Putting a value on your value: Quantifying Vanguard Advisor's Alpha in Canada

Vanguard research

May 2015

Ryan Rich, CFA; Colleen M. Jaconetti, CPA, CFP®; Francis M. Kinniry Jr., CFA; Donald G. Bennyhoff, CFA; and Yan Zilbering

- The value proposition of advice is changing. The nature of what investors expect from advisors is changing. And fortunately, the tools available to advisors are evolving as well.
- In creating the Vanguard Advisor's Alpha™ concept in 2001, we outlined how advisors could add value, or alpha, through relationship-oriented services such as providing cogent wealth management via financial planning, discipline and guidance, rather than by trying to outperform the market.
- Since then, our work in support of the concept has continued. This paper takes the advisor's alpha framework further by attempting to quantify the benefits that advisors can add relative to others who are not using such strategies. Each of these can be used individually or in combination, depending on the strategy.
- We believe implementing the Vanguard Advisor's Alpha framework can add "about 3%" in net returns for your clients and also allow you to differentiate your skills and practice.

The value proposition for advisors has always been easier to describe than to define. In a sense, that is how it should be, as value is a subjective assessment and necessarily varies from individual to individual. However, some aspects of investment advice lend themselves to an objective quantification of their potential added value, albeit with a meaningful degree of conditionality. At best, we can only estimate the "value-add" of each tool, because each is affected by the unique client and market environments to which it is applied.

As the financial advice industry continues to gravitate toward fee-based advice, there is a great temptation to define an advisor's value-add as an annualized number. Again, this may seem appropriate, as fees deducted annually for the advisory relationship could be justified by the "annual value-add." However, although some of the strategies we describe here could be expected to yield an annual benefit—such as reducing expected investment costs or taxes—the most significant opportunities to add value do not present themselves consistently, but intermittently over the years, and often during periods of either market duress or euphoria. These opportunities can pique an investor's fear or greed, tempting him or her to abandon a well-thought-out investment plan. In such circumstances, the advisor may have the opportunity to add tens of percentage points of value-add, rather than mere basis points,[1] and may more than offset years of advisory fees. And while the value of this wealth creation is certainly real, the difference in your clients' performance if they stay invested according to your plan, as opposed to abandoning it, does not show up on any client statement. An infinite number of alternate histories might have happened had we made different decisions; yet, we only measure and/or monitor the implemented decision and outcome, even though the other histories were real alternatives. For instance, most client statements don't keep track of the benefits of talking your clients into "staying the course" in the midst of a bear market or convincing them to rebalance when it doesn't "feel" like the right thing to do at the time. We don't measure and show these other outcomes, but their value and impact on clients' wealth creation is very real, nonetheless.

The quantifications in this paper compare the projected results of a portfolio that is managed using well-known and accepted best practices for wealth management with those that are not. Obviously, the way assets are actually managed versus how they could have been managed will introduce significant variance in the results.

Believing *is* seeing

What makes one car with four doors and wheels worth $300,000 and another $30,000? Although we might all have an answer, that answer likely differs from person to person. Vanguard Advisor's Alpha is similarly difficult to define consistently. For some investors without the time, willingness or ability to confidently handle their financial matters, working with an advisor may be a matter of peace of mind: They may simply prefer to spend their time doing something—anything—else. Maybe they feel overwhelmed by product proliferation in the fund industry, with an increasing number of new options available, especially ETFs. While virtually impossible to quantify, in this context, the value of an advisor is very real to clients, and this aspect of an advisor's value proposition, and our efforts here to measure it, should not be negatively affected by the inability to objectively quantify it. By virtue of the fact that the overwhelming majority of mutual fund assets are advised, investors have already indicated that they strongly value professional investment advice. We don't need to see oxygen to feel its benefits.

Investors who prepare their own tax returns have probably wondered whether a tax expert might do a better job. Are you really saving money by doing your own taxes, or might a tax expert save you from paying more tax than necessary? Would you not use a tax expert just because he or she couldn't tell you in advance how much you would save in taxes? If you believe an expert can add value, you see value, even if the value can't be well quantified in advance. The same reasoning applies to other household services that we pay for—such as painting, house cleaning or landscaping; these can be considered "negative carry" services, in that we expect to recoup the fees we pay largely through emotional, rather than financial, means. You may well be able to wield a paint brush, but you might want to spend your limited free time doing something else. Or maybe, like many of us, you suspect that a professional painter will do a better job. Value is in the eye of the beholder.

It is understandable that advisors would want a less abstract or less subjective basis for their value proposition. Investment performance thus seems the obvious, quantifiable value-add to focus on. For advisors who promise better returns, the question is: Better returns than what? Better returns than those of a benchmark or "the market"? Not likely, as evidenced by the historical track record of active fund managers, who tend to have experience and resources well in excess of those of most advisors, yet have failed to consistently outperform versus benchmarks in pursuit of excess returns (see Philips, Kinniry, and Schlanger, 2013). Better returns than those provided by an advisor or investor who doesn't use the value-added practices described here? Probably, as we discuss in the sections following.

Indeed, investors have already hinted at their thoughts on the value of market-beating returns. Over the past five years, cash flows have been increasingly going into broad-based index funds and ETFs, rather than higher-cost actively managed funds. For example, over the five years ending December 31, 2014, equity and fixed income index funds and ETFs in Canada have received significant inflows while active equity and fixed income products have experienced large outflows. In essence, investors have on average chosen investments that are generally structured to match their benchmark's return, with lower management fees. In other words, investors seem to feel there is great value in investing in funds whose expected returns trail, rather than outperform, their benchmarks' returns.

Why would they do this? Ironically, their approach is sensible, even if "better performance" is the overall goal. Better performance compared to what? Better than the average mutual fund investor in comparable investment strategies. Although index funds should not be expected to beat their benchmark, over the long term they can be expected to better the return of the average mutual fund investor in their benchmark category, because of their lower average cost (Philips et al, 2013). *A similar logic can be applied to the value of advice: Paying a fee for advice and guidance to a professional who uses the tools and tactics described here can add meaningful value compared with the average investor experience, currently advised or not*. We are in no way suggesting that every advisor—charging any fee—can add value, but merely that advisors can add value if they understand how they can best help investors. Similarly, we cannot hope to define here every avenue for adding value. For example, charitable-giving strategies, key-person insurance or business-continuation planning can all add tremendous value given the right circumstances, but they certainly do not accurately reflect the "typical" investor experience. The framework for advice that we describe in this paper can serve as the foundation upon which an advisor's alpha can be constructed.

Figure 1 is a high-level summary of tools (organized into seven modules as detailed in the "Vanguard Advisor's Alpha Quantification Modules" section, see pages 10 to 22) covering the range of value we believe advisors can add by incorporating wealth-management best practices. ***Based on our analysis, advisors can potentially add "about 3%" in net returns by using the Vanguard Advisor's Alpha framework.*** Because clients only get to keep, spend or bequest net returns, the focus of wealth management should always be on maximizing net returns. It is important to note that we do not believe this potential 3% improvement can be expected annually; rather, it is likely to be very lumpy. Further, although every advisor has the ability to add this value, the extent of the value will vary based on each client's unique circumstances and the way the assets are actually managed, versus how they could have been managed. Obviously, although our suggested strategies are universally available to advisors, they are not universally applicable to every client circumstance. Thus, our aim is to motivate advisors to adopt and embrace these best practices and to provide advisors with a reasonable framework for describing and differentiating their value proposition. With these considerations in mind, this paper focuses on the most common tools for adding value, encompassing both investment-oriented and relationship-oriented strategies and services.

As stated, we provide a more comprehensive description of our analysis in the modules in the latter part of this paper. While quantifying the value you can add for your clients is certainly important, it's equally crucial to understand how following a set of best practices for wealth management such as Vanguard Advisor's Alpha can influence the success of your advisory practice.

Vanguard Advisor's Alpha: Good for your clients and your practice

For many clients, entrusting their future to an advisor is not only a financial commitment but also an emotional commitment. Similar to finding a new doctor or other professional service provider, you typically enter the relationship based on a referral or other due diligence. You put your trust in someone and assume he or she will keep your best interests in mind—you trust that person until you have reason not to. The same is true with an advisor. Most investors in search of an advisor

Figure 1. Vanguard quantifies the value-add of best practices in wealth management

Vanguard Advisor's Alpha strategy modules	Module number	Value-add relative to "average" client experience (in basis points of return)
Suitable asset allocation using broadly diversified funds/ETFs	I	> 0 bps
Cost-effective implementation (expense ratios)	II	131 bps
Rebalancing	III	47 bps
Behavioural coaching	IV	150 bps
Asset location	V	0 to 42 bps
Spending strategy (withdrawal order)	VI	0 to 41 bps
Total-return versus income investing	VII	> 0 bps
Potential value added		**"About 3%"**

Notes: Return value-add for Modules I and VII was deemed significant but too unique for each investor to quantify. See pages 10 to 22 for detailed descriptions of each module. Also, for "Potential value added," we did not sum the values because there can be interactions between the strategies. Bps = basis points.

Source: The Vanguard Group, Inc.

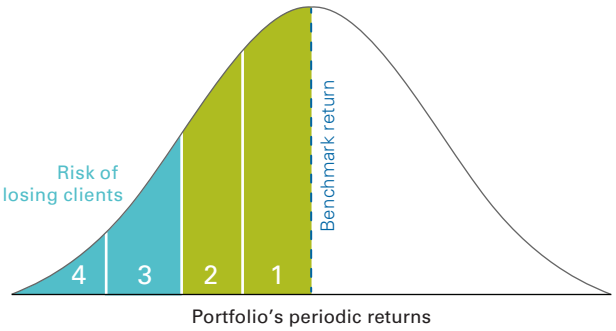
are looking for someone they can trust. Yet, trust can be fragile. Typically, trust is established as part of the "courting" process, in which your clients are getting to know you and you are getting to know them. Once the relationship has been established, and the investment policy has been implemented, we believe the key to asset retention is keeping that trust.

