FRONTIER MARKET
ASSET MANAGMENT

July 2016

Frontier Market Investing: Active Versus Passive[1]

Frontier markets began to attract attention 10 years ago, and since then more than 30 active frontier managers have established themselves, along with a handful of passive managers who track the indexes. We believe that it is worthwhile to examine the tradeoffs in choosing active or passive frontier managers, including the elements of market definition, efficiency, results and access.

Whether active or passive, we believe that frontier markets present an attractive opportunity. Diversified frontier portfolios tend to have lower valuations relative to the rest of the world as well as low correlations and low standard deviations of overall returns. For example, the MSCI Frontier ex-GCC Index had a trailing price earnings ratio of 11x in May 2016 versus 13x for emerging markets, 18x for EAFE and 22x for the US. Meanwhile, the frontier index correlations were 0.72 with emerging markets, 0.74 with EAFE and 0.64 with the US. Finally, the standard deviation of monthly returns over 36 months was 11.4% for the frontier index, 16.8% for emerging markets, 16.8% for EAFE and 11.5% for the US.

Since the mid-1970s, market theorists have argued that stock markets become more efficient as they become more developed, making it harder for investment managers to outperform the indexes. To capitalize on that sentiment, fund companies have developed index-like portfolios for a broad range of asset classes. These funds attempt to replicate the passive returns of the indexes themselves. There is some level of tracking error between index funds and the indexes, partly because of fund expenses and holding differences. However, index funds have prospered because their performance has exceeded many actively managed portfolios over time[2].

The evidence in favor of index funds is strongest in markets that are likely to be most efficiently priced. This would be the case where information on stocks is widely disclosed and tightly regulated, where there are many financial analysts covering each stock, where trading volumes are high, where bid/asked spreads are narrow and where trading costs are low. Thus, while index funds have taken a significant share of market in large cap US stocks, their share is lower in small cap, international and emerging markets.

Market Definition[3]

There are more than 60 frontier stock markets around the world; however, many are extremely small or restricted, such as the markets in Nepal, Armenia and Algeria. Nevertheless, there are more than 30 markets are that are sufficiently developed to be of interest to frontier investors. The Russell Frontier Index includes stocks in 33 countries, while MSCI Frontier Index covers 23.

An important distinction in frontier investing lies in the inherent differences between the GCC (Gulf Cooperation Council) countries and the rest of the frontier market countries. The GCC countries are responsible for much of the world’s oil production and are wealthier on a per capita basis than much of the developed world. GCC economies are much more developed, and local GCC investors are much richer, better educated and sophisticated than in other frontier countries. Therefore, GCC stocks tend to be efficiently priced.

[1] Based on a talk to the CFA Society San Francisco, December 8, 2015

[2] Morningstar Active/Passive Barometer 6/25/15, http://news.morningstar.com/articlenet/article.aspx?id=701736

[3] Our definition of the frontier is all countries not included in the MSCI emerging or developed markets indexes.

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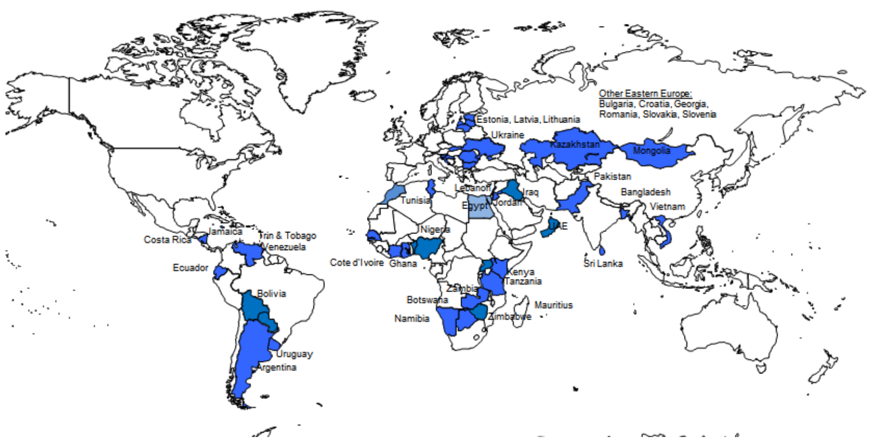
Meanwhile the ex-GCC frontier countries today are similar to what emerging markets were like 30 years ago – before they emerged. And the ex-GCC stock markets are dominated by local investors who are not sophisticated and are prone to acting on rumors rather than fundamental analysis. Meanwhile, the ex-GCC frontier is growing rapidly and following the path to development that emerging markets have already taken, with improvements in education, government and technology (i.e. cellphones). As these occur, frontier markets will move towards greater efficiency, which will benefit investors who apply advanced techniques of analysis ahead of the crowd. We believe that including GCC country stocks in a frontier markets portfolio can dilute the "pure frontier" qualities that investors seek when they include frontier markets equities in their portfolios.

