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SMALLER EMERGING MARKET STOCKS – OPPORTUNITY OR DISTRACTION?

September 2015

EXECUTIVE SUMMARY

This paper describes the results of an extensive exercise undertaken to test the hypothesis that smaller emerging-markets equities ("EM small-cap") should be considered distinct from all-cap emerging-markets benchmarks when establishing and constructing longer-term strategic asset allocations for more sophisticated investors.

The analysis examined the performance characteristics of EM small-cap stocks and their deviations from both larger EM stocks and developed-market stocks. The study was designed to isolate the historical drivers of the performance of EM small-cap and examined the predictive nature of various factors in historical stock returns, as well as country, region and sectoral differences.

The conclusions are as follows:

- *Changes in benchmark composition have resulted in the standard EM equity benchmarks becoming more globalized. Specifically, country factors in returns attribution have declined, making a macroeconomic approach to EM investing less effective. Meanwhile, the stock-specific contribution to returns for EM small-cap has increased, providing increased scope to generate alpha through active stock selection.*

- *With high single-stock dispersions and positive risk/reward characteristics, EM small-cap offers a significant alpha-generation opportunity for active investors. Structural impediments, including transaction costs, a lack of reporting and lower-quality analyst data can be a source of performance drag for more passive, index-orientated strategies.*

- *If properly executed, investing in EM small-cap provides numerous potential benefits for asset allocators. These include diversification, greater dispersion and strong risk-reward characteristics. Given the alpha-generation opportunities in EM small-cap stocks, neglecting them represents a meaningful opportunity cost for investors.*

INTRODUCTION

This paper examines the performance characteristics of smaller EM stocks and their deviations from both larger EM stocks and developed-market stocks. An extensive study has been conducted, which was designed to isolate and interpret the historical drivers of EM small-cap stock performance, as well as document the changing nature of the market relevance of various characteristics. It examines the predictive nature of a number of factors[1] on historical stock returns, and also explores country, region and sectoral differences.

This survey of the analysis will begin with an examination of the structural impediments in indexing and will conclude with insights gained from statistically dissecting historical performance data. In certain instances, the outcomes are quite surprising. In others, they conform more closely to the conventional wisdom.

THE STRUCTURAL IMPEDIMENTS FACING EM EQUITY INVESTORS TODAY

Why benchmarking or indexing leads to poor diversification with respect to company and geography in the emerging markets.

Typically, investors in EM equities lean toward emerging countries with large stock-market capitalizations and large-capitalization companies.

There are three reasons for this:

- index investing and benchmarking;
- difficulty in conducting proprietary research; and
- structural impediments to investing in certain countries or smaller companies.

As of April 30, 2015, over 55% of the MSCI EM Index was represented by its four most heavily weighted countries: China, Korea, Taiwan and Brazil. If Chinese A-shares achieve full inclusion in the index, China alone could represent about 45% of the larger-stock index. An interesting comparison of the large and small-cap EM benchmarks (the MSCI Standard and Small Cap Emerging Markets indices) shows that the concentration of the large-stock index is 19.11% in the top ten stocks by weight in the index, in contrast to the small-stock index, where the top ten stocks equal 3.04% of the index. This diffusion in the small-cap index provides broader exposure to a more diverse range of companies.

The state-owned enterprise drag on EM performance

The large presence of state-owned enterprises (SOEs) is a major structural impediment in the EM index. State-owned companies are a large component of the EM benchmark, particularly in countries such as China and India. These companies frequently do not act in the best interests of their shareholders. Their index representation makes investing in EM large-cap stocks more challenging, as state-owned companies often destroy shareholder value for strategic reasons or in the national interest. Data from the CEIC shows that returns on assets from private companies have been consistently and significantly higher than those from SOEs.[2] The EM small-cap benchmark contains much less exposure to SOEs.

Global exposure in the EM index

Over recent years, a closer relationship has developed between emerging markets and the developed world. For investors, this reduces the opportunity to diversify through investing in EM stocks. The correlation between emerging countries and developed countries has increased as their markets have become more global. This is particularly true of markets with global sector orientation, such as China, Mexico and Taiwan.[3] At the same time, the country factor (the contribution of country to EM returns) has been declining. As the efficacy of country allocation decreases, the alpha potential from macro allocation has shrunk and has moved closer to that of developed markets.

[1] The factors examined were categorized as value (dividend yield, EV/EBITDA, earnings yield, price to book value, cash flow yield); momentum (monthly price change, quarterly price change, semiannual price change, annual price change); quality (quick ratio, interest coverage, ROA, ROIC, ROE, gross profit over total assets); and growth (ROE growth, ROA growth, earnings growth, dividend growth).
[2] https://www.ceicdata.com/en/countries/china.
[3] Credit Suisse Global Investment Returns Yearbook, "Emerging Markets Revisited", Dimson, Marsh, and Staunton, London Business School

As EMs become a critical asset class for asset allocators, larger-cap stocks are widely researched

Given growing investor interest and an increasingly global orientation, larger-cap EM stocks are more intensively researched and have become more efficiently priced. As a consequence, these stocks now offer fewer opportunities for alpha generation. This is indicated by an increase in trading volumes and liquidity in emerging markets, which have resulted in lower bid-ask spreads. This structural challenge contributes to the correlation with developed markets referred to earlier.

