AIN'T NO MOUNTAIN HIGH ENOUGH: HEDGE FUNDS AIM HIGHER AMID RISING RATES

BNP Paribas Capital Introduction
October 2023

BNP PARIBAS

The bank
for a changing
world

CONTENTS

01

EXECUTIVE SUMMARY

1. KEY FINDINGS

In the summer of 2023, BNP Paribas' Capital Introduction Group surveyed 82 hedge fund investors and managers (48 investors & 34 managers) to discuss an era of high risk-free rates and its impact on hedge fund performance & terms. We are pleased to present our key findings:

- **Return expectations hike**
  In the current environment investors expect 2.9% more in returns for their portfolio of hedge fund investments, targeting an annual return of 9.75% up from 6.85%.
  62% of managers think they should outperform the risk-free rate by 6% or more.

- **Managers request an extension**
  Allocators believe that managers should get 19 months on average to meet / be evaluated on the new return expectations while managers feel they need 29 months.

- **Cash makes "cents"**
  Manager respondents hold unencumbered cash of 33.9% on average.
  Two-thirds of investor respondents ask managers for their target / typical level of unencumbered cash holdings while 42% of investors ask managers for the return they generated from cash holdings (a combination of unencumbered cash, short rebate and cash margin held at counterparties).

- **Hurdles jump**
  90% of investors believe that a hurdle rate should be in line with the risk-free rate or with a relevant benchmark, while 42% of fund managers agree with the same statement.

- **Strategy turnover**
  Nearly half of the investor respondents are making strategy allocation changes as a result of the change in rates with credit, CTA and discretionary macro being the largest benefactors.

02
METHODOLOGY & RESPONDENT PROFILE

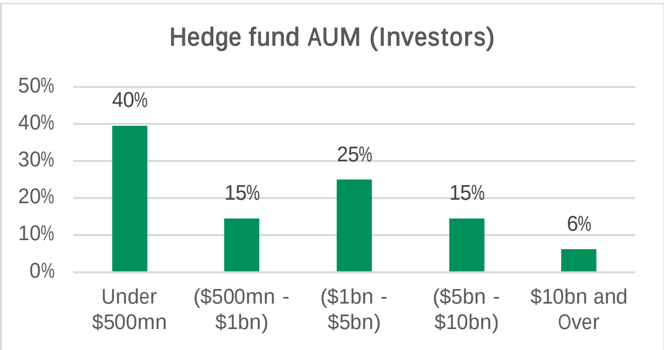
2. METHODOLOGY & RESPONDENT PROFILE

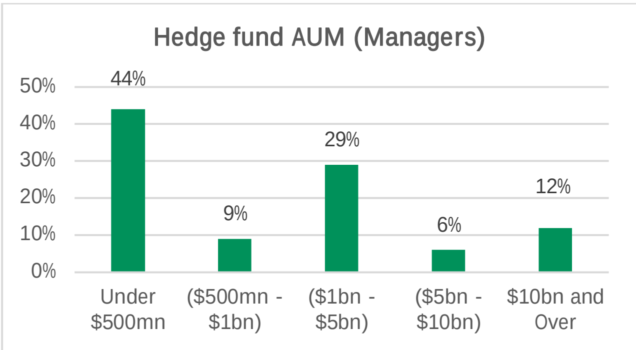
In the summer of 2023, BNP Paribas' Capital Introduction Group surveyed 82 hedge fund investors and managers (48 investors & 34 managers) to discuss an era of high risk-free rates and its impact on hedge fund performance & terms.

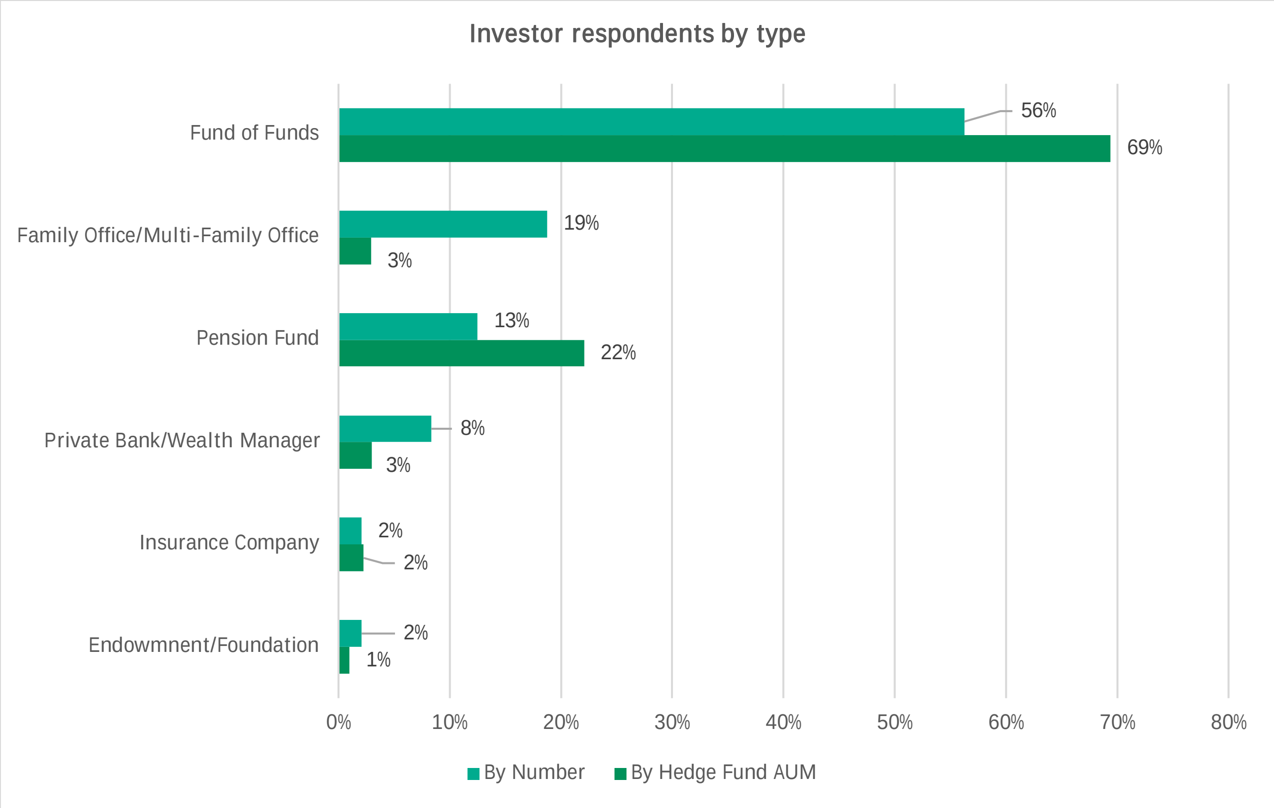
Our allocator respondents collectively manage or advise on $132.7bn of hedge fund assets. The mean investor's assets among our respondents is $2.8bn (median: $725mn).

