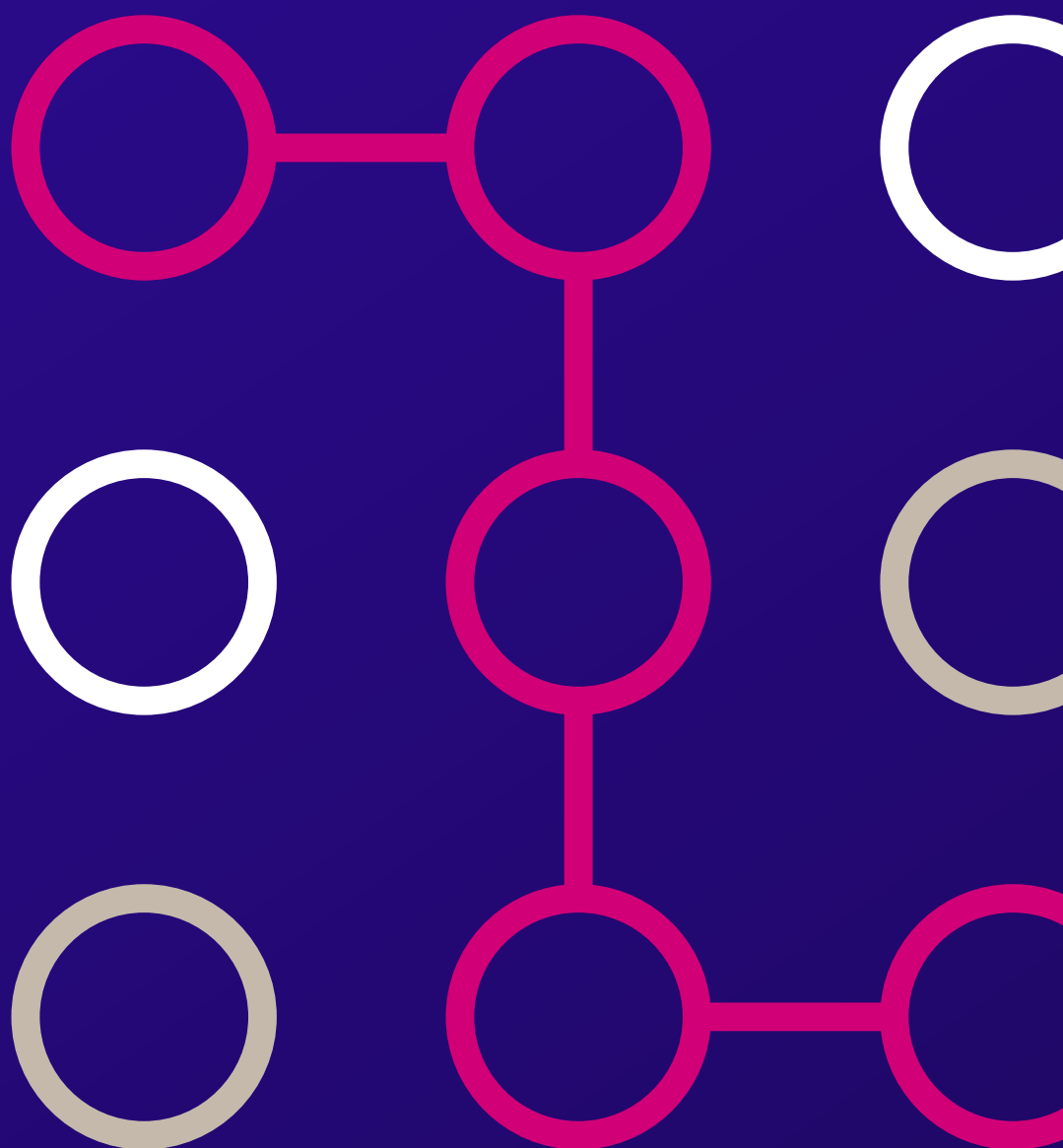


# Private Capital Performance

## Data Guide



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## About Preqin, a part of BlackRock

Preqin empowers financial professionals who invest in or allocate to private markets with essential data and insight to make confident decisions. It supports them throughout the entire investment lifecycle with critical information and premier analytics solutions. Preqin has led the way in developing rigorous methods of collecting private data for over 20 years, enabling more than 200,000 professionals globally to streamline how they raise capital, source deals and investments, understand performance, and stay informed\*. Acquired by BlackRock in 2025, Preqin complements the existing Aladdin technology platform to provide investment solutions for the whole portfolio. For more information visit [www.preqin.com](http://www.preqin.com).

The purpose of this document is to act as a guide to all aspects of Preqin's private capital performance data collection and validation, as well as insight into the different datasets and metrics available.

# Reasons to contribute data



## Be seen by investors and decision-makers

- Fundraising? Looking for new investors? Our clients use Preqin Pro for information on potential investment opportunities on a daily basis.



## Ensure your data is consistently up to date

- Our dedicated teams of researchers are constantly updating Preqin Pro from known, publicly available sources.
- Review and verify your profiles.
- Make sure we are showing your most up-to-date information.



## Shed light on private markets

- Information on the alternative assets industry is difficult to obtain, and not always up to date, accurate, or reliable.
- Help us gather the most comprehensive intelligence in private markets.
- Support the supply of actual market data to industry experts to further their research in this area and make alternatives more transparent.



## Stand out from your peers

- By contributing data to Preqin, your firm and funds will be ranked among the thousands of others already listed on the database.
- Feature in our league tables, which are published regularly in our reports and promoted on our website and social media channels.
- Preqin will provide personalized images for you to use in your marketing materials and to display how you rank.



## Contributing is free and simple

- It is free to be listed on Preqin Pro.
- There are many ways of contributing data, so it's easy and quick.
- Update and review your profiles as often as you like.

[SHARE DATA](#)

# Overview of sourcing, validating, and updating performance data

## Data sources

Preqin Performance team collects private market fund performance data from a variety of sources to ensure a high degree of accuracy and confidence. Since 2002, the team has collected performance data from a variety of sources globally. This includes: FOIA, listed firm financial reports, public filings, and annual reports.

The team receives more than 24,000 regular submissions of data from 6,900+ individual GPs annually\*. Fund managers are increasingly recognizing the importance of providing us with accurate and up-to-date data. Preqin subscribers, many of whom are institutional investors, use Preqin Pro to search for new investment opportunities and view performance on a fund level. Other sources of data include listed firm financial reports, public filings, and annual reports.

## Data validation

To ensure calculations are consistent with our methodologies, we provide guidelines to GPs and FOIA sources when they submit data to us. Our internal Performance Team will then review the data and cross-reference it against a benchmark of similar funds, as well as against other sources reporting for the same fund.