The World's Frontier Stock Markets



The Frontier Markets Asset Management investable universe includes stocks in some three dozen countries .

We prefer to focus on frontier ex-GCC, as do most of our clients. These markets are truly frontier, where income is low but growth is rapid and poor infrastructure has actually promoted business creativity. Frontier ex-GCC is exceptionally inefficient - an excellent playing field for active stock pickers.

As shown in the table at the right, the indexes have significantly different approaches to the GCC issue. The GCC is 36% of the Russell frontier, compared with 29% for MSCI. Meanwhile, Africa is 42%. in MSCI Frontier ex-GCC compared with 31% for Russell.

	Russell	MSCI	Rus exGCC	MSCI exGCC
Africa	20.1%	30.1%	31.3%	42.3%
Asia	19.2%	19.2%	29.8%	27.0%
E Europe	9.7%	8.2%	15.1%	11.6%
Latin Am	8.4%	9.2%	13.1%	13.0%
Mid E	6.8%	4.4%	10.6%	6.1%
Mid E GCC	35.8%	28.9%		
	100.0%	100.0%	100.0%	100.0%
Countries	33	23	29	20

Market Efficiency

For active managers to have a chance at delivering better returns than the index, they need to assemble a mosaic of information on each company that leads them to a different valuation than consensus as represented in the current stock price. In other words, active managers depend on inefficient pricing. For passive managers, weightings are driven by the index. Some of the elements of market inefficiency that make the frontier market asset class attractive to investors present significant challenges to passive managers' attempts to maintain an index-like portfolio.

There are no labels on stocks that say they are inefficiently priced, but several factors can indicate it:

a) Market Capitalization.
Small markets gather less attention from global investors, and in that respect frontier markets certainly qualify. As shown at the right, frontier markets are small, only 3% of world market cap according to the latest data from the World Bank. The frontier ex-GCC is even smaller at 1%. In fact, the total size of the frontier ex-GCC universe is probably smaller than some individual portfolio positions of US or global large cap managers.

	Market Cap ($B)	Percent of World
United States	$18,668	36%
EAFE	$20,013	38%
Emerging Markets	$12,379	24%
Frontier	$1,375	3%
Frontier ex GCC	$533	1%
World Total	$52,435	100%

Source: WDI database, 2013

b) Liquidity.
Frontier liquidity, measured by average daily trading volume, is also small. In the table at right, the total trading volume of frontier markets is only slightly greater than all that of Poland, with GCC volume comprising one third of total frontier volume. Saudi Arabia, which is treated separately from the frontier by MSCI due to foreign ownership restrictions, has trading volume that is 10 times that of the frontier ex-GCC. While low liquidity is one of the features that we like about the frontier, it means that large institutional investors must be very patient if they are to invest in the space. Passive funds that offer daily liquidity can be driven towards only the most liquid frontier stocks.

	Daily Volume ($Million)
Africa	$46
Asia	$154
E Europe	$30
Latin America	$11
Mid East	$5
Frontier exGCC	$246
Mid East exGCC	$130
Frontier	$375
Poland	$336
United States	$106,876

c) Bid/Ask Spread.
The spread between the bid price and the ask price of a security is a key measure of market development and efficiency in allocating capital. In many frontier markets, this mechanism does not work well. Sellers often know their holdings better than buyers and will refuse to sell below a certain price. Volume dries up. Or, when animal spirits are high, buyers may clamor for a stock and bid it up rapidly. As the investor base grows and the knowledge base of investors improves, the notion of fair value becomes more defined, and bid-ask spreads narrow. However, in markets where 75-90% of trading is retail, these spreads are likely to remain high for quite a while.

