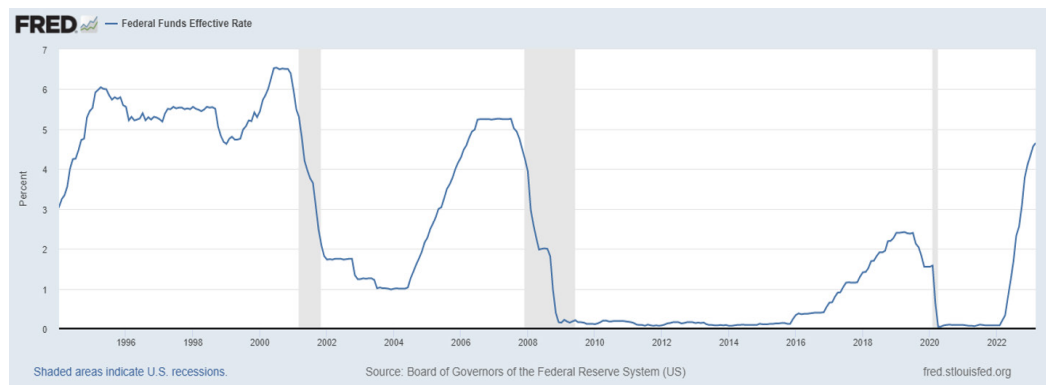


Modeling the Expected Return for Hedge Funds—Should It Be Higher Today?

We believe the relationship between the expected return for hedge funds and the level of the risk-free rate is often underappreciated. Simply put, when the risk-free rate (or proxy for the risk-free rate, such as the Fed Funds rate) rises, so does the expected return of hedge funds, and the opposite is also true. Clearly, this relationship is highly relevant today given the rapid rise in the Fed Funds rate over the past year, from 0.2% in March 2022 to 4.65% as of March 2023. As shown below, the Fed Funds rate has not exceeded today's levels since 2006-2007, and for a little more than a decade, it mostly had been pinned near zero. That's a long span of time during which one easily could have forgotten why the risk-free rate even matters to the expected return for hedge funds. One would need to hark back to the mid- to late-1990s to find a more measurable time window when the Fed Funds rate was as high, or higher, than it is today.



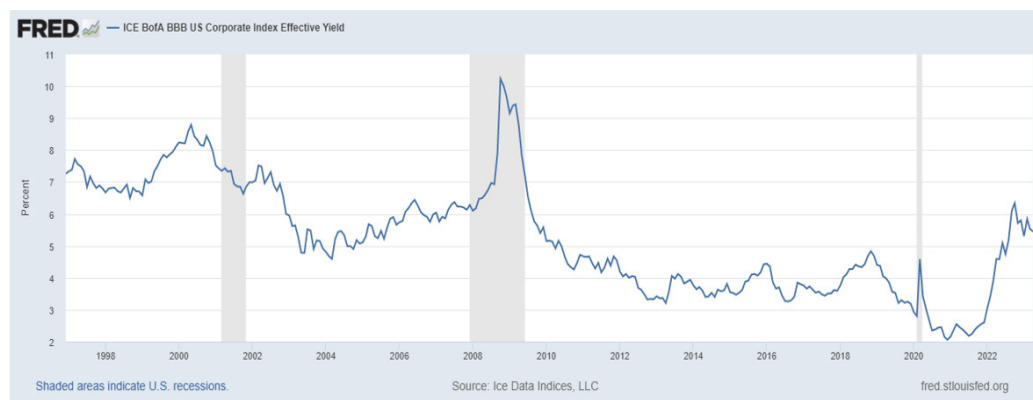
Source: Board of Governors of the Federal Reserve System (US), Federal Funds Effective Rate [FEDFUNDS], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/FEDFUNDS>, April 9, 2023.

From August 1994 through April 2001, when the Fed Funds rate was consistently at or above 4.5%, hedge funds generated annualized returns of 14.6% (as measured by the HFRI Fund-Weighted Composite Index) compared to the longer-run average of 9.0%.¹ To be fair, the high absolute returns of hedge funds in the late-1990s were also aided by a high realized equity risk premium during that timeframe, and of course, competition in the hedge fund industry was lower than it is today. However, a relatively high risk-free rate was one factor that contributed to the higher realized returns for hedge funds in that era. Likewise, during the shorter period from March 2006 through October 2007, hedge funds generated annualized returns of 12.4%, again higher than the longer-run average, partly due to the relatively high prevailing risk-free rate at the time.

¹9.0% = the annualized return for the HFRI Fund-Weighted Composite Index from January 1990 (inception) to March 2023.

