.26%	1.05	5.37%	6.64%	1.01	8
2000	4.63%	5.87%	0.95	4.63%	6.11%	0.93	8
2001	13.93%	6.76%	1.21	13.93%	7.04%	1.19	7
2002	7.96%	7.80%	1.06	7.96%	8.04%	1.04	4
2003	7.74%	9.99%	1.05	7.74%	10.22%	1.04	6
2004	7.90%	8.60%	1.01	7.90%	8.70%	1.00	11
2005	7.14%	8.71%	0.94	7.14%	8.78%	0.93	16
2006	8.08%	8.63%	0.88	8.08%	8.56%	0.87	29
2007	9.48%	8.28%	0.88	9.48%	8.21%	0.88	33
2008	3.14%	9.36%	0.58	3.14%	9.37%	0.58	31
2009	26.17%	15.55%	1.82	26.17%	15.58%	1.84	30
2010	12.09%	13.05%	0.95	12.09%	12.89%	0.96	31

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Funds of funds

PMEs by vintage

S&P 500 Index				Russell 3000 Index			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
2011	12.96%	12.45%	1.00	12.96%	12.10%	1.01	40
2012	13.90%	13.37%	1.06	13.90%	13.07%	1.08	33
2013	15.34%	13.16%	1.10	15.34%	12.77%	1.11	46
2014	14.62%	11.32%	1.07	14.62%	10.71%	1.08	42
2015	14.80%	10.57%	1.05	14.80%	10.06%	1.06	44
2016	16.17%	14.93%	1.06	16.17%	14.84%	1.07	39
2017	8.06%	12.29%	0.97	8.06%	11.66%	0.98	23

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Funds of funds

Quarterly return

Quarter end	1-quarter benchmark return (%)
Q1 2001	-13.20%
Q2 2001	-6.85%
Q3 2001	-10.06%
Q4 2001	-5.83%
Q1 2002	-8.33%
Q2 2002	-4.54%
Q3 2002	-7.24%
Q4 2002	-5.12%
Q1 2003	-8.91%
Q2 2003	4.12%
Q3 2003	0.16%
Q4 2003	5.41%
Q1 2004	4.34%
Q2 2004	1.19%
Q3 2004	5.21%
Q4 2004	5.44%
Q1 2005	1.39%
Q2 2005	5.91%
Q3 2005	4.94%

Quarter end	1-quarter benchmark return (%)
Q4 2005	6.32%
Q1 2006	4.06%
Q2 2006	5.85%
Q3 2006	3.95%
Q4 2006	8.64%
Q1 2007	-0.61%
Q2 2007	10.42%
Q3 2007	2.91%
Q4 2007	2.99%
Q1 2008	9.00%
Q2 2008	-3.03%
Q3 2008	-6.78%
Q4 2008	-9.30%
Q1 2009	-2.48%
Q2 2009	-4.42%
Q3 2009	4.57%
Q4 2009	2.37%
Q1 2010	5.12%
Q2 2010	0.39%

Quarter end	1-quarter benchmark return (%)
Q3 2010	-2.60%
Q4 2010	3.21%
Q1 2011	3.79%
Q2 2011	5.36%
Q3 2011	-2.45%
Q4 2011	-0.43%
Q1 2012	5.23%
Q2 2012	1.04%
Q3 2012	0.71%
Q4 2012	1.02%
Q1 2013	1.98%
Q2 2013	3.32%
Q3 2013	2.83%
Q4 2013	4.01%
Q1 2014	2.53%
Q2 2014	6.37%
Q3 2014	1.32%
Q4 2014	2.93%
Q1 2015	3.17%

Quarter end	1-quarter benchmark return (%)
Q2 2015	5.89%
Q3 2015	2.28%
Q4 2015	0.47%
Q1 2016	1.41%
Q2 2016	1.39%
Q3 2016	3.88%
Q4 2016	0.58%
Q1 2017	3.47%
Q2 2017	3.78%
Q3 2017	3.43%
Q4 2017	1.82%
Q1 2018	4.73%
Q2 2018	4.77%
Q3 2018	2.25%
Q4 2018	2.06%
Q1 2019	2.43%
Q2 2019	3.97%
Q3 2019	2.47%

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						11.30%			3.25%	2
1996	18.56%	18.56%	1			13.16%				1
1997	16.60%	16.60%	1			16.60%				1
1998	8.97%	11.56%	3		12.38%	8.01%	7.06%		9.18%	4
1999	7.32%	5.51%	3			8.64%			9.58%	3
2000	17.16%	16.09%	3			20.20%			10.00%	3
2001	14.21%	16.14%	2			15.84%			5.21%	2
2002	15.58%	17.30%	3		20.55%	18.99%	16.56%		4.85%	4
2003	37.90%	37.90%	1		26.44%	17.48%	11.33%		11.44%	4
2004	12.30%	10.18%	7		20.39%	8.98%	5.00%		13.07%	6
2005	5.90%	4.70%	8	6.93%	6.48%	4.73%	3.88%	1.40%	4.41%	11
2006	6.25%	6.94%	9		8.80%	5.51%	2.98%		4.32%	8
2007	4.46%	5.91%	9		8.00%	7.60%	3.97%		5.37%	9
2008	11.02%	11.13%	15	25.04%	12.80%	10.67%	9.27%	4.92%	11.24%	14
2009	11.89%	12.41%	9		14.57%	14.21%	10.01%		6.83%	9
2010	13.51%	12.74%	7		15.10%	11.20%	8.58%		5.96%	6