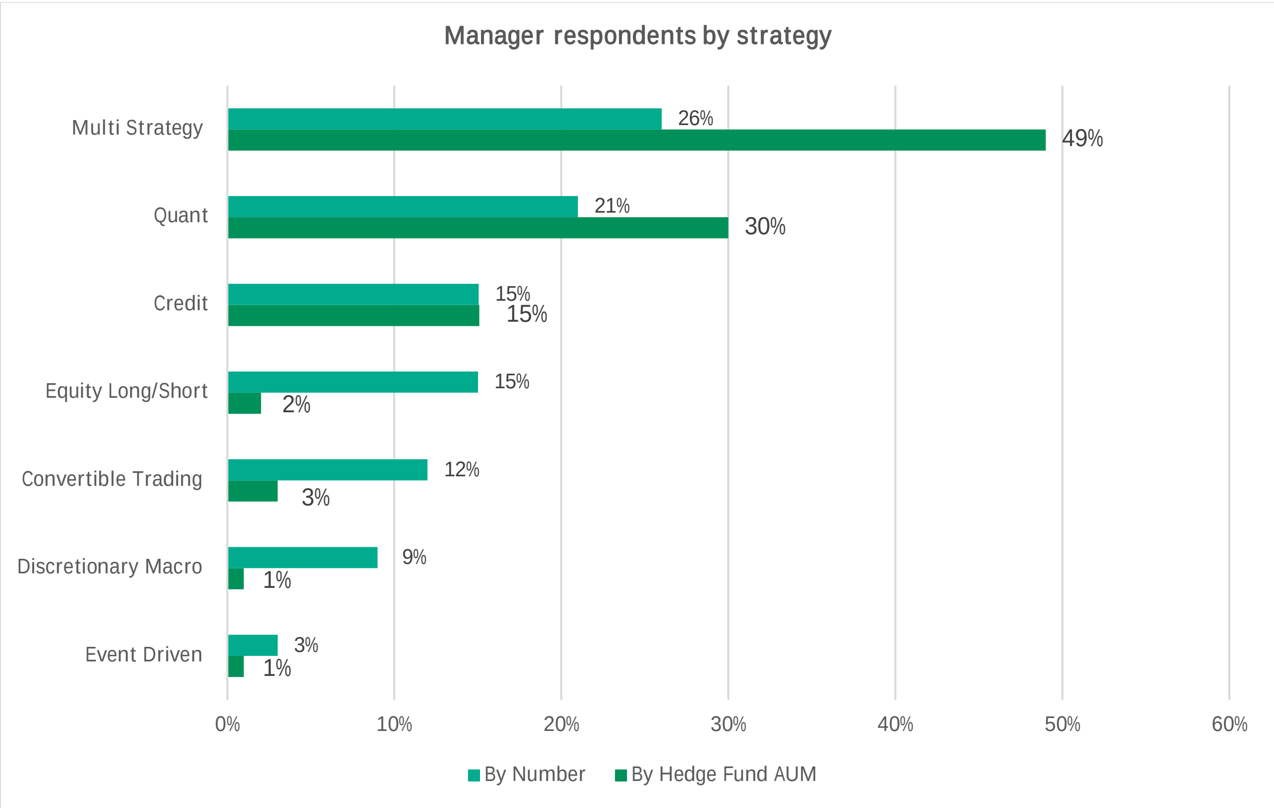
Our manager respondents collectively manage $170.2bn of hedge fund assets. The mean hedge fund AUM of our respondents is $5bn (median: $878mn).

Please note that percentages may not total to 100% in some exhibits due to rounding. In cases where not all respondents answered a question, percentages have been calculated out of the sum of those who answered.






Investor respondents by type
Fund of Funds
Family Office/Multi-Family Office
Pension Fund
Private Bank/Wealth Manager
Insurance Company
Endowmnent/Foundation
56%
69%
19%
3%
13%
22%
8%
3%
2%
2%
2%
1%
0%
10%
20%
30%
40%
50%
60%
70%
80%
By Number
By Hedge Fund AUM

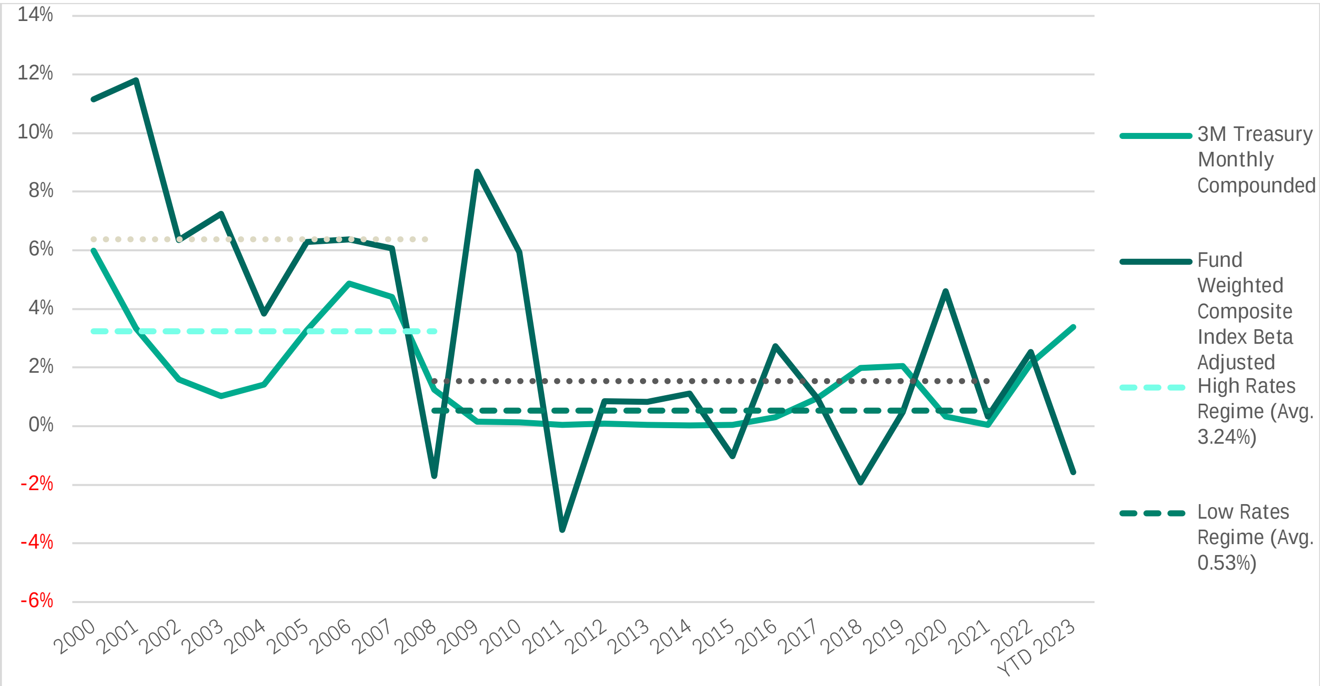

Manager respondents by strategy
Multi Strategy
Quant
Credit
Equity Long/Short
Convertible Trading
Discretionary Macro
Event Driven
26%
49%
21%
30%
15%
15%
15%
2%
12%
3%
9%
1%
3%
1%
0%
10%
20%
30%
40%
50%
60%
By Number
By Hedge Fund AUM

03
INTEREST RATES & HEDGE FUND RETURNS

3. INTEREST RATES & HEDGE FUND RETURNS

Historical evidence shows that hedge funds tend to perform well in high-rate environments, and less so in a low-rate regime. Over the past 23 years, from January 2000 to August 2023, hedge funds did well in a high rate regime up until the global financial crisis and then delivered lower returns when rates were close to zero in the following period. They delivered an attractive beta-adjusted annual return of 6.38% on average from 2000 to 2007 when short-term rates averaged 3.24%. Although a low-rate regime is known to be an unattractive environment to generate alpha, they still delivered an average beta-adjusted return of 1.54% during the fourteen years ending 2021 when the risk-free was anchored at zero for most of that period. We use the beta-adjusted HFRI Fund Weighted Index as a proxy for hedge fund returns. The MSCI World Index is used to compute the beta.[1]

