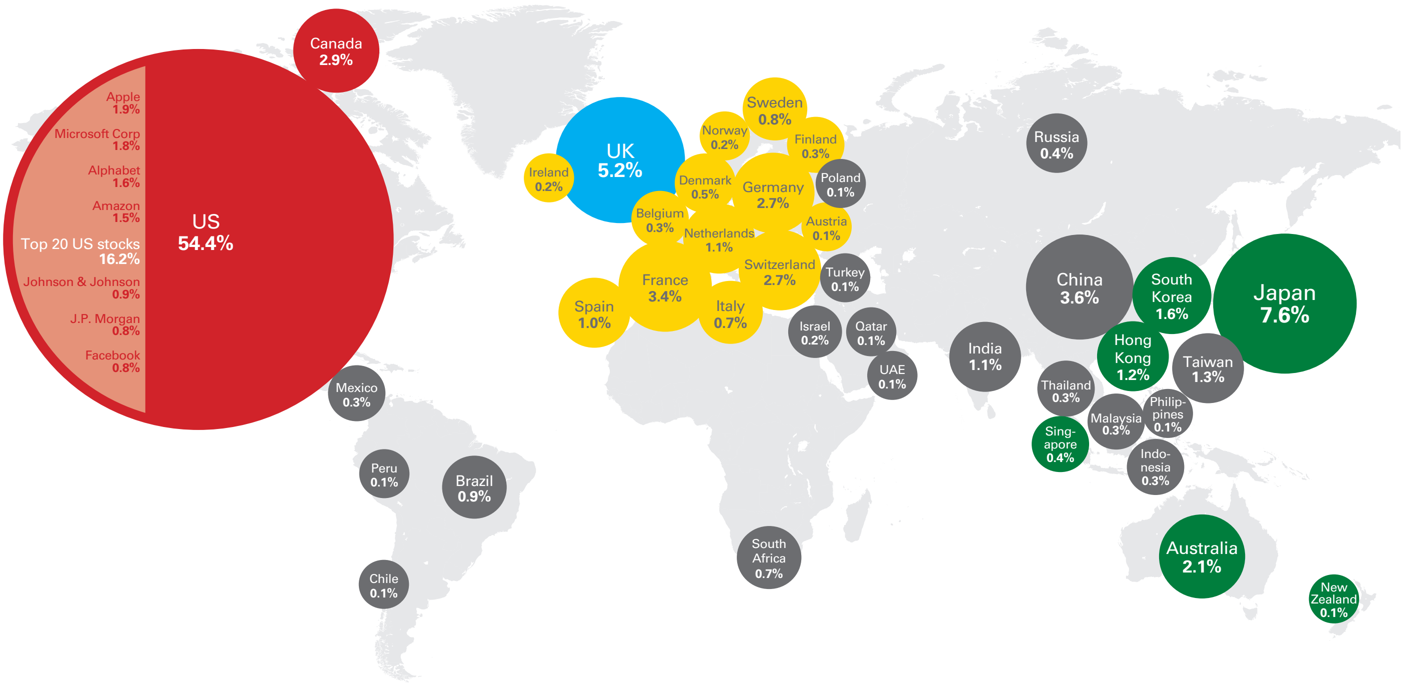
Factoring in volatility: building a defensive factor portfolio

Nervy investors are eyeing top-heavy market-cap indices with suspicion. But how can they use factors to navigate the trade-off between diversification and concentration risk?

Andrzej Pioch is a fund manager in the Multi-Asset Funds team. His responsibilities cover the portfolio management and on-going development of both institutional and retail multi-asset funds, including multi-factor funds.

