

Unwinding the Market's Clock: Opportunities in Commitment Timing

June 2023

Key Findings

Current financial and economic conditions present Limited Partners ("LPs") with the challenge of assessing opportunities to allocate to private markets in a volatile environment. We analyze private capital data from Burgiss that spans all private closed-end fund types and vintage years from 1987 through 2018 to assess various capital commitment approaches that LPs could utilize in constructing a private markets portfolio of funds. Our results suggest that **vintage years with lower overall fundraising tend to outperform crowded ones**, which means that LPs may benefit from investing more in less crowded vintages. While acknowledging the practical difficulties associated with timing allocations, our findings suggest that, at the very least, steady commitment pacing paired with diversification across vintage years may help reduce risk.



1. Cyclical Fundraising, Cyclical Performance

Private markets tend to be cyclical. Periods of strong fundraising are historically followed by periods of low absolute and relative performance compared to public markets.



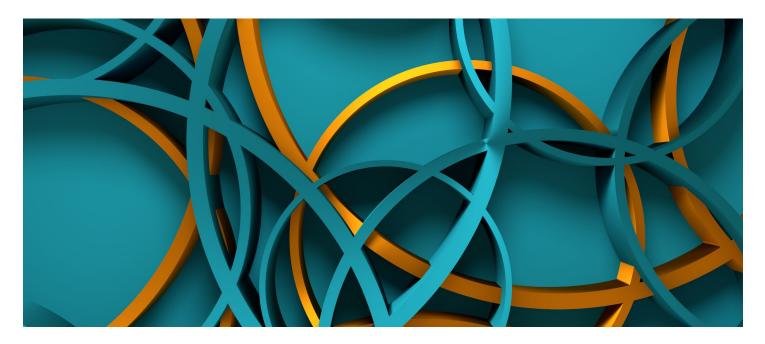
2. Market Timing as a Strategy

Executing a market timing strategy is difficult in practice because of the denominator effect and common organizational constraints—yet data from 1987 to 2018 suggest that vintages with lower overall fundraising tend to outperform.



3. More Vintages, Less Risk

On average, private market portfolios that are diversified across vintages tend to generate similar returns with materially less volatility than portfolios with greater vintage concentration.



Fundraising Cyclicality

The Private Market Cycle

As private markets have matured over the past three decades, **fundraising in the space has enjoyed expansive growth**, as exemplified in the graph below on the left. Across all private asset classes, aggregate annual fundraising grew from \$13.1B in 1987 to \$164.0B in 2000, reaching \$843.8B in 2022, as per Burgiss.

Yet, despite this exponential trend, private market fundraising exhibits cyclicality. Capital inflows typically coincide with greater deal volume, higher valuations, and increased exit activity; when the cycle peaks and performance declines, capital leaves the sector. This has historically led to **lower performance among peak fundraising vintages,** as higher entry valuations followed by multiple contraction dampens portfolio returns.

Fundraising cycles are historically closely related to performance: **over the long run, performance and**

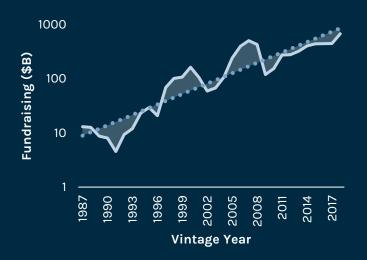
fundraising cycles are negatively correlated. This can be intuited from the opposite movement of the lines in the graph below on the right. In fact, over the last 30 years, the cyclical fundraising component, or the fluctuations net of the long-term historical trend, explains up to 45.8% of the annual variation¹ in private market internal rates of return ("IRRs") and total value to paid-in ("TVPI") ratios.

Can Investors Time Their Exposure to Private Markets?

For private market LPs, this relationship suggests that timing commitments could enhance returns. If fundraising is a credible signal for vintage performance, then a dynamic commitment strategy could lead to potentially better performance. We test this hypothesis by comparing various commitment strategies and the returns they would have generated.²

Up, Up and Away Total Annual Fundraising Among All Private Assets Has Grown Exponentially

Equal and Opposite Reaction The Cyclical Fundraising Component (Blue) Moves Counter to Net IRR (Gold)





Source: Burgiss, All Private Capital, Vintage Years 1987–2018, as of 09/30/22.

