❖ *Frontier Markets: New Investment Opportunities and Risks*

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The extraordinary returns of emerging and frontier market equities in recent years, combined with the decline in equity prices in the United States and other developed markets since the summer of 2007, has increased investors' interest in those two asset classes in recent months. Emerging markets have been generally open to foreign investors for about two decades now, and much has been learned about their risk-and-return properties during that time. Frontier markets, on the other hand, have become available for investment to international investors only in the last decade, and our knowledge about them is much more imperfect.

The goal of the present article is to fill some of the gaps in that knowledge by taking a thorough look at those markets. But perhaps the questions that should be asked are, what constitutes a frontier market? What qualitative and quantitative criteria can be used to define frontier markets and differentiate them from emerging markets? What is the return history of those markets and how volatile have those returns been? How correlated are the returns of frontier markets with the returns of other asset classes? Even if we cannot draw any strong inferences from the answers to those questions because the time series for data on frontier markets are so short, those answers should be at least informative. Finally, given trading and other transaction costs, what is the most sensible approach to implementing a frontier markets strategy that is broadly diversified across markets and industries?

To have the proper framework, however, it is useful to start with a brief discussion of the evolution of international (non-U.S.) investing, from developed to emerging markets and now to frontier markets.

The Evolution of International Investing

The globalization of financial markets that has occurred over the last three or four decades has allowed investors to invest their capital where they think it can earn the highest risk-adjusted returns and companies to pool capital from almost any corner of the world. National borders and other geographical and political distinctions no longer are the roadblocks to the free circulation of capital that they used to be before the 1970s and 1980s.

Two factors, among others, have contributed to the globalization of financial markets: First, technological progress—most notably, in the area of communications and information technology—has lowered the costs of doing business and investing overseas. Second, many policymakers around the world, especially in developing countries, have come to the realization that financial

and economic openness can be a key contributor to economic development and the eradication of mass poverty. Consequently, they have taken the necessary steps to strengthen their own institutions and ensure that foreign capital and businesses feel welcome in their countries. And they have also removed many of the barriers that prevented citizens and businesses from their own countries from participating in free and competitive markets abroad.

This process of financial and economic integration has substantially increased the opportunities for investment. U.S. institutional investors have responded by progressively increasing their exposure to foreign equities over the past two or three decades. They first ventured into other developed markets in the 1980s; and a decade later, they gained broad exposure to emerging markets. All in all, this has been a positive development for U.S. investors, as confirmed by the growing percentage of their assets allocated to non-U.S. equities.[1] As frontier markets emerge as an asset class available to U.S. investors, the opportunities for investment will continue to grow in the coming years.

What Is a Frontier Market?

At the most basic level, a frontier market is a market that is relatively open to foreign investors and is neither a developed market nor an emerging market. That definition, however accurate, is ultimately unsatisfactory and begs another question: What is an emerging market? Or, more generally, what criteria should be used to classify countries into developed, emerging, and frontier? There are quantitative and qualitative criteria that can help us with that task. The quantitative criteria, which pertain mostly to market microstructure, include conditions regarding the float-adjusted market capitalization of a country, the liquidity of the market, and the number of publicly traded companies. These criteria ensure that there are sufficient assets that can be realistically invested and traded in any country without severely impacting the markets.

On the qualitative side, there are criteria regarding market microstructure, securities markets regulations, and legal and economic institutions. First, with regard to market microstructure, does the market have a system in place that ensures delivery versus payment for the settlement of trades? Second, in the area of market regulation, do the securities laws place onerous restrictions on foreign ownership of companies? Do minority shareholders enjoy the same level of property rights protection as do larger investors? And what types of agency risks exist in those markets?[2] Finally, with regard to the legal and economic system, investors should want to know the extent to which foreign investors are subject to discriminatory taxation, or whether there are capital controls of any kind. More fundamentally, does a country have a commitment to a free-market economy, to the rule of law, to an impartial and independent judicial system, and to the effective protection and enforcement of property rights for all property owners?

