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PRIVATE EQUITY AND RATES: PART TWO

Do Rates Really Matter for Private Equity?

Following a long period of low interest rates, the U.S. Federal Reserve (Fed) fought the post-pandemic inflation shock with one of the most rapid rate-hiking cycles in history.

As that inflation begins to normalize and the Fed starts to cut rates, we explore, in two articles, the relationship between interest rates and private equity performance. Our first article addressed the theory: How would we *expect* changes in interest rates to affect private equity? In this second article we consider what has happened *empirically*, over the past 40 years, to private equity returns, distributions and manager performance dispersion as rates have fluctuated.

We find a complex relationship between rates and private equity returns and distributions, characterized by a notable change in dynamics around the Global Financial Crisis (GFC) of 2008 – 09. We conclude that, while rates clearly influence valuations and the cost of debt for private equity deals, private equity performance and distributions are primarily determined by the strength of the underlying economy. We do find a meaningful relationship between rates, loan spreads and manager dispersion, however, which suggests that top-performing funds may be able to capitalize even more on favorable economic conditions than lower-quartile funds.

Executive Summary

- Returns and Distributions
 - In data going back as far as 1985, we find surprisingly small, statistically insignificant correlations between private equity returns and different interest rate-related indicators.
 - Splitting the dataset into periods before and after the Global Financial Crisis (GFC) reveals patterns: Prior to the GFC, the yield-curve spread is negatively correlated with returns, reflecting this indicator's role as a bellwether of the economy; after the GFC, it is the 10-year Treasury yield that is negatively correlated with returns—but this correlation is heavily influenced by the COVID-19 pandemic and subsequent inflation shock, and excluding this period results in insignificant correlations, similar to the pre-GFC patterns.
 - We observe the same pre- and post-GFC pattern in correlations between private equity distributions and the yield-curve spread; in addition, we see a strong negative correlation between distributions and both long- and short-dated interest rates after the GFC, which, unlike with returns, persists for long-dated rates irrespective of the COVID period.
 - Overall, the results suggest to us that private equity returns and distributions are primarily driven by the state of the economy rather than by the level of rates, yields or loan spreads in themselves.
- Performance Dispersion
 - The correlation between interest rates and the dispersion of performance among leading and lagging private equity funds is more consistent across both periods.
 - Favorable conditions—lower rates and tighter credit spreads—have tended to allow top-quartile funds to excel, whereas difficult conditions generally result in tighter dispersion among all funds.
- Outlook
 - Our analysis suggests that private equity returns depend a lot more on the general economic backdrop than on interest rates alone.
 - Our results therefore suggest that a continued soft landing for the U.S. economy would bode well for U.S. private equity's near- to mid-term future. In particular, recent history indicates that lower rates go hand-in-hand with higher private equity distributions.
 - Finally, our analysis also suggests that top-performing private equity funds may be better able to capitalize on favorable economic conditions, lower rates and tighter loan spreads than lower-quartile funds.

To analyze the historical effects of interest rate changes on the performance of U.S. private equity, we gathered a dataset of private equity returns and distributions and then examined the relationship between these and various different interest related indices.

As a representation of the performance of U.S. private equity, we used calendar-year internal rates of return (IRR) from the database of predominantly buyout and venture capital funds maintained by Burgiss, now part of MSCI.¹

With respect to interest rates, we used the three-month USD LIBOR and SOFR;² the 10-year U.S. Treasury yield; the spread between the two- and 10-year U.S. Treasury yields; and the leveraged loan spread as a proxy for the interest in excess of the base rate paid for certain loans financing private equity transactions.³

¹ As of Q4 2023, Burgiss was tracking 4,911 U.S. private equity funds, including 1,679 buyout funds and 2,595 venture capital funds.

² Interest rates for private equity deals are often based on three-month LIBOR / SOFR (or a related floor, plus a spread). Note that three-month LIBOR / SOFR correlate almost perfectly with the Federal Funds Rate with correlation coefficients of 0.99 and 1.00 respectively, on a daily basis. Data source: Bloomberg, LIBOR data from 1985 – 2021; SOFR data from 2022 – 2024.

³ UBS Credit Suisse Leveraged Loan Index, as of July 31, 2024.

The earliest year for which we have full calendar year private equity return data is 1985. Since then, the 10-year U.S. Treasury yield has declined (except for some cyclical upward countertrends) from above 10% to near-zero lows during the COVID-19 pandemic. However, the post-pandemic inflation shock of 2021 – 22 resulted in the fastest rate hike cycle in history. And while few economists or market participants anticipate a return to near-zero rates, the U.S. Federal Reserve (Fed) has taken first steps in a new downward cycle by lowering the Federal Funds Rate by a full percentage point between September and December 2024. What, if anything, can the past 38 years tell us about what to expect for private equity, should rates decline further?

