WHITEPAPER PRESENTED BY THE INVESTMENT STRATEGY GROUP

The case for **international investing**

LOWERING PORTFOLIO RISK WITHOUT SACRIFICING RETURNS

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Investors today have **opportunities** like never before to access some of the **world's fastest-growing economies**, **diversify** their portfolios, and perhaps **achieve better risk-adjusted returns** than can be attained through a **purely domestic portfolio**.

In our recent whitepaper, *Home is where the heart is: A look at home-country bias* (The Investment Strategy Group, Sept. 2016), we took an in-depth look at some of the reasons why investors are prone to sticking with sub-optimal over-allocations to domestic securities. In this paper, we explicitly make the corollary case: that international investing offers significant diversification benefits. ***Continued...***

Overview

Over-exposure to any single market creates risk in a portfolio, exposing it to downturns that might have been mitigated by rallies elsewhere in the world. Low correlations between markets (meaning the market indexes tend to display somewhat independent movements and do not move in concert with each other) reduce overall volatility, or risk, while expanding the opportunities for gain. And though investing internationally on your own can add significant complexity to your investment plan, professionally managed funds allow you to access these opportunities smoothly and easily.

While it's true that the relative performance of different markets is highly variable and unpredictable from year to year; more broadly, international versus domestic performance tends to be cyclical, with one typically outperforming the other for years at a time. As we demonstrate further in this paper, international stocks look to be on the verge of a period of outperformance relative to Canada, so the time may be especially ripe to consider some international exposure to lower your portfolio risk without sacrificing returns.

What do we mean by "international"?

Typically in investing discussions, a distinction is made between "international" and "global", where international is used to signify all markets *excluding* the domestic or home market and global is taken to mean all markets *including* the home market, in our case, Canada. Be cautious, however, when reviewing popular literature, as much is written from the perspective of the United States where the term international would signify all markets excluding the U.S., not Canada.

Most arguments for international diversification outside Canada are, to some degree, true of all markets including the U.S. In fact, in the case of enhancing the universe of opportunities, that is *especially* true of the U.S. which represents a large portion of the world's equity market by market capitalization. But Canada and the U.S. have two of the most tightly integrated economies in the world and thus have among the most highly correlated stock markets. Therefore, reaching farther beyond our shores to less correlated markets can add material diversification benefits in excess of those offered by adding U.S. exposure alone. With that in mind, in the discussion and examples below, we use international to generally refer to markets other than both Canada *and* the United States.

This is supported by popular sources of investing data in Canada, such as Morningstar and Globe Investor (*The Globe and Mail*), who exclude both the U.S. and Canada in categorizing mutual funds and Exchange Traded Funds (ETFs) as international. For Morningstar, international means at least 95% of assets outside Canada and the U.S., for Globe Investor at least 90%. As such, most discussions of performance of international stocks use, as a benchmark, the MSCI EAFE Index, an equity index covering developed markets in Europe, Australasia, Israel and the Far East, but excluding North America.

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More opportunities abroad

The size of foreign markets relative to Canada's domestic market seems, alone, to justify international exposure. The Toronto Stock Exchange has over 2,200 company listings (March 2017), and the major U.S. exchanges have roughly 6,000 listings between them. But other major world stock exchanges have many tens of thousands more (although the U.S. is still dominant by total market capitalization).

Canada represents only about 4% of the MSCI World Index by weight. In an efficient and fully integrated global capital market, that 4% would be a logical starting point for Canadian equity exposure in a globally diversified portfolio. However, as we detailed in *Home is where the heart is*, there are many reasons why investors have some degree of home-country bias. Nonetheless, it goes without saying that the larger the investment universe considered, the more opportunities there are to find assets that offer higher returns from faster-growing economies and companies, as well as assets that offer greater risk reduction due to low correlations.