	Bid/Ask Spread
Africa	3.2%
Asia	0.9%
E Europe	4.5%
Mid East	3.0%
Mid East exGCC	1.5%

Based on a universe of more than 800 frontier stocks, the highest and lowest spreads by country are shown at right, with Ukraine having the widest spread at nearly 15%. Recently one Ukrainian stock, Stakhanov Railway Car Building, had a last price of 0.99, an asked price of 1.0 and a bid of 0.6 giving a whopping bid/asked spread of 40%. Meanwhile, the narrowest spreads are in more active markets, such as Vietnam which like, many Asian markets, has high turnover.

	Bid/Ask Spread		Bid/Ask Spread
Ukraine	14.8%	Vietnam	0.96%
Montenegro	11.7%	Zambia	0.96%
Kenya	11.1%	Romania	0.91%
Mozambique	9.2%	Estonia	0.86%
Egypt	5.8%	Namibia	0.80%
Mauritius	4.3%	Qatar	0.74%
Slovakia	4.2%	Argentina	0.71%
Cyprus	4.0%	Malta	0.49%
Jamaica	3.9%	Pakistan	0.43%
Bulgaria	3.4%	Gabon	0.36%
		Cambodia	0.20%

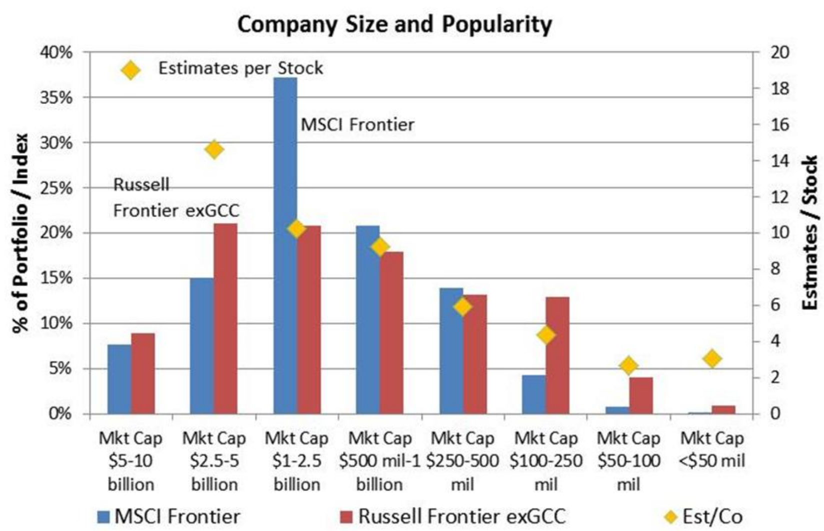
d) Analysts' Coverage.
An acid test of popularity is the number of analysts covering a stock. While all analysts in the frontier may not post their estimates on Bloomberg, many do these days, compared to practically none when we began frontier investing in 2006. Using this measure, a recent study found that

90% of emerging market large cap stocks had three or more analysts, 70% of emerging market small cap stocks did, but in the frontier only 50% had three or more analysts while 30% had none.

Senegal has the highest average analysts' coverage, but that is because its single listed stock, the telecom Sonatel, is very popular. (The same is true of Cambodia's Naga Corp, a gambling company). On the other hand, Nigeria, Kenya, Pakistan and Egypt all have many stocks and high analysts' coverage. At the other extreme, neglected countries include Bangladesh, Ivory Coast, Macedonia and Palestine.

We love stocks that are not well covered, and we have learned to dig deep to find the best opportunities. When we first began visiting frontier countries, the local brokers would initially tout the largest stocks because they wanted a big order with a big commission. Next they would push stocks that had just doubled, so they could claim they had been smart all along. Only when we asked what they owned themselves did we get to the interesting stuff…

The chart at right shows the number of analysts per stock compared with the index weights by capitalization range.



In the largest bucket, stocks with between $5 billion and $10 billion capitalization, there are nearly twenty analysts covering each company. These stocks represent 7-8% of the indexes and include many Middle Eastern names. Also, Oil Search Ltd., an Australian oil company doing business in Papua New Guinea, is in the Russell index.