The Performance Team will reach out to the GP if we require further verification to support the metrics provided. This is usually in the form of relevant pages from an LP report. Although very rare, there have been a handful of instances when we weren't confident in the data provided and chose to exclude it from our database. Throughout the process of receiving, validating, and uploading performance data, we are looking to ensure its validity and consistency. In this way we offer the private market performance data of unparalleled accuracy and depth.

## Updating performance data

Once collected and validated, all performance data is made available to subscribers via Preqin Pro. We also offer a range of performance-related tools for users to compare, benchmark, and analyze the data. Subscribers can leverage the tools for benchmarking, competitor analysis, due diligence, or market intelligence, for example.

## Compliance

We understand that fund managers are faced with an increasingly intensive regulatory environment. Preqin provides verified factual data on Preqin Pro and never makes any explicit or implicit recommendations and/or facilitates transactions of any sort between investors and fund managers.

Preqin is an impartial data provider, and therefore the information displayed on our products does not constitute marketing and/or promotional materials, nor constitute general advertising, solicitation, or a public offer of securities and, as such, is not a regulated activity.

\*Data as of February 2025

# Performance metrics definitions

## Vintage year

Defined as the first year of investment/drawdown from the investor.

## Paid-in Capital

Measure of the cumulative LP capital invested. This amount should **include management fees**. It is shown as a % of total LP commitment:

$$\text{Capital called (\%)} = \frac{\text{Total capital called}}{\text{Total LP commitment}} \times 100$$

*Note: Called (%) may exceed 100% due to recycling of capital.*

## Capital distribution (DPI)

The returns that an investor in a fund receives. It is the income and capital realized from investments, less expenses and liabilities. This amount should **be net of any carry/performance fees earned by the GP**. It is shown as a % of total capital called:

$$\text{DPI (\%)} = \frac{\text{Total LP distribution}}{\text{Total capital called}} \times 100$$

## Fair value/Market value (RVPI)

A valuation that represents the amount at which an asset can be acquired or sold in a transaction between willing parties. Also referred to as Ending market value, net asset value, or residual value. This amount should **be net of any carry/performance fees earned by the GP**. It is shown as a % of total capital called:

$$\text{RVPI (\%)} = \frac{\text{Unrealized value of fund}}{\text{Total capital called}} \times 100$$

*Note: Portfolio valuations should be carried out in accordance with IFRS, GAAP, FAS 157 and/or International Private Equity and Venture Capital (IPEVC) guidelines.*

## Net Multiple/ Total Value to Paid-in Capital (TVPI)

Reveals how many times investors have received, or are likely to receive, their money back and make a profit from their investments. It is the sum of the DPI plus RVPI, expressed as a multiple:

$$\text{Net Multiple (X)} = \frac{\{\text{DPI (\%)} + \text{RVPI (\%)}\}}{100} = \frac{\text{Total LP distribution} + \text{Unrealized value of fund}}{\text{Total capital called}}$$

## Net internal rate of return (IRR %)

Money-weighted return expressed as a percentage. Net IRR uses the present sum of cash contributed, the sum of distributions, and the current value of unrealized investments and applies a discount. This amount should **be net of any carry/performance fees earned by the GP**.

## Estimated IRR

Estimated net internal rate of return (IRR %) – an IRR generated by Preqin using available cashflows. The estimated tag is applied to indicate that this wasn't an IRR directly reported by the performance source but rather calculated by Preqin using the underlying available cash flow data for the fund.

# Calculation example

The following simulates how to calculate the performance ratio for a fund with the following characteristics:

Total LP commitment = \$10,000,000  
Total capital called to date = \$1,285,000  
Total distribution to date = \$990,000  
Unrealized fair value = \$600,000  
As of date: Dec 31, 2021

## Called-up ratio

The called-up ratio in this example would be calculated as follows:

Total capital called = 1,285,000  
Fund size = 10,000,000

$$\text{Capital called (\%)} = \frac{1,285,000}{10,000,000} \times 100$$

$$\text{Capital called (\%)} = 12.85$$

## Distribution to paid-in (DPI %) ratio

The distribution to paid-in ratio in this example would be calculated as follows:

Total distributions to date = 990,000  
Total capital called to date = 1,285,000

$$\text{Distribution to paid-in (DPI \%)} = \frac{990,000}{1,285,000} \times 100$$

$$\text{Distribution to paid-in (DPI \%)} = 77.04$$

## Remaining value to paid-in (RVPI %) ratio

The remaining value to paid-in ratio in this example would be calculated as follows:

Unrealized fair value = 600,000  
Total capital called = 1,285,000

$$\text{Remaining value to paid-in (RVPI \%)} = \frac{600,000}{1,285,000} \times 100$$

$$\text{Remaining value to paid-in (RVPI \%)} = 46.69$$

# Calculation example (continued)

## Net Multiple / Total Value to Paid-in Capital (TVPI)

The net multiple in this example would be calculated as follows:

Distribution to paid-in (DPI %) = 77.04

Remaining value to paid-in (RVPI %) = 46.69

Total distribution to date = 990,000

Unrealised fair value = 600,000

Total capital called = 1,285,000

$$\text{Net Multiple (X)} = \frac{(77.04+46.69)}{100} = \frac{(990,000+600,000)}{1,285,000} = 1.24$$

# Calculation example (continued)

## Net internal rate of return (IRR %)

If the transactions for this fund were as follows, the net IRR can be calculated on Excel using the cash-flow data:

| Transaction type      | Transaction date | Transaction amount | IRR formula in Excel = XIRR (transaction amounts, transaction dates) |
|-----------------------|------------------|--------------------|--|
| Capital call          | 26/01/2012       | -100,000           | <b>Capital calls:</b> Negative sign                                  |
| Capital call          | 05/07/2012       | -200,000           |  |
| Capital call          | 30/08/2012       | -250,000           |  |
| Capital call          | 17/09/2012       | -10,000            | <b>Distribution:</b> Positive sign                                   |
| Capital call          | 21/03/2013       | -10,000            |  |
| Capital call          | 04/04/2013       | -150,000           | <b>Unrealized fair value:</b> Positive sign                          |
| Capital call          | 22/07/2013       | -300,000           |  |
| Capital call          | 23/02/2014       | -10,000            |  |
| Distribution          | 03/05/2014       | 300,000            |  |
| Capital call          | 09/07/2014       | -10,000            |  |
| Distribution          | 19/11/2014       | 200,000            |  |
| Capital call          | 24/12/2014       | -10,000            |  |
| Capital call          | 07/02/2015       | -50,000            |  |
| Distribution          | 01/03/2015       | 100,000            |  |
| Capital call          | 12/05/2015       | -25,000            |  |
| Distribution          | 27/07/2015       | 90,000             |  |
| Capital call          | 07/09/2015       | -150,000           |  |
| Distribution          | 21/10/2015       | 100,000            |  |
| Distribution          | 08/03/2016       | 200,000            |  |
| Capital call          | 16/05/2016       | -10,000            |  |
| Unrealized fair value | 31/12/2016       | 600,000            |  |

## Performance overview

Using the ratios calculated above, the performance ratios for this fund would be as follows:

| Fund name   | Vintage | Type            | Total LP commitment (mn) | Called (%) | DPI (%) | RVPI (%) | Net IRR (%) | As of date   |
|-------------|---------|-----------------|--------------------------|------------|---------|----------|-------------|--------------|
| Sample fund | 2017    | Venture capital | 10 USD                   | 12.85      | 77.04   | 46.69    | 9.22        | Dec 31, 2021 |



# Preqin benchmarks and quartile rankings

Preqin Benchmarks are calculated using performance information for over 14,000 private capital funds globally\*. Subscribers to Preqin Pro can view the individual returns for all constituent funds on a named basis, and also access Preqin's Custom Benchmark tool.

