

## **Understanding equity prices in frontier emerging markets**

Recent years have brought numerous academic studies devoted to finding commonalities in returns in global equity markets. Numerous regularities, including value effect, momentum, long-term reversals, low-risk anomalies, and other broadly acknowledged patterns, have been documented in over 40 equity markets around the world. All of these studies were underpinned by the fundamental questions of the stock market integration and its implication for the increasing price co-movements. Nevertheless, one class of equity has been escaping the attention of the academic community: frontier markets. In comparison with the multitude of studies devoted to developed or emerging markets, the frontier equities are still an unexplored land. With a few exceptions, such research is yet unavailable to the broad academic community, nor published in major academic journals. The major target of this paper is to fill this gap at least partially. This research makes an attempt to apply the models and techniques known from the studies of developed and emerging markets to the universe of international frontier markets.

What are frontier markets? As a subsection of the least developed emerging market, frontier markets are geographically and economically diverse and found all over the world – in Africa, Asia, Latin American, and Europe. These countries include Kenya, Nigeria, Egypt, Saudi Arabia, Bangladesh, Kazakhstan, Argentina, Romania, and many others – over 40 in total (according to various classifications). The frontier markets are very diverse. In terms of economic growth they range from the world's most impoverished countries to the wealthiest Gulf oil producers. Most have in common a desire to introduce market mechanisms to boost the economic growth.

The frontier markets are significantly under-researched – or almost entirely ignored – as they were frequently perceived too small, too risky, or too difficult to enter for global financial investors. Each month tens of thousands of research reports on stocks are produced in Germany, while in Nigeria – a country inhabited by over 170 million people – the number goes in hundreds.

From an investors' standpoint, the frontier markets are typically less developed than emerging markets generally – they have smaller market capitalization and liquidity, and they have lower correlation of price movements with other emerging and developed markets. Since they are growing at the ever quicker pace, this young generation might be destined to become tomorrow's more mature emerging markets. The potential for this growth is striking. While frontier markets account for 24% of the world's land area and 22% of global population, only 8% of global GDP comes from these countries. That gap is being closed rapidly as they catch up in production and consumption. The International Monetary Fund has projected that 10 of the 20 fastest growing economies by 2017 will be in sub-Saharan Africa, with two more in north Africa.

Frontier markets are not only growing faster – they share also a number of characteristics that make them relatively safe. They generally have lower debt and higher foreign-exchange cash piles in relation to their GDP. Many of them have enormous reserves of natural resources. Furthermore, the fast economic growth in these economies, outrunning the population growth, creates higher income per capita and fuels demand for consumer products. Mobile phones may serve as an example. While the number of subscribers in the United States per 100 people is 109, in Bangladesh it is only 64. The demand for consumer goods and services goes hand in hand with the need for infrastructure – electricity, roads, airports, etc.

Frontier markets have typically a low correlation to developed and emerging markets, as well as to other frontier nations. This is due, in part, to differences in the underlying industries and the distinct growth drivers in each country. All of the characteristics indicated above make frontier markets particularly interesting for international investors. Indeed, the current market capitalization of the frontier equities is very small. Nevertheless, the investments are growing very fast and frontier markets virtually the fastest growing asset class in the financial markets. Summing up, given the growth of the frontier markets and their future opportunities, they appear to be widely under-researched.

The study aims to analyze a broad range of return patterns documented in the mature equity markets and to verify whether they also apply to the frontier emerging markets. The examined patterns would form an investment universe for further studies on their properties, including their predictability, the impact of trading costs and illiquidity on their performance, as well as the integration of global financial markets.

The results will impact the development of financial sciences in three areas. First, they will widen the knowledge of how the prices in frontier markets are developed. Second, the soon-to-be developed instruments from this paper can be used in economic studies. Third, the research will have serious implications for the practice of financial markets. It will create valuable tools for frontier stock markets. This will not only be useful for strategic and tactical asset allocation, but may also result in new investment vehicles. The models studied and created in this way may allow a more precise measurement of investment performance.