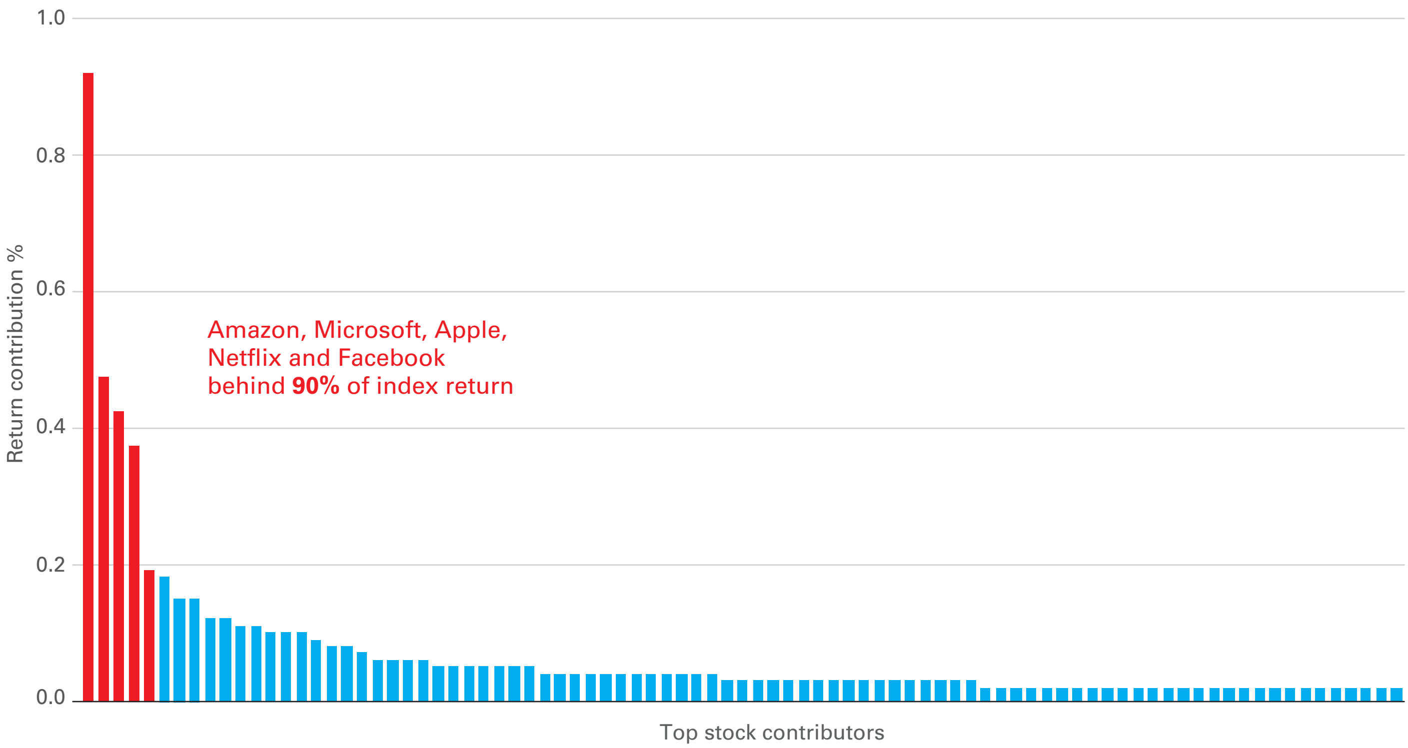
Imagine a world where countries were physically as big as the size of their stock markets. A handful of countries would occupy most of the space. The US would take up nearly 60% of the Earth's surface area! By contrast, some of the biggest geographical countries would shrink dramatically. A quick glance at a global map, redrawn to reflect the size of financial markets, would see both Australia and New Zealand reduced to a size smaller than Switzerland. And some of the countries which play host to the world's larger economies would not feature as prominently as you might think. For example, Germany, France and Scandinavia combined would still be dwarfed by the US.

Figure 1: Country weights in MSCI ACWI index (as of 31 December 2018)



Legal & General
INVESTMENT MANAGEMENT

Figure 2: 100 top contributors to S&P 500 gains H1 2018



By the same token, investing in an index is supposed to bring diversification benefits by providing exposure to a broad market. It remains a go-to option for many 'passive' investors who are attracted by its low turnover, simplicity, the absence of major rebalancing and low fees, which over last few years have only fallen. But in a global-equity market-capitalisation ('market-cap') index, more than half is comprised of US companies, which happen to be the largest stocks in the world. Looking more closely at the level of concentration in the US, market-cap investors in this region have been relying on a few names to generate outperformance. These 'giants' carried them through 2017 and most of 2018 mostly unscathed, but they might have left them feeling exposed in recent months, as volatility returned to the market in late 2018. Many have realised that the underlying index is carrying significant stock-specific risk, leaving their portfolios sensitive to the news flow generated by just a handful of companies.

Dissecting the 2018 performance of the S&P 500, the index that brings together the 500 largest US stocks and weights them by their size, reveals that the first half of the year really belonged to the 'big five'. Amazon, Microsoft, Apple, Netflix and Facebook contributed 2.4% to an index that returned just over 2.6%.

The performance of the remaining 495 stocks was not much more than a sideshow to what was happening at headquarters across Silicon Valley and the outskirts of Seattle.

So, when you invest in an index that is dominated by these names you are 'standing on the shoulders of giants' – banking on the success of a few superstar stocks – which is great when those companies are growing fast and their individual success drives the overall success of the index.

