



## The Case for Frontier Equity Markets<sup>1</sup>

By Lawrence Speidell and Axel Krohne

*"History never repeats... but it rhymes" – Mark Twain*

**Over sixty Stock Markets exist on the Frontier** – They are outside of the 23 developed markets and 27 emerging markets that form the universe for most investors.

**Frontier Countries are improving** – Economic freedom is increasing, corruption is being reduced and demographics are favorable

**Frontier Stock Market returns have been good** – The S&P/IFC Frontier Markets Composite rose by 307% from December 1996 to December 2006 versus 160% for Emerging Markets and 175% for the S&P

**Frontier Markets offer excellent diversification and risk** – The correlation of Frontier Markets with the S&P is 0.27 and the standard deviation of the Composite is 11%.

**Risks surrounding market access and research require care and patience**– Although there are over 1200 CFA charterholders in Frontier Markets, much effort is required for research and trading.

There is an opportunity in global investing today that is similar to conditions that existed twenty years ago. During the past two decades, many observers have been pleased and surprised by the progress of globalization that has occurred and by the impact it has had on economic prosperity worldwide. In the mid-1980s, it would have been impossible to have predicted the rapid demise of the Soviet Union and the new freedoms that came to Eastern Europe. Similarly, it would have been impossible to predict the statement by Deng Xiaoping that "it doesn't matter if the cat is black or white, so long as it catches mice". That remark made capitalism legitimate in Communist China, and led to an unparalleled economic revolution that has raised living standards for more than one billion people (some have called this the greatest movement of people out of poverty in the history of mankind). We cannot know today what surprises lie in the decades ahead, but we do believe that the genie of globalization will not be put back in the bottle. The entire world is moving, albeit with irregular progress, towards understanding and implementing the basic conditions for economic growth based on rule-of-law and incentives. As countries move along this path, the greatest rewards will come for places that have the greatest improvements to make. Today, many of these countries are considered "frontier markets" because they have not yet joined the global investment community. Yet many of them are in the process of entering the global economic community.

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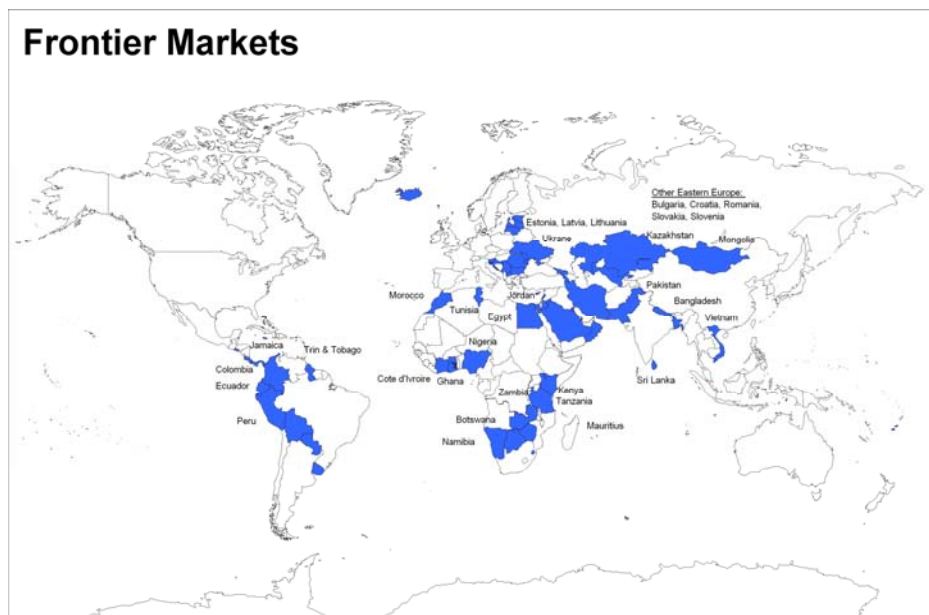
[www.frontiermkt.com](http://www.frontiermkt.com)

## The Frontier Marketplace

There are more than 100 stock markets around the world in places that range from the wealthiest developed countries to some of the poorest. Throughout history, investors have had a bias towards keeping their money at home, but over the past thirty years modern portfolio theory and numerous academic studies have shown the benefits of diversification. Many U.S. investors first became aware of the potential of international opportunities in the 1970s, spurred on by the success of the Japanese stock market. By the mid-1980s, the investment world had expanded but was composed almost exclusively of the developed markets in North America, Europe and Japan. At that time, the International Finance Corporation, part of the World Bank, started to encourage interest in stock markets in the developing world by sponsoring the establishment of country funds to invest in markets in countries such as Malaysia, Thailand, Korea, and Brazil. In addition, Capital International Perspective (later part of Morgan Stanley) introduced emerging market indexes that served to further increase the visibility of stock markets in many less-developed countries. The term “emerging markets” gave them a positive connotation that remains with them today. Now, after 20 years of progress, it is hard to deny that many of the so-called emerging countries have, in fact, emerged.

Other countries are now becoming integrated into the global economy as well, and yet they have not become large or wealthy enough for their stock markets to be included in the current emerging market universe. Still, these “Frontier Markets” are developing in ways that deserve international attention. They are in countries spread throughout Asia, Europe, the Middle East, Africa and Latin America which, while small individually, present a growing potential for production, consumption and investment. As the existing emerging countries move up the development ladder, global production will gravitate toward countries that present opportunities for lower costs. As this occurs, these countries can progress along the path of a virtuous circle of higher employment, a rising middle class, increasing consumer demand and greater economic and political stability. Additionally, demographics favor these markets as their country populations are generally young, especially in Asia, the Middle East and Africa. Thus, they benefit on a relative basis from the aging of the developed world.