So, *why* does the risk-free rate directly impact hedge fund return expectations? First, certain hedge fund strategies, such as global macro and CTAs or trend-following managers, that express a large portion of their trades through derivative securities tend to be highly cash efficient. Using derivatives, such as futures, is a form of leverage, enabling these managers to express significant notional (face value) bets or hedge large positions with a relatively small upfront cash outlay, otherwise known as margin. For futures contracts, exchanges set initial margin requirements, typically ranging between 3%-12% of the contract's notional value, though this varies based upon the volatility of the underlying asset and market conditions.² This means that a manager that is a heavy user of such instruments can support large total gross exposures with a fraction of its equity base. The remainder, often referred to as "unencumbered cash," is typically held in cash-like instruments, earning the prevailing risk-free rate. Hence, the expected return of these strategies also rises (and falls) with the risk-free rate, and today's 4%+ Fed Funds rate is a tailwind, especially in contrast to the extended period of near-zero interest rates following the Global Financial Crisis.

Second, the forward-looking expected return for directional long/short credit and distressed debt strategies rises with higher risk-free rates. This is a straightforward concept, since credit is a spread instrument directly tied to interest rates. To illustrate, we can observe, in the chart below, how the yield of BBB-rated US corporate bonds has changed over time and risen along with the risk-free rate in the past year.



Source: Ice Data Indices, LLC, ICE BofA BBB US Corporate Index Effective Yield [BAMLC0A4CBBBEY], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/BAMLC0A4CBBBEY>, April 10, 2023.

Loans, as floating-rate instruments, are contractually tied to changes in the risk-free rate. New issues come to market at higher yields in a higher interest rate environment, above and beyond the risk-free rate, to compensate potential creditors for the credit risk they must assume (*i.e.*, the "credit spread"). In addition, bonds that are already outstanding reprice lower as interest rates rise so that their effective yield is comparable to that of a similarly risky, new-issue bond. These bonds have additional optionality if they are "pulled to par" via a refinancing, or some other event, such as a takeover, that results in the bonds being fully repaid earlier than expected.

² <https://www.cmegroup.com/education/courses/understanding-the-benefits-of-futures/the-benefits-of-futures-margins.html>.

Finally, as we have written about in the past, the “short rebate” is more important to expected hedge fund returns than many think, and it is directly related to the Fed Funds rate. We review the basic mechanics of a short sale below.

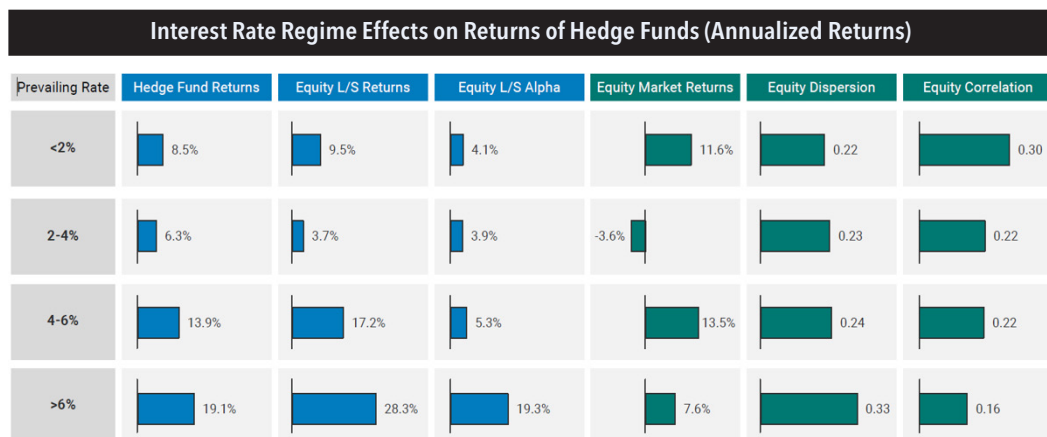
Hedge Fund	Prime Broker	Long-Term Stockholder
<ul style="list-style-type: none"> Locates & borrows stock from prime broker to sell it short. Deposits proceeds from the short sale with prime broker and receives a “rebate” related to interest earned on collateral 	<ul style="list-style-type: none"> Borrows stock from long-term stockholder & lends stock to hedge fund Posts collateral & receives an interest rate less a fee on this collateral “Rebates” this interest rate to hedge fund less a further fee 	<ul style="list-style-type: none"> Receives fee for lending stock to prime broker Receives collateral from prime broker and earns interest rate on collateral Maintains ownership of stock & economic exposure to subsequent rise/fall in stock’s value