Private Equity Returns, Distributions and Rates: Do Interest Rates Actually Matter?

First, we considered the relationship between calendar-year private equity returns and the four different rates indicators for the full time period, from 1985 through 2023.

FIGURE 1. PRIVATE EQUITY PERFORMANCE APPEARS UNCORRELATED WITH INTEREST RATES

Correlation of U.S. private equity annual returns with calendar-year average rates indicators, 1985 – 2023

Correlations 1985 – 2023	3Mo LIBOR / SOFR	10Yr Treasury Yield	Leveraged Loan Spread	Yield-Curve Spread (2s10s)
Returns	0.19	0.09	-0.16	-0.26

None of the correlations are statistically significant at the 5% confidence level.

Source: Bloomberg, Burgiss, Federal Reserve Bank of St. Louis, Neuberger Berman. Data as of September 30, 2024.

At first glance, the results are perhaps puzzling: these correlations are close to zero and none is statistically significant,⁴ meaning there is a non-trivial chance that all of these correlations *are* in fact zero. That contrasts with conventional wisdom, which assumes that declining and lower rates are one of the primary drivers of private equity performance, because they raise valuations and lower the costs of leverage.

To a certain extent, this puzzle resolves when we split the data into two periods, before and after the Global Financial Crisis (GFC), a meaningful threshold, given that it changed both the interest rate environment and the private equity industry. Here, we find that two of the correlations are statistically significant: the relationship between the yield-curve spread and private equity returns is strongly negative until the GFC, and afterward we see that negative correlation shift to the 10-year Treasury yield.

FIGURE 2. PRIVATE EQUITY RETURNS: A TALE OF TWO ERAS

Correlations of U.S. private equity annual returns with calendar-year average rates indicators, 1985 – 2023, split into pre- and post-GFC periods

Correlations	3Mo LIBOR / SOFR	10Yr Treasury Yield	Leveraged Loan Spread	Yield-Curve Spread (2s10s)
Pre-GFC Returns	–	–	–	-0.44
Post-GFC Returns	–	-0.63	–	–

Empty table cells indicate correlations that were not statistically significant at the 5% confidence level.

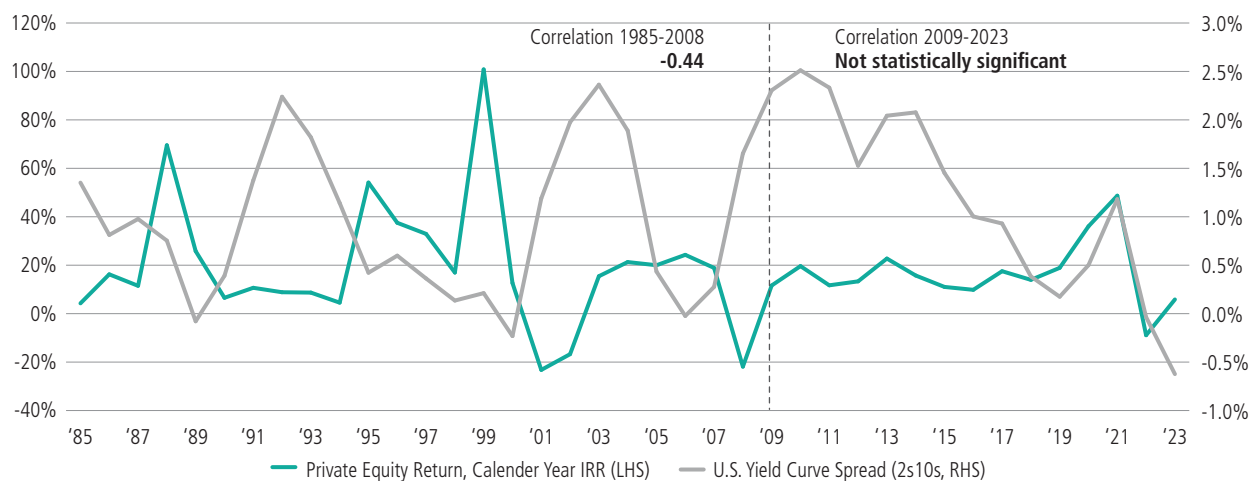
Source: Bloomberg, Burgiss, Federal Reserve Bank of St. Louis, Neuberger Berman. Data as of September 30, 2024.

⁴ Throughout the paper, statistical significance is evaluated at a 5% confidence level.