### Exhibit 1



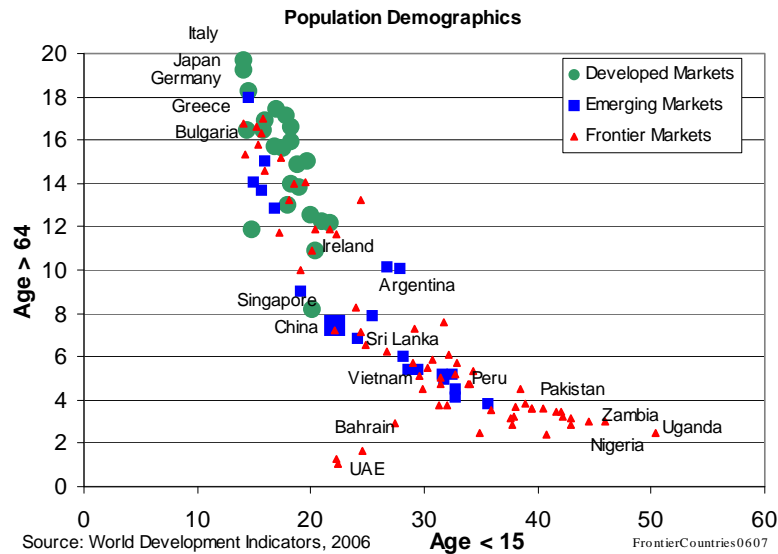


## The Economic Opportunity

While world attention focuses on India, China and the other popular emerging markets, more than 1.2 billion people live in Frontier Market countries. Their incomes are generally low, with a 2005 median GDP per capita of \$1,377 (excluding the Mid-East). On the other hand, these countries have had average annual GDP growth from 2000 to 2005 of 4.3% compared with 2.6% for EAFE countries, 2.8% for the U.S. and 4.4% for emerging market countries. Frontier Markets had 15 out of the 20 fastest growing economies in terms of average annual GDP growth from 2000 through 2005. While investors are well aware of China's high growth, a 9.3% average, few know that Armenia and Kazakhstan grew faster: 11.2% and 10.2%, respectively. Among others showing excellent growth were Latvia, 8.1%, Ukraine, 7.4%, Vietnam, 7.4% and Tanzania, 6.6%.

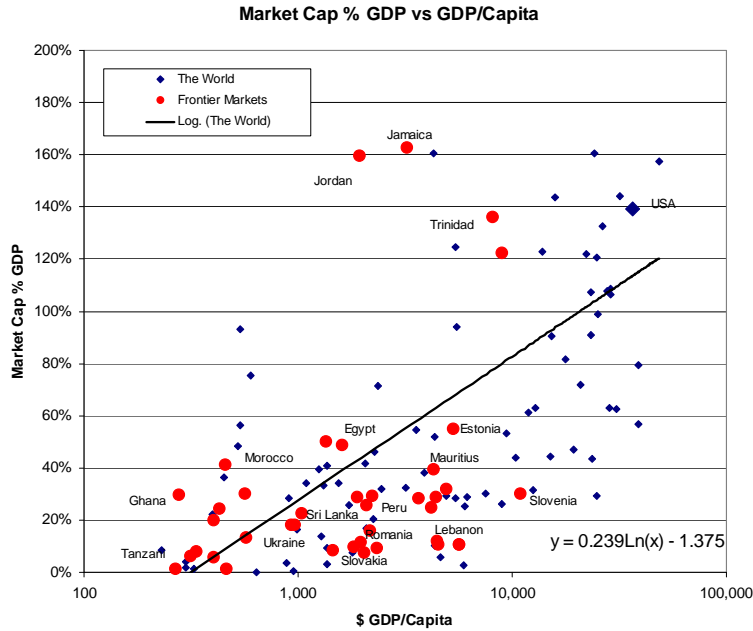
This strong growth is underpinned by the young population of most frontier countries at a time when the developed world is aging rapidly. Currently, only 14% of Japanese and Italians are under age 15, whereas in Zambia 46% are under age 15, in Tanzania 43%, in Pakistan 39%, in Bangladesh 36% and in Peru 33%. The chart below compares countries on this basis, and illustrates that the young workers needed to produce goods for older consumers in developed countries must come from frontier and emerging countries. As these young people become productive workers, they will also become significant consumers themselves.