## Methodology

Market Benchmark searches can be made based on funds' vintage, investment strategy, and geographic focus. Within each benchmark group, performance metrics of called-up, distributed, unrealized value, multiples, and net IRRs are calculated for the following:

- **Median** – the middle value from an ordered set of a specific benchmark grouping (for each performance metric).
- **Average** – the mean net IRR is taken from a specific benchmark grouping to calculate the average fund performance metrics.
- **Pooled** – accounts for the timings of calls/ distributions; aggregates cash flows of constituent funds and calculates resultant net IRRs.
- **Weighted** – takes the performance ratios of each individual fund and calculates a weighted average using the size of each fund.

Within each benchmark, funds are assigned a **quartile ranking** – an easy indicator of how a fund is performing relative to other constituents in the benchmark group. The ranking applies to funds that are included in our 'most up-to-date' range, i.e. have reported data within the past five quarters.

Both the multiple and net IRR rankings of each constituent fund are used to determine the fund's overall quartile rank, with equal weighting. If one of the two metrics is unknown, the fund's rank is estimated based on the known metric's ranking. In instances where the sample size is too small for a specific benchmark group, the fund will be compared to a broader category.

## Example

A 2014 vintage Europe-focused growth fund will follow the below expansion routes and be allocated a default benchmark where there are at least eight funds in the benchmark group.

|   |   |  |
|---|---|--|
| Best case – most granular                               | → | <b>2014/Europe/Growth</b>                  |
| Expand geographic focus                                 | → | <b>2014/All Regions/Growth</b>             |
| Revert to specific region and expand fund type grouping | → | <b>2014/Europe/All Private Equity</b>      |
| Expand geographic focus                                 | → | <b>2014/All Regions/All Private Equity</b> |
| Revert to specific region and expand fund type grouping | → | <b>2014/Europe/Private Capital</b>         |
| Expand geographic focus                                 | → | <b>2014/All Regions/Private Capital</b>    |

Buyout funds and real estate funds also take into account fund size grouping and primary strategy, respectively, when assigning benchmark groups.

We also show historical quarterly performance data, which can be searched for using the 'As of Date' filter. This allows benchmarks to be evaluated as of different quarters during funds' lifecycles.

Users also have the option of using the [Custom Benchmarks tool](#), to create tailor-made peer groups of funds with which benchmark data can then be extracted.

\*Data as of February 2025

## Sources

Prequin receives performance data from GPs, LPs, and listed sources. For a given as-of date for a fund, one source is chosen based on consistency, completeness, and timeliness – it is this data that is then used for benchmarks. The chosen historical sources can be viewed for each fund, along with the rest of the sources reported data. For some reported data, we are unable to disclose the source, for reasons of confidentiality.

Users have three options when downloading performance data for a given fund:

- Download all chosen historical data
- Download all data sources for a given as-of date
- Download all data for a given source

It is also possible for users to access all historical data from all sources via an API.

## Fund types for multi-strategy benchmarks

### Private capital

All private closed-end funds, including private equity, private debt, real estate, infrastructure, and natural resources.

### Private equity

Balanced, buyout, co-investment, co-investment multi-manager, direct secondaries, growth, private equity fund of funds, hybrid fund of funds, private equity secondaries, turnaround, venture capital.

### Venture Capital

Early stage, early stage: seed, early stage: start-up; Expansion/late-stage; venture (general)

### Private debt

Direct lending (senior debt, unitranche debt, junior / subordinated debt, blended / opportunistic debt per Pro), distressed debt, mezzanine, private debt fund of funds, special situations, venture debt.

### Real estate

Co-investment fund; core; core-plus; debt; distressed; real estate fund of funds; opportunistic; secondaries fund; value added

### All - Private equity (legacy)

Previously known as All - Private Equity; includes all closed-end fund types with the exception of direct lending funds.

### Infrastructure

Plus strategies, and Natural resources plus strategies.

### Buyout fund sizes

Vintage 1992–1996

Small buyout ≤ \$200mn

Mid buyout \$200mn - \$500mn

Large buyout > \$500mn

Vintage 1997–2004

Small buyout ≤ \$300mn

Mid buyout \$300mn–\$750mn

Large buyout \$751mn–\$2bn

Mega buyout > \$2bn

Vintage 2005–present

Small buyout ≤ \$500mn

Mid buyout \$500–\$1.5bn

Large buyout \$1.5bn–\$4.5bn

Mega buyout > \$4.5bn

## Frequently asked questions

### **Why do the median DPI and RVPI not always sum to the median multiple?**

The called, DPI, RVPI, net multiple, and net IRR metrics are calculated independently, so the median is pulled for each of the metrics individually.

### **Why doesn't the quartile ranking change for a fund when I change the criteria on a benchmark search?**

Quartile rankings are based on a fund's pre-assigned benchmark grouping. Changing the Market or Custom Benchmark search will change all output calculations apart from quartile ranking.

### **Why does the quartile ranking show as 'n/m' for some funds?**

Quartile rankings are not shown for funds within the first three years of their lifecycle, as it is deemed too early for a fund's IRR to be meaningful.

### **Are the market benchmarks reported in USD?**

Performance metrics are calculated in the currency in which the source has reported; no conversions are made.

### **Why are there no median/quartile boundary figures showing for some benchmarks?**

At least four funds are required for a median benchmark metric to be calculated.

At least eight funds are required for quartile boundaries to be calculated.

### **What funds are included in the 'Most Up-to-Date' range?**

This range includes all funds that have reported performance data within the past five quarters. This is to maximize the number of constituent funds with a quartile ranking.

### **The market benchmarks are not suitable for my fund – is there an alternative?**

Subscribers have the option of using the Custom Benchmarks tool, to create tailor-made peer groups of funds from which benchmark data can then be extracted.

### **Given data contributions from GPs, is there a risk of survivorship bias in the data, i.e. bias toward best performing funds?**

For over 80% of funds for which we have performance data, either an LP source or both an LP and GP source reports data.

