Introduction

Preqin was founded in 2003 and pioneered the use of the Freedom of Information Act (FOIA) to collect fund-level returns data from public pension funds with the goal of improving transparency and performance benchmarking within the private capital industry.

FOIA requests remain an important part of Preqin’s performance data collection process; however, today these are combined with voluntary data submissions from more than 2,200 fund managers globally. This enables Preqin to offer the most extensive and transparent coverage of net-to-LP private capital fund performance data, with metrics for more than 10,500 vehicles.

The purpose of this document is to act as a useful 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.

Should you have any questions or would like to discuss providing data to Preqin, please do not hesitate to contact us at teamperformance@preqin.com.

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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.
- 7,800+ investment professionals on Preqin Investor Network.
- 20,000-24,000 total logins monthly from institutional investors.

Ensure Your Data Is 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 surrounding the alternative assets industry is difficult to obtain, and not always up to date, accurate, or reliable.
- Help us to collect the most comprehensive and up-to-date intelligence in the alternatives industry.
- Help industry experts to use actual market data to further their own 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 books and reports.
- Preqin will provide personalized images for you to use in your marketing materials to display your rankings.

Contributing Is Free and Simple
- It is free to be listed on Preqin Pro.
- There are many ways of contributing data, making it easy for you to share with us.
- Update and review your profiles as often as you like.

www.preqin.com/sharedata
Overview of Sourcing, Validating, and Updating Performance Data

Data Sources
Preqin collects performance data from a variety of sources to ensure a high degree of accuracy and confidence. Since 2002, we have collected performance figures from institutional investors, which are obtained via Freedom of Information Act (FOIA) requests. LPs include CalPERS, Washington State Investment Board, and Florida State Board of Administration, among many others both in the US and the UK.

We also collect a substantial proportion of our performance data directly from fund managers, with over 2,200 firms submitting to date. We reach out to regular contributors every quarter to ensure we have the latest fund data available. Fund managers are increasingly recognizing the importance of providing us with accurate and up-to-date data. Preqin subscribers, many of which 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.

We 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 were not confident in the data provided and chose to exclude the data from our database.

The overall process of receiving, validating, and uploading performance data can take up to two weeks. During this period, we are looking to ensure the validity and consistency of the performance data received, thus offering the most accurate and trustworthy information in the market.

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 use the data for a variety of purposes including benchmarking, competitor analysis, due diligence, and market intelligence.

Compliance
We understand that fund managers are faced with an increasingly intensive regulatory environment. Preqin provides only 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.
Performance Metrics Definitions

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

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

\[
\text{Capital Called (\%) } = \frac{\text{Total LP Contribution}}{\text{Total LP Commitment}} \times 100
\]

Note: Capital 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 exclude any carry/performance fees earned by the GP. It is shown as a % of total LP contribution:

\[
\text{DPI (\%) } = \frac{\text{Total LP Distribution}}{\text{Total LP Contribution}} \times 100
\]

**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 exclude any carry/performance fees earned by the GP. It is shown as a % of total LP contribution:

\[
\text{RVPI (\%) } = \frac{\text{Unrealized Value of Fund}}{\text{Total LP Contribution}} \times 100
\]

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**
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:

\[
\text{Multiple (X) } = \left( \frac{\text{DPI (\%) } + \text{RVPI (\%)}}{100} \right) \times \frac{\text{Dist (\$) } + \text{Value (\$)}}{\text{Called Capital (\$)}}
\]

**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 exclude any carry/performance fees earned by the GP.
Calculation Example

The following example 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 = $1,455,000
Total Distribution to Date = $750,000
Unrealized Fair Value = $1,190,000
As of Date: 30-Jun-2017

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

Total Capital Called to Date = 1,455,000
Fund Size = 10,000,000

Capital Called (%) = \( \frac{1,455,000}{10,000,000} \times 100 \)

Capital Called (%) = 14.6

Distribution to Paid-In (DPI %) Ratio
The distribution to paid-in ratio in this example would be calculated as follows:

Total Distributions to Date = 750,000
Total Capital Called = 1,455,000

Distribution to Paid-in (DPI %) = \( \frac{750,000}{1,455,000} \times 100 \)