### Exhibit 3



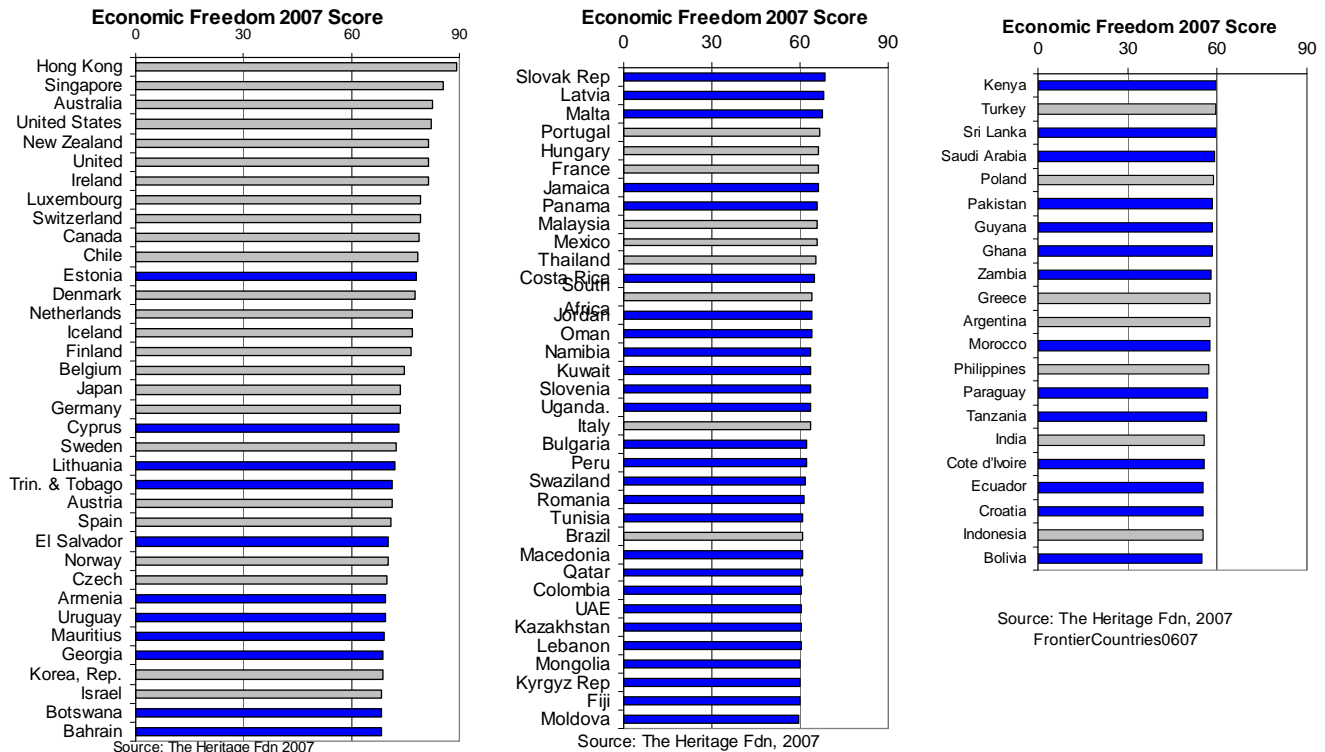
Another point in favor of Frontier Markets is that their size tends to be leveraged on economic growth. For many years, the International Finance Corporation has produced a chart similar to Exhibit 4. It shows that the size of a country's stock market tends to be related to its level of GDP per capita. As economies make real progress measured by incomes, they tend to develop more sophisticated financial markets, including larger stock markets. As shown by the trend-line in the chart, a change in GDP/capita from \$1000 to \$5000 would imply a change in the stock market from 28% of GDP to 66%. Thus a five times increase in GDP per capita implies that the stock market capitalization should grow by more than 10 times.

## Exhibit 4



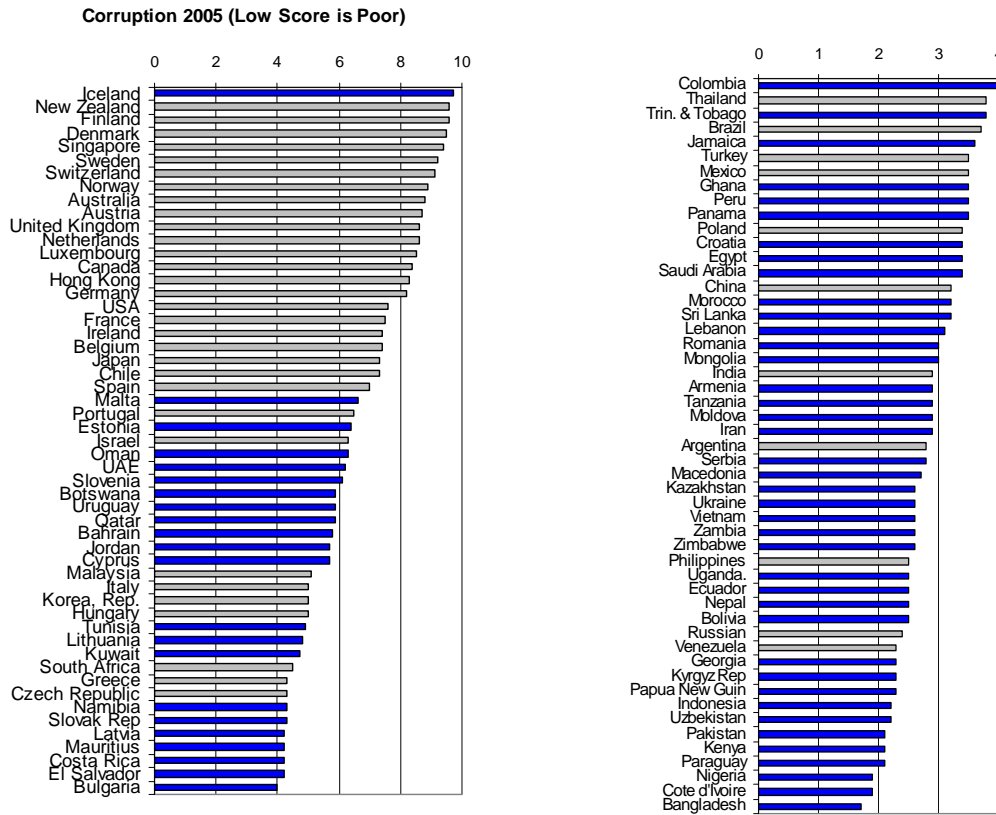
When considering the political performance of frontier countries, we look to the rankings of economic freedom, reported by The Heritage Foundation, <http://www.heritage.org/research/features/index/countries.cfm>, the 2005 Index of Economic Freedom measures each country in terms of its size of government, legal structure, access to sound money, trade freedom and regulations of credit, labor and business. The latest scores, for 2007, show frontier countries having an average rank of 61.2, not as good as developed countries at 76.3, but almost the same as emerging countries at 61.5. Moreover, the scores of frontier countries improved by 2.0 points since 2000 while emerging countries dropped by 0.8 points.

