Nomura Asset Management U.K. Ltd.
Frontier Equities as a stand-alone asset class

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Are Frontier markets irrelevant?

Frontier Markets (FM) today offer parallels to Global Emerging Markets (GEM) of 20 years ago. Looking back to GEM in 1993, which at that time was around half a decade post the creation of the GEM index in 1988, similar criticisms and throwaway comments were made of the asset class. GEM was considered a limited opportunity set. It represented less than 10% of global GDP and around 2% of the MSCI World index. Only 12 countries were included with marked differences in size, economic drivers and political and market systems. Malaysia, for example had a weighting of around 20% of the index. GEM was still very much at the nascent stage; China and Taiwan were not included until 1996 and 2000 respectively.

Today GEM consists of 24 countries, representing US$6 trillion and 43% of global GDP while Frontier mirrors the nascent stage of GEM 20 years ago; 24 countries in the index, US$100 billion market cap and less than 1% of global weight. We believe this will change dramatically, not only over the next 20 years but in the next 3-5 years.

One could dismiss Frontier companies as irrelevant but innovation and first-mover activities by companies such as Kenyan mobile operator Safaricom have been incredible across the Frontier space. Safaricom’s mobile payment system, M-Pesa, has been adopted by Vodafone subsidiaries not only across Africa but also in Eastern Europe. Today across sub-Saharan Africa, there are 100 million mobile payment accounts, more than physical bank accounts.

Changes that occur globally are often very hard to predict. We’ve seen some major changes in the GEM index over the past 20 years; from China’s entry in the WTO to a doubling of international trade/GDP, to democratic transitions in major countries such as Indonesia. There have been major crises along the way including the Tequila crisis, Russian debt crisis, Asian crisis and more recently the global financial crisis. Nevertheless, since its inception GEM has returned 2000% (exhibit 1).

Exhibit 1: MSCI Emerging Markets – Total Return Index (USD)

Source: Datastream 18/3/15.
Are Frontier markets more risky?

The most objective risk statistics show that Frontier markets are no more risky or volatile than other asset categories. In exhibit 2 the correlation statistics contrast the correlation co-efficients within major EM and Frontier markets. What you can see here empirically is what we feel intuitively.

Frontier is a heterogeneous asset class with very different return characteristics whereas the GEM market countries are highly correlated with each other and the index with an average correlation of 0.7. Frontier markets are much less correlated with each other with an average correlation of 0.4.

We believe there are two main reasons for this. The first is that Frontier stock markets are often dominated by domestically-oriented sectors such as banks, telecommunications and consumer companies that are driven more by the local economy than by global macro trends. The empirical data supports the diversification virtues of frontier markets. As the table in Exhibit 3 demonstrates Frontier markets are dominated by local factors and even within large regional blocks such as the Gulf, correlation across major FMs is weak.

The second reason is that FMs are not really in the global flow. Total passive money in Frontier is only about US$300m and local equity markets are still very retail-dominated. There is much lower chance of contagion. A currency devaluation in Argentina is unlikely to impact business opportunities in Nairobi or retail sentiment in Saudi Arabia, for example.