On average, four sources report data for each fund. This range of available data enables Prequin to compare data contributions from GPs against other sources reporting for the same fund, ensuring that the data we receive is consistent and valid.

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# Assets under management

Assets Under Management (AUM) is used as a measure of the size of the industry. It is the sum of dry powder and unrealized value:

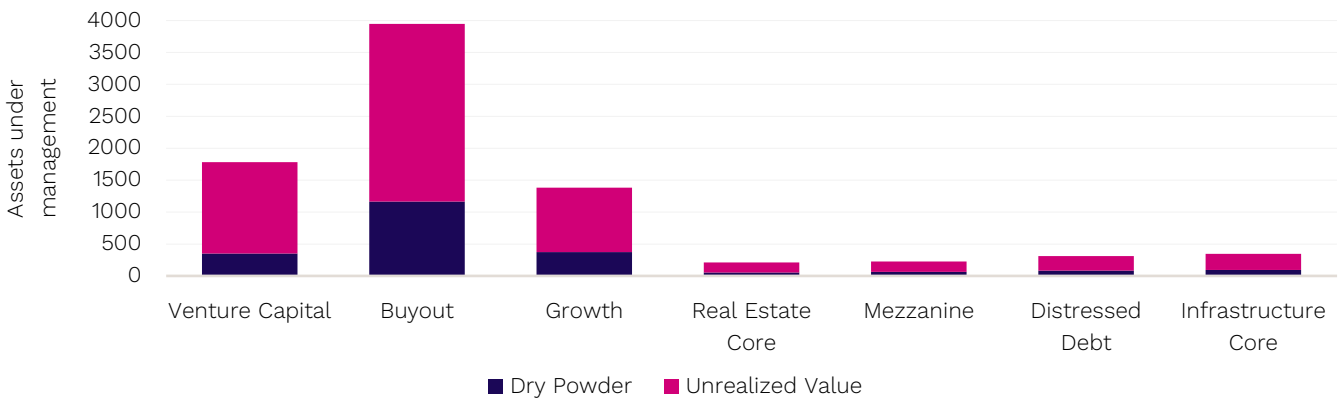
- **Dry powder:** Available capital for fund managers to invest, i.e, committed capital that has not yet been called for investment.
- **Unrealized value:** How much any unrealized investments in a portfolio are worth.

## Methodology

The AUM for a given fund is calculated as follows:

- **Dry powder:** The capital called amount is subtracted from the fund’s size/latest close size. If the capital called % metric is not reported for a given fund, a benchmark capital called % is used instead.
- **Unrealized value:** The RVPI % metric is multiplied by the amount of capital called. If the RVPI % metric is not reported for a given fund, a benchmark RVPI % is used instead.

### Private capital: AUM by strategy



Source: Preqin Pro. Data as of September 2023

## Frequently asked questions

### What currency is AUM figures reported in?

AUM is reported in USD. For funds denominated in non-USD currencies, conversions to USD are made using the exchange rate of the date of the final close or latest interim close of the fund.<sup>1</sup>

### When does the latest quarter-end date get updated?

As with the rest of the performance tools, there is a lag of at least six months for the latest quarter-end date to become available. This is to ensure we use as complete a dataset as possible when estimating the latest AUM figures.

### How are annual called and distributed figures calculated?

These are calculated using the same dataset as AUM. Capital called % and DPI % metrics are used to calculate the annual called and distributed figures Infrastructure plus strategies, and respectively. In the absence of these reported metrics, benchmark metrics are used instead.

<sup>1</sup> Two sources are used and combined: X-Rates (USD Historical Exchange Rates (US Dollar) - X-Rates ) and google finance. Conversions are done by looking at each currency with respect to USD.

# Asset-Level Benchmarks

## Deal Performance Benchmarks

### 1. Description of Deal Performance Benchmarks

Preqin Deal Performance Benchmarks are calculated using cash-flow data from GP quarterly reporting of private capital funds' deals to LPs. Subscribers to Asset-Level Benchmarks can view anonymized benchmarks that provide performance metrics such as TVPI, IRR, and Loss ratios, broken down by asset class, strategy, geography, industry classification, deal vintage date, and deal size range.

### 2. Deal Performance Benchmarks Methodology

Preqin calculates Deal Performance Benchmarks from deal-level transaction data to attribute TVPI, RVPI, DPI, and IRRs to each deal. Those values are then aggregated into respective anonymized benchmarks based on the possible filtering combinations in the tool.

- is sourced from [Colmore's collection](#) of GP quarterly reporting to LP
- is aggregated and anonymized in the benchmarks, to preserve its sensitive nature
- is updated on a quarterly basis for timeliness.

### 3. Definitions of performance metrics for Deal Performance Benchmarks

|   |  |
|---|--|
| <b>Gross DPI (distributed to paid in)</b>     | The ratio of money distributed by the portfolio company, relative to Investments. Excludes fees.<br>$\frac{(\text{Cum. proceeds} + \text{Cum. income})}{\text{Cum. investments}} = \text{DPI}$   |
| <b>Gross IRR (internal rate of return)</b>    | Money-weighted return expressed as a percentage. Uses the present sum of investments, the sum of distributions, and the current unrealized value of a portfolio company and applies discount. Excludes fees.<br>$\sum_{n=0}^N \frac{\text{Cashflow}_n}{(1+\text{IRR})^n} = \text{NPV} = 0$   |
| <b>Gross RVPI (residual value to paid in)</b> | The ratio of the current value of remaining investments within a portfolio company to the total contributions into the portfolio company to date. Excludes fees.<br>$\frac{(\text{Cum. adjusted valuation})}{\text{Cum. investments}} = \text{RVPI}$   |
| <b>Gross TVPI (total value to paid in)</b>    | The ratio of the current value of remaining investments in a portfolio company, plus the total value of all distributions to date, relative to the total amount of capital paid into the company to date. Excludes fees.   |
| <b>Weighted average</b>                       | An average calculated by weighting the constituents' deals size, meaning that large deals have more impact on the metric than small deals.   |
| <b>Pooled IRR</b>                             | Calculated by combining multiple deals' cash flows and calculating as if they were a single deal.  |
| <b>Loss ratios</b>                            | The measurement of loss within the constituents of a benchmark.<br><br>By number of deals:<br>$\frac{\text{Count of constituents deals TVPI} < 1}{\text{count of all constituents deals}} \times 100$<br><br>By invested capital (in \$):<br>$\frac{(1-\text{TVPI}) * \text{culmulative investment (of constituent deals TVPI} < 1)}{\text{Sum of culmulative investment (of all constituents)}} \times 100$ |

## Valuation Multiples Benchmarks

Preqin Valuation Multiples Benchmarks are calculated using funds' portfolio company operating metrics reported by GPs to LPs. Subscribers to Asset-Level Benchmarks can view anonymized benchmarks that provide both entry and exit multiples, such as EV / EBITDA, EV / Revenue, and Net debt / EBITDA, broken down by asset class, strategy, deal year, geography, industry classification, and EV range.