## Exhibit 5



A related issue for Frontier Markets is the level of corruption. Here too, there have been good improvements. For this, we use the rankings of Transparency International, [www.transparency.org](http://www.transparency.org). They use their own surveys as well as other sources to compile the Corruption Perceptions Index that gives highest scores to the best countries, such as Iceland and Finland, and the lowest to those where corruption is the worst, like Haiti. For Frontier Markets, they report an average 2005 score of 3.75, lower than developed countries, but close to the 3.90 average of emerging countries. Since 2000, the average score of frontier countries has improved by 3.9% versus a 3.4% improvement for developed countries and a 0.1% drop for emerging countries. A plot of countries shows that many frontier countries rank high, while more accepted markets like Argentina, Turkey, Brazil and Italy do not fare very well. As shown in the chart, 31 frontier countries rank higher than China, 36 are higher than India, and 51 are better than Russia. In considering the implications of these scores, it is also important to recognize that improvements in corruption from a low level can often lead to very rewarding returns.

## Exhibit 6



## Frontier Stock Market Returns

Turning to financial performance, Standard & Poor's tracks 22 Frontier Markets in its S&P/IFC Frontier Markets Composite. The companies in this index had a total float of \$67 billion as of September 2007, and they represent a significant portion of the capitalizations of their individual markets. Results have been good, with a total return for the Composite of 307%% from December 1996 to December 2006, compared with 160% for the MSCI Emerging Market Index, 126% for MSCI EAFE and 175% for the S&P 500 Index.

## Exhibit 7

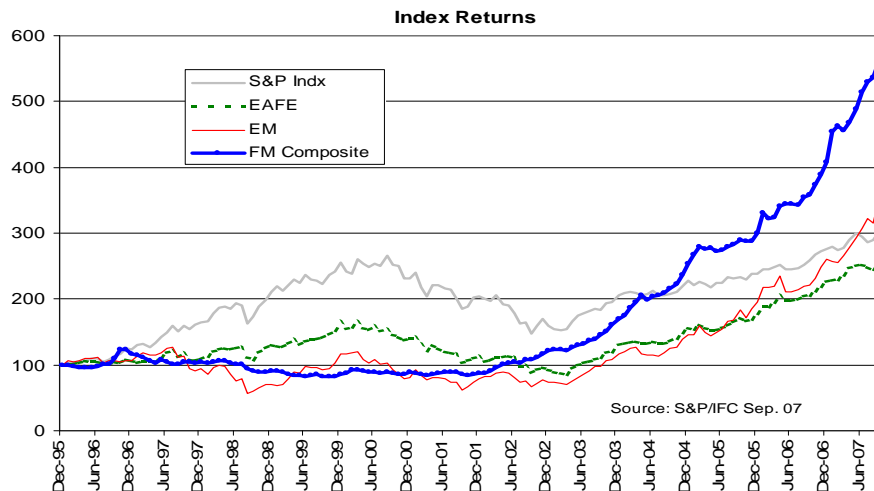
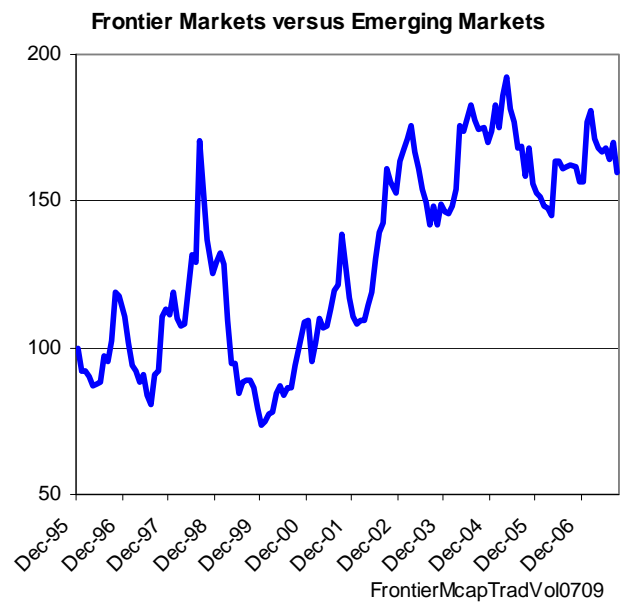
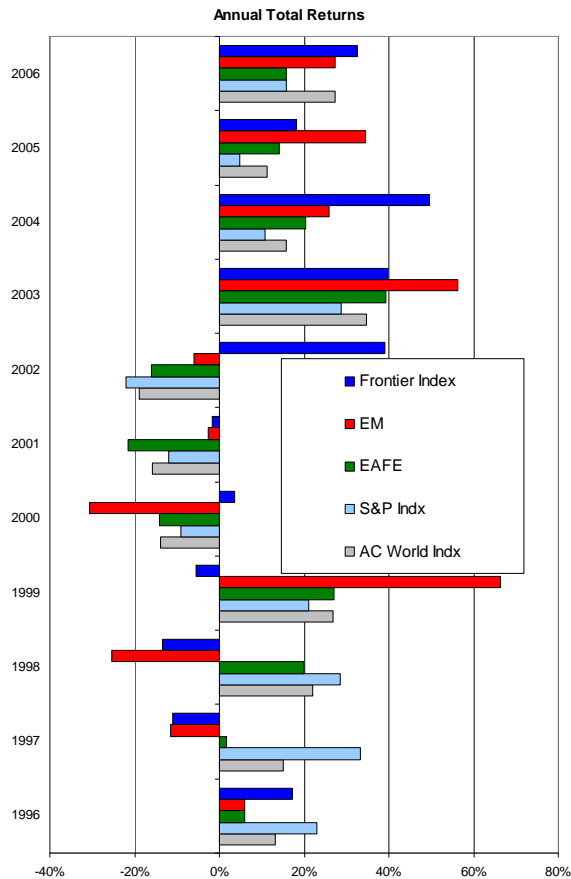


