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# WHAT HAPPENS WHEN YOU DYNAMICALLY HEDGE CURRENCY IN AN INTERNATIONAL PORTFOLIO

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U.S. dollar (USD) strength has persisted this year, and recent global central bank action has left some investors unsure about the path of currency exchange rates.

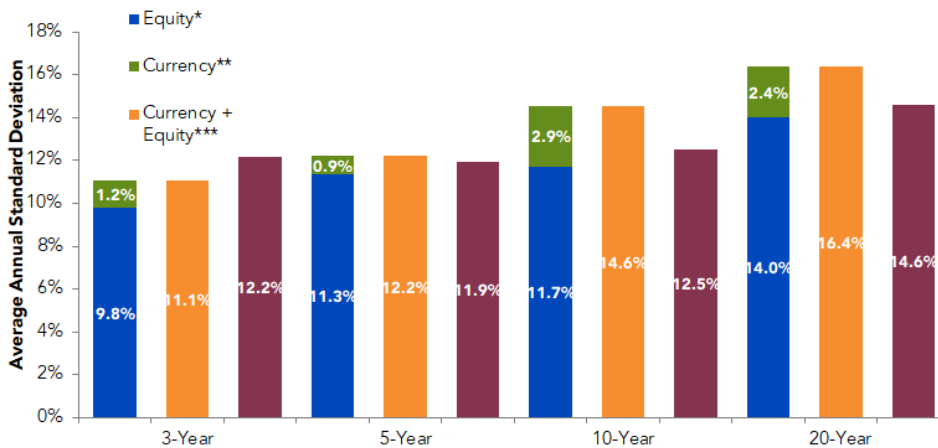
We believe managing currency exposure can help increase returns and limit [volatility](#). In 2016 we launched the [WisdomTree Dynamic Currency Hedged International Equity Fund \(DDWM\)](#), which aims to capture more than three-quarters of the volatility reduction achieved by fully [hedging](#) currency exposure, while seeking to add excess returns over fully hedged, half-hedged or unhedged strategies over long cycles.

Since its inception and during a strong-dollar environment, DDWM's [dynamic currency hedge](#) has added 92 [basis points \(bps\)](#) and 544 bps of excess returns over a half-hedged and unhedged portfolio<sup>1</sup>, respectively. Please click [here](#) for standardized performance of DDWM.

## Currency Exposure Can Add Uncompensated Risk

History shows currency exposure has increased the volatility of broad-based international equity portfolios over long periods, and without adding to expected returns. In the chart below we can see that in the last 20 years, currency exposure (in green) has added volatility on top of a fully hedged exposure (in blue) in the developed international equity market.

Developed International Equity Volatility 9/30/1999–9/30/2019



Sources: WisdomTree, Bloomberg, 3/31/1986–9/30/2019. Past performance is not indicative of future results. You cannot invest directly in an index. Subject to change. Index performance does not represent actual fund or portfolio performance. A fund or portfolio may differ significantly from the securities included in the index. Index performance assumes reinvestment of dividends but does not reflect any management fees, transaction costs or other expenses that would be incurred by a portfolio or fund, or brokerage commissions on transactions in fund shares. Such fees, expenses and commissions could reduce returns. WisdomTree, its affiliates and their independent providers are not liable for any informational errors, incompleteness or delays or for any actions taken in reliance on information contained herein. \*Equity: Volatility of the equity prices denominated in their local currency, in this case MSCI EAFE Local Index. \*\*\*Currency + Equity: Volatility of the USD denominated equity prices in this case MSCI EAFE Index. \*\*Currency: Incremental volatility added by denominating local returns in USD, difference in volatility between the MSCI EAFE Local Index and MSCI EAFE Index.

For definitions of indexes in the chart, please visit our [glossary](#).

In terms of returns, as seen in the fourth column in the table below, currency exposure has added or detracted from performance, depending on the time period.

