EQUITORIAL

The Alpha Model:
laying the path to consistent returns

Hermes Global Equities
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HERMES
INVESTMENT MANAGEMENT

A mix of geopolitical stresses, political instability, monetary policy tightening and, more recently, global trade tensions, have dominated international news flow – and impacted equity markets – in the last 12 months. Amid such volatility, our all-weather approach enabled us to focus on time-tested company fundamentals.

Our proprietary Alpha Model assesses a company's long-term prospects, by identifying those with the most attractive combination of fundamental characteristics or "factors". It is then used to create a portfolio that aims to generate consistent, positive relative returns regardless of market direction or the wider geopolitical environment.

In this issue of *Equitorial*, we explain how our model-driven fundamental analysis has generated consistent alpha during a 12-month period of heightened volatility.

DEFINING FACTOR INVESTING

For Hermes Global Equities, consistency is key. We believe that the best way to generate superior consistent returns is to apply a systematic approach, which minimises behavioural biases, with disciplined subjective analysis. To do so, we cannot simply categorise ourselves as value, growth, or indeed, quality investors. Such style portfolios can deliver excess returns to the patient investor over the long term, but by definition no form of style investing works consistently. For this reason, we classify our investing style as 'core'.

Definitions vary, but we define our core style as one with no persistent bias – that is, our portfolios will tend to have small biases towards a range of investment factors, but no bias will dominate and persist over time.

We evaluate companies across a broad range of perspectives by assessing their relative valuation, growth prospects, competitive strength, management quality, financial stability and market sentiment. The most attractive combinations of these characteristics subsequently directs our stock selection: we identify companies with the most desirable features – at least in theory (see Figure 1). In reality, however, few such companies exist – and so, we target companies with the best trade-off of these characteristics.

Figure 1: We target companies with the most attractive combinations of characteristics
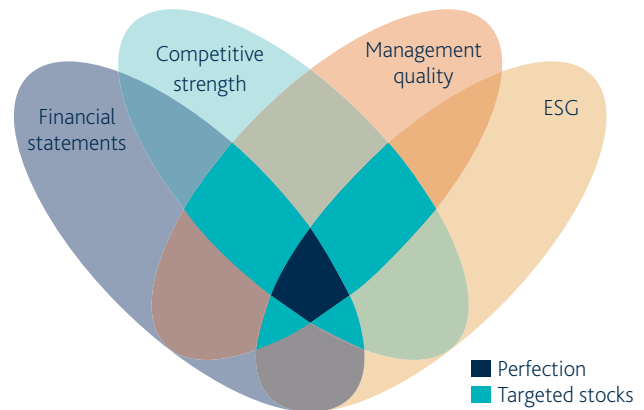
Source: Hermes Investment Management as at June 2018

Our stock selection is driven by our proprietary multifactor model, the Alpha Model, which draws on a plethora of information sources to measure the attractiveness of investments across this wide range of perspectives. By combining these factors, the model generates an overall score for each company, the Alpha Score, which is a forecast of the investment's expected relative return. The higher the score, the greater the expectation that the company will outperform its sector peers. Companies that look attractive across the widest range of factors tend to have the highest overall Alpha Score.

Recap: What is the Alpha Model?

The Alpha Model is our "automated analyst" which assesses the attractiveness of every investable company in our universe on a daily basis.

The metrics used to select stocks are justified by both economic reasoning and statistical effectiveness, and have a long-term focus that leads to low portfolio turnover.

They are grouped into six categories: valuation, sentiment, growth, profitability, corporate behaviour (including governance) and capital structure. The model identifies which stocks have the most attractive combinations of these characteristics and the output is subsequently used to create an optimised portfolio that aims to maximise risk-adjusted returns.

The Alpha Model also uses proprietary data from our responsible investment and engagement specialists, Hermes EOS, to incorporate an assessment of corporate governance in every valuation.

