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Emerging Equity Markets in a Globalizing World

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ABSTRACT

Given the dramatic globalization over the past twenty years, does it make sense to segregate global equities into "developed" and "emerging" market buckets? We argue that the answer is still yes. While correlations between developed and emerging markets have increased, the process of integration of these markets into world markets is incomplete. To some degree, this accounts for the disparity between emerging equity market capitalization in investable world equity market benchmarks versus emerging market economies in the world economy. Currently, emerging markets account for more than 30% of world GDP. However, they only account for 12.6% of world equity capitalization. Interestingly, this incomplete integration along with the relatively small equity market capitalization creates potentially attractive investment opportunities. Our research has important policy implications for institutional fund management.

JEL: G11, G15, G18, G24, F36.

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Introduction

Twenty years ago, the World Bank organized a conference on "Portfolio Flows to Emerging Markets". At the time, the World Bank had recently compiled the first ever database of emerging market equity returns. Foreign portfolio (as opposed to direct) investment was relatively new. The theme of the conference was to better understand the risks that portfolio investors faced in their emerging market investments and to study why emerging markets were different from developed markets.

Today, the issue is not whether to invest in emerging markets – but how much to invest in emerging markets. However, even after twenty years of research, there are still some unanswered questions. Our paper addresses these questions:

- Has the risk profile of emerging markets changed?
- Are emerging markets more integrated today?
- How much of a diversified global equity portfolio should be allocated to emerging markets?

Indeed, our paper addresses an even broader question – *should we even bother to distinguish between emerging and developed markets?* As early as 2002, Saunders and Walter (2002) claimed that the continued capital market liberalizations across developing countries obviated the need to separate emerging and developed equity market classes. Despite further globalization since then, our conclusion is different: emerging markets should still be treated as a separate asset class!

Our research has important policy implications for institutional fund management. Emerging markets are not fully integrated within global capital markets yet, and deserve to be a separate asset class. New sub-segments (currencies, bonds) should be considered too. The relative market capitalization of emerging markets is much lower than their relative economic weight, so that a market capitalization based benchmark can be viewed as a lower bound on the asset allocation to emerging markets. Over the last 15 years, emerging equity markets transformed from an asset class exhibiting very low correlations with the rest of the world to one with a relatively high world market beta: risky but high expected returns.

The Increasing Role of Emerging Markets in the World Economy

In the late 1980s, the U.S. and Japan accounted for 46.3% of world GDP whereas China accounted for less than 1.5% of world GDP. By 2012, China's share grew to 11.5%, whereas the share of the U.S. and Japan fell to 30.2%