### Valuation Multiples Benchmarks Methodology

Preqin calculates Valuation Multiple Benchmarks from operating metrics data at entry and exit to attribute multiples to portfolio companies. Those values are then aggregated into respective anonymized benchmarks based on the possible filtering combinations in the tool.

#### Operating metrics data:

- is sourced from Colmore's collection of GP quarterly reporting to LPs
- is aggregated and anonymized in the benchmarks, to preserve the sensitive nature of GP quarterly reports
- is updated on a quarterly basis for timeliness

#### Definitions of data points for Valuation Multiples Benchmarks

|                             |   |
|-----------------------------|---|
| <b>Region/country</b>       | A portfolio company's headquarters region and/or country.   |
| <b>Weighted average</b>     | An average calculated by weighting the constituents' EV size, effectively meaning that large companies have more impact on the metric than small companies. |
| <b>Entry EBITDA</b>         | Portfolio company earnings before interest, tax, depreciation, and amortization when the fund invested, as reported by the GP.                              |
| <b>Entry net debt</b>       | Net debt (long- and short-term debt minus cash and cash equivalents) of a Portfolio company when the fund invested, as reported by the GP.                  |
| <b>Entry revenue</b>        | Revenue of a Portfolio company when the fund invested, as reported by the GP.   |
| <b>Entry EV</b>             | Enterprise value (Equity value + net debt) of the Portfolio Company when the fund invested, as reported by the GP.  |
| <b>Constituents</b>         | Number of deals within one benchmark.   |
| <b>Cumulative EV (\$bn)</b> | Cumulative enterprise value of portfolio companies within one benchmark.  |

## Calculations

|                              |  |
|------------------------------|--|
| <b>Entry EV/EBITDA</b>       | <p>Enterprise multiple, also known as the EV-to-EBITDA multiple, is a ratio used to determine the value of a company.</p> $\frac{\text{Entry EV}}{\text{Entry EBITDA}}$  |
| <b>Entry EV/Revenue</b>      | <p>Enterprise multiple, also known as the EV-to-Revenue multiple, is a ratio used to determine the value of a company. Used to give another perspective from EV/EBITDA, especially for non-profit generating companies.</p> $\frac{\text{Entry EV}}{\text{Entry Revenue}}$ |
| <b>Entry net debt/EBITDA</b> | <p>The net debt-to-EBITDA ratio is a debt ratio that shows how many years it would take for a company to pay back its debt if net debt and EBITDA are held constant.</p>   |
| <b>Exit</b>                  | <p>The ratio of the current value of remaining Investments in a portfolio company, plus the total value of all distributions to date, relative to the total amount of capital paid into the company to date. Excludes fees.</p>  |

No information provided, displayed or contained in this material is made available for use as a benchmark as defined in the Regulation 2016/1011 of the European Parliament and of the Council, including as such Regulation was retained in UK law (the "Benchmarks Regulation"). None of BlackRock, Prequin or its affiliates are providing any such information as a benchmark administrator under the Benchmarks Regulation. You are not permitted to use content in any way that would constitute "use of a benchmark" under the Benchmarks Regulation.

# Horizon IRRs

Horizon IRRs indicate how a particular fund strategy or geographic focus has performed over a defined period. Preqin calculates horizon IRRs over one, three, five, and 10 years to date, as well as rolling IRRs.

Private capital horizon IRRs should be viewed with some caution as horizon returns are calculated using cash transactions as well as portfolio valuations, which are an estimated value calculated and provided by the GPs. As an illiquid asset, private capital investors are committed for a long time and cannot cash in their returns on such short periods.

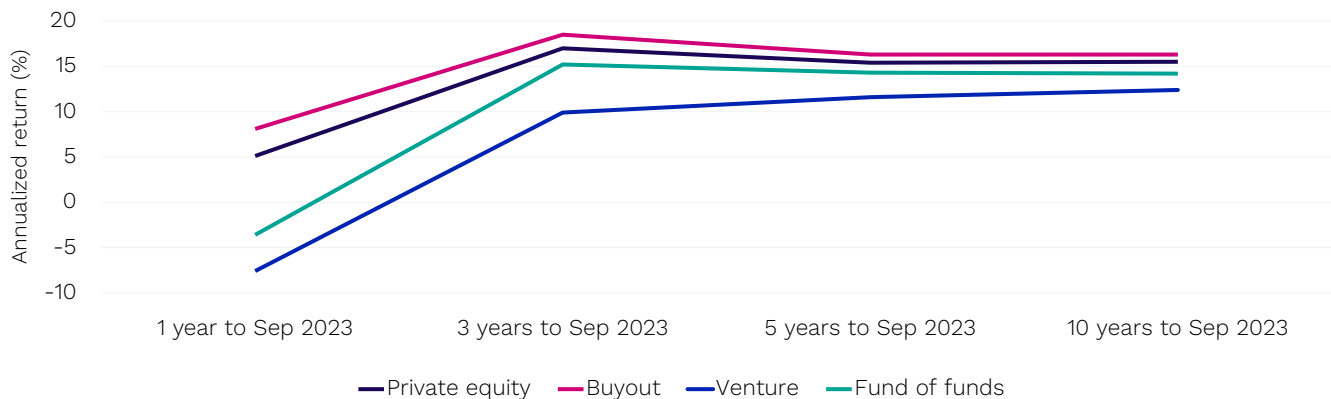
## Methodology

Preqin calculates horizon IRRs using cash-flow data for over 7,000 private capital funds. For a fund to be included in the sample for a given time horizon, it must be active at the start and the end of the period, i.e., have an unrealized value reported at both start and end dates. The IRRs are calculated using:

- The fund's net asset value (NAV) at the start of the period as a negative outflow.
- LP contributions as a negative outflow (treated as the initial investment).
- Distributions as a positive inflow.
- The fund's NAV at the end of the period as a positive number.

The horizon IRRs are capital weighted, i.e., larger funds have more of an impact on the overall calculation.

### Private equity horizon IRRs by fund type



Source: Preqin Pro. Data as of September 2023

## Frequently asked questions

### When does the latest quarter-end date get updated?

There is a lag of at least six months for the latest quarter-end date to become available. This is to ensure we use as complete a dataset as possible when calculating the latest horizon IRRs.

### Can horizon IRRs be calculated for fund categories or regions not already showing on the product?

Yes, if the fund sample size is large enough to produce a meaningful result.



# Preqin Indices

Preqin Private Capital Indices provide a reliable benchmark that empowers financial professionals to make informed investment decisions and drive meaningful performance analysis.

Preqin Indices deliver the most complete, credible, and timely performance data in the market.