Figure 2: Six factors are used to generate our Alpha Score

Valuation
Asset based valuation; earnings valuation; cashflow valuation; enterprise valuation

Corporate behaviour
Accounting/earnings quality; management quality/signalling; corporate governance

Growth
Earnings growth; revenue growth; cashflow growth; market capture

Profitability
Operational efficiency; competitive advantage; scalability

Capital structure
Balance sheet strength; capital efficiency; liquidity; refinancing risk; cost of capital

Sentiment
Technicals; analyst sentiment; forecast dispersion

Alpha Score
A forecast of the investment's expected return

Source: Hermes Investment Management as at June 2018

THE WHY FACTOR

The concept of using factors to explain returns is not new, but our approach is designed to capture some of the intricacies of these relationships.

Of course, in some instances, the relationship between the factors and Alpha Score is straightforward. One such example is the price-to-book ratio, an effective factor once standardised to account for differences in global accounting standards. Empirical evidence shows that companies with low price-to-book ratios – that is, "cheap" investments – tend to outperform the average company, while high ratios – that is, "expensive" investments – tend to underperform. This is also true for a wide range of valuation metrics.

Our Alpha Model generates a valuation score by combining a number of these traditional value metrics. By grouping companies into deciles based on their valuation scores, the valuation factor exhibits a symmetrical return distribution (see Figure 3).

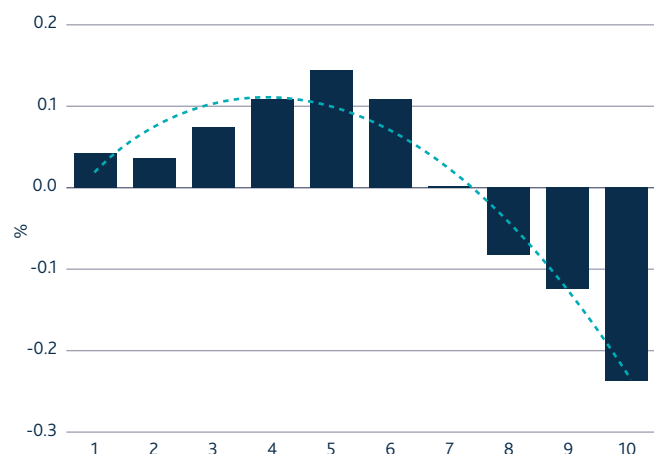**Figure 3:** Cheap stocks outperform the average company
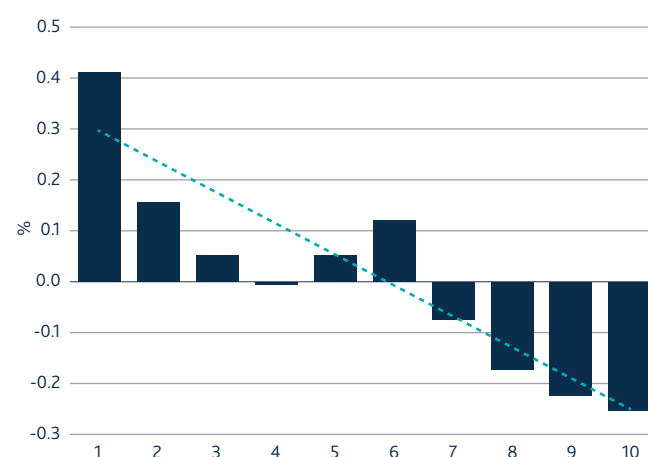
Source: Hermes Investment Management as at June 2018. Average monthly relative performance of companies, split by decile, on valuation scores from 01 Jan 2003 to 30 June 2018.

In Figure 3, it is evident that the cheapest stocks (in decile one) have outperformed by an average of 0.4% per month over this time period, while stocks in decile two outperformed, but by less than decile one. This pattern continues through to decile 10 – the most expensive stocks – underperformed by about 0.25% every month.

For quality factors, however, the distribution of returns shows a definite skew: low quality companies tend to underperform, while average or good quality companies tend to perform in line with the market, on average.