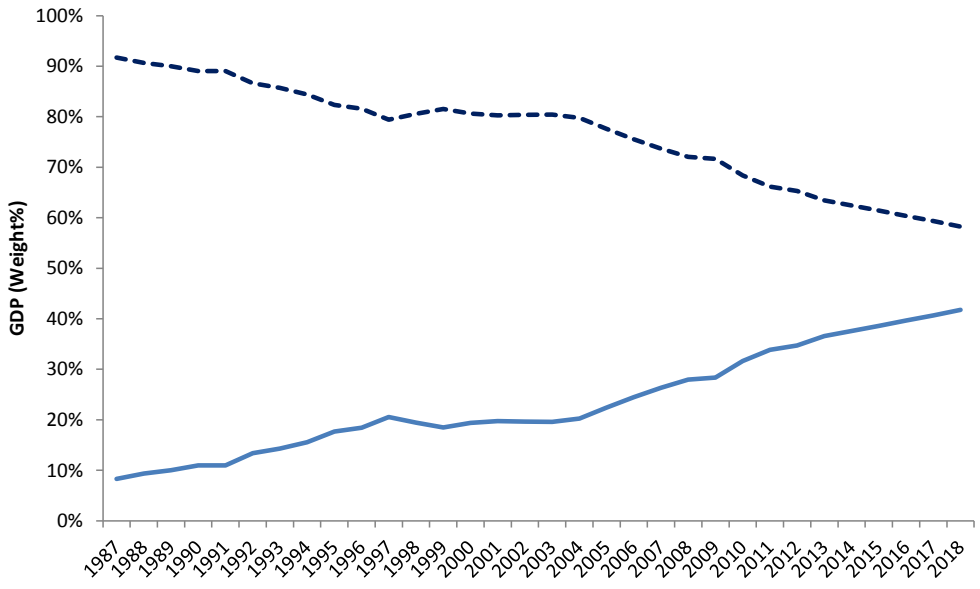
Exhibit 1. Contributions to World GDP

Rank	1987		2012	
	Country	GDP Weight	Country	GDP Weight
1	United States	30.1%	United States	24.4%
2	Japan	16.2%	China	12.8%
3	Germany	6.6%	Japan	9.3%
4	United Kingdom	4.9%	Germany	5.3%
5	France	4.5%	France	4.1%
6	Italy	3.9%	United Kingdom	3.8%
7	Canada	2.3%	Brazil	3.5%
8	Brazil	2.1%	Russia	3.1%
9	Spain	1.8%	Italy	3.1%
10	Russia	1.7%	India	2.9%

Source: World Bank, IMF. Data for 2012 is as of June 2013.

As Exhibit 1 shows, China, Brazil, Russia and India all feature in the top 10 in terms of contribution to world GDP. It is reasonable to expect that the GDP share of today's emerging markets will soon exceed the GDP share of developed markets. In fact, projections of the World Bank, reproduced in Exhibit 2, suggest as much.

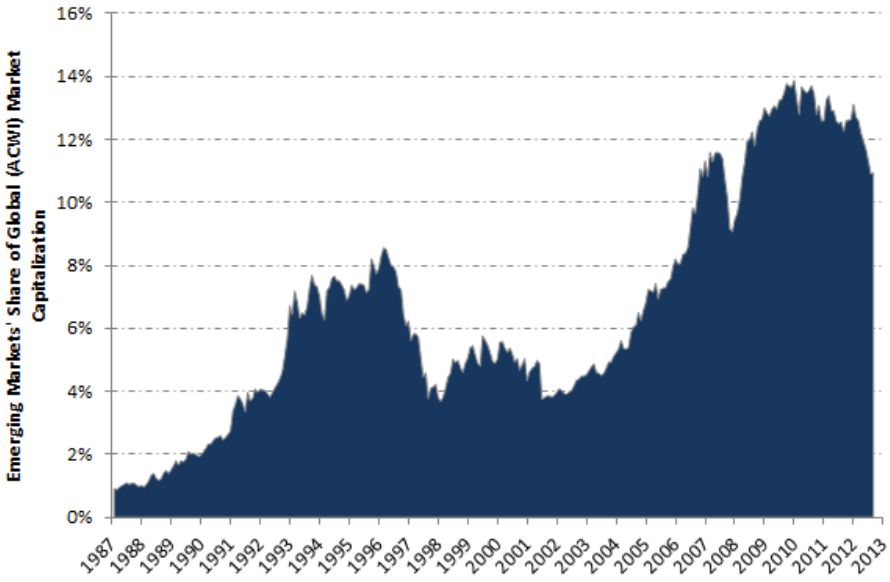
Exhibit 2. Emerging and Developed Countries' Share of World GDP



Source: World Bank, IMF. Shaded area uses IMF forecasts.

Notice that emerging market GDP represented about 15% of world GDP in 1987. Yet at that time, the equity market capitalization was very small – less than 1% of the world market capitalization according to Morgan Stanley Capital International (MSCI) data, as shown in Exhibit 3. The exhibit also shows the rapid growth in market capitalization over the last decade.

