

# Victory Belongs to the Most Persevering - Napoléon Bonaparte

## The Case of Manager Quality Over Quantity for a Fund of Hedge Funds

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“Don’t put all your eggs in one basket” is the simplest expression of diversification, and nowhere does it matter more than in investing.

Diversification enables investors to effectively mitigate idiosyncratic (company-specific) risks by balancing out any losses generated by one investment with the positive gains in another. Yet this benefit comes with a trade-off: diversification also limits the upside of exceptional positions, making concentrated, high-conviction portfolios appear more attractive and differentiated. Our most recent paper examines how powerful narratives of ordinary people becoming millionaires overnight – normally by concentrating capital in a single asset at just the right time - fuel the belief among many investors that higher risk and greater concentration equate to greater reward. The paper concludes that high-risk investments yield, on average, the same return as lower-risk counterparts. Contrary to common misperceptions, Warren Buffett, one of the most prominent proponents of holding a concentrated portfolio, advises the average investor ~~to~~ be highly diversified by simply buying an S&P 500 index fund.

However, diversification appears differently when transitioning from traditional assets to alternatives, such as hedge funds. Since they already contain dozens or even hundreds of positions, the question is: how much diversification does an investor gain by adding multiple hedge funds - and how many is too many?

This paper aims to evaluate how a fund of hedge funds should select its managers if the goal is to consistently outperform the average over a long period, rather than taking bold swings in the attempt to score a ‘home run’.<sup>1</sup> In a global hedge fund universe that exceeds 30,000 managers, I want to make the case for “quality over quantity” and reconcile the apparent tension between diversification and conviction.<sup>2</sup>

### Don’t Bet the House on One Horse: A Single Manager is Never Enough

In August 1998, Russia unexpectedly defaulted on its sovereign debt, markets seized, and liquidity evaporated. Over the next four months, one hedge fund lost \$4.6 billion, a 90% drawdown. In fear of a broader market failure, the Federal Reserve orchestrated a \$3.6 billion bailout.

Long-Term Capital Management (LTCM) was founded in 1994 by John Meriwether and staffed with a team of PhD physicists, including two Nobel Prize-winning economists, Myron Scholes and Robert Merton. Elegant strategies, cutting-edge models, and spectacular returns with remarkably low volatility made it a great candidate for a “can’t fail” manager. Yet, the fund’s highly correlated convergence trades and enormous leverage became its downfall in 1998 when all its trades moved in the wrong direction simultaneously.<sup>3</sup>

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<sup>1</sup> In Major League Baseball, home runs account for approximately 3–4% of at-bats, implying a failure rate of roughly 96–97% per attempt (MLB league averages; Baseball Almanac).

<sup>2</sup> As of Q2 2024 (ADV Ratings)

<sup>3</sup> At the start of 1998, the fund had roughly \$4.7–4.8 billion of equity capital and more than \$125 billion of on-balance-sheet assets, implying balance-sheet leverage of over 25:1, plus over \$1 trillion of notional exposure in derivatives.

The moral of the story: the old line, *past performance does not guarantee future performance*. No single hedge fund manager - no matter how impressive the track record, no matter how compelling the narrative, no matter how high your conviction - can ever be the complete solution if one is serious about mitigating your risk.

As Lhabitant and Learned (2004) note, the appeal of a fund of hedge funds lies precisely in buffering investors against the catastrophic consequences of being wrong about one manager.<sup>4</sup> In the hedge fund landscape, idiosyncratic risk is not an abstract concept: it includes key-person risk, leverage management, liquidity mismatches, operational breakdowns, and the simple reality that a manager's edge may suddenly evaporate. What appears diversified within a hedge fund is still unified by a single philosophy and decision-making process. A fund of hedge funds, by contrast, recognizes that protecting capital means accepting that any one manager can fail – making manager diversification essential.

### When Diversification Becomes Diworsification

Readers familiar with Accumulus may be surprised that the firm's first fund, launched in 2001, held over 80 managers in its portfolio in the early 2000s. The initial investment strategy was based on the prevailing belief at the time that combining multiple low-correlation managers would unlock unlimited diversification benefits.<sup>5</sup>

Research now suggests the opposite. Amo, Harasty, and Hillion (2007) demonstrated that these early models overstated diversification because they assumed that correlations between hedge funds were too low and too static. They conclude that most of the risk reduction from diversification occurs astonishingly quickly by holding only around six managers.<sup>6</sup> Beyond that, the marginal improvement to portfolio volatility becomes minimal. Instead of protecting the portfolio, additional managers may, in fact, dilute their ability to outperform.<sup>7</sup> In a perfectly frictionless world, six is the mathematical 'magic number' to capture the diversification benefit. However, in the real world, the question of "how many" is far more complex.