Canada is seldom the best-performing market

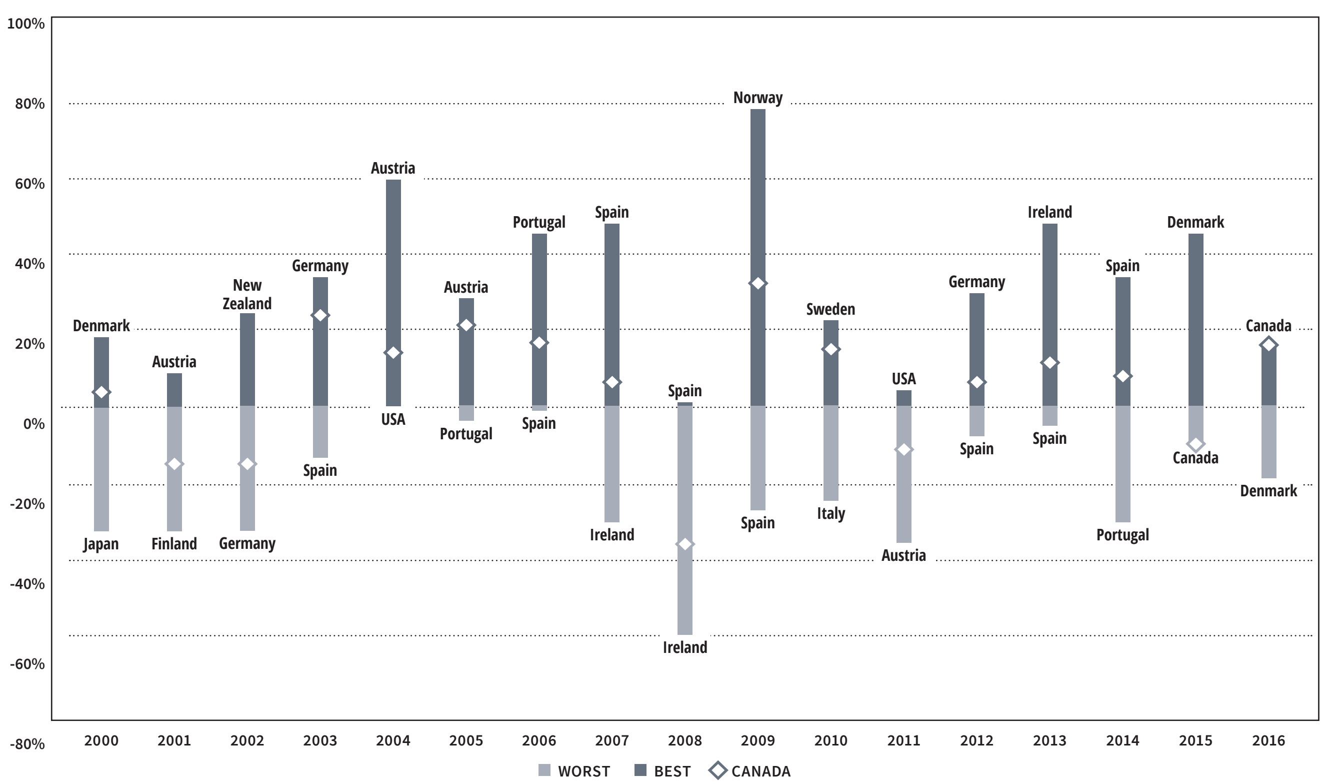
It almost goes without saying that Canada is seldom the world's best performing stock market, even if we restrict our analysis to just developed markets.

In *Home is where the heart is*, we included a "quilt chart" highlighting how relative performance of different selected markets is highly variable and unpredictable from one year to the next. To illustrate a similar idea, Figure 1 below, shows the best and worst performing developed stock markets (in Canadian dollar terms) for each calendar year since 2000. Note that over this period 11 different countries have held the top spot at one time or another. Canada ranked first just once, in 2016, as it recovered from a last place showing the previous year. The United States also ranked first just once.

