TD Global Investment Solutions

Investor Knowledge 10 Minutes

To Hedge or Not to Hedge:

A Dynamic Approach to Managing Currency Risk

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At a Glance

Foreign currency exposure introduces a second, often underappreciated, source of risk for Canadian investors allocating to global assets. Decisions to hedge, partially hedge, or remain unhedged are active choices, each with implications for return variability and long-term outcomes.

For higher-risk assets such as U.S. equities, the case for remaining unhedged has historically been supported by favourable correlation dynamics, particularly for U.S. equities and the U.S. Dollar (USD). However, these relationships are not static and can reverse, exposing investors to prolonged periods of currency-driven underperformance.

In this paper, we outline a more flexible framework for currency management that incorporates the tendency of developed market currency pairs to exhibit long-term range-bound behaviour. This approach, referred to as Dynamic Currency Hedging (DCH), increases hedge ratios when foreign currencies are relatively expensive and reduces them when they are weaker, aiming to balance risk and return without relying on static, all-or-nothing hedging decisions.

When investors invest in a foreign asset, they face two economic risks:

1. Underlying foreign asset risk
2. Foreign currency exposure risk

The foreign currency risk often assumes less attention from investors. A prudent investment process related to the foreign currency exposure management centers on how best to translate the economic exposure of the foreign asset back into the Canadian Dollar (CAD) denominated portfolio without sacrificing returns or materially increasing the variability of expected returns.

Investors may choose not to hedge the currency exposure due to a variety of reasons: currencies tend to mean revert over the long run, cost of carry (CoC) is too high, operational complexity, or the risk reduction benefits of staying unhedged. Other investors may choose to fully hedge the currency risk, thereby reducing the impact of currency-related volatility on their portfolios. Some investors choose to hedge 50% of the foreign currency exposure, a strategy often called "the path of least regret hedging strategy" where the investor gets to enjoy some benefits of staying unhedged if the foreign currency rallies, and vice versa.

The key point is that all these decisions, including the decision to stay unhedged, are active investment decisions and come with costs. In our view, a disciplined approach to managing foreign currency exposure should consider the following:

a. Volatility of foreign assets
b. Volatility of currencies
c. Co-movement (or correlation) dynamic of assets and currencies
d. CoC carry for hedging foreign currency exposures
e. The long-run mean reversion of developed market currency pairs

What Is Currency Hedging CoC?

CoC, also called "hedging cost" or "hedging impact", plays a big role in the discussion for currency hedging. Therefore, we begin with a quick introduction to CoC. CoC arises from the difference in short-term rates of the two currencies. For example, if short rates in Canada and the U.S. are 3% and 4% respectively, CoC would arise from the Canadian hedger borrowing in USD and lending it in CAD. The cost would be approximately -1% annualized in this example for the Canadian investor hedging their USD currency exposure by going short USD and long CAD. Investors can use foreign exchange (FX) forward contracts or futures to hedge their exposure.

CoC can be a credit to the hedger (if an investor is hedging currencies with lower risk-free rates like the Japanese Yen, Swiss Franc or Euro), or a debit (if an investor is yielding higher yielding currencies that typically include Norwegian Krone, Australian Dollar, USD and most Emerging Market currencies). It's important to note that CoC is not static but moves in line with the interest rate differentials.

CoC matters because positive or negative carry regimes tend to persist over long periods of time[1]. Central bank monetary policies tend to trend; i.e. easing or tightening cycles tend to fluctuate over multiple quarters or even years. As such, while the level of CoC fluctuates, the general direction of CoC (credit or debit to investor) tends to persist over longer periods. Over a longer time horizon, the persistent cost materially impacts the cumulative hedged returns for the Canadian investor.

Hedging low-to-medium risk foreign assets

For low-risk foreign assets, high currency hedge ratios are almost always preferred, unless CoC is too punitive. The reason is straightforward: the Canadian investor is targeting a low volatility foreign asset and would prefer to have the low asset volatility transferred into their CAD portfolio. Generally, low volatility assets offer low yields/returns. If the foreign currency exposure is left unhedged, asset returns in CAD will likely be more unpredictable and more volatile due to currency volatility.

