

# Getting a handle on the impact of currency

Currency returns are an important factor impacting any investor purchasing a non-Canadian asset. Since the underlying investments of these assets are bought in a foreign currency, the appreciation or depreciation of the foreign currency against the Canadian dollar can either add or detract from the total return.



The objective of currency hedging is to remove the effects of foreign exchange movements, giving Canadian investors a return that approximates the return of the local market.

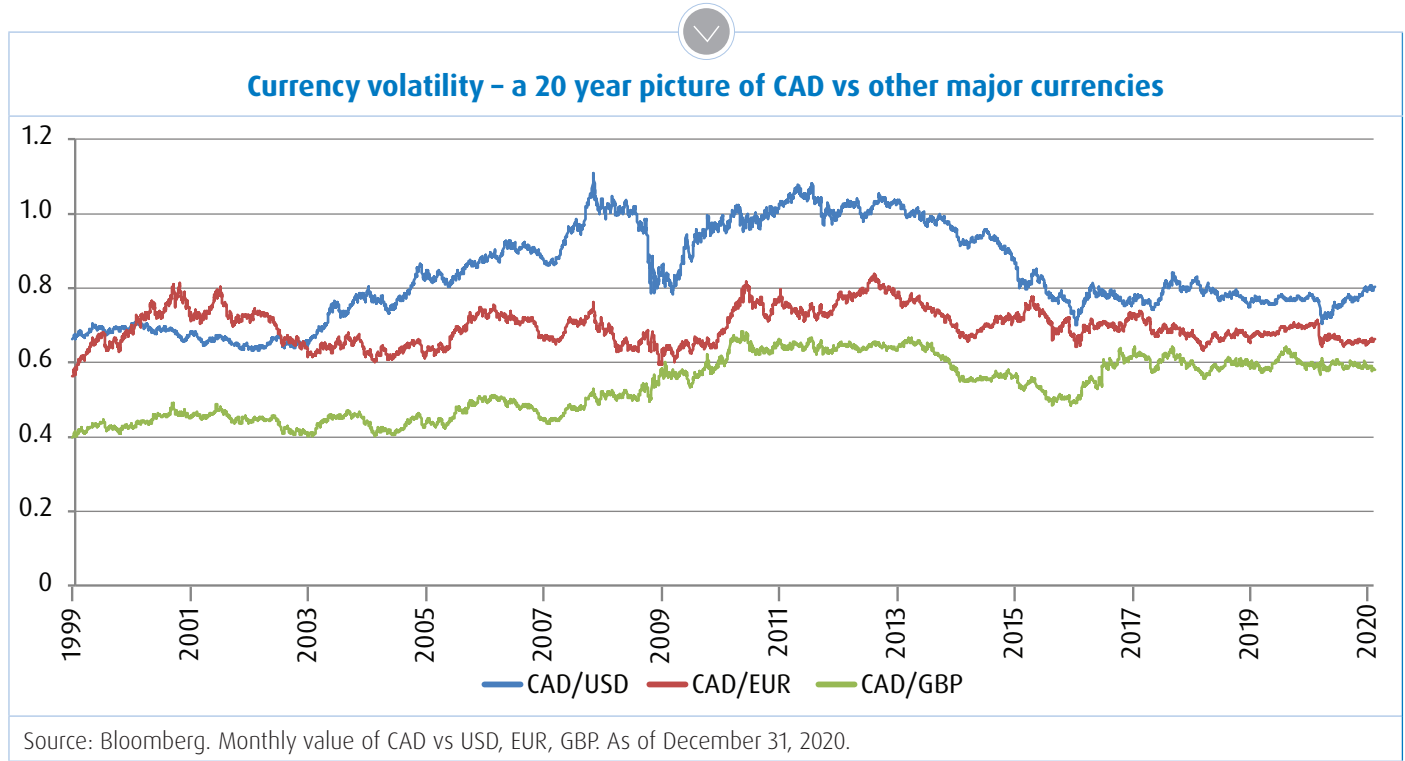
ETF providers offer both hedged and unhedged options giving Canadian investors more tools to efficiently execute their investment strategies. A common institutional approach is to use a blended application, typically 50% hedged, 50% unhedged. Portfolio managers may take an active approach to generate alpha from moves in currency, while others may choose to remain 100% hedged and eliminate currency risks.