To be sure, the answers to those questions are not always precise, and, in the case of emerging and frontier markets, can change abruptly from one period to the next, especially when it comes to a country's commitment to a market-oriented economy (e.g., Argentina). For that reason, market participants can have disagreements on how to categorize countries that could easily fall under two different categories. For instance, is South Korea an emerging or a developed market? Is Colombia an emerging or a frontier market? The criteria listed above are not meant to provide definitive answers to those questions, but rather to give us a better idea of the main characteristics of each category of markets—developed, emerging, and frontier.

[1]For U.S. investors, the percentage of total equity portfolios invested in international equities grew from 9% in 1997 to 19% in 2007. See Donald L. Kohn, "Global Economic Integration and Decoupling." Speech given at the International Research Forum on Monetary Policy, Frankfurt, Germany, June 26, 2008, available at http://www.federalreserve.gov/newsevents/speech/kohn20080626a.htm.

[2]An agency relationship is one in which two different parties—a principal and an agent—enter into an implicit or explicit contract in which the agent performs actions on behalf of, and in the interest of, the principal. Thus, an agency relationship involves the delegation of some decision-making authority to the agent. Agency costs are the costs of designing, administering, and enforcing those contracts. Agency risks are the risks that the agent will breach those contracts and use its authority to undertake actions that are not in the interest of the principal.

In general, frontier markets are countries with market-oriented economies in the early stages of economic development. As such, their gross domestic product growth rates tend to be higher but more volatile than those of non-frontier countries. These countries also tend to have higher levels of inflation, unemployment, and labor-market informality than their non-frontier counterparts. Their public equity markets are smaller, less liquid, and tend to have high levels of concentration (i.e., a few securities make up a very large percentage of the total market capitalization) relative to developed and even emerging markets. And, in many cases, some significant restrictions on foreign investment still remain.

Exhibit 1 (next page) lists the countries included in four recently launched frontier markets indices. The Bank of New York Mellon New Frontier Depository Receipt Index is the clear outlier in the group. It only includes depositary receipts and excludes companies that are solely listed in their local markets. Perhaps for that reason, it includes more countries (forty-one) than any of the three benchmarks and is dominated by three countries—Poland, Chile, and Egypt—that are considered by most market participants to be emerging markets. The other three benchmarks, on the other hand, are dominated by Middle Eastern countries such as Kuwait and the United Arab Emirates and include fewer countries (about twenty each).

Why Invest in Frontier Markets?

There are at least three reasons frontier markets may be an attractive investment option. First, as stated above, frontier countries have experienced rapid GDP growth in recent years and could continue to do so in the coming years, provided that policymakers there enact policies that strengthen institutions and are conducive to economic growth.[3] Therefore, with the right policy environment, frontier countries could become tomorrow's emerging and developed countries. The emergence of publicly traded companies and the development of public equity markets in these countries allow foreign investors to participate in and benefit from their economic development. Second, frontier markets are a risky asset class with high expected returns. Exhibit 2 (page 5) shows performance for the nineteen countries included in the MSCI Frontier Markets Index as well as for the S&P 500 Index, the MSCI EAFE Index, and the MSCI Emerging Markets Index. In the five-year period ending March 2008, eighteen of nineteen frontier markets (the data for Bahrain do not go that far back) had a higher average return than the S&P 500 Index or the MSCI EAFE Index.

Not surprisingly, frontier markets are also a lot more volatile than developed markets. Looking at the standard deviation of monthly returns over the five-year period ending March 2008, we find only one country (Tunisia) that had a lower standard deviation than that of the MSCI EAFE Index, and no countries had a lower standard deviation than that of the S&P 500 Index. Of course, we should expect an individual market to have a higher volatility than an index that is made up of countries whose returns are not perfectly correlated, which will dampen the volatility of the index. But, even when compared to the individual countries in the MSCI EAFE Index, frontier markets are a lot more volatile than developed markets. In the five-year period ending March 2008, most frontier countries had a monthly standard deviation above 5.5%, compared to just two countries in the MSCI EAFE Index (Norway and Finland).

When compared to the MSCI Emerging Markets Index, frontier markets also tended to have a higher average monthly return and a higher standard deviation than that index in the five-year period ending March 2008. During this time period, frontier markets also tended to have a higher monthly return volatility than individual emerging markets, although the differences in this case are not nearly as stark as with individual developed markets.