As measured by the R-squared of a regression of Net IRR against the cyclical component of the logarithmic transform of the fundraising time series.
Method from Brown et al. "Can investors time their exposure to private equity?" and Robinson, David T. "Can LPs Time Their Exposure to Private Equity?"
Cyclical fundraising refers to the standardized residuals of the fundraising time series when fitted to an exponential trend.

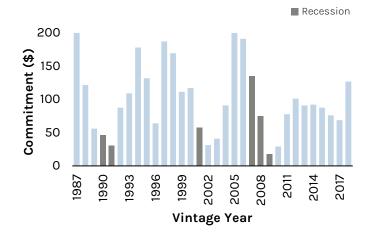
Commitment Pacing Strategies

We compare the performance of three hypothetical investors, each committing the same aggregate amount of capital over the 32 years from 1987 to 2018. One ("Fixed") investor makes a recurring \$100 commitment to each vintage. The remaining two investors vary their allocations to go with ("Procyclical") or against ("Countercyclical") the grain of the broader fundraising market. The three commitment patterns are illustrated in the bar charts below.

Procyclical

LP commits more to vintages with higher fundraising levels

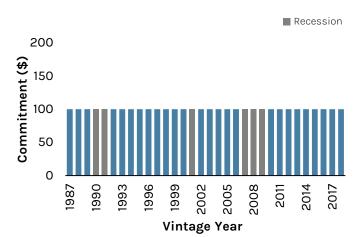
\$100 commitment scaled by the ratio of annual fundraising divided by the (prior) 3-year rolling average



Fixed

LP makes a fixed commitment to every vintage

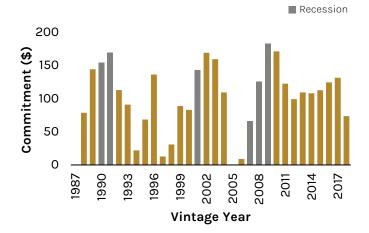
\$100 commitment to each vintage

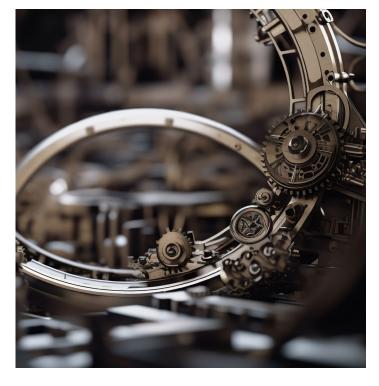


Countercyclical

LP commits more to vintages with lower fundraising levels

\$200 less the size of the commitment made to the Procyclical strategy

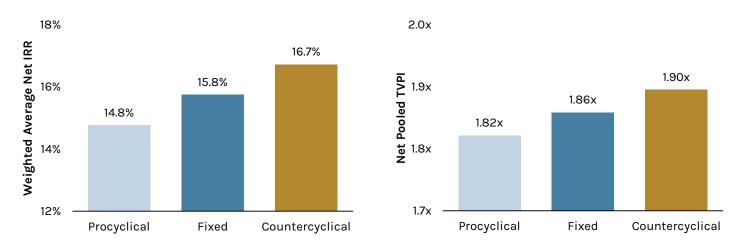




Returns by Commitment Strategy

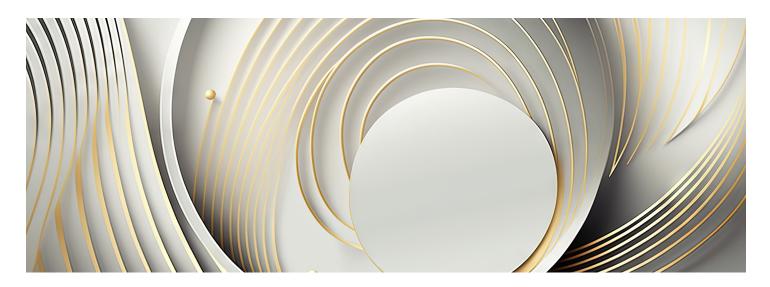
Countercyclical Outperforms, Procyclical Trails

Weighted Average Net IRR and Net Pooled TVPI



Source: Burgiss, All Private Capital, Vintage Years 1987-2018, as of 09/30/22.

Note: Please see the previous page regarding the commitment approach for each investor type. The returns shown are for illustrative purposes only, hypothetical based on the referenced data with the associated commitment approach. There can be no assurance that the trends shown will continue.