For example, a Canadian investor invests in a USD denominated nominal treasury index that has historically run with low to moderate risk, measured in long-term annualized standard deviation of returns, at 4.7% per year. The long-term volatility of the same U.S. bond index unhedged returns in CAD terms was 9.5%, almost double the volatility of bonds in local currency terms. Leaving the currency exposure of a lower-risk U.S. asset unhedged results in the low-risk foreign asset transforming into a higher risk asset in CAD terms with wider variance in its CAD returns. The predictability of stable yield generated by the USD denominated asset is largely diminished in CAD returns due to the more volatile currency impact. **Tables 1** and **2** show the historical modeled results of the U.S. Treasury Index, a relatively lower risk bond index, as well as the U.S. Treasury Long Maturity Bond Index with relatively higher duration and price risk. Fully hedging the exposure resulted in similar long term annualized returns with significantly lower volatility of returns.

Table 1

Bloomberg U.S. Treasury Index	Performance in Local Currency (USD)	100% Currency Hedged Performance in CAD Terms	Fully Currency Unhedged Performance in CAD Terms
Annual Return[2]	4.0%	3.9%	4.1%
Annual Volatility (Standard Deviation of Returns)	4.7%	4.8%	9.5%

Table 2

Bloomberg U.S. Treasury Long Maturity Bond Index	Performance in Local Currency (USD)	100% Currency Hedged Performance in CAD Terms	Fully Unhedged Performance in CAD Terms
Annual Return[3]	5.1%	5.0%	5.1%
Annual Volatility (Standard Deviation of Returns)	11.8%	11.9%	15.5%

The similar dynamic is observed in European bond index returns with an interesting additional observation. The low risk (4% annual volatility) European bond index became higher risk (9.6% annual vol) in CAD when left unhedged. However, fully hedging the currency exposure not only preserved the low volatility, but also enhanced the returns by almost 0.7% per year in CAD terms. The higher returns were a function of the positive CoC embedded in the currency hedge that benefited the hedger. **Table 3** and **4** show the preservation of lower historical volatility with incremental return from the positive CoC for two European bond indices.

Table 3

Bloomberg Pan Europe Aggregate Bond Index	Performance in Local Currency (EUR)	100% Currency Hedged Performance in CAD Terms	Fully Currency Unhedged Performance in CAD Terms
Annual Return[4]	3.0%	3.7%	3.5%
Annual Volatility (Standard Deviation of Returns)	4.0%	4.0%	9.6%

Table 4

Bloomberg Pan Europe 10+ Years Bond Index	Performance in Local Currency (EUR)	100% Currency Hedged Performance in CAD Terms	Fully Unhedged Performance in CAD Terms
Annual Return[5]	3.4%	4.1%	4.0%
Annual Volatility (Standard Deviation of Returns)	8.6%	8.7%	12.3%

Exposure

Currency Hedging U.S. Equities Exposure

U.S. equities tend to represent the majority of Canadian investors' foreign equity exposures due to the large size of the U.S. equity market vs. the rest of the world. The case for hedging U.S. equities exposure has traditionally centered around the co-movement (correlation) dynamic of U.S. equities (risk asset) with USD (a "haven", or the "risk-off currency") in the financial industry parlance, and the CoC for hedging USD.

Historically, both factors have supported maintaining an unhedged currency position. The co-movement, or correlation dynamic is driven by the fact that USD tends to strengthen during periods of severe market weakness, thereby providing a natural equity hedge to the unhedged CAD investor. This useful dynamic was on display during the past major equity market weakness episodes like the Great Financial Crisis (2008/2009), U.S. Mini Recession (2015/2016) and the Covid-19 pandemic (2020) when unhedged U.S. equity returns turned out better than hedged returns due to the rally in USD/CAD.

Over the past thirty-five-year analysis period (since tradeable forward FX rate data series became available), we find unhedged U.S. equity position as the winning strategy, both in terms of better return and lower risk profile. The correlation dynamic between U.S. equities and USD/CAD resulted in better returns, lower volatility and lower maximum losses for the unhedged U.S. equity position (see **chart 1**).

However, the correlation dynamic suffers from a major possible weakness. A weaker future USD due to either a secular broad USD bear market, or Canadian economy's strong performance, will result in unhedged portfolio suffering losses on their long USD exposure. This dynamic was on display during long periods, including 1985 to 1991, 2003 to 2007 and then from 2009 to 2013. During those periods, the unhedged U.S. equity returns for the Canadian investor lagged the hedged returns.

