



MACKENZIE  
Investments



# A Quantitative Approach to Emerging Markets Equity



# Executive Summary

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Mackenzie's Global Quantitative Equity team employs fundamental ideas through a disciplined, risk-aware investment approach that seeks to generate alpha within emerging markets. The team, led by 27-year quantitative industry veteran, Arup Datta, uses several of the same elements that fundamental managers use, with more factors and stocks being analyzed than is expected of a typical fundamental manager.

The team's edge is a steadfast belief in the adherence to a core focus which aims to produce a more consistent alpha profile through multiple market environments.

They place great value on daily stock analysis, proprietary transaction cost estimation and capacity management. A quantitative lens – aided by computing power, sophisticated algorithms and adaptive models – provides the team with a measurable process to value securities.

# Balance of Factors

The investment team constructs portfolios with a “core” focus, which aims to provide a balance between growth and value characteristics that could potentially perform well in various market environments.

Approximately 5,000 stocks are viewed within a region/sector/industry relative framework. Within each of the three regions (Asia/EMEA/Latin America) stocks are measured against sector and industry peers. This model framework yields a 3x13 matrix (three regions/nine sectors/four industries) in which each stock is categorized and ranked in a region-based peer group.

Each stock is adjudicated against 15-20 factors broadly grouped into four “super factors”: Value, Quality, Revisions and Informed Investor. A balanced weight is assigned to these super factors at the portfolio level. Weights vary by individual stock. For example, within Value, the team divides the weight between ‘Quality Value’, such as cash flow-based valuations, and ‘Pure Value’, which includes earnings-based valuations. The Quality factor balances management actions, such as capital allocation and operating efficiency. The Revisions factor mainly refers to analyst revisions to forecasts, while the Informed Investor factor analyzes activity, such as short interest and option pricing.

## Balanced Approach to Factors

### Value

Seeks to outperform in value environments

### Quality

Seeks to outperform in quality environments

### Revisions

Seeks to outperform in growth environments

### Informed Investor

Seeks to outperform in various environments

# 5,000

**Number of stocks viewed within a region/sector/industry relative framework.**

# 15-20

**Number of factors each stock is adjudicated against.**

# 4

**Super Factors** – Balanced weight is assigned to super factors at the portfolio level. Contextual variables are applied to determine the weight of factors for each stock.

## Expanded Universe

The investment team manages the flagship Mackenzie Emerging Markets All Cap strategy to the MSCI Emerging Market IMI Index, but expands upon the index constituents to include more than 5,000 securities, versus at most, 30-50 securities covered by each analyst at a fundamental manager.

## Risk Management is Critical

Emerging markets are less transparent and more inefficient than developed counterparts, and political uncertainty is ever present. A key aspect of the quantitative approach focuses on managing risk at the portfolio and stock level.

In doing this, the team employs a multi-factor proprietary risk model to help control portfolio tracking error, volatility and the risk contribution of each stock, sector and country. Again, this differs from fundamental managers who typically employ off-the-shelf risk models.

Portfolio construction is largely guided by a constraint-based approach, which focuses on alpha generation while neutralizing common risk factors. The ultimate objective is to maximize portfolio expected return, net of round-trip implementation cost, subject to constraints set on common risk factors, such as capitalization and beta.

The process is continually reviewed and parameters may be adjusted. During the past two years the team has enhanced their stock-specific position limit model with the introduction of a liquidity/risk focused tool. In addition, the team utilizes its own fundamental and statistical risk models which are constrained at a slightly higher level compared to policy tracking error targets.

## Focus on Costs

Another critical consideration when investing in emerging markets is the relatively high trading costs compared to developed markets. The team has constructed a sophisticated transaction cost model, which helps them quantify the trading impact of each security by estimating round-trip transaction costs (market impact, commissions, stamp duties).

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**A quantitative approach allows the investment team to be nimble by incorporating daily changes in stock alpha forecasts, which should make trading more effective and efficient.**

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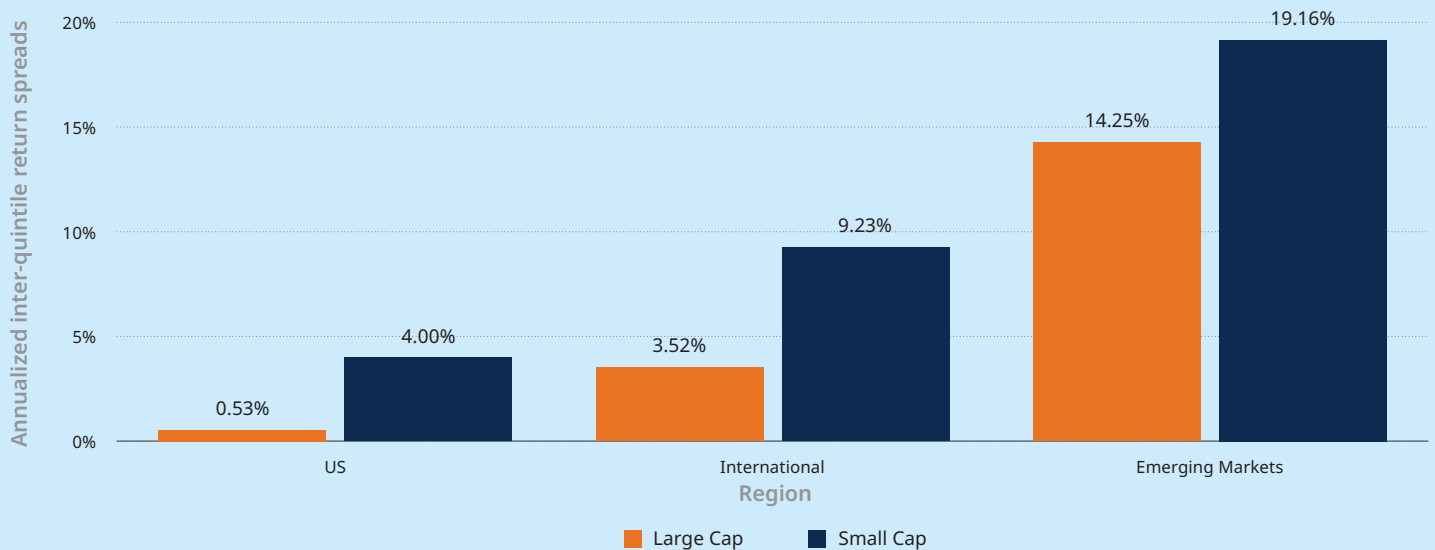
## Proprietary Risk Management Tools

