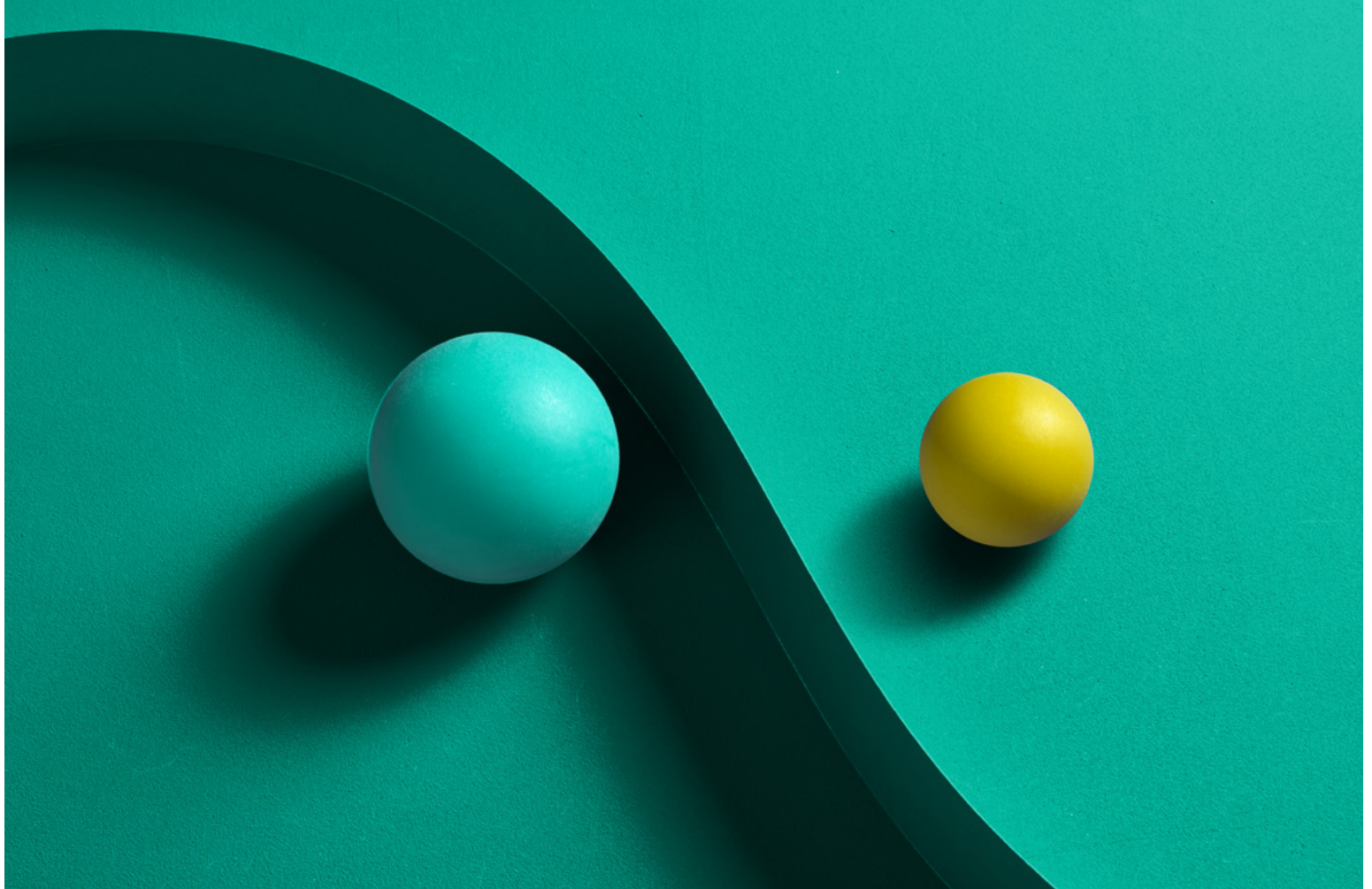


Vanguard

Considerations for liquid alternatives in your 60/40 portfolio

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Highlights



Liquid alternative funds adoption has increased in recent years by advisors within their portfolios stemming from economic, market and regulatory tailwinds.



Fund transparency, performance attribution, manager dispersion and higher fees make alternative investments more complex to analyze than traditional funds.



The source and position sizing should be taken into consideration before implementing alternative solutions.



Given recent market dynamics, the opportunity cost for including alternative funds into a 60/40 portfolio may have increased.



Introduction

Alternative funds have been receiving attention from the investment advisor community in Canada.

Vanguard's Canadian *Portfolio Consulting Service (PCS)* team has analyzed several hundred portfolios over the past three years and noticed increased usage of liquid alternative funds – both in prevalence and in size allocations within advisor portfolios.

One of the main reasons for this trend stems from decreasing interest rates within the bond market over the past several decades. In addition, equity-bond correlations started moving in tandem in 2022 as interest rates increased rapidly to fight generationally high inflation. This brought into question the ability of the traditional 60/40 stock and bond portfolio to meet client investment goals and objectives. The inclusion of alternative solutions into a traditional balanced portfolio tries to solve for this by introducing assets that are aimed to be less correlated to traditional assets. Another objective is to generate positive absolute returns regardless of traditional asset class performance.

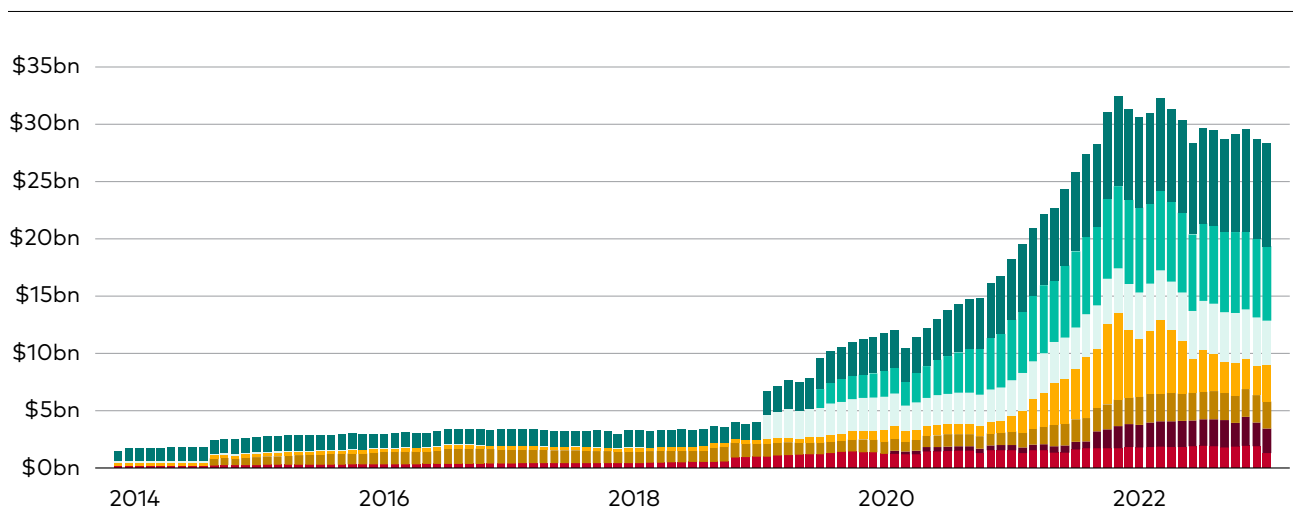
Regulatory tailwinds in Canada added to the demand and supply of liquid alternatives for

advisors. Canadian regulators allowed liquid alternatives to be introduced back in 2019 by allowing retail investors access to hedge-fund strategies without needing to be considered an 'accredited' investor. From here, asset managers increasingly launched liquid alternative strategies to offer more flexibility by allowing hedge-fund strategies to be held within a mutual fund wrapper. The "liquid" refers to the availability of more frequent trading by these types of investments compared to most hedge-fund strategies. As of December 2022, there were 120 liquid alternative strategies from 38 fund providers.

