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SAA key topics: market timing

Key take aways

- Market timers try to invest in times of attractive returns while avoiding investment at times of worse market conditions.
- Experience suggests, however, that market timing is not a reliable source of return over the longer term.
- The two basic problems with market timing are that future returns are difficult to predict and that wrong timing is expensive.
- Investing according to the Strategic Asset Allocation (SAA), which takes benefit of time diversification, is a way to achieve sustainable portfolio returns. With longer investment horizon, the market entry point becomes less relevant and the average long-term asset price growth rate dominates. Patience is key here.

01 Basic challenges

Strategic Asset Allocation (SAA) accounts on average for around 90% of a portfolio's long-term returns – see our previous CIO Special "Strategic Asset Allocation: Robustness amidst uncertainty" and, for an academic analysis, Brinson et al. (1986). The remaining part of returns stems from alternative sources such as individual securities selection and market timing. This report focuses on market timing.

Experience shows that market timing is not a reliable source of return over a long-term investment view. We discuss the reasons for this below and show why we therefore try to avoid the potential disruption from market timing in our SAA process.

The basic idea of market timing is to invest during better market periods by anticipating future price patterns – and disinvest during worse market periods. Advocates of market timing try to do this via qualitative judgement or quantitative models including markets indicators (e.g. based on momentum, sentiment and price) and/or economic growth or policy indicators. They may also include behavioural factors – see for example Kusen and Rudolf (2019).

But why is it so difficult to "buy low" and "sell high"? The problem is that we cannot know what the future has in store. The spectrum of possible outcomes is vast and as Figure 1 illustrates in a stylized fashion even if you get the timing right in one period (the green line) then your gains could well be undone by the wrong market timing decision in the next (the red line).

The effects of this uncertainty may be compounded in a short-term portfolio management context by behavioural factors – e.g. the tendency of investors to sell winners too early and ignore losses in value for too long, as explored by Shefrin and Statman (1985). But even if these behavioural issues could be overcome in building portfolios, the problem of uncertainty regarding future returns still makes market timing very difficult. We discuss this in the following section.

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02 Market timing risks

We must accept that we do not have perfect information and knowledge of future asset class returns or market moves – and have to expect surprises in capital markets every time. Asset price patterns are systematically "ex-ante" (before the event) unknown and this uncertainty together with its impact on future returns is expressed by systematic market risk. This view is in line to the belief (e.g. Fama (1970)) that security prices fully reveal all available information. In fact, capital markets are far more risky than might be assumed. This is because, while frequent market fluctuations tend to be small, rare events (e.g. crashes) tend to dominate long-term performance.

Markets are unpredictable for three structural reasons.