Hedging is accomplished by taking a short position in the foreign currency to match the underlying portfolio. If the underlying currency of the foreign investment loses value relative to the Canadian dollar, these losses would be offset by the gain in the currency forward contract. Conversely, if the underlying foreign currency appreciates against the Canadian dollar, these gains would be offset by the losses in the currency forward.

**The impacts of currency should not be overlooked**

In theory, there is purchasing power parity (PPP) between two currencies, to which they will revert to over time. In practice however, currencies can trade beyond their PPP for extended periods of time, and not

all investors are looking to hold an investment over the long-term. Over the short-term, the impact of currency can actually be quite substantial and add volatility. The chart below shows a historical look at the Canadian Dollar versus other major currencies.



|                                   | U.S. Dollar  | Euro          | British Pound | Japanese Yen  |
|-----------------------------------|--------------|---------------|---------------|---------------|
| 2008                              | -18.12%      | -14.51%       | 11.34%        | -33.55%       |
| 2009                              | 15.90%       | 13.00%        | 4.54%         | 18.76%        |
| 2010                              | 5.41%        | 12.89%        | 9.28%         | -7.96%        |
| 2011                              | -2.31%       | 0.85%         | -1.89%        | -7.35%        |
| 2012                              | 2.96%        | 1.18%         | -1.48%        | 16.06%        |
| 2013                              | -6.60%       | -10.35%       | -8.37%        | 13.39%        |
| 2014                              | -8.59%       | 3.84%         | -2.83%        | 3.96%         |
| 2015                              | -16.01%      | -6.43%        | -11.22%       | -15.71%       |
| 2016                              | 2.96%        | 6.25%         | 22.92%        | 0.17%         |
| 2017                              | 6.91%        | -6.28%        | -2.34%        | 3.04%         |
| 2018                              | -7.83%       | -3.50%        | -2.40%        | -10.31%       |
| 2019                              | 4.99%        | 7.37%         | 1.06%         | 4.00%         |
| 2020                              | 2.01%        | -6.36%        | -1.03%        | -2.99%        |
| <b>20 Year Average Return</b>     | <b>1.31%</b> | <b>-0.09%</b> | <b>1.68%</b>  | <b>1.13%</b>  |
| <b>20 Year Standard Deviation</b> | <b>9.05%</b> | <b>8.77%</b>  | <b>8.91%</b>  | <b>12.00%</b> |

Source: BMO Asset Management Inc., Bloomberg

### A closer look at the impact of currency on Canadian returns

|                                   | S&P 500 Index (Currency Hedged) | S&P 500 Index Total (Currency Unhedged) |
|-----------------------------------|---------------------------------|---|
| 2005                              | 4.06%                           | 2.29%                                   |
| 2006                              | 14.64%                          | 15.35%                                  |
| 2007                              | 3.79%                           | -10.53%                                 |
| 2008                              | -39.02%                         | -21.20%                                 |
| 2009                              | 24.08%                          | 7.39%                                   |
| 2010                              | 13.55%                          | 9.06%                                   |
| 2011                              | 1.71%                           | 4.64%                                   |
| 2012                              | 16.26%                          | 13.43%                                  |
| 2013                              | 33.33%                          | 41.27%                                  |
| 2014                              | 14.32%                          | 23.93%                                  |
| 2015                              | 0.91%                           | 21.59%                                  |
| 2016                              | 11.40%                          | 8.09%                                   |
| 2017                              | 21.16%                          | 13.83%                                  |
| 2018                              | -5.70%                          | 4.23%                                   |
| 2019                              | 29.87%                          | 24.84%                                  |
| 2020                              | 15.79%                          | 16.32%                                  |
| <b>15 Year Average Return</b>     | <b>10.01%</b>                   | <b>10.91%</b>                           |
| <b>15 Year Standard Deviation</b> | <b>14.92%</b>                   | <b>11.55%</b>                           |

Source: BMO Asset Management Inc., Morningstar

### Currency risk: to hedge or not hedge

The decision can be based on a number of different factors that are specific to the investor.