Fund weighted composite index



Beta-Adjusted Monthly Returns = Geomean of {Raw Monthly Returns – (Trailing 60 Month Beta)*(MSCI Monthly Returns)}

[1] HFR.com

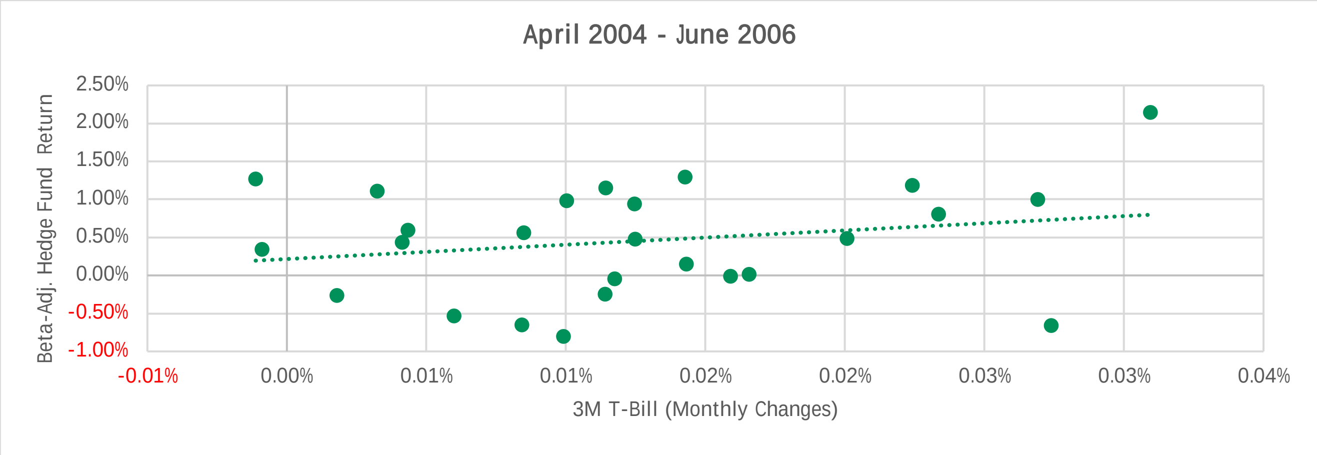
Taking a granular view into the sub-periods of high and low-rate regimes which were led by central banks hiking and cutting cycles over the last 23 years, we identified two high-rate regimes where rates moved above 3% and remained stable in that range. The table below highlights that hedge funds perform well during high and stable rate levels. The high rate regime of the year 2000, which is a continuation of the 1990's elevated rate levels, shows that hedge funds did not only protect capital, but also delivered strong returns of 15.75% on a beta-adjusted basis when the MSCI sold off by 9.36%. The second high rate-regime (mid-2006 to February 2007) also shows attractive hedge fund returns.

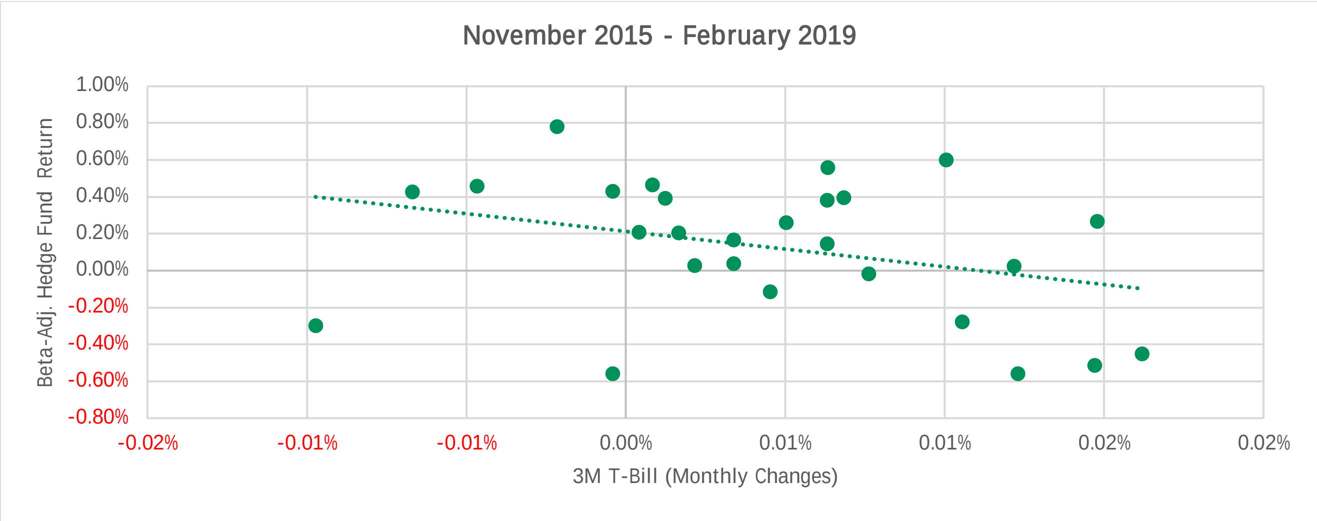
Stable Rates Ranges	Average 3M TBill	Regime	MSCI World Annualized Return	HFRI Annualized Return	Beta-Adjusted HFRI Annualized Return
Jan 2000 - Sep 2000	**6.16%**	**High-rate regime**	**-9.36%**	**11.51%**	**15.75%**
Nov 2001 - Apr 2004	1.37%	Low-rate regime	5.98%	9.34%	6.95%
Jun 2006 - Feb 2007	**5.22%**	**High-rate regime**	**19.49%**	**10.97%**	**4.81%**
Nov 2008 - Nov 2015	0.13%	Low-rate regime	11.41%	5.50%	1.54%
Feb 2019 - May 2019	2.41%	Low-rate regime	6.44%	3.99%	1.68%
Mar 2020 - Jan 2022	0.11%	Low-rate regime	22.86%	11.90%	2.01%

