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RETAIL ADVISORY

Factor investing explained

Introduction

Factor investing can bring real benefit when constructing a portfolio, but what is it? In this short paper, we provide an introduction to factor investing and the role it can play in successful portfolio construction.

What is factor investing?

Traditional passive investing typically aims to track market capitalisation ("market-cap") based indices i.e. benchmark indices where the stocks are weighted according to their market-cap (which is the number of shares a company has in issuance multiplied by the price of those shares). As a result, the largest stocks in the index are those with either the highest price, most shares in issuance or a combination of both, rather than anything related to more forward-looking fundamentals.

Within academia and market practitioners, there has been a growing interest in designing more "efficient indices" where, instead of weighting based on market cap, indices will allocate more to stocks (from the same universe) based on another variable, known as a "factor".

The term "efficient" doesn't necessarily imply that market cap investing is inefficient. The aim of factor investing is simply to capture a benefit using an index that is based on a factor other than a market cap-weighted approach. Capturing this benefit should reap a reward relative to the market cap-weighted benchmark over the long term:

- **A higher expected return for a similar level of volatility;**

or

- **The same level of expected return for a lower level of volatility.**

For factor-based equity investing to be worthwhile, it must demonstrate either of the above (after fees and transaction costs are taken into account), in the same way as we would expect for actively managed equity strategies. The difference in creating a factor-based approach is that it is significantly cheaper for investors to replicate and track a factor-based index via a passive fund manager than to select active equity funds.

What kind of factors are used?

The premise of equity factor investing is that each factor is a significant driver of market returns over the long term. Therefore, each factor should provide better risk-adjusted returns than the broader market (as measured by market cap-weighted equity indices) over the long-term. There are a large number of possible equity factors, but many of these are yet to have been backed up by studies, and only a relatively small number have full evidence that they are indeed factors that should persist across markets and time periods. The following factors are the most commonly targeted by investors to deliver outperformance over the longer term:

Value – the value factor targets companies whose share price is deemed to be cheap.

Low volatility – academic research has found that lower risk stocks earn higher risk-adjusted returns than more volatile companies over the long term.

Size (small cap) – smaller companies tend to be ignored by many investors and the theory is that smaller companies outperform larger companies over the long term.

Quality – what constitutes 'quality' is less well defined than other factors, but broadly speaking, high-quality companies are typically defined as either having relatively strong and stable profits streams and/or other desirable financial metrics.

Momentum – the momentum factor is based on findings that price trends tend to persist within stocks (i.e. recent good performing stocks tend to continue to do well).

What are the benefits and drawbacks of factor investing?

It can be shown that over the long term each of these factors has significantly outperformed the broader equity market, implying that factor investing has improved the risk-adjusted returns delivered by broader equity markets.

Table 1: Equity factors

%	Value (vs. Market Cap)	Low Volatility (vs. Market Cap)	Size (vs. Market Cap)	Quality (vs. Market Cap)	Momentum (vs. Market Cap)
Data From	Jan-75	Jun-88	Jan-01	Dec-75	Jun-73
Performance (p.a.)	10.7%	8.7%	8.4%	11.9%	11.9%
(vs MSCI World p.a)	10.4%	7.8%	5.7%	9.8%	9.1%
Premium over Market Cap (p.a.)	**0.3%**	**0.9%**	**2.6%**	**2.1%**	**2.8%**
Standard Deviation (p.a.)	13.7%	10.3%	17.0%	13.6%	14.7%
(vs. MSCI World p.a)	13.7%	13.8%	14.2%	13.6%	13.9%