However, when markets become volatile, an overreliance on several stocks leaves your portfolio vulnerable to sharp shocks. Over the long term, any premium you get from a stock's individual performance is vulnerable to market corrections, and is not consistently rewarded.

For illustrative purposes only. Reference to a particular security is on a historic basis and does not mean that the security is currently held or will be held within an LGIM portfolio. The above information does not constitute a recommendation to buy or sell any security.

So as some market-cap indices may become more concentrated, how can factors help investors achieve true portfolio diversification?

First off, investors should consider the following:

1. Do I believe there is a premium to be had from broad exposure to equities?

2. Do I agree with the conclusion that this premium is driven by a small set of stock-level characteristics (perhaps valuations or profitability of the underlying issuer) rather than the market-cap (size) of individual securities?

3. Do I believe that the risk associated with individual securities can be diversified away and as such is not rewarded over the long term?

If the answer is 'Yes' to all three, then an investor may want to structure their equity portfolio to explicitly target the risk exposures which have historically been shown to be rewarded, and diversify away the concentration risks which have been unrewarded – what factor strategies claim to offer.

RETURN OF VOLATILITY

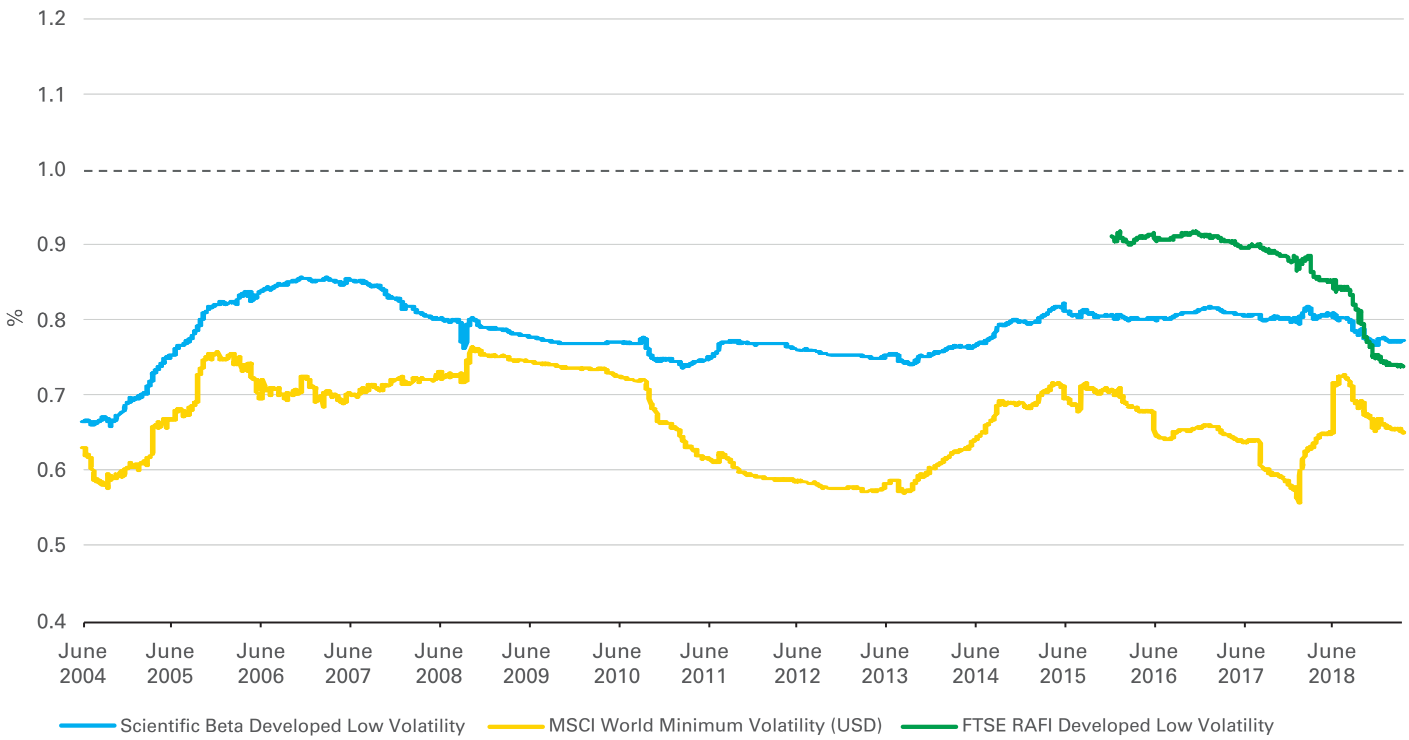
Importantly, no single factor is a panacea for every market environment. Unexpected market sell-offs tend to favour low volatility stocks but may underperform other factors such as momentum during a sustained market rally.