Where are the best opportunities in emerging equity markets?

The long-term favorable economic profiles of many EM countries are well documented. The emerging markets have exhibited a 10-year CAGR (cumulative annual growth rate) of 11.5% nominal GDP growth, compared with a 3.9% CAGR for the US.[4] What is often less examined is the sub-segment of EM equities with lower market capitalization. This segment remains less efficient than the larger-cap segment, offering investors the opportunity to generate substantial alpha and participate in the growth of the emerging economies.

Information inefficiency

Information on EM small-cap stocks is much less readily available than for their large-cap peers. Analyst coverage of smaller-cap stocks is significantly lower than that of developed-market or larger EM companies. As at May 29, 2015, the median number of analysts covering the EM small-cap universe was just three. This compares with 14 for the MSCI Emerging Markets Index and 18 for the S&P 500.[5] Gaining knowledge in small-caps requires more effort, more travel to local markets and greater interaction with management to understand company strategy and challenges, as well as accounting nuances. Asymmetry in information is particularly relevant when evaluating corporate governance and ESG (environmental, social, and governance) issues at a company level. ESG concerns in particular are complex and difficult to assess using quantitative or macro-oriented research methods.

The small-cap segment also has a greater number and diversity of companies than the large-cap segment. The MSCI Emerging Market Small Cap Index includes close to 1,800 stocks, compared with a more concentrated 833 for the standard MSCI Emerging Market Index.

Small-caps offer broader geographic exposure to the EM countries

The EM small-cap asset class provides a significant opportunity for geographic diversification. By comparison with larger-cap stocks, EM small-cap stocks are less exposed to the BRIC countries (Brazil, and Russia, India and China), as the weightings to Brazil and Russia are meaningfully lower. Although the country-specific contribution to returns in emerging markets has diminished, examining a breakdown of the country exposure illuminates a number of thematic exposures for EM small-cap stocks:

- less exposure to global cyclicals (Brazil and Russia);
- greater exposure to information technology (Taiwan); and
- greater exposure to countries with current-account surpluses.[6]

Owning an index-oriented portfolio populated with large EM stocks may result in a portfolio that is skewed toward globally exposed and more cyclical stocks. Such stocks are innately exposed to the developed world and, in certain cases, are commodity-oriented and negatively correlated to the US dollar.

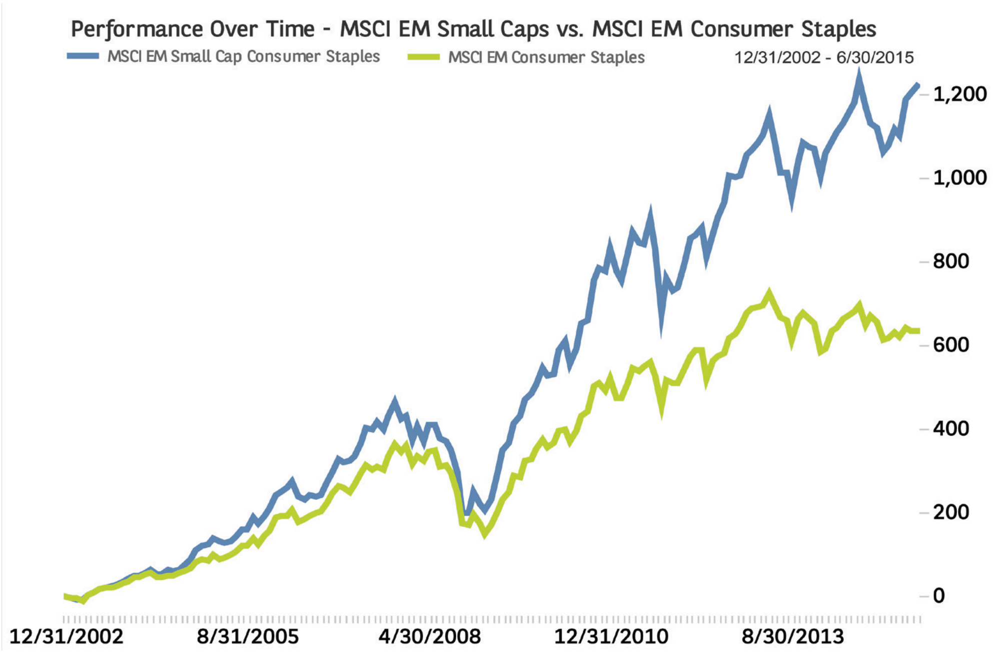
Local orientation and independence are important because:

- EMs are growing faster than developed markets;
- independence from government involvement allows companies to focus on delivering shareholder returns (rather than promoting other agendas); and
- smaller independent companies are by nature more entrepreneurial, as their managements cannot rely on government backing or diversity of business for success.

[4] JPMorgan EM Dashboard, May 28, 2015
[5] Source: FactSet, MSCI and BNP Paribas Investment Partners
[6] EM small-cap exposure to current-account-surplus countries is 72.1% of the index compared with 65.8% for EM standard, as of May 2015 – FactSet

The sector that best demonstrates the efficacy of local orientation is consumer staples, with its stable earnings and generally high return on invested capital (ROIC). Emerging-market consumer companies with strong brands have experienced generous levels of growth in demand over the last 15 years. This has come as consumer income has risen, producing an expanding middle class. The best managed of these companies have been able to generate strong and often improving ROIC. As these firms are more likely to be in oligopolistic industries, the potential exists for continued long-term value creation, as resilient market growth and high returns drive strong reinvestment opportunities. This value creation is exhibited through an enhanced return profile for number of EM small-cap sectors relative to the corresponding larger-stock EM sectors over the last 15 years. This is shown in Figure 1 below.

