In our previous paper “Defensive equity: A defensive strategy to Canadian equity investing”, we discussed the merits of employing a defensive mandate within the Canadian equity portfolio for some institutional investors. We believe that discussing investable options, particularly for niche investment strategies, is imperative to building an effective portfolio. In this paper we put forward ideas on how to achieve this objective, and provide options for delivering real portfolio outcomes.

Utilizing a defensive strategy in the Canadian equity market remains a challenge for many institutional investors given the limited breadth of investable options. Few investment providers have actively managed products that are labeled as "low-volatility" or "defensive", and while other providers maintain that their products are defensively tilted, the portfolio management team may not consistently look at defensive factors as part of their investment process. As a result, in Canada, these investors may struggle with a lack of options to implement a defensive strategy despite the belief that it would better align their investment portfolio with their objectives.

**Identifying a defensive strategy**

In order to implement a defensive strategy we first need to identify observable metrics that show the extent to which managers’ investment styles exhibit defensive characteristics.

In general, the objective of a defensive strategy is to achieve a better risk-managed outcome for a portfolio. This is clearly a different objective than simply outperforming the broad market or peers. Since the intent of a defensive portfolio is to manage absolute risk and achieve a certain long-term required rate of return, the investor should consider shifting the focus to measure risk in terms of their absolute objectives rather than tracking error, which measures benchmark-relative risk. If the objective is to achieve lower drawdown or lower absolute volatility, then tracking error offers little help as a risk measure. While it may be difficult to target a specific level of volatility, a more palpable solution would be to target a volatility level that is a certain percentage of the benchmark.

The measure of tracking error becomes even less important when we are measuring a volatility-reducing strategy against a broad market that exhibits higher systematic volatility. In this case, if we work towards minimizing our tracking error we are likely doing so at the expense of a more volatile portfolio. The more important questions are whether the absolute-risk characteristics of the strategy are lower than the broad market; and is the strategy in line with the risk objectives of the institutional investor?

Although we believe institutional investors should be indifferent to tracking error when

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Investors need metrics that show the extent to which investment styles exhibit defensive characteristics.
measuring the defensiveness of a portfolio, there are other market-relative measures to look towards. Most of these metrics are quite easy to compute and grasp but the investors must understand which group of metrics has the most applicability when identifying a defensive investment approach. For example, placing a greater emphasis on the measure of beta to assess defensive options is often appropriate. The defensive manager will tend to have a beta moderately lower than 1, which means the portfolio will move up and down with the market but at a lower magnitude. Many asset owners are unaware of the overall level of beta in their equity portfolio and would be surprised to find their portfolio objectives are not necessarily aligned with the level of beta exposure.

A primary consideration for a defensive strategy is how the portfolio performs when the broad market is declining. One measure of this type of risk is maximum drawdown, which identifies the value by which the portfolio has declined relative to the peak value attained. This measure is significant, particularly for risk-averse investors, because the larger the drawdown of the portfolio is, the more difficult it is for the portfolio to recover. In general, one benefit of creating a defensive strategy is that it attempts to limit the acute loss during the worst-performing periods in the market. In addition to the maximum drawdown, we also want to measure the downside capture ratio of the strategy. A ratio of less than 100 indicates the portfolio has declined in value less than the benchmark during periods of benchmark decline. While all investors seek to minimize this ratio (lower is better) the most effective defensive strategies will produce the greatest downside protection over time.

Finally, we use the Sharpe ratio as a way of measuring the return investors are receiving for the level of portfolio risk. The Sharpe ratio is easily computable and is particularly beneficial when comparing investment options within the same asset class.

It is important to keep in mind that on a stand-alone basis, the measures of risk-adjusted performance we have discussed only tell part of the story in identifying successful defensive managers. Although each measure in isolation has detractors, together we can apply a complementary set of metrics to better quantify whether a strategy meets the defensive objective.

Is value considered defensive? Yes and no

Investors often associate value investing with a lower volatility investment style. While there is evidence that value stocks do in fact expose a portfolio to lower volatility than growth stocks, there are a number of traits that make value investing quite different than defensive. Using the Russell Defensive Index of Canadian stocks as a measure of defensive behaviour, we find that the companies in this index have some metrics associated with value and others with growth. For example, a higher-than-average return on assets and low leverage are often associated with growth investing, but are also quality factors that defensive companies exhibit. Therefore, defensive stocks are neither a sub-set of growth nor value, but instead are a distinct style on their own.

The difficulty asset owners run into in the Canadian equity market is that they are investing in a market with concentrated sector exposures and a limited universe of defensive equities. Consequently, would a
shift towards other investment styles, such as value, move the portfolio further along the spectrum towards achieving its overall objective of being more defensive?