Exhibit 3. Equity Market Capitalization of Emerging Markets

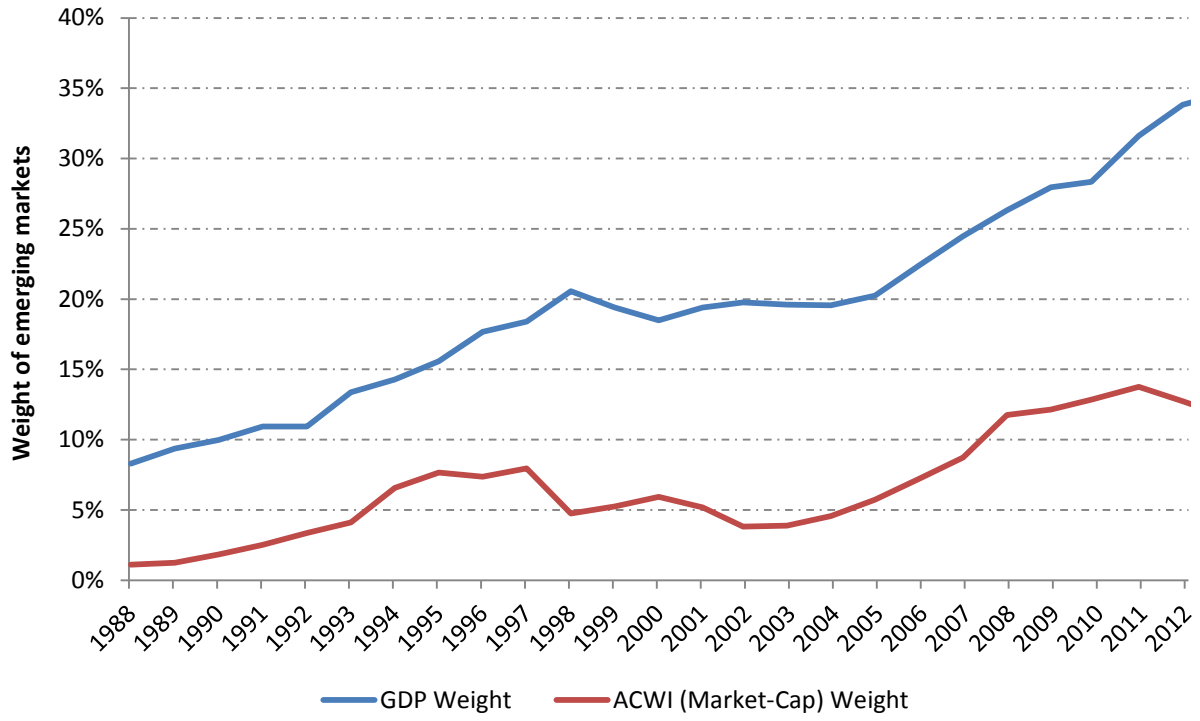


Source: MSCI

By the beginning of 2012, the market capitalization weight for emerging markets according to MSCI is 12.6%**.** The FTSE benchmark market capitalization weight for emerging markets was 11.5%. The difference between FTSE and MSCI has to do with the countries that are classified as "emerging". The most significant difference is South Korea which accounts for 2.2% of global equity market capitalization. In the FTSE global index, South Korea is a "developed" market whereas MSCI puts South Korea in the "emerging" market group. There are other smaller differences. The different approaches to including South Korea speak to one of our fundamental questions: should we bother to distinguish between emerging and developed?

While both the GDP and market capitalization share of emerging markets have grown, they have failed to converge. By 2012, emerging markets accounted for more than 30% of world GDP yet only 12.6% of equity market capitalization. The U.S., in contrast, currently accounts for 25% of world GDP, and about 45% of world equity market capitalization (according to the MSCI ACWI – which has a broader coverage of emerging markets than the MSCI World Index).

Exhibit 4. Emerging Markets GDP and Equity Market Shares



Source: World Bank, IMF, MSCI.

Exhibit 5 drills down to the country level. In the MSCI All Country World Index (MSCI ACWI), of the 10 countries most underweighted relative to their GDP weights, 6 are emerging markets with China most underweighted.

