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.

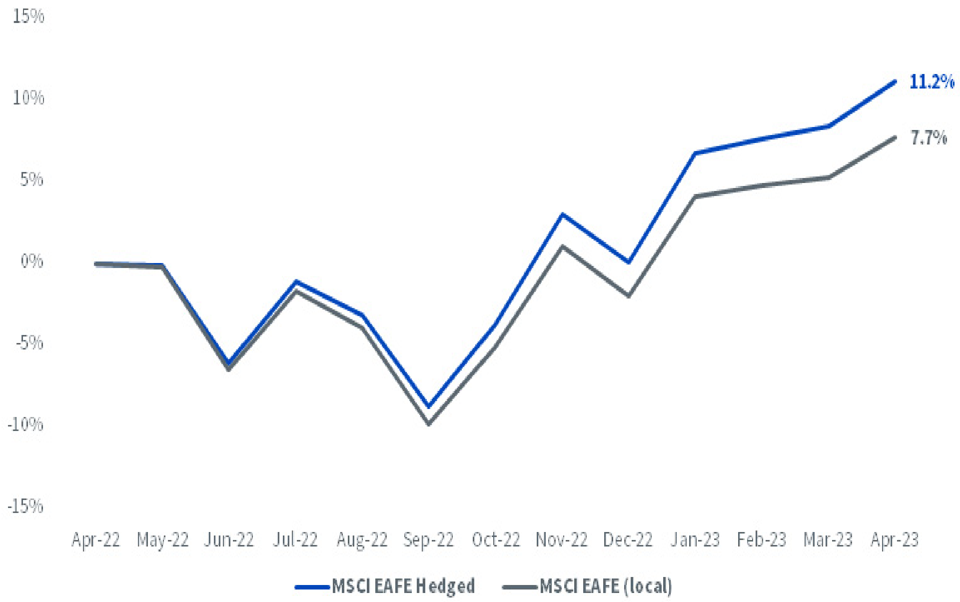
In this sense, the index "hedges" against fluctuations in the relative value of foreign currencies versus the U.S. dollar.

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

Hedbasis 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:

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

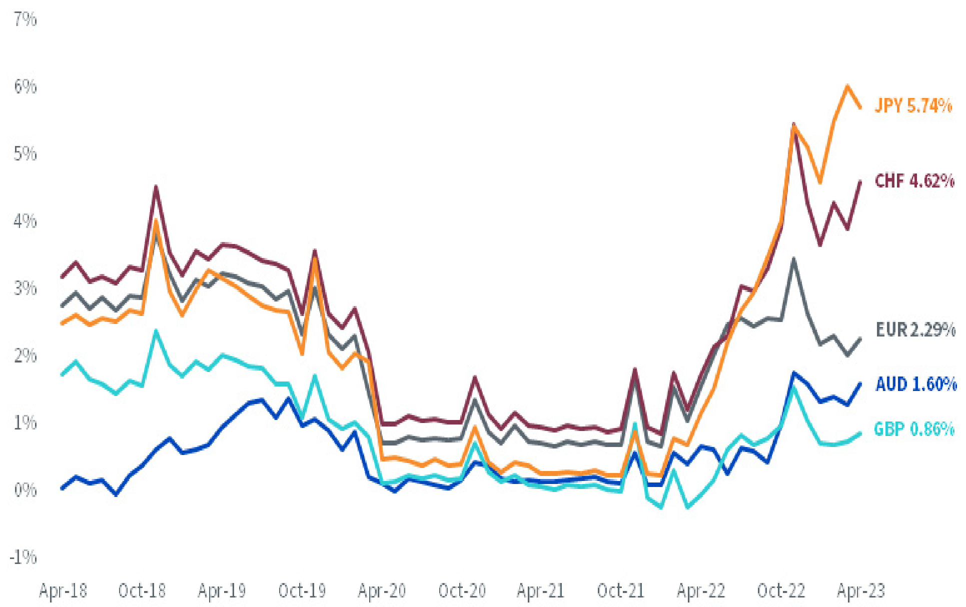
$$c = 0.0542$$

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.

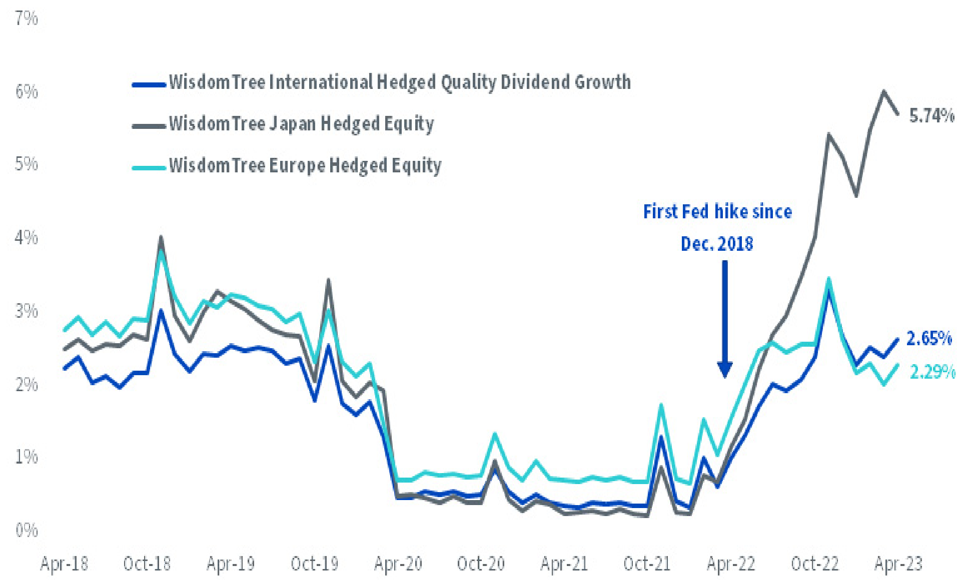
Interest Rate Differentials in Developed Markets



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.

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.

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.

Past performance is not indicative of future results. This material contains the opinions of the author, which are subject to change, and should not to be considered or interpreted as a recommendation to participate in any particular trading strategy, or deemed to be an offer or sale of any investment product and it should not be relied on as such. There is no guarantee that any strategies discussed will work under all market conditions. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This material should not be relied upon as research or investment advice regarding any security in particular. The user of this information assumes the entire risk of any use made of the information provided herein. Neither WisdomTree nor its affiliates, nor Foreside Fund Services, LLC, or its affiliates provide tax or legal advice. Investors seeking tax or legal advice should consult their tax or legal advisor. Unless expressly stated otherwise the opinions, interpretations or findings expressed herein do not necessarily represent the views of WisdomTree or any of its affiliates.

The MSCI information may only be used for your internal use, may not be reproduced or re-disseminated in any form and may not be used as a basis for or component of any financial instruments or products or indexes. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an “as is” basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each entity involved in compiling, computing or creating any MSCI information (collectively, the “MSCI Parties”) expressly disclaims all warranties. With respect to this information, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including loss profits) or any other damages (www.msci.com)

Jonathan Steinberg, Jeremy Schwartz, Rick Harper, Christopher Gannatti, Bradley Krom, Tripp Zimmerman, Michael Barrer, Anita Rausch, Kevin Flanagan, Brendan Loftus, Joseph Tenaglia, Jeff Weniger, Matt Wagner, Alejandro Saltiel, Ryan Krystopowicz, Jianing Wu, and Brian Manby are registered representatives of Foreside Fund Services, LLC.

WisdomTree Funds are distributed by Foreside Fund Services, LLC, in the U.S. only.

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.

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.