

CARRY EFFECTS ON HEDGED EQUITIES

Hyun Kang — Research Analyst
05/25/2023

A currency-[hedged](#) equity index is designed to provide exposure to foreign companies while neutralizing exposure to fluctuations between the value of foreign currencies and the [U.S. dollar](#).

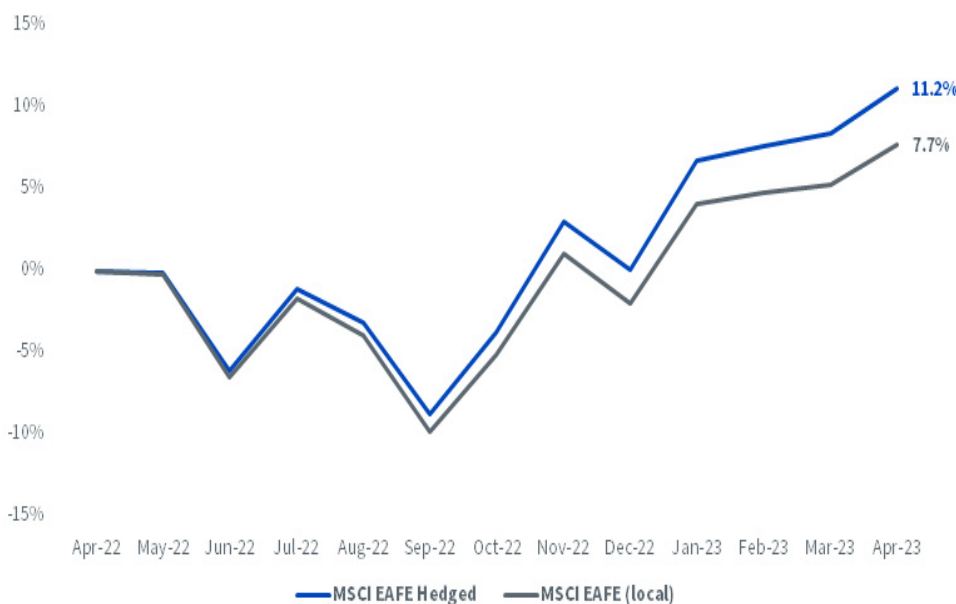
In this sense, the index "hedges" against fluctuations in the relative value of foreign currencies versus the U.S. dollar.

Over the last year, the [MSCI EAFE Index](#) returned 7.71% in local currencies, while its hedged counterpart returned 11.15%.

Hedged indexes effectively provide local currency returns by offsetting the effect of [exchange rates](#) with forward contracts. This leads to the question: Where did the 340-plus [basis point](#) outperformance come from?

The answer lies in [currency carry](#).

Total Returns, MSCI EAFE Hedged vs. Local Index



Source: MSCI, 4/30/22–4/30/23. You cannot invest directly in an index. Past performance is not indicative of future returns.

Currency carry—also known as cost of carry—is driven by [interest rate](#) differentials between currencies and is reflected in underlying forward rates for currencies.

[FX](#) forward contracts are priced using the formula below, assuming a one-year contract:

$$X_F = X_S * \left(\frac{1+r_i}{1+r_d} \right) \text{ where:}$$

X_F – Forward rate

X_S – Spot rate

r_i – Foreign interest rate

r_d – Domestic interest rate

The forward rate of a currency is priced at a [premium](#) or [discount](#) to spot, based on interest rate differentials.

Forward rates must reflect the relative interest rates available in each market—because [arbitrages](#) could exist if it was possible to put cash in a bank in a foreign market and have a guaranteed exchange rate at the end of a period.

Depending on the rate environment of the countries involved, the relative interest rates can provide either positive carry (added returns) or a cost to implement the hedge.

- When foreign interest rates are higher than U.S. interest rates (as in Brazil), it will be costly to hedge one's currency exposure.
- When foreign interest rates are lower than U.S. interest rates (think Japan), one will be paid to hedge those markets.

On May 18, 2023, the JPY/USD spot rate was approximately 136. The effective [Federal Funds Rate](#) was 5.08%, and the Bank of Japan Policy Rate was -0.034%. Plugging these values into the formula above, we can calculate:

$$X_t = 136 * \left(\frac{1 + (-0.0003)}{1 + (0.0508)} \right)$$

$$X_t \approx 129$$

Taking the above forward rate, we can calculate the carry as:

$$c = \frac{136}{129} - 1$$

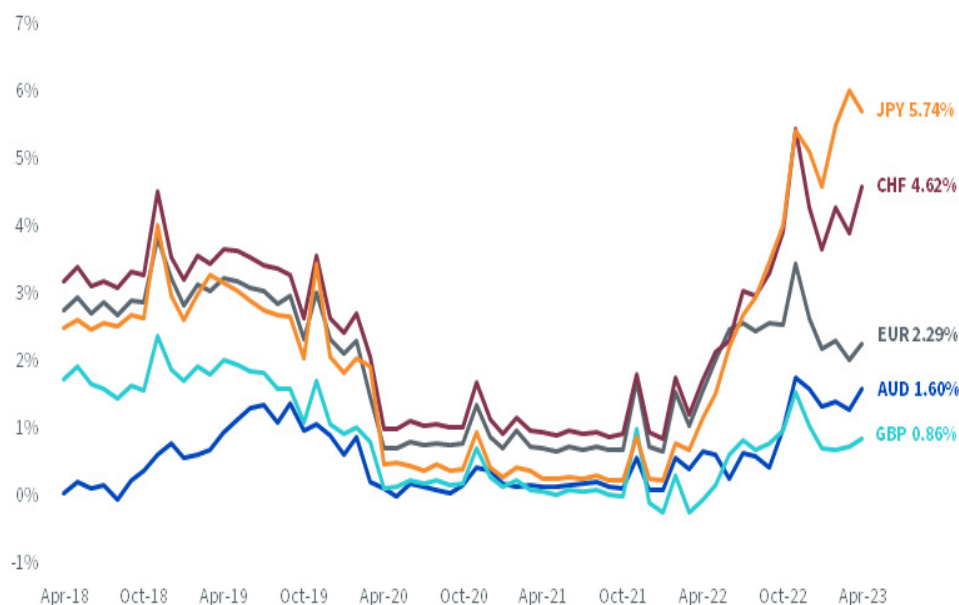
$$c = 0.0542$$

In other words, an investor is effectively paid 5.42% by trading the dollar-yen currency pair in the futures market.

Through currency-hedged strategies, investors can take advantage of favorable currency carry tailwinds, in addition to mitigating the negative effects of currency exchange rate movements, without performing complex leveraged carry trades that usually require the ability to deploy large amounts of capital.

In most developed markets today, one is paid to hedge currencies. Among those markets, Japan has the most attractive carry. The five largest currency exposures in the MSCI EAFE complex are shown below.

Interest Rate Differentials in Developed Markets

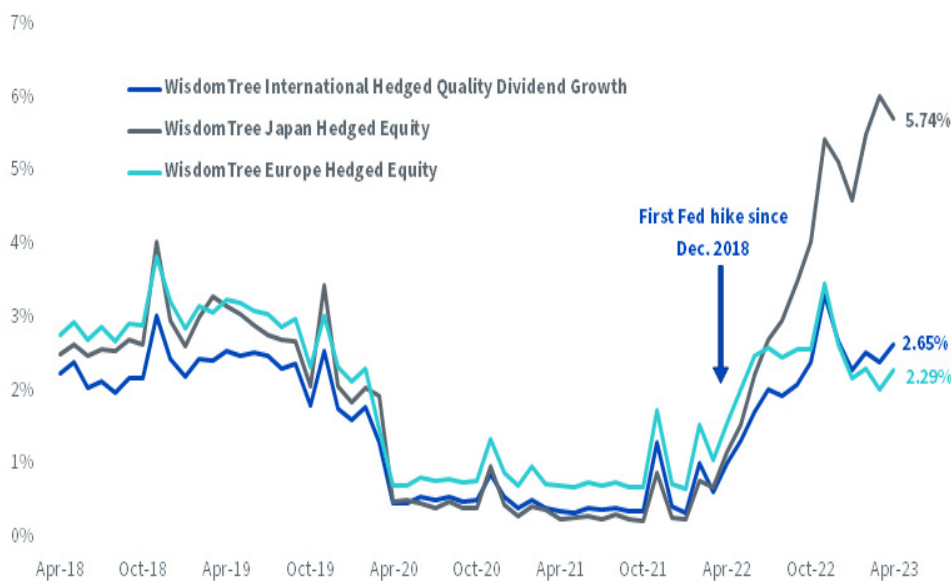


Source: WisdomTree, 4/30/18–4/30/23. Past performance is not indicative of future returns.

The WisdomTree currency-hedged equity family of Indexes enters one-month forward contracts to hedge against negative currency movements and reduce overall [volatility](#). Due to steep [Fed rate hikes](#) following the peak of the pandemic, these U.S. dollar-denominated Indexes have been “paid” to hedge in recent years thanks to cost of carry (i.e.,

cost of carry has been positive).