So how best can you keep the trust? First and foremost, clients want to be treated as people, not just as portfolios. This is why beginning the client relationship with a financial plan is so essential. Yes, a financial plan promotes more complete disclosure about clients' investments, but more important, it provides a perfect way for clients to share with the advisor what is of most concern to them: their goals, feelings about risk, their families and charitable interests. All of these topics are emotionally based, and a client's willingness to share this information is crucial in building trust and deepening the relationship.

Another important aspect of trust is delivering on your promises—which raises another question: How much control do you actually have over the services promised? At the start of the client relationship, expectations are set regarding the services, strategies and performance that the client should anticipate from you. Some aspects, such as client contact and meetings, are entirely within your control, which is a good thing: Recent surveys suggest that clients want more contact and responsiveness from their advisors (Spectrem Group, 2014). Not being proactive in contacting clients and not returning phone calls or emails in a timely fashion were cited by Spectrem Group as among the top reasons for changing financial advisors. Consider that in a fee-based practice, an advisor is paid the same whether he or she makes a point of calling clients just to ask how they're doing or calls only when suggesting a change in their portfolio. That said, a client's perceived value-add from the "hey, how are you doing?" call is likely to be far greater.

This is not to say that performance is unimportant to clients. Here, advisors have some control, but not total control. Although advisors choose the strategies upon which to build their practices, they cannot control performance. For example, advisors decide how strategic or tactical they want to be with their investments, or how far they are willing to deviate from the broad-market portfolio. As part of this decision process, it's important to consider how committed you are to a strategy; why a counterparty may be willing to commit to the other side

Figure 2. Hypothetical return distribution for portfolios that significantly deviate from a market-cap-weighted portfolio



1. Client asks questions
2. Client pulls some assets
3. Client pulls most assets
4. Client pulls all assets

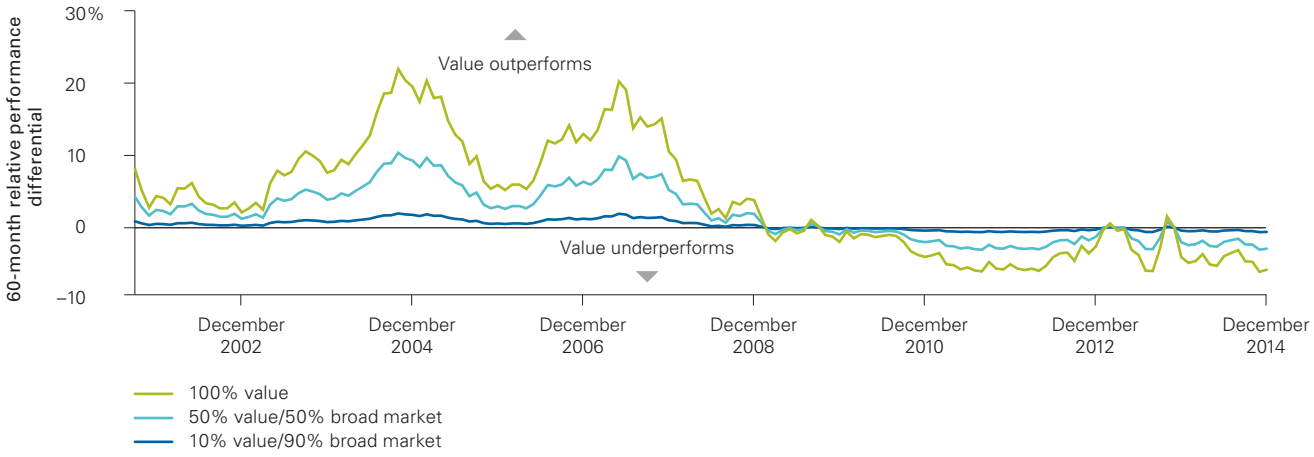
Source: The Vanguard Group, Inc.

of the strategy and which party has more knowledge or information, as well as the holding period necessary to see the strategy through. For example, opting for an investment process that deviates significantly from the broad market may work extremely well when you are "right," but could be disastrous to your clients and practice if your clients lack the patience to stick with the strategy during difficult times.

Human behaviour is such that many individuals do not like change. They tend to have an affinity for inertia and, absent a compelling reason not to, are inclined to stick with the status quo. What would it take for a long-time client to leave your practice? The return distribution in Figure 2 illustrates where, in our opinion, the risk of losing clients increases. Although outperformance of the market is possible, history suggests that underperformance is more probable. Thus, significantly tilting your clients' portfolios away from a market-capitalization-weighted portfolio or engaging in large tactical moves can result in meaningful deviations from the market benchmark return. The farther a client's portfolio return moves to the left (in Figure 2)—that is, the amount by which the client's return underperforms his or her benchmark return—the greater the likelihood that a client will remove assets from the advisory relationship.

Do you really want the performance of your client base (and your revenue stream) to be moving in and out of favour all at the same time? The markets are uncertain and cyclical—but your practice doesn't have to be. To take one example, an advisor may believe that a value-tilted stock portfolio will outperform over the long run; however, he or she will need to keep clients invested over the long run for this belief to have even the possibility of paying off. Historically, there have been periods—sometimes protracted ones—in which value has significantly underperformed the broad market (see Figure 3). Looking forward, it's reasonable to expect this type of cyclicality in some way. Recall, however: Your clients' trust is fragile, and even if you have a deep client relationship with well-established trust, periods of significant underperformance—such as the 12- and 60-month return differentials shown in Figure 3—can undermine this trust. The same holds true for other areas of the market such as sectors, countries, size, duration and credit, to name a few. (Appendix 1 highlights performance differentials for some of these other market areas.)

Figure 3. Relative performance of value versus the broad market



Largest performance differentials	12 months		60 months	
	Outperform	Underperform	Outperform	Underperform
100% value	19.7%	–11.6%	22.4%	–6.2%
50% value/50% broad market	9.5%	–5.9%	10.6%	–3.1%
10% value/90% broad market	1.8%	–1.2%	2.0%	–0.6%

Notes: Broad global equity is represented by MSCI All Country World Index, Global value equity is represented by the MSCI All Country World Value Index. Performance is for periods ending on December 31, 2014. Returns are in Canadian dollars.

Sources: The Vanguard Group, Inc., calculations, based on data from FactSet.

Figure 4. Hypothetical return distribution for portfolios that closely resemble a market-cap-weighted portfolio

1. Client asks questions
2. Client pulls some assets
3. Client pulls most assets
4. Client pulls all assets

Source: The Vanguard Group, Inc.

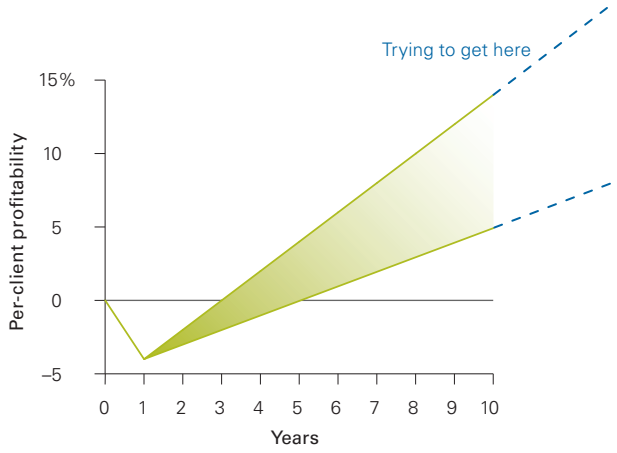
We are not suggesting that market deviations are unacceptable, but rather that you should carefully consider the size of those deviations, given markets' cyclicality and investor behaviour. As Figure 3 shows, there is a significant performance differential between allocating 50% of a global equity portfolio to value versus allocating 10% of it to value. As expected, the smaller the deviation from the broad market, the tighter the tracking error and performance differential versus the market. With this in mind, consider allocating a significant portion of your clients' portfolios to the "core," which we define as broadly diversified, low-cost, market-cap-weighted investments (see **Figure 4**)—limiting the deviations to a level that aligns with average investor behaviour and your comfort as an advisory practice.

For advisors in a fee-based practice, substantial deviations from a core approach to portfolio construction can have major practice-management implications and can result in an asymmetric payoff when significant deviations from the market portfolio are employed. Because investors commonly hold the majority of their investable assets with a primary advisor, even if their hoped-for outperformance is realized, the advisor has less to gain than lose if the portfolio underperforms instead. Although the advisor might gain a little more in assets from the client with a success, the advisor might lose some or even all of the client's assets in the event of a failure. So when considering significant deviations from the market, make sure your clients and practice are prepared for all the possible implications.

'Annuitizing' your practice to infinity and beyond

In a world of fee-based advice, assets reign. Why? Acquiring clients is expensive, requiring significant investment of your time, energy and money. Developing a financial plan for a client can take many hours and require multiple meetings before any investments are implemented. **Figure 5** demonstrates that these client costs tend to be concentrated at the beginning of the relationship, if not actually before (in terms of advisor's overhead and preparation), then moderate significantly over time. In a transaction-fee world, this is where most client-relationship revenues occur, more or less as a "lump sum." However, in a fee-based practice, the same assets would need to remain with an advisor for several years to generate the same revenue. Hence, assets—and asset retention—are paramount.

Figure 5. Advisor's alpha "J" curve



Source: The Vanguard Group, Inc.