Exhibit 5. Top 10 Over and Underweighted Countries in MSCI GDP-Weighted Indices

	MSCI ACWI GDP-Weighted Index	MSCI ACWI Index	Difference
Largest Overweights			
CHINA	12.7%	2.1%	10.6%
RUSSIA	3.1%	0.7%	2.5%
ITALY	3.2%	0.8%	2.5%
GERMANY	5.5%	3.2%	2.3%
BRAZIL	2.9%	1.2%	1.7%
INDIA	2.3%	0.6%	1.7%
JAPAN	9.5%	7.9%	1.6%
MEXICO	1.7%	0.6%	1.2%
SPAIN	2.3%	1.1%	1.1%
INDONESIA	1.0%	0.3%	0.7%
Largest Underweights			
USA	25.1%	48.4%	-23.3%
UNITED KINGDOM	3.9%	8.2%	-4.2%
SWITZERLAND	1.0%	3.3%	-2.3%
CANADA	2.8%	3.8%	-1.0%
HONG KONG	0.4%	1.1%	-0.7%
TAIWAN	0.7%	1.3%	-0.6%
AUSTRALIA	2.4%	2.9%	-0.5%
SWEDEN	0.9%	1.2%	-0.4%
SOUTH AFRICA	0.6%	0.8%	-0.2%
SINGAPORE	0.4%	0.6%	-0.2%

Source: MSCI. Data as of August 30, 2013. MSCI ACWI includes both developed and emerging market countries.

There is one additional, important consideration. First, providers such as MSCI and FTSE do not count all of the market capitalization. They focus on the "free float". Some of the capitalization may not be easily available for transactions because, for example, it is held by a government. Emerging markets have much lower proportions of free float than developed markets. Exhibit 6 shows that in the MSCI emerging markets, the free float to total market capitalization is only 56% on average. In contrast, in the U.S., the ratio is 94%. Note that MSCI only changed the ACWI in 2002 to reflect the difference between total market capitalization and free float.