There is not always an upside to finding a high quality investment, but there is frequently a downside to investing in low quality stocks. This is evident in Figure 4: for the capital structure factor, which measures a company's balance sheet strength and its financial stability, attractive stocks (deciles 1-3) generally do not outperform the average company, but lower ranked stocks (deciles 8-10) tend to underperform it. The value of this type of factor within the Alpha Model is clear: it helps us avoid companies with weak balance sheets (deciles 8-10). A similar effect was observed in our previous commentary *ESG Investing: it still makes you feel good, it still makes you money'*: it showed that poorly governed companies underperform the average company.

Source: Hermes Investment Management as at June 2018. Average monthly relative performance of companies, split by decile, on capital structure from 01 Jan 2003 to 30 June 2018.

To determine a company's overall Alpha Score, we take this non-linear relationship between the factor and its relative return into account.

Once the factor score data has been generated, it is converted into an expected factor payoff. This transformation can be linear or non-linear. The debt-to-equity ratio, for example, is a factor where the downside is more important than the upside. In this instance, we apply a non-linear transformation to the factor scores. Subsequently, a company with a good score is expected to marginally outperform, while those with a low score are likely to significantly underperform the average company. That means a company which boasts a strong balance sheet may receive a slightly higher Alpha Score – that is, expected return – than a company with an average balance sheet, while a company with a weak balance sheet will receive a significantly lower Alpha Score than the average.

## THE ALPHA MODEL: MORE THAN THE SUM OF ITS PARTS

Importantly, factors should not be considered in isolation. The attractiveness of a company is determined by the overall blend of its characteristics and a company is only as strong as its weakest link.

To illustrate, consider a company with a weak balance sheet, which is exposed to meaningful downside risk, trading at a low multiple, and thus expected to outperform the average company. Historically, companies in the lowest quintile of Capital Structure have underperformed by approximately 18 basis points (bp), while companies in the top quintile of the Valuation score outperform by 28bp. It would appear that a company featuring in both of these quintiles (a weak balance sheet offset by an attractive valuation) should be expected to outperform. Although some investors may be prepared to take on downside risk, those seeking consistency should avoid this investment opportunity.

Figure 5 illustrates the rationale behind such a decision. It documents the average relative performance of the cheapest quintile of companies over the last 15 years. This is measured by our valuation metrics and grouped according to each company's capital structure score.

Companies in the top 'valuation' quintile are expected to perform strongly (by 28bp on average). But those companies also in the lowest quintile of capital structure (series five in Figure 5) tend to exhibit no outperformance – and that's despite being a cheap stock. A poor financial position is therefore a material weakness. What's more, even at a low valuation these companies are not attractive investments.

Figure 5: Excess return of the cheapest stocks by capital structure
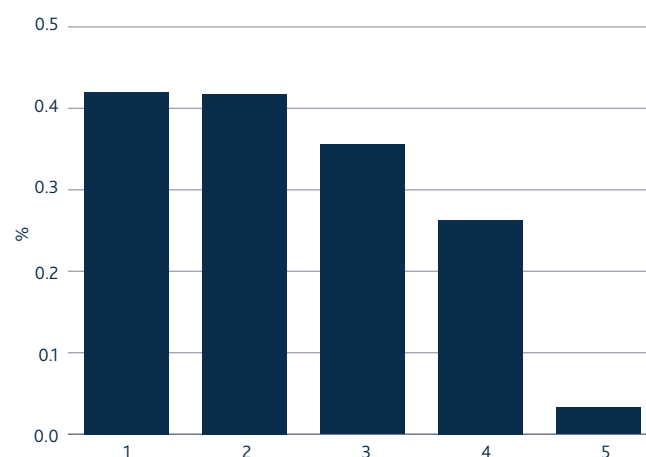
Source: Hermes Investment Management as at June 2018. Excess return of the cheapest quintile of stocks, split by quintile of Capital Structure. Series one represents the stocks with the strongest Capital Structure, while series five represents those with the weakest Capital Structure.