The Countercyclical Premium

Based on this analysis, the **countercyclical investor outperforms** on both an IRR and a TVPI basis, as shown by the gold bar in the charts above.

Between 1987 and 2018, investing in periods of lower aggregate fundraising would have generated an **additional 90 basis points of Net IRR** over a fixed commitment strategy. Doing the opposite—following the fundraising market and investing more in highly subscribed vintage years—would have **eroded 100 basis points from the Net IRR** achieved by steady commitment pacing, resulting in the light blue bar.

The historical trend is directionally consistent on a TVPI basis: the Countercyclical investor outperforms while the Procyclical investor trails.

Time is Money

Longer Holds in Periods of Weaker Fund Performance

In periods of greater fundraising and lower performance, private fund investment managers tend to hold assets for longer in order to achieve a minimum multiple of invested capital, often at the expense of asset level IRR. The extended duration of these assets means there is less variation in private market TVPIs than in their IRRs.

As a result, while the countercyclical premium exists across both metrics, it is more pronounced on an IRR basis, as shown in the bottom graph below.

Deadline Extension

Duration Typically Extends in Periods of Weaker Fund Performance



4. Cyclical fundraising refers to the standardized residuals of the fundraising time series when fitted to an exponential trend.

Unfollow the Herd

A Broader Trend, With Exceptions

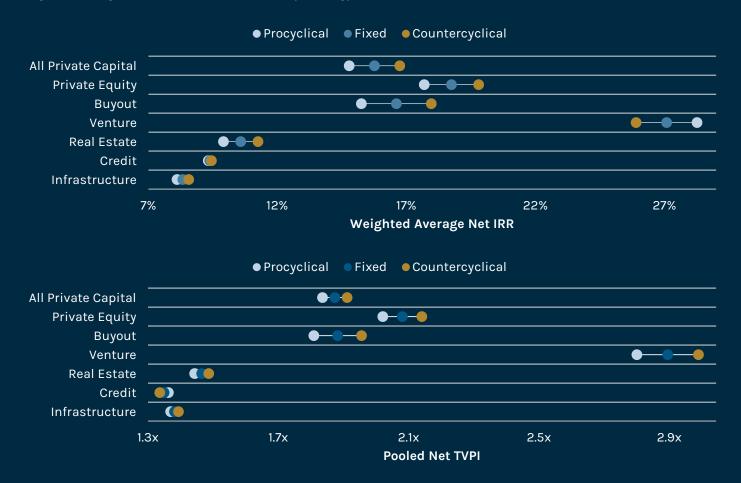
The trend of **countercyclical outperformance vis-à-vis the procyclical and fixed commitment approaches holds directionally across almost all asset classes:** investors in Private Equity, Buyout, Real Estate, and Infrastructure would have generated greater returns, as measured by both Net IRR and Net TVPI.

Venture is the only private asset class for which a procyclical approach would have improved IRR, but this does not hold for TVPI, which tends to be higher under the countercyclical approach. Interestingly, Private Credit investing does not appear to benefit much from either a pro- or countercyclical commitment strategy. At the margin, the TVPI for Credit is slightly higher under a procyclical approach; however, the differences in TVPI and IRR across timing strategies are not statistically significant.

Somewhat unsurprisingly, **the difference in returns increases as we move up the risk curve.** Asset classes like Buyout and Venture, which typically seek higher returns, exhibit a wider spread between strategies than their counterparts with lower return targets. This may indicate that it is more difficult to time the market in the latter.

The Impact of Market Timing Across Asset Classes

Weighted Average Net IRR and Net Pooled TVPI by Strategy Across Asset Classes



Source: Burgiss, All Private Capital, Vintage Years 1987–2018, as of 09/30/22.

Notes: Please see the prior page regarding the commitment approach for each investor type. The returns shown are for illustrative purposes only, hypothetical based on the referenced data with the associated commitment approach. There can be no assurance that the trends shown will continue. "Private Equity" includes Buyout, Growth, and Venture funds. The time frame varies for each asset class depending on the availability of historical data (All, 1987-2018; Private Equity, 1987-2018; Private Equity, 1987-2018; Buyout, 1987-2018; Venture, 1987-2018; Real Estate, 1994-2018; Credit, 1997-2018; Infrastructure, 2005-2018).

