MACKENZIE
Investments

A quantitative approach to inefficient markets

Arup Datta, MBA, CFA
Senior Vice President, Head of Team
Global Quantitative Equity Team

Mackenzie's Global Quantitative Equity Team believes in a core style of investing that employs fundamental ideas through a disciplined, risk-aware investment approach in seeking to generate alpha within global markets. The team, led by 30-year quantitative industry veteran, Arup Datta, uses several of the same elements that a fundamental manager uses; however, his team utilizes a systematic process to analyze more factors and stocks than a traditional fundamental manager.

The team adheres to a core focus which aims to produce a more consistent alpha profile through and across multiple market environments. In addition, they believe that their daily stock analysis and proprietary transaction cost estimation along with a focus on capacity management, sets them apart from a number of their competitors. A quantitative lens, aided by computing power, sophisticated algorithms and adaptive models, provides the team with a measurable process to value securities across the broad investment universe.

Balance of factors

Through a quantitative lens, the investment team constructs portfolios with a "core" focus, which aims to provide a balance between growth and value characteristics and seeks to outperform in various market environments. The investable universe is viewed within a region/sector/industry relative model framework. Within each of the four regions, stocks are measured against sector and industry peers. This model framework yields a matrix (by region, sectors and industries) in which each stock is categorized and ranked in a region-based peer group.

Each stock is adjudicated against more than 20 factors broadly grouped into four "super factors" consisting of Value, Quality, Growth and Informed Investor. A balanced weight is assigned to these super factors at the portfolio level, while weights will vary by individual stock. Within Value, the team distinguishes between Quality Value (cash flow and dividend-based valuations) and Pure Value (earnings, book and gross profit-based valuations), including innovative ways of looking at valuations. The Quality factor balances management actions such as capital allocation, operating efficiency, ESG, employee sentiment and use of accounting practices; it also includes notions of management quality. The Growth factor refers to analyst revisions to forecasts (earnings, sales and dividends), long-term growth, innovation and insights from linked companies. The Informed Investor factor analyzes informed market participant activity, such as short interest and option pricing.

Figure 1 – Balanced approach to factors

Value	Quality	Growth	Informed investor
Seeks to outperform in value environments	Seeks to outperform in quality environments	Seeks to outperform in growth environments	Seeks to outperform in various environments

Beyond the four super factors, contextual variables are applied to determine the weight of factors for each stock. The contextual model incorporates a sophisticated approach to weighting, as the efficacy of factors vary based on underlying stock characteristics. A human overlay at extremes, such as a three-sigma event, is employed for factor weighting during periods of market dislocation. For instance, the team employed a value-tilt during the early stages of the global pandemic based upon a three-sigma opportunity and unwound the tilt as the spread in valuations came in.

Expanded universe, daily trading, and a focus on capacity management and strong implementation

The team's flagship emerging markets strategy is benchmarked to the MSCI Emerging Market IMI Index - which has approximately 3,400 index constituents – and further expands the universe to include more than investable 10,000 securities. The team expands upon the index constituents to include more than 10,000 securities within their investable universe. For fundamental managers, a typical analyst would be responsible for having a deep understanding of, at most, 30-50 companies. To successfully cover such a broad emerging markets universe, fundamental managers must employ a large team of analysts. The process of expanding the investable universe beyond benchmark constituents is in place for all of the investment strategies managed by the team.

The team strongly believes that there is an advantage in daily portfolio rebalancing and trading. A quantitative approach allows the investment team to be nimble and incorporate daily changes in stock alpha forecasts for the entire investment universe, which allows the team to rapidly and efficiently trade in and out of stocks. This more frequent incorporation of new information helps generate the freshest alpha into the portfolio, but this is only possible with a strict focus on capacity management and efficient trading. The team has placed limits on the asset size of their strategies to maintain nimbleness for portfolio trades.

Another critical consideration when investing in emerging markets is relatively high trading costs when compared to developed markets. The same is also true in less efficient small-cap securities versus higher liquidity large-cap companies. In order to deliver alpha efficiently, the team has constructed a sophisticated transaction cost model which is used in conjunction with the alpha model as part of the investment process. The model helps the team quantify the trading impact of each security by measuring round-trip transaction costs (market impact, commissions and stamp duties). Trading volume and volatility are key drivers of the team's market impact cost model.

Fertile ground for alpha

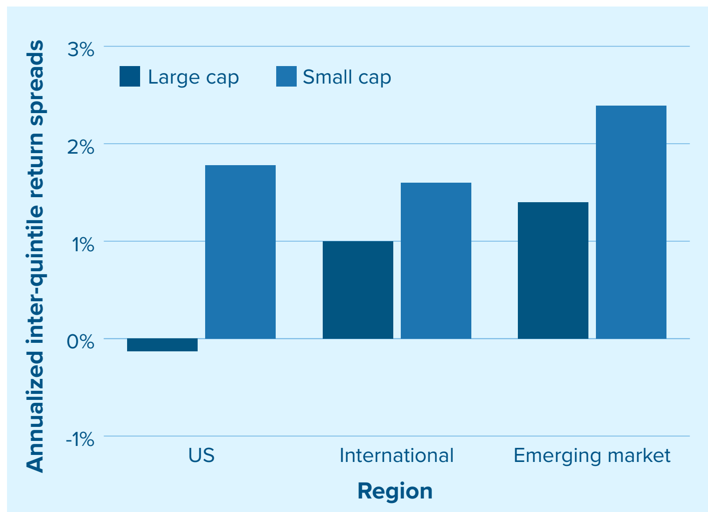
Mackenzie's Global Quantitative Equity team believes that, there is no equity asset class more ripe for alpha than emerging markets. Figure 2 below depicts a simple factor-based analysis of portfolios that blend stocks with both value and momentum characteristics. The results of this simple analysis highlight the potential alpha opportunity in emerging markets and the added benefit of a small cap focus. In the flagship strategy, Mackenzie Emerging Markets All Cap, the team positions the portfolio to attempt to extract alpha in small- and mid-cap stocks, and capture this rich potential.

These benefits can also be seen on a realized basis. Figure 3 below demonstrates that emerging markets as an equity asset class, coupled with a tilt towards small-cap stocks, truly has the potential to generate alpha over the long-term. The team also sees this small-cap advantage to be evident in their international and US portfolios as well.

Figure 2 – Quantitative alpha efficacy

Represents inter-quintile return spreads using 50/50 blend of Value and Momentum from September 2002 – December 2023

Figure 3 – Mean benchmark-relative excess return for active managers, 2012-2023



Source: eVestment Universes. Returns shown represent past performance, are not a guarantee of future performance and are not indicative of any specific investment. Please note that the benchmark for the strategies within each universe vary, excess performance of active strategies is based on managers preferred benchmark.

Conclusion

At Mackenzie, we believe that emerging markets equity, as an asset class, is often overlooked for the wrong reasons. From a total asset allocation standpoint, emerging markets continue to represent only a small portion of most plan sponsors' equity allocations. We view the asset class as a critical component of the equity allocation puzzle. While emerging markets have encountered high volatility historically, we maintain a strong belief in the growth rate potential in the constituent companies and countries and in the long-term return and diversification benefits of a broad-based allocation.

We believe, through a disciplined risk-controlled investment process as employed by Mackenzie's Global Quantitative Equity Team, that successful security selection in emerging markets can be achieved. We see similar opportunities for harvesting alpha by applying our discipline to more inefficient small-cap universes across emerging, international and US markets.