Although becoming more topical, the alternative life cycle is still in its early stages within the Canadian wealth landscape. These funds make up approximately \$30 billion out of the \$6.8 trillion Canadian wealth industry. **Figure 1** shows the growth in alternative investment assets broken down by sub-asset class for the period ranging from 2014 to 2022. Equity-focused alternatives make up the biggest piece of the alternative landscape with Credit-focused making up the second largest sub-asset class.

Figure 1

Alternative fund growth by category in Canada (in billions, \$)



Source: Morningstar Canada

- Equity focused
- Multi-strategy
- Market neutral
- Private debt
- Cryptocurrency
- Private equity
- Credit focused

In this paper, we first aim to call out some of the complexities that arise from analyzing alternative funds. Secondly, manager performance dispersion of alternative funds is compared against their traditional asset class counterparts. Thirdly, before implementation of alternative funds, we look at different sources of where to fund this exposure within the portfolio. Lastly, we look at the trade offs of adding alternative funds to a traditional 60/40 portfolio given future market expectations.

Attributes complicating analysis of alternative funds

Alternative investments are a more complex form of active management. Below are four distinct ways in which these investments are more complicated than traditional investments: transparency, attribution, manager selection and fees. We briefly summarize each of these challenges in this section.

1. Transparency

Portfolio analytics are important to identify areas of market exposure. Many liquid alternative funds make thorough due diligence challenging because of their opaqueness and limited disclosures. In most cases, the entire holdings of what the fund managers are trading is not fully disclosed. Unintended exposures can accidentally lead to similar correlations to traditional equity and bond markets - which contradicts the original rationale for including alternative strategies. Lack of transparency can also make it more difficult to forecast expected returns for financial planning purposes. Vanguard's projections are based on the Vanguard Capital Markets model (VCMM®) which uses sophisticated statistical techniques to estimate future asset class returns. Our model predicts that the long-term average return for the traditional 60/40 portfolio will be around 7%. The table below breaks down our forward-looking views for traditional sub asset classes.

10-year expected returns for equity and fixed income asset classes

Equities			Fixed Income		
	Median return expectations	Median volatility		Median return expectations	Median volatility
Canadian equities	5% - 7%	17%	Canadian aggregate bonds	3% - 4%	5%
Global equities (ex-Canada)	5% - 7%	19%	Canadian Credit	5% - 6%	6%
US equities	4% - 6%	20%	Global Aggregate Bonds (ex-Canada)	3% - 4%	5%
Developed, ex-North America equities	6% - 8%	20%	US Aggregate Bonds - Hedged	3% - 4%	6%
EM equities	6% - 8%	28%	US Treasury - Hedged	3% - 4%	6%

Source: Vanguard.

2. Attribution

Most alternative fund managers tend to be relatively unconstrained in their investment strategies and their strategies could change over time. This makes an accurate assessment of performance more difficult than some traditional asset classes. Another specific challenge when analyzing past performance of various alternative categories can include survivorship bias. Survivorship bias occurs when only considering the surviving observations without considering those data points that didn't survive in the event. **Figure 2** shows that this type of bias has been higher among alternative funds compared to traditional funds. A higher *Termination Percentage* would indicate higher survivorship bias, meaning only the successful funds are being included when analyzing past performance for the category. The funds that have failed are not being considered in the data. This leads to further complications for proper due diligence, leading to weakened confidence in reported results.

Figure 2

Survivorship bias is more apparent within the alternatives space compared to traditional asset classes

Termination Percentage = (# of funds terminated / # of funds launched)

Trailing Time Period	Alternative Funds	Canadian Equity	U.S. Equity
3	38%	32%	22%
5	33%	35%	24%
10	46%	30%	19%
15	69%	27%	20%

Source: Morningstar Canada (as of 5/1/2023). Morningstar category averages are equal-weighted category returns. The calculation is the average of the returns for all the funds in each category. The standard category average calculation is based on constituents of the category at the end of the period.