Outpacing the Pack

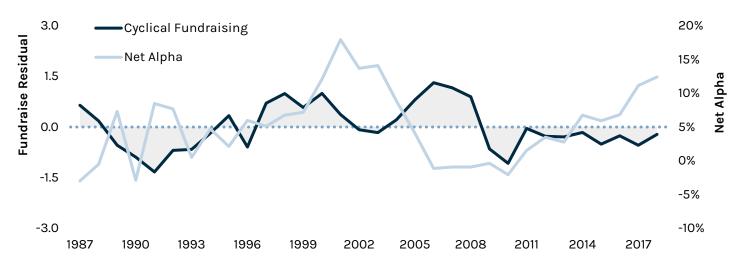
Buy the Alpha, Not the Beta

Does a countercyclical market timing approach outperform **relative to public markets**? We attempt to address this question in the figures below. To account for the opportunity cost of not investing in private markets, we examine the impact of market timing on **returns in excess of a given public index**.

In this example, we compare Global Buyout returns to the S&P 500. Our findings remain the same: a **countercyclical market timing strategy generates a higher relative return**, on both a percentage and a multiple basis, over a fixed strategy. Likewise, a **procyclical approach weighs on returns**.

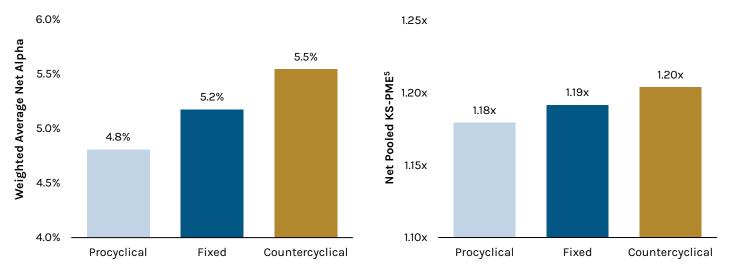
Relatively Better

Net Alpha⁵ Is Inversely Related to Fundraising



Relatively Persistent

The Countercyclical Premium Persists on a Relative Basis

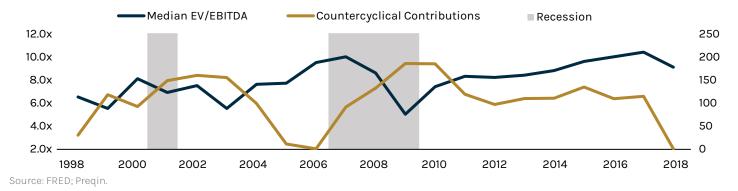


5. Alpha as measured by Direct Alpha relative to S&P 500, KS-PME as measured relative to S&P 500. Please see Definitions and Disclosures at the end of the document for more detailed information on Direct Alpha and KS-PME.

Why Does It (Sometimes) Pay to Go Against the Grain?

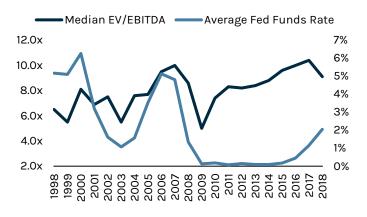
A critical question is **why the countercyclical strategy tends to outperform** across many of the private equity asset classes. To help understand the economics of the countercyclical premium, let's take a closer look at the leveraged buyout market as an example.

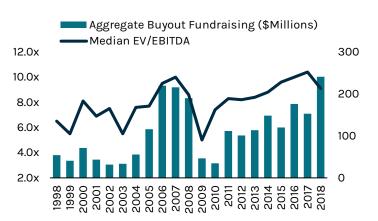
According to Preqin, median Enterprise-Value-to-EBITDA (EV/EBITDA) multiples tend to be high before recessions (e.g., 2001, 2007–2009), decline during the recession, and recover in subsequent quarters, as seen in the navy blue line in the chart below. When we look at the contributions of the countercyclical strategy by vintage year in the chart below, we see the most capital committed during 2001–2003 and 2009–2010, which are periods during and after major U.S. recessions. Thus, one explanation for the countercyclical premium is that this strategy tends to invest heavily when multiples are low and then benefits from subsequent multiple expansion.



