ROBECO
The Investment Engineers

A QUANT APPROACH TO EMERGING MARKETS INVESTING

COLLECTED ROBECO ARTICLES

A quant approach to emerging markets investing

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We dedicate this book to our clients. Creating the book is made possible due to your continued belief in our quantitative strategies and solutions. We hope you enjoy reading it and can prosper using its insights.

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Foreword

The researchers at Robeco have assembled a fantastic collection of articles demonstrating powerfully that factor investing works in emerging markets. In fact, evidence suggests that factor investing works better in emerging markets than in developed markets. The rationale is compelling. Many factors generate excess return by capturing anomalies in markets. These anomalies are frequently related to persistent behavioral mistakes made by non-professional investors. It follows naturally that in the less mature markets with high participation by retail investors, the anomaly returns are also larger. Put in another way, since alpha is a zero-sum game, the larger the quantity of participants making novice mistakes, the greater are the profits for the disciplined investors on the other side of these ill-advised wagers.

Conducting research in emerging markets factor investing is much more than replicating the classic anomalies papers with emerging markets datasets. The enormous undertaking in data cleaning aside, there are other monumental challenges to overcome. First of all, the data length is much shorter than what's available from developed markets. This means even with a meaningfully larger factor (characteristics) premium than its developed markets counterpart, an emerging markets factor will struggle to produce a comparable t-stat to validate statistical significance.

Additionally, many factors are constructed from accounting variables. There are often differences in accounting practices across Emerging countries, and they are yet subtly different from those of developed markets. Naive ranking of securities based on scores derived from variables, which are superficially similar but draw on entirely different information, would not effectively capture the anomalous return. A natural corollary to non-comparable accounting variables also brings into focus important theoretical work, which is needed to advise investors on whether factors should be constructed with country or industry neutrality.

Many emerging markets, like China, are dominated by state-owned enterprises (SOE). These firms are perpetually value and low volatility, which are two of the most reliable factors for driving long-term portfolio success. However, evidence suggests that SOE firms are not what drive the value and low volatility returns. Concentrating into these stocks in one's value and low volatility factor portfolios will only dilute the factor premium with no added benefits. These local features are incredibly valuable to get right for efficient factor construction.

Finally, many anomalies that have stopped working in the U.S. are reportedly alive and well in emerging markets. This should be no surprise given the difference in market efficiency between the U.S. and the average emerging market. Simple accounting red flags like accrual no longer identify interesting short targets with suspect accounting practices; institutional investors, who dominate trading in the U.S., have largely priced in that information. However, the accrual-based signal appears to be effective in Emerging Markets. These retail-dominated markets are tricked by accounting manipulation; the gain from manipulation and the lax enforcement, in turn, encourage more manipulation.

Factor investing is an effective approach to access the alpha available in inefficient emerging markets. However, the research required to do it well goes far beyond the standard approaches derived from U.S. academic papers. Investors are reminded that the alpha potential also requires great patience and a strong heart at times. In markets with an army of unsophisticated speculators, irrationality can last longer than one's capital or conviction.

Jason Hsu
Chairman and CIO, Rayliant Global Advisors

Jason Hsu

Jason Hsu is the founder and CIO of Rayliant Global Advisors ("RGA"), a Hong Kong-based investment management group founded in 2012. Prior to his current role, Jason was the co-founder and vice chairman of Research Affiliates. He is a member of the board of directors at the Anderson School of Management at UCLA, as well as an adjunct Professor in Finance.

Introduction

This collection of articles is about factor-based investing in emerging market equities. It brings together 18 articles and research papers that provide an overview of Robeco's extensive expertise in this field. Most importantly, these articles demonstrate that emerging markets investors can reap the rewards of factor-based investing works in practice.

As Jason Hsu mentions in the foreword of the book, the rationale for factor investing in emerging market equities is compelling. Although the vast majority of empirical research on factors had until recently focused on developed market equities, numerous studies published over the past few years – including Robeco's own work – make a very convincing case for factor investing in emerging markets, as well.