Conclusion

"Putting a value on your value" is as subjective and unique as each individual investor. For some investors, the value of working with an advisor is peace of mind. Although this value does not lend itself to objective quantification, it is very real nonetheless. For others, we found that working with an advisor can add "about 3%" in net returns when following the Vanguard Advisor's Alpha framework for wealth management. This 3% increase in potential net returns should not be viewed as an annual value-add, but is likely to be intermittent, as some of the most significant opportunities to add value occur during periods of market duress or euphoria when clients are tempted to abandon their well-thought-out investment plan.

It is important to note that the strategies discussed in this paper are available to every advisor; however, the applicability—and resulting value added—will vary by client circumstance (based on each client's time horizon, risk tolerance, financial goals, portfolio composition and marginal tax bracket, to name a few) as well as implementation on the part of the advisor. Our analysis and conclusions are meant to motivate you as an advisor to adopt and embrace these best practices as a reasonable framework for describing and differentiating your value proposition.

The Vanguard's Advisor's Alpha framework is not only good for your clients but also good for your practice. With the compensation structure for advisors evolving from a commission- and transaction-based system to a fee-based asset management framework, assets—and asset retention—are paramount. Following this framework can provide you with additional time to spend communicating with your clients and can increase client retention by avoiding significant deviations from the broad-market performance—thus taking your practice to infinity and beyond.

Vanguard Advisor's Alpha™ Quantification Modules

For accessibility, our supporting analysis is included here as a separate section. Also for easy reference, we have reproduced below our chart providing a high-level summary of wealth-management best-practice tools and their corresponding modules, together with the range of potential value we believe can be added by following these practices.

Vanguard quantifies the value-add of best practices in wealth management

Vanguard Advisor's Alpha strategy modules	Module number (see details on pages following)	Value-add relative to "average" client experience (in basis points of return)
Suitable asset allocation using broadly diversified funds/ETFs	I	> 0 bps
Cost-effective implementation (expense ratios)	II	131 bps
Rebalancing	III	47 bps
Behavioural coaching	IV	150 bps
Asset location	V	0 to 42 bps
Spending strategy (withdrawal order)	VI	0 to 41 bps
Total-return versus income investing	VII	> 0 bps
Potential value added		**"About 3%"**

Notes: Return value-add for Modules I and VII was deemed significant but too unique for each investor to quantify. See pages 10 to 22 for detailed descriptions of each module. Also, for "Potential value added," we did not sum the values because there can be interactions between the strategies. Bps = basis points.

Source: The Vanguard Group, Inc.

Module I. Asset allocation

Potential value-add: Value is deemed significant but too unique to each investor to quantify, based on each investor's varying time horizon, risk tolerance and financial goals.

It is widely accepted that a portfolio's asset allocation—the percentage of a portfolio invested in various asset classes such as equities, bonds and cash investments, according to the investor's financial situation, risk tolerance and time horizon—is the most important determinant of the return variability and long-term performance of a broadly diversified portfolio that engages in limited market-timing (Davis, Kinniry, and Sheay, 2007).

We believe a sound investment plan begins with an individual's investment policy statement, which outlines the financial objectives for the portfolio as well as any other pertinent information such as the investor's asset allocation, annual contributions to the portfolio, planned expenditures and time horizon. Unfortunately, many ignore this critical effort, in part, because like our previous painting analogy, it can be very time-consuming, detail-oriented and tedious. But unlike house painting, which is primarily decorative, the financial plan is integral to a client's investment success; it's the blueprint for a client's entire financial house and, done well, provides a firm foundation on which all else rests.

Starting your client relationships with a well-thought-out plan can not only ensure that clients will be in the best position possible to meet their long-term financial goals but can also form the basis for future behavioural coaching conversations. Whether the markets have been performing well or poorly, you can help your clients cut through the noise they hear on a regular basis—noise that often suggests to them that if they're not making changes in their investments, they're doing something wrong. The problem is, almost none of what investors are hearing pertains to their specific objectives: Market performance and headlines change far more often than do clients' objectives. Thus, not reacting to the ever-present noise and sticking to the plan can add tremendous value over the course of your relationship. The process sounds simple, but adhering to an investment plan, given the wide cyclicality in the market and its segments, has proven to be very difficult for investors and advisors alike.

Asset allocation and diversification are two of the most powerful tools advisors can use to help their clients achieve their financial goals and manage investment risk in the process. Since the bear market in the early 2000s, many investors have embraced more complicated portfolios, with more asset classes, than in the past. This is often attributed to equities having two significant bear markets and a "lost decade," as well as very low yields on traditional high-grade bonds. What is often missed, however, is that these more complicated strategies, which were designed to deliver higher returns, typically entailed more risk since forward-return expectations should be proportional to forward-risk expectations. It is rare to expect higher returns without a commensurate increase in risk.

Moreover, in retrospect, it would appear that these alternative strategies were generally unsuccessful in delivering superior returns. We illustrate this using a study of U.S. institutional investors which, while U.S. data, is useful in making a generic point. This research demonstrates that a traditional long-only, highly liquid,

investable portfolio can indeed be competitive by comparing the performance of a portfolio of 60% equities/40% bonds to the performance of endowment portfolios taken from the NACUBO-Commonfund (2014) study, as shown in Figure I-1. The endowment institutions studied have incredibly talented professional staffs as well as unique access, so the expectation of replicating or even coming close to their performance would be considered a tough task. And yet, a portfolio constructed using traditional asset classes—domestic and nondomestic equities and bonds—held up quite well, outperforming the vast majority (90%) of these endowment portfolios.

Although the traditional 60% equity/40% bond portfolio may not hold as many asset classes as the endowment portfolio, it should not be viewed as unsophisticated. More often than not, these asset classes and the investable index funds and ETFs that track them are perfectly suitable for the investor's situation. For example, a diversified portfolio using broad-market index funds gives an investor exposure to more than 3,000 individual equities and individual bonds—representing the majority of market-cap coverage for equities and bonds, respectively. It would be difficult to argue that a portfolio such as this is undiversified, lacking in sophistication, or inadequate. Better yet, the tools for implementation, such as mutual funds and ETFs, can be very efficient—that is, broadly diversified, low-cost, tax-efficient and readily available. Taking advantage of these strengths, an asset allocation can be implemented using only a small number of funds. Too simple to charge a fee for, some advisors say, but simple isn't simplistic. For many, if not most investors, a portfolio that provides the simplicity of broad asset-class diversification, low-costs and return transparency can enable the investor to comfortably adopt the investment strategy, embrace it with confidence and better endure the inevitable ups and downs in the markets. Complexity is not necessarily sophisticated, it's just complex.

Simple is thus a strength, not a weakness, and can be used to promote better client understanding of the asset allocation and of how returns are derived. When incorporating index funds or ETFs as the portfolio's "core," the simplicity and transparency are enhanced, as the risk of portfolio tilts (a source of substantial return uncertainty) is minimized. These features can be used to anchor expectations and to help keep clients invested when headlines and emotions tempt them to abandon the investment plan. The value-add from asset allocation and diversification may be difficult to quantify, but is real and important, nonetheless.

Figure I-1. Comparing performance of endowments and a traditional 60% equity/40% bond portfolio

	Large endowments (10% of endowments)	Medium endowments (39% of endowments)	Small endowments (51% of endowments)	60% equity/ 40% bond portfolio
1 year	11.70%	11.92%	11.57%	11.28%
3 years	10.58%	10.01%	9.70%	11.10%
5 years	3.82%	3.63%	3.89%	5.79%
10 years	8.50%	7.22%	6.09%	7.37%
15 years	8.14%	5.97%	4.89%	5.67%
Since July 1, 1985	10.86%	9.28%	8.28%	9.42%

Notes: Data are as of June 30 for each year. Data through June 30, 2013. For the 60% equity/40% bond portfolio: U.S. equity (42%) is represented by Dow Jones Wilshire 5000 Index through April 22, 2005, and MSCI US Broad Market Index thereafter. Non-U.S. equity (18%) is represented by MSCI World ex USA through December 31, 1987, and MSCI All Country World Index ex USA thereafter. Bonds (40%) are represented by Barclays U.S. Aggregate Bond Index. Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Sources: The Vanguard Group, Inc., and 2013 NACUBO-Commonfund Study of Endowments (2014).

Module II. Cost-effective implementation

Potential value-add: 131 bps annually by moving to low-cost funds, depending on asset allocation. The value-add is the difference between the average investor experience, measured by the asset-weighted expense ratio for mutual funds and ETFs available for sale in Canada across a number of categories, and the lowest-cost quartile of funds. This value could be larger if using higher-cost funds than the asset-weighted averages.

Cost-effective implementation is a critical component of every advisor's tool kit and is based on simple arithmetic: Gross return minus costs (expense ratios, trading or frictional costs and taxes) equals net return. Every dollar paid for management fees, trading costs and taxes is a dollar less of potential return for clients.

If low costs are associated with better investment performance (and research has repeatedly shown this to be true), then costs should play a role in an advisor's investment selection process. With the recent expansion of the ETF marketplace, advisors now have many more investments to choose from—and ETF costs tend to be among the lowest in the mutual fund industry.

When analyzing the universe of mutual funds available in the Morningstar database, we found that an investor could save from 88 bps to 131 bps annually by moving to low-cost funds, as shown in **Figure II-1**.[2] By measuring the asset-weighted expense ratio of the entire mutual fund and ETF industry across various investment categories, we found that, depending on the asset allocation, the average investor pays 116 bps annually for an all-bond portfolio and 175 bps annually for an all-equity portfolio, while the average investor in the lowest-cost quartile of funds can expect annually to pay between 28 bps (all-bond portfolio) and 44 bps (all-equity portfolio). This includes only the explicit carrying cost (ER) and by some measures is conservative when taking into account total investment costs.