Pre-crisis, private equity returns tended to be higher when the yield curve was flatter, and this relationship is quite strong. Post-crisis, the relationship is so weak that it may not be differentiated from zero.

FIGURE 3. A TALE OF TWO ERAS – YIELD CURVE SPREAD AND PRIVATE EQUITY RETURNS

U.S. private equity annual return and calendar-year average spread between U.S. two-year and 10-year Treasury yields, 1985 – 2023

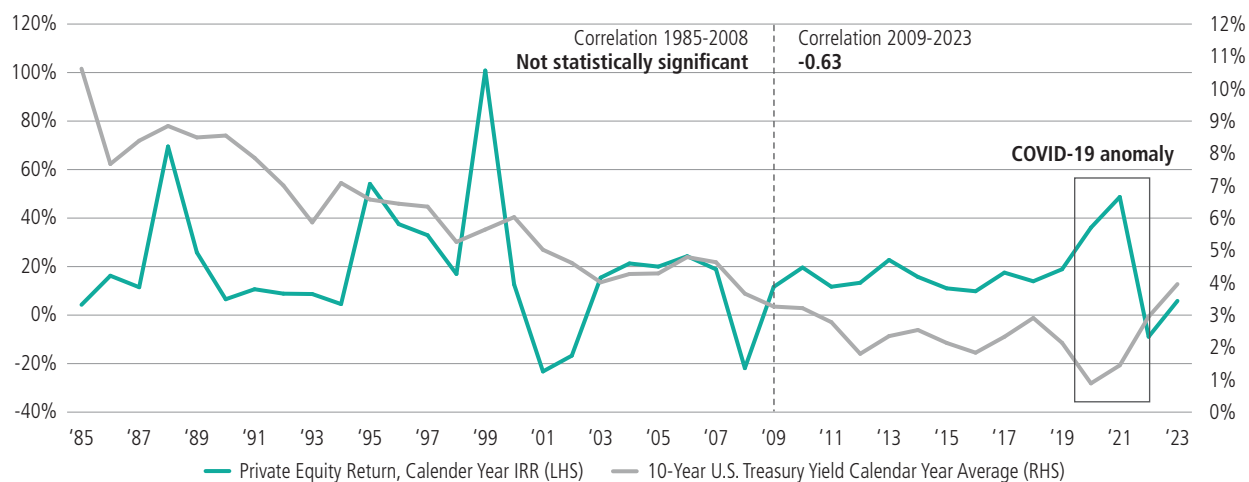


Source: Burgiss, Federal Reserve Bank of St. Louis, Neuberger Berman. Data as of September 30, 2024.

By contrast, the relationship between returns and the 10-year Treasury yield was mildly positive before the GFC, but not statistically significant, whereas after the crisis the correlation has been strongly negative. However, as figure 4 reveals, this strong negative correlation appears mainly after 2019 and disappears again in 2022. Once we remove the violent swings of the pandemic and the subsequent inflation shock from our dataset, the correlation between private equity returns and the 10-year Treasury since 2009 is similar to what we observed pre-GFC—mildly positive, but not statistically significant.

FIGURE 4. A TALE OF TWO ERAS: 10-YEAR TREASURIES AND PRIVATE EQUITY RETURNS

U.S. private equity annual return and calendar-year average 10-year U.S. Treasury yield, 1985 – 2023



Source: Burgiss, Federal Reserve Bank of St. Louis, Neuberger Berman. Data as of September 30, 2024.

Somewhat surprisingly, we see a slightly different pattern play out when looking at distributions from private equity funds. At first, the picture mirrors what we observed for overall private equity returns: Prior to the GFC, distributions correlate negatively with the yield-curve spread and there is essentially no correlation with interest rates. Thereafter, the relationship switches to a significantly negative correlation with both short- and long-term interest rates, while the yield-curve spread loses its significance. In contrast to returns, however, the negative correlation between distributions and the 10-year Treasury yield persists for the post-GFC timeframe, even when we disregard the unusual COVID period.⁵

FIGURE 5. PRIVATE EQUITY DISTRIBUTIONS: ANOTHER TALE OF TWO ERAS

Correlations of U.S. private equity annual distributions with calendar-year average rates indicators, 1985 – 2023, split into pre- and post-GFC periods

Correlations	3Mo LIBOR / SOFR	10Yr Treasury Yield	Leveraged Loan Spread	Yield-Curve Spread (2s10s)
Pre-GFC Returns	–	–	–	-0.60
Post-GFC Returns	-0.53	-0.65	–	–

Empty table cells indicate correlations that were not statistically significant at the 5% confidence level

Source: Bloomberg, Burgiss, Federal Reserve Bank of St. Louis, Neuberger Berman. Data as of September 30, 2024. Distributions are represented by the ratio of distributions over NAV at the beginning of the calendar year.