There is also a question whether the USD status as the safe-haven currency of the world will continue to the extent we have seen over the past decades. The tariff-related equity selloff in April 2025 coincided with the USD selloff, creating a dual headwind for unhedged Canadian investors in U.S. equities where they incurred losses from both long equity and long USD currency position.

Currency pairs tend to move due to a combination of reasons, including the relative economic performance, interest rates and individual currency specific dynamics (like USD being a safe-haven currency). As such, both 100% hedged and fully unhedged U.S. exposures assume specific ex-ante risks.

Strategy

Range-Bound Currencies and Dynamic Hedging

Most developed markets' currency pairs have been free-floating since early 1970s when the world largely abandoned the Gold Standard. As we look at the FX pairs movement in the past fifty years of history, one key observation stands out: Since 1970s, similar developed economies have tended to have range-bound currency pairs.

We can frame our understanding as:

> **Economies that tend to grow together, have their currencies stay together.**

The currency pairs tend to absorb the relative differences in the economic growth rates of the two economies. The outperforming economies generally end up with stronger currencies and vice versa. As closely tied economies have strong relationships due to free trade and free capital flows, an outperforming economy tends to benefit their trading partner, resulting in the weaker currency strengthening and moving the currency pair towards its long-term mean.

This dynamic has historically resulted in the currency pair moving in large and defined range, with the currency pairs repeatedly reverting towards their mean value. We see this dynamic with USD/CAD, EUR/CAD, GBP/CAD and AUD/CAD going back more than 40 years. Appendix A shows the historical charts of currency pairs for the available time periods.

If the range-bound behaviour of similar economies currency pairs continues in the future, it makes sense that the mean reversion characteristic of these currency pairs can be exploited for currency hedging strategies. Specifically, for similar currencies, especially in developed markets, a simple strategy will be to hedge at higher (expensive) foreign currency exchange rate levels, and vice versa.

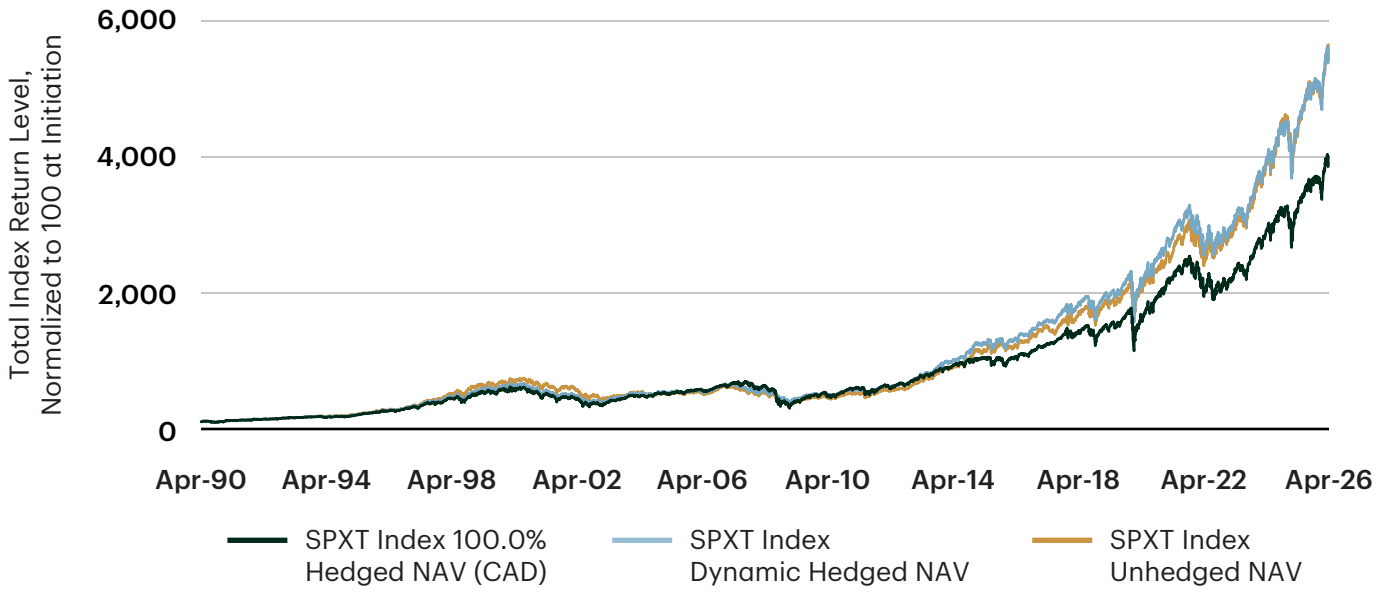
We refer to this approach as Dynamic Currency Hedging (DCH). Investors may wish to consider incorporating a DCH framework if they believe that the major developed economies will continue to grow in lockstep together. The strategy boils down to increasing hedge ratios when foreign currencies are expensive relative to CAD and reducing hedge ratios when they are inexpensive as foreign currencies fall. At cheaper FOR/CAD levels, investors would find their portfolios with less hedges, allowing the portfolios to benefit from the foreign currency appreciation towards the mean level, or beyond.