Let us examine some of the key defensive metrics discussed earlier to see if, over the long term, investing in a value equity portfolio in the Canadian market provides defensive-like attributes. If we look at Table 1, the Russell Canada Defensive Index delivers the most defensive metrics. But we also observe that the MSCI Canada Value Index provided excess return, lower risk, and limited downside exposure relative to the S&P/TSX Composite Index over this time period. For example, the S&P/TSX Composite realized a standard deviation of 15.8 and a Sharpe ratio of 0.39 over this same time period, which is a higher level of risk and lower risk-adjusted performance relative to both the defensive and value indexes. In addition, we have further evidence of long-term similarities between defensive and value investing in Canada, as the beta of both indexes is similar and meaningfully lower than 1.

Again, the match between defensive investing and value investing in Canada is not perfect, and may vary considerably over shorter time periods. However, much of the data shows that having a strategic long-term value bias in a portfolio may provide investors with a more defensive outcome when a pure defensive mandate is not easily obtainable.

Smart beta option looking at passive exposure

While some investors have an inherent belief in passive investing and others in active investing, we would advocate that each can have merit when building a total portfolio. Passive investing in particular is a beneficial strategy to utilize when an investor would like to gain specific exposure to the factors they believe will increase the probability of achieving their desired outcome. In recent years, the trend of creating a portfolio that is exposed to particular factors has been coined ‘smart beta’. These portfolios generally use more sophisticated rules than the traditional market cap-weighted index. Volatility and defensive exposures are examples of smart beta factors. As a result of having seen greater interest among institutional investors to manage absolute risk, we now have index providers offering smart beta products to reduce unwanted factor exposure.

When implementing a defensive smart beta portfolio, institutional investors should be looking at options such as: an existing smart beta defensive product, or a passive provider that can offer the desired exposure by either implementing the smart beta strategy directly or licensing their index data. If an agreement was made to

| Table 1: Comparative statistics relative to the S&P/TSX Composite Index |
|-------------------------------------------------|-----------------|-----------------|-----------------|-----------------|
| Using monthly returns from Jul 1996- Dec 2013   | Russell Defensive Canada | MSCI Canada Value | Russell Dynamic Canada | MSCI Canada Growth |
| Average monthly excess return                   | 31 bps           | 7 bps           | -20 bps          | -5 bps          |
| Standard deviation                              | 12.95            | 14.17           | 22.40            | 24.09           |
| Downside capture ratio                          | 59%              | 71%             | 147%             | 133%            |
| Maximum drawdown                                | -18.7%           | -19.6%          | -26.5%           | -40.5%          |
| Beta                                            | 0.71             | 0.72            | 1.34             | 1.34            |
| Sharpe ratio                                    | 0.83             | 0.52            | 0.10             | 0.15            |
license the data for the smart beta strategy, an additional investment provider would be required to implement the strategy. Most importantly, the smart beta portfolio must be specific to Canadian equities if the objective is to reduce risk in this asset class.

Choosing the right provider

Deciding on a smart beta provider is often less straightforward than hiring a traditional passive provider who is used for investing in broad market cap-weighted indexes. When investing passively in the broad Canadian equity market, investment firms are generally only competing on price, as the approach to building a portfolio that mirrors the S&P/TSX Composite is virtually the same. On the other hand, the methodology used to acquire passive exposure to defensive equities can be very different between providers and result in different portfolio outcomes. For example, there are firms that look at historical volatility across equities and then group the lowest-volatility stocks together to create an index. In contrast, asset owners may prefer to look at defensiveness in broader terms, similar to how Russell constructs its defensive index, which encompasses fundamental company measure of defensiveness in addition to a firm’s historical volatility. Each of these examples will offer unique risk-and-return characteristics during different market environments and this is why it is imperative to choose a provider that will best suit the objectives of the portfolio.

Implementation 101: reduce Canadian equity exposure

As noted in our previous paper on defensive equity, asset owners in Canada tend to have a significant home-country bias in their investment portfolios, and therefore should be thinking more globally in terms of their asset allocation. The most immediate change many of these investors can make to achieve better diversification and lower long-term volatility at the total portfolio level would be to simply allocate a greater portion of their equity portfolio to international markets. The assumption in our paper thus far is that the significant home-country bias will persist and if we are to accept that, then we should also look at ways to reduce the systematic risk in our Canadian equity portfolios. However, in our view, often the simplest and most effective solution to reduce exposure to the Canadian stock market risks is simply to shift assets to more diverse global strategies and asset classes.

Closing thoughts: know your options

De-risking a Canadian equity portfolio is often challenging for institutional investors as there are a limited number of defensive specific products currently being promoted that address this requirement. However, more than one option is available to achieve this goal. Understanding how to evaluate active managers and passive providers in this context will be the key to success when implementing a defensive mandate. This will require shifting the focus from evaluating managers relative to their benchmarks, to measures that better align with the objective of a lower risk portfolio overall.
ABOUT THE RESEARCH

The underlying objective of this research topic was to: first, provide context for investors to determine if defensive investing in Canada aligns with their long-term objectives; and second, provide implementation options to deliver real portfolio outcomes. This second paper attempts to move beyond theory by exploring options for implementing. Our first paper formulates a basis for examining the characteristics and benefits of building a more defensive Canadian equity portfolio.

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