3. Manager selection

Investable, alternative indices do not exist, meaning there is only absolute performance to consider without any beta exposure, so manager selection and conviction are crucial. Furthermore, as discussed in more detail in the next section, dispersion of returns among managers is wider than traditional categories, making results of the selection process the key driver of performance.

4. Fees

The management expense ratio (MER) of the liquid alternative fund will impact the overall fee of the portfolio. The all-in costs of alternative investments are typically higher than comparable traditional managed funds. The table below breaks down the costs for fee-based mutual funds and ETFs for different asset classes.

Average fee-based MER

Canadian equity	Global equity	Canadian fixed income	Global fixed income
0.50%	0.70%	0.41%	0.44%
Alternative equity		Alternative fixed income	
2.78%		1.48%	

Source: Morningstar, Vanguard, 2023.

Investment costs are important because higher fees require greater manager skill as it imposes a higher hurdle for fund managers to generate superior results. Additionally, performance fees can incentivize fund managers to take on excessive risk, as they are rewarded when they outperform but not penalized when they underperform.

Alternatives are not created equal

Manager performance dispersion is high among and within most alternative categories, making them very difficult to evaluate. There tends to be numerous strategies that are leveraged within more narrowly defined alternative categories. For example, within the *Macro trading* alternative category, a fund manager can net short the overall market to generate better performance, on the other hand, a second manager could go net long the market based off their forward-looking expectations. These two strategies within the same alternative category could produce opposite performance results in theory. The range of different investment strategies are important to consider for advisors looking for alternative

solutions. According to Morningstar, there are over 10 different types of sub-categories that fall within the alternatives fund realm – each with several unique strategies. **Figure 3a** shows the performance dispersion of the Equity focused alternative category compared to the traditional *Canadian equity* and *Global equity* categories. The longer vertical gold box-and-whisker chart indicates that there has been a wider range of returns between different managers within the specific alternative category compared to the traditional asset categories in green and teal. **Figure 3b** shows the same relationship for the *Fixed-income* focused alternative category compared to the traditional *Canadian fixed income* and *Global fixed income* asset categories.

Figure 3a

Risk and return dispersion of equity-focused alternatives are generally higher than traditional counterparts