It's important to note, too, that this value-add has nothing to do with market performance. When you pay less, you keep more, regardless of whether the markets are up or down. In fact, in a low-return environment, costs are even more important because the lower the returns, the higher the proportion that is assumed by fund expenses. If you are using higher-cost funds than the asset-weighted average shown in Figure II-1 (116 bps to 175 bps), the increase in value could be even higher than stated here.

Figure II-1. Asset-weighted expense ratios versus "low-cost" investing

Equity/bond mix	100%/0%	80%/20%	60%/40%	50%/50%	40%/60%	20%/80%	0%/100%
Asset-weighted expense ratio (AWER)	1.75%	1.64%	1.52%	1.46%	1.40%	1.28%	1.16%
Quartile 1 AWER (Q1)	0.44	0.41	0.38	0.36	0.35	0.31	0.28
Cost-effective implementation (AWER vs. Q1)	1.31	1.23	1.14	1.09	1.05	0.96	0.88

Sources: The Vanguard Group, Inc., calculations, based on data from Morningstar, Inc., as of December 31, 2013.

2 Asset-weighted expense ratio includes F Class shares which are only sold through fee-based advisors, and on average, contain lower management expense ratios.

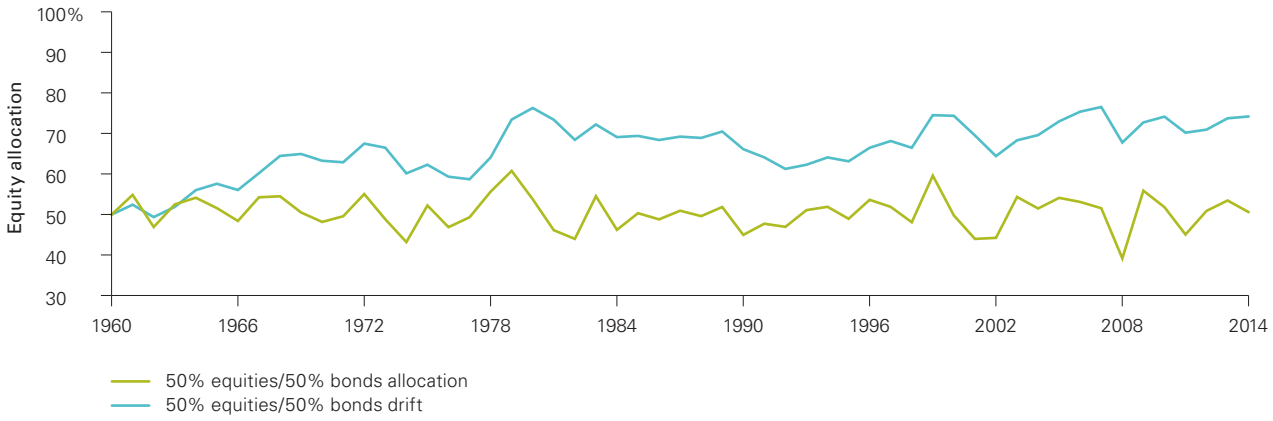
Module III. Rebalancing

Potential value-add: Up to 47 bps when risk-adjusting a 50% equity/50% bond portfolio that is rebalanced annually versus the same portfolio that is not rebalanced (and thus drifts).

Given the importance of selecting an asset allocation, it's also vital to maintain that allocation through time. As a portfolio's investments produce different returns over time, the portfolio likely drifts from its target allocation, acquiring new risk-and-return characteristics that may be inconsistent with your client's original preferences. Note that the goal of a rebalancing strategy is to minimize risk, rather than maximize return. An investor wishing to maximize returns, with no concern for the inherent risks, should allocate his or her portfolio to 100% equities to best capitalize on the equity risk premium. The bottom line is that an investment strategy that does not rebalance, but drifts with the markets, has experienced higher volatility. An investor should expect a risk premium for any investment or strategy that has higher volatility.

In a portfolio that is more evenly balanced between equities and bonds, this equity risk premium tends to result in stocks becoming overweighted relative to a lower risk–return asset class such as bonds; thus, the need to rebalance. Although failing to rebalance may enhance the expected long-term returns of portfolios (due to the expected risk premium on the higher-weighted asset, equities, than in the original allocation), the true benefit of rebalancing is realized in the form of controlling risk. If the portfolio is not rebalanced over extended periods of time, the likely result is a portfolio that is overweighted to equities and therefore more vulnerable to equity-market corrections, putting a client's portfolio at risk of larger losses compared with the 50% equity/50% bond target portfolio,[3] as shown in **Figure III-1**.

Figure III-1. Equity allocation of 50% equity/50% bond portfolio: Rebalanced and non-rebalanced, 1960 through 2014



Sources: The Vanguard Group, Inc., based on data from FactSet, FTSE and MSCI.

Notes: Equities are represented by the S&P/TSX Composite Index through 1969 and MSCI Canada Index thereafter. Bonds are represented by FTSE TMX Canada Long Term Bond Index through 1979 and FTSE TMX Canada Universe Bond Index thereafter. Returns are in Canadian dollars, with income reinvested to December 31, 2014.

3 The 50% equity/50% bond portfolio was selected based on data regarding the composite asset mix of Defined Benefit Plan Sponsors provided by the Pension Investment Association of Canada.

In fact, during the period analyzed in Figure III-1 (1960–2014), a 50% equity/50% bond portfolio that was rebalanced annually provided a marginally higher return (9.29% versus 9.19%) with significantly lower risk (9.23% versus 11.49%) than a 50% equity/50% bond portfolio that was not rebalanced (drift), as shown in **Figure III-2**.[4]

A simplistic reading of this result would be that the value of rebalancing is 0.10 bps (i.e. 9.29-9.19 bps). But we think this would be a misleading measure of the true value mainly because the sign of this effect could be positive or negative, and on average is likely to be negative. Perhaps more importantly, Vanguard believes that the goal of rebalancing is to minimize risk, not maximize return. So if we wanted to try to assign a return value to that benefit, we can search over the same time period for a rebalanced portfolio that exhibited similar risk as the non-rebalanced portfolio. We found that a 70% equity/30% bond portfolio provided similar risk as measured by standard deviation (11.91% versus 11.49%) with a higher average annualized return (9.65%% versus 9.19%%), as shown in **Figures III-2 and III-3**.

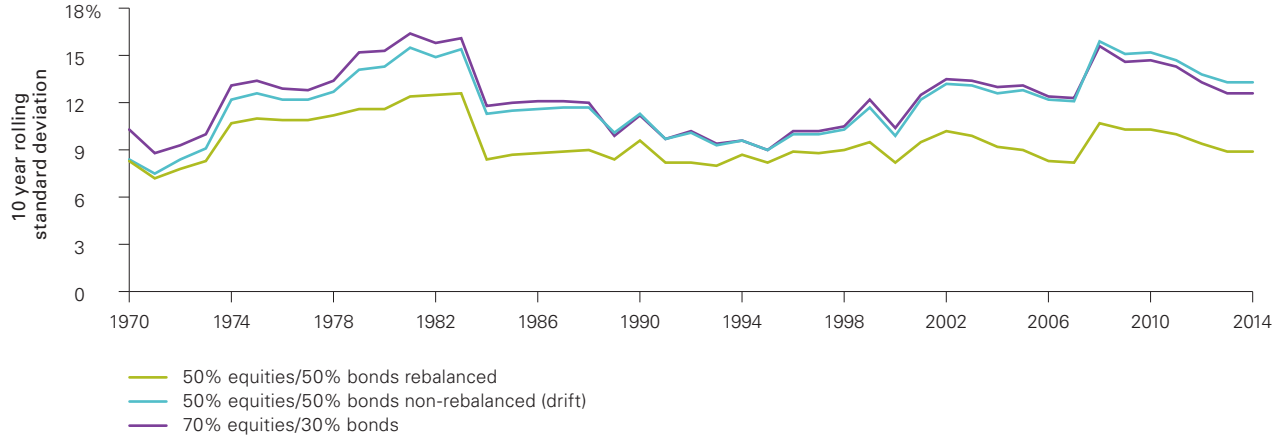
Figure III-2. Portfolio returns and risk: Rebalanced and non-rebalanced, 1960 through 2014

	50% equities/50% bonds	50% equities/50% bonds (drift)	70% equities/30% bonds
Average annualized return	9.29%	9.19%	9.65%
Average annual standard deviation	9.23%	11.49%	11.91%
Return per unit of risk	1.01%	0.80%	0.81%

Sources: The Vanguard Group, Inc., based on data from FactSet, FTSE and MSCI.

Notes: Equities are represented by the S&P/TSX Composite Index through 1969 and MSCI Canada Index thereafter. Bonds are represented by FTSE TMX Canada Long Term Bond Index through 1979 and FTSE TMX Canada Universe Bond Index thereafter. Returns are in Canadian dollars, with income reinvested to December 31, 2014.

Figure III-3. Looking backward, the non-rebalanced (drift) portfolio exhibited risk similar to that of a rebalanced 70% equity/30% bond portfolio



Sources: The Vanguard Group, Inc., based on data from FactSet, FTSE and MSCI.

Notes: Equities are represented by the S&P/TSX Composite Index through 1969 and MSCI Canada Index thereafter. Bonds are represented by FTSE TMX Canada Long Term Bond Index through 1979 and FTSE TMX Canada Universe Bond Index thereafter. Returns are in Canadian dollars, with income reinvested to December 31, 2014.