This approach alleviates the risk that a fully unhedged or hedged position can go offside for an extended period. Historically, the simulated long-term performance analysis showed the DCH strategy with fixed thresholds performed in line with the best strategy. In the Appendix section, please find simulated results of foreign equities in U.S., Europe, UK and Australia for full periods as well as sub-periods for DCH, fully hedged, fully unhedged and returns in local currency.

Chart 1 shows simulated performance of the DCH, fully hedged and unhedged returns for U.S. equities from 1990 to 2026. Appendix A shows detailed analysis of simulated returns of DCH strategy for EUR, AUD and GBP denominated equities with similar strong performance.

Economy

Chart 1: S&P500 Index Hedged vs. Unhedged vs. Dynamic Hedging (in CAD$) Total Return Time Series



Source: Bloomberg Finance LP, TD Asset Management Calculations, Daily Frequency Data from April 30, 1990 to June 15, 2026. Please treat the analysis as estimated and approximated.

DCH may provide investors with an additional tool for managing foreign currency exposure. We note the following caveats that investors need to be aware of while employing DCH strategy for currency hedging purposes:

a. The analysis has full knowledge of history, based on the available data up to 2026. Thus, our simulated analysis was applying thresholds in history based on the future information that was not available at that time. This means the analysis has the "look-ahead bias", also called "forward bias" whereby historical positions were implemented with an understanding of history that came after the trade dates. We emphasize that the analysis is simply a historical simulated exercise to ascertain the utility of threshold-based approach.

b. History may not repeat itself in the future. There is a risk that developed economies may significantly diverge from each other, resulting in the breaking of the historical range that was held from 1970s to 2025.

c. The incremental outperformance from DCH will manifest itself over multiple-rolling years period and not over a quarter or a single year. Investors looking for a winning strategy every quarter or a year may find themselves disappointed as the outperformance from DCH tends to manifest itself over a longer period.

   Investors should expect periods of underperformance relative to either fully hedged or fully unhedged strategies as DCH exposures generally fall between fully hedged and fully unhedged positions.

d. CoC plays a less significant role in a basic DCH framework. TDAM has back-tested slightly advanced versions of DCH strategy where positions were adjusted based on the prevalent cost of carry CoC. These adjustments have resulted in minor in-sample outperformance over the basic DCH strategy performance. We believe that a simple, intuitive DCH strategy should be sufficient for most investors that will allow them to optimally hedge the foreign currency exposure.

Moving Beyond Static Hedging Decisions

Currency hedging should be viewed as an active risk management decision rather than a binary choice between fully hedged and fully unhedged exposures.

For Canadian investors with global portfolios, the optimal approach may vary across asset classes, market environments and currency valuation regimes. While higher hedge ratios often remain appropriate for lower-risk foreign fixed income allocations, equity investors face a more complex trade-off between currency diversification benefits and prolonged periods of currency-driven underperformance. Dynamic Currency Hedging seeks to address this challenge by adjusting hedge ratios as currencies move through historically observed trading ranges. Although no approach can eliminate currency risk entirely, a dynamic framework may help investors avoid maintaining structurally over- or under-hedged positions through extended market cycles, providing a more flexible and resilient approach to managing foreign currency exposure through time. ■