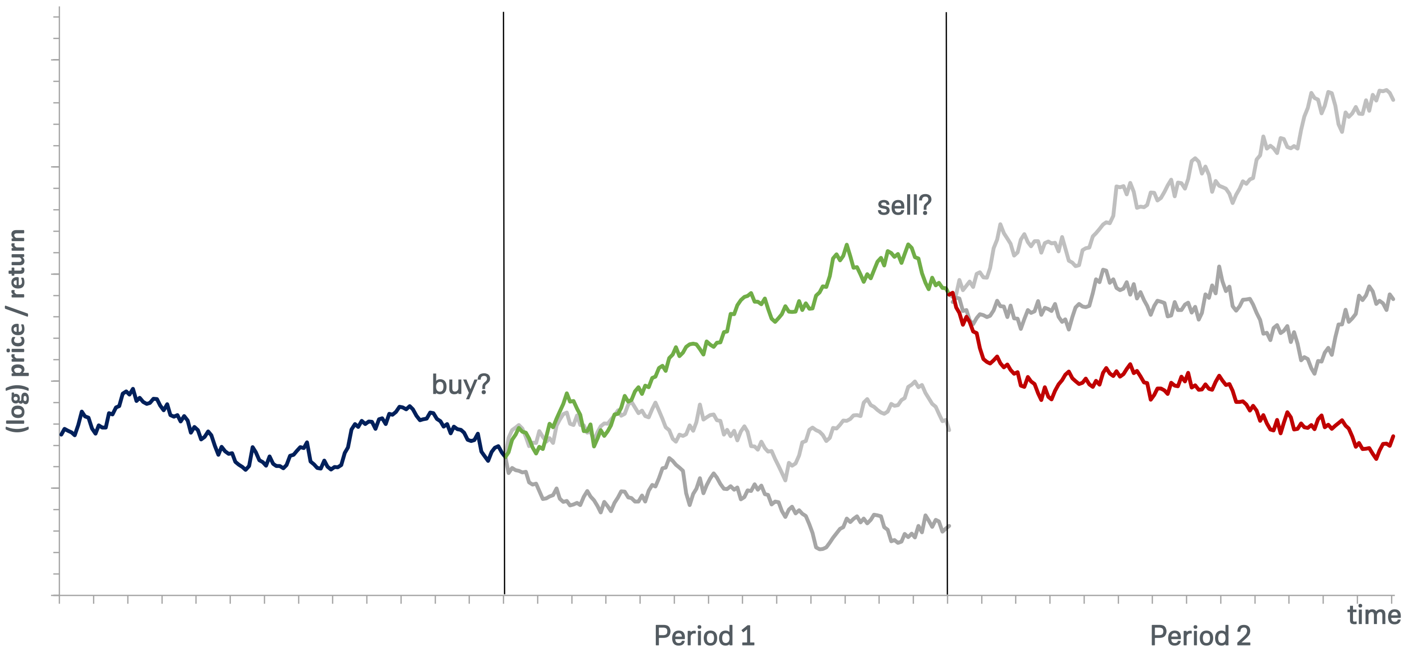
1. There are unforeseeable many influencing factors that can affect asset prices at many different levels (e.g. political events, economic conditions, firm-specific or sector-related data).
2. These influencing factors can be highly sensitive (so small causes can have a high impact).
3. Not all (systematic) information is accessible, so that a connection between factors is not always clear or same situations may lead to different results.

Given this unpredictability, market timing – which requires a high forecasting accuracy – is extremely difficult to do on a consistent basis (even if we can handle the behavioural issues noted on the previous page). Staying disciplined is particularly difficult against a volatile market. Therefore, we take positions where our forecasts are more certain as well as robust, and avoid potentially destabilizing positions where our forecasts are more uncertain. Significant adverse effects on a portfolio's value are possible when periods of exceptional returns are missed by wrongly timing the investment. Figure 2 shows the substantial negative impact of not being invested in the best market days over a given period; conversely, being invested on bad market days can also hit performance.

03 Time diversification

Rather than market timing, we take advantage from time diversification – the idea that the returns in successive investment periods are not depended (correlation of returns is close to zero over time) and that diversification can therefore be achieved by investment over time. Putting this another way, it is clear that the relative importance of the fluctuations in the growth rate decreases significantly with a longer time horizon. Figure 3 shows that time diversification can result in higher risk-adjusted returns than a market timing approach. In the first line of the chart a pure market timing investment with a forecasting "hit ratio" of 50% (i.e. half your market timing decisions are right and half are wrong) and an average equal split (50-50) between risky assets and cash results in volatility of 14% and an expected return of 5%. The second line of Figure 3 shows that a pure time diversification approach (keeping a 50-50 split constant throughout) delivers the same return but at a lower volatility. An increased weighting to risky assets in a time diversification approach (line 3) can deliver a return level equivalent to the market timing approach but with lower volatility – and is therefore preferable. To match the expected return with the same risk profile through a market timing approach (line 4) requires a much higher "hit ratio" – your market timing decisions have to be correct at least 63% of the time (depending on the expected returns and volatility of the underlined assets), which seems unlikely. This adds to the arguments for a focus on time diversification instead.

Figure 1: Gains and losses from market timing



Source: Deutsche Bank Wealth Management. Explanatory chart based on own calculations.

04 Market timing vs. TAA

Tactical Asset Allocation (TAA) is a feature of active investment strategies that complement the SAA by adjustments on asset class and sub-asset class level in order to benefit from short-term opportunities and to match the behaviour of the portfolio in specific markets to investors' needs.