4 In Figure III-2, the drift portfolio had a lower average annualized return than the 50% equity/50% bond rebalanced portfolio. Typically, the drift portfolio would be expected to have a higher average equity allocation over time, due to an expected equity risk premium. This would be expected lead to the drift portfolio displaying both higher risk and higher returns than the 50% equity/50% bond rebalanced portfolio over longer periods of time. However, this was not realized over the time period studied, providing an example of the less predictable risk-reward patterns for non-rebalanced portfolios. As further evidence of the weakness of the drift approach, the portfolio's returns per unit of risk were inferior to both of the rebalanced portfolios. This finding was consistent with the results found in our previous work (Kinniry et al., 2014).

One could argue that if an investor is comfortable with the higher risk of the non-rebalanced portfolio, he or she should simply select the higher equity allocation from inception and rebalance to that allocation through time.

Helping investors to stay committed to their asset allocation strategy and remain invested in the markets increases the probability of their meeting their goals, but the task of rebalancing is often an emotional challenge. Historically, rebalancing opportunities have occurred when there has been a wide dispersion between the returns of different asset classes (such as equities and bonds). Whether in bull or bear markets, reallocating assets from the better-performing asset classes to the worse-performing ones feels counterintuitive to the "average" investor. An advisor can provide the discipline to rebalance when rebalancing is needed most, which is often when the thought of rebalancing is a very uncomfortable leap of faith.

Keep in mind, too, that rebalancing is not necessarily free: There are costs associated with any rebalancing strategy, including taxes and transaction costs, as well as time and labour on the part of advisors. These costs could all potentially reduce your client's return. An advisor can add value for clients by balancing these trade-offs, thus potentially minimizing the associated costs. For example, a portfolio can be rebalanced with cash flows by directing dividends, interest payments, realized capital gains and/or new contributions to the most underweight asset class. This not only can keep the client's asset allocation closer to its target but can also trim the costs of rebalancing. An advisor can furthermore determine whether to rebalance to the target asset allocation or to an intermediate allocation, based on the type of rebalancing costs. When trading costs are mainly fixed and independent of the size of the trade—the cost of time, for example—rebalancing to the target allocation is optimal because it reduces the need for further transactions. When trading costs are mainly proportional to the size of the trade—as with commissions or taxes, for example—rebalancing to the closest rebalancing boundary is optimal, minimizing the size of the transaction.[5] *Advisors who can systematically direct investor cash flows into the most underweighted asset class and/or rebalance to the "most appropriate" boundary are likely to reduce their clients' rebalancing costs and thereby increase the returns their clients keep.*

5 See the Vanguard research paper *Best Practices for Portfolio Rebalancing* (Jaconetti, Kinniry, and Zilbering, 2010).

Module IV. Behavioural coaching

Potential value-add: 150 basis points based on Vanguard research and other industry and academic studies that have concluded that behavioural coaching can add 1 to 2% in net return. This suggests that the discipline and guidance that an advisor might provide through behavioural coaching could be the largest potential value-add of the tools available to advisors.

Because investing evokes emotion, advisors need to help their clients maintain a long-term perspective and a disciplined approach—***the amount of potential value an advisor can add here is large***. Most investors are aware of these time-tested principles, but the hard part of investing is sticking to them in the best and worst of times—that is where you, as a behavioural coach to your clients, can earn your fees and then some. Abandoning a planned investment strategy can be costly, and research has shown that some of the most significant derailers are behavioural: the allure of market-timing and the temptation to chase performance.

Persuading investors not to abandon the markets when performance has been poor or dissuading them from chasing the next "hot" investment—this is where you need to remind your clients of the plan you created before emotions were involved. This is where the faith and trust that clients have in an advisor is key: Strong relationships need to be established before the bull- and bear-market periods that challenge investors' confidence in the plan detailed for them.

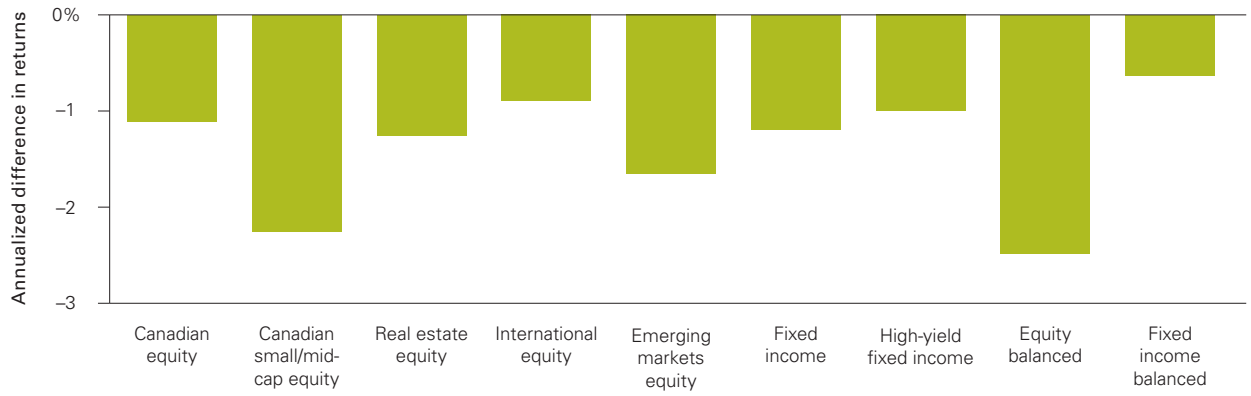
Thankfully, as stated earlier, these potentially disruptive markets tend to occur only sporadically. Advisors, as behavioural coaches, can act as emotional circuit breakers by circumventing clients' tendencies to chase returns or run for cover in emotionally charged markets. In the process, advisors may save their clients from significant wealth destruction and also add percentage points—rather than basis points—of value. A single client intervention, such as we've just described, could more than offset years of advisory fees.

One common method of analyzing mutual fund investor behaviour is to compare investor returns (internal rates of return, IRRs) with fund returns (time-weighted returns, TWRs) over time. Although all mandates should expect a return drag versus the benchmark over longer periods due to more money continually coming into a growing mutual fund market and a rising market, larger differences can be a sign of performance-chasing (see Kinnel, 2014).

Using the IRR–TWR method, we note that history suggests that investors commonly receive much lower returns from the funds they invest in, since cash flows tend to be attracted by, rather than precede, higher returns (see **Figure IV-1**). The Vanguard Advisor's Alpha framework was constructed with a firm awareness of these behavioural tendencies. Its foundation is built upon having a significant allocation to the "core" portfolio, which is broadly diversified, low-cost and market-cap-weighted, while limiting the satellite allocation to a level that is appropriate for each investor and practice.

So, how much advisor's alpha can you add in this way? The answer to this question is extremely difficult to quantify and any quantitative assessment will be time-period dependent. However, a Vanguard study supports the notion that behavioural coaching may add up to 150 basis points per year (Weber, 2013). Meanwhile, the IRR-TWR approach gives varying answers by market. Taking these factors into account, a range of 100 to 200 basis points per year seems reasonable, and as a result, we estimate the value-add from behavioural coaching at 150 bps.

Figure IV-1. Investor returns versus fund returns: Ten years ended December 31, 2014



Notes: Figure displays the difference between the investor and fund returns, as defined by the asset-weighted average in each category. Investor returns are calculated as the internal rate of return that sets the beginning and ending fund assets equal, given the interim cash flows. Market returns are the asset-weighted average fund return. Both are derived from aggregate flows data for funds domiciled in Canada, with asset classes defined by Morningstar Category. Returns are in Canadian dollars, net of fees, with income reinvested.

Sources: The Vanguard Group, Inc., calculations, based on data from Morningstar, Inc.

Module V. Asset location

Potential value-add: 0 to 42 bps depending on the investor's "bucket" size (the breakdown of assets between taxable and tax-advantaged accounts) and the marginal tax bracket. The greatest benefits occur when the taxable and tax-advantaged accounts are roughly equal in size and the investor is in a high marginal tax bracket. If an investor has all of his or her assets in one account type (that is, all taxable or all tax-advantaged), or an investor is not currently spending from the portfolio, the value of the withdrawal order is 0 bps.

Asset location, the allocation of assets between taxable and tax-advantaged accounts, is one tool an advisor can use that can add value each year, with an expectation that the benefits will compound through time.[6] From a tax perspective, optimal portfolio construction minimizes the impact of taxes by holding tax-efficient broad-market equity investments in taxable accounts and by holding taxable bonds and active equity within tax-advantaged accounts (e.g. individual and group RRSPs).

This arrangement takes maximum advantage of the different tax treatment between the two asset classes and minimizes the impact of tax inefficient active strategies. Investors and/or advisors who are using actively managed equity funds should be aware that there will likely be an additional return drag from the impact of higher transaction costs, due to the typically higher turnover associated with running an active portfolio.

Minimizing the impact of taxes on the portfolio can have a powerful compounding effect over the long run. Our research has shown that constructing the portfolio in this manner can add up to 42 bps of additional return in the first year, without increasing risk.[7]

6 Absent liquidity constraints, wealth-management best practices would dictate maximizing tax-advantaged savings opportunities.

7 Assuming a 3% yield on equity and fixed income for an investor in the highest marginal tax bracket. Combined federal and provincial Ontario marginal rates were used for the Canadian 2014–2015 tax year.

