Letter from the Manager

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It´s Time to Talk about Tracking Error, but Not for the Reason You May Think

Investors are often tempted to loosen their active risk tolerance during periods of low market volatility, either in the belief that a low tracking error will fail to deliver expected returns or in the pursuit of higher active returns. When volatility is extremely low, the dispersion of individual stock returns typically compresses while cross-asset class correlation can increase as investments become influenced more by macroeconomic drivers than idiosyncratic factors. Dialling up a strategy's active risk, or tracking error, during periods of low market volatility could result in an accumulation of unwanted and unrewarded risks at the portfolio level that leaves an investor vulnerable to sharp capital drawdowns.

Our actively managed quantitative equity strategies are built around multi-dimensional risk models that seek to minimise risk factors where we believe investors are not being adequately compensated for the risk taken, and instead focus on more rewarding sources of returns.

In order to understand whether the active risk being taken is being adequately compensated, it first helps to understand the drivers of tracking error. Fundamental and quantitative portfolio managers tend to stay within a range of number of stocks held in their portfolio and maximum allowable position sizes and may have certain sector and country biases. However, the other determinants of the tracking error are more prone to variations:

- Market capitalisation is one area where risks are often ignored by investors. Idiosyncratic opportunities are typically found lower down the market capitalisation spectrum and for unconstrained investors, larger capitalisation stocks will tend to be natural underweight holdings. Analyst coverage of larger cap stocks is usually more extensive, offering less scope for information asymmetry to occur. As such, these stocks tend to trade closer to fair value compared to smaller cap stocks.
- In terms of style, managers ought to stay true to their management style (i.e., value managers should remain committed to investing in value stocks irrespective of market conditions). However, style drift is not uncommon, particularly if the investment style underperforms for a prolonged period, which might result in a value manager drifting towards quality value, for instance.
- Quantitative equity strategies that manage the beta, or market risk, of the portfolio to keep in line with the market will have a lower tracking error, while quantitative managers with singular style biases will likely have a higher tracking error compared to multi-factor strategies. As such, assuming that managers stick to their style and typical beta and market cap biases, the last major determinant of tracking error will be market volatility.
- Market volatility is less within a manager's control compared to the other factors that determine tracking error as it varies widely over time.

What Is Tracking Error?

Tracking error, also known as active risk, measures, in standard deviation, the fluctuation of returns of a portfolio relative to the fluctuation of returns of a reference index. It is a measure of the risk in an investment portfolio arising from active management decisions made by the portfolio manager. As such, it gives an indication of how closely a portfolio "tracks" or mimics its benchmark.

The risk of significantly underperforming (or outperforming) the benchmark rises as the tracking error increases. Therefore, tracking error should be closely monitored. The main determinants of tracking error for equity portfolios include:

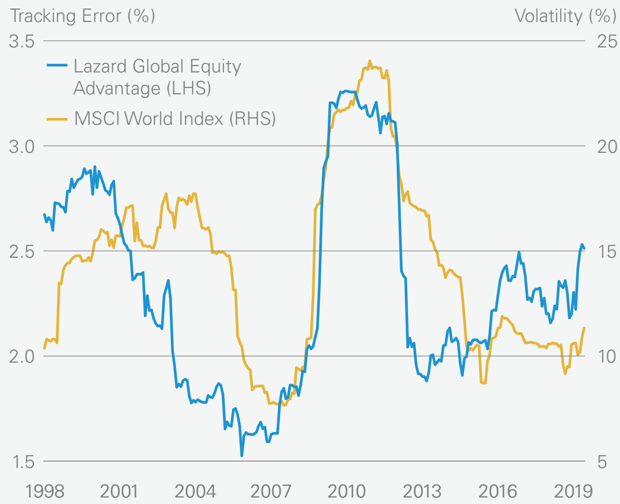
- The number of stocks and the size of the active bets in the portfolio relative to the benchmark
- The portfolio's market capitalisation distribution
- Style difference relative to the benchmark
- Sector and country deviations from the benchmark
- The portfolio's beta relative to the benchmark
- Volatility of the benchmark

The Impact of Equity Market Volatility on Tracking Errors

Empirical research shows there is a positive relationship between market volatility and tracking error. When market volatility rises, tracking error increases and conversely, when market volatility falls, tracking error decreases. As such, one would expect benchmark-aware strategies to have a lower tracking error in low market volatility environments (Exhibit 1).