## Methodology

The Preqin Index Methodology reflects Preqin's commitment to driving transparency across the global alternatives market, empowering the financial community to make better, more informed decisions. It's guided by the market standards of public markets trusted by investors worldwide to define the industry benchmarks for excellence for private market closed-end fund indices.

[INDEX METHODOLOGY DOCUMENT](#)

## Index components

| Asset Class     | Index Name                         | Primary Region Focus | Strategies included   |
|-----------------|------------------------------------|----------------------|---|
| Private Capital | Private Capital                    | Global               | All infrastructure, natural resources, private debt, private equity, real estate, and venture capital strategies  |
| Private Capital | Private Capital - First Time Funds | Global               | Funds whose manager has never before overseen a fund in a given asset class   |
| Private Capital | Private Capital - North America    | North America        | All infrastructure, natural resources, private debt, private equity, real estate, and venture capital strategies  |
| Private Capital | Private Capital - Europe           | Europe               | All infrastructure, natural resources, private debt, private equity, real estate, and venture capital strategies  |
| Private Capital | Private Capital - Asia             | Asia                 | All infrastructure, natural resources, private debt, private equity, real estate, and venture capital strategies  |
| Private Equity  | Buyout                             | Global               | Buyout  |
| Private Equity  | Buyout - Large                     | Global               | Vintage 1992-1996: large >\$500mn<br>Vintage 1997-2004: large \$751-\$2bn<br>Vintage 2005-present: large \$1.5bn-\$4.5bn  |
| Private Equity  | Buyout - Mega                      | Global               | Vintage 1997-2004: mega > \$2bn<br>Vintage 2005-present: mega >\$4.5bn  |
| Private Equity  | Buyout - Mid                       | Global               | Vintage 1992-1996: mid \$201-\$500mn<br>Vintage 1997-2004: mid \$301 – 750mn<br>Vintage 2005-present: mid \$501-\$1.5bn   |
| Private Equity  | Buyout - Small                     | Global               | Vintage 1992-1996: small ≤ \$200mn,<br>Vintage 1997-2004: small ≤\$300mn,<br>Vintage 2005-present: small ≤\$500mn,  |
| Private Equity  | Buyout - Large, Mega, Mid, Small   | Global               | Vintage 1992-1996: small ≤ \$200mn, mid \$201-\$500mn, large >\$500mn<br>Vintage 1997-2004: small ≤\$300mn, mid \$301 – 750mn, large \$751-\$2bn, mega > \$2bn<br>Vintage 2005-present: small ≤\$500mn, mid \$501-\$1.5bn, large \$751-\$4.5bn, mega >\$4.5bn |
| Private Equity  | Distressed PE                      | Global               | Distressed debt, turnaround, special situations   |
| Private Equity  | Fund of Funds                      | Global               | Fund of funds (PE)  |
| Private Equity  | Growth                             | Global               | Growth  |
| Private Equity  | Private Equity                     | Global               | Balanced, buyout, co-investment, co-investment multi-manager, direct secondaries, Fund of funds (PE), growth, secondaries (PE), turnaround, venture (general), venture early stage, early stage: seed, early stage: start-up, expansion/late stage            |

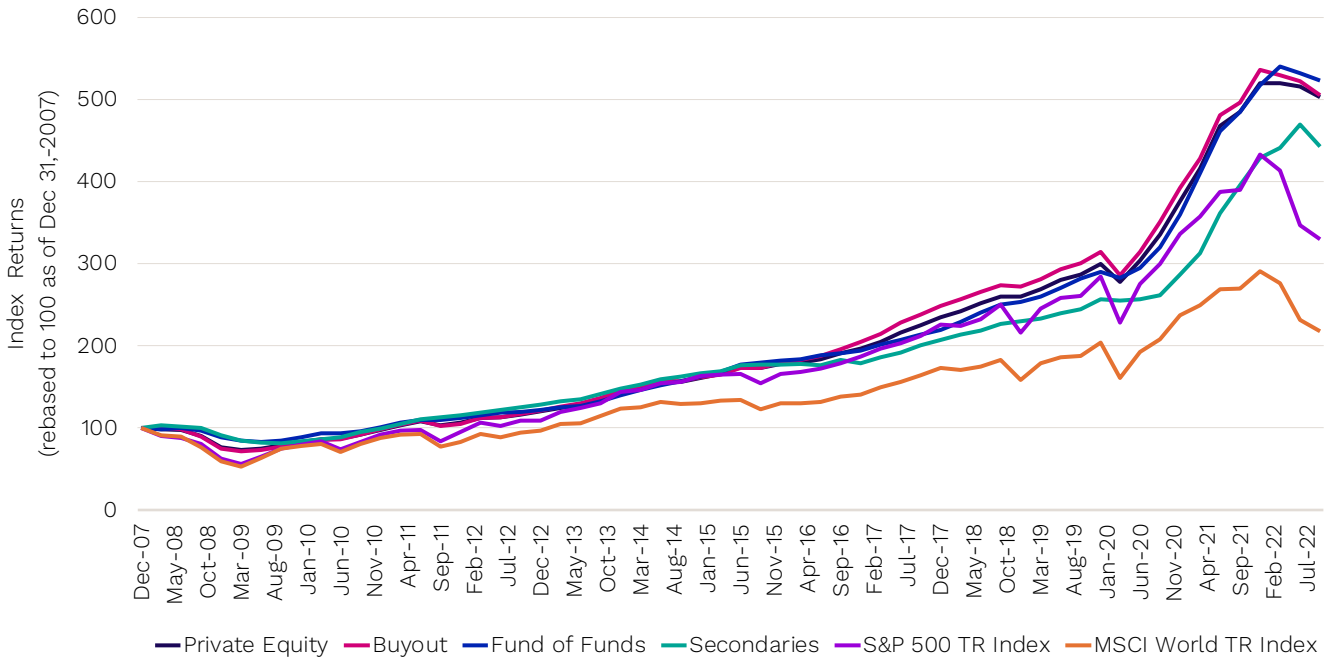
| <b>Asset Class</b>     | <b>Index Name</b>                       | <b>Primary Region Focus</b> | <b>Strategies included</b>   |
|------------------------|---|-----------------------------|--|
| <b>Private Equity</b>  | Private Equity Excl. VC                 | Global                      | Balanced, buyout, co-investment, co-investment multi-manager, direct secondaries, Fund of funds (PE), growth, secondaries (PE), turnaround                                 |
| <b>Private Equity</b>  | Secondaries                             | Global                      | Secondaries (PE)   |
| <b>Private Equity</b>  | Buyout – North America                  | North America               | Buyout   |
| <b>Private Equity</b>  | Growth – North America                  | North America               | Growth   |
| <b>Private Equity</b>  | Private Equity Excl. VC – North America | North America               | Balanced, buyout, co-investment, co-investment multi-manager, direct secondaries, Fund of funds (PE), growth, secondaries (PE), turnaround                                 |
| <b>Private Equity</b>  | Buyout – Europe                         | Europe                      | Buyout   |
| <b>Private Equity</b>  | Private Equity Excl. VC – Europe        | Europe                      | Balanced, buyout, co-investment, co-investment multi-manager, direct secondaries, Fund of funds (PE), growth, secondaries (PE), turnaround                                 |
| <b>Private Equity</b>  | Buyout - Asia                           | Asia                        | Buyout   |
| <b>Private Equity</b>  | Private Equity Excl. VC - Asia          | Asia                        | Balanced, buyout, co-investment, co-investment multi-manager, direct secondaries, Fund of funds (PE), growth, secondaries (PE), turnaround                                 |
| <b>Venture Capital</b> | Venture Capital                         | Global                      | Early stage, early stage: seed, early stage: start-up, expansion/late stage, venture (general)   |
| <b>Venture Capital</b> | Venture - All stage                     | Global                      | Venture (general)  |
| <b>Venture Capital</b> | Venture - Early stage                   | Global                      | Early stage, early stage: seed, early stage: start-up  |
| <b>Venture Capital</b> | Venture - Expansion                     | Global                      | Expansion/late stage   |
| <b>Venture Capital</b> | Venture Capital – North America         | North America               | Early stage, early stage: seed, early stage: start-up, expansion/late stage, venture (general)   |
| <b>Venture Capital</b> | Venture Capital - Europe                | Europe                      | Early stage, early stage: seed, early stage: start-up, expansion/late stage, venture (general)   |
| <b>Private Debt</b>    | Private Debt                            | Global                      | Direct lending, distressed debt, mezzanine, private debt fund of funds, special situations, venture debt   |
| <b>Private Debt</b>    | Private Debt - Mezzanine                | Global                      | Mezzanine  |
| <b>Private Debt</b>    | Private Debt - Direct Lending (All)     | Global                      | Direct lending, direct lending - senior debt, direct lending - unitranche debt, direct lending - junior / subordinated debt, direct lending - blended / opportunistic debt |
| <b>Private Debt</b>    | Private Debt - Distressed Debt          | Global                      | Distressed debt  |
| <b>Private Debt</b>    | Private Debt – North America            | North America               | Direct lending, distressed debt, mezzanine, private debt fund of funds, special situations, venture debt   |
| <b>Private Debt</b>    | Private Debt – Europe                   | Europe                      | Direct lending, distressed debt, mezzanine, private debt fund of funds, special situations, venture debt   |