Quality and low volatility factor portfolios often draw from sectors such as utilities and staple goods; companies which produce products and services for which demand will not be adversely affected by market upswings or downturns. These characteristics may be augmented by strong corporate governance, and lead to a 'beta' – or pattern of returns in line with the broad market – that is lower than the overall index, diversifying your portfolio away from index-led returns.

Although historically, this has meant returns may be more consistent throughout the economic cycle, they may also be lower, as earnings and valuations are not likely to be suddenly spurred on by a boost in sales as consumers have more spending power in their pockets during a period of rapid economic growth.

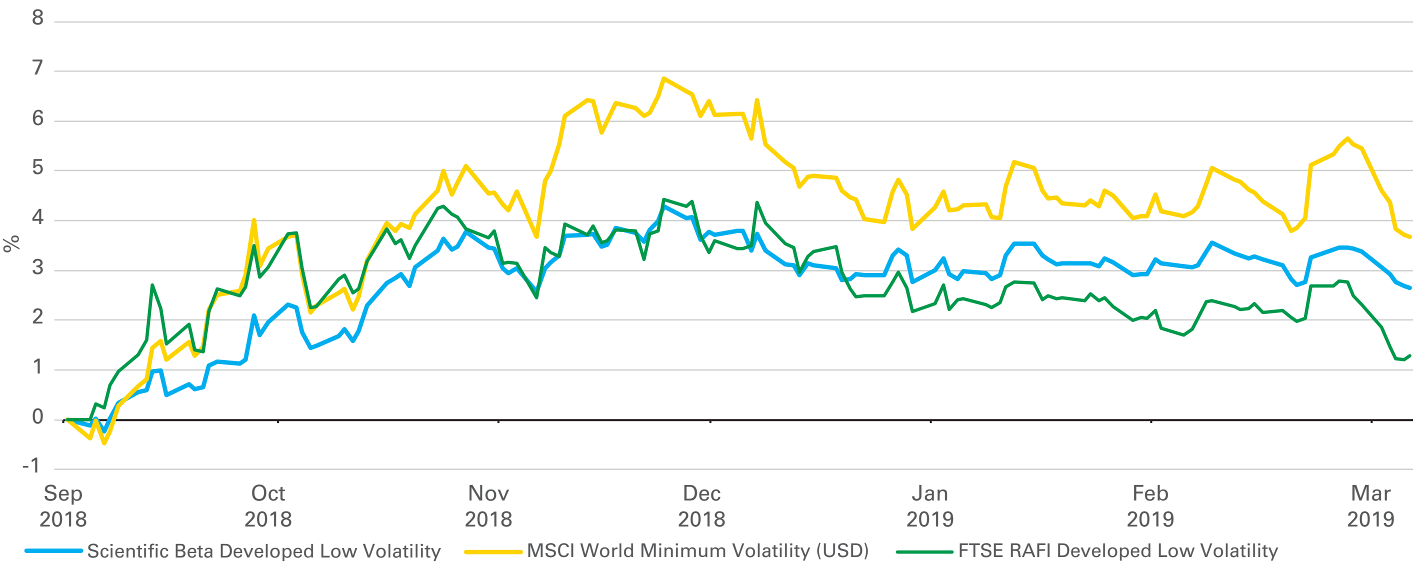
Some of the defensive factors returned some of their outperformance from the last quarter of 2018 when the markets rebounded in the New Year.

Figure 3: Two-year rolling beta to market-cap developed market equities*



*estimated on daily returns against FTSE Developed Total Returns Index, in USD. **Past performance is not a guide to the future.**