### Optimal Diversification Depends on More Than a Number

Since portfolios are not constructed in a vacuum, allocators must consider several key factors:

- (1) Operational realities make building a portfolio around six managers rarely feasible: Managers limit ticket sizes, close to new capital, as well as impose lockups, restrictive liquidity terms, or slow redemption cycles. These constraints make it potentially difficult for an allocator to increase positions in existing managers or reposition themselves. Adding more managers can provide more flexibility and resilience.<sup>8</sup>

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<sup>4</sup> As Lhabitant and Learned emphasize, "just as choosing a bad manager may easily wipe out all the benefits of a hedge fund allocation, so too investing in only one hedge fund is likely to be sub-optimal." Their argument is that the very features that make hedge funds attractive - leverage, complex instruments, concentrated trades - also mean that a single failure can offset years of incremental gains.

<sup>5</sup> In the late 1990s and early 2000s, industry marketing and early academic work strongly emphasized pairwise correlation as the primary risk metric for hedge fund portfolios. The prevailing view was that, because individual hedge funds exhibited low mutual correlations and low correlations with traditional assets, investors could continue adding funds to a portfolio and "harvest" nearly limitless diversification benefits. Later analyses showed that correlations are time-varying, often spike in crises, and that beyond a modest number of managers, additional funds mostly dilute alpha and increase fee drag rather than improve risk-adjusted returns.

<sup>6</sup> Amo, Harasty, and Hillion (2007) build a terminal-wealth framework using Lipper TASS data (1994–2006) and simulate equally weighted "mock" FoHFs holding between 1 and 25 underlying hedge funds. Rather than looking only at annualized volatility, they examine the dispersion of terminal wealth (TWSD) over fixed horizons. Moving from one fund to a basket of six funds reduces terminal-wealth downside dispersion by over half, while additional funds beyond roughly 10–12 provide only marginal further reduction in TWSD. In their simulations, a six-fund portfolio captures most diversification benefit (marginal risk reduction is less than 5% from six funds onwards), while portfolios with 15–25 funds exhibit very similar risk levels but noticeably lower average terminal wealth due to the inclusion of more mediocre managers.

<sup>7</sup> Accumulus's track record highlights the risks of excessive diversification. In its early years, when the portfolio was constructed with a large number of managers, performance and risk-adjusted returns were moderate compared to today. As the strategy evolved into a portfolio of approximately 15–20 managers, returns increased with reduced volatility, and the Sharpe ratio improved significantly. This underscores the importance of quality over quantity.

<sup>8</sup> Wintner, Zaslavskiy, and Abdulali (2014)

- (2) Smaller managers provide access to a deeper pool of high-quality opportunities: Because smaller managers are more nimble and less constrained by capacity, they provide greater variety and depth. This allows a fund of hedge funds to include additional, carefully selected managers without diluting alpha.
- (3) The ideal number of managers is conditional on the allocator's ability to identify superior funds: Highly skilled funds of hedge funds achieve the strongest results with 15 to 20 managers. Those with more uncertain selection ability may require 30 to 50 managers to reduce the dispersion of potential outcomes.<sup>9</sup>
- (4) The diversification quality depends on the interaction of managers, not merely the number: Tail dependencies, strategy clustering, and higher-order co-movement effects can cause portfolios to become more negatively skewed and exposed to fat-tailed events as more managers are added. A fund of hedge funds must therefore concern itself not just with "how many," but with how the chosen ones behave together across regimes, liquidity cycles, and market stresses.<sup>10</sup>

Thus, while six managers may be sufficient to diversify away most idiosyncratic risk in theory, literature suggests that a skilled allocator should hold between 15 and 25 managers.

### Building a Portfolio with Strong and Repeatable Returns

"I only size a manager bigger if I believe in its risk management."

- Benjamin Schlieman, Founder of Accumulus

The objective of a fund of hedge funds is to accumulate managers and to allocate meaningfully to those with the greatest potential to deliver the best risk-adjusted forward returns.<sup>11</sup> Diversification reduces risk, but position sizing determines whether the portfolio compounds at higher returns.

Sizing is not about chasing eye-catching performance, but about choosing return streams that are consistent and repeatable. Accumulus's largest allocations sit with managers that combine high Sharpe ratios, strong downside protection, and disciplined risk management.<sup>12</sup>

The success of this approach is evident from the track record. In 2022, a year marked by high inflation, aggressive interest rate hikes, and significant market volatility, Accumulus Fund returned approximately 4.76% gross (for comparison, the HFRI FoF Composite Index returned -5.3%). Two positions drove over 60% of performance – a mix of their size in the portfolio

<sup>9</sup> Stephen L. Nesbitt and Eli J. Sokolov, "How Many Hedge Funds?" Cliffwater Research, March 23, 2015.

<sup>10</sup> Davies, Kat, and Lu (2006) evaluate single-strategy FoHF portfolios using a full higher-moment framework (mean, variance, skewness, kurtosis). Their simulations show that while volatility declines rapidly when moving from 1 to 5 managers, additional diversification produces diminishing benefits and increasingly adverse tail characteristics. For example, in Convertible Arbitrage, increasing the portfolio from 5 to 20 managers lowers annualized volatility only marginally (from 3.3% to 3.1%), while skewness deteriorates from -0.58 to -1.11 and excess kurtosis rises from 1.9 to 4.7 (the probability of large negative outliers more than doubles). Similarly, in Emerging Markets, volatility improves from 8.9% to 8.5% between 5 and 20, but excess kurtosis jumps from 3.2 to 8.0, and skewness declines from -0.44 to -0.96. The core conclusion is that while traditional diversification slightly improves mean-variance efficiency, adding many managers within the same strategy worsens tail risk, producing portfolios that are smoother in normal markets but more vulnerable during extreme events.