| <b>Asset Class</b>       | <b>Index Name</b>                 | <b>Primary Region Focus</b> | <b>Strategies included</b>   |
|--------------------------|-----------------------------------|-----------------------------|--|
| <b>Real Estate</b>       | Real Estate                       | Global                      | Real estate co-investment, real estate core, real estate core-plus, real estate debt, real estate distressed, real estate fund of funds, real estate opportunistic, real estate secondaries, real estate value added |
| <b>Real Estate</b>       | Real Estate - Core Plus           | Global                      | Real estate core-plus  |
| <b>Real Estate</b>       | Real Estate - Debt                | Global                      | Real estate debt   |
| <b>Real Estate</b>       | Real Estate - Value Added         | Global                      | Real estate value added  |
| <b>Real Estate</b>       | Real Estate – North America       | North America               | Real estate co-investment, real estate core, real estate core-plus, real estate debt, real estate distressed, real estate fund of funds, real estate opportunistic, real estate secondaries, real estate value added |
| <b>Real Estate</b>       | Real Estate – Europe              | Europe                      | Real estate co-investment, Real Estate Core, real estate core-plus, real estate debt, real estate distressed, real estate fund of funds, real estate opportunistic, real estate secondaries, real estate value added |
| <b>Infrastructure</b>    | Infrastructure                    | Global                      | Infrastructure core, infrastructure core-plus, infrastructure debt, infrastructure fund of funds, infrastructure opportunistic, infrastructure secondaries, infrastructure value added                               |
| <b>Infrastructure</b>    | Infrastructure - Core             | Global                      | Infrastructure core  |
| <b>Infrastructure</b>    | Infrastructure - Core Plus        | Global                      | Infrastructure core-plus   |
| <b>Infrastructure</b>    | Infrastructure - Value Added      | Global                      | Infrastructure value added   |
| <b>Infrastructure</b>    | Infrastructure – North America    | North America               | Infrastructure core, infrastructure core-plus, infrastructure debt, infrastructure fund of funds, infrastructure opportunistic, infrastructure secondaries, infrastructure value added                               |
| <b>Infrastructure</b>    | Infrastructure – Europe           | Europe                      | Infrastructure core, infrastructure core-plus, infrastructure debt, infrastructure fund of funds, infrastructure opportunistic, infrastructure secondaries, infrastructure value added                               |
| <b>Natural Resources</b> | Natural Resources                 | Global                      | Natural Resources, timberland  |
| <b>Natural Resources</b> | Natural Resources – North America | North America               | Natural Resources, timberland  |

### Custom indices

Preqin can produce customised indices that are more granular than the headline/flagship indices offered on Pro, tailored to your/user/client needs, following the same methodology as detailed above. Users can obtain custom indices via Client Services and request specifications on blends or exclusions of funds based on Preqin filter criteria, subject to data availability.

#### Preqin Private Capital Quarterly Index - all strategies (rebased to 100 as of 31 December, 2007)



Source: Preqin Pro. Data as of January 31, 2023

# Cash flow data

Preqin's Private Capital Cash Flow data is allowing users to undertake extensive financial modeling and gain a complete understanding of how private capital fund returns evolve over time.

This dataset is made up of fund-level cash-flow transactions – capital calls, distributions and, valuations.

- **Capital calls:** Capital called up by the GP from LPs for investment
- **Valuations:** The estimated NAV of the fund portfolio
- **Distribution:** Capital returned to investors from the GP

## Methodology

Cash flow data is gathered from aggregated data — Typically, reliable FOIA sources are used, but on occasion data is included directly from consistently reporting GPs.

For most funds, data tends to derive from a single source that has been reporting in quarterly metrics for the fund from inception. Quarterly cash flow can then be calculated from this data using the mid-point of the quarter and normalizing each fund to a commitment of 10mn in the fund's denominated currency.

## Frequently asked questions

### What process is in place to reduce errors?

The cash-flow calculation process is automatic, based upon the quarterly performance metrics shown on Preqin Pro. Each time data is imported, several quality checks are carried out on the data from all sources for each fund – these are cross-checked against each other, as well as against historical data, to identify and remove/correct any reporting errors.

### What do positive call amounts mean?

As most cash-flow data is calculated from reported data, there can be instances where positive called amounts are broken out — These can be attributed to the different ways in which sources report transactions, such as re-callable distributions, fees, returns of capital, etc.