#### 1. Investor outlook on the currency

As an example, an investor believes the U.S. dollar may appreciate against the Canadian dollar. If this individual is looking to invest in U.S. equities, an unhedged U.S. equity ETF may be more suitable. If the investor's assumption is correct, he will receive both the returns on the underlying securities and the gains on the currency. On the other hand, if an investor believes the foreign currency will depreciate against the Canadian dollar, a hedged U.S. equity ETF may be the better solution. Given his assumption is correct, the investor will get the returns from the underlying

securities, however, the loss of the U.S. dollar relative to the Canadian dollar will be mitigated.

#### 2. Time horizon of the investor

Over shorter periods, it is more likely that currencies can deviate from their equilibrium values as measured by PPP. Given the higher unpredictability over shorter time horizons, hedging currency risk may be a consideration for these investors.

#### 3. Correlation of investments and currency

An understanding of the correlation between investments and its currency may also impact the decision. Some currencies, such as the U.S. dollar, tend to be negatively correlated with equity markets. Consequently, the currency can provide an additional source of diversification for investors. An unhedged position can potentially reduce the volatility of the investors portfolio.

On the other hand, an investor may wish to currency hedge their Euro exposure given the currency has tended to move in the same direction as equity markets. For currencies that tend to be positively correlated to equities, the currency can add additional volatility to the portfolio.

### Correlation of asset classes and currency

|                   | U.S. Dollar | U.S. Equity | U.S. Fixed Income |
|-------------------|-------------|-------------|-------------------|
| U.S. Dollar       | 1.00        | -0.35       | -0.26             |
| U.S. Equity       | -0.35       | 1.00        | -0.08             |
| U.S. Fixed Income | -0.26       | -0.08       | 1.00              |

U.S. Equity proxy: S&P 500 Index  
U.S. Fixed Income proxy: Barclays US Aggregate Bond Index  
20 year correlation, as of December 31, 2020

Source: BMO Asset Management Inc., Bloomberg

#### 4. Cost of the underlying hedge

Currencies forwards that are very liquid, such as the U.S. dollar, are less expensive to hedge. On the other hand, for underlying currencies that are less liquid, such as those for emerging markets, hedging foreign exchange exposure becomes more costly and less efficient.

In recent years, ETFs have made accessing U.S. and international markets easier for investors. However, the decision on whether to hedge currency risk tends to be overlooked by many investors. As currency could significantly benefit or disadvantage the total performance of a foreign investment, it should not be taken lightly. The number of hedged and unhedged ETFs allow investors more opportunities to meet their investment objectives.