The first article of Part A of the book illustrates this very clearly. It argues that while allocating part of an investor's holdings to passive emerging markets equities has historically increased the portfolio's risk-adjusted return, the gains of allocating to emerging markets are far greater when the well-known value and momentum factors are considered in the stock selection process.

In other words, while emerging stocks already represent an attractive segment of the global equity market for international investors, adopting a factor investing approach in this area can be even more beneficial. For one, the premiums attached to factors such as value, momentum quality and low volatility appear to be at least as strong and persistent as in developed markets. Robeco's groundbreaking research in this field, explained in Part B of this book, shows this very clearly.

Moreover, there are other reasons that make factor-based strategies particularly suitable for emerging markets. These include the fact that quantitative selection models make it easier for portfolio managers to systematically – and without prejudices – screen such a broad investment universe in search for investment opportunities, at reasonable costs.

However, this is only part of the story. In order to reap the maximum benefits of factor investing, investors must make sure they harvest factor premiums in the most efficient way. This is obviously true in developed markets and even more so in emerging ones, where practical implementation issues often make things slightly more challenging for investors.

These issues include relatively straightforward aspects such as lower liquidity, higher trading costs or currency conversion constraints, which can have a significant impact on net returns.

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But they also include more technical aspects, such as finding the most appropriate factor definitions, the efficient timing of trades or ensuring that the quality of data used to feed the selection model is good enough.

Once they decide to embrace factor investing in emerging markets, investors therefore need to be smart about it. This explains why the articles gathered in this publication focus not just on the empirical evidence supporting the existence of significant and persistent factor premiums across emerging markets, but also aim to help the reader better understand these anomalies, and their underlying causes. Part C of the book is specifically dedicated to these issues.

Meanwhile, Part D of the book focuses on how we, at Robeco, strive to make the most of factor premiums. The articles included in this chapter demonstrate our longstanding expertise in the fields of quantitative investing and emerging markets. They explain a number of techniques we have developed over the years to further improve how we implement factor investing in practice, always following our cautious pioneering investment philosophy.

Ultimately, the setup of the book is consistent with the three pillars of this philosophy. The first pillar is 'empirical evidence'. Our solutions must be backed by ample empirical research. This corresponds with the findings in the articles of Part B. The second pillar is 'economic rationale'. Persistent patterns in market data are not enough; we want to understand the underlying causes of these patterns. This corresponds with Part C. Finally, the third pillar is 'prudent investing'. We always remain cautious in the way we implement our strategies in practice, as shown in Part D.

Robeco started investing in emerging markets as early as the 1930s. We developed our first emerging markets stock selection models in the early 2000s and we have been running factor-based portfolios in emerging markets for more than a decade now. Among the latest and most exciting developments in this area are a suite of recently launched quantitative strategies that focus specifically on the Chinese A-share market.

These strategies build upon our consolidated know-how to provide straightforward access to one of the largest and most promising equity markets, which is slowly but surely opening up to foreign investors. As always, these solutions apply our cautious pioneering philosophy and are backed by rigorous and thorough research on A-shares, as some of the articles included in this book describe.

Another crucial area of development covered in the book is the integration of sustainability criteria in the investment process. While emerging markets and sustainability may not look like a straightforward combination at first sight, Robeco has first-class expertise in this area as well, which enables us to flexibly address ambitious sustainability goals. We launched our QI Emerging Markets Sustainable Active Equities fund in 2017 and all our quant solutions remain flexible and offer many customization possibilities, not just concerning sustainability aspects.

All the articles included in this collection can be read independently and, to give readers a hint of what they can expect, we have also included summaries at the beginning of each part. We hope this will help guide investors through the book. Ultimately, we hope this knowledge-sharing endeavor will help investors get a better sense of the promises but also the challenges of quantitative investing in emerging market equities.

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