Two ways to be wrong in equity portfolio management (and how to help mitigate them)

Federated Hermes

Federated Hermes MDT Advisers

Key takeaways

- **Equity portfolio management often involves tempering the optimism needed to be successful with humility and risk management.**
- **Investors should consider adverse outcomes, in addition to the positive ones, as no one can perfectly predict all factors affecting securities prices.**
- **Effective risk management involves, among other things, diversification, appropriate bet sizing and avoiding unintended bets.**
- **We believe diversifying risk exposure in a portfolio — trying to leverage multiple, differentiated risk premia — can be a powerful tool for improving risk-adjusted returns.**

Managing stock portfolios is generally a business for optimists. Over time, economies grow, stock markets tend to go up and taking risks in both the business world and in markets should be rewarded. Because a stock's price stops going down when it reaches $0, and upside price potential has no similar limitation, stock investors considering a particular investment may often ask, "What could go right?" before asking, "What could go wrong?" When thinking about a portfolio of stock investments, though, humility is important, hence the need to give the latter question meaningful consideration. In this paper, we will look at portfolio risk management through the lens of two different frameworks of negative outcomes in the stock-picking process and discuss methods of potentially mitigating those outcomes at a portfolio level.

#1 – Being wrong

Investments in all but the safest securities are inherently risky. No investor can perfectly chart the factors affecting securities prices, such as interest rates, energy prices, corporate regulation or geopolitics. At the security level, uncertainty surrounds the prospects for individual companies' product launches, the emergence of future competition or shifts in customer preferences. When evaluating historical data, is an identified pattern something that can be relied upon to repeat in the future, or is it merely a statistical artifact unlikely to lead to future profitable investment decisions?

Uncertainty is what makes markets. If it were easy to predict all the potential impacts on the value of a security, then investors would quickly agree on a security's value and volatility would disappear from the market for that security—a truly efficient market. Fortunately for investors, many portfolio managers are aware that the thesis behind a particular investment may not play out. Many also come well-armed to deal with some of the uncertainty surrounding the securities in their portfolios.

Mitigating risk

Outlined below are some of these tools, familiar to anyone involved in risk-taking activities:

- **Diversification** – The adage against putting all your eggs in one basket. If there is risk that any particular investment may not work out the way an investor hopes, a prudent approach is to have a portfolio of assets with positive expected but independent outcomes.
- **Bet sizing** – The size of a bet, all else equal, should be inverse to the uncertainty surrounding that bet. From a portfolio perspective, managers should take smaller positions in securities where they believe the potential variance of returns is relatively greater.
- **Avoiding unintended bets** – Trying to minimize exposure to uncertainty that is unrelated to one's investing edge. It would be undesirable for an investor with skill at picking stocks from the bottom up to end up with a portfolio where all the stocks are in the oil and gas production business. The future path of energy prices will probably be a more significant determinant of portfolio outcomes than the fortunes of the individual companies in the portfolio.

As portfolio managers, we are keenly aware that not every security we own will play out according to plan. Properly applied risk measures, such as those outlined above, can help reduce the individual impact of a poorly performing security on the overall portfolio.

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#2 – Being right, but early

Adding a layer of complexity to the portfolio risk puzzle, portfolio managers must confront investment theses that may ultimately work out but move in the wrong direction in the near term. And as difficult as it may be for investment managers to stick with (or, better yet, to augment) an investment decision that has moved against them, a more significant challenge may lie in convincing current or prospective investors that the correct course is being followed. How can an outsider reliably distinguish whether their manager has experienced a loss of skill or has just gotten unlucky in the short run?

The tools mentioned above are helpful here but can be costly. For example, in the August 2007 meltdown in quant strategies, when many stocks inexplicably dropped 10% or more,[1] many investors reduced their positions due to higher perceived risk surrounding those stocks. When the liquidity event that caused the selloff subsided, and those stocks bounced back a few days later, investors that had reduced risk at unfavorable prices were left less than whole by the event. This is a good example of where the downside of being heavy-handed with the risk mitigation tools identified above can adversely affect returns. Reducing risk when positions are only temporarily out of favor may limit the potential upside from when they come back into favor.

Popular approaches for investment managers to mitigate the risk of investors abandoning out-of-favor strategies at unfavorable times involve compulsion—whether tangible, in the forms of capital lockups and gates, or intangible, in the form of persuasion. "No pain, no premium," goes a pithy saying to help investors stay the course through short-term underperformance. Left unsaid is how investors should know if there really is a light at the end of the tunnel. Not every investment strategy will deliver a satisfactory outcome in the long run. Despite the urgings from every corner, past underperformance will be a signal to some that there may not be a positive outcome ahead.

Asset owners may approach the portfolio risk puzzle differently. In hiring multiple managers with different investing styles and time horizons, they know that when a particular manager's investments are out of favor ("right, but early"), other managers in the total portfolio could be in favor, balancing out any drag on overall portfolio outcomes. But even this approach has potential pitfalls.

First, trying to hire multiple skilled managers may have added costs and risks. Managers may not have perfectly consistent styles over time, so the hoped-for diversification benefits across managers may be lower than expected. Also, this approach may lead to sub-optimal capital deployment because the bets of multiple independent managers may inadvertently cancel each other out, leading to a more index-like portfolio at an active management fee level.

We believe there is an alternative that can help solve some of these issues. By using sophisticated optimization and risk management techniques, a single manager with multiple diversified alpha-seeking engines can potentially benefit from a multimanager type approach while reducing the frictions of utilizing multiple independent sub-portfolios.

Federated Hermes MDT's approach

At Federated Hermes MDT Advisers, we have spent more than 30 years developing and refining our systematic process to picking stocks and building portfolios, with the goal of delivering alpha to our clients with as much consistency as possible.

We realize that avoiding bad outcomes in the investment business is not a job for risk controls alone, although they are a critical piece of the equation. We believe diversifying risk exposure in a portfolio—trying to leverage multiple, differentiated risk premia—can be a powerful tool for improving risk-adjusted returns.

In 2001, we discovered that employing a decision tree in stock picking can be a powerful means towards seeking diverse alpha sources for portfolio construction. Decision tree algorithms search down every branch of the tree for the means to explain the best and worst potential outcomes within that branch. If a tree splits on value, then the algorithm tries to find the characteristics associated with not only the best and worst value stocks but also, separately, for those characteristics associated with the best and worst "not-value" (growth) stocks.

Over the past twenty years, understanding how to use these tools to help us pick stocks and build portfolios has evolved tremendously, but always with the same goal—creating highly diversified, resilient portfolios for our clients.

[1] Amir E. Khandani and Andrew W. Lo What Happened To The Quants In August 2007?: Evidence from Factors and Transactions 2008

The quantitative models and analysis used by MDT may perform differently than expected and negatively affect performance.

Investing in equities is speculative and involves substantial risks. The value of equity securities will rise and fall. These fluctuations could be a sustained trend or a drastic movement.

Diversification does not assure a profit nor protect against loss.

Alpha is a measure of excess return.

Past performance is no guarantee of future results.

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