In our Alpha Model, a company's material weakness, such as a weak balance sheet or poor corporate governance, has a disproportionate impact on the overall Alpha Score. For instance, a company, which looks cheaper than its peers, has a better growth profile and improving sentiment will not score highly if it has a weak balance sheet. Instead, the weak balance sheet will serve as the main driver directing the Alpha Score because the model seeks to avoid companies with significant weaknesses.

We adopt a similar approach when determining a company's commitment to responsibility. We favour companies that recognise their impact on society and the environment, as well as those that acknowledge their weaknesses in this area and take action to improve.

However, the gravity of some risks mean that often other characteristics become irrelevant. Imagine that cases of child labour are found in a company. This is a major risk, and the company's efforts to improve its carbon footprint or increase board diversity are immaterial to its commitment to responsibility, until the issue of child labour is addressed.

DEEP-VALUE VS. HIGH-GROWTH STOCKS

Companies with divergent growth profiles should be analysed using different metrics (see our previous commentary *Valuation, not value* for further information). For example, hyper-growth companies – companies typically at an early stage of their life cycle and experiencing stellar growth rates but often trading at high multiples – are valued using our 'hyper-growth' model, which uses forward-looking, primarily earnings-based metrics. Less weight is placed on backward-looking, asset-based metrics. In turn, this allows companies in a growth phase to look attractive to the model, as factors such as growth and sentiment are given priority when determining the investment case. This shows the added value a tailored approach can have, as otherwise, the model's traditional metrics may have made the company look expensive.

Of course, even for hyper-growth companies, a material weakness could still have a disproportionate impact. However, a valuation factor is unlikely to be a material weakness – and sometimes it is worth paying for growth or quality.

Consider disruptive technology companies. Historic earnings do not guide investment decisions in these companies. Instead, an alternative lens is used, which deems these companies' assets or earnings irrelevant today. These companies often gain a competitive advantage through disruption, which allows the business to grow and earn abnormal returns for an extended period, compounding their gains.

Recap: What is our hyper-growth model?

The hyper-growth model identifies companies whose share prices are driven almost entirely by forward-looking metrics. They are often technologically disruptive companies which are reshaping their part of the industry.

These companies frequently appear outrageously expensive, and enjoy overwhelmingly positive market sentiment. For these companies, metrics such as P/B and historic peer-relative numbers become less important. Instead, we emphasise forward expectations and market sentiment.

FACTORS SHAKING THE ALPHA WORLD TODAY

Against a tumultuous investment backdrop over the past 12 months, it is perhaps surprising that equity markets have performed as well as they have. But, buoyed by a synchronisation of global growth and the minimal impact of political instability on companies, investors remained confident, focusing on company fundamentals. Indeed, this confidence was bolstered by a strong earnings season, with many companies comfortably meeting or beating consensus-earnings estimates in Q1. As markets continue to rise, however, there can often be a penalty for companies that fail to meet earnings expectations. This is reflected in our factor returns over the past 12 months (see Figures 6-9) – and what's more, it demonstrates the importance of our model-driven fundamental analysis in such an environment.