Figure 1: Small-cap vs. large-cap stock performance in the EM consumer-staples sector



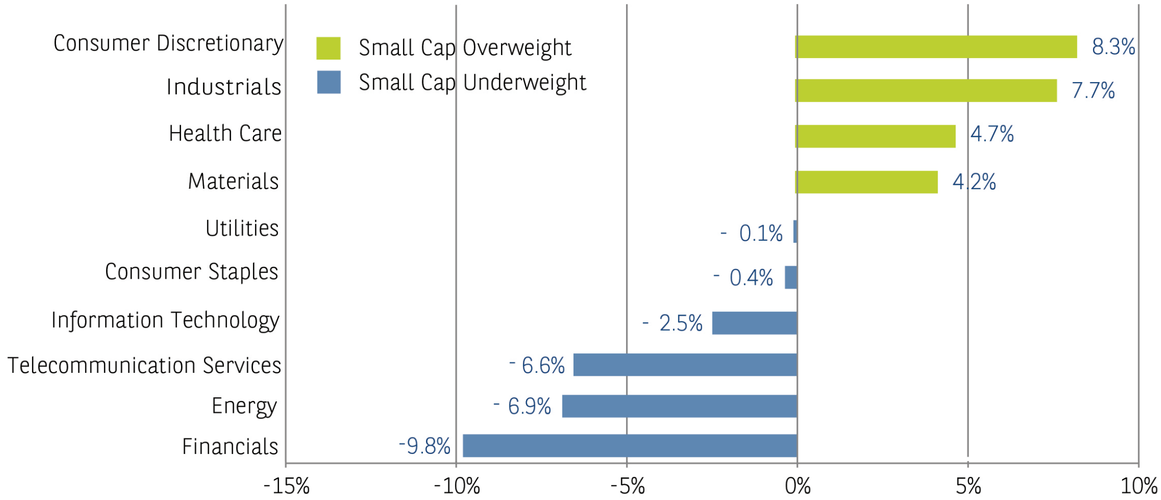
Source: Morningstar Direct, as of June 30, 2015

The performance improvement is evident beyond the consumer staples sector. Other, more cyclical sectors like materials and financials also show similar historical return comparison patterns.[7] The better performance of smaller-cap stocks represents the improved opportunity set for smaller, more nimble and more market-driven companies, as well as the absence of SOEs in this segment of the market.

A comparison between the MSCI Emerging Markets Index and the MSCI Emerging Market Small Cap Index indicates a potential improvement in sector exposure through investing in EM small-cap, with enhanced exposure to the consumer and healthcare segments of the market. The MSCI Emerging Market Small Cap Index provides more exposure to both the domestic growth drivers and the emerging middle class in those countries. This is exhibited in Figure 2 by the increased weight accorded to consumer sectors and healthcare, and the lower dependence on financials and energy.

[7] GICS sectors from FactSet

Figure 2: Relative sector weighting – MSCI Emerging Markets Small Cap vs MSCI Emerging Markets

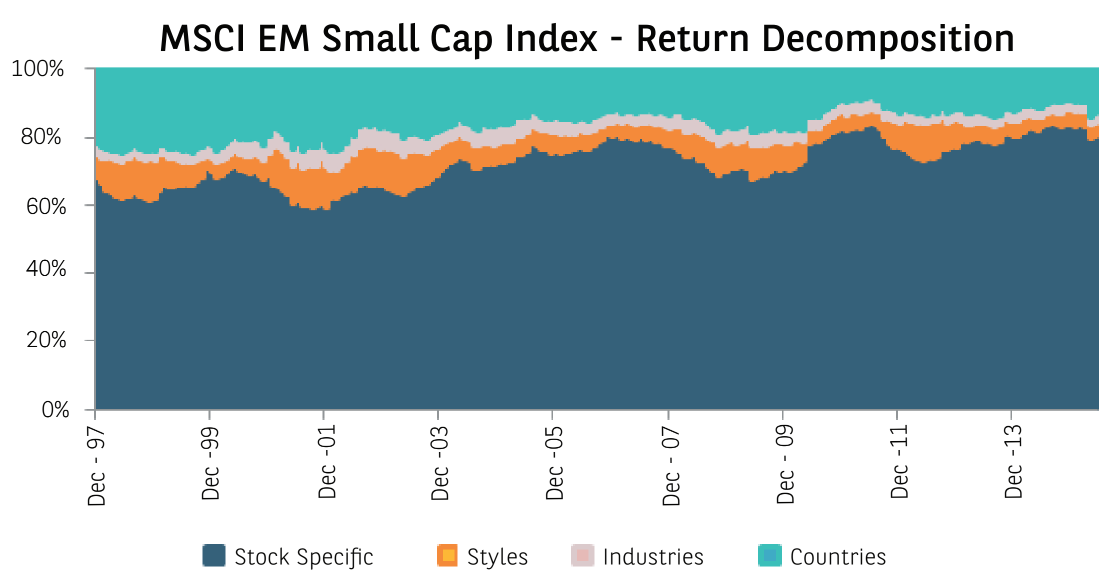


Source: FactSet. Past performance is not a reliable indicator of future performance.