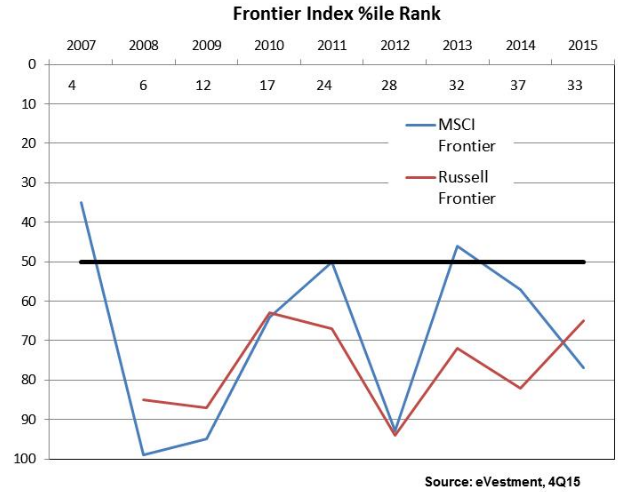
Moving down the cap ranges, the MSCI Frontier Index has a 37% weighting in stocks with $1-2.5 billion cap, where the average stock has 10 analysts. The Russell Frontier ex-GCC Index has only 20% in this bucket, although their broader Frontier Index would be similar to the MSCI Frontier. By contrast, many active managers prefer smaller stocks. For example, one of our typical portfolios has 60% in stocks between $100 and $500 million, and many have no analysts covering them.

e) Characteristics.
A reward from researching less exploited stocks is the opportunity to find improved valuations, with PE ratios of 6-7x compared with around 9-11x for the indexes. Dividend yields can be in the double-digits, with an overall portfolio level of 4.5% versus 3.3% for the Russell Frontier ex-GCC.

Results

"I move with relief from the tossing sea of cause and theory to the firm ground of result and fact."
– Winston Churchill, The Story of the Malakand Field Force, 1897

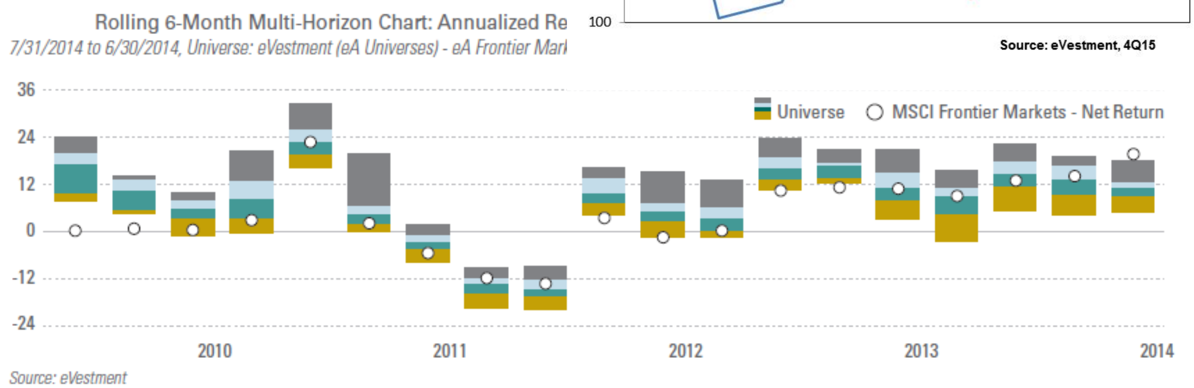
Relative to frontier markets indices and the passive strategies that seek to emulate them, active managers have shown efficacy in capturing excess returns for their clients. While the history of frontier manager returns remains limited, the performance presented by the eVestment database is compelling. The chart at the right compares the percentile rank of frontier index returns relative to actual active manager results.



As shown, the MSCI and Russell Frontier Indexes have ranked below the 50th percentile in most years.

As noted, the number of reporting managers is low, rising from four in 2007 to 33 in 2015..

A seeming anomaly in performance exists for the first half of 2014, when the MSCI Frontier Index outperformed active managers as shown below.