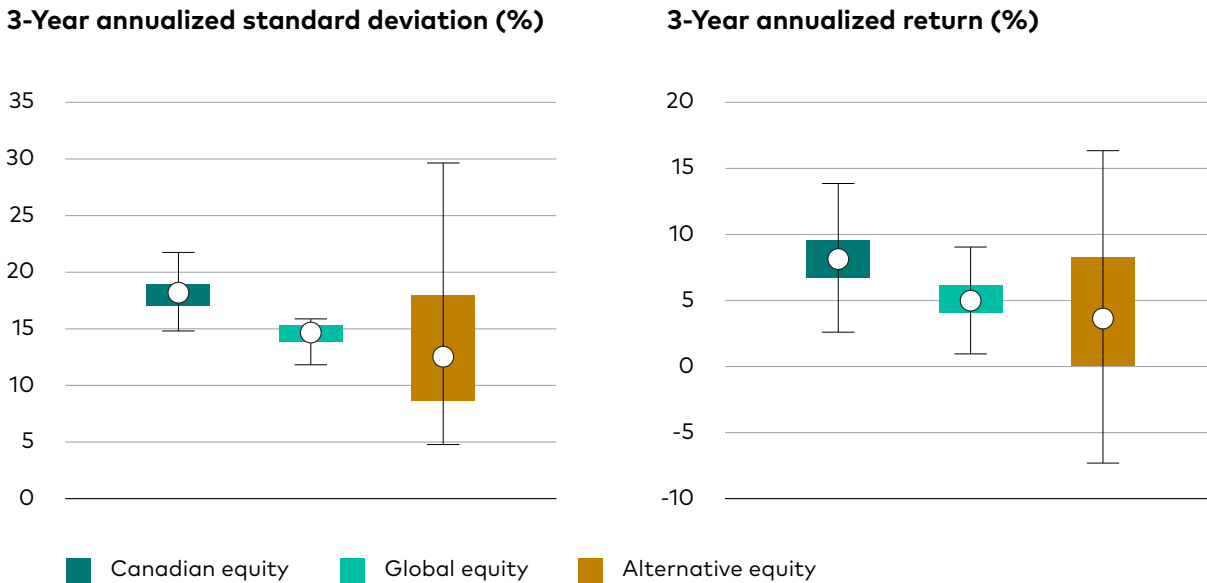
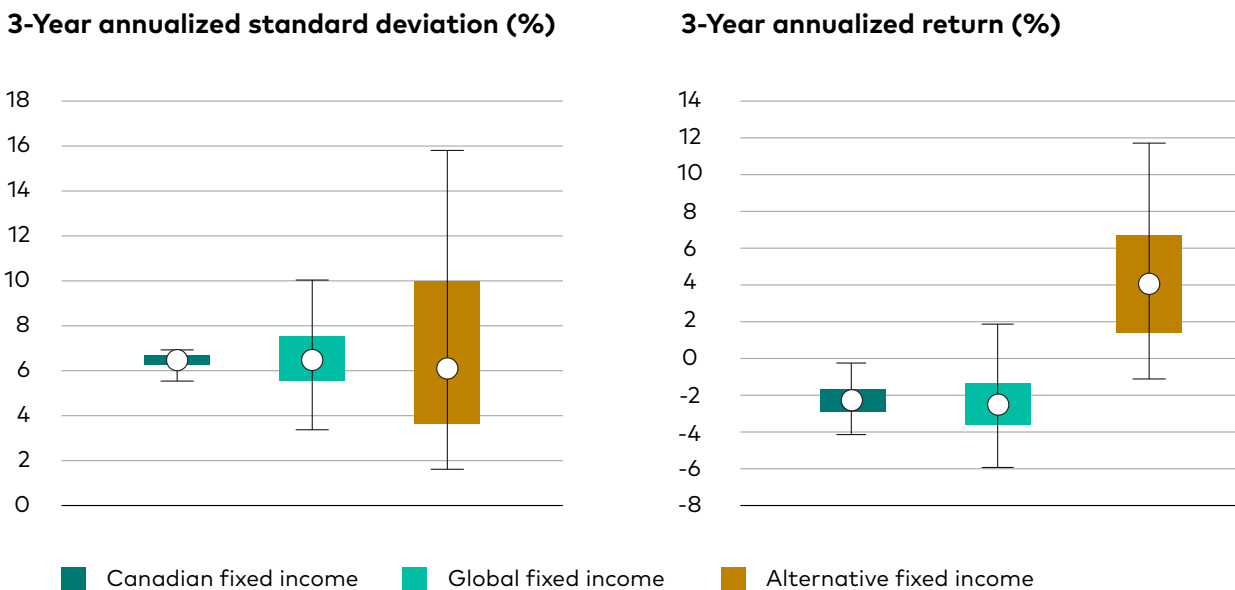


Figure 3b

Risk and return dispersion of fixed-income-focused alternatives are generally higher than traditional counterparts



Source: Morningstar Canada (as of 12/31/2022) Vanguard analysis.

Manager research can be a resource intensive activity for advisors looking to build well-diversified portfolios for their clients. It is crucial to assess the fund managers' firm, people, philosophy, and process before investing in a strategy. Our view is that outsourcing this effort to your dealer research team, or a reputable third-party, will enable advisors to free up time for client relationships. We have found that prioritizing client-centric activities leads to a successful investment advisory practice.