Exhibit 2: Emerging Markets Correlations vs. Frontier Markets Correlations

<table>
<thead>
<tr>
<th>Emerging Markets Correlations</th>
<th>MSCI EM</th>
<th>Frontier Markets Correlations</th>
<th>MSCI Frontier</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI China</td>
<td>0.787</td>
<td>MSCI Kuwait</td>
<td>0.472</td>
</tr>
<tr>
<td>MSCI Korea</td>
<td>0.807</td>
<td>MSCI Nigeria</td>
<td>0.453</td>
</tr>
<tr>
<td>MSCI Taiwan</td>
<td>0.702</td>
<td>MSCI Argentina</td>
<td>0.443</td>
</tr>
<tr>
<td>MSCI India</td>
<td>0.675</td>
<td>MSCI Pakistan</td>
<td>0.287</td>
</tr>
<tr>
<td>MSCI South Africa</td>
<td>0.735</td>
<td>MSCI Kenya</td>
<td>0.402</td>
</tr>
<tr>
<td>MSCI Brazil</td>
<td>0.774</td>
<td>MSCI Oman</td>
<td>0.398</td>
</tr>
<tr>
<td>MSCI Mexico</td>
<td>0.715</td>
<td>MSCI Vietnam</td>
<td>0.335</td>
</tr>
<tr>
<td>MSCI Russia</td>
<td>0.665</td>
<td>MSCI Kazakstan</td>
<td>0.485</td>
</tr>
<tr>
<td>MSCI Malaysia</td>
<td>0.597</td>
<td>MSCI Lebanon</td>
<td>0.100</td>
</tr>
<tr>
<td></td>
<td>0.717</td>
<td></td>
<td>0.437</td>
</tr>
</tbody>
</table>

Source: Bloomberg. Correlation Data based on 3 year, weekly.

Exhibit 3 demonstrates the heterogeneous aspects of the asset class in returns. Kenya is an economy that has grown steadily at about 5% across various sectors including banks and telecoms. Over the past 3 years we have seen a total return of about 300%.

Pakistan has shown fairly consistent earnings growth, cleaned up its banking system and achieved some marginal improvements in micro reforms giving a 200% return over the last 3 years.

Nigeria on the other hand is more volatile. GDP was revised up by 85% last year and actually shows the economy is more diverse than originally thought, with oil revenue making up only 17% of GDP. The real problem is that Nigeria is still heavily fiscally dependent on oil revenues which currently make up about 2/3 of the fiscal take.

From the chart we can also see that Ukraine was in trouble well before the Crimean conflict with a recession that hit in 2012 with deep structural imbalances.
Exhibit 3: Heterogeneity of Frontier market returns

Source: Thomson Reuters.
Why not allocate to a GEM manager who provides exposure to Frontier markets?

We do not believe this is a good way to get exposure for two reasons.

1. Unlikely to be meaningful. GEM or global managers who dabble in Frontier are unlikely to provide meaningful exposure. If we look at total active GEM manager exposure from EPFR data we see that the average GEM fund manager currently has less than 1% aggregate exposure to the four major Frontier markets (Kenya, Argentina, Pakistan & Nigeria).

2. Opportunistic GEM investors are unlikely to time it correctly. Look for example at Argentina exposure (Exhibit 4):

GEM investors halved their exposure to Argentina at the beginning of 2015, just before the market took off with a 50% gain in the first 10 weeks of the year. This was just at the time we approached the certainty of political change and the potential for corporates to enter a normal business cycle with capex, credit expansion and contained inflation.
Exhibit 8 demonstrates why being early into the asset class is an advantage. In order to assess the impact of Frontier markets being upgraded to more mainstream indices, we looked at the 25 year history of new entrants into the MSCI EM index. Of 19 country additions, we found that the median absolute return was around 50% in the 1 year period prior to inclusion. Subsequent returns in the 1 year post inclusion were broadly flat. This highlights that in investing, if you wait for something to become mainstream you often miss the best returns.

Last year we had the unprecedented case of 2 constituents entering the GEM index with inclusion in May 2014. At an individual stock level (Exhibit 9), Emaar Properties was up 4 times in the period prior to inclusion as more attention shifted to investment opportunities in these previously overlooked markets.

**Exhibit 8: MSCI EM Inclusion – Relative Returns**

Source: MSCI & FactSet 2015.

**Exhibit 9: Emaar Properties**

Source: Thomson Reuters March 2015.
Frontier Equities as a stand-alone asset class
What would be the right sort of allocation to Frontier?

We ran three year risk and return characteristics for eight asset categories, including US, European, Japanese, GEM and Frontier equities and global bonds. We ran correlations in order to come up with an efficient frontier of investment opportunities and found that by combining only global bonds, and US and Frontier equities, (applying a weighting of between 1% and 10% for Frontier equities), we could achieve an attractive efficient frontier portfolio allocation, as demonstrated in Exhibit 10.