Figure 4: Relative performance versus market-cap developed market equities*

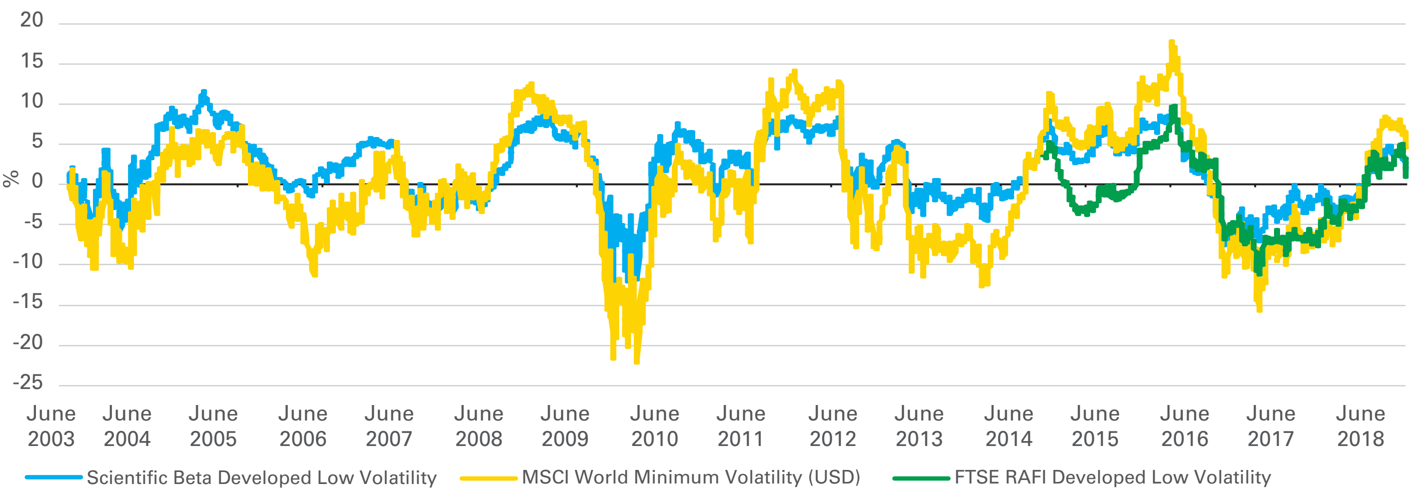


*measured against FTSE Developed Total Returns Index, in USD

Hence, sticking to quality and low volatility stocks alone does not come without risks. It might also lead to investors exposing themselves to concentrated positions in certain sectors – bringing back the concentration risk they were trying to avoid in the first place. This could potentially lead to periods of sustained underperformance. When constructing long-term portfolios, investors may wish to consider the total picture of their investments through the cycle. During a 'bull market', it makes sense to have some allocation to factors which are likely to participate more fully in the rising market. More 'cyclical' factors, such as value, which could include volatile sectors like energy, and size – or smaller companies, may cushion relative drawdowns, as higher quality stocks which exhibit a lower beta may underperform in these markets.

But would adding more factors to the mix simply dilute returns and bring a multi-factor investor's portfolio ever closer to the broad market? Allocating to a diverse pool of factors does not necessarily mean diversifying away the risk premium (% returns above an index the investor is earning for taking on additional risk), as all factors have historically outperformed global equity indices. However, the outperformance comes at different points in time, during different points of the market cycle. Over a given period, a multi-factor portfolio will, by nature of investing in a 'basket' of average performance, underperform the best-performing factor. However, holding a portfolio of uncorrelated factors over the long term should provide investors with a smoother journey through the cycle and offer the potential for better risk-adjusted returns.

Figure 5: Rolling one-year relative performance versus market-cap developed market equities*



*measured against FTSE Developed Total Returns Index, in USD

Ultimately, it comes down to a trade-off between concentration risk and diversification, and that is true for factors as well as for individual stocks. For investors seeking a smoother returns profile, a strategic multi-factor portfolio may well be the answer. For investors who believe in a specific factor for a specific market environment, or are prepared to ride out bouts of volatility in order to seek better returns from their factor favourites, a dynamic multi-factor approach or a single-factor portfolio may suit.

CONTACT US

For further information contact your usual LGIM representative or contact Stefan Jean-Luc Bilby – Senior Index & Multi-Asset Distribution Manager on:

020 3124 4354 **Stefan.Bilby@lgim.com** **lgim.com**

Important Information

Legal & General Investment Management Limited (Company Number: 02091894) is registered in England and Wales and has its registered office at One Coleman Street, London, EC2R 5AA (“LGIM”).

This publication is designed for our corporate clients and for the use of professional advisers and agents of Legal & General. No responsibility can be accepted by Legal & General Investment Management or contributors as a result of content contained in this publication. Specific advice should be taken when dealing with specific situations. The views expressed in here are not necessarily those of Legal & General Investment Management and Legal & General Investment Management may or may not have acted upon them and past performance is not a guide to future performance. This document may not be used for the purposes of an offer or solicitation to anyone in any jurisdiction in which such offer or solicitation is not authorised or to any person to whom it is unlawful to make such offer or solicitation.

As required under applicable laws Legal & General will record all telephone and electronic communications and conversations with you that result or may result in the undertaking of transactions in financial instruments on your behalf. Such records will be kept for a period of five years and will be provided to you upon request.

LGIM is authorised and regulated by the Financial Conduct Authority.

M1938 GM