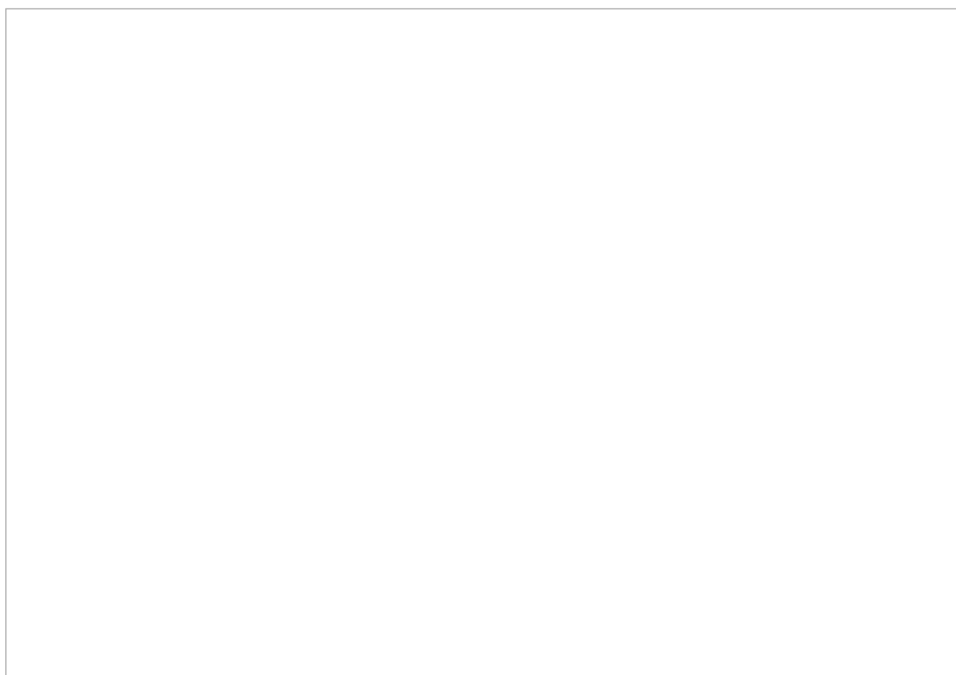
Carry and Payout of Hedge, WisdomTree Currency-Hedged Indexes



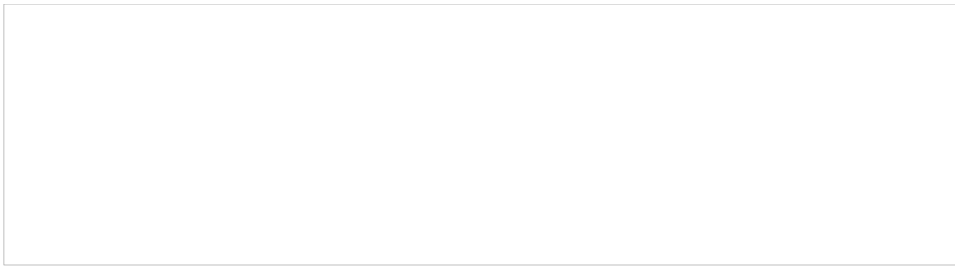
Source: WisdomTree, 4/30/18–4/30/23. You cannot invest directly in an Index. Past performance is not indicative of future returns.

The below chart compares total returns for the [WisdomTree Japan Dividend Index](#) in local currencies. The difference in returns of 5% roughly matches the earlier carry calculated on the yen.

Total Returns, WisdomTree Japan Equity Index vs. WisdomTree Japan Hedged Equity Index



Fundamentals, Select WisdomTree Hedged Equity Indexes



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.

View the online version of this article [here](#).

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There are risks involved with investing, including possible loss of principal. Foreign investing involves currency, political and economic risk. Funds focusing on a single country, sector and/or funds that emphasize investments in smaller companies may experience greater price volatility. Investments in emerging markets, currency, fixed income and alternative investments include additional risks. Please see prospectus for discussion of risks.

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You cannot invest directly in an index.

DEFINITIONS

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.

USD (United States Dollar) : The USD (United States dollar) is the official currency of the United States of America. The United States dollar, or U.S. dollar, is made up of 100 cents. It is represented by the symbol \$ or US\$ to differentiate it from other dollar-based currencies.

MSCI EAFE Index : is a market cap-weighted index composed of companies representative of the developed market structure of developed countries in Europe, Australasia and Japan.

Exchange rate : The exchange of one currency for another, or the conversion of one currency into another currency.

Basis point : 1/100th of 1 percent.

Cost Of Carry : Cost of carry (also known as currency carry) refers to costs associated with the carrying value of an investment. These costs can include financial costs, such as the interest costs on bonds, interest expenses on margin accounts, interest on loans used to make an investment, and any storage costs involved in holding a physical asset.

Interest rates : The rate at which interest is paid by a borrower for the use of money.

Foreign Exchange (FOREX, FX) : The exchange of one currency for another, or the conversion of one currency into another currency.

Premium : When the price of an ETF is higher than its NAV.

Discount : When the price of an ETF is lower than its NAV.

Arbitrage : The simultaneous purchase and sale of the same asset in different markets in order to profit from tiny differences in the asset's listed price.

Federal Funds Rate : The rate that banks that are members of the Federal Reserve system charge on overnight loans to one another. The Federal Open Market Committee sets this rate. Also referred to as the “policy rate” of the U.S. Federal Reserve.

Volatility : A measure of the dispersion of actual returns around a particular average level.

Federal Reserve : The Federal Reserve System is the central banking system of the United States.

Rate Hike : refers to an increase in the policy rate set by a central bank. In the U.S., this generally refers to the Federal Funds Target Rate.