Exhibit 8 illustrates the diversification benefits of Frontier Markets as well as their excellent overall results; the chart of relative returns of Frontier Markets versus Emerging Markets shows that they move quite independently.

## Exhibit 8



## Correlations

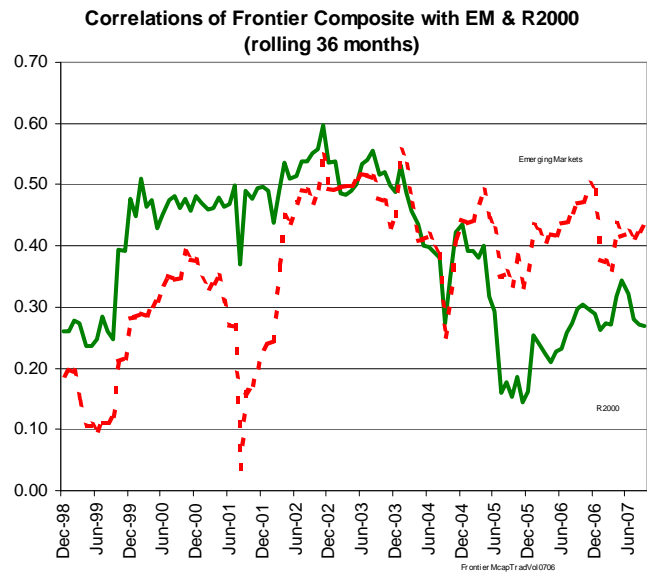
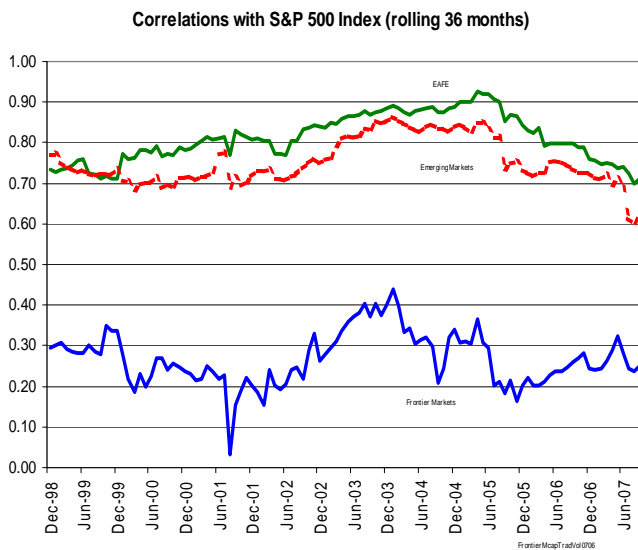
One of the challenges for investors in recent years has been the rising correlations among asset classes that have reduced diversification. The MSCI EAFE and Emerging Markets indexes had correlations of roughly 0.50 during the 1980s and early 1990s. These correlations, when squared, gave an r-squared of 0.25, implying that 25% of the movement in the S&P 500 would have been reflected in similar movement in these international indexes. Recently, however, the correlations have risen to 0.80 for EAFE and 0.75 for emerging markets, implying that today 64% of the movements in EAFE and 56% of the movements in emerging markets are tied to the U.S. market.

Meanwhile, Frontier Markets remain quite local in character, driven by their own internal economic and political dynamics. As a result, they have low correlations with the established markets and offer excellent diversification potential. As shown in exhibit 9, the correlation of the S&P/IFC Frontier Markets Composite with the S&P 500 Index is only 0.27, and it has been consistently low over time. Additionally, the correlation of Frontier Markets with Emerging



Markets is only 0.37 and 0.27 with the Russell 2000.