EM SMALL-CAP COMPANIES HAVE IDIOSYNCRATIC RETURN PROFILES

Given the lower amount of information available and the lack of transparency in EM small caps, the stock-specific aspect of return decomposition favors active management. Enterprising investors with the resources and capability to perform bottom-up fundamental research can, therefore, potentially benefit from the availability of idiosyncratic returns. Figure 3 below shows the decomposition of returns in the EM small-cap universe. The large contribution from stock-specific factors is clear, as is its greater relevance to small-cap stocks.

Figure 3: Decomposition of returns in the EM universe



Source: MSCI Barra. Past performance is not a reliable indicator of future performance.

HISTORICAL PERFORMANCE FACTORS

The changing composition of EM small-cap returns and the drivers of performance

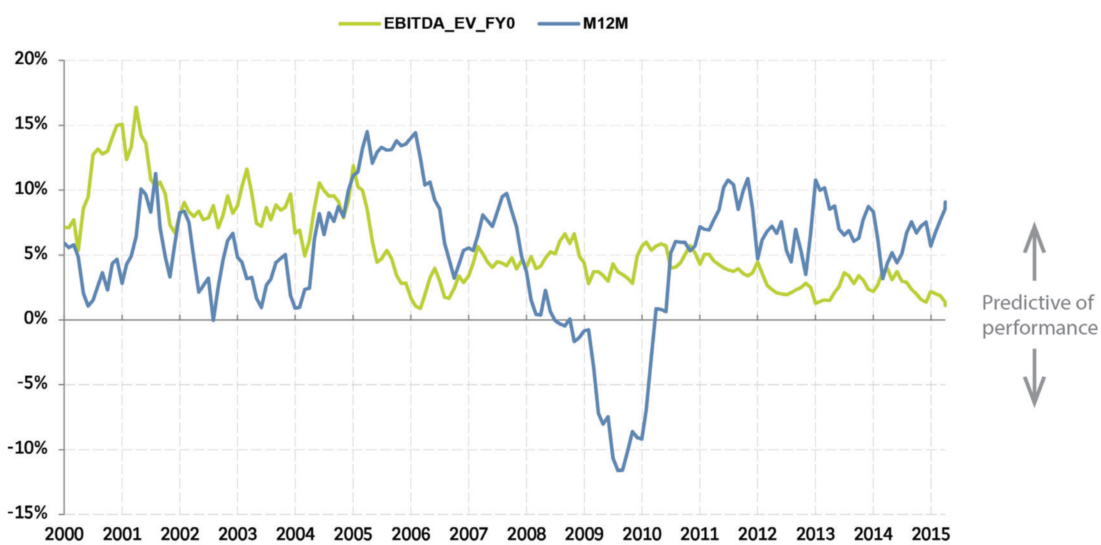
The majority of empirical research on various factor effects, such as value and momentum, has been focused on the US and developed markets. This is despite the fact that emerging markets have been growing their share of the global equity markets. Thirty years ago, emerging markets made up only 1% of the world's equity-market capitalization and just 18% of global GDP. Today the emerging markets total 13% of the free-float investable universe of global equities and over 33% of the world's GDP.[8]

A likely explanation for the focus on developed markets by researchers is a lack of long-term data for emerging markets. Recent academic research provides evidence of both value and momentum effects in emerging markets. The value effect, which has been well documented in academic research for developed markets,[9] refers to the positive relationship between security returns and fundamental measures of value (e.g. book value/price ratio, cash flow/price, dividend yield). In 2012, a comprehensive study[10] investigated the size patterns in value and momentum in 18 EM countries and categorized the results into three regions. The findings indicate that the value effect is statistically significant for emerging markets and that its impact is similar across small and large-cap stocks.[11] In contrast, the momentum effect in emerging markets was found to be meaningfully larger for small stocks, a result that is consistent with the findings in developed markets.

For this paper, a thorough research exercise was conducted on the EM small-cap universe, defined for purposes of simplicity and consistency as the MSCI Emerging Markets Small Cap Index. While a number of interesting results emerged, the specific data included in this paper is the most relevant to the study of long-term drivers of performance in EM small-cap equities.

Figure 4 shows one of the more important points: that valuation (as represented by the rolling monthly EV/EBITDA measure – enterprise value divided by the last 12 months' EBITDA) has become less predictive of performance in the EM small-cap universe over the last 15 years. Moreover, valuation has been noticeably declining in relevance over the past five years (following the global financial crisis). This does not indicate that valuation is entirely lacking in predictive power, but that this fundamental factor has been less effective recently and is likely to be more effective when combined with other factors.[12]

Figure 4: Global EM small-cap rolling monthly rank information coefficients (ICs) [13]



Source: BNP Paribas Investment Partners, Macquarie. Past performance is not a reliable indicator of future performance.