[3] *For more information on the relationship between economic policies and institutions on the one hand, and growth in per-capita GDP, on the other, see, for instance, Rudiger Dornbusch, "Long-Run Growth in Emerging Countries," in Keys to Prosperity (Cambridge, MA: The MIT Press, 2000); and Robert J. Barro, Determinants of Economic Growth: A Cross-Country Empirical Study (Cambridge, MA: The MIT Press, 1997).*

Exhibit 1

Which Countries Are in the Frontier?

	MSCI FM Index	S&P/IFCG Extended Frontier 150	Merrill Lynch Frontier Index	BNY Mellon New Frontier DR Index
Bahrain	X	X	X	X
Bangladesh		X		X
Bulgaria	X	X		X
Cambodia		X		
Chile				X
Colombia		X		X
Cote d'Ivoire		X		
Croatia	X	X	X	X
Cyprus		X	X	
Czech Republic				X
Ecuador				X
Egypt				X
Estonia	X	X	X	X
Georgia		X		X
Ghana				X
Jamaica				X
Jordan		X		X
Kazakhstan	X	X	X	X
Kenya	X	X		X
Kuwait	X	X	X	X
Latvia				X
Lebanon	X	X	X	X
Lithuania	X	X		X
Malawi				X
Mauritius	X			X
Morocco			X	X
Nigeria	X	X	X	X
Oman	X	X	X	X
Pakistan		X	X	X
Panama		X		X
Papua New Guinea				X
Peru				X
Poland				X
Qatar	X	X	X	X
Romania	X	X	X	X
Slovak Rep.				X
Slovenia	X	X	X	X
Sri Lanka	X	X		X
Trinidad and Tobago				X
Tunisia	X			X
UAE	X	X	X	X
Ukraine	X	X	X	X
Vietnam	X	X	X	X
Zimbabwe				X

The MSCI Frontier Markets Index was launched in November 2007; data copyright MSCI 2008, all rights reserved. The S&P/IFCG Extended Frontier 150 Index was launched in August 2007; data provided by Standard & Poor's Index Services Group. The Merrill Lynch Frontier Index was launched in March 2008; used with permission; copyright 2008 Merrill Lynch, Pierce, Fenner & Smith Incorporated; all rights reserved. The Bank of New York Mellon New Frontier Depository Receipt Index was launched in June 2008; data provided by the Bank of New York.

Exhibit 2

Frontier Market Performance
As of March 31, 2008

			Five-Year Monthly Average	
Country	**One-Year Return**	**Five-Year Annualized Return**	**Average Monthly Return**	**Monthly Standard Deviation**
Bahrain	29%	–	–	–
Bulgaria	-2%	41%	3.02%	7.65%
Croatia	-9%	29%	2.35%	6.57%
Estonia	-29%	25%	2.07%	6.25%
Kazakhstan	-3%	85%	5.65%	12.05%
Kenya	-6%	25%	2.05%	5.90%
Kuwait	40%	38%	3.04%	5.59%
Lebanon	26%	28%	2.42%	9.66%
Mauritius	40%	35%	2.54%	3.95%
Nigeria	45%	36%	2.72%	6.08%
Oman	82%	38%	2.85%	4.81%
Qatar	58%	30%	2.72%	9.70%
Romania	-19%	33%	2.65%	8.74%
Slovenia	13%	22%	1.77%	5.20%
Sri Lanka	-9%	28%	2.29%	7.29%
Tunisia	5%	21%	1.63%	3.15%
United Arab Emirates	58%	27%	2.38%	9.25%
Ukraine	18%	75%	5.30%	11.55%
Vietnam	-52%	29%	2.58%	12.22%
Index				
S&P 500 Index	-7%	9%	0.78%	2.62%
MSCI EAFE Index	-5%	19%	1.42%	3.28%
MSCI EM Index	19%	32%	2.41%	5.35%

Individual country data provided by Bloomberg. The S&P data are provided by Standard & Poor's Index Services Group. MSCI data copyright MSCI 2008, all rights reserved.