FIGURE 1

Canada vs. best and worst developed markets

MAJOR EQUITY INDEX PRICE RETURNS ($CDN) | SOURCE: BLOOMBERG, IGIM



Excluding 2016, the performance of Canada's stock market trailed that of the developed market leader by an average of 28.6% each year (Table 1). If we had perfect foresight it would obviously be best just to invest in the top performing market (or even better, in just the top performing security!). But forecasts are always highly uncertain so it is better to spread the risk. What is clear is that investors exposed only to Canada, or who use only the United States for foreign diversification, have missed out on significant opportunities for growth as well as diversification.

TABLE 1

SOURCE: BLOOMBERG, IGIM

	TOP MARKET	TOP MARKET RETURN $CDN	S&P/TSX RETURN	DIFFERENCE (BP)
2016	Canada	17.5%	17.5%	0.0%
2015	Denmark	46.0%	-11.1%	57.1%
2014	Spain	35.5%	7.4%	28.1%
2013	Ireland	49.2%	9.6%	39.7%
2012	Germany	28.9%	4.0%	24.9%
2011	United States	2.2%	-11.1%	13.3%
2010	Sweden	22.1%	14.5%	7.7%
2009	Norway	78.3%	30.7%	47.6%
2008	Spain	0.7%	-35.0%	35.7%
2007	Spain	47.3%	7.2%	40.1%
2006	Portugal	45.2%	14.5%	30.7%
2005	Austria	26.7%	21.9%	4.8%
2004	Austria	59.0%	12.5%	46.5%
2003	Germany	34.7%	24.3%	10.4%
2002	New Zealand	22.8%	-14.0%	36.8%
2001	Austria	7.3%	-13.9%	21.2%
2000	Denmark	18.5%	6.2%	12.3%
			AVERAGE:	**28.6%**

* For the purposes of this analysis we have included as "developed" any country represented as a component of the MSCI World Index. Returns shown are price returns in $CDN of countries' primary stock exchange index (i.e. S&P/TSX Composite Index, OMX Copenhagen 20 Index, IBEX 35 Index, Irish Stock Exchange Overall Index, Deutsche Boerse AG German Stock Index DAX, S&P 500 Index, OMX Stockholm 30 Index, Oslo Stock Exchange OBX Index, PSI 20 Index, Vienna Stock Exchange Austrian Traded Index, NS&P/NZX 50 Gross Index).

Low correlations between countries are the key

Lowering risk requires various markets to be uncorrelated. While it is true globalization over recent decades has increased the correlation between most major markets, many of the factors affecting stock prices are still domestic in nature (e.g. monetary policy, tax laws, budget deficits).

Table 2 displays the degree of correlation between Canada's S&P/TSX Composite Index and selected foreign markets. The correlation coefficient (e.g. 0.73 for the S&P 500) is a measure of the degree to which price movements in the two markets tend to be related. The square of this number (R-squared, or the "coefficient of determination") is an even more powerful statistical measure indicating the percentage of the price movement in one market that is explained by movement in the other. The table provides these numbers for both returns measured in local currency terms (as if the effect of currency fluctuations were offset by hedging, the practice of holding stocks or funds denominated in foreign currencies but also equal but opposite short positions in the currencies themselves) and in purely Canadian dollar terms (unhedged, or exposed to currency risk).

As noted earlier, the correlation between markets in Canada and the United States has historically been high because the two economies are so closely linked (correlation coefficients vary over time). But despite the high level of financial and industrial integration in the global economy, you can still find major developed markets, e.g. Hong Kong and Japan, which show relatively little correlation with Canada and thus make attractive risk reduction vehicles for domestic portfolios. Unhedged exposure provides especially powerful diversification. Table 2 indicates the relative advantages of risk reduction available by utilizing different international markets, but remember that it does not reflect expected returns in each market and thus doesn't provide a complete picture.

TABLE 2

Correlation of selected markets with S&P/TSX Composite Index

SOURCE: BLOOMBERG, IGIM

		LOCAL CURRENCY		$CDN	
		(HEDGED)	R^2	(UNHEDGED)	R^2
USA	S&P 500 Index	0.73	0.54	0.58	0.34
UK	FTSE 100 Index	0.73	0.53	0.67	0.44
FRANCE	CAC 40 Index	0.68	0.47	0.57	0.32
GERMANY	Deutsche Boerse AG German Stk. Idx. DAX	0.62	0.38	0.50	0.25
HONG KONG	Hong Kong Hang Seng Index	0.52	0.27	0.44	0.20
JAPAN	Nikkei 225	0.43	0.18	0.28	0.08

*Data is based on weekly returns for five years ending July 31, 2017.