Interest rates may also play an important role in explaining the countercyclical premium. During the last two major market cycles in the U.S. (i.e., the Tech Bubble and the GFC), interest rates, transaction multiples, and private market fundraising moved in tandem. As shown in the graph on the bottom left, periods of high base rates (e.g., 2000 and 2006–2007) tend to coincide with high contemporaneous transaction multiples and, as seen on the bottom right, high transaction multiples tend to coincide with high levels of private market fundraising. After rates peak and the economy enters a recession, we observe subsequent declines in interest rates, multiples, and fundraising (e.g., 2003 and 2009), precisely when the countercyclical strategy commits the most capital. Thus, interest rate peaks may be a leading indicator for periods of low fundraising and high vintage year returns.

Taken together, these trends suggest that the larger economic and interest rate cycle may contain important information for private market allocators.





Source: Burgiss, Buyout as of 9/30/2022; FRED; Preqin.

Playing the Long Game

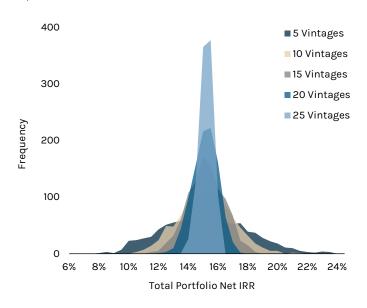
Managing Concentration Risk to Seek Improved Returns

Should investors commit to fewer vintages, making outsized commitments in less subscribed years and avoiding the crowded ones? What does a more concentrated strategy mean for portfolio risk? In simulating randomly sampled portfolios with varying vintage exposures, we find that the Net IRR and Net TVPI of a 5-vintage portfolio are similar to that of a 25-vintage portfolio.⁶ In other words, **diversification did not come at the cost of performance**.

By contrast, portfolio **volatility falls materially with increased vintage exposure**. As the investor expands from 5 vintages to 10, the standard deviation of returns declines from 2.8% to 1.8% for IRR and 0.15x to 0.10x for TVPI; as the portfolio expands to 25 vintages, the standard deviation falls to just 0.4% and 0.02x, respectively, as shown in the bar charts below. This creates increasingly narrow IRR dispersions, which provides a **meaningful opportunity to avoid tail-end outcomes** for LPs. Thus, despite the countercyclical premium suggested by the prior analysis, greater **vintage exposure remains important** for diversification purposes.

Grading on a Curve

Distribution of Portfolio Net IRRs Tightens as Vintage Exposure Increases



The Impact of Market Timing Across Asset Classes

Weighted Average Net IRR and Net Pooled TVPI by Number of Vintages in the Portfolio



Source: Burgiss, All Private Capital, Vintage Years 1987-2018, as of 09/30/22.

Note: Please see the prior page regarding the commitment approach for each investor type. The returns shown are for illustrative purposes only, hypothetical based on the referenced data with the associated commitment approach. There can be no assurance that the trends shown will continue. 6. Performance is hypothetical, based on 5,000 unique, simulated portfolios with varying vintage exposure investing in private markets between 1987 and 2018.

Conclusion

Trends in private market fundraising and performance

tend to be cyclical. What this means is that vintage years – in the aggregate – with high fundraising tend to earn lower returns and vice versa. The question we set out to answer is to what extent investors can utilize this seemingly predictable cyclicality to opportunistically time the market.

Brown, Harris, Hu, Jenkinson, Kaplan, and Robinson (2021) and Robinson (2021) examine a series of **practically implementable strategies** that investors could potentially use to time commitments to Private Equity funds. We extend this research on market timing to include other Private Market strategies such as Real Estate, Infrastructure, and Credit. In addition, we consider the implications of **vintage diversification** on portfolio risk and return and investigate **reasons for the outperformance** of the countercyclical strategy.

Overall, our findings **support the hypothesis** that investors tend to benefit by committing more capital to the less crowded vintages. However, there are several important considerations to keep in mind.

• Because aggregate private market fundraising tends to be strongly correlated with public markets, the best times to invest in private markets may coincide with **public market downturns,** which may be during periods when some investors are capital constrained.

- There are many **institutional frictions** associated with timing allocations. For example, reducing commitments in one period may lead to reduced opportunities in the next period.
- The cyclical trends in fundraising and performance are not uniform across asset classes. Private Credit does not appear to lend itself to either a pro- or countercyclical commitment strategy. In other words, its performance does not exhibit much variability in relation to fundraising and economic cycles. Venture, on the other hand, tends to perform better from procyclical commitments on a TVPI basis, but does better countercyclically on an IRR basis.
- Concentrating in **specific vintage years** may generally increase the volatility of a portfolio compared to one that is diversified across vintages.