And third, frontier markets have the potential to provide great diversification benefits to U.S. investors because their returns to date have not been highly correlated with the returns of U.S. equities, international developed markets, or even emerging markets. See Exhibit 3. The key word here is *potential,* for at least two reasons. First, the asset class is too small relative to the rest of the global equity market to have a big impact today on the overall volatility of an equity portfolio, as any frontier markets strategy would probably make a small percentage of the total equity allocation in an investment portfolio. And second, the time period is too short for one to be able to draw any strong inferences about the risk and return properties of frontier markets.

Exhibit 3

Monthly Return Correlations
September 2002 — March 2008

Country	S&P 500 Index	MSCI EAFE Index	MSCI EM Index
Bahrain	0.17	0.16	0.26
Bulgaria	0.29	0.38	0.49
Croatia	0.28	0.34	0.36
Estonia	0.37	0.40	0.40
Kazakhstan	0.07	0.16	0.19
Kenya	0.13	0.14	0.12
Kuwait	0.17	0.07	0.01
Lebanon	0.11	0.21	0.18
Mauritius	0.05	0.14	0.22
Nigeria	-0.02	0.03	-0.06
Oman	0.07	0.04	0.08
Qatar	0.08	0.21	0.25
Romania	0.06	0.19	0.32
Slovenia	0.13	0.14	0.17
Sri Lanka	-0.04	0.03	0.06
Tunisia	0.03	0.05	-0.12
United Arab Emirates	-0.02	-0.02	-0.03
Ukraine	0.05	0.23	0.20
Vietnam	0.23	0.26	0.20

Index	S&P 500 Index	MSCI EAFE Index	MSCI EM Index
S&P 500 Index	1.00		
MSCI EAFE Index	0.85	1.00	
MSCI EM Index	0.70	0.86	1.00

The S&P data are provided by Standard & Poor's Index Services Group. MSCI data copyright MSCI 2008, all rights reserved.

Frontier markets are not very highly correlated with one another, either. Exhibit 4 shows monthly return correlations for all the frontier markets in the MSCI Frontier Markets Index except Bahrain from September 2002 to March 2008. The return correlations are low across the board, even for countries that have similar economies or are geographically close, and range from -0.3 to 0.5.

How to Capture Frontier Markets Exposure

There are two basic approaches to gaining exposure to frontier markets. First, one could go into each frontier market and buy stocks locally. This approach would allow investors to gain full exposure to these markets and to construct a broadly diversified strategy. For instance, the MSCI Frontier Markets Index covers nineteen countries and includes approximately 160 securities with approximately $170 billion in total market capitalization. But buying local stocks in each and every frontier market poses some challenges as well. The regulatory framework in some of these markets may not be up to the standards with which U.S. investors feel comfortable. Also, buying in the local markets means that investors must deal with all the issues related to gaining access in those markets, such as registration, any restrictions on foreign investors that may exist, and custody agreements including settlement, foreign exchange, and taxes, among others. Another challenge is to deal with brokers whom investors have not done business with in the past. Are these brokers trustworthy? Or will they leak information about trades or front-run their trades to benefit at the expense of foreign investors? The final challenge is to keep trading costs low and to minimize the market impact of trades conducted in markets with low liquidity and high trading costs.

The second basic approach is to completely stay away from frontier markets and gain exposure to that asset class only through non-local listings of frontier market companies. This approach would allow investors to avoid all the costs and risks discussed in the previous paragraph, but it presents some challenges of its own. Initially, one would most likely have a highly concentrated portfolio in terms of