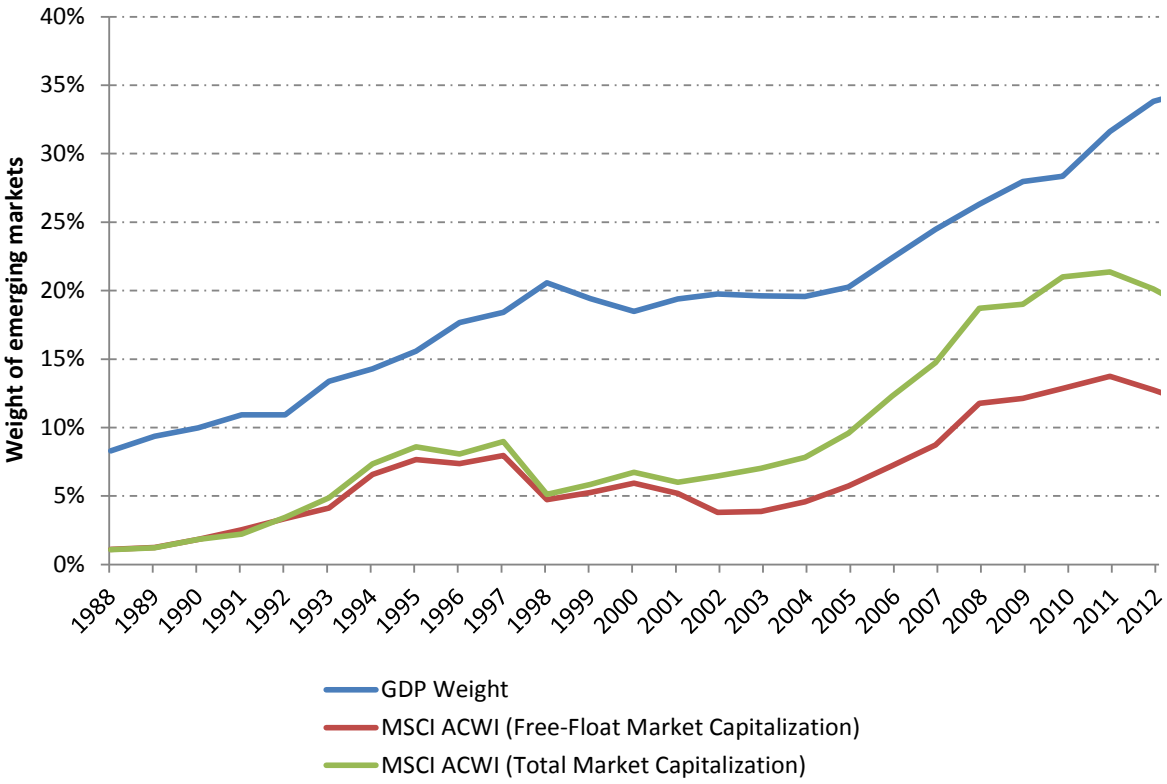
Exhibit 6: Free float for MSCI indices

	Free Float (%)
ACWI	73
World	83
EM	55
Developed Markets	
USA	94
Europe incl Israel	76
Japan	75
Pacific ex Japan	72
Emerging Markets	
EM Asia	55
EM EMEA	53
EM Latin America	56

Source: MSCI. Data as of July 31, 2013. Average of companies' free float for constituents in the index.

However, the free float does not account for all of the underweighting. Exhibit 7 revisits Exhibit 4 – but adding a total capitalization version of the MSCI ACWI.

Exhibit 7. A Comparison of Total Market Capitalization and Free Float Shares



Source: World Bank, IMF, MSCI.

While the emerging markets share of free float is 12.6%, the share of total market capitalization is 20.0%. Nevertheless, this is far short of the 31.6% share of GDP they represent.

Risk Characteristics of Emerging Markets

The combination of home bias and the prevalence of market capitalization benchmarks in investing leads to emerging markets accounting for much less than their economic weight in investment portfolios in the developed world. To assess the attractiveness of emerging market equity investments, we now consider the risk and expected return characteristics of emerging market returns.

Examining the history of the MSCI indices in Exhibit 8, emerging markets have historically outperformed developed markets.

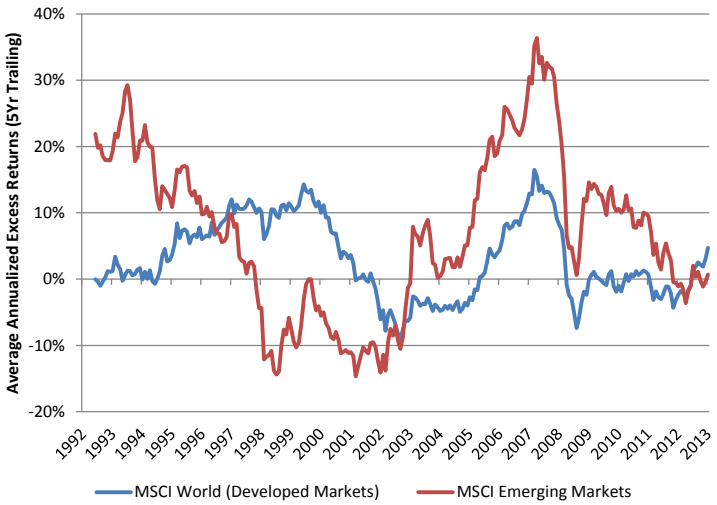
Exhibit 8: Comparing the Total Return Performance of Developed and Emerging Markets (January 1988 to August 2013)

	MSCI World	MSCI EM
Average Annualized Excess Returns		
January 1988 to August 2013	3.69%	7.96%
- January 1988 to December 2000	5.18%	6.46%
- January 2001 to August 2013	2.19%	9.53%
Annualized Standard Deviation		
January 1988 to August 2013	15.25%	23.78%
- January 1988 to December 2000	13.91%	23.76%
- January 2001 to August 2013	16.52%	23.88%
Sharpe Ratios (annualized returns)		
January 1988 to August 2013	0.24	0.33
- January 1988 to December 2000	0.37	0.27
- January 2001 to August 2013	0.13	0.40

Note: The geometric average is used for average annualized excess returns above. Returns are in excess of a U.S. Treasury bill. Source: MSCI and the St. Louis Federal Reserve.