<sup>11</sup> Performance-fee netting risk further substantiates taking a more stable, low-risk approach. Investors pay incentive fees on winners but cannot "net back" losses from underperforming managers. For example: Portfolio 1 allocates 50% to a high-volatility manager returning +35% and 50% to a manager returning -15%. The portfolio earns +10% gross but pays 7% performance fees on the winning manager (20% of +35%) and none on the loser, resulting in -3.5% in aggregate fees and a +6.5% net return. Portfolio 2 allocates to two lower-volatility managers returning +12% and +8% respectively. It also earns +10% gross, but fees are 2.4% and 1.6%, or -2.0% in aggregate, leaving +8.0% net. The low-risk portfolio outperforms by 1.5% net of fees, despite identical gross performance, solely because smoother underlying returns reduce the performance-fee drag.

<sup>12</sup> As of November 2025, the five largest positions (notional weight of 38%) had ITD Sharpe ratios between 1.24 and 2.51, with four of the five above 1.8. Their ITD annualized returns since the investment have ranged from 8.9% to 22.8%, and ITD volatilities have ranged from 5.0% to 7.4%. Maximum drawdowns were modest, between -1.3% and -9.0%. By contrast, the five smallest positions (notional weight of 8%) had Sharpe ratios ranging from 0.55 to 1.75, annualized returns from 0% to 10%, and ITD volatilities from 3% to 17%. Maximum drawdowns were deeper, between -7% and -21%.

and the strong performance of the managers.<sup>13</sup> In 2024, in a much more favorable market environment, Accumulus Fund returned 11.42% gross (versus 5.3% HFRI FoF Composite Index). Again, a handful of high-quality managers (four to be precise) drove roughly 54% of the performance - a mix of their size and strong performance. The two managers carrying the portfolio in 2022 were again among the top performers.<sup>14</sup> The pattern continued in 2025. As of October 2025, five managers accounted for roughly 54% of our gross 9.0% performance (versus 8.6% HFRI FoF Composite Index). And, you guessed it, the top two performers from 2022 have once again been among the top 5 year-to-date contributors.<sup>15</sup>

### **In a Universe Defined by Excess Choice, Discipline Matters More than Breadth**

Warren Buffett did not become one of the greatest investors of all time by accident - his views on concentration and diversification are grounded in decades of disciplined success. We agree with him that a truly skilled investor does not need to be highly diversified to reduce risk. The sobering truth, however, is that most of us are not Warren Buffett. And for a fund of hedge funds, the question is inherently more complex.

Hedge funds differ significantly in terms of liquidity, strategy behavior, risk profiles, and operational constraints, and in a universe of roughly 30,000 managers, choice is abundant, even after excluding those that are simply not investable. Thus, the fundamental question is about quality, not quantity. We estimate that only around 200 managers are genuine candidates for Accumulus at any point in time, and we invest in only a few carefully chosen ones.

A high-quality fund of hedge funds is ultimately defined by disciplined manager selection and sizing, not the number of funds it holds. Concentrating capital in a small set of repeatable, risk-managed return streams, while maintaining enough breadth to absorb idiosyncratic shocks, creates a portfolio that compounds steadily rather than erratically. The goal is not dramatic outperformance, but consistency; not upside at any cost, but downside protection; not home runs, but incremental gains that compound over time. To quote Howard Marks:

“I feel strongly that seeking relative performance, which is just a little bit above average on a consistent basis – with protection against poor absolute results in tough times – will provide more effectively than ‘swinging for the fences.’”

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<sup>13</sup> In 2022, the two largest positions together represented 28% of portfolio exposure (weights: 18.7% and 9.3%). Their ITD annualized returns were 19% and 26% respectively, with a volatility of 6%. Their Sharpe ratios were 3.00 and 2.38. The smallest positions (notional weight of 10%) had ITD Sharpe ratios between 0.92 to 2.33, with volatilities of 3% to 26%, and maximum drawdowns from -2% to -17%.

<sup>14</sup> In 2024, the five largest holdings (notional weight of 41%) had ITD annualized returns ranging from 9% to 24%, ITD volatilities ranging from 5% to 11%, and Sharpe ratios from 1.67 to 2.46, with maximum drawdowns ranging from -7% to -42% (the fund got hit badly in 2008, we invested in 2002 which shows the power of sizing as the fund at that time was a much smaller position). The smallest positions (notional weight of 9%) had Sharpe ratios ranging from 0.70 to 3.87, volatilities between 3% and 17%, and maximum drawdowns from -6% to -12%—all meaningfully weaker or more erratic than the largest positions.

<sup>15</sup> See footnote 10.