

Series on ETFs (1): How Risky Are They Really?

ETFs and the Tracking Error Risk

Feb. 23, 2010



Just recently the [Wall Street Journal](#) has reported that [ETFs \(Exchange Traded Funds\) in 2009 have missed their benchmarks](#) by a wider margin than in the years before. MyPrivateBanking analysts have received several inquiries from concerned private investors who are worried that ETFs could be riskier than the marketing materials of ETF sponsors admit. Given the present "ETF-hype", some investors fear that ETFs might have their own "dirty little secrets" to make them more profitable for the issuer but also riskier for the investor.

In order to answer these questions we will publish a series of articles to take an in depth look at the following major risks of ETFs:

1. The tracking error – or how big is the risk of missing the benchmark?
2. The default risk – or how big is the risk that a fund can default?
3. The trading risk – or how big is the risk that you have to pay too large a spread?
4. Exotic ETFs – or how big is the risk that the underlying index or strategy leads to disaster?

Today we want to talk about the first topic – the risk of the tracking error. Most ETFs track an index like the very popular S&P 500 in the US or the DJ Eurostoxx50 in Europe. The claim is that the buyer of the ETF essentially buys 100% of the market performance of the index. Yet, as the ETF is not identical with the index but only tracks it approximately (we will talk about different methods of tracking in part 2), no ETF will replicate the index performance exactly. Historically, we find some ETFs that overshoot and even more that undershoot a given index. As the Wall Street Journal indicates:

"In 2009, ETFs missed their targets by an average of 1.25 percentage points, a gap more than twice as wide as the 0.52-percentage-point average they posted in 2008, according to

a study of ETF returns released this week by Morgan Stanley”.

1.25% per annum is a big number. Just consider an ETF that loses 1.25% each year compared to its benchmark. After 10 years the investor is down by about 15% against the benchmark, a number that most index investors would not find acceptable. This is just the arithmetic average of all tracking errors of ETFs in the US. Looking at the tracking error on an asset-weighted basis it shrinks to 1.13 (2008: 0.39%), still a shockingly high number. In some markets - such as US major market and US style funds, ETFs actually performed well, delivering tracking errors below their weighted average expense ratios. Currency funds and US dividend products delivered similar results. But in other areas, including US sector and industry funds, global equity funds, commodity and fixed-income products, ETFs did not get close to their benchmarks. By and large, the same is true for Europe. For instance, over the last 12 months iShares Eurostoxx50 had a tracking error of only 0.20% (in this case outperforming the index).

The reasons for tracking errors are diverse: In some cases, the financial authorities have regulations that prevent funds from matching an index 100% because of diversification rules. In other cases high fees diminish the ETF's performance. Sometimes the index contains too many stocks making it too expensive to replicate the index fully so the fund company will do a partial replication.

As a general rule, an investor who prefers funds with a low tracking error should go for funds which

- mirror the major indexes like S&P 500 or EuroStoxx50 and avoid the more exotic ETFs such as small cap ETFs or ETFs of smaller emerging markets,
- choose funds from providers who have a history of achieving low tracking errors,
- avoid funds that have a relatively high TER (Total Expense Ratio) of more than 40 basis points (0.4%).

However, if you look at tracking error over the long-term the situation may not be so bad. In some cases tracking error is on the positive side. We don't yet have a long enough track record on tracking errors but over the long-term the effect will most likely be lower as a negative tracking error in one year is offset by a positive tracking error in the next year. Only in a few cases negative tracking error can accumulate over the years and harm performance significantly. Our advice to investors is to watch the ETFs closely and sell those ETFs that display repeatedly large and negative tracking errors. A rule of thumb is that if a negative tracking error is consistently bigger than the Total Expense Ratio of the fund – don't wait too long to sell it, particularly if the TER is above 40 basis points.