Module VI. Withdrawal order for client spending from portfolios

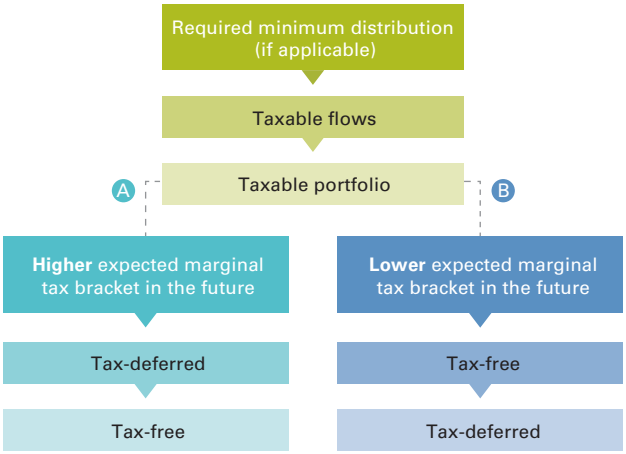
Potential value-add: 41 bps depending on the investor's "bucket" size (the breakdown of assets between taxable and tax-advantaged accounts) and the marginal tax bracket. The greatest benefits occur when the taxable and tax-advantaged accounts are roughly equal in size and the investor is in a high marginal tax bracket. If an investor has all of his or her assets in one account type (that is, all taxable or all tax-advantaged), or an investor is not currently spending from the portfolio, the value of the withdrawal order is 0 bps.

With the retiree population on the rise, an increasing number of clients are facing important decisions about how to spend from their portfolios. Complicating matters is the fact that many clients hold multiple account types, including taxable, tax-deferred (such as a Registered Retirement Savings Plan or Individual Pension Plan), and/or tax-free (such as a Tax-Free Savings Account). Advisors who implement informed withdrawal-order strategies can minimize the total taxes paid over the course of their clients' retirement, thereby increasing their clients' wealth and the longevity of their portfolios. This process alone could represent the entire value proposition for the fee-based advisor.

The primary determinant of whether one should spend from taxable assets or tax-advantaged assets is taxes. Absent taxes, the order of which account to draw from would yield identical results (assuming accounts earned the same rates of returns). Advisors can minimize the impact of taxes on their clients' portfolios by spending in the following order: Registered Retirement Income Fund (RRIF) or Canada Pension Plan/Quebec Pension Plan (CPP/QPP) minimum withdrawals, if applicable, followed by cash flows on assets held in taxable accounts, taxable assets and finally tax-advantaged assets.

- RRIF or CPP/QPP withdrawals are the first assets to be used for spending if age-based withdrawal requirements are met. For investors who are not subject to these age-based requirements or who need monies in excess of their required withdrawals, the next source of spending should be cash flows from assets held in taxable accounts, including interest, dividends and capital gains distributions, followed by assets held in taxable accounts.

Figure VI-1. Detailed spending order and explanation



- Investors should deplete their taxable assets before spending from their tax-deferred accounts, because swapping the order would accelerate the payment of income taxes. Taxes on tax-deferred accounts will likely be higher than taxes on withdrawals from taxable accounts, for two reasons. First, the investor will pay ordinary income taxes on the entire withdrawal, rather than just paying capital gains taxes on the capital appreciation. Second, ordinary income tax rates are currently higher than the respective capital gains tax rates, so the investor would have to pay a higher tax rate on a larger withdrawal amount if he or she spends from the tax-deferred accounts first. Over time, the acceleration of income taxes and the resulting loss of tax-deferred growth can negatively affect the portfolio, resulting in lower terminal wealth values and success rates.

- Investors should likewise consider spending from their taxable accounts before spending from their tax-free accounts, to maximize the long-term growth of their overall portfolio. Reducing the amount of assets that have tax-free growth potential can result in lower terminal wealth values and success rates.
- Once the order of withdrawals between taxable and tax-advantaged accounts has been determined, the next step is to specifically identify which asset or assets to sell to meet spending needs. Within the taxable portfolio, an investor should first spend his or her portfolio cash flows. This is because these monies are taxed regardless of whether they are spent or reinvested into the portfolio. Reinvesting these monies and then selling the assets later to meet spending needs could cause capital gains to be taxed at ordinary income tax rates.[8] Next the investor should consider selling the asset or assets that would produce the lowest taxable gain, or would even realize a loss. This should continue until the spending need has been met or the taxable portfolio has been exhausted.
- Once an investor's taxable accounts have been depleted, he or she must decide whether to spend first from tax-deferred or tax-free accounts. The primary driver of this decision is the investor's expectations for future tax rates relative to his or her current tax rate. If an investor anticipates that his or her future tax rate will be higher than the current tax rate, then spending from tax-deferred accounts should take priority over spending from tax-free accounts. This allows the investor to lock in taxes on the tax- deferred withdrawals today at the lower rate, rather than allowing the tax-deferred account to continue to grow and be subject to a higher tax rate on future withdrawals. Conversely, if an investor anticipates his or her future tax rate will be lower than the current tax rate, spending from the tax-free assets should take priority over spending from the tax-deferred assets.

  Taking distributions from the tax-deferred account at the future lower tax rate will result in lower taxes over the entire investment horizon.

To highlight the potential value-add of withdrawal order, let's take a simple example in which a high-net-worth investor holds a portfolio of $1 million, spends 4% of their portfolio per year and is liable for capital gains tax. The client has a portfolio of assets held in a standard balanced portfolio, holding 60% in global equities and 40% in global fixed income. Suppose the client is entering the phase of life where they are drawing down assets over a thirty-year retirement period. Let us assume that 50% of those assets are held in an individual or group registered retirement savings plan, where the returns on the underlying investments are tax-sheltered, and the rest in assets where the returns are taxed.

Now compare two scenarios; one where the client takes a simplistic approach and draws down both the taxed and untaxed portfolio at the same rate; and another in which the client draws down all of the taxed portfolio before drawing down any of the portfolio where the returns are tax-free.

Under these assumptions, the latter scenario would generate a higher income than the former because the assets remaining in the pot are growing more rapidly in the case where the taxable assets are spent first. According to our calculations, spending from the portfolio in this manner compared to a strategy of running down the taxed and untaxed portfolios in proportion can generate an internal rate of return of up to 41 bps higher on an annual basis over a 30-year retirement period.

8 The capital gains inclusion rate was 50 percent for the Canadian 2014–2015 tax year.

Module VII. Total-return versus income investing

Potential value-add: Value is deemed significant but too unique to each investor to quantify, based on each investor's desired level of spending and the composition of his or her current portfolio.

With yields on balanced and fixed income portfolios at historically low levels, and the anticipation that yields will remain low through 2015 and 2016, the value of advice has never been more critical for retirees. Historically, retirees holding a diversified portfolio of equity and fixed income investments could have easily lived off the income generated by their portfolios. Unfortunately, that is no longer the case. Investors who wish to spend only the income generated by their portfolio, referred to here as the "income-only" approach, have three choices if their current cash flows fall short of their spending needs: They can spend less, they can reallocate their portfolios to higher-yielding investments, or they can spend from the total return on their portfolio, which includes not only the income or yield but also the capital appreciation.

As your clients' advisor, you can help them make the right choice for their situation. Be aware that for many investors, moving away from a broadly diversified portfolio could actually put their portfolio's principal value at higher risk than spending from it. **Figure VII-1** outlines several common techniques for increasing a portfolio's yield, along with the impact on the portfolio. These are detailed further in the paragraphs following.

1. **Overweighting of longer-term bonds (extending the duration)**

   Extending the duration of the bond portfolio will likely increase the current yield on the portfolio, but it will also increase the portfolio's sensitivity to changes in interest rates. Generally speaking, the longer the bond portfolio's duration, the greater the decline in prices when interest rates rise (and the greater the price gain when interest rates fall).

2. **Overweighting of high-yield bonds**

   Another strategy investors or their advisors can use to increase the yield on the portfolio is to increase the allocation to higher-yielding bonds exposed to marginal or even significant credit risk. The risk is that credit risk tends to be correlated with equity risk, and this risk tends to be magnified when investors move into riskier bonds at the expense of sovereign bonds, a proven diversifier during periods of equity-market duress, when diversification is needed the most.

   Vanguard research has shown that replacing existing fixed income holdings with high-yield bonds has historically increased the volatility of a balanced

Figure VII-1. Income-only strategies and corresponding potential portfolio impact

Income-only strategy	Impact on a portfolio (compared to capital-weighted portfolio at the sub-asset class level)
1. Overweighting of longer-term bonds (extending the duration).	Increases portfolio's exposure to changes in interest rates.
2. Overweighting of high-yield bonds and/or underweighting of sovereign bonds.	Increases portfolio's credit risk and raises portfolio's overall volatility.
3. Increasing the portfolio's exposure to dividend-centric equity.	Decreases diversification of equity portfolio by overweighting certain sectors and/or increases portfolio's overall volatility and risk of loss if the strategy reduces the bond portfolio.

Source: The Vanguard Group, Inc.

portfolio by an average of 78 basis points annually.[9] This is because high-yield bonds are more highly correlated with the equity markets and are more volatile than investment-grade bonds. Investors who employ such a strategy are certainly sacrificing diversification benefits in hopes of receiving higher current income from the portfolio.

3. Increasing the portfolio's exposure to dividend-centric equity

   An often-advocated equity approach to increase income is to shift some or all of a fixed income allocation into higher-yielding dividend-paying equities. But, equities are not bonds. At the end of the day, equities will perform like equities—that is, they have higher volatility and the potential for greater losses. Moreover, dividend equities are correlated with equities in general, whereas bonds show little to no correlation to either equities in general or dividend-paying equities. If you view fixed income as not just providing yield but also diversification, dividend-paying equities fall well short as a substitute.

   A second approach investors may take is to shift from broad-market equity to dividend- or income-focused equity. However, these investors may be inadvertently changing the risk profile of their portfolio, because dividend-focused equities tend to display a significant bias toward "value stocks."[10] Although value stocks are generally considered to be a less risky subset of the broader equity market,[11] the risks nevertheless can be substantial, owing to the fact that portfolios focused on dividend-paying equities tend to be overly concentrated in certain individual equities and sectors.