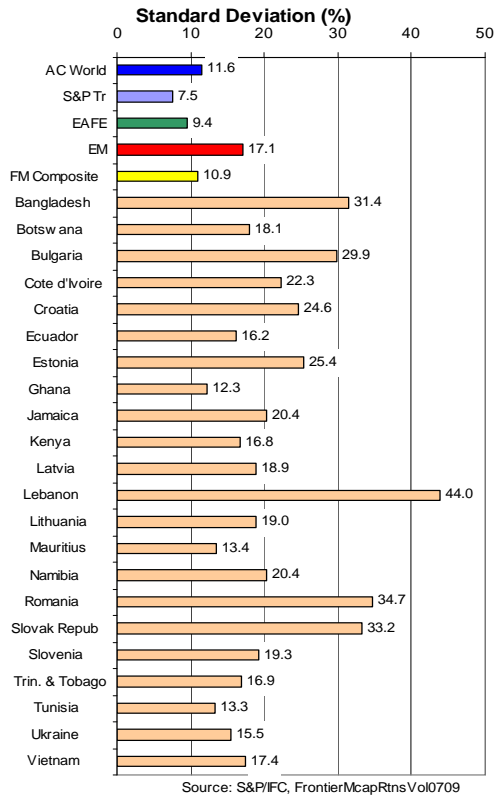
### Exhibit 9



### Standard Deviations

Examining the volatility of Frontier Markets also yields interesting results. Admittedly, the volatility of individual Frontier Markets is high: For example, the Lebanon has an annualized standard deviation of monthly returns of 44% during 36 months, for Romania, 35%, and 33% for Slovak Republic. On the other hand, the correlation among these markets is extremely low. The table on the right in Exhibit 10 shows the correlation of some of the Frontier Markets with Bangladesh and with Botswana. The data show that Bangladesh definitely moves in its own ways and has an average correlation of 0.04 with the other countries in the S&P/IFC Composite. For Botswana, the average correlation with other Frontier Countries is low at 0.18. Interestingly, it is 0.62 with neighboring Namibia, yet it is only -0.38 with nearby Kenya.

## Exhibit 10

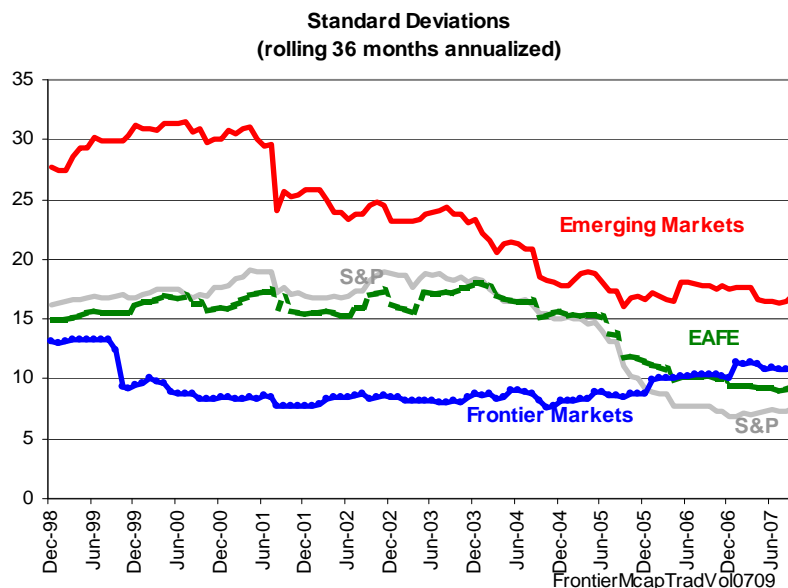


Correlations with:	Bangladesh	Botswana
Bangladesh	1.00	(0.02)
Botswana	(0.02)	1.00
Bulgaria	(0.09)	0.12
Cote d'Ivoire	0.34	0.11
Croatia	(0.16)	0.20
Ecuador	(0.23)	0.02
Estonia	0.14	0.15
Ghana	0.33	0.11
Jamaica	(0.07)	0.06
Kenya	0.14	(0.38)
Latvia	0.09	0.24
Lebanon	(0.11)	0.01
Lithuania	0.10	0.29
Mauritius	0.10	0.40
Namibia	(0.18)	0.62
Romania	(0.07)	0.19
Slovak Repub	(0.22)	0.29
Slovenia	0.19	0.34
Trin. & Tobago	(0.07)	(0.24)
Tunisia	(0.39)	0.15
Ukraine	(0.03)	0.05
Average (ex 1.00)	0.04	0.18

Source: S&P/IFC 36 mos Sep. 07

These low correlations result in a low overall volatility for the Composite of Frontier Markets as a whole despite high volatilities of individual markets within it. The overall standard deviation of the Frontier Composite is only 10.9% compared with 17.1% for the MSCI Emerging Market Index, 9.4% for MSCI EAFE and 7.5% for the S&P 500 Index. Thus, measured by standard deviation, the risk of Frontier Markets is 36% lower than that of the Emerging Markets Index.