[8] Credit Suisse 2014 Global Investment Returns Yearbook; Dimson, Marsh, and Staunton, London Business School

[9] Fama and French, (1998, 2012) Size, value, and momentum in international stock returns, Journal of Financial Economics 105 (2012) 457-472; Rouwenhorst, 1998; Asness, Moskowitz, and Pedersen, 2009

[10] Cakici, Nusret and Fabozzi, Frank J. and Tan, Sinan, Size, Value, and Momentum in Emerging Market Stock Returns (April 15, 2012). Fordham University Schools of Business Research Paper No. 2070832. Available at SSRN: http://ssrn.com/abstract=2070832 or http://dx.doi.org/10.2139/ssrn.2070832

[11] Cakici, Fabozzi and Tan indicate that, for emerging markets, the value effect is statistically significant and similar across small and large-capitalization stocks. This is inconsistent with what has been reported in developed markets, where the value premia are much larger for small stocks.

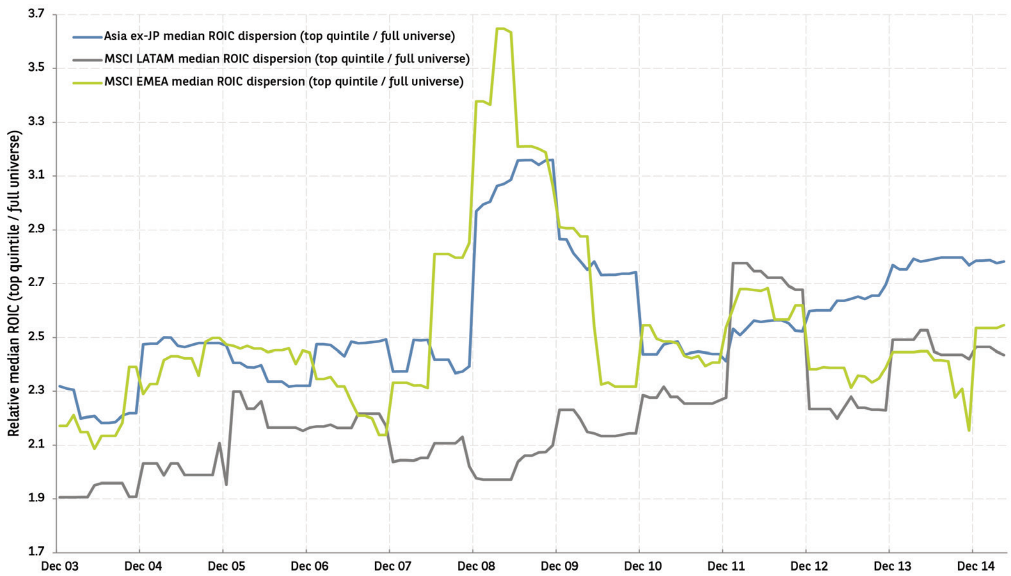
[12] Cakici, Fabozzi and Tan: Study suggests that for emerging markets a simple equal-weighted portfolio of value and momentum returns has lower volatility and higher Sharpe ratio relative to value or momentum returns alone

[13] The Spearman's rank correlation method was applied to calculate information coefficients (ICs) using monthly data.

In contrast to the decline in the importance of valuation, momentum (12-month trailing stock performance) has maintained strong predictive power, particularly over the last five years. Specifically, the 12-month trailing-return momentum factor has superior predictive performance relative to shorter-duration momentum (1, 3, or 6 months). The usefulness of the momentum factor has to be viewed in the context of the negative skew exhibited during market drawdowns and inflection periods. Despite this shortcoming, in recent years the momentum factor has been quite effective in predicting returns.

There are several explanations for the effectiveness of momentum, or, in other words, the continuing strong performance of "winners". These include the increased and high dispersion in return on invested capital (ROIC) among companies during the past five years, as well as the traditional behavioral aspect of investors' reactions to news flow.

Figure 5: ROIC dispersions in Asia, Latin American and EMEA

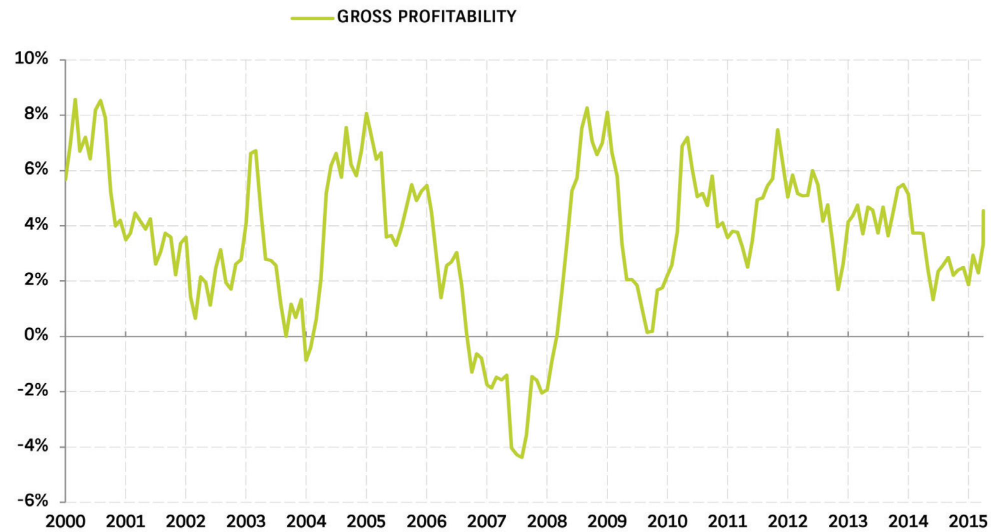


Source: BNP Paribas Investment Partners, Macquarie. Past performance is not a reliable indicator of future performance.