#### BMO ETFs Currency Road Map

| Equity   |  |  |   |  |  |   |  |  |  |  |   |  |   |   |  |
|--|--|--|---|--|--|---|--|--|--|--|---|--|---|---|--|
| <b>BMO S&amp;P 500</b><br><b>ZUE ZSP ZSP.U</b><br>hedged to CAD unhedged unhedged USD traded                   |  |  | <b>BMO Low Volatility US Equity</b><br><b>ZLH ZLU ZLU.U</b><br>hedged to CAD unhedged unhedged USD traded |  |  | <b>BMO US Dividend</b><br><b>ZUD ZDY ZDY.U</b><br>hedged to CAD unhedged unhedged USD traded        |  |  | <b>BMO MSCI USA High Quality Index ETF</b><br><b>ZUQ ZUQ.F ZUQ.U</b><br>hedged to CAD hedged units USD units |  |   | <b>BMO Equal Weight US Banks</b><br><b>ZUB ZBK</b><br>hedged to CAD unhedged |   | <b>BMO MSCI USA ESG Leaders Index ETF</b><br><b>ESGY ESGY.F</b><br>hedged to CAD hedged units |  |
| <b>BMO MSCI EAFE</b><br><b>ZDM ZEA</b><br>hedged to CAD unhedged   |  | <b>BMO Low Volatility International Equity</b><br><b>ZLD ZLI</b><br>hedged to CAD unhedged |   | <b>BMO International Dividend</b><br><b>ZDH ZDI</b><br>hedged to CAD unhedged                        |  | <b>BMO NASDAQ 100 Equity</b><br><b>ZQQ ZNQ ZNQ.U</b><br>hedged to CAD unhedged USD units            |  |  | <b>BMO Equal Weight U.S. Health Care</b><br><b>ZUH ZHU</b><br>hedged to CAD unhedged                         |  | <b>BMO S&amp;P Mid Cap Index ETF</b><br><b>ZMID ZMID.F ZMID.U</b><br>hedged to CAD hedged units USD units |  | <b>BMO S&amp;P Small Cap Index ETF</b><br><b>ZSML ZSML.F ZSML.U</b><br>hedged to CAD hedged units USD units |   |  |
| Yield Focused  |  |  |   |  |  |   |  |  |  |  |   |  |   |   |  |
| <b>BMO US High Dividend Covered Call</b><br><b>ZWS ZWH ZWH.U</b><br>hedged to CAD unhedged unhedged USD traded |  |  | <b>BMO Europe High Dividend Covered Call</b><br><b>ZWE ZWP</b><br>hedged to CAD unhedged                  |  |  | <b>BMO US Preferred Share</b><br><b>ZHP ZUP ZUP.U</b><br>hedged to CAD unhedged unhedged USD traded |  |  | <b>BMO US Put Write</b><br><b>ZPH ZPW ZPW.U</b><br>hedged to CAD unhedged unhedged USD traded                |  |   |  |   |   |  |
| <b>BMO Premium Yield ETF</b><br><b>ZPAY ZPAY.F ZPAY.U</b><br>hedged to CAD unhedged USD units                  |  |  | <b>BMO Monthly Income ETF</b><br><b>ZMI.U</b><br>USD Units  |  |  | <b>BMO Laddered Preferred Share ETF</b><br><b>ZPR.U</b><br>USD Units                                |  |  | <b>BMO Covered Call Canadian Banks ETF</b><br><b>ZWB.U</b><br>USD Units                                      |  |   |  |   |   |  |
| Fixed Income   |  |  |   |  |  |   |  |  |  |  |   |  |   |   |  |
| <b>BMO Short-Term US Treasury Bond</b><br><b>ZTS ZTS.U</b><br>unhedged USD units                               |  |  |   | <b>BMO Mid-Term US Treasury Bond</b><br><b>ZTM ZTM.U</b><br>unhedged USD units                       |  |   |  | <b>BMO Long-Term US Treasury Bond</b><br><b>ZTL ZTL.F ZPW.U</b><br>unhedged hedged units USD units           |  |  |   |  |   |   |  |
| <b>BMO High Yield US Corporate Bond</b><br><b>ZHY ZJK ZJK.U</b><br>hedged to CAD unhedged USD units            |  |  |   | <b>BMO Mid-Term US IG Corporate Bond</b><br><b>ZMU ZIC ZIC.U</b><br>hedged to CAD unhedged USD units |  |   |  | <b>BMO Short-Term US TIPS Index ETF</b><br><b>ZTIP ZTIP.F ZTIP.U</b><br>hedged to CAD hedged units USD units |  |  |   |  |   |   |  |



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