- ✓ multi-factor risk model
- ✓ stock-specific position limit model
- ✓ fundamental & statistical risk models

# Fertile Ground for Alpha

Mackenzie's Global Quantitative Equity Team believes firmly that emerging markets are ripe for alpha now, as well as going forward. The chart below depicts a simple factor-based analysis of portfolios that blend stocks with both value and momentum characteristics. It shows the potential alpha opportunity in emerging markets and the historical added benefit of a small-cap focus. In their flagship strategy, Mackenzie Emerging Markets All Cap, the team attempts to position the portfolio to extract alpha in mid and small cap stocks, an area that they believe is particularly rich in potential alpha.

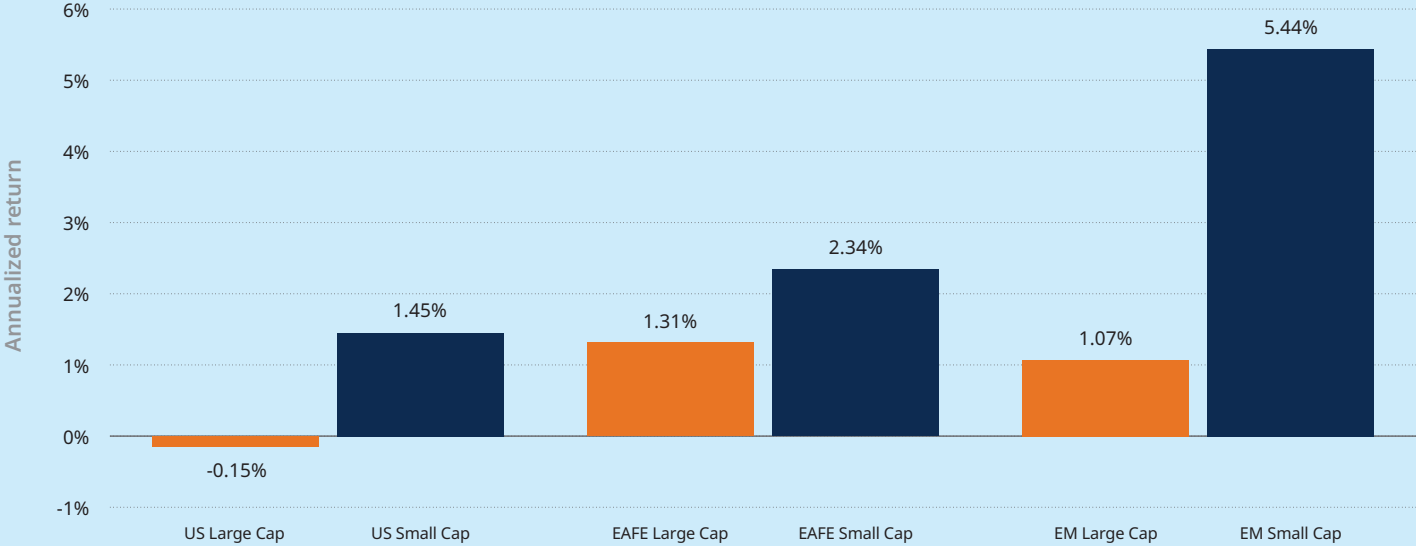
## Quantitative Alpha Efficacy



Provided for illustrative purposes only. Returns shown represent past performance, are not a guarantee of future performance and are not indicative of any specific investment. Represents inter-quintile return spreads using 50/50 blend of Value and Momentum from September 2002 – December 2018. Source: Mackenzie Global Quantitative Equity boutique proprietary research. Data source: Bloomberg

The potential benefits of emerging markets and small cap stocks can also be seen on a realized basis. The chart below serves as evidence that emerging market equities with a tilt towards small cap stocks truly has the potential to generate alpha over the long-term. There are several reasons for potential small cap outperformance in EM, but one major advantage for the team is having the ability to cover even more names in a less efficient landscape through their quantitative process.

**Mean Benchmark-Relative Excess Return for Active Managers 2010 - 2018**



Source: eVestment Universes. Returns shown are in USD and 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 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 continues to represent only a small portion of most plan sponsors' equity allocations.

While emerging markets have encountered high volatility, we maintain a strong belief in the growth rate potential of the companies and countries there, and the long-term return and diversification benefits of a broad-based allocation. We believe that the opportunities are plentiful within a broad emerging markets investment universe through a disciplined, risk-controlled investment process, as employed by Mackenzie's Global Quantitative Equity team.

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**We view the asset class as a critical component of the equity allocation puzzle.**

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## Contact us to learn more

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