The big difference between the pre- and post-GFC environments is the monetary policy context. For the pre-GFC period, short and long-dated rates delivered ambivalent signals, because high rates raise financing costs even as they reflect a strong economic backdrop. By contrast, the steepness of the yield curve was a purer economic indicator. Pre-GFC, maximum curve-steepness tended to occur toward the end of or just after economic slowdowns, as central banks lowered short-term rates. Such times of risk aversion did not support private equity returns. Flatter curves often coincided with economic peaks and correspondingly higher private equity returns and distributions.

Post-GFC, policy rates at the short end of the curve were largely anchored near zero. Combined with bond purchases and the new practice of central bank forward guidance, long-term rates continued their secular downward trend and the yield curve continued to flatten. As a result, curve-steepness became less indicative of economic conditions, weakening its correlation with private equity returns and distributions (see figures 2, 3, 5). Instead, the simple level of rates became a more reliable indicator of economic activity and therefore the strongest determinant of private equity distributions, albeit not of overall private equity returns (see figures 4 and 5).

There are various possible explanations for this disparate reaction of distributions and returns.⁶ One conclusion that seems clear, however, is that the economic backdrop is more important for private equity performance than the level or momentum of interest rates alone. In addition, since the GFC, lower rates have tended to go hand in hand with a favorable exit environment for private equity deals, and therefore higher distributions, which bodes well for distribution-starved investors in the current environment.

Return Dispersion and Rates: Lower Rates Give Better Managers a Chance to Shine

In addition to overall return performance and distribution activity, we looked at the relationship between interest rates and the dispersion of private equity returns: the interquartile difference in the returns of the 75th percentile and the 25th percentile of performers in any given year, where the 100th percentile represents the best-performing funds.

⁵ The post-GFC correlation between distributions and three-month LIBOR/SOFR becomes insignificant when we exclude the COVID period.

⁶ Given that returns are composed not only of NAV appreciation, but also take into account capital contributions and distributions in a given time period one possible explanation could be that larger contributions might diminish returns at times of higher distributions. Another reason could be the fair value accounting framework (“FVAF”) which came into effect after the GFC. This was aimed at uncoupling returns from distribution and may therefore explain parts of the changes in correlations after the GFC.

Our headline results show negative correlations, suggesting that the better funds pull away from laggards (or the laggards lag the better funds) more substantially when rates are low and leveraged loan spreads are narrow. Similarly, while correlations with short-term rates and the yield curve are statistically insignificant, they were also negative. These findings are more consistent across the pre- and post-GFC periods, unlike our results for returns and distributions.

FIGURE 6. LOWER RATES AND SPREADS APPEAR TO FAVOR BETTER MANAGERS

Correlation of dispersion of U.S. private equity annual returns with calendar-year average rates indicators, 1985 – 2023

Correlations 1985 – 2023	3Mo LIBOR / SOFR	10Yr Treasury Yield	Leveraged Loan Spread	Yield-Curve Spread (2s10s)
Returns	–	-0.24	-0.37	–

Empty table cells indicate correlations that were not statistically significant at the 5% confidence level.

Source: Bloomberg, Burgiss, Federal Reserve Bank of St. Louis, Neuberger Berman. Data as of September 30, 2024.

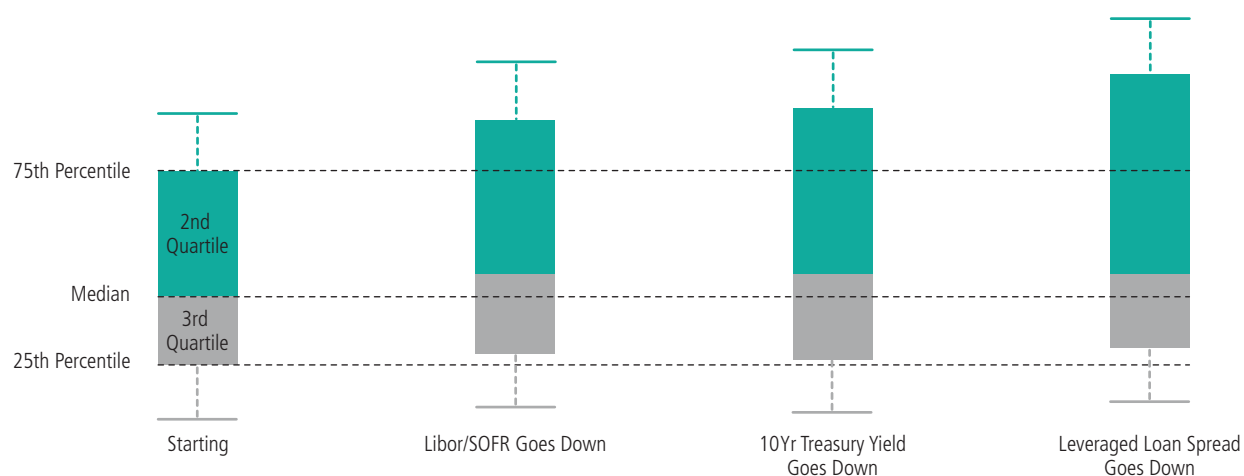
Dispersion is represented as the difference between the returns of the 75th percentile and the 25th percentile of the Burgiss U.S. Private Equity database.