The moral of the story is that investors may find it beneficial to lean into the less crowded vintages, or at the very least, maintain commitment pacing through good times and bad.

References

Brown, Gregory, Robert Harris, Wendy Hu, Tim Jenkinson, Steven N. Kaplan, and David T. Robinson. "Can investors time their exposure to private equity?" Journal of Financial Economics 139, no. 2 (2021): 561-577.

Robinson, David T. "Can LPs Time Their Exposure to Private Equity?" Landmark Partners (2021).

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Definitions and Disclosures

Burgiss Data: Burgiss is a data, decision-support and benchmarking service for the private capital markets. Private iQ is a statistical product for private equity performance analysis that is maintained by The Burgiss Group, LLC. Private iQ currently contains data on over 11,000 funds and funds of funds, with total capitalization of \$8.3 trillion. Burgiss obtains fund data through clients of its private equity portfolio management service and as a result Private iQ is thought to be relatively complete and unbiased.

Note that the execution of a pro- or countercyclical commitment strategy as outlined in this paper requires knowledge of fundraising totals at the end of each year that may not be available or complete when allocation decisions are made.

Definitions:

Direct Alpha: Direct alpha is defined as the return related to management or investment selection skills not attributable to market (systematic) or specific (company- or industry-related) return factors. Barry Griffiths, Ph.D., CFA®, Partner, Head of Quantitative Research, Landmark Partners, has developed an algorithm for calculating alpha based on the inputs from a comparable basket of indices and underlying private equity portfolio companies' cash flows. This algorithm is referred to as "Direct Alpha." For more details on this method, see "Estimating alpha in private equity" by Barry Griffiths, Private Equity Mathematics, PEI Media, March 2009; or "Benchmarking Private Equity: The Direct Alpha Method," Gredil, Griffiths, and Stucke, 2014 (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2403521).

KS-PME: A ratio-based methodology developed by Steven Kaplan and Antoinette Schoar to compare private investments to public markets. The calculation discounts all distributions and the residual value of the fund using the respective index and divides the resulting value by the sum of all contributions to the fund discounted using the respective index. The PME can be viewed as a market-adjusted performance multiple of a private investment.

Duration: Duration is defined as In(TVPI) / In(1 + IRR), duration refers to the time to distribution of the average dollar in a fund.

Standard Deviation: In statistics, the standard deviation is a measure of the amount of variation or dispersion of a set of values. A low standard deviation indicates that the values tend to be close to the mean of the set, while a high standard deviation indicates that the values are spread out over a wider range. To calculate this metric, we may annualize quarterly figures.

Denominator Effect: A phenomenon wherein one portion of a portfolio declines in value faster or more than other portions, leaving investors overweight in certain asset classes.

The Tech Bubble: The tech bubble refers to the downturn in US technology stocks after speculation and rapid valuation growth fueled these markets in the late 1990s.

The GFC: Also referred to as the Global Financial Crisis, the GFC refers to a period of stress in global financial markets and banks between 2007 and 2009.

Burgiss All Private Capital: Burgiss All Private Capital is a collection of metrics based on the full available universe of private funds in the Burgiss database in vintage years 1987–2018. Burgiss Private Equity: Burgiss Private Equity is a collection of metrics based on the available universe of private funds in the Burgiss database under the Buyout, Growth, and Venture asset classes, in vintage years 1987–2018.

Burgiss Buyout: Burgiss Buyout is a collection of metrics based on the available universe of private funds in the Burgiss database under the Buyout asset class in vintage years 1987–2018.

Burgiss Venture: Burgiss Venture is a collection of metrics based on the available universe of private funds in the Burgiss database under the Venture asset class in vintage years 1987–2018.

Burgiss Real Estate: Burgiss Real Estate is a collection of metrics based on the available universe of private funds in the Burgiss database under the Real Estate asset class in vintage years 1994–2018.

Burgiss Credit: Burgiss Credit is a collection of metrics based on the available universe of private funds in the Burgiss database under the Debt asset class in vintage years 1997–2018.

Burgiss Infrastructure: Burgiss Infrastructure is a collection of metrics based on the available universe of private funds in the Burgiss database under the Infrastructure asset class in vintage years 2005–2018.

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