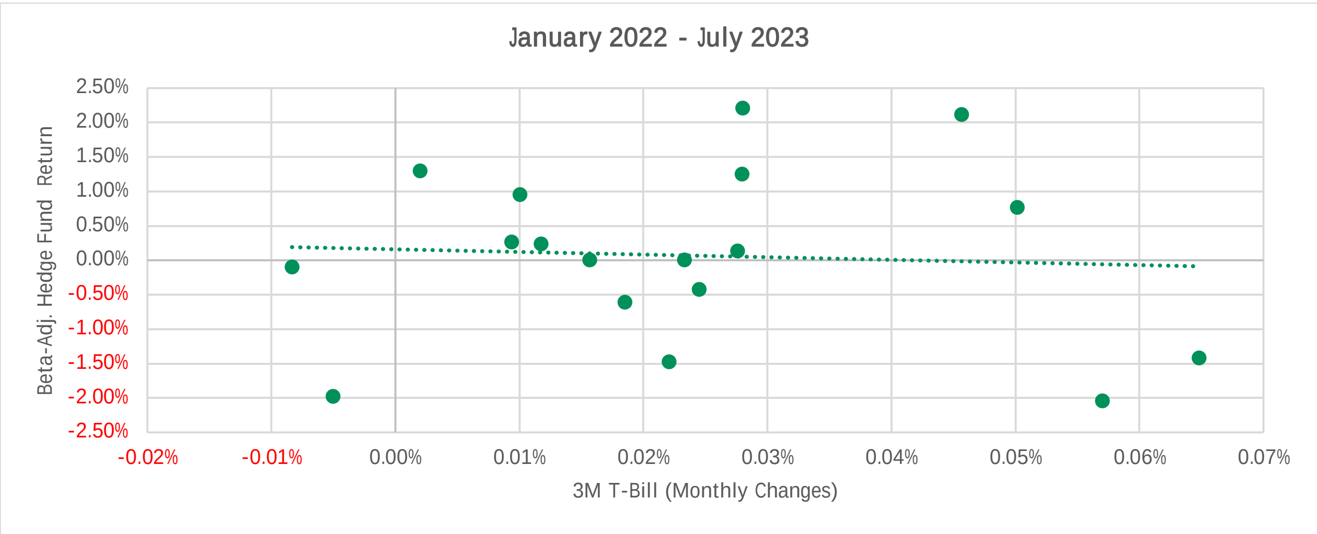
While periods of high and stable rate levels are a favourable environment for hedge funds in general, the periods of changing rates do not show the same relationship. Over the same 23 years, there has been three episodes where rates rose at an average of 3.77%. Hiking cycles tend to take place over longer periods than cutting cycles, with an average of 28 months vs. 15 months respectively, which gives us enough data to analyse rising rate environments. Below we can see that there is no obvious relationship between rising rates and good hedge fund performance.

Spike Ranges	Reason	Change range	Change	Annual Change	MSCI World Annualized Return	HFRI Annualized Return	Beta-Adjusted HFRI Annualized Return
Oct 00 – Nov 01	Dot Com Bust & 9/11	6.39% -> 1.73%	-4.66%	-3.92%	-19.31%	-0.42%	9.28%
Apr 04 – Jun 06	Housing Market Boom	0.95% -> 5.07%	4.11%	1.84%	12.91%	9.16%	4.95%
Feb 07 – Nov 08	Global Financial Crisis	5.13% -> 0.05%	-5.08%	-2.86%	-22.51%	-6.78%	4.29%
Nov 15 – Feb 19	Return to normality	0.17% -> 2.44%	2.27%	0.68%	8.92%	3.80%	0.75%
May 19 – Mar 20	COVID-19 Pandemic	2.34% -> 0.09%	-2.25%	-2.43%	-14.10%	-9.31%	-4.55%
Jan 22 – Aug 23	Countering Inflation	0.19% -> 5.45%	5.26%	3.20%	-2.47%	0.12%	1.10%

When looking at periods of rising rates on a monthly basis, these is no clear correlation between hedge fund returns and rising rates, as shown in the charts below. The three scattered plots show the beta-adjusted hedge funds returns relative to rising 3 months T-bills on a monthly basis during a rising rates environment.







We then examined calendar years of high levels of interest rates combined with large moves in the MSCI World Index to observe that hedge funds do act as a diversifier, particularly in the year 2000 and 2001.

Year	2000	2001	2006	2007	2019	YTD 2023
MSCI World	-12.86%	-16.46%	20.70%	9.66%	28.44%	16.55%
3M T-Bills	5.99%	3.33%	4.86%	4.40%	2.05%	3.38%*
HFRI Composite	4.98%	4.62%	12.89%	9.96%	10.45%	4.47%
HFRI Composite Beta-Adj.	11.15%	11.80%	4.62%	6.45%	0.11%	-1.60%
HFRI Composite Beta-Adj. – 3M T-Bills	5.16%	8.47%	-0.25%	2.05%	-1.94%	-4.98%

*Represents the monthly compounded 3M T-Bill return through to August 2023. The 3M T-Bill rate as of August is 5.45%

It seems that during rising interest rate environments, hedge funds do not adapt fast enough and have a lag in producing the higher returns. This is apparent in 2006; a year in the middle of a hiking cycle. However, in 2007, when rates stabilized at high levels, hedge funds delivered attractive beta-adjusted returns. In 2019 the equity market did astonishingly well, but that was a year driven by central banks cutting rates.

2023, on the other hand, has proved to be a more challenging year for the hedge fund industry in aggregate. If and when short-term rates stabilize in the coming months, we may see favourable implementation and environmental tailwinds for hedge funds to perform better.

4. HEDGE FUND EXPECTED RETURNS

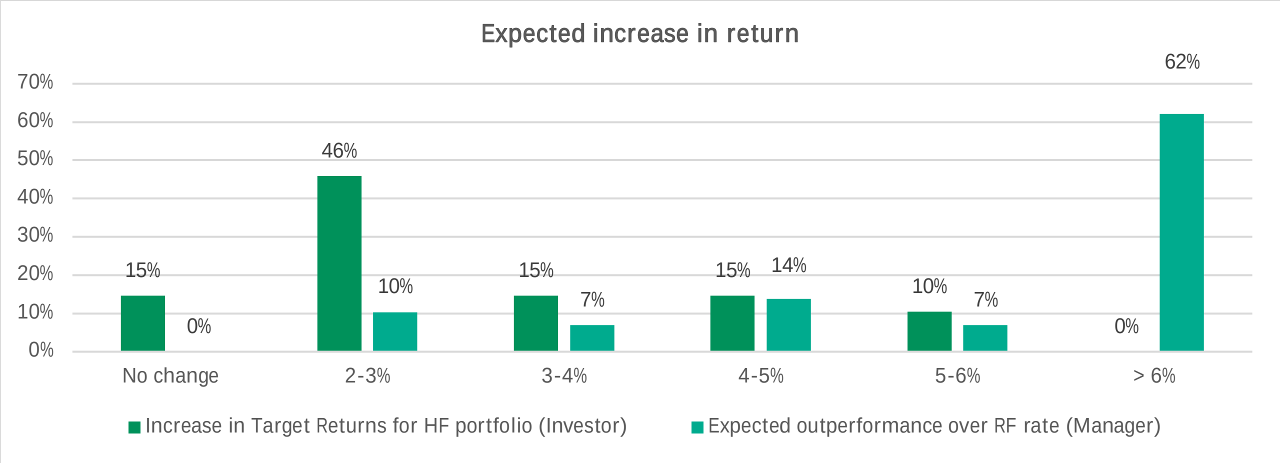
EXPECTED RETURNS FOR HEDGE FUNDS HAVE INCREASED

Unsurprisingly, the rise in interest rates has resulted in investors increasing the target return for their hedge fund portfolio. Investors are looking for an increase of 2.9%, up from 6.85% to 9.75%. The rising cost of capital, and the fact that their target return is risk-free plus a specific percentage (typically risk-free + [3-5%], are the biggest drivers of the increase. Allocators also stated that they need to capture the risk premium when investing in hedge funds, while others needed to maintain their target Sharpe ratio.

[1.03] Investor - Has your target return for your portfolio of hedge funds changed following the rise in risk-free rate and by how much?

[1.09] Manager - By how much do you think your hedge fund strategy should outperform the risk-free rate, relevant benchmark / adjusted benchmark?