Distribution to Paid-in (DPI %) = 51.5

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 = 1,190,000
Total Capital Called = 1,455,000

Remaining Value to Paid-in (RVPI %) = \( \frac{1,190,000}{1,455,000} \times 100 \)

Remaining Value to Paid-in (RVPI %) = 81.8
Calculation Example (continued)

**Net IRR (Internal Rate of Return %)**

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

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Transaction Date</th>
<th>Transaction Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Call</td>
<td>12-Jan-14</td>
<td>-100,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>23-Jan-14</td>
<td>-105,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>15-Jan-14</td>
<td>-100,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>14-Feb-14</td>
<td>-175,000</td>
</tr>
<tr>
<td>Management Fees</td>
<td>29-Mar-17</td>
<td>-10,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>14-Apr-17</td>
<td>-100,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>23-Jun-14</td>
<td>-105,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>14-Sep-14</td>
<td>-100,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>23-Nov-14</td>
<td>-175,000</td>
</tr>
<tr>
<td>Management Fees</td>
<td>29-Dec-14</td>
<td>-10,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>14-Apr-15</td>
<td>-100,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>18-Sep-17</td>
<td>-100,000</td>
</tr>
<tr>
<td>Distribution</td>
<td>13-Nov-15</td>
<td>+250,000</td>
</tr>
<tr>
<td>Management Fees</td>
<td>29-Dec-15</td>
<td>-10,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>23-Jun-16</td>
<td>-105,000</td>
</tr>
<tr>
<td>Distribution</td>
<td>29-Jun-16</td>
<td>+300,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>18-Sep-16</td>
<td>-50,000</td>
</tr>
<tr>
<td>Management Fees</td>
<td>29-Dec-16</td>
<td>-10,000</td>
</tr>
<tr>
<td>Capital Call</td>
<td>17-Jan-17</td>
<td>-100,000</td>
</tr>
<tr>
<td>Distribution</td>
<td>14-May-17</td>
<td>+200,000</td>
</tr>
<tr>
<td>Unrealised Fair Value</td>
<td>30-Jun-17</td>
<td>+1,190,000</td>
</tr>
</tbody>
</table>

**IRR Formula in Excel** = XIRR (transaction amounts, transaction dates)

*Capital Calls*: Negative sign
*Management Fees*: Negative sign
*Distribution*: Positive sign
*Unrealized Fair Value*: Positive sign

**Net IRR: 14.0%**

**Performance Overview**

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

<table>
<thead>
<tr>
<th>Fund Name</th>
<th>Vintage</th>
<th>Type</th>
<th>Total LP Commitment (mn)</th>
<th>Called (%)</th>
<th>Dist (%)</th>
<th>DPI</th>
<th>Value (%)</th>
<th>RVPI</th>
<th>Net IRR (%)</th>
<th>As of Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Fund</td>
<td>2014</td>
<td>Venture Capital</td>
<td>10 USD</td>
<td>14.6</td>
<td>51.5</td>
<td>81.8</td>
<td>14.0</td>
<td>30-Jun-17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Performance Metrics Definitions (FAQs)

Do we collect gross performance figures?
All performance metrics are shown net of fees and carry (excluding the called %). This is to reflect net-to-LP returns.

Do we calculate net IRR?
Most net IRRs are reported to us directly from the GP or from an LP source. We only calculate the net IRR if we collect cash flow data for that fund – the source reporting in the fund must be reliable; report every quarter; and report the called, DPI, and RVPI metrics to us, since inception.

Why does the net IRR for some funds show as ‘n/m’?
We do not show the net IRR for funds in the first three years of their lifecycle as it is deemed too early for the fund’s IRR to be meaningful.

Do we convert performance data to the currency the fund is denominated in, if different?
Where possible, sources that report in the fund’s denominated currency are used. If a different currency is used, no conversions are made. Over 95% of funds, however, use a source that reports data in its denominated currency.

Is there a way of making the performance data for a liquidated fund static?
Once a fund has liquidated and a final row of performance data is provided (with an RVPI of 0%), this data will be static on the product. The as of dates will update every quarter automatically.