For example, the sentiment factor exhibits a linear pattern (see Figure 6). This reflects investors' preference towards companies with an increasingly optimistic earnings outlook. As equity markets become more volatile, however, sentiment can be ineffective. This is not always the case, as is evident from the sentiment factor returns over the past 12 months: sentiment has remained steady as investors overlooked potential volatility spikes and geopolitics.
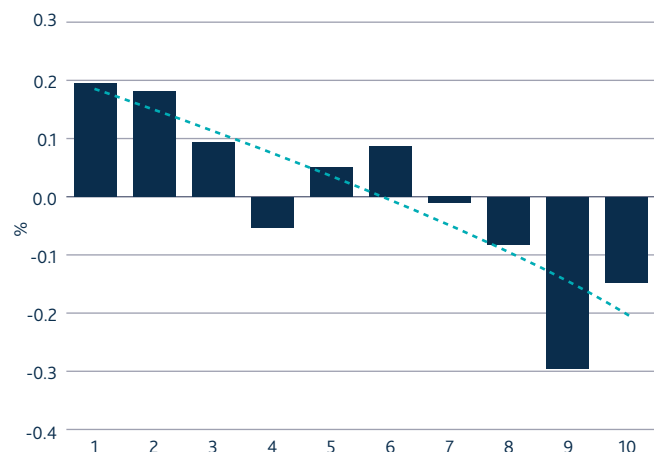
Figure 6: Companies with a strong sentiment outperform the average company
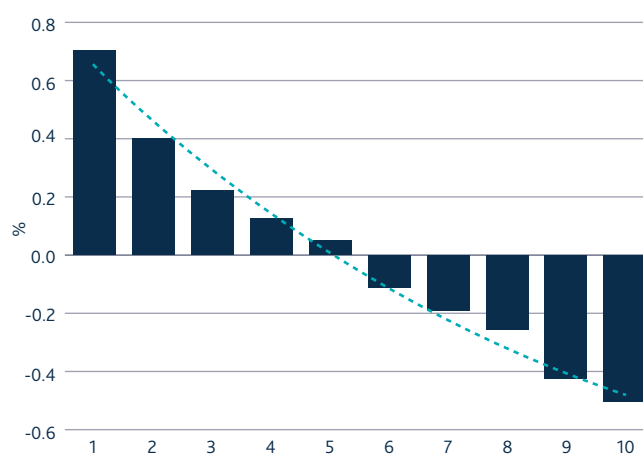
Source: Hermes Investment Management as at June 2018. Average monthly relative performance of companies, split by decile, on sentiment from 30 June 2017 to 30 June 2018.

The robust performance of equity markets can largely be attributed to companies that are tapping into global growth. In the last 12 months, hyper-growth companies have been particularly in favour. This is evident from the growth factor returns illustrated in Figure 7: companies in the top three deciles of growth outperformed the average company. And finding growth companies in the recent investment environment has been key for investors.
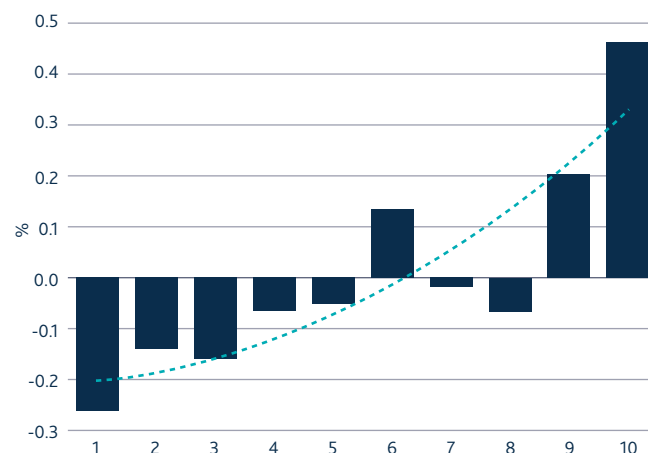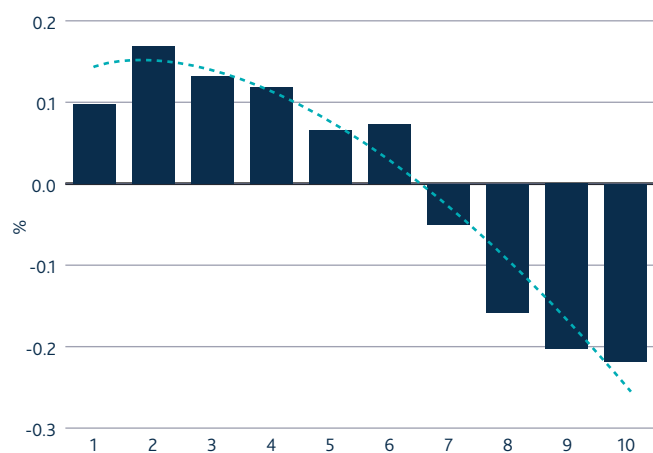
Figure 7: Hyper-growth companies have outperformed the average company

Source: Hermes Investment Management as at June 2018. Average monthly relative performance of companies, split by decile, on growth from 30 June 2017 to 30 June 2018.