	Investor	Manager
No change / outperformance	15%	0%
Increase by 2-3%	46%	10%
Increase by 3-4%	15%	7%
Increase by 4-5%	15%	14%
Increase by 5-6%	10%	7%
Increase by more than 6%	0%	62%



We asked managers what factors they think have a positive or negative impact on their portfolio as a result of rising rates and summarised a few of the responses below:

Positive Responses:

1. "Increase in volatility and dispersion create more investment opportunities" (Environmental tailwinds)
2. "Cash held gets rewarded better" (Implementation tailwinds)

Negative Responses:

1. "Increase in cost of financing"
2. "Deleveraging of systematic and hedge community through volatility episodes and drawdowns that inevitably come with the return of a financial market cycle"
3. "Shorts are more expensive. liquidity, JTD risk, cost of shorts, cost of leverage, cost of volatility, CS01"
4. "Much higher bar for investors to come in to the fund as the opportunity cost is so much higher"

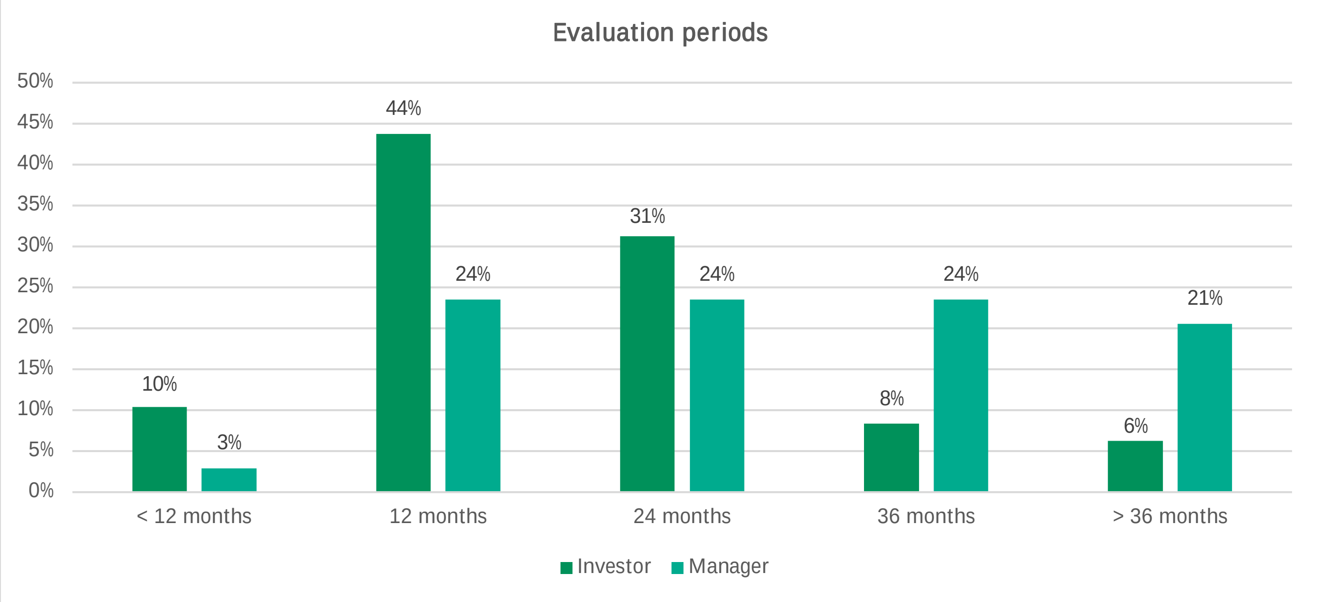
HOW LONG WILL MANAGERS GET TO MEET THE NEW RETURN EXPECTATIONS?

As discussed earlier, investors and managers agree that returns need to increase based on higher interest rates, but seem to disagree on a suitable time horizon to evaluate performance. Allocators believe that managers should get 19 months on average to adjust to the new interest rate regime, while managers feel they should get nearly an additional year looking for an evaluation period of 29 months.

[1.10] Manager - Given 2023 is the first full year of 5%+ risk-free rate, over what period of time do you think investors should evaluate your fund performance versus the risk-free rate?

[1.13] Investor - Given 2023 is the first full year of 5%+ risk-free rate, over what period of time will you evaluate fund managers performance versus the risk-free rate?

Time	Investor	Manager
< 12 months	10%	3%
12 months	44%	24%
24 months	31%	24%
36 months	8%	27%
> 36 months	6%	21%
Average	19 months	29 months
Median	12 months	24 months



RETURN ON CASH – IMPLEMENTATION TAILWIND

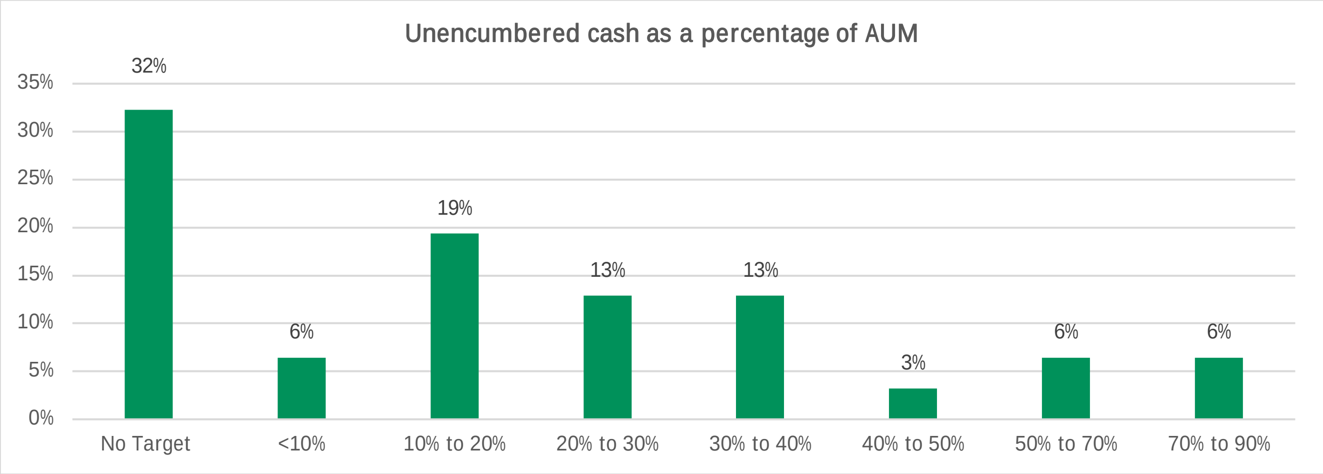
As a result of rising rates, unencumbered cash, cash held for margin purposes at counterparties, as well as the short rebate are now generating a return for managers' portfolios. To that end, we asked investors if they track these components with managers. Two-thirds of investor respondents do ask managers for their target/typical level of unencumbered cash held as a percentage of AUM. However, only 42% of investors ask managers for the returns generated from cash holdings (combination of unencumbered cash, short rebate, cash margin held at counterparties etc.).

Manager respondents hold unencumbered cash of 33.9% on average (median 30%). With respect to cash for margin at counterparties most managers reported that this varied significantly; however for those who responded, the average is 19.5% (median 10%).

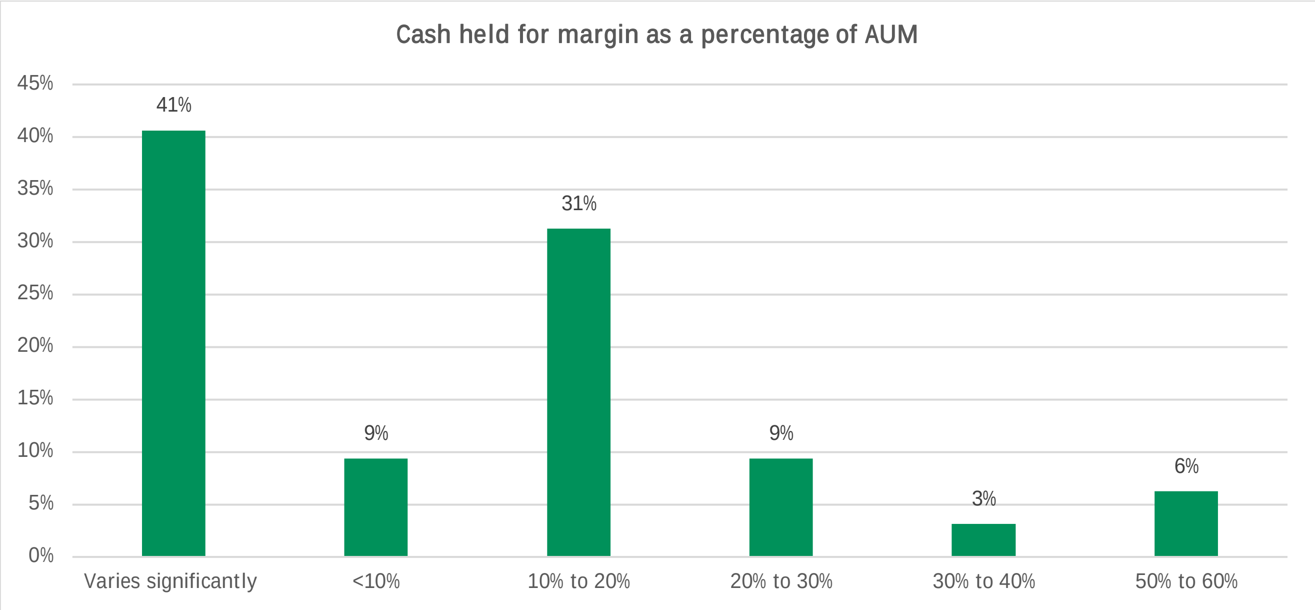
[1.06] Investor - Do you ask managers to provide you with the target / typical level of unencumbered cash they hold as a % of their AUM?

Investors asking for unencumbered cash	%
Yes	67%
No	25%
Not currently, but planning to going forward	8%

[1.03] Manager - What level of unencumbered cash (on average), do you typically target / hold as a % of your hedge fund AUM?



[1.04] Manager - What % of your hedge fund AUM is typically cash held for margin at your counterparties?



[1.07] Investor - Do you ask managers to provide you with the return they generated from cash holdings (combination of unencumbered cash, short rebate, cash margin held at prime brokers etc.)

Yes	42%
No	44%
Not currently, but planning to going forward	15%

05

HURDLE RATES

5. HURDLE RATES

Another debatable topic is that of hurdle rates. 90% of investors in this survey state that a hurdle rate should be in line with the risk-free rate or with a relevant benchmark while 42% of fund managers share the same view, which is surprisingly high. 6% of managers state that hurdle rates are dependent on the fund strategy. It can be inferred that the 52% of those who opted "no" for hurdle rates believe that it does not make sense for their strategy. However, investors rational is not to pay performance fees on the portion of returns attributed to the risk-free rate.

[1.06] Manager - Do you think that your hedge fund(s) should have a hurdle rate in line with the risk-free rate or a relevant benchmark / beta adjusted benchmark?

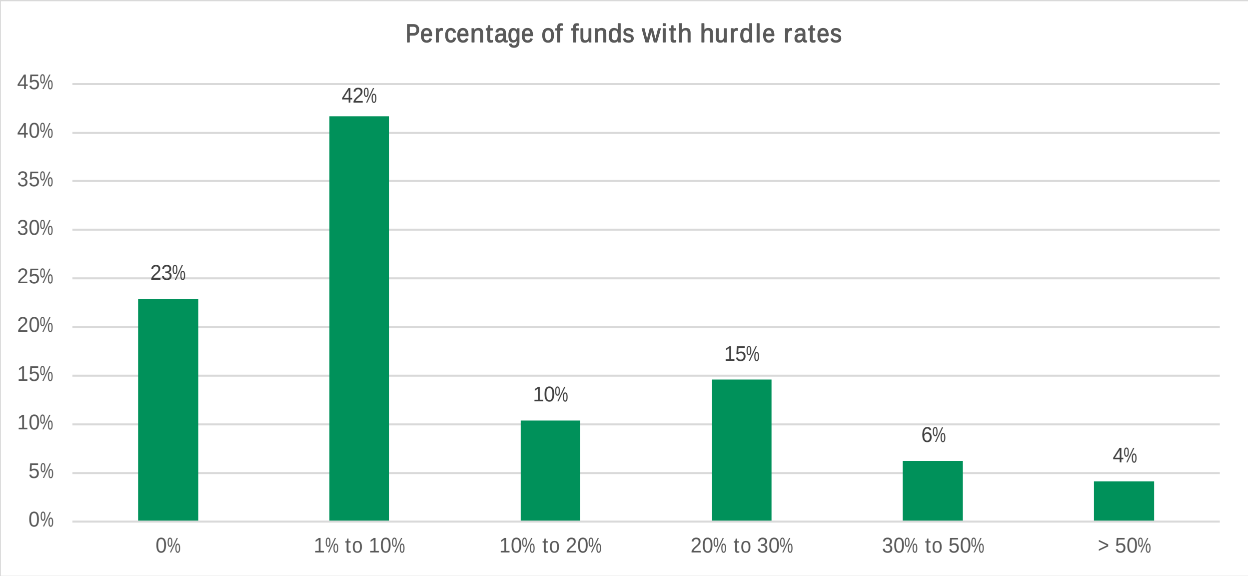
[1.08] Investor - Do you think that hedge fund(s) should have a hurdle rate in line with the risk-free rate or a relevant benchmark / beta adjusted benchmark?

Hurdle rate	Investor	Manager
Yes	90%	42%
No	10%	52%
Strategy Dependent	0%	6%

[1.10] Investor - Are you finding that hedge fund managers are willing to negotiate a hurdle rate?

Managers willing to negotiate a hurdle rate	%
Yes	49%
No	51%

[1.09] Investor - What % of funds are you invested in that have a hurdle rate?



Manager's **reasons for why they do not feel a hurdle rate is required:**

1. "It is not the industry norm, i.e., the competition does not have it"
2. "Their performance fee is competitive /negotiated down and hence a hurdle rate is not warranted"
3. "Cash rate hurdles are embedded into their investment process"
4. "The requirement to outperform risk-free is already implicit in the decision of investors whether to allocate capital to the fund"

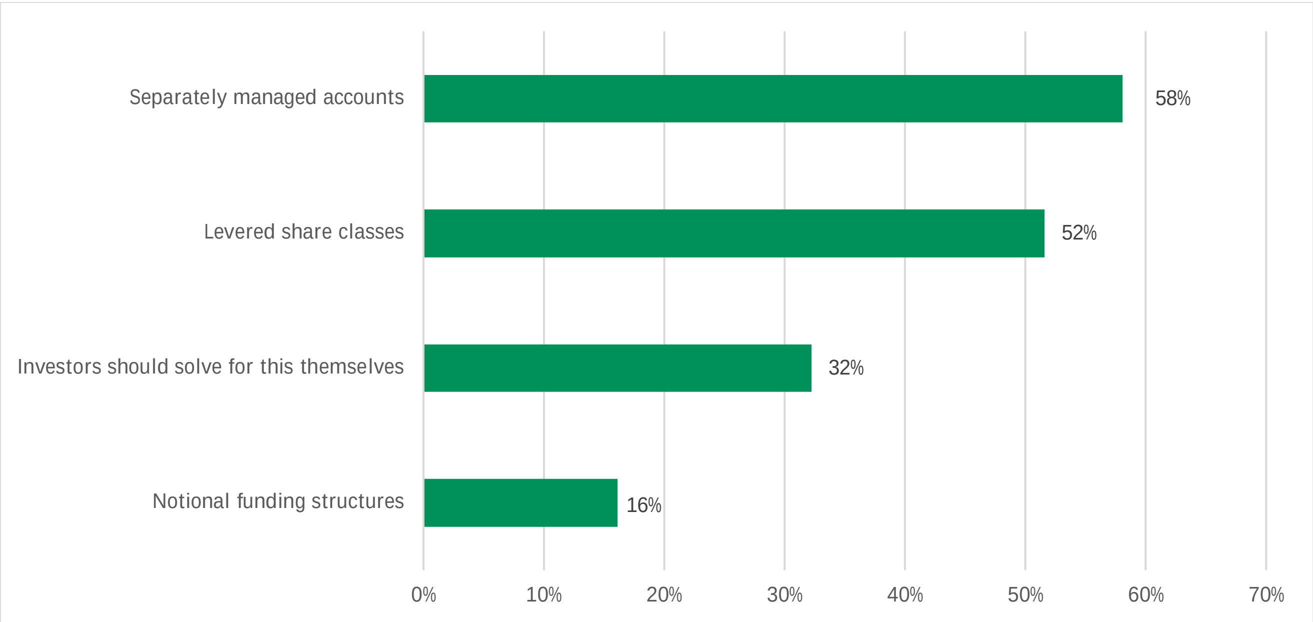
We asked investors what managers are saying when they ask for hurdle rates and summarized their responses below:

1. "They see themselves as an absolute return strategy, not understanding that everything is relative due to the opportunity cost of capital. But the good ones can get away with it as they are in demand"
2. "Their capacity is in high demand and have no reason to effectively cut fees"
3. "The important figure is the net returns. If they delivered a 8-12% return they are still doing a great job"
4. "It's a function of their position in the marketplace - they are price/term setters vs takers"
5. "Unencumbered cash is around 50%, so the hurdle should be around 2-3%, hence the current performance fee charged on it is around 50bps, not a material number in the big scheme of things. Especially if interest rates will go lower, so no point to put hurdle which also presents a higher cost of calculation from the administrator"
6. "Need to keep talent and, as such, need to be able to pay them"
7. "Their ticket size is too small so they aren't willing to negotiate"
8. "Their business costs are rising"
9. "Do not disclose reasons"