After a hedge fund borrows and then sells short a security in the market, the hedge fund must deposit the sale proceeds with its prime broker as collateral. In turn, the hedge fund receives a rebate from the prime broker which, at the least, will hold this collateral in cash-like instruments and earn the prevailing risk-free interest rate. The prime broker will “rebate” the interest earned back to the hedge fund less a certain amount that, in effect, represents the prime broker’s fee. For easy-to-borrow names, a typical rebate might be the Fed Funds rate less 0.25%. This rebate represents the annual interest rate earned by the short seller on their posted collateral but accrues daily in a manner akin to a bond. In just the last year, with the significant rise in the Fed Funds rate, short rebates have gone from nil, or even negative in some cases, to meaningfully positive—in this example, +4.4%.³ Of course, the most important driver behind the performance of any individual short position will be the change in the price of the security itself over the manager’s holding period. However, today’s significantly higher short rebate is a tailwind to expected returns for hedge funds that has not existed for much of the last decade. It is especially impactful for managers that have large, single-stock short portfolios, such as many that pursue long/short equity, market-neutral, and convertible bond arbitrage strategies.

In our opinion, there is also an *indirect* benefit to hedge funds’ expected return when interest rates are higher. We believe such an environment sets up for greater potential change than during the years of zero interest-rate policy globally, when rates were both low and stable. Greater change could lead to greater volatility and dispersion, generally precursors to more plentiful alpha opportunities. Such a benefit is less tangible and measurable than the direct benefits laid out above, especially since there are fewer data points in the last several decades where interest rates were as high as they are today, and as mentioned above, many of them come from the 1990s, when the hedge fund industry was

³ 4.4% = the Fed Funds rate of 4.65% as of March 2023 less the prime broker’s assumed 0.25% fee.

far less mature. With those caveats in mind, Goldman Sachs published an interesting chart (shown below) that provides some support for this theory. Note that, historically, hedge fund returns *and* alpha (blue bars) have been higher when interest rates are higher, perhaps in part because equity dispersion has been higher and equity correlation has been lower (green bars) in those same environments.



Source: Goldman Sachs Prime Services Hedge Fund Insights & Analytics, "A New Hope: The Current State of the Hedge Fund Industry and the Outlook for 2023," January 2023. Source Data from SPDJI, Goldman Sachs Marquee Connect, investor letters provided to the Goldman Sachs Capital Introduction team, HFR. Prevailing rate refers to 3-month ICE LIBOR annualized rate; equity market returns refers to MSCI World Index total returns; equity dispersion and correlation refer to S&P 500 realized intra-stock correlation & dispersion; equity L/S alpha calculated on an equally-weighted basis using Jensen's alpha methodology: Equity L/S returns minus beta-adjusted equity index returns minus risk-free rate. Calculations are based on prevailing rate by month and then annualized. All data as of 12/31/2022. **PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE RESULTS.**

One final note that bears mentioning on this topic: because the risk-free rate is a tailwind to expected returns for hedge funds, we think it's fair for investors to engage in more conversations with managers about ways to increase alignment. Although there is no single fee structure that is optimal for all managers and we always consider each manager's net-of-fee potential, we do like the concept of performance-fee hurdles that are tied to the risk-free rate (e.g., using SOFR⁴ or the yield on 3-month T-bills as a hurdle before incentive fees are earned). Such a hurdle would not have impacted net hedge fund returns much in the last decade+ but would result in measurable fee savings today and protect hedge fund investors from paying measurable fees if realized returns are muted (say, 0%-4%).

In conclusion, a higher prevailing risk-free rate historically has corresponded with elevated hedge fund returns. We believe today's environment is likely to have similar characteristics. It should translate to higher returns in directional credit strategies. It also increases the rate earned on unencumbered cash, which is a staple of some hedge fund strategies, particularly macro. And finally, there are direct benefits to long/short equity in the form of higher short rebates, along with indirect benefits resulting from potentially higher stock dispersion and lower stock correlation.

⁴ The Secured Overnight Financing Rate (SOFR) is a broad measure of the cost of borrowing cash overnight collateralized by Treasury securities.

IMPORTANT INFORMATION & LEGAL DISCLOSURES

The information contained herein is solely for informational purposes and does not constitute an offer to sell or a solicitation of an offer to purchase any securities. This information is not intended to be used, and cannot be used, as investment advice, and investors should consult their professional advisors before purchasing any instrument or product. Certain statements made herein constitute forward-looking statements. These statements reflect Evanston Capital Management, LLC's ("Evanston Capital" or "EC") current views about, among other things, financial products, their performance, and future events, and results may differ, possibly materially, from these statements. Statements herein are solely for informational purposes, and are subject to change in Evanston Capital's sole discretion without notice to the recipients of this information. Evanston Capital is not obligated to update or revise the information presented.

evanstoncapital

1560 Sherman Avenue, Suite 960 | Evanston, IL 60201

P. 847-328-4961 | F. 847-328-4676 | E. investorrelations@evanstoncap.com

www.evanstoncap.com