Period	Average Annual Returns			Average Annual Standard Deviation			Incremental Change in Risk	Correlation (Equities vs. Currency)	Sharpe Ratio	
	MSCI EAFE w/ Currency	MSCI EAFE No Currency	EAFE FX	MSCI EAFE w/ Currency	MSCI EAFE No Currency	EAFE FX			MSCI EAFE w/ Currency	MSCI EAFE No Currency
3/31/1986-9/30/2019	6.4%	5.5%	0.9%	16.9%	14.8%	8.1%	2.2%	0.01	0.38	0.37
3-Year	6.5%	8.3%	-1.7%	11.1%	9.8%	5.2%	1.2%	-0.01	0.58	0.84
5-Year	3.3%	6.0%	-2.6%	12.2%	11.3%	5.7%	0.9%	-0.09	0.26	0.53
10-Year	4.9%	7.0%	-2.0%	14.6%	11.7%	6.6%	2.9%	0.21	0.33	0.60
20-Year	3.7%	3.7%	0.1%	16.4%	14.0%	7.1%	2.4%	0.11	0.22	0.26

Sources: WisdomTree, Bloomberg, 3/31/1986–9/30/2019. MSCI EAFE w/Currency refers to USD denominated equity prices in this case MSCI EAFE Index. MSCI EAFE No Currency refers to equity prices denominated in their local currency, in this case MSCI EAFE Local Index. EAFE FX refers to the underlying currency exposure of the MSCI EAFE Index, difference between the MSCI EAFE Index and MSCI EAFE Local Index. You cannot invest directly in an index. Index performance does not represent actual fund or portfolio performance. A fund or portfolio may differ significantly from the securities included in the index. Index performance assumes reinvestment of dividends but does not reflect any management fees, transaction costs or other expenses that would be incurred by a portfolio or fund, or brokerage commissions on transactions in fund shares. Such fees, expenses and commissions could reduce returns. WisdomTree, its affiliates and their independent providers are not liable for any informational errors, incompleteness or delays or for any actions taken in reliance on information contained herein. Inception date for MSCI EAFE Index: 03/31/1986.

Currency exposure may have added to backward-looking returns over some periods, but there is no reason to believe foreign currencies will always rise going forward. That is one reason WisdomTree believes currency exposure offers uncompensated risk in the long term.

### Dynamic Hedged Equity as Long-Run Core Allocation

WisdomTree’s dynamic currency hedging approach focuses on the three most important factors and determinants of exchange rate movements: [carry](#), [momentum](#) and [value](#).

- Carry ([interest rate differentials](#) or the cost of hedging): Higher interest rate currencies tend to outperform low interest rate currencies.
- Momentum: The tendency for the [spot rate](#) to appreciate following prior appreciation.
- Value: Seeks to profit from the [mean-reverting](#) nature of exchange rates at longer time horizons around “fair value,” as measured by [purchasing power parity \(PPP\)](#).

These signals inform currency hedge ratios, depending on where a currency is in its cycle, how expensive it is to hedge and the current trajectory of the currency.

DDWM combines our [dividend-weighted](#) approach to international markets with the dynamic hedging approach that seeks to hedge currencies when the environment is most suitable.

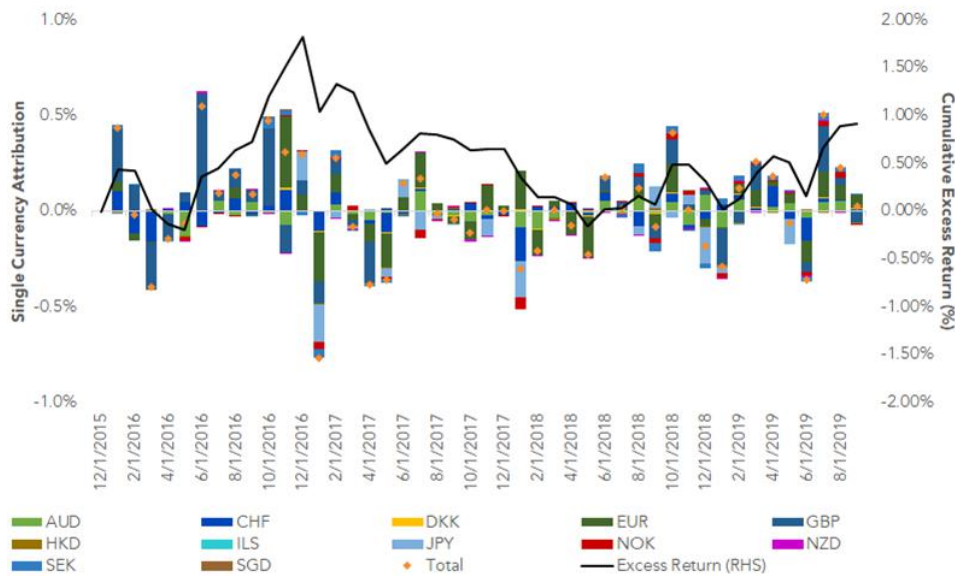
Given the nature of the signals, we believe the best benchmark is a 50% hedged approach, where investors can hedge half of their currency exposure.

**Dynamic Currency Hedge: Boost Returns or Limit Volatility**

Since DDWM’s inception in 2016, its dynamic currency hedge has added close to 92 bps of performance against a 50% hedged portfolio<sup>2</sup>.

As seen below, the total monthly contribution of the dynamic hedge signal (orange marker) has fluctuated between +/- 50 bps, on average. That achieved volatility reduction while potentially adding excess returns. The black line plotted on the right-hand side axis shows that since DDWM’s inception, the dynamic hedge has consistently added to returns. The main contributors to excess performance were the British pound (GBP) and euro (EUR), while the main detractor was the Japanese yen (JPY).

**Attribution: Dynamic Hedge vs. 50% Hedge**



Sources: WisdomTree, Record Currency Management, 01/07/16–9/30/19. Past performance is not indicative of future results. Subject to change. Stacked bars show each currency’s contribution to over/under performance on a given month given their hedge ratio. Total shows sum of individual currency contributions on a given month. 50% Hedge portfolio holds same equity position as DDWM and is calculated with a 50% hedge.

Since DDWM’s inception in January 2016, the dynamic hedging approach has implied GBP weakness versus the USD, given interest rate differentials, negative momentum in the currency pair and decreased purchasing power. DDWM’s exposure to GBP-denominated stocks has been hedged 72.96% of the time, on average. This hedge has proven positive as the GBP has weakened more than 15% versus the USD over the last 44 months. Signals on the EUR have not been as one-sided as the GBP. The average hedge ratio for DDWM’s euro exposure has been 57.4%, affected by interest rate differentials and the currency pair momentum.

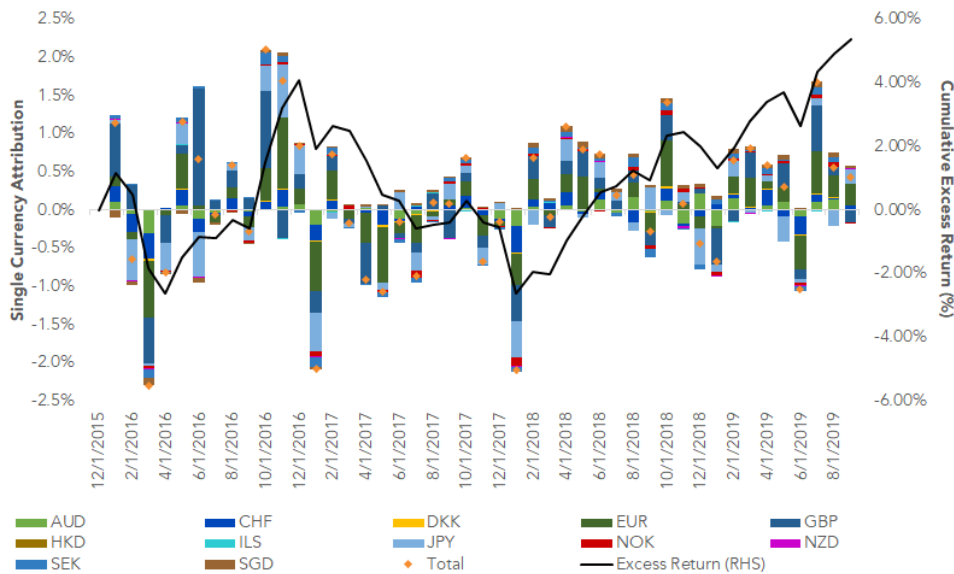
Despite the EUR strengthening 1.83% versus the USD, the dynamic approach has managed to capture periods of weakness, thus adding value. DDWM’s average hedge ratio of 63.3% to its JPY exposure has proven to be a detractor as JPY has strengthened by more than 8% versus the USD despite its interest differentials and purchasing power signaling weakness.

Given recent USD strength, DDWM’s dynamic currency hedge has added even greater excess return versus an unhedged portfolio<sup>3</sup>–5.44% since its inception.

As seen below, the total monthly contribution of the dynamic hedge signal (orange marker) consistently fluctuated between +/- 100 bps, which achieved volatility reduction while helping protect against larger currency moves. The main contributors to excess performance were the Singapore dollar (SGD), GBP and EUR, while the main detractor was

the JPY.

**Attribution: Dynamic Hedge vs. Unhedged**



Sources: WisdomTree, Record Currency Management, 01/07/16–9/30/19. Past performance is not indicative of future results. Subject to change. Stacked bars show each currency's contribution to over/under performance on a given month given their hedge ratio. Total shows sum of individual currency contributions on a given month. Unhedged portfolio holds same equity position as DDWM and is calculated with a 0% hedge.

Regardless of benchmark, we believe a dynamic approach to managing currency risk can be a significant source of value to international exposures over market cycles.

After 3 years of live returns, DDWM has been able to add value through security selection as well as through its dynamic currency approach.

*Unless otherwise stated, data sources are WisdomTree, Record Currency Management, as of 09/30/19.*

<sup>1</sup>Portfolios hold same equity position as DDWM and are calculated with a 50% hedge or 0% hedge respectively.

<sup>2</sup>Portfolio holds same equity position as DDWM and is calculated with a 50% hedge.

<sup>3</sup>Portfolio holds same equity position as DDWM and is calculated with a 0% hedge.

**Important Risks Related to this Article**

There are risks associated with investing, including the possible loss of principal. Foreign investing involves special risks, such as risk of loss from currency fluctuation or political or economic uncertainty. The Fund invests in derivatives in seeking to obtain a dynamic currency hedge exposure. Derivative investments can be volatile, and these investments may be less liquid than other securities, and more sensitive to the effects of varied economic conditions. Derivatives used by the Fund may not perform as intended. A Fund that has exposure to one or more sectors may be more vulnerable to any single economic or regulatory development. This may result in greater share price volatility. The composition of the Index underlying the Fund is heavily dependent on quantitative models and data from one or more third parties, and the Index may not perform as intended. The Fund invests in the securities included in, or representative of, its Index regardless of their investment merit, and the Fund does not attempt to outperform its Index or take defensive positions in declining markets. Please read the Fund's prospectus for specific details regarding the Fund's risk profile.

For the top 10 holdings of DDWM please visit the Fund's fund detail page at <https://www.wisdomtree.com/investments/etfs/equity/ddwm>

For standardized performance and the most recent month-end performance click [here](#) NOTE, this material is intended for electronic use only. Individuals who intend to print and physically deliver to an investor must print the monthly performance report to accompany this blog.

For more investing insights, check out our [Economic & Market Outlook](#)

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**IMPORTANT INFORMATION**

**U.S. investors only:** Click [here](#) to obtain a WisdomTree ETF prospectus which contains investment objectives, risks, charges, expenses, and other information; read and consider carefully before investing.

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## DEFINITIONS

**Volatility**: A measure of the dispersion of actual returns around a particular average level.&nbsp;

**Hedge**: Making an investment to reduce the risk of adverse price movements in an asset. Normally, a hedge consists of taking an offsetting position in a related security, such as a futures contract.

**Dynamic Hedge**: Strategy in which a currency hedge can be varied (as opposed to targeting a constant level) and change over the course of time.

**Basis point**: 1/100th of 1 percent.

**Carry**: The amount of return that accrues from investing in fixed income or currency forward contracts.

**Momentum**: Characterized by assets with recent price increase trends over time. This term is also associated with the Momentum Factor which associates these stock characteristics with excess return vs the market over time.

**Value**: Characterized by lower price levels relative to fundamentals, such as earnings or dividends. Prices are lower because investors are less certain of the performance of these fundamentals in the future. This term is also related to the Value Factor, which associates these stock characteristics with excess returns vs the market over time.

**Interest Rate Differentials**: The Difference between the 2 Year interest rate swaps of the United Kingdom vs. the United States.

**Indian Rupee spot rate**: The national currency of India and most commonly traded against the U.S. dollar. It is the rate at which the Indian currency can be converted to the U.S. dollar and vice versa.

**Mean reversion**: The concept that a series of returns has a tendency to return to its average level over longer periods, even if shorter periods can exhibit wide swings.

**Purchasing power parity**: Academic concept stating that exchange rates should adjust so that equivalent goods and services cost the same across countries, after accounting for exchange-rate differences.

**Dividend weighted**: Constituent securities represented within the Index in proportion to their contribution to the dividend stream of the Index.