A little diversification goes a long way

The evidence is strong that diversification opportunities exist at a market index level, but what about for an active portfolio manager who selects only a few securities from each market for inclusion in an international fund?

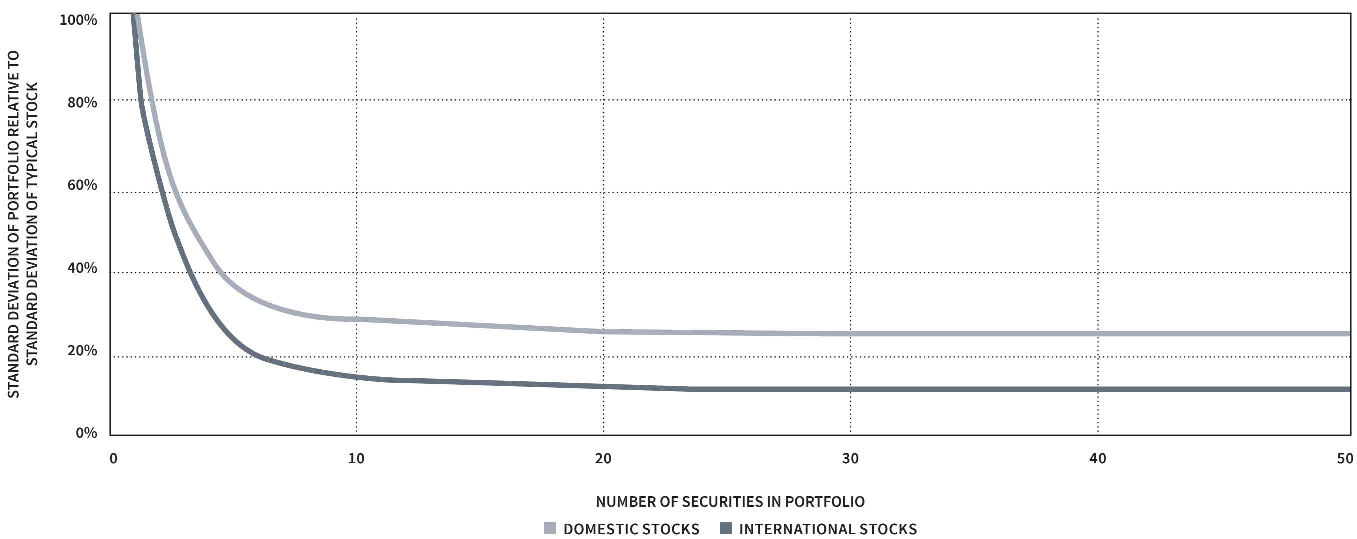
In a 1974 study that has been validated repeatedly since, Bruno Solnik showed an active portfolio manager could achieve significant reductions in portfolio risk with relatively limited international diversification (B.H. Solnik, "Why not diversify internationally rather than domestically?" *The Financial Analysts Journal*, July-August 1974).

In Figure 2 below, Solnik illustrated how the risk of a portfolio is reduced as securities are added. The top line is the risk reduction of a domestic U.S. portfolio as more domestic securities are added. Solnik found that only about 30 securities are needed to largely eliminate stock specific (diversifiable) risks. Adding international stocks spread between major markets (bottom line) reduces portfolio risk much faster, and to a level only half that of a purely domestic portfolio of comparable size. Although Solnik's study used the United States as the domestic market, the same finding has been shown to be generally true for various markets, over different time frames, and involving different conditions (inflation, exchange rate volatility, etc.). In fact, since most countries outside the U.S. have less diverse industrial bases and more highly concentrated stock markets (e.g. Canada), they offer less risk reduction through domestic diversification alone and thus, can theoretically achieve even greater benefits from international diversification.