Exhibit 4

Frontier Market Country Correlations
September 2002 — March 2008

	BUL	CRO	EST	KAZ	KEN	KUW	LEB	MAU	NIG	OMA	QAT	ROM	SLO	SRI	TUN	UAE	UKR	VIE
Bulgaria	1.0																	
Croatia	0.4	1.0																
Estonia	0.3	0.4	1.0															
Kazakhstan	0.0	0.1	0.1	1.0														
Kenya	0.2	0.0	0.2	0.0	1.0													
Kuwait	0.0	0.1	0.1	-0.3	0.3	1.0												
Lebanon	-0.1	0.0	-0.1	0.1	0.0	0.0	1.0											
Mauritius	0.0	0.1	0.1	0.2	0.2	-0.1	-0.1	1.0										
Nigeria	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	1.0									
Oman	0.0	-0.1	0.1	-0.1	0.2	0.3	0.4	0.1	0.1	1.0								
Qatar	0.2	0.1	0.2	-0.1	-0.1	0.1	0.1	0.0	-0.1	0.3	1.0							
Romania	0.3	0.4	0.4	0.0	0.2	-0.1	0.1	0.1	0.0	-0.1	0.1	1.0						
Slovenia	0.2	0.4	0.3	0.0	0.1	0.0	-0.2	0.1	0.1	-0.2	0.0	0.4	1.0					
Sri Lanka	0.0	0.1	0.2	-0.1	0.1	0.0	-0.1	-0.1	0.1	0.1	-0.1	0.1	0.1	1.0				
Tunisia	-0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.0	-0.1	0.3	-0.2	0.0	0.0	0.3	1.0			
UAE	0.0	-0.1	0.2	-0.1	-0.1	0.4	0.0	-0.1	0.0	0.5	0.4	-0.2	-0.1	0.0	0.0	1.0		
Ukraine	0.2	0.2	0.2	0.1	-0.1	-0.1	-0.1	0.0	0.2	-0.1	0.1	0.4	0.2	0.0	-0.1	0.1	1.0	
Vietnam	0.1	0.3	0.0	0.5	0.0	-0.1	-0.1	0.0	0.1	0.0	0.0	0.1	0.0	-0.1	0.3	0.0	0.1	1.0

Data provided by Bloomberg

country, industry, and even security exposure. Exhibit 5 shows the number of foreign listings for some frontier and emerging markets. The total number of listings for those sixteen countries is fifty-five securities. That may partially explain why a depositary receipt index such as the Bank of New York Mellon New Frontier DR Index also includes well-established emerging markets such as Poland, Chile, Egypt, and the Czech Republic, among others. Next, gaining access to frontier markets through foreign listings would provide only limited exposure to that asset class. Of the sixteen countries listed, the estimated market coverage of those foreign depository receipts or listings is greater than 50% in only seven of those markets. Many frontier markets do not have any companies with foreign listings. And, finally, the frontier market securities that have overseas listings are more likely to be relatively well-established and be large capitalization companies with broad exposure to foreign markets. As such, their performance may be related to global economic conditions and industry cycles more than to local economic conditions.

Given the shortcomings of those two straightforward approaches, perhaps the best way to gain exposure to frontier markets is to combine the two: enter those local markets in which market mechanisms are more tested and transactions costs are reasonable, and gain access to some frontier markets through foreign listings in those cases in which doing so provides a broad exposure to those markets or the costs and risks of doing business locally are too high.

Exhibit 5

Foreign Listings of Frontier Market Companies

Country	Number of Major DRs or Foreign Listings	Estimated Market Coverage
Argentina	19	76%
Panama	6	93%
Kazakhstan	6	81%
Lebanon	3	78%
Peru	3	55%
Bahrain	3	31%
Nigeria	3	11%
Cyprus	2	78%
Egypt	2	37%
UAE	2	1%
Georgia	1	100%
Ukraine	1	20%
Colombia	1	12%
Croatia	1	8%
Estonia	1	4%
Romania	1	2%

Based on certain screens, including liquidity. Data provided by Bloomberg

Conclusion

Frontier markets have emerged in the last few years as an asset class available to U.S. and other international investors. From the perspective of these investors, their main attraction is that they promise to have high returns that are not highly correlated with the returns of the U.S. and other developed markets. It is too early to tell whether those diversification benefits will materialize, as frontier markets are still very small relative to global equity markets and we do not yet have a good understanding of the risk-and-return properties of those markets. However, the preliminary evidence looks promising. Returns have been very high and uncorrelated with the returns on most other asset classes.

Before considering an allocation to frontier markets, investors should carefully consider (a) the pros and cons of investing locally versus gaining exposure to the asset class through foreign listings in international markets; (b) the higher trading costs in these markets; and (c) given that frontier countries still have a fairly high degree of economic and political risk, the most effective way to mitigate single-country risk and provide broad country diversification.

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