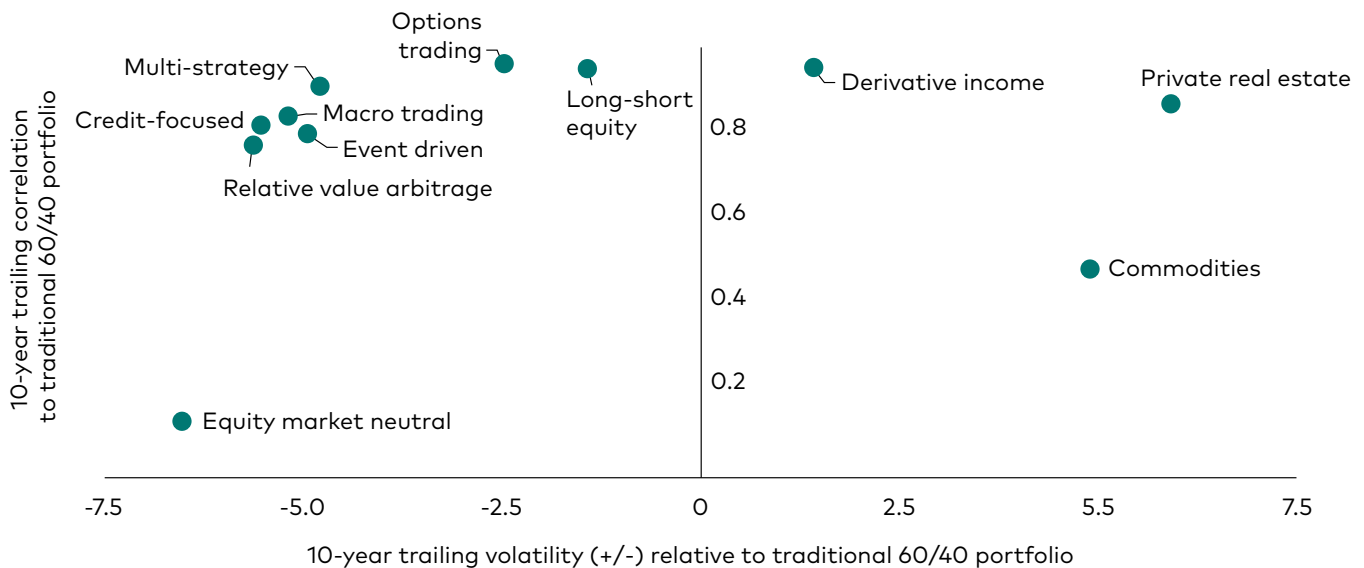
Sourcing alternative fund exposure must be taken into consideration

If a need for alternative strategies has been identified, one must consider from where the alternative position will be funded. In other words, if a new position is added to a traditional 60/40 portfolio, existing position(s) must be removed or reduced to make up for the new strategy. The PCS team has done extensive research on the

decision to source the alternative exposure which will have different impacts on future portfolio performance. The study looks at portfolio implications by introducing different types of alternative categories into a traditional 60/40 portfolio. **Figure 4** analyzes these alternative categories based off their 10-year trailing correlation to the traditional 60/40 portfolio and the 10-year trailing volatility relative to the traditional 60/40 portfolio.

Figure 4

Alternative strategy correlations and volatilities compared to the 60/40 portfolio



Source: Morningstar (as of 12/31/2022) Vanguard analysis. Morningstar category averages are equal-weighted category returns. The calculation is the average of the returns for all the funds in each category. The standard category average calculation is based on constituents of the category at the end of the period.

From the chart above, the *Equity market neutral* category has been the best diversifier to the traditional 60/40 portfolio, based off lower correlations to the traditional 60/40 portfolio. *Equity market neutral* has also exhibited lower relative volatility. *Long-short equity* and *Options trading* categories did not meaningfully increase diversification or reduce risk relative to the traditional portfolio. Alternative strategies near the center of the chart often fall short of this objective because their returns have been more highly correlated with traditional market indices. Rather than potentially decreasing risk, these alternative categories modify market exposures without the diversification benefits.

Generally, the inclusion of an alternative fund within a traditional 60/40 portfolio should be funded from an asset class with similar volatility. This could help ensure that the portfolio exhibits consistent risk characteristics even if the future returns of the alternative strategy are not as expected. Sizing of the alternative positions should also be considered depending on the volatility of the alternative fund compared to traditional equity and fixed income markets. Our research also suggests sourcing alternative exposure from both the equity and fixed income side of a multi-asset class portfolio.