When thinking about approaches to TAA, consider the relative attractiveness of investments within sub-asset classes up to an individual security or instrument level. The level of risk exposure remains roughly unchanged. One way forward may be through short-term adjustments of the risk exposure in order to stabilize performance via concave (i.e. take profit) and convex (reduce risk) trades.

This implies that individual stock selection could be helpful – to achieve diversification within a particular asset class without changing the relative asset class composition – as a fine-grained approach here. The key is that short-term protective measures to smooth portfolio moves can be achieved without touching long-term commitments. Consequently, a TAA can be over- or underweighted relative to the SAA, but still be within the guidelines for the strategic asset mix. We will further consider how SAA and TAA can complement each other in a future CIO Special report.

05 Conclusion

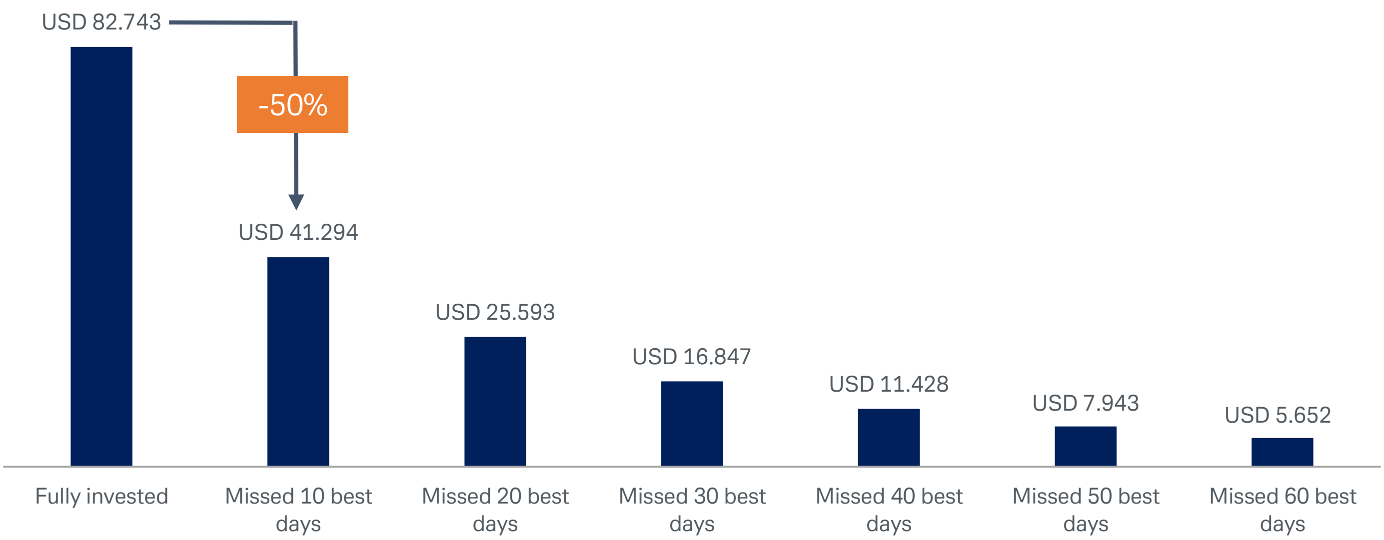
A lasting patience is the key here. We can expect that some market strategies – out of a large set of strategies with different investment market timings – may appear to deliver decent results, but in reality this will be due to chance as markets are unpredictable. Such strategies will eventually fail.

Given imperfect knowledge, investors (private and institutional) will continue to find it difficult to know when the best suitable time is to enter or leave markets. Being roughly correct in market timing (with a hit ratio just above 50%) is not sufficient here and there are significant risks that bad market timing could end up reducing the value of a portfolio.

We therefore believe that an investor is likely to be better off by staying invested over the longer time periods – using time diversification to reduce the effects of unpredictable or unknown influencing factors – rather than try and second-guess them through market timing. To put it in a sentence, fluctuations dominate in the short-term, while value creation is key in the long-term.