This phenomenon was analyzed by researchers from the firm FIS Group[4] who found that Qatar and the UAE contributed nearly 16% of the 20% index gain. It appears that there was front-running by local investors in advance of the June 2014 move of those countries from the MSCI Frontier to the MSCI Emerging Market Index. In particular, FIS found that three local stocks, Masraf al-Rayan, Arabtec, and Emaar, contributed to most of the move, and they were generally not held in size by most foreign managers. Perhaps frontier managers can be forgiven for missing this move.

Access - Manager Selection

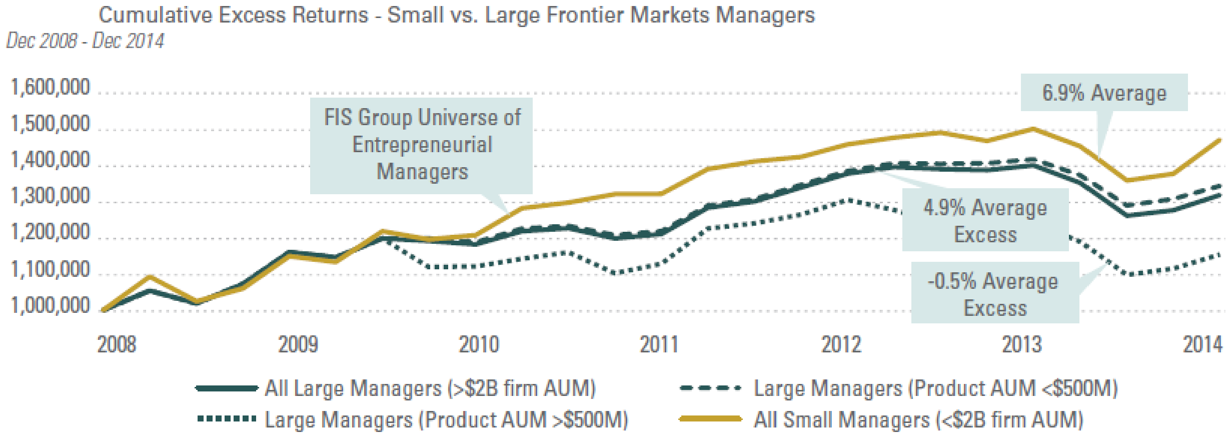
While the evidence suggests that active management has proven rewarding in the frontier, some operational considerations are important to keep in mind.

We believe that the frontier opportunity is generational, with benefits realized by investors over 10 years and more; however, liquidity is a concern for some investors. In that situation, an index fund can provide liquidity when needed. In fact, even active managers may use funds like the iShares frontier ETF to invest inflows quickly while patiently investing in their chosen stocks over time.

Another point to consider in manager selection is that active frontier strategies are capacity constrained. As with US small cap managers, it is important to recognize that there are diminishing returns to scale. In

[4] "Arabian Nights: Mysteries on the Frontier", FIS Group, September 2014.

some cases, a firm with AUM of $750 million or $1 billion invested in frontier market equities may be at full capacity – or should be because it has lost trading flexibility. A study by FIS Group, “Big is Bad (Really Bad) in Frontier Markets”, July 2015, illustrated this point with the chart below.



Conclusion
While both active and passive investment approaches enable investors to gain exposure to frontier markets equities, we believe the current research and data cited in this paper show that active management holds a decided edge for investors who seek the asset class' high potential for attractive returns and diversification benefits. The ability of investors to focus their capital in the truly frontier non-GCC countries and to benefit from the market inefficiencies presented by scarce liquidity, high bid-ask spreads and low analyst coverage is severely diluted by the practical constraints faced by managers employing passive approaches.

As an active manager, we are committed to exploiting inefficiently priced stocks in the frontier. One of our clients once told us that “we are buying today’s prices and tomorrow’s liquidity”. We believe that, with patience, that liquidity will come at higher prices. No matter which path one chooses for investing in the frontier, patience is a good discipline to follow.

About Frontier Market Asset Management

Founded in 2006, Frontier Market Asset Management holds more than 35 years' worth of investment experience including work in Emerging and Frontier Markets since 1987. For more information, please contact us at (858) 456-1440.

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