Source: PitchBook. Data as of September 30, 2019



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
2011	14.79%	12.96%	11		16.64%	13.81%	11.67%		3.94%	9
2012	13.39%	13.19%	12	19.31%	16.00%	14.95%	12.16%	10.56%	3.98%	12
2013	10.92%	10.40%	14	19.56%	17.46%	14.46%	12.22%	8.88%	12.06%	15
2014	16.19%	15.50%	11	26.73%	19.95%	17.35%	14.76%	11.89%	7.49%	12
2015	16.21%	22.25%	11	55.33%	49.19%	19.02%	16.36%	13.35%	43.65%	12
2016	22.69%	22.54%	16	50.24%	34.20%	22.40%	17.41%	11.49%	15.59%	18
2017	26.09%	19.67%	12	25.52%	21.46%	19.34%	14.93%	7.57%	14.30%	12



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	1.83x	1.83x	0.00x	1.76x	1.76x	0.00x	3
2001	1.55x	1.54x	0.02x	1.62x	1.61x	0.01x	2
2002	1.50x	1.50x	0.01x	1.52x	1.52x	0.00x	3
2003	1.84x	1.84x	0.00x	1.84x	1.84x	0.00x	1
2004	1.49x	1.44x	0.05x	1.41x	1.36x	0.04x	7
2005	1.32x	1.26x	0.06x	1.23x	1.17x	0.06x	8
2006	1.36x	1.26x	0.10x	1.42x	1.31x	0.11x	9
2007	1.20x	1.09x	0.10x	1.29x	1.16x	0.13x	9
2008	1.54x	1.36x	0.18x	1.57x	1.33x	0.24x	15
2009	1.56x	1.34x	0.22x	1.59x	1.33x	0.26x	9
2010	1.55x	1.34x	0.21x	1.53x	1.24x	0.29x	7



Secondaries

Multiples by vintage

Pooled multiples				Equal-weighted pooled multiples			
Vintage year	TVPI	DPI	RVPI	TVPI	DPI	RVPI	Number of funds
2011	1.57x	1.25x	0.32x	1.52x	1.07x	0.45x	11
2012	1.52x	1.05x	0.46x	1.44x	0.93x	0.51x	12
2013	1.39x	0.64x	0.76x	1.38x	0.68x	0.70x	14
2014	1.31x	0.55x	0.76x	1.42x	0.56x	0.86x	11
2015	1.30x	0.37x	0.93x	1.42x	0.74x	0.67x	11
2016	1.34x	0.26x	1.07x	1.36x	0.32x	1.04x	16
2017	1.28x	0.28x	1.00x	1.22x	0.24x	0.98x	12



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	
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			1.63x					1.61x			2
2002			1.53x					1.53x			3
2003			1.84x					1.84x			1
2004		1.60x	1.54x	1.29x			1.54x	1.47x	1.26x		7
2005		1.34x	1.29x	1.23x			1.32x	1.24x	1.16x		8
2006		1.42x	1.35x	1.21x			1.31x	1.26x	1.14x		9
2007		1.39x	1.38x	1.17x			1.34x	1.29x	0.93x		9
2008	1.74x	1.66x	1.50x	1.38x	1.37x	1.63x	1.50x	1.34x	1.15x	0.92x	15
2009		1.70x	1.62x	1.40x			1.42x	1.36x	1.32x		9
2010		1.68x	1.55x	1.44x			1.42x	1.25x	1.10x		7

For RVPI data, please download the supplemental Excel pack



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	
2011	1.84x	1.65x	1.47x	1.33x	1.28x	1.34x	1.22x	1.07x	0.89x	0.84x	11
2012	1.71x	1.54x	1.40x	1.34x	1.31x	1.21x	1.18x	0.98x	0.81x	0.56x	12
2013	1.63x	1.53x	1.44x	1.23x	1.20x	0.81x	0.78x	0.68x	0.60x	0.42x	14
2014	1.71x	1.46x	1.32x	1.29x	1.25x	0.95x	0.79x	0.50x	0.43x	0.30x	11
2015	1.60x	1.55x	1.34x	1.30x	1.24x	1.34x	0.87x	0.70x	0.40x	0.23x	11
2016	1.54x	1.40x	1.35x	1.23x	1.16x	0.65x	0.44x	0.23x	0.15x	0.02x	16
2017	1.45x	1.32x	1.25x	1.08x	1.08x	0.37x	0.32x	0.24x	0.12x	0.02x	12