FIGURE 2

Risk reduction through national and international diversification

SOURCE: B.H. SOLNIK, "WHY NOT DIVERSIFY INTERNATIONALLY RATHER THAN DOMESTICALLY?"



International stocks can offer better diversification than multinationals

Many investors feel that the same risk-reduction results can be achieved by investing in domestic companies that have extensive international operations or in large multinational corporations (often U.S.-domiciled). But national risk (based on interest rates, economic growth, budget deficits, etc.) creates a strong positive correlation between securities traded in the same national market. Companies with multinational operations may provide a degree of diversification beyond that of purely domestic stocks, but because national risk dominates, they don't enhance risk reduction as well as true international holdings do. Large U.S. multinationals, despite their overseas operations, still tend to have higher correlations with the performance of the overall U.S. market, which we have seen is in turn highly correlated with the Canadian market.

Table 3 compares correlations with the S&P/TSX Composite Index of several widely owned Canadian companies from different sectors, to the correlations of selected U.S. multinationals and non-U.S. alternatives. These non-U.S. alternatives (selected for illustrative purposes only, and are not recommendations) have lower correlations with the S&P/TSX than do their U.S. counterparts, which suggests they offer better diversification benefits.

Better risk-adjusted returns

Solnik's study (and many others that followed) showed how a better risk/reward ratio is obtainable through international diversification than with a purely domestic portfolio. Because of low correlations of stocks in different countries, risk-return combinations can be achieved that are superior to those available in individual national markets. In other words, a higher expected return can be achieved for a given level of risk, or a lower level of risk for a given expected return.

Figure 3, from Solnik's 1974 study, illustrates (for a U.S. investor, but also valid from a Canadian perspective) how international stocks in combination with domestic stocks can lower risk in an equity portfolio compared to a purely domestic portfolio. Solnik found the addition of up to 50% foreign exposure typically increased portfolio returns while reducing overall risk, with about 30% international versus 70% domestic historically providing the lowest portfolio volatility with competitive absolute returns.

TABLE 3

International stocks can provide more diversification benefits than U.S. multinationals

FIVE-YEAR CORRELATIONS JULY 2012-JULY 2017: WEEKLY RETURNS ($CAD) | SOURCE: BLOOMBERG, IGIM

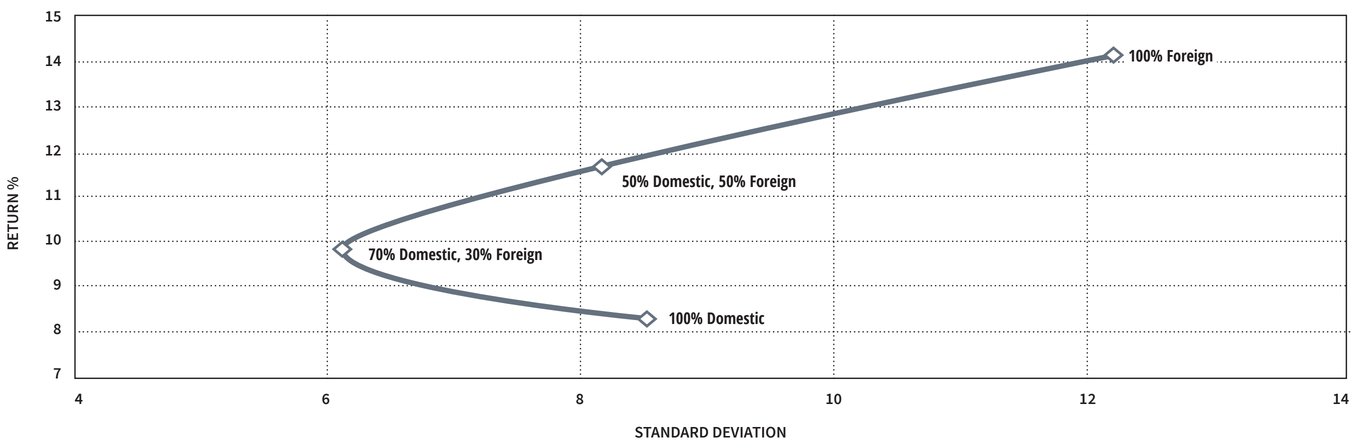
	CORRELATION WITH S&P/TSX COMPOSITE
TECHNOLOGY	
CGI Group Inc. (Canada)	0.36
Microsoft (U.S.)	0.30
Amadeus IT Group (Spain)	0.18
CONSUMER STAPLES	
Alimentation Couche-Tard (Canada)	0.27
Procter & Gamble (U.S.)	0.14
Seven & i Holdings (Japan)	0.12