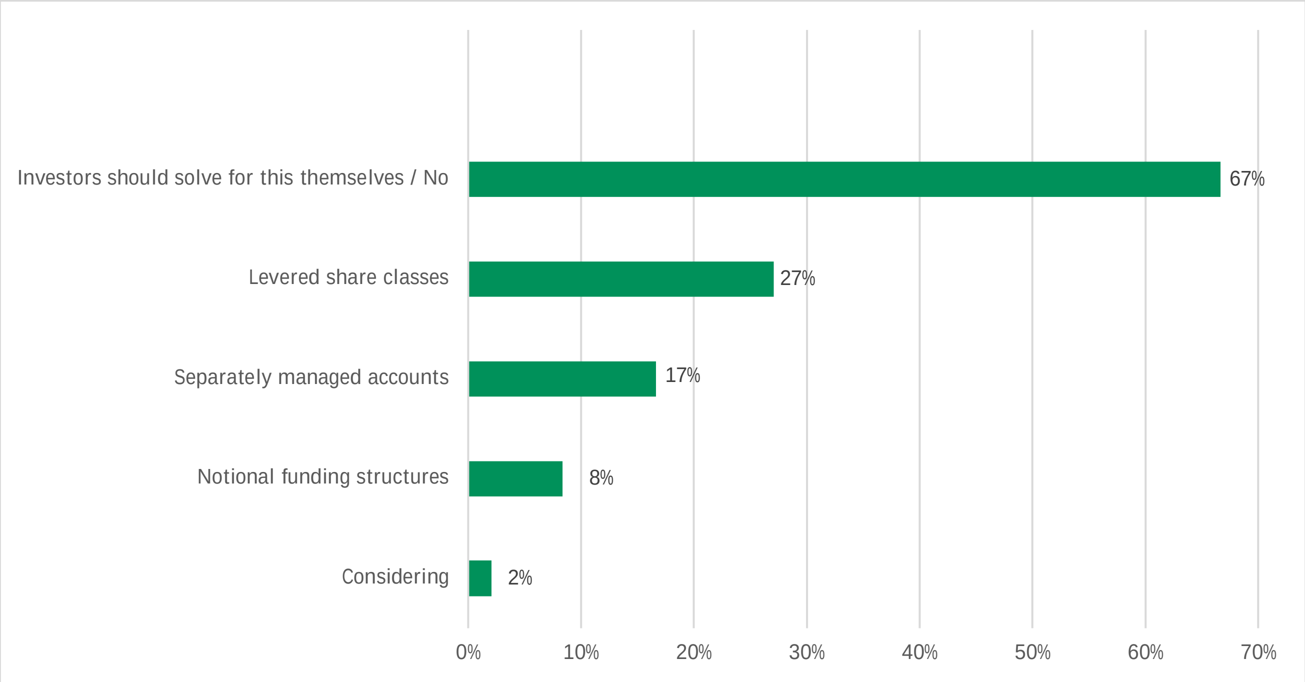
6. INVESTMENT STRUCTURES

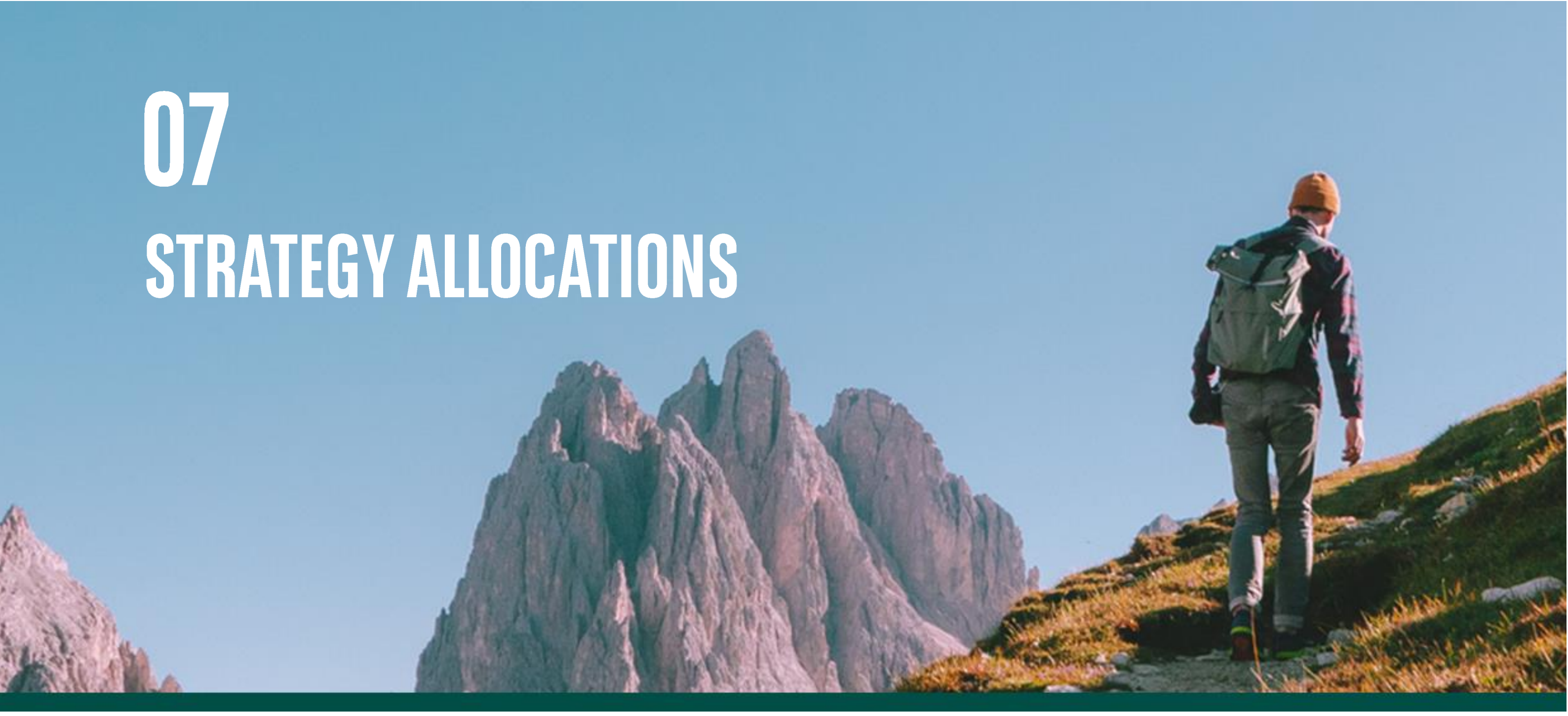
To address the rising cost of funding faced by investors, managers are collaboratively offering a variety of structures. 58% of fund managers surveyed are willing to offer separately managed accounts, while 52% are open to a levered share class structure in their response. However, 32% of fund managers responded that investors should solve for this issue themselves. Interestingly, 67% of investors also think they should solve for this themselves. It is worth noting that investors have different investment objectives and risk/return targets, with the majority of pension funds and fund of funds looking for these structures.

[1.08] Manager - Are you willing to offer investors any structures to help with their higher cost of funding or opportunity cost of capital as a result of high interest rates?



[1.12] Investor - Are you looking for managers to provide any structures to help with your higher cost of funding or opportunity cost of capital as a result of higher interest rates?

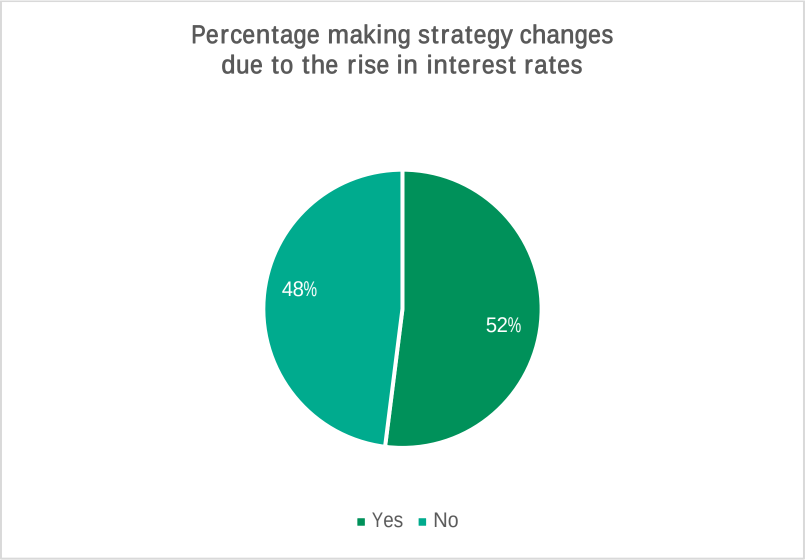




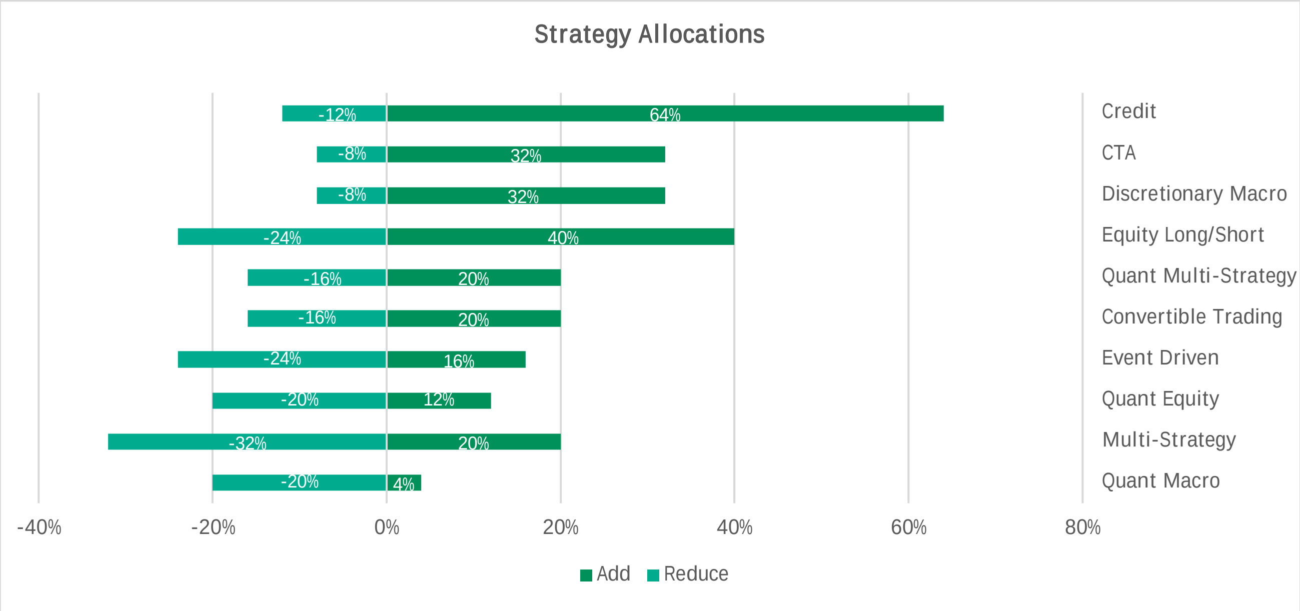
7. STRATEGY ALLOCATIONS

Investors are split when it comes to making strategy allocation changes as a result of rising rates; credit, CTA and discretionary macro ares the top picks by investors looking to make changes. Surprisingly, amongst this investor cohort, multi-strategy is a space they are looking to reduce allocation to on a net basis. This seems a contrarian view or an inflection point likely to break the last 2 years trend where multi-strategy was in vogue. This could be attributed to the fact that investors are satisfied with existing allocations and also looking to redeem from some due to muted performance.

[1.14] Investor - Given the change in the interest rate environment are you looking at adding / reducing exposure to specific hedge fund strategies?



[1.15] Investor - What strategies are you looking to add / reduce to due to the change in the interest rate environment?



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