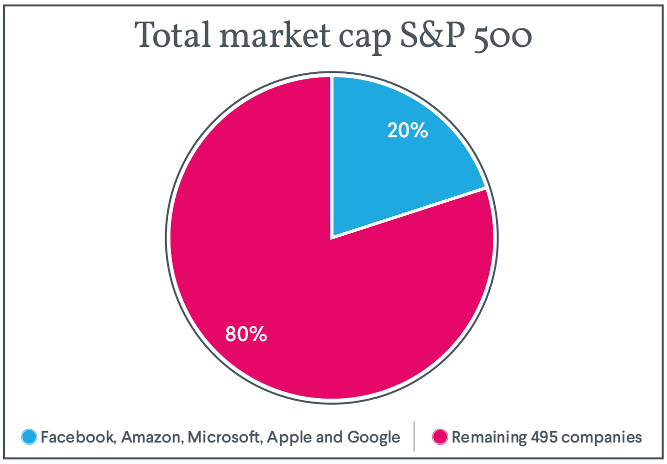
Notes: Data as follows up to 31/08/2020. Source: DataStream, Local currency. Returns p.a.

It should be noted that value has been the poorest performing of the five factors due to its performance over the last 10-15 years. In addition, aside from low volatility, the remaining four factors have either higher or similar volatility to the broad equity market.

It is important to understand that over shorter periods, individual factors may significantly underperform the broad equity market, and that different factors perform well in different stages of the economic cycle. Adopting a factor-based strategy is therefore not a guarantee of outperforming the wider market, however it can have advantages, particularly in avoiding certain risks inherent in the market-cap approach.

The challenge of market-cap - example

As an example, if you hold a passive US market-cap equity tracker fund, your holdings in companies are determined proportionately in the order of size of the company. At the start of the COVID-19 environment, five technology companies (Facebook, Amazon, Microsoft, Apple and Google) performed extremely well as they allowed people to maintain virtual connectivity, distribute content and maintain a global marketplace in the absence of physical connectivity or physical marketplaces. As a result, the 5 largest stocks now account for approx. 20% of the S&P 500 market cap[1]



[1] Goldman Sachs Global Investment Research April 2020

Will these business models suffer "disruption"?

The disruption of business models has long been a function of markets. However, in our opinion, the pace of disruption has quickened in the past decade due to the speed of global commercialisation and take-up of technological advances, specifically the way people communicate, access entertainment content and buy products and services.

In today's market, disruption is likely to occur in three ways:

- Another company begins to offer better products and / or services, winning and then dominating market share. This is essentially what happened to **Nokia**.
- There is a significant shift in the supply or demand dynamics in the markets being operated in, making existing products and services obsolete. Two of the most commonly referenced case studies here are **Kodak** and **Blockbuster**.
- A structural problem created by poor Environmental (e.g. climate change), Social (e.g. labour conditions, data privacy breaches and tax policies) and Governance (e.g. ownership, voting and independence) practices that severely impacts forward-looking earnings.
  The company could then be punished by market forces or by regulatory pressures.

What does this mean for US passive equity investors?

- US market-cap investors, knowingly or unknowingly, now have a disproportionate amount of faith in a very small number of companies to deliver their investment returns. **Ironically, this characteristic is often connected with high conviction active investors rather than passive investors.**

- These investors need to be comfortable that these large companies can react and deal with disruption from their smaller competitors when the time comes.

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What factor investing brings to portfolio construction

When using passive investment, risk control should be considered as part of the index composition or index selection. Market cap indices are cheap, but do not provide a natural mechanism for managing stock or sector concentration if this becomes an issue. The alternative is to construct another trackable index using a set of different rules that rewards companies with a higher weighting if they satisfy certain criteria, rather than simply because they happen to be very large.

We believe a better approach is to focus on a number of indices (including market-cap) and factors which have been seen to deliver stronger risk-adjusted performance (after fees) over time, and to use these factors to determine the weight of each stock in the index. This approach can be accessed either through funds which target a single individual factor, or through a "multi-factor" approach, which targets a combination of factors in a single fund. Either approach can be combined with market- cap strategies to help to manage portfolio risk and improve the net of fee risk-adjusted expected portfolio outcomes.

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