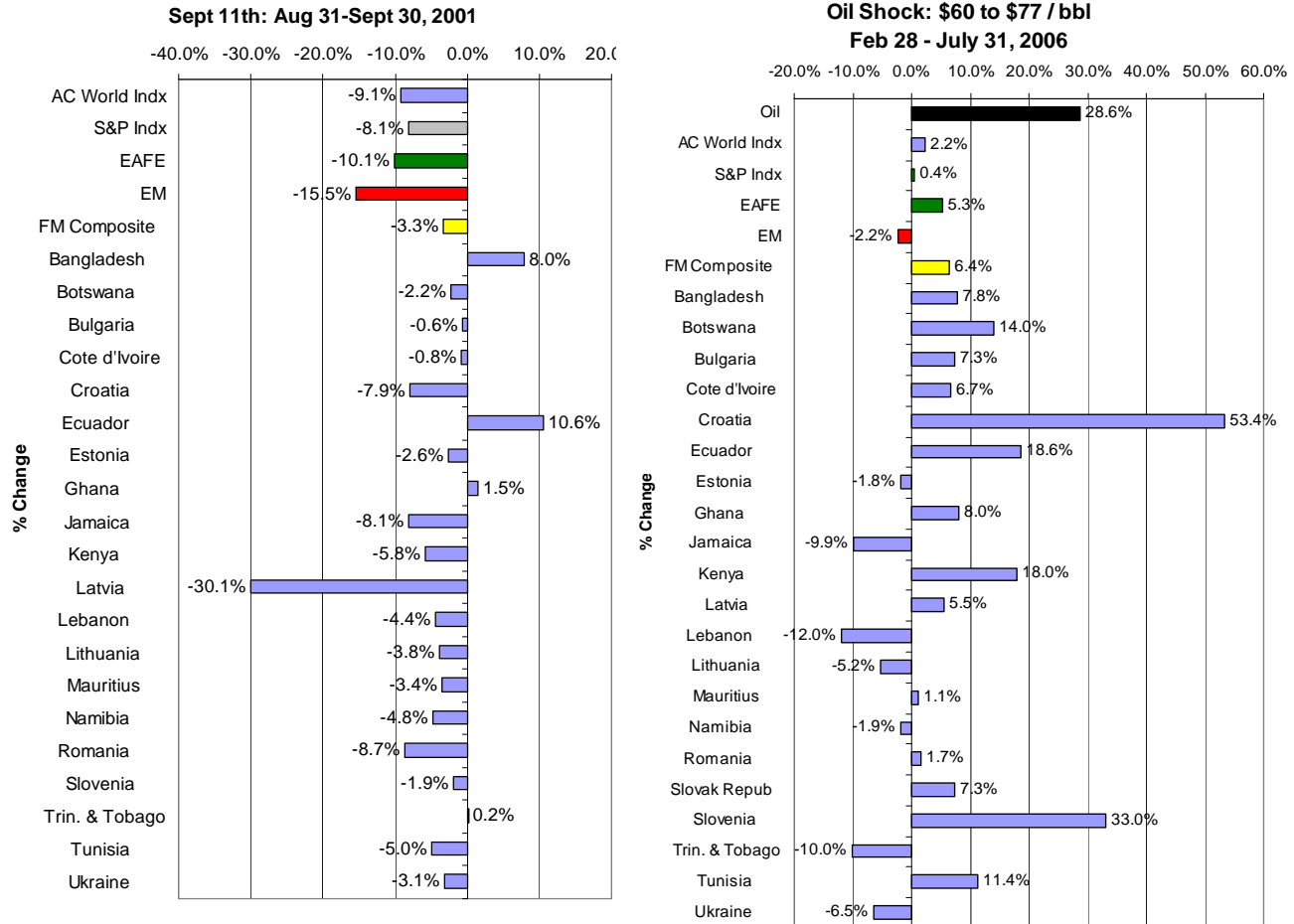
## Exhibit 11



## Event Risk

Another perspective on risk and diversification in Frontier Markets is provided by examining “event risk”. We look at two difficult periods, shown in Exhibit 12: The terrorist attacks of September 11, 2001 and the oil price shock of the spring of 2006.

### Exhibit 12



The left panel illustrates the response of markets in September of 2001. During this disaster, the All Country World Index fell by 9.1%, the S&P 500 Index by 8.1%, the EAFE Index by 10.1% and Emerging Markets by 15.5%. Frontier Markets dropped only 3.3%. In the right panel, we look at the spring of 2006, when oil prices rose from \$60 to \$70 per barrel, up 28.6%. During this five month period, the All Country World Index rose by 2.2%, the S&P 500 Index by 0.4%, the EAFE Index by 5.3% and Emerging Markets fell by 2.2%. Frontier Markets actually rose, by a surprising 6.4%. This does not imply that Frontier Markets will always provide a cushion in troubled times, but they have definitely had a low correlation with other world markets during times of trouble.

## Structural Risks

While the financial statistics of Frontier Markets are attractive, they do mask many challenges at the implementation level.

Some of these are macro challenges, where sometimes the particular problems of individual countries can seem overwhelming: prosecution of politicians by the military government in Bangladesh, violence in Cote d'Ivoire, bullying of Lithuania and Ukraine by Russia, the AIDS catastrophe in Swaziland and the economic ruin brought on by kleptocrat "big men" rulers in Zimbabwe and Kazakhstan. Recently in one African country, the ruler's family spent the equivalent of a third of the country's education budget on one vacation house and three exotic cars. While careful analysis can help avoid the worst of these problems, the best opportunities can often arise out of seemingly insurmountable problems. As the old saying goes, "It's always darkest before the dawn". We believe the best answer to these challenges is to search for the best stocks and diversify the country risks.