As shown above in Figure 5 above, ROIC dispersion has increased in all three EM regions: Asia, Latin America and EMEA (Europe, the Middle East and Africa). This indicates that the companies generating the highest ROICs have become more differentiated relative to the full EM universe. In addition to ROIC, another indicator of higher quality is gross profit to total assets ratio. Gross profit is among the cleanest accounting measures of true economic profitability, as net earnings are prone to accounting anomalies across companies. Empirically gross profit to total assets has been found to be an effective predictor of portfolio returns.[14] The gross profit to assets indicator exhibits meaningful explanatory power when viewed in isolation, as shown in the rolling monthly information coefficient chart below in Figure 6. This measure is complementary to the visible increase in dispersion in ROIC (Figure 5). The performance differentiation between stocks with superior ROIC and gross profit to the market average is further recognizable through the positive contribution of the momentum factor demonstrated earlier.

[14] Novy-Marx, Robert, "The Other Side of Value: The Gross Profitability Premium," Journal of Financial Economics, 108(1), 1-28, 2013.

Figure 6: Global EM small-cap gross profitability – rolling monthly rank ICs



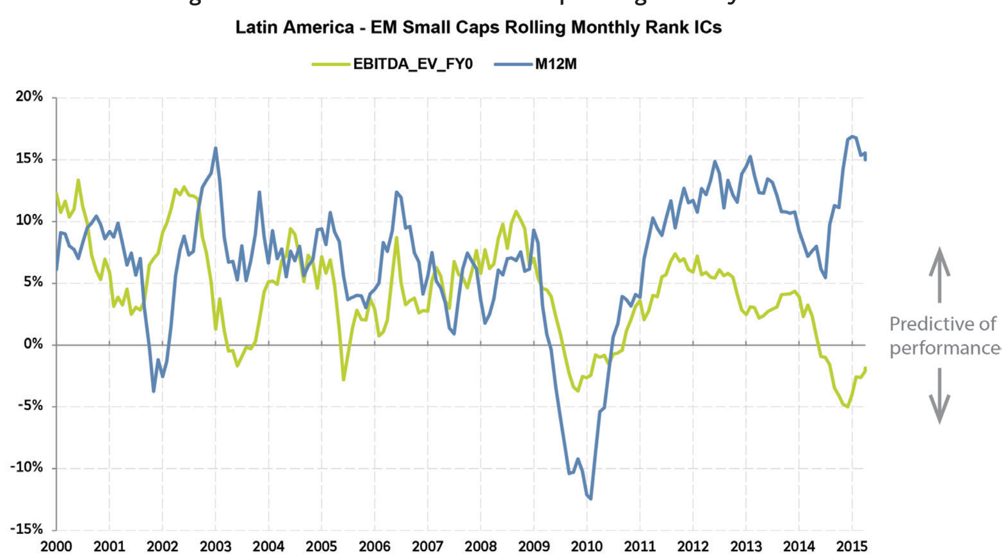
Source: BNP Paribas Investment Partners, Macquarie. Past performance is not a reliable indicator of future performance.

Regional Differences

To explore regional differences in the drivers of returns, data from the study was aggregated into three regions: Asia, Latin America and EMEA. Country-level factor regressions were also performed. Given the variability in the number of stock constituents and the average daily trading volume, the regional approach was deemed to be more statistically robust.

The analysis reveals an intriguing difference between results in the Latin American region and those in Asia and the broader small-cap universe. Specifically, the more recent returns in Latin America are largely driven by momentum factors rather than valuation (as measured by enterprise value to EBITDA as defined earlier).[15] As shown in Figure 7 below, momentum has clearly outperformed value as a predictor of stock returns over the past 15 years.

Figure 7: Latin American EM small-cap rolling monthly rank ICs



Source: BNP Paribas Investment Partners, Macquarie. Past performance is not a reliable indicator of future performance.

[15] Latin America is defined as Brazil, Chile, Colombia, Mexico and Peru. Asia is defined as China, India, Indonesia, Korea, Malaysia, Philippines, Taiwan and Thailand. EMEA is defined as the Czech Republic, Egypt, Greece, Hungary, Poland, Russia, South Africa and Turkey

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DOES THE HISTORICAL ALPHA-GENERATION POTENTIAL IN EM SMALL-CAP STOCKS STILL EXIST?

One important consideration is whether past opportunities in the asset class are still available to investors today. The evidence indicates that they are. When the EM universe is ranked by market capitalization, the bottom 30% presents a more attractive growth and valuation profile than the broader EM benchmark. This is shown in Figure 8.