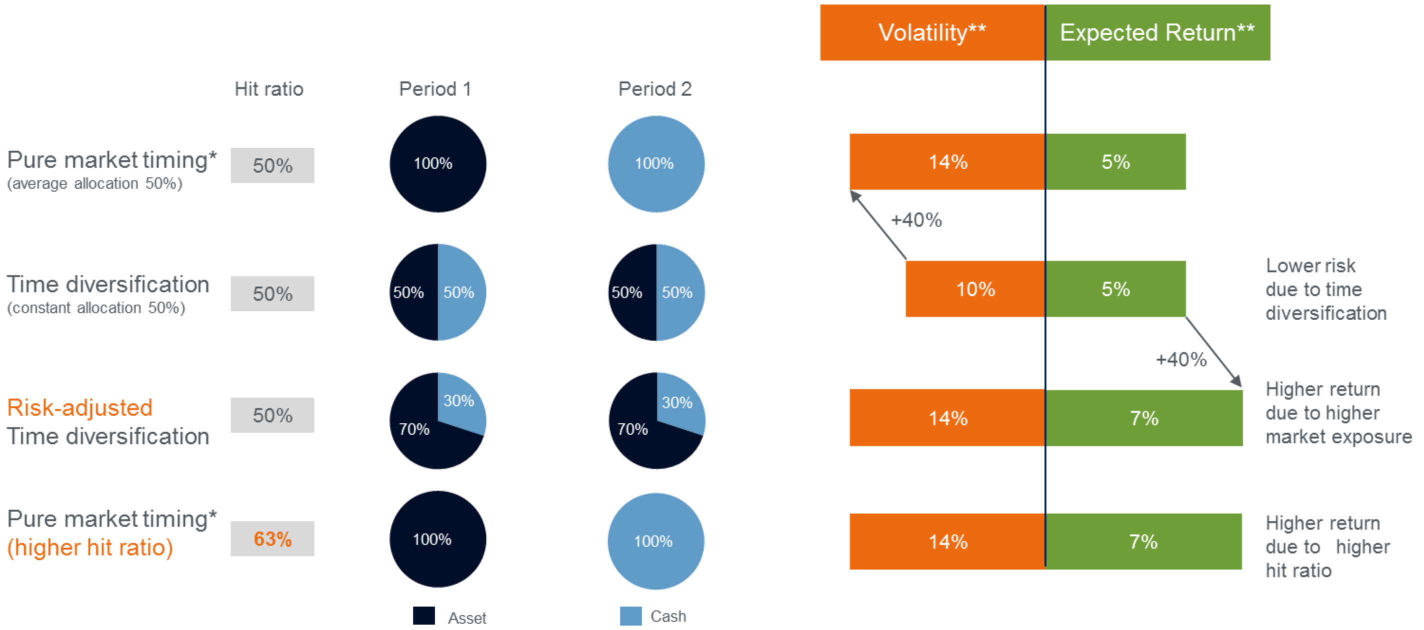
Patience should be seen as a significant virtue here – as well as an acceptance that we cannot have perfect knowledge about the future and this has to be reflected in the suitable risk profile of the strategy. But, above all, remember that the vast majority of a portfolio's returns over time will come from an effective SAA. This is what to focus on.

Figure 2: How missing good market days can hit a portfolio's value



Source: Bloomberg Finance L.P., Deutsche Bank Wealth Management. Data as of January 20, 2020. Performance of a USD10,000 investment in the S&P 500 index between January 1, 1996 and December 31, 2019.

Figure 3: Risk-adjusted comparison between market timing and time diversification



Source: Deutsche Bank Wealth Management. Explanatory chart based on own calculations. * Selection of time period with higher returns (not only positive returns); ** Example: Geometric Brownian Motion with expected return 10% p.a. and volatility 20% p.a. (period 1 & 2).

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Glossary

Correlation is a statistical measure of how two securities (or other variables) move in relation to each other.

The hit ratio measures correct vs. incorrect investment decision. Ability to forecast the future is likely to be affected by expected returns and volatility.

A strategic asset allocation process involves setting preferred allocations for asset classes on a medium to long-term horizon.

Systematic market risk is the risk affecting the whole market (not just a particular stock, industry or asset class) and is largely unpredictable.

The S&P 500 Index includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S. market capitalization.

A tactical asset allocation approach changes allocations to benefit from shorter-term market movements.

Volatility is the degree of variation of an asset class or a trading-price series over time.

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