Should the total fund size/performance metrics include leverage?
These should be reported based only on the equity committed to the fund, excluding any leverage or debt used to finance investments.
Preqin Benchmarks & Quartile Rankings

What Is It?
Preqin Benchmarks are calculated using performance information for over 10,000 private capital funds – the largest pool of fund returns data available 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 two years.

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, its ranking 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
  - Expand geographic focus
    - Revert to specific region and expand fund type grouping
      - Expand geographic focus
        - Revert to specific region and expand fund type grouping
          - Expand geographic focus

- 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 at different quarters during the funds’ lifecycle.

Users also have the option of using the Custom Benchmarks tool, which offers a way to create tailor-made peer groups of funds from which benchmark data can then be extracted.
Sources
Preqin 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 reporting data for the fund. For some reported data, we are unable to disclose the source.

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.

Frequently Asked Questions
Why do the median DPI and RVPI not always sum to the median multiple?
Each of the metrics – called, DPI, RVPI, net multiple, and net IRR – 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 benchmark 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 the source has reported in; 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 two years. 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, which offers a way 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, we have either an LP source or both an LP and GP source reporting data. Additionally, we have an average of four sources reporting data for each fund. This range of available data enables Preqin to compare data contributions from GPs against other sources reporting for the same fund, ensuring the validity and consistency of the performance data received.
Assets under Management

What Is It?
Assets under management (AUM) is used as a measure of the size or growth of the industry. It is the sum of both dry powder and unrealized value:

- **Dry Powder**: Available capital to fund managers for investment, i.e. committed capital that has not yet been called for investment.
- **Unrealized Value**: Value of unrealized portfolio investments.

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 Called % metric is not reported for a given fund, a benchmark Called % is used instead.
- **Unrealized Value**: The RVPI % metric is multiplied with the amount of capital called. If the RVPI % metric is not reported for a given fund, a benchmark RVPI % is used instead.

Frequently Asked Questions

**What currency are the 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 at the date of the final close or latest interim close of the fund.

**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. Called % and DPI % metrics are used to calculate the annual called and distributed figures respectively. In the absence of these reported metrics, benchmark metrics are used instead.
Horizon IRRs

What Are They?
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 period of time and cannot cash in their returns on such short periods.

Methodology
Preqin calculates horizon IRRs using cash flow data for over 5,000 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

Frequently Asked Questions
When does the latest quarter-end date get updated?
Like 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 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 Quarterly Index

What Is It?
The PrEQIn Private Capital Quarterly Index captures in an index the return earned by investors on average in their private capital portfolios, based on the actual amount of money invested in private capital partnerships.

Methodology
\[
\text{% Change in Quarter} = \frac{\text{NAV at end of Quarter} + \text{Distributions during Quarter}}{\text{NAV at Start of Quarter} + \text{Called during Quarter}} - 1
\]

NAV: Net asset value in USD.
Called during Quarter: Total capital drawn by fund managers in USD during the quarter, meaning the cumulative cash called to date as of the end of the quarter minus the cumulative cash called to date as of the start of the quarter.

Distributions during Quarter: Total capital distributed to LPs in USD during the quarter, meaning the cumulative cash distributed to date as of the end of the quarter minus the cumulative cash distributed to date as of the start of the quarter.

Each data point is individually calculated from the pool of closed-end funds for which comprehensive performance data is held, as of both the start and end of the quarter.

Historical data points are not recalculated as time passes, and so the universe of funds for each quarterly point changes over time as funds enter/exit quarterly calculations.

Frequently Asked Questions
What does the PrEQIn Index show?
The Index shows the quarter-to-quarter changes in the returns on invested capital. Index points are rebased from a set date (typically Q4 2000 or Q4 2007).

If an index is rebased to a certain date, what does this mean?
All indices are rebased from a fixed date to make comparisons across indices. This is done by basing the index to 100 and then adjusting each quarter using the quarterly percentage return calculated.

Can we customize the quarterly indices?
Preqin can provide indices at a more granular level subject to custom filters/restraints – this can be obtained via Client Services and would be data dependent.

Source: Preqin Pro. Data as of June 2019
Cash Flow Data

What Is It?
Preqin’s Private Capital Cash Flow data is the industry’s largest source of reliable cash flow data, allowing users to undertake extensive financial modeling and gain a complete understanding of how private capital fund returns evolve over time. The data consists of 280,000 historical data points for over 5,000 private capital funds of all types, including over 140,000 cash flow transactions and over 150,000 historical NAVs.