Figure 8: Segmentation of valuation by market cap – MSCI Emerging Markets Index

Market Cap (US$ Million)	Portfolio Weight	Price to Book	Dividend Yield	P/E FY1 Estimate	PEG FY1 Estimate	Price/Cash Earnings
MC Decile 1: 23,473 +	43.14	1.91	1.86	13.8	1.35	8.16
MC Decile 2: 13,531 - 23,381	15.91	1.96	2.05	14.9	1.47	12.62
MC Decile 3: 9,665 - 13,515	10.35	2.57	1.66	16.8	1.28	16.32
MC Decile 4: 7,386 - 9,659	7.23	2.15	1.87	15.8	1.32	11.80
MC Decile 5: 5,697 - 7,372	6.55	2.26	1.68	16.5	1.30	13.41
MC Decile 6: 4,352 - 5,686	4.81	1.42	1.66	15.5	1.48	11.48
MC Decile 7: 3,500 - 4,347	4.07	1.84	1.79	16.8	1.32	12.01
MC Decile 8: 2,729 - 3,498	3.42	1.50	1.84	13.9	1.16	10.60
MC Decile 9: 1,956 - 2,727	2.68	1.48	1.93	15.5	1.17	10.14
MC Decile 10: 258 - 1,938	1.84	1.20	2.61	13.8	0.97	9.34
Median - Emerging Markets		1.82	1.92	15.1	1.31	11.61
Average - Mid / Large Cap Segment	92.06	2.01	1.80	15.74	1.36	12.26
Average - Small Cap Segment	7.94	1.39	2.13	14.39	1.10	10.03

Holdings Data As Of
MSCI Emerging Markets 5/29/2015

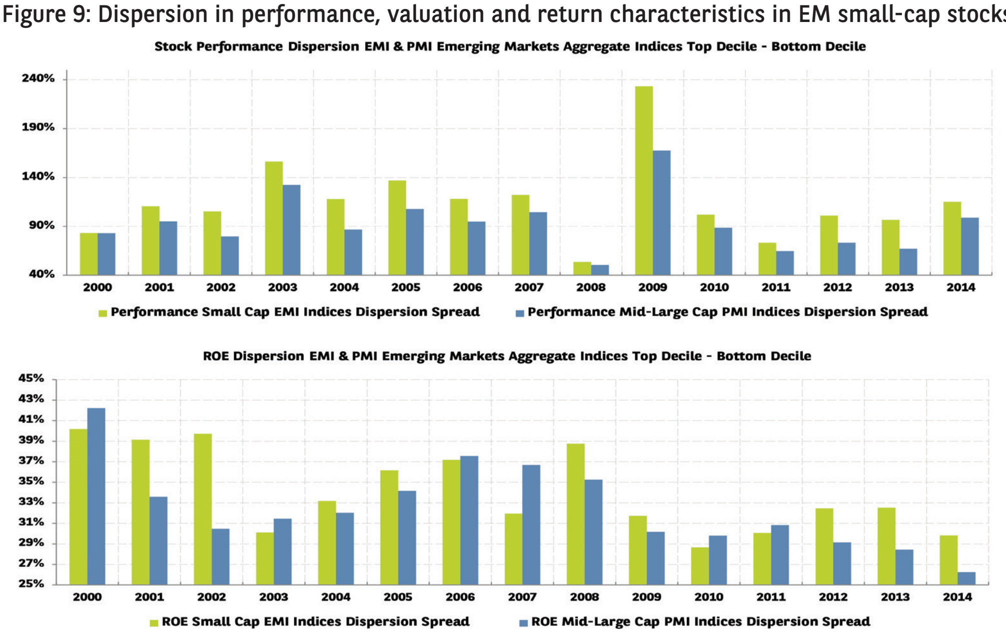
Source: FactSet. Past performance is not a reliable indicator of future performance.

Figure 8 decomposes the MSCI Emerging Markets Index into deciles based on the number of stocks, organized from high to low by market capitalization. The averages in the highlighted section show a positive contrast in valuation between the smaller segment of the market and the higher market cap. The smaller-cap stocks are cheaper on a number of valuation metrics and also offer more growth per dollar of investment.

The historical trend in performance dispersion and valuation disparity continues to create opportunities today

Over time, EM small-cap stocks have demonstrated higher performance dispersion than the rest of the EM universe. This is shown in the first series in Figure 9 below. Similar dispersion exists in valuation among EM small-cap stocks, as shown in Figure 8 above. The larger valuation disparity indicates that inefficiencies continue to exist in this segment of the market. This is further substantiated when returns characteristics are taken into consideration, as shown in the second series of Figure 9.

Figure 9: Dispersion in performance, valuation and return characteristics in EM small-cap stocks



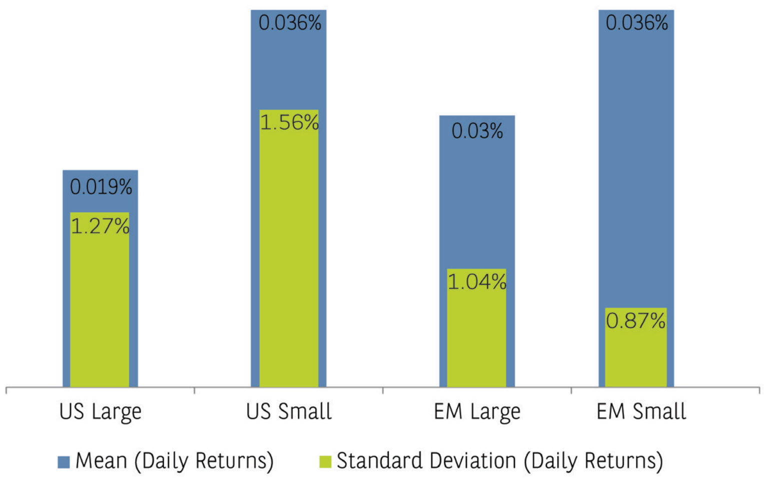
Source: BNP Paribas Investment Partners, Macquarie. Past performance is not a reliable indicator of future performance