Appendix

S&P 500 Returns	Local (USD) Returns	Fully Hedged Returns in CAD$	DCH Returns in CAD$	Fully Unhedged Returns in CAD$
Full Sample (May 1991 – May 2026)				
Annual Return	11.2%	10.8%	11.8%	11.8%
Annual Standard Deviation[6]	18.0%	18.5%	16.9%	16.6%
May 1990 – December 1999				
Annual Return	19.6%	20.2%	21.1%	22.3%
Annual Standard Deviation	14.1%	14.2%	14.2%	14.2%
January 2000 – December 2009				
Annual Return	-0.9%	-1.8%	-2.2%	-4.0%
Annual Standard Deviation	22.2%	23.1%	20.8%	20.7%
January 2010 – December 2019				
Annual Return	13.6%	13.1%	15.6%	16.0%
Annual Standard Deviation	14.8%	14.9%	12.3%	12.4%
January 2020 – May 2026				
Annual Return	15.9%	14.4%	15.6%	16.9%
Annual Standard Deviation	20.5%	20.9%	19.5%	18.3%

European DAX Index Returns	Local (EUR) Returns	Fully Hedged Returns in CAD$	DCH Returns in CAD$	Fully Unhedged Returns in CAD$
Full Sample (March 2001 – May 2026)				
Annual Return	5.6%	5.9%	7.1%	6.1%
Annual Standard Deviation	22.5%	22.7%	22.0%	22.0%
March 2001 – December 2009				
Annual Return	-0.5%	-1.3%	1.6%	0.2%
Annual Standard Deviation	27.2%	27.6%	26.5%	26.2%
January 2010 – December 2019				
Annual Return	8.3%	9.3%	9.3%	7.9%
Annual Standard Deviation	18.9%	19.0%	18.5%	18.7%
January 2020 – May 2026				
Annual Return	10.1%	10.9%	11.5%	11.7%
Annual Standard Deviation	20.3%	20.6%	20.1%	20.3%

MSCI UK Index Returns	Local (GBP) Returns	Fully Hedged Returns in CAD$	DCH Returns in CAD$	Fully Unhedged Returns in CAD$
Full Sample (February 2004 – May 2026)				
Annual Return	7.8%	7.3%	7.7%	6.5%
Annual Standard Deviation	17.0%	17.1%	16.7%	17.3%
February 2004 – December 2009				
Annual Return	7.3%	5.4%	4.6%	1.2%
Annual Standard Deviation	20.9%	21.1%	20.3%	21.1%
January 2010 – December 2019				
Annual Return	7.1%	7.4%	8.1%	7.3%
Annual Standard Deviation	14.7%	14.7%	14.3%	14.9%
January 2020 – May 2026				
Annual Return	9.2%	8.8%	10.0%	10.4%
Annual Standard Deviation	16.4%	16.3%	16.4%	16.8%

MSCI Australia Index Returns	Local (AUD) Returns	Fully Hedged Returns in CAD$	DCH Returns in CAD$	Fully Unhedged Returns in CAD$
Full period (2005 – May 2026)				
Annual Return	7.3%	6.8%	7.8%	7.6%
Annual Standard Deviation	24.0%	23.6%	25.5%	28.5%
2005 – 2009				
Annual Return	11.1%	9.8%	11.9%	11.4%
Annual Standard Deviation	33.4%	32.4%	35.8%	39.7%
2010 – 2019				
Annual Return	5.0%	3.9%	4.7%	4.6%
Annual Standard Deviation	19.6%	19.5%	20.7%	23.6%
2020 – May 2026				
Annual Return	8.4%	9.3%	10.1%	9.8%
Annual Standard Deviation	22.2%	22.1%	23.7%	25.9%

Currency

[1] CoC varies with movements in overnight and short-term rates in the two countries. However, the direction of carry sustains for a long period of time. For example, JPY, EUR and CHF have persistently maintained lower overnight rates compared to the similar rates in Canada, resulting in positive CoC that benefits the hedger. Similarly, overnight interest rates in AUD, USD and most EM currencies have maintained higher overnight interest rates compared to Canadian overnight rates, resulting in a debit cost to the hedger in Canada.

[2] Analysis from February 1994 to December 2025. Source: Bloomberg Finance LP, TD Asset Management Calculations. Simulated analysis. Please treat the numbers as estimated.

[3] Analysis from February 1994 to December 2025. Source: Bloomberg Finance LP, TD Asset Management Calculations.

[4] Analysis from March 2001 to December 2025. Source: Bloomberg Finance LP, TD Asset Management Calculations. Simulated analysis. Please treat the numbers as estimated.

[5] Analysis from February 1994 to December 2025. Source: Bloomberg Finance LP, TD Asset Management Calculations.

[6] Standard Deviation calculated from daily returns, Source: Bloomberg Finance LP, TDAM Calculations

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