	CORRELATION WITH S&P/TSX COMPOSITE
AUTOMOTIVE	
Magna International (Canada)	0.54
Ford (U.S.)	0.43
Toyota Motor Corp. (Japan)	0.20
FINANCIALS	
Royal Bank of Canada (Canada)	0.70
JPMorgan (U.S.)	0.44
BNP Paribas S.A. (France)	0.38

FIGURE 3.

Risk reduction with international diversification

(SOURCE: B.H. SOLNIK, "WHY NOT DIVERSIFY INTERNATIONALLY RATHER THAN DOMESTICALLY?")



Use investment funds to overcome the obstacles

Investors cite many reasons for underutilizing international diversification. Perceived obstacles include currency and political risks, the size, depth and efficiency of foreign markets, and difficulties in obtaining access to those markets and to information about foreign securities. Most of these concerns, especially those of a logistical nature (access, information, cost) can be easily overcome by using professionally managed investment products (we'll talk more about currency risk below). International funds make access easy and at a competitive price. Investors Group has actively managed funds managed by global research teams that look for local investment opportunities.

Currency risk: To hedge or not to hedge?

Financial theory and experience show currency risk should not be an obstacle to international investing.

Firstly, we should remember that the main motivation for international diversification is to take advantage of low correlations between assets to improve risk-adjusted returns. There is only a weak and sometimes negative correlation between currency and stock markets, and we saw in Table 2 how unhedged international index returns do indeed have lower correlations with the S&P/TSX than do hedged results. If foreign exchange fluctuations contribute to the fluctuation of foreign asset values and thus have additive diversification value, why should one follow strategies to reduce the impact of currency? Why is foreign exchange risk so often singled out from all the other risks and targeted for elimination?

Over long periods of time, currency fluctuations have never been a major component of total return in diversified portfolios. Depreciation of one currency is typically offset by appreciation of another. Furthermore, hedging costs money and timing currency movements is difficult. That being said, from time to time, the effect of currencies can overshadow a portfolio's income and capital gains in the short run, an effect some investors may wish to mitigate.

If securities markets function reasonably efficiently, anticipated future trends in exchange rates will be largely reflected in both stock prices and interest rates. The remaining uncertainty about future currency values can then be avoided by hedging. Some investment funds are available in both hedged and unhedged versions.

Aside from the risk reduction benefits of foreign exchange exposure in a diversified portfolio, what has been the historical experience from a Canadian perspective in terms of currency helping or hurting total return? As one might expect, it helps roughly half the time and hurts roughly half the time. Which one you experience is highly dependent on the time period measured.

Table 4 below looks at the total net return (includes reinvested dividends, after deduction of withholding taxes using tax rate applicable to non-resident institutional investors) of the MSCI EAFE Index over the 20 calendar years 1996 to 2016, as well as the 10-year period from July 2007 to July 2017. The first data column presents the total return of the local currency index, which reflects a hedged strategy, or one where returns are not affected by currency fluctuations. The second column presents an unhedged strategy, with returns presented in Canadian dollars at prevailing exchange rates. For the 20 years ended December 2016, the hedged strategy outperformed the unhedged strategy by roughly 0.55% on an annualized basis. Yet since July 2007, the unhedged strategy outperformed by an annualized 0.68%.