Again, this is reflected in valuation factor returns during this period. The tenth decile – that is, the most expensive stocks – have outperformed, while cheaper stocks have tended to underperform – this pattern is atypical compared to recent history (see Figure 8). Companies in the tenth decile tend to be hyper-growth or high-growth names, which serves to highlight the importance of tailoring our approach to reflect the investment type.

Figure 8: The most expensive stocks have outperformed the average company

Source: Hermes Investment Management as at June 2018. Average monthly relative performance of companies, split by decile, on valuation from 30 June 2017 to 30 June 2018.

Monetary policy normalisation, particularly interest rate rises, have been another important consideration during this period. The capital structure factors reflect this concern. Overleveraged companies and those most vulnerable to interest rate hikes are the obvious losers as major central banks gradually normalise monetary policy. Indeed, such companies have underperformed the average company. Notably, the underperformance of the weakest companies (deciles 8-10) is larger than the outperformance of the strongest companies in decile one (see Figure 9). This non-linear relationship is crucial when considering such metrics.

Figure 9: Capital structure factor returns reflect concerns about interest rate hikes

Source: Hermes Investment Management as at June 2018. Average monthly relative performance of companies, split by decile, on capital structure from 30 June 2017 to 30 June 2018.

CONSISTENCY IS AT OUR CORE

Breaking down equity markets into a small number of fundamental factors will never be perfect, but we believe adopting a sophisticated approach helps generate consistent returns throughout all market environments and defends against large swings in style.

This is illustrated well through our model-driven analysis of factor returns in the last 12 months: the nuances of our Alpha Model were – and continue to be – crucial during periods of tumult, as outlined above. What's more, the last nine years of our performance shows how the alpha generated through this approach can be significant.

[1] Source: Hermes Investment Management as at June 2018

HERMES INVESTMENT MANAGEMENT

We are an asset manager with a difference. We believe that, while our primary purpose is to help savers and beneficiaries by providing world class active investment management and stewardship services, our role goes further. We believe we have a duty to deliver holistic returns – outcomes for our clients that go far beyond the financial – and consider the impact our decisions have on society, the environment and the wider world.

Our goal is to help people invest better, retire better and create a better society for all.

Our investment solutions include:

Private markets
Infrastructure, private debt, private equity, commercial and residential real estate

High active share equities
Asia, global emerging markets, Europe, US, global, and small and mid-cap

Credit
Absolute return, global high yield, multi strategy, global investment grade, unconstrained, real estate debt and direct lending

Multi asset
Multi asset inflation

Stewardship
Active engagement, advocacy, intelligent voting and sustainable development

Offices

London | New York | Singapore

Why Hermes Global Equities?

Transparency
Our accessible investment process and analysis is based on clearly defined statistical and economic evidence. It is not a 'black box' and the drivers of returns can be clearly explained.

Expertise
Our bottom-up stock-selection model systematically analyses companies' financial statements and gauges investor sentiment to generate an optimal portfolio. The team draws on its deep investment experience to identify unquantifiable risks such as negative news flow and regulatory change.

Flexibility
We partner with clients to create portfolios addressing their needs, amending the risk profile, investment universe and benchmark, and portfolio characteristics such as dividend yield and ESG exposure as required.

Broad risk awareness
MultiFRAME, our proprietary risk modelling system, detects exposures to all quantifiable risks. The Hermes Investment Office performs independent risk management services for clients and sustainability risks are identified by our ESG Dashboard.

For more information, visit **www.hermes-investment.com** or connect with us on social media: