How and why currency fluctuations can impact ETP returns

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WisdomTree
Contributor

Constructing a portfolio with a mix of domestic and international assets has never been easier due to the wide range of Exchange-Traded Products (ETPs) that are now available to investors on exchange. However, when investing in ETPs, it's important to realise that you could be exposed to currency risk, as currency movements can have a significant impact on ETP returns.

In this article, we'll explain how currencies in ETPs work and look at how currency movements can affect ETP returns.

Multiple currencies

If you're interested in investing in ETPs, you may have noticed that there are often different currencies associated with the same ETP.

For example, an ETP tracking the S&P 500 – an index that is quoted in US Dollars – could be traded on the London Stock Exchange in Pound Sterling. The reason that ETPs are often traded in multiple currencies and on different exchanges across the world is that it provides investors with the opportunity to buy ETPs efficiently through their own local exchanges. While this is an advantage for investors, multiple currencies also introduce currency risk.

Understanding the risk

When it comes to understanding ETP currency risk, the first step is to determine where currency exchange rates can have an impact on the product valuation, and thus on performance calculation.

- **Investor's currency:** in what currency do you calculate your overall performance?
- **Trading currency:** what currency does the ETP trades in?
- **NAV currency:** what currency is the ETP's NAV (Net Asset Value) calculated in?
- **Underlying components trading currencies:** what is the trading currency of the portfolio constituents?

Assuming an exact same composition between the underlying index and the ETP, when comparing the underlying index performance with the performance experienced by investing in the ETP, you must realise that:

- The constituents trading currencies is the same in both the index and the ETP
    - No currency impact here at this level
- The ETP's NAV and trading currency, as well as the investor's currency can be different from the index calculation currency
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As an example, a EUR investor wants to buy a 3x short 10-year US Treasuries ETP on Borsa Italiana. She buys an ETP trading in EUR, while its NAV would be computed in USD, and the underlying instrument (10-year US Treasuries) trading currency would also be in USD.

Once you know the currencies that you are dealing with, you can analyse how currency movements may affect performance. This investor would then be penalised by USD depreciation as it would erode the EUR value of the ETP. On the other hand, she would benefit from USD appreciation.

Here's an example of how currency movements could impact the returns from a 3x short 10-year US Treasuries ETP traded on the Borsa Italiana.

Currency impact on performance: An example

In Figure 1 below, we present a hypothetical example that shows the daily movement of the ETP's NAV in US Dollars, as well as the daily change in the EURUSD exchange rate. The NAV currency of the ETP is the US Dollar, but as it's listed on Borsa Italiana, it's traded in Euros.

Figure 1. ETP NAV movements and EURUSD fluctuations

	NAV (USD)	Change (%)	EUR- USD	Change (%)	NAV (EUR)	Change (%)
Day 1	100		1.15		87.0	
Day 2	105	5.0%	1.10	-4.3%	95.5	9.8%
Day 3	105	0.0%	1.05	-4.5%	100.00	4.8%
Day 4	100	-4.8%	1.10	4.8%	90.9	-9.1%

Change (%)

Change (%)

Change (%)

Source: WisdomTree, illustrative example. You cannot invest in an index.

Historical performance is not an indication of future results and any investments may go down in value.

The table shows that the Euro NAV price of the ETP is affected by both the change in the ETP's NAV price in US Dollars and the EURUSD exchange rate.

Over the four-day period, the NAV in US Dollars was unchanged overall, i.e. 0.0% performance in USD. However, over the period the USD appreciated from 1.15 to 1.10 USD per Euro, so an investor who purchased the ETP in Euros would have seen an overall return of 4.5% (€90.9 end value vs. €87.0 start value), as a result of the change in the exchange rate.

Impact of currency movements over time

Figure 2 below shows how currency movements can have a significant cumulative effect over time, looking at the performance of that same 3x short 10-year US Treasuries ETP[1].

Figure 2. Currency moves can have a significant impact on returns: 2017 example



Source: WisdomTree, Bloomberg.

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As you can see, the cumulative NAV return in US Dollars was -5.5% over the period. But a significant depreciation of the USD vs. the Euro resulted in a NAV return in Euros of -15.0%, a considerable 9.5% return difference.

Whenever investing, currency is likely going to have an impact on your portfolio's performance, unless underlying, NAV, trading and reporting currencies are all the same. Understanding where this impact lies is important, as it allows you to better understand the potential risks arising from currency exchange movements, which can significantly support or dampen returns.

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