The time is ripe for adding international exposure

We've seen how adding uncorrelated international assets to a diversified portfolio can improve risk-adjusted returns. Thus, domestic investors can gain from such exposure even if international markets are more volatile than the Canadian market. But international markets may not be uniformly volatile at the same time and timing rotations is difficult, so it is important to have broad international exposure.

We've also seen how the best-performing market from year to year is highly variable and investors underexposed to foreign stocks can miss significant gains when international markets rally. While predicting the best individual market any particular year may be difficult, it turns out the relative performance of international stocks more broadly versus domestic Canadian stocks is fairly cyclical (Figure 4), with one typically outperforming the other for years until the cycle reverses. This may be due to the dependence of Canada's economy on the cyclical resource sector, the differing abilities of regional economies to recover from shocks, as well as long-term exchange rate trends.

Following the global financial crisis of 2008, European equity markets fell further and bounced back more slowly than did North American markets. But in 2012-2013 and again in 2015-2016, Canadian markets entered a period of underperformance as the price of oil plunged and took the Loonie with it, dragging down the relative performance of Canadian stocks.

The apparently cyclical nature exhibited in Figure 4 suggests international stocks may be in the beginning stages of a period of relative outperformance. Allocating a

TABLE 4

MSCI EAFE Net Index total return – (monthly returns)

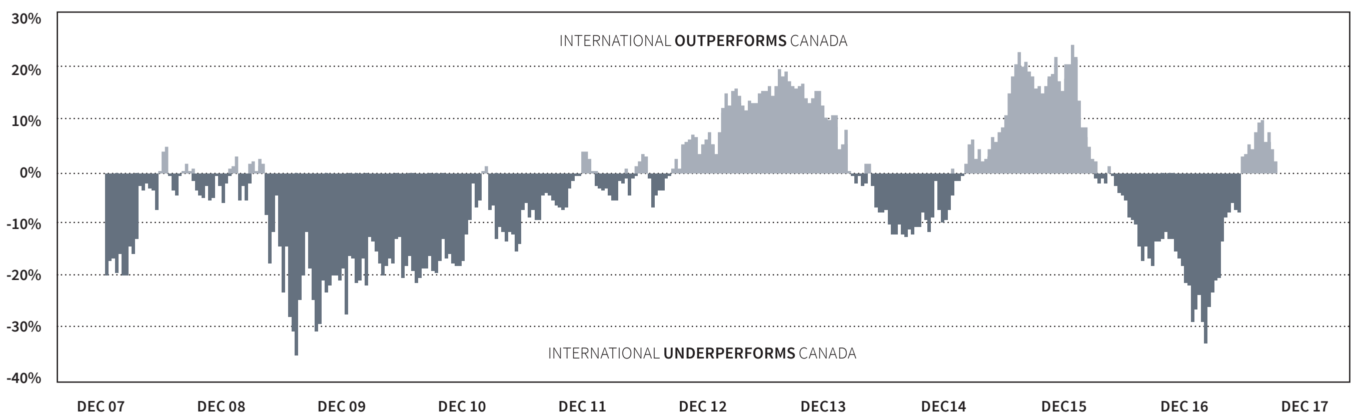
SOURCE: BLOOMBERG, IGM

	LOCAL CURRENCY INDEX (Hedged strategy)	INDEX RETURNS ($CDN) (Unhedged strategy)
Dec 1996 – Dec 2016	146.84% (4.62% annualized)	122.23% (4.07% annualized)
July 2007 – July 2017	27.07% (2.42% annualized)	35.72% (3.10% annualized)

FIGURE 4

EAFE-TSX rolling 1-year return differential ($CAD)

SOURCE: BLOOMBERG, IGM



portion of your portfolio to international assets will allow you to potentially benefit from these divergent cycles. An international mutual fund invested in diversified holdings across countries and sectors offers an easy way to gain exposure without trying to anticipate which market will perform.

And even if relative performance wanes, just a little international exposure can dramatically reduce the volatility of your overall portfolio and improve risk-adjusted returns. Foreign stocks may look more volatile, but including them in your portfolio will reduce, not increase, total portfolio risk.