### Why doesn't the Cumulative Contribution column eventually add up to the Total Fund Size?

We present the cash-flow data from the perspective of a hypothetical investor with a 10mn commitment to each fund in the fund's denominated currency. We include a column with the fund size where known so that the data can be capital weighted where necessary.

### Where can this data be found?

This data is made available to view/download directly via the Cash Flow module, and shows on relevant fund pages — It is accompanied by a chart showing cumulative contribution, distribution, and net cash-flow data based upon the underlying cash-flow data.

# Public market equivalent indices

Typically, private capital returns are not directly comparable with public market indices, due to the illiquid nature and irregular timing of cash flows for private capital assets. The development of the public market equivalent (PME) measure of returns, however, provides a more meaningful, like-for-like comparison. PME metrics benchmark the performance of a fund, or a group of funds, against an appropriate public market index while accounting for the timing of fund cash flows. To ensure we offer meaningful values based on a significant dataset, the latest PME values are limited to a six-month lag.

| Benchmark methodology  | Metric                           | Private capital outperformance if:           | Description of calculation  | Strengths  | Weaknesses  |
|------------------------|----------------------------------|--|---|--|---|
| KS PME (Kaplan-Schoar) | Ratio                            | Value > 1                                    | <p>Calculated by discounting the private capital fund cash flows by the public market index value.</p> <p>The discounted distributions plus the current remaining value are divided by the discounted contributions to obtain the ratio.</p>  | <p>The calculation looks at the ratio of outflows vs. inflows as opposed to generating an IRR, which is time dependent and easily manipulated.</p> <p>Easy to interpret.</p> | <p>Ignores the timings of cash flows.</p>   |
| LN PME (Long-Nickels)  | Annualized Rate                  | Estimated PME IRR < Private Capital Fund IRR | <p>Contributions to the private capital fund are converted to an equal purchase of shares in the public index. Distributions represent liquidation of share in public index.<sup>1</sup></p> <p>IRR calculation uses the same contributions and distributions as the private capital fund, but with a different final period remaining value.</p> | <p>LN PME IRR is directly comparable to the PE Fund IRR, allowing an apples-to-apples comparison.</p>  | <p>IRR is sensitive to early distributions. Large distributions could cause a negative PME final period remaining value, making PME IRR calculation computationally impossible.</p> |
| Capital Dynamics PME+  | Annualized Rate                  | Estimated PME IRR < Private Capital Fund IRR | <p>Uses a fixed scaling factor (lambda) to modify each distribution to ensure the PME final period remaining value is the same as the private capital fund remaining value. IRR calculation uses modified contributions and distributions but with the same final period remaining value.</p>   | <p>As for LN PME, with the added benefit of avoiding a final period negative remaining value, making PME IRR calculation possible in more cases.</p>                         | <p>PME+ does not match the cash flows perfectly.</p>  |
| Direct Alpha           | Annualized Rate of Excess Return | Direct Alpha > 0                             | <p>Calculated by discounting the private capital fund cash flows by the public market index value. IRR calculation uses the discounted values to obtain the annualized rate of excess return.</p>   | <p>Calculates the exact rate of return of outperformance, rather than an indirect estimate.</p>  | <p>N/A</p>  |

<sup>1</sup> [https://www.bvca.co.uk/Portals/0/Documents/Research/Industry Performance/BVCA-Performance-and-Public-Market-Equivalent-Report-2020.pdf](https://www.bvca.co.uk/Portals/0/Documents/Research/Industry%20Performance/BVCA-Performance-and-Public-Market-Equivalent-Report-2020.pdf)

# Best performers

**Most consistent best performing managers:** Ranking fund managers by the average quartile ranking of their funds.

**Top performing funds:** Ranking individual funds by their Internal Rate of Return (IRR).

## Methodology

**Most consistent best performing managers:** Preqin generates quartile rankings for individual funds according to their investment strategy, geographic focus, and vintage year. Each fund universe constitutes funds of similar type, geographic focus, and vintage year, enabling quartile rankings to be assigned using a combination of both the net IRR and multiple rankings of each constituent fund – Both are weighted equally. In instances where the sample size is small, funds are assigned quartile rankings that are generated against the private capital industry in its entirety.

The tables are compiled using only funds for which Preqin assigns a quartile ranking, and so for this reason, funds within the first three years of their lifecycle have been excluded as they are too early in their fund lives to generate meaningful IRRs. In addition, only managers that have raised at least three funds of a similar strategy are considered and further narrowed down to include only active fund managers (whereby the fund manager must have raised a similar strategy fund within the past six years). The lower the average score, the more consistently the manager has performed.

The average rank is calculated by assigning top-quartile funds with a weighting of 1, second-quartile funds with a weighting of 2 and so on — and then an average of the scores is taken. Only firms with average quartile rankings of below 2.00 are considered.

**Best performing funds:** To determine the best performing funds by fund type, Preqin has grouped together funds of similar vintage year and geographic focus where available. We only include funds that have called up at least 50% of committed capital and the net IRR is used as the key determinant of performance.

$$\text{Average rank} = \frac{(\text{\#No. Q1 funds} \times 1) + (\text{\#No. Q2 funds} \times 2) + (\text{\#No. Q3 funds} \times 3) + (\text{\#No. Q4 funds} \times 4)}{\text{Total number of funds with a Quartile Ranking}}$$



# Risk/Return

## What is it?

Risk and return analysis enables users to visually compare the risk/return profiles of single- and multi-year benchmarks in an accessible format. Return is measured by the benchmarks' median net IRR, while risk is measured by the standard deviation of net IRR. Bubble size indicates the total market capitalization (total capital raised) for each benchmark's constituent funds.

How to read the chart:

- Further to the right = higher returns
- Further to the top = higher risk
- Bigger bubble = more capital raised

## Methodology

### Single-year benchmarks:

These benchmarks compare funds that share a single vintage year, e.g. Buyout - North America – 2010.

- **Return:** median net IRR of constituent funds
- **Risk:** standard deviation of net IRR of constituent funds
- **Market capitalization (bubble size):** sum of total capital raised by constituent funds

### Multi-year benchmarks:

These benchmarks compare funds within a range of vintage years, e.g. Buyout - North America – 2010-2015.

- **Return:** median net IRR of all constituent funds within selected parameters (taken as a single group)
- **Risk:** standard deviation of all constituent funds within selected parameters (taken as a single group)
- **Market capitalization (bubble size):** sum of total capital raised by all constituent funds within selected parameters

## Frequently asked questions

### Why can't I see certain benchmarks in the filter results?

Not all benchmarks have sufficient IRR data points to be compared on the chart. For benchmarks that are less than 3 years out from their vintage year, IRR data is hidden; Therefore, these benchmarks cannot be plotted on the chart.

The terms Market Capitalization and Constituent Fund Size are synonyms – they both refer to the total capital raised of the selected benchmark (and are denoted by the size of the bubble on the chart).

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