For benchmark-agnostic low volatility strategies, such as the Lazard Global Managed Volatility strategy, where the absolute tracking error will be greater over market cycles relative to our benchmark-aware approaches, market volatility has an even more notable influence on tracking error (Exhibit 2).

Exhibit 1
Tracking Error Falls when Market Volatility Is Low



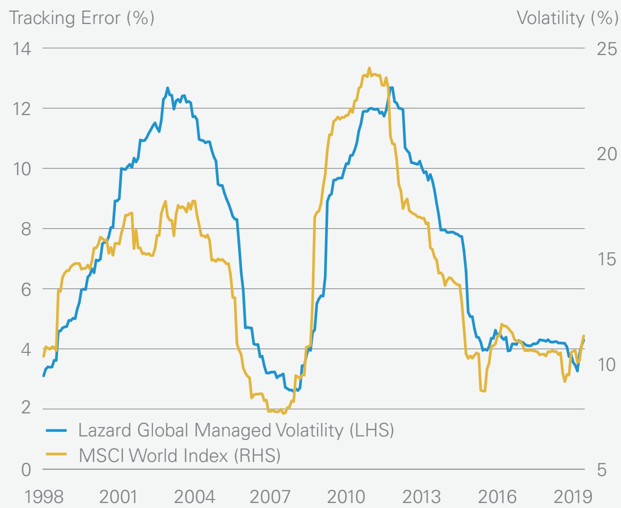
As at 30 June 2019

Volatility measured using standard deviation of monthly returns over three-year rolling periods (annualised). Tracking error calculated on an ex-post tracking basis over three-year rolling periods.

Lazard Global Equity Advantage data based on simulated returns using the same risk parameters currently employed by Lazard´s Equity Advantage team.

Source: Lazard, MSCI

Exhibit 2
Tracking Error Falls when Market Volatility Is Low, Even for Unconstrained Approaches



As at 30 June 2019

Volatility measured using standard deviation of monthly returns over three-year rolling periods (annualised). Tracking error calculated on an ex-post tracking basis over three-year rolling periods.

Lazard Global Managed Volatility data based on simulated returns using the same risk parameters currently employed by Lazard´s Equity Advantage team.

Source: Lazard, MSCI

Lessons of the Past

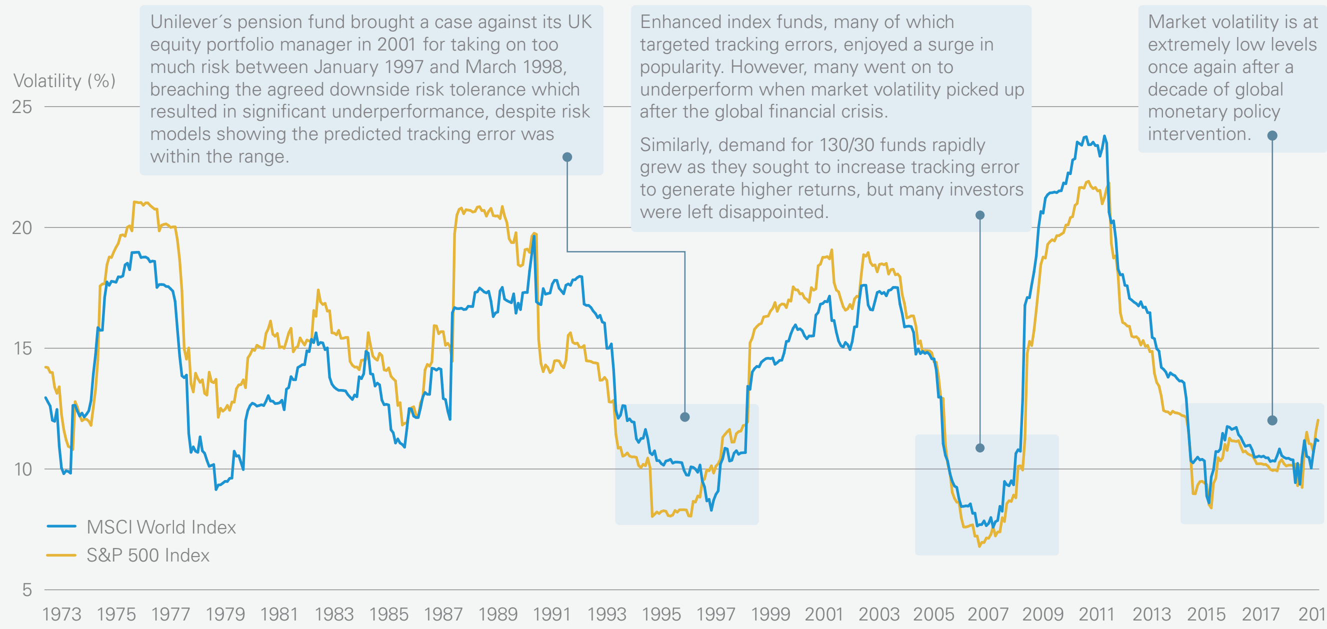
After a decade of record low interest rates, some investors have looked to take on more risk in the hope that this increases the certainty of achieving their return targets. Investors have looked to do this by allocating to illiquid assets and liquid alternatives strategies, moving down the credit quality spectrum, and increasing exposure to high-growth stocks. Current market conditions are reminiscent of previous periods when low equity market volatility encouraged asset owners and portfolio managers of fundamental and quantitative strategies to dial up risk with undesirable outcomes (Exhibit 3).