In addition, when employing an income-only approach, asset location is typically driven by accessing the income at the expense of tax-efficiency. As a result, investors/advisors are more likely to purchase taxable bond funds and/or income-oriented stock funds in taxable accounts so that investors can gain access to the income (yield) from these investments. Following this approach will most likely increase taxes on the portfolio, resulting in a direct reduction in spending.

Benefits of a total-return approach to investing

In pursuing the preceding income strategies, some may feel they will be rewarded with a more certain return and therefore less risk. But in reality, this is increasing the portfolio's risk as it becomes too concentrated in certain sectors, with less tax-efficiency and with a higher chance of retirees falling short of their long-term financial goals.

As a result, Vanguard believes in a total-return approach, which considers both components of total return: income plus capital appreciation. The total-return approach has the following potential advantages over an income-only method:

- **Less risk.** A total-return approach allows better diversification, instead of concentrating on certain securities, market segments or industry sectors to increase yield.
- **Better tax-efficiency.** A total-return approach allows more tax-efficient asset locations (for clients who have both taxable and tax-advantaged accounts). An income approach focuses on access to income, resulting in the need to keep tax-inefficient assets in taxable accounts.
- **Potentially longer lifespan for the portfolio,** stemming from the previous factors.

Certainly, to employ a tax-efficient, total-return strategy in which the investor requires specific cash flows to meet his or her spending needs involves substantial analysis, experience and transactions. To do this well is not easy, and this alone could also represent the entire value proposition of an advisory relationship.

9 See the Vanguard research paper *Worth the risk? The appeal and challenges of high-yield bonds* (Philips, 2012).

10 See the Vanguard research paper *Total-return investing: An enduring solution for low yields* (Jaconetti, Kinniry, and Philips, 2012).

11 "Less risky" should not be taken to mean "better." Going forward, value stocks should have a risk-adjusted return similar to that of the broad equity market, unless there are risks that are not recognized in traditional volatility metrics.

References

Bennyhoff, Donald G., and Yan Zilbering, 2009. *Market-Timing: A Two-Sided Coin*. Valley Forge, Pa.: The Vanguard Group.

Bennyhoff, Donald G., and Colleen M. Jaconetti, 2013. *Required or Desired Returns? That Is the Question.* Valley Forge, Pa.: The Vanguard Group.

Bennyhoff, Donald G., and Francis M. Kinniry Jr., 2013 (rev. ed). *Advisor's Alpha.* Valley Forge, Pa.: The Vanguard Group.

Bruno, Maria A., Colleen M. Jaconetti, and Yan Zilbering, 2013. *Revisiting the '4% Spending Rule.'* Valley Forge, Pa.: The Vanguard Group.

Davis, Joseph H., Francis M. Kinniry Jr., and Glenn Sheay, 2007. *The Asset Allocation Debate: Provocative Questions, Enduring Realities*. Valley Forge, Pa.: The Vanguard Group.

Davis, Joseph, Roger Aliaga-Díaz, Charles J. Thomas, and Andrew J. Patterson, 2014. *Vanguard's Economic and Investment Outlook*. Valley Forge, Pa.: The Vanguard Group.

Jaconetti, Colleen M., 2007. *Asset Location for Taxable Investors*. Valley Forge, Pa.: The Vanguard Group.

Jaconetti, Colleen M., and Maria A. Bruno, 2008. *Spending From a Portfolio: Implications of Withdrawal Order for Taxable Investors*. Valley Forge, Pa.: The Vanguard Group.

Jaconetti, Colleen M., Francis M. Kinniry Jr., and Yan Zilbering, 2010. *Best Practices for Portfolio Rebalancing*. Valley Forge, Pa.: The Vanguard Group.

Jaconetti, Colleen M., Francis M. Kinniry Jr., and Christopher B. Philips, 2012. *Total-Return Investing: An Enduring Solution for Low Yields*. Valley Forge, Pa.: The Vanguard Group.

Kinnel, Russel, 2014. *Mind the Gap 2014*. Morningstar.

Kinniry, Francis M., Jr., Donald G. Bennyhoff, and Yan Zilbering, 2013. *Costs Matter: Are Fund Investors Voting With Their Feet?* Valley Forge, Pa.: The Vanguard Group.

Kinniry, Francis M., Jr., Colleen M. Jaconeti, Michael A. DiJoseph, and Yan Zilbering, 2014. *Putting a Value on Your Value: Quantifying Vanguard Advisor's Alpha*. Valley Forge, Pa.: The Vanguard Group.

Philips, Christopher B., 2012. *Worth the Risk? The Appeal and Challenges of High-Yield Bonds*. Valley Forge, Pa.: The Vanguard Group.

Westaway, Peter, Todd Schlanger, Charles J. Thomas, and Christopher B. Philips, 2014. *The Case for Index Fund Investing for UK Investors*. London, England: Vanguard Asset Management.

Spectrem Group, 2012. *Ultra High Net Worth Investor Attitudes and Behaviors: Relationships with Advisors*. Chicago: Spectrem Group, 20.

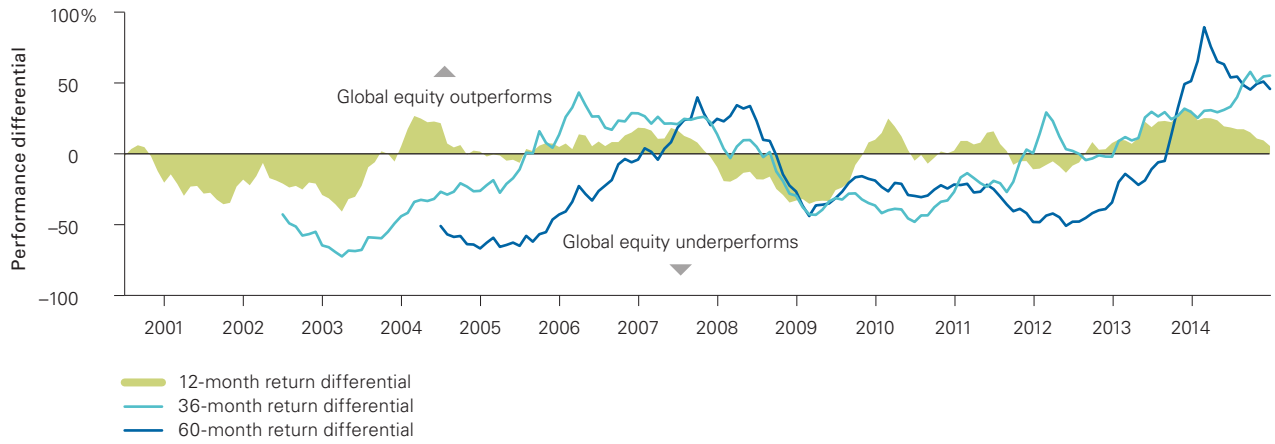
Spectrem Group, in partnership with Vanguard, 2014. *The affluent investor: Insights and opportunities for advisors*. Valley Forge, Pa.: The Vanguard Group.

2013 NACUBO-Commonfund Study of Endowments, 2014. National Association of College and University Business Officers. Washington, D.C.: NACUBO.

Weber, Stephen M., 2013, *Most Vanguard IRA® Investors Shot Par by Staying the Course: 2008–2012,* Valley Forge, Pa.: The Vanguard Group.

Appendix 1. Relative performance charts

Figure A-1. Relative performance of global equities and global bonds

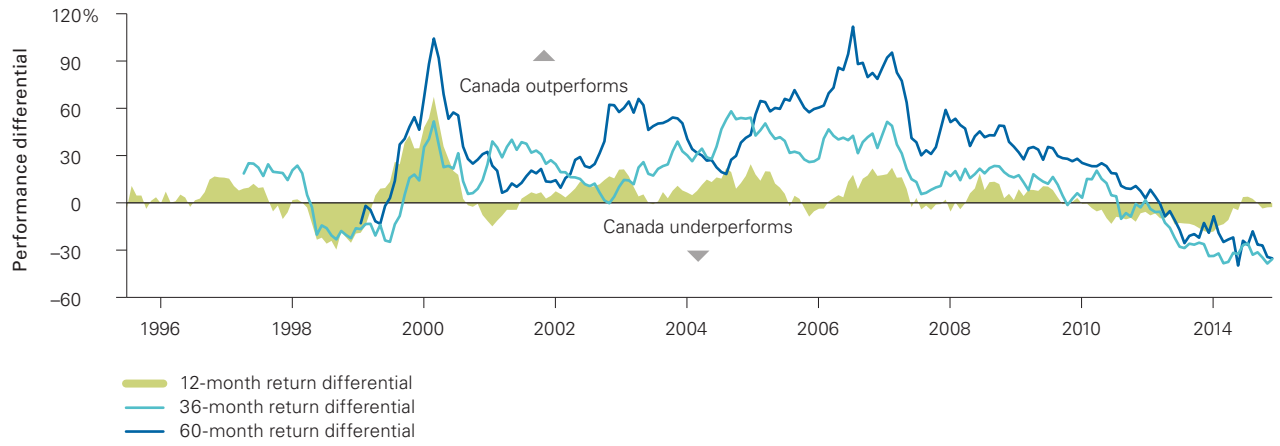


Largest performance differentials	12 months	36 months	60 months
Global equity outperforms	31.10%	57.95%	89.51%
Global equity underperforms	–40.77%	–72.48%	–66.82%

Notes: Global large-cap equity is represented by MSCI AC World Index and global bonds are represented by the Barclays Global Aggregate Index hedged back to Canadian dollars. Data are in Canadian dollars to December 31, 2014.

Sources: The Vanguard Group, Inc., calculations, based on data from FactSet.