Exhibit 10: The efficient frontier

As can be seen from the Sharpe Ratio column in Exhibit 11 below, a historical analysis shows that Frontier markets have offered a better risk/reward profile than most other equity asset categories.

Exhibit 11: The efficiency of Frontier in the efficient frontier

<table>
<thead>
<tr>
<th>Asset category</th>
<th>Sharpe Ratio*</th>
<th>Portfolio weighting %</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCI Frontier Markets</td>
<td>1.1</td>
<td>0.9% 1.7% 2.4% 3.1% 3.8% 4.5% 5.2% 5.8% 6.5% 7.2% 7.9% 8.6% 9.3% 10.0% 10.7% 0.0%</td>
</tr>
<tr>
<td>MSCI Emerging Markets</td>
<td>0.0</td>
<td>0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%</td>
</tr>
<tr>
<td>MSCI The World Index</td>
<td>1.3</td>
<td>0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%</td>
</tr>
<tr>
<td>JP Morgan GBI Global (1-10y)</td>
<td>-0.7</td>
<td>93.7% 86.6% 80.1% 73.7% 67.2% 60.7% 54.2% 47.6% 41.1% 34.6% 28.1% 21.6% 15.0% 8.5% 2.0% 0.0%</td>
</tr>
<tr>
<td>GBI-EM Global Composite</td>
<td>-0.3</td>
<td>0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%</td>
</tr>
<tr>
<td>MSCI Europe</td>
<td>0.8</td>
<td>0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%</td>
</tr>
<tr>
<td>MSCI USA</td>
<td>1.9</td>
<td>4.7% 11.3% 17.2% 23.2% 29.0% 34.9% 40.7% 46.5% 52.3% 58.2% 64.0% 69.8% 75.6% 81.5% 87.3% 100.0%</td>
</tr>
<tr>
<td>MSCI Japan</td>
<td>0.8</td>
<td>0.7% 0.5% 0.3% 0.1% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0%</td>
</tr>
<tr>
<td>Annualised return</td>
<td>-1.3</td>
<td>0.0% 1.2% 2.4% 3.7% 4.9% 6.2% 7.4% 8.7% 10.0% 11.4% 12.7% 14.0% 15.4% 16.8% 17.8%</td>
</tr>
<tr>
<td>Annualised std dev</td>
<td>3.4</td>
<td>3.5% 3.6% 3.9% 4.2% 4.5% 4.9% 5.4% 5.8% 6.3% 6.8% 7.3% 7.9% 8.4% 8.9% 9.4%</td>
</tr>
<tr>
<td>Sharpe Ratio</td>
<td>-0.39</td>
<td>0.00 0.33 0.63 0.88 1.08 1.25 1.38 1.49 1.58 1.66 1.73 1.78 1.83 1.88 1.89</td>
</tr>
</tbody>
</table>

Notes: Monthly US$ total returns from 31 March 2012 to 28 February 2015. Performance shown is past performance and is not a guide to future performance.
* Sharpe Ratio here is calculated as the annualised return / annualised standard deviation.
Conclusion

Frontier is a stand-alone asset category – it’s dynamic and will continue to grow. There is a huge amount of untapped potential – 140 countries in its broadest context, 13% of global GDP, and 1/3 of the world correlation is not currently represented in the MSCI developed or EM index.

We do acknowledge that there is risk but this is idiosyncratic risk that can be managed.

Rather than an opportunistic approach to Frontier markets we advocate a focused approach that’s likely to provide superior and non-correlated results over the long term.

This asset category will put investors closer to the efficient frontier. Ultimately it is entirely appropriate for all asset allocators to try and maximise return per unit of risk.

1. All nascent asset categories are initially dismissed as irrelevant
2. Frontier equities are non-correlated amongst themselves and with other markets
3. An opportunistic GEM approach is insufficient to capture the divergent nature and timing of superior Frontier market returns
4. The asset category put investors on the efficient frontier
5. 'Early' investors are likely to be better rewarded
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Additional Risk Factors

Investors should be aware that investment in Frontier & Emerging markets ("FEM") can carry additional risks. Below are some examples of additional risks applicable to investing in Frontier & Emerging Equity Markets:

Investing in FEM markets involves risks and special considerations not typically associated with investing in other more established economies or securities markets. Investors should carefully consider their ability to assume the risks listed below before making an investment in the strategy. Investing in FEM markets is considered speculative and involves the risk of total loss. Because the strategy’s investments will be subject to the market fluctuations and risks inherent in all investments, there can be no assurance that the strategy’s stated objective will be realized. The Investment Manager will seek to minimize these risks through professional management and investment diversification. As with any long-term investment, the value of shares when sold may be higher or lower than when purchased.

Risks of investing in Frontier and Emerging markets include:

1. The risk that the strategy’s assets may be exposed to nationalization, expropriation, or confiscatory taxation;
2. The fact that FEM securities markets are substantially smaller, less liquid and more volatile than the securities markets of more developed nations. The relatively small market capitalization and trading volume of FEM securities may cause the strategy’s investments to be comparatively less liquid and subject to greater price volatility than investments in the securities markets of developed nations. Many frontier & emerging markets are in their infancy and have yet to be exposed to a major correction. In the event of such an occurrence, the absence of various market mechanisms, which are inherent in the markets of more developed nations, may lead to turmoil in the marketplace, as well as the inability of the strategy to liquidate its investments;
3. Greater social, economic and political uncertainty (including the risk of war);
4. Greater price volatility, substantially less liquidity and significantly smaller market capitalization of securities markets;
5. Currency exchange rate fluctuations and the lack of available currency hedging instruments;
6. Higher rates of inflation;
7. Controls on foreign investment and limitations on repatriation of invested capital and on the strategy’s ability to exchange local currencies for U.S. dollars;
8. Greater governmental involvement in and control over the economy;
9. The fact that frontier & emerging market companies may be smaller, less seasoned and newly organized;
10. The difference in, or lack of, auditing and financial reporting standards that may result in unavailability of material information about issuers;
11. The fact that the securities of many companies may trade at prices substantially above book value, at high price/earnings ratios, or at prices that do not reflect traditional measures of value;
12. The fact that statistical information regarding the economy of many emerging market countries may be inaccurate or not comparable to statistical information regarding the United States or other economies;
13. Less extensive regulation of the securities markets;
14. Certain considerations regarding the maintenance of securities and cash with foreign sub custodians and securities depositories;
15. The risk that it may be more difficult, or impossible, to obtain and/or enforce a judgment than in other countries;
16. The risk that the strategy may be subject to income, capital gains or withholding taxes imposed by frontier & emerging market countries or other foreign governments;
17. The risk that enterprises in which the strategy invests may be or become subject to unduly burdensome and restrictive regulation affecting the commercial freedom of the invested company and thereby diminishing the value of the strategy’s investment in that company. Restrictive or over regulation may therefore be a form of indirect nationalization;
18. The risk that businesses in frontier & emerging markets have only a very recent history of operating within a market-oriented economy. In general, relative to companies operating in western economies, companies in frontier & emerging markets are characterized by a lack of (i) experienced management, (ii) technology, and (iii) sufficient capital base with which to develop and expand their operations. It is unclear what will be the effect on companies in frontier & emerging markets, if any, of attempts to move towards a more market-oriented economy;
19. Disposition of illiquid securities often takes more time than for more liquid securities, may result in higher selling expenses and may not be able to be made at desirable prices or at the prices at which such securities have been valued by the strategy;
20. As the strategy may invest in markets where the trading, settlement and custodial systems are not fully developed, the assets of the strategy which are traded in such markets, and which have been entrusted to sub-custodians in such markets in circumstances where the use of sub-custodians is necessary, may be exposed to risk in circumstances in which the Custodian will have no liability.

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