At the micro level, there are challenges in security analysis. Simply getting annual reports can be difficult, and sometimes they are not even published for months after year-end. Once published, they may not be posted on the company's website (if there is one) for a year, and companies rarely respond to emailed requests for them. Once annual reports are obtained, they are often short and lacking in candid comments about the business outlook. The financial statements can be hard to interpret, including obscure accounting treatments and local terms such as "headline earnings" or "embedded value". In the case of initial public offerings, the planning and execution can be quite different from procedures in more developed markets: a recent road show for an African bank failed to provide the prospectus. Conference calls can be useful, but phone service to many Frontier Countries is poor and intermittent. And language barriers can exist even when both parties believe they are speaking English! Local company visits aren't easy either, given the challenges of local infrastructure and logistics.

Research reports can be hard to find as well, and their quality varies widely. Although there are more than 1200 analysts who have passed the Chartered Financial Analyst examinations in Frontier Countries, reports on local companies are too often simply just reports: brief and factual rather than analytical and insightful. Financial forecasts, they are frequently lacking... in Bangladesh, they are even forbidden. Ask a local broker about his or her market, and the first stocks you will hear about are the biggest, because they'd like you to do a large trade. Ask about their favorite stocks, and you'll hear about the three stocks that went up the most in the past year. Ask again and you may hear about an obscure name that is cheap but rarely trades. These challenges mean that market prices are often extremely inefficient, but it takes diligence and patience to find the most attractive buy candidates.

Then there are issues of market access. Opening a local account can require coping with sluggish bureaucracy and Byzantine regulations. There can be local limits on foreign purchases: For example, until recently only one stock in Tanzania was below the 60% foreign ownership limit. Placing orders presents challenges too, with close monitoring needed to prevent them from being "lost", executed in the wrong stock or executed with unexpectedly high currency conversion charges. Initial public offerings may favor local investors, sometimes practically excluding foreigners who nevertheless have their commitment funds tied up for months. And finally, commission costs can be as high as 200 basis points in Bulgaria, Cote d'Ivoire and Romania, 250 basis points in Zambia, 275 basis points in Nigeria and 300 basis points in Ghana and Montenegro.

Although liquidity is good for Frontier Markets as a whole, it is limited in many markets. Botswana, for example, trades only \$441.450 a day and has 4.9% annual turnover, while Vietnam trades \$25 million a day with annual turnover of 81.6%.

### Exhibit 13

	\$ Traded 12 mos to 8/07 (mil)	Daily volume (\$)	Annual Turnover
Bangladesh	\$1,172.8	\$5,863,850	70.0%
Botswana	\$88.3	\$441,450	4.9%
Bulgaria	\$3,305.8	\$16,529,050	192.3%
Cote d'Ivoire	\$105.3	\$526,300	3.1%
Croatia	\$1,191.2	\$5,956,000	29.0%
Ecuador	\$275.0	\$1,374,900	20.6%
Estonia	\$1,226.2	\$6,131,000	95.5%
Ghana	\$43.9	\$219,250	9.4%
Jamaica	\$192.6	\$963,000	9.8%
Kenya	\$1,037.9	\$5,189,600	32.4%
Latvia	\$122.2	\$611,150	50.6%
Lebanon	\$508.0	\$2,540,050	9.2%
Lithuania	\$2,227.6	\$11,138,100	153.3%
Mauritius	\$246.5	\$1,232,250	9.2%
Namibia	\$8.4	\$42,200	4.1%
Romania	\$1,633.7	\$8,168,250	22.3%
Slovak Repub	\$20.9	\$104,550	5.9%
Slovenia	\$1,531.1	\$7,655,250	13.5%
Trin. & Tobago	\$245.8	\$1,228,800	5.6%
Tunisia	\$398.7	\$1,993,700	22.9%
Ukraine	\$499.0	\$2,494,800	10.6%
Vietnam	\$4,936	\$24,682,350	81.6%
	\$21,017.2	\$80,403,500	26.4%

All of this means that security analysis and portfolio construction must be based on care, diligence and a long-term perspective. As someone said, "We're looking for today's prices and tomorrow's liquidity". There are many risks in frontier markets, but they can be reduced substantially through diversification. As they develop, Frontier Markets will improve in terms of liquidity and transparency; but as they become more efficient, they will lose the low correlations with other markets and the low valuations that help to make them attractive today.

### Conclusion

While many investors still perceive frontier markets as being in decline, ravaged by wars, disease, famine and authoritarian governments, this view often reflects media reporting rather than reality. Many frontier countries have undergone a radical restructuring of their economies since the early 1990's, and their macroeconomic fundamentals are often sound and encouraging. Frequently, real per capita GDP is rising, inflation is low, currency exchange rates are becoming more stable, and corporate profits and return on investment are relatively high. Thus, from an economic standpoint frontier market countries are indeed emerging rather than stagnating. They are not formally recognized as emerging today, but with further progress it will

not be possible to ignore them much longer.

Looking ahead, these markets may represent the final frontier for global capital. As the emerging markets of today move on to become part of the developed world, the stage is set to bring along a new set of emerging candidates in the frontier markets. While available information is often sparse, local regulations are complex and research coverage by analysts and brokerage firms is limited, these were exactly the characteristics of emerging markets twenty years ago. These challenges create an opportunity for investors to uncover neglected companies with healthy, improving operations and stocks that have been ignored by the mainstream investment community. With patience and care, frontier markets can prove very rewarding.

### *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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<sup>1</sup> “The Case for Frontier Equity Markets” was originally written in July 2007. For current data and information on Frontier Markets, please contact us.