For RVPI data, please download the supplemental Excel pack



Secondaries

PMEs by vintage

S&P 500 Index				Russell 3000 Index			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
1996	18.56%	8.79%	1.28	18.56%	8.84%	1.26	1
1997	16.60%	8.09%	1.35	16.60%	8.22%	1.35	1
1998	8.97%	7.06%	1.27	8.97%	7.23%	1.24	3
1999	7.32%	6.26%	1.23	7.32%	6.64%	1.20	3
2000	17.16%	5.87%	1.54	17.16%	6.11%	1.50	3
2001	14.21%	6.76%	1.20	14.21%	7.04%	1.18	2
2002	15.58%	7.80%	1.23	15.58%	8.04%	1.21	3
2003	37.90%	9.99%	1.57	37.90%	10.22%	1.55	1
2004	12.30%	8.60%	1.17	12.30%	8.70%	1.16	7
2005	5.90%	8.71%	0.92	5.90%	8.78%	0.92	8
2006	6.25%	8.63%	0.91	6.25%	8.56%	0.90	9
2007	4.46%	8.28%	0.80	4.46%	8.21%	0.79	9
2008	11.02%	9.36%	0.89	11.02%	9.37%	0.89	15
2009	11.89%	15.55%	0.91	11.89%	15.58%	0.91	9
2010	13.51%	13.05%	0.99	13.51%	12.89%	1.00	7

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Secondaries

PMEs by vintage

S&P 500 Index				Russell 3000 Index			
Vintage year	PitchBook Benchmark return (%)	Index return (%)	KS-PME	PitchBook Benchmark return (%)	Index return (%)	KS-PME	Number of funds
2011	14.79%	12.45%	1.01	14.79%	12.10%	1.02	11
2012	13.39%	13.37%	0.99	13.39%	13.07%	1.00	12
2013	10.92%	13.16%	0.97	10.92%	12.77%	0.99	14
2014	16.19%	11.32%	1.07	16.19%	10.71%	1.08	11
2015	16.21%	10.57%	1.08	16.21%	10.06%	1.09	11
2016	22.69%	14.93%	1.14	22.69%	14.84%	1.15	16
2017	26.09%	12.29%	1.15	26.09%	11.66%	1.16	12

Source: PitchBook. Data as of September 30, 2019
Note: All public index values are CAGRs from the start of the respective vintage year.



Secondaries

Quarterly return

Quarter end	1-quarter benchmark return (%)
Q1 2001	-5.21%
Q2 2001	-5.42%
Q3 2001	0.81%
Q4 2001	5.60%
Q1 2002	4.27%
Q2 2002	2.39%
Q3 2002	-5.06%
Q4 2002	-4.31%
Q1 2003	-3.66%
Q2 2003	-0.36%
Q3 2003	1.03%
Q4 2003	18.18%
Q1 2004	0.49%
Q2 2004	6.18%
Q3 2004	6.69%
Q4 2004	7.38%
Q1 2005	6.24%
Q2 2005	4.38%
Q3 2005	4.35%

Quarter end	1-quarter benchmark return (%)
Q4 2005	2.17%
Q1 2006	9.15%
Q2 2006	4.55%
Q3 2006	4.07%
Q4 2006	7.22%
Q1 2007	2.84%
Q2 2007	10.22%
Q3 2007	9.05%
Q4 2007	4.81%
Q1 2008	1.97%
Q2 2008	-2.40%
Q3 2008	-0.59%
Q4 2008	-4.57%
Q1 2009	-10.95%
Q2 2009	-4.44%
Q3 2009	-0.52%
Q4 2009	0.51%
Q1 2010	1.13%
Q2 2010	6.25%

Quarter end	1-quarter benchmark return (%)
Q3 2010	6.55%
Q4 2010	6.48%
Q1 2011	7.28%
Q2 2011	4.28%
Q3 2011	7.09%
Q4 2011	-4.08%
Q1 2012	4.29%
Q2 2012	3.12%
Q3 2012	5.02%
Q4 2012	2.23%
Q1 2013	0.49%
Q2 2013	1.07%
Q3 2013	2.04%
Q4 2013	4.53%
Q1 2014	3.86%
Q2 2014	3.40%
Q3 2014	3.79%
Q4 2014	3.04%
Q1 2015	2.52%

Quarter end	1-quarter benchmark return (%)
Q2 2015	6.58%
Q3 2015	1.75%
Q4 2015	0.37%
Q1 2016	-0.75%
Q2 2016	2.24%
Q3 2016	1.33%
Q4 2016	2.71%
Q1 2017	3.70%
Q2 2017	3.99%
Q3 2017	3.62%
Q4 2017	3.82%
Q1 2018	2.67%
Q2 2018	6.83%
Q3 2018	3.52%
Q4 2018	1.83%
Q1 2019	2.41%
Q2 2019	3.23%
Q3 2019	0.87%

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