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.

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 into this database, several quality checks are carried out to check 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 recallable distributions, fees, returns of capital, etc.

Methodology
Cash flow data is gathered from aggregated data – typically, reliable FOIA sources are used, but on occasion data is included directly from consistent-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 amounts 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.

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 – accompanying a chart showing cumulative contribution, distribution, and net cash flow data based upon the underlying cash flow data.
Public Market Equivalent Indices

What Are They?
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.

Methodology
The PME tool enables the comparison of private capital returns against seven public market indices using a choice of four PME methodologies: Kaplan-Schoar PME, Long-Nickels PME, PME+, and Direct Alpha. All the methodologies utilize the since-inception cash flow data Preqin holds for over 5,000 funds. The table below outlines the calculations involved in each of the four PME methodologies offered, and their advantages and disadvantages:

<table>
<thead>
<tr>
<th>Benchmark Methodology</th>
<th>Metric</th>
<th>Private Capital Outperformance if:</th>
<th>Description of Calculation</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>KS PME (Kaplan-Schoar)</td>
<td>Ratio</td>
<td>Value &gt; 1</td>
<td>Calculated by discounting the private capital fund cash flows by the public market index value.</td>
<td>The calculation looks at the ratio of outflows vs. inflows as opposed to generating an IRR, which is time dependent and easily manipulated.</td>
<td>Ignores the timings of cash flows.</td>
</tr>
<tr>
<td>LN PME (Long-Nickels)</td>
<td>Annualized Rate</td>
<td>Estimated PME IRR &lt; Private Capital Fund IRR</td>
<td>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.</td>
<td>IRR calculation uses the same contributions and distributions as the private capital fund, but with a different final period remaining value.</td>
<td>LN PME IRR is directly comparable to the PE Fund IRR, allowing an apples-to-apples comparison. IRR sensitive to early distributions. Large distributions could cause a negative PME final period remaining value, making PME IRR calculation computationally impossible.</td>
</tr>
<tr>
<td>Capital Dynamics PME+</td>
<td>Annualized Rate</td>
<td>Estimated PME IRR &lt; Private Capital Fund IRR</td>
<td>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.</td>
<td>As for LN PME, with the added benefit of avoiding a final period negative remaining value, making PME IRR calculation possible in more cases.</td>
<td>PME+ does not match the cash flows perfectly.</td>
</tr>
<tr>
<td>Direct Alpha</td>
<td>Annualized Rate of Excess Return</td>
<td>Direct Alpha &gt; 0</td>
<td>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.</td>
<td>Calculates the exact rate of return of outperformance, rather than an indirect estimate.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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Frequently Asked Questions

When does the latest quarter-end date get updated?
Like 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 calculating the latest PME values.

Which public market index should I compare against?
It is important to note that we use total return market indices as these re-invest dividends back into the index, in the same way an investor would redirect its distributions from private equity funds into other investments.

Below are suggestions of which indices to use with which fund types/regions:
- S&P 500 (primarily used for large-cap US stocks) → All Private Equity, Buyout
- Russell 2000 (widely used for small-mid cap) → Venture Capital
- Russell 3000 (largest 3000 US stocks) → Buyout, Distressed Private Equity, Fund of Funds
- MSCI Europe → Europe-focused PE funds
- MSCI Emerging Markets → Emerging markets-focused private equity funds
- MSCI US REIT → Real Estate
- MSCI World → All
Top Performers

What Is It?

**Most Consistent Top 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 Top 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 types, geographic foci, and vintage years, enabling quartile rankings to be assigned using a combination of both the net IRR and multiple rankings of each constituent fund – with equal weights placed on both. In instances where the sample size is small, the 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 these funds are too early in their fund lives to generate meaningful IRRs. Furthermore, 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.

**Top Performing Funds:** To determine the best performing funds by fund type, Preqin has grouped together funds of similar vintage years and geographic foci where available. Preqin only includes funds that have called up at least 50% of committed capital and the net IRR is used as the key determinant of performance.

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\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}}
\]