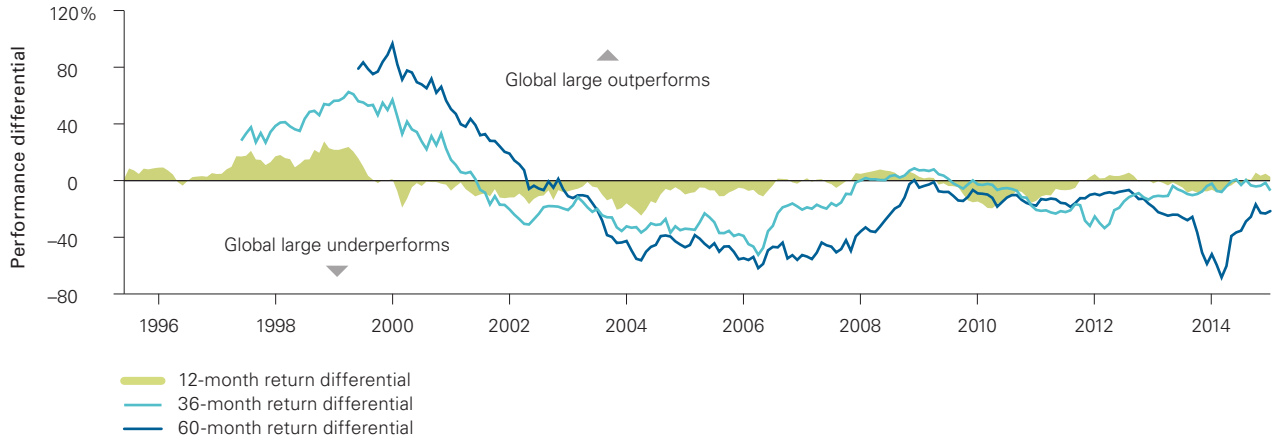
Figure A-2. Relative performance of Canadian equity and global equity



Largest performance differentials	12 months	36 months	60 months
Canada outperforms	67.27%	58.10%	111.82%
Canada underperforms	–29.69%	–38.53%	–39.80%

Notes: Canadian equity is represented by MSCI Canada Index; global equity is represented by MSCI AC World Index. Data are in Canadian dollars to December 31, 2014.
Sources: The Vanguard Group, Inc., calculations, based on data from FactSet.

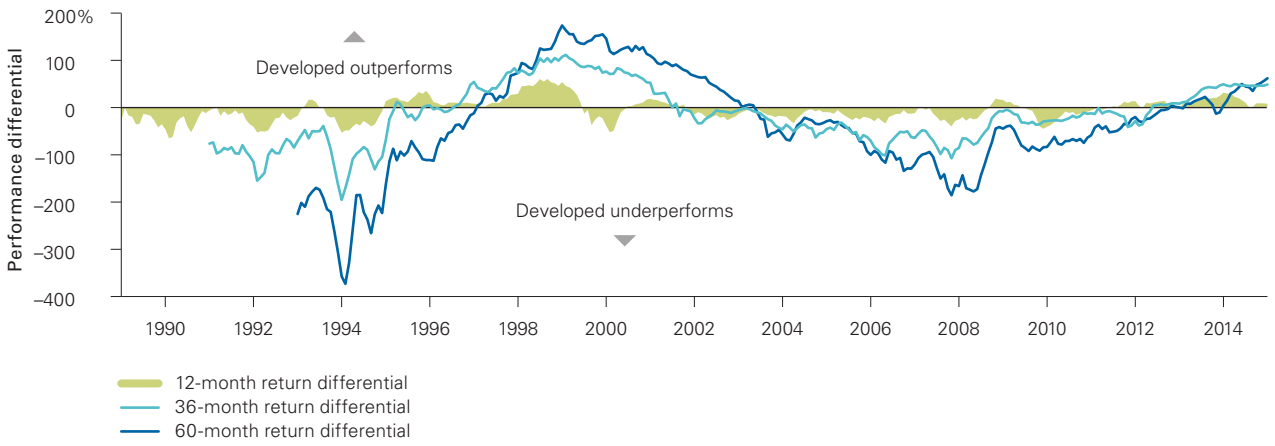
Figure A-3. Relative performance of global large and small equity



Largest performance differentials	12 months	36 months	60 months
Global large outperforms	27.73%	62.62%	96.75%
Global large underperforms	–24.67%	–52.34%	–68.35%

Notes: Global large-cap equity is represented by MSCI AC World Large Index and global small-cap is represented by MSCI AC World Small Cap Index. Data are in Canadian dollars to December 31, 2014.
Sources: The Vanguard Group, Inc., calculations, based on data from FactSet.

Figure A-4. Relative performance of developed and emerging markets equity

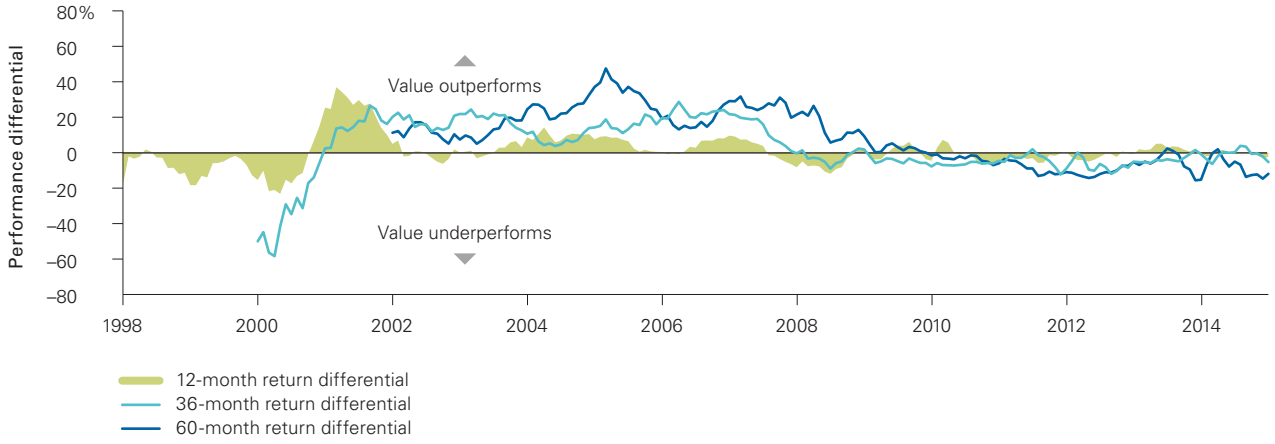


Largest performance differentials	12 months	36 months	60 months
Developed outperforms	60.48%	111.62%	173.81%
Developed underperforms	–65.28%	–195.71%	–373.49%

Notes: Developed equity is represented by MSCI World Index; emerging equity is represented by MSCI Emerging Markets Index. Performance differential begins in 1989 because of a lack of emerging market equity data before 1988. Data are in Canadian dollars to December 31, 2014.

Sources: The Vanguard Group, Inc., calculations, based on data from FactSet and Morningstar.

Figure A-5. Relative performance of value and growth: Global equity



Largest performance differentials	12 months	36 months	60 months
Value outperforms	36.96%	28.68%	47.53%
Value underperforms	–23.25%	–58.36%	–15.59%

Notes: Value global equity is represented by MSCI AC World Value Index and growth global equity is represented by MSCI AC World Growth Index. Data are in Canadian dollars to December 31, 2014.

Sources: The Vanguard Group, Inc., calculations, based on data from FactSet.

Connect with Vanguard™ > vanguardcanada.ca/advisorsalpha

The views expressed in this material are based on the author's assessment as of the first publication date (May 2015), are subject to change without notice and may not represent the views and/or opinions of Vanguard Investments Canada Inc. The author may not necessarily update or supplement their views and opinions whether as a result of new information, changing circumstances, future events or otherwise. Any "forward-looking" information contained in this material should be construed as general investment or market information and no representation is being made that any investor will, or is likely to achieve, returns similar to those mentioned in this material or anticipated in this material.

While this information has been compiled from proprietary and non-proprietary sources believed to be reliable, no representation or warranty, express or implied, is made by The Vanguard Group, Inc., its subsidiaries or affiliates, or any other person (collectively, "The Vanguard Group") as to its accuracy, completeness, timeliness or reliability. The Vanguard Group takes no responsibility for any errors and omissions contained herein and accepts no liability whatsoever for any loss arising from any use of, or reliance on, this material.

This material is for informational purposes only. This material is not intended to be relied upon as research, investment, or tax advice and is not an implied or express recommendation, offer or solicitation to buy or sell any security or to adopt any particular investment or portfolio strategy. Any views and opinions expressed do not take into account the particular investment objectives, needs, restrictions and circumstances of a specific investor and, thus, should not be used as the basis of any specific investment recommendation.

Information, figures and charts are summarized for illustrative purposes only and are subject to change without notice.

In this material, references to "Vanguard" are provided for convenience only and may refer to, where applicable, only The Vanguard Group, Inc., and/or may include its affiliates, including Vanguard Investments Canada Inc.

All investments, including those that seek to track indexes, are subject to risk, including the possible loss of principal. Diversification does not ensure a profit or protect against a loss in a declining market. While ETFs are designed to be as diversified as the original indexes they seek to track and can provide greater diversification than an individual investor may achieve independently, any given ETF may not be a diversified investment.

Morningstar data: ©2014 Morningstar, Inc. All Rights Reserved. The information contained herein: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; (3) does not constitute investment advice offered by Morningstar; and (4) is not warranted to be accurate, complete, or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. Past performance is no guarantee of future results.

CFA® is a registered trademark owned by CFA Institute.

Vanguard®

ISGQVAAC 052015

For financial advisor use only. Not for public distribution.