We also considered the second and third quartiles in isolation. Here, we find that both the 10-year Treasury yield and the leveraged loan spread continue to show significant correlations, but now the short-term Libor/SOFR rates show significance at the 5% confidence level as well (figure 7).

Wider dispersion in the second quartile of funds tends to be due to the cut-off for the 75th percentile rising further than the median. Similarly, wider dispersion in the third quartile tends to be due to the median rising further than the cut-off for the bottom 25th percentile. In other words, higher dispersion tends to be caused by excellent performers making *even better* use of favorable economic conditions, rather than poorer performers getting worse—although we must acknowledge that there is a lower bound to poor performance but no upper bound to high performance.

FIGURE 7. FAVORABLE CONDITIONS LIFT ALL BOATS, BUT THE BETTER BOATS ARE LIFTED HIGHER

Illustrative representation of movements in the middle quartiles of U.S. private equity manager performance, based on annual returns, given declines in the calendar-year averages of three different rates indicators, 1985 – 2023



Source: Bloomberg, Burgiss, Federal Reserve Bank of St. Louis, Neuberger Berman. Data as of September 30, 2024. Maximum, 75 percentile, median, 25 percentile, and minimum are all for illustrative purposes and are not scaled to actual performance.

Overall, therefore, our results suggest that while lower rates and credit spreads have no clear relationship with higher private equity returns in general, they may provide a tailwind to better managers, perhaps because they are better able to take advantage of those favorable conditions.

Outlook: A Cautiously Optimistic Look Ahead

What do our findings suggest for the future?

The first paper in this series explored the impact interest rate changes might have on private equity returns in theory, and the results suggested that the impact might be substantial. However, when we consider what has happened empirically, over the past 40 years, it appears that the backdrop of the *real* economy, which determines the *actual* growth rate of companies, may be more important for unrealized private equity valuations than interest rates alone.⁷

As such, the prospects for private equity performance in the years ahead are unlikely to be determined by the Fed's rate cuts in themselves, but by how they relate to the economy. A continued soft landing or renewed recovery for the U.S. economy—a return to moderate inflation that does not induce a severe slowdown or recession—would in our view bode well for private equity's near- to mid-term future.

Another important conclusion from our data is that private equity as an asset class may be less inclined to simply write up or down the NAVs of unrealized assets just because interest rates (and therefore discount rates) have moved slightly lower or higher. This explains some of the smoothness of private equity returns during times of both public market exuberance and gloom. However, when it comes to outright realization events, post-GFC history suggests that lower rates *do* go hand-in-hand with higher private equity distributions. Expectations of lower rates and initial Fed rate cuts have already started to reawaken the dealmakers over recent months, and we believe continued cuts could further support these developments and facilitate rising distributions.

Finally, reduced rates may lead to larger dispersion of returns among private equity funds. Our findings suggest that top-performing funds may be able to capitalize even more on favorable economic conditions than lower quartile funds, especially if leveraged loan spreads remain relatively tight. In this environment, making informed investment choices can amplify the impact on outcomes.

⁷ We also discuss this effect in our first paper of this series: "Private Equity and Rates, Part I: The Theoretical Framework" (January 2025), at <https://www.nb.com/en/global/insights/whitepaper-private-equity-and-rates-part-i-the-theoretical-framework>. However, based on the more theoretical considerations underlying that article, it wasn't possible to quantify the effect there.

Index Definitions

The **UBS Credit Suisse Leveraged Loan Index** tracks the investable market of the U.S. dollar denominated leveraged loan market. It consists of issues rated “5B” or lower, meaning that the highest rated issues included in this index are Moody’s/S&P ratings of Baa1/BB+ or Ba1/BBB+. All loans are funded term loans with a tenor of at least one year and are made by issuers domiciled in developed countries.

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