The time series in Figure 9, together with the valuation metrics in Figure 8 above, reflect inefficiencies that offer opportunities to the active, and well-informed investor. There are several reasons for this. Active interaction with a meaningful number of companies is difficult and time-consuming. Moreover, barriers of language and cost are high. As a result of these factors, the EM small-cap universe remains inefficient.

INVESTORS CAN EXPLOIT EM SMALL-CAP INEFFICIENCIES

This inefficient universe provides opportunities to achieve strong, uncorrelated performance from the EM small-cap asset class. Returns from EM small-cap stocks have outpaced the average returns from the broader EM universe. Over the past decade, EM small-cap equities have also delivered higher risk-adjusted returns than developed-market equities, as set out in Figure 10.

Figure 10: Returns relative to volatility – US and EM indices



Source: BNP Paribas Investment Partners, FactSet. Calculated using daily returns for the Russell 1000; Russell 2000; MSCI Emerging Markets Standard Index; MSCI Emerging Markets Small Cap Index. Date range: January 2000-May 2015. Past performance is not a reliable indicator of future performance.

The disparity in returns tends to be idiosyncratic – that is, not systematic or correlated with the market – making the EM small-cap asset class well suited for the diversification purposes of any portfolio.

Over the past decade, EM small-cap equities have also delivered higher risk-adjusted returns than developed-market equities. This is shown in Table 1 below:

Table 1: Risk-adjusted returns (Sharpe ratios), May 2015[16]

Index	10 year
MSCI EM Small Cap	0.47
MSCI EM	0.41
MSCI World	0.38
MSCI EAFE	0.30

Source: MSCI, May 2015

The structural impediments discussed above – benchmarking, liquidity, the problems of proprietary research, and the difficulties inherent in evaluating smaller companies – indicate that the inefficiencies in the EM small-cap universe are likely to persist. These inefficiencies are primarily accessible to investors who have the necessary resources, a local presence, a longer-term investment horizon and a thorough bottom-up approach. All of these characteristics can help investors overcome the hurdles associated with investing in EM small-cap stocks to capture the potential alpha generation in the market.

[16] Source: MSCI

CONCLUSION

An increasingly globalized world has narrowed the opportunity set for investors who seek diversification, uncorrelated returns and alpha in equity markets. The above examination shows that there are significant differences in the fundamental characteristics of the MSCI Emerging Markets Index and the MSCI Emerging Markets Small Cap Index. Today, the greatest alpha-generation potential in emerging markets lies in the smaller-cap segment of the market, where high single-stock dispersion and positive risk/reward characteristics exist. By their nature, constituents of the Small Cap Index are a minor part of their respective countries' economies. This is not the case, however, for the companies included in the larger-cap MSCI Emerging Markets Index. As a result, EM small-cap stocks are less exposed to the global macroeconomic themes that increasingly characterize the large-cap segment of the market.

Smaller EM stocks naturally capture the beta return that is associated with exposure to EM equities. Moreover, investors have additional opportunities to capture alpha (idiosyncratic risk) through a broader spread of investment opportunities if they can overcome the aforementioned structural impediments. Specifically, active interaction with a meaningful number of companies is difficult and time-consuming, and there are also barriers of language and cost. This provides well-resourced (and energetic) fundamental managers distinct advantages.

The EM small-cap asset class represents a deep and diverse group of stocks with meaningful potential for excess returns. A dedicated allocation to this asset class provides numerous potential benefits for investors. These include diversification, greater dispersion and strong risk-reward characteristics. Given the alpha-generation opportunities in EM small-cap stocks, neglecting them represents a meaningful opportunity cost for investors. Historically, ignoring EM small caps has resulted in a material sacrifice in returns. Given the persistence of the structural impediments to successfully navigating EM small cap investing, sophisticated investors should consider smaller EM equities as a distinct asset-allocation decision when constructing portfolios.

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BIOGRAPHY

Don Smith, CFA, Chief Investment Officer, Global Emerging Market Equities

Don is the Chief Investment Officer, BNP Paribas Investment Partners' Global Emerging Markets Equities Investment Center where he is responsible for all aspects of portfolio management.

Prior to joining the firm, Don worked for Turner Investments for 11 years where he held positions such as Emerging Markets Equity Portfolio Manager; Co-Lead Manager: Turner Resource and Infrastructure Long/Short Fund; Lead Analyst: Metals and Mining; and Co-Portfolio Manager, International and Global Growth Portfolios.

Prior to Turner, Don was an analyst on the Growth Equities team at Delaware Investments. He started his career as an Analyst at Miller Anderson & Sherrerd and has over 16 years of investment experience managing emerging markets and global equity strategies.

Don earned his BS from Syracuse University and his MBA from Massachusetts Institute of Technology (MIT) Sloan School of Management.

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