In the lead up to the dot-com bubble and the global financial crisis, investors' risk appetite increased and investment managers allowed portfolio risk to increase significantly against the backdrop of low market volatility, only to expose investors to the significant capital losses that followed when market volatility sharply picked up. This highlights how the failure to manage risk can lead to unappreciated higher active risk in clients' portfolios and a wider range of potential relative return outcomes, including the potential for significant underperformance versus the index. Memories are often short, as evidenced by risk appetite once again rising against the backdrop of low market volatility. We would remind investors that while history never repeats itself, it often rhymes.

A Disciplined Approach to Managing Tracking Error

We are able to customise our quantitative equity strategies with our clients' risk/return objectives in mind, increasing active risk where we believe we are being rewarded to do so. However, we would advise investors against selecting managers based on tracking error and arbitrarily adjusting this metric in relation to where we are in the market cycle. We do not view tracking error as an objective in itself, rather we consider tracking error to be an indicator of the variability of returns relative to an index. We believe more focus should be given to a portfolio's information ratio. A higher information ratio demonstrates high active returns per unit of active risk, which better reflects the investment manager's skill in outperforming a reference index while also successfully managing risk. Better still, the information ratio should be viewed alongside the portfolio's active share which, if stable over time, demonstrates consistency in a manager's investment approach.

Exhibit 3
Periods of Low Market Volatility Often Tempt Investors to Take on More Risk



As at 22 July 2019
Shows standard deviation of monthly returns over three-year rolling periods (annualised).
Source: MSCI, S&P Dow Jones

As an active quantitative manager, we want to take risk where we believe we will be rewarded for doing so. From our experience, this is done by constructing portfolios that are well diversified, have a valuation discount, and offer better growth prospects; in other words, a portfolio that offers greater quality and value relative to the benchmark and consists of companies with strong share price momentum. We generally take active exposures where we can diversify the risk, and where our probability of outperformance is greater.

We do not favour narrow decisions such as country and sector selection, nor do we take large individual stock-specific positions. We do not believe we are able to add value as active quantitative managers by timing the market. As such, our benchmark-relative strategies are fully invested to avoid cash drag, and we carefully control our beta exposure. As for market capitalisation, we view this as another risk factor that is difficult to time, and therefore we control this exposure carefully.

This leaves us with explicit exposures to the factors we believe will be rewarded over time. Raising the tracking error would entail loosening our risk controls and result in risk being taken in areas where we do not believe we will be adequately compensated for doing so. Yes tracking error would increase, but this could have severely negative implications for returns.

While investors are often tempted to increase tracking error when market conditions are benign, we would caution that volatility is unlikely to remain at current levels for a significant period and that it is vulnerable to spike. Although the precise catalysts for a sudden increase in volatility are unclear, we would prefer not to speculate, and instead look to protect our clients' capital by adhering to our long-standing investment process.

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