Increased opportunity costs for introducing alternatives to traditional portfolio

Based off the portfolios analyzed through the PCS team, alternative strategies (if present) are used as satellite positions within the core-satellite approach to portfolio construction. The core of portfolios generally consists of traditional equity and fixed income funds that could be active or index-tracking strategies. The decision whether

to use alternatives and their allocations to complement the traditional portfolio depends on many factors – most of which have been reviewed so far. The last factor discussed in this section pertains to the recent market dynamics that have occurred throughout 2022 and the repricing of assets given higher interest rates. **Figure 5** provides data showing the relative strength of the traditional 60/40 portfolio compared to alternative categories based off historical performance going back a decade.

Figure 5

Alternative strategies 10-year historical performance compared to a traditional 60/40 portfolio

Strategy	% of Months with Negative Returns	% of Months Traditional 60/40 Portfolio Outperformed
Equity Market Neutral	46.7%	56%
Credit-focused	46.7%	59%
Commodities	45.8%	56%
Event Driven	42.5%	55%
Macro Trading	42.5%	55%
Private Real Estate	41.7%	50%
Multi - Strategy	40.8%	53%
Relative Value Arbitrage	40.8%	56%
Options Trading	40.0%	51%
Long-Short Equity	35.8%	50%
Derivative Income	32.5%	41%
Traditional 60/40 Portfolio	30.0%	--

Source: Morningstar (as of 12/31/2022) Vanguard analysis. Morningstar category averages are equal-weighted category returns. The calculation is the average of the returns for all the funds in each category. The standard category average calculation is based on constituents of the category at the end of the period. The Vanguard Balanced ETF Portfolio (VBAL) was used as a proxy for this historical return analysis.

The data suggests that the historical returns of the traditional 60/40 portfolio has exhibited fewer negative monthly returns and has generated a higher percentage of outperformance compared to most alternative categories. More recently, market dynamics has made it such that the traditional 60/40 portfolio has gone through a re-adjustment after aggressive market repricing both on the equity and fixed income side. Although patience is still required, our proprietary *Vanguard Capital Markets Model (VCMM®)* makes a case that forward-looking return expectations for the traditional 60/40 portfolio has improved compared to a year ago. On a forward-looking basis, the model projects the long-term average return to be around 7% for the traditional 60/40 portfolio, annualized over the next 10 years. This forecast is up significantly from where we were before the beginning of 2022. Therefore, within this new market paradigm, alternative fund managers are tasked to generate stronger returns (given lower equity valuations) and better downside protection (given higher bond yields). Because of these factors, the opportunity costs for introducing alternatives into the traditional 60/40 portfolio are now higher.

Conclusion

Our Canadian PCS team has noticed higher use of alternative investments within advisor portfolios, most likely driven by economic, market and regulatory dynamics. While alternative investments may present a compelling investment opportunity, they are not without their complexities. Complications relating to the analysis of alternative funds compared to traditional funds include reduced transparency, difficulty of effective attribution, strategy differentiation and higher fees. In addition, the alternative funds landscape entails much wider dispersion of manager returns

compared to traditional fund categories. Before implementation, the sourcing and sizing of the alternative strategy should be taken into consideration. Lastly, given recent market dynamics, opportunity costs for including alternative funds into a portfolio consisting of traditional assets has increased.

Vanguard has developed a set of investment principles that we believe are important to long-term investment success. Those include having clear and appropriate investment goals, developing a suitable asset allocation using broadly diversified funds, minimizing costs, and maintaining perspective and long-term discipline. We acknowledge that there could be a place for alternative strategies within a well-diversified portfolio given specific investor goals and preferences. However, because of the factors described in this paper, proper analysis and implementation of alternative funds could take away from key relationship management and behavioral coaching activities that are pivotal in earning clients' trust - which Vanguard has coined as [Advisor's Alpha®](#). Making time for these types of activities cement relationships, help gain more assets and earn referrals from clients. This will help advisors to weatherproof their practices from recessions and market downturns while protecting against asset attrition.

Important Information

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The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More important, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The projections or other information generated by the Vanguard Capital Markets Model regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. The Vanguard Capital Markets Model is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.



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