The Impact of Currency Returns

Understanding 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.

A fund can be fully exposed to currency returns, or it can be currency hedged. 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.

To reduce the effects of foreign exchange risk, many exchange traded funds (ETFs) that provide exposure to international markets are currency hedged. This is done by taking an offsetting short position in the foreign currency to match the total notional of the underlying portfolio, typically through the use of a forward contract. 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.

While a currency hedge can be implemented in several different ways, a **static hedging program** and a **dynamic hedging program** are the two main processes used. A static hedging program is a passive approach that seeks to reduce both upside and downside currency risk. A dynamic hedging program on the other hand is an active approach that seeks to use currency as an additional source of returns. A static approach provides investors with better transparency as it is always fully hedged rather than being at the discretion of the portfolio manager. For this reason, ETFs use a passive approach to hedging currency risk.

The Impacts of Currency Should Not be Overlooked

Currency exposure tends to be an afterthought with most investors purchasing a foreign investment. Some will argue that the impact of currency tends to net out at zero over the long-term. In theory, it is believed that there is purchasing power parity (PPP) between two currencies, to which they will revert to over time. This would suggest the practice of currency hedging to be irrelevant over the long term. In practice however, there are a few flaws to this argument. 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. Even for longer-term investors, currency can attribute a significant amount of additional volatility. The table below shows the annual returns and standard deviations between the Canadian dollar and several major currencies over the last decade. As illustrated, currencies can be a source of both returns and volatility to a portfolio.

The Return of the Canadian dollar vs. Major Currencies

	USD	EUR	GBP	JPY	CHF	AUD
2002	1.32%	-14.14%	-8.44%	-8.51%	-15.69%	-8.14%
2003	21.15%	1.04%	9.22%	9.48%	8.67%	-9.42%
2004	8.00%	0.34%	0.58%	3.28%	-0.80%	4.05%
2005	3.43%	18.23%	15.12%	18.68%	19.27%	10.09%
2006	-0.31%	-10.51%	-12.33%	0.78%	-7.41%	-7.37%
2007	16.78%	5.62%	15.23%	9.58%	8.48%	5.21%
2008	-18.12%	-14.51%	11.34%	-33.55%	-22.80%	1.97%
2009	15.90%	13.00%	4.54%	18.76%	12.17%	-9.36%
2010	5.41%	12.89%	9.28%	-7.96%	-4.75%	-7.44%
2011	-2.31%	0.85%	-1.89%	-7.35%	-1.90%	-2.05%
Avg. Return	5.13%	1.28%	4.27%	0.32%	-0.48%	-2.25%
Avg. Standard Deviation	11.35%	11.57%	9.58%	15.66%	12.96%	7.11%

Source: BMO Asset Management Inc., Bloomberg

Looking at the impact of currency on equity market returns, the chart below shows the comparison between local returns of the S&P 500 Composite and returns in Canadian dollars. The local returns are a close approximation to a currency hedged ETF tracking the S&P 500 Composite. Whereas, returns in Canadian dollars are a proxy to the returns of a non-currency hedged ETF also tracking the S&P 500 Composite. As shown, the returns and volatility can be significantly different due to currency.

A Closer Look at the Impact of Currency on Index Returns

	S&P 500 Composite Total Return (Currency Hedged)	S&P 500 Composite Total Return (Not Currency Hedged)
2002	-22.10%	-23.14%
2003	28.68%	6.19%
2004	10.88%	2.75%
2005	4.91%	1.43%
2006	15.79%	16.16%
2007	5.49%	-9.65%
2008	-37.00%	-23.09%
2009	26.46%	9.28%
2010	15.06%	9.03%
2011	2.11%	4.50%
Average	5.03%	-0.65%
SD*	20.50%	13.56%

Source: BMO Asset Management Inc., Bloomberg (*SD is standard deviation)

Currency Risk: To Hedge or Not Hedge

Given that the returns from currencies can either add or detract from the total returns of a foreign investment, an investor can either elect to hedge or not hedge currency risk. 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.

As noted, currency can add additional uncertainty to the total return of a foreign investment. As such, a currency hedged ETF may be a better solution for those investors that do not have an outlook on the currency. By hedging foreign exchange risk, an investor is left with more of a pure exposure to the underlying securities.

2 Time horizon of the investor:

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

3 Correlation of the underlying securities with foreign currency:

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, potentially reducing the volatility of an investor's 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 those currencies that tend to be positively correlated to equities, the currency can add additional volatility to the portfolio.

4 Cost of the underlying hedge

Currencies forwards that are very liquid, such as the U.S. dollar, are more inexpensive 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. Thus, the higher cost potentially detracts from performance over time.

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 potentially significantly benefit or disadvantage the total performance of a foreign investment, it should not be taken lightly. The number of hedged and unhedged ETFs that provide non-Canadian exposure allow investors more opportunities to meet their investment objectives.

	Currency Hedged	Not Currency Hedged
Outlook that foreign currency will gain relative to Canadian dollar		✓
Outlook that foreign currency will depreciate relative to Canadian dollar	✓	
No outlook on foreign currency relative to Canadian dollar	✓	✓
Shorter Investment Horizon	May eliminate additional noise from currency returns	
Underlying currency is positively correlated to underlying asset	May reduce volatility of total return on investment	
Underlying currency is negatively correlated to underlying asset		May reduce volatility of total return on investment
Cost of currency hedge	Higher costs could be a drag on total return over the long run	✓

Source: BMO Asset Management Inc.

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