The geometric average excess return (over and above a U.S. Treasury bill) for emerging markets over the sample was 8.0% compared to only 3.7% for developed markets (MSCI World). Because the emerging market index has much higher volatility than the world indices, we use geometric averages in these calculations. The standard deviation of emerging market returns is 23.8% compared to only 15.3% for the diversified world index. Even though the volatility is much higher, the Sharpe ratios for emerging markets are still higher. The difference is even more dramatic in the most recent 10 years, when the 2008-2009 financial crisis substantially undermined the performance of developed markets. Despite being hit severely by the crisis as well, some large emerging markets such as Brazil, Russia and South-Africa, nevertheless more than tripled over the last decade. The five-year trailing excess geometric returns in Exhibit 9 show a very large run-up in emerging markets during most of the past decade, and very few negative five year returns are observed for emerging markets over the last 10 years.

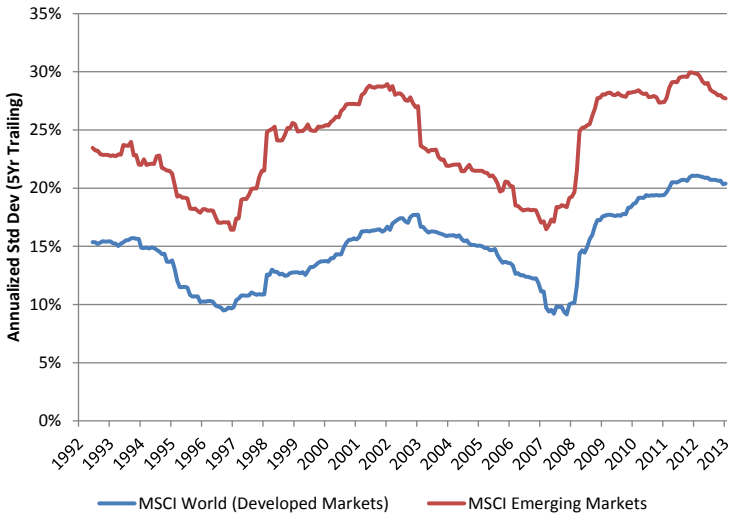
Exhibit 9: Annualized USD five-year excess returns



Note: Geometric returns are used. Returns measured in excess of U.S. Treasury bill rate. Source: MSCI and St. Louis Federal Reserve.

Note that higher volatility of the emerging market portfolio is not at all surprising and simply reflects the large weight of the low volatile U.S. market in the world market index and the diversification effect of investing in all the world's equity markets. Individual emerging markets have very high volatility ranging from e.g. 27% for South – Africa to 54% for Russia (using data from 1988 to September 2013). The volatility of the emerging markets index is therefore low relative to the individual volatilities of separate countries, and it is about as high as the volatility of a developed market index, such as Japan or Germany. The rolling five-year standard deviations in Exhibit 10 show that the volatility of the emerging market index has fluctuated in the 17% to 30% band - but is lately close to the upper band of that range. There is clearly lots of comovement in the low-frequency changes in the variances of emerging and developed markets.

Exhibit 10: Annualized five-year standard deviations



Source: MSCI

Risk should not simply be measured by standard deviation however. It is well known that emerging market returns are not normally distributed, see Bekaert, Erb, Harvey and Viskanta (1998). It is important to consider downside risk too. Exhibit 11 shows that the emerging market index does not show substantially more non-normalities than the MSCI World index, exhibiting similar skewness at -1.6 and only slightly more excess kurtosis at 1.6. Note that individual emerging markets actually mostly exhibit positive skewness but the growth experiences appear country specific whereas some of the downside moves are common across countries, causing negative skewness at the index level. Taking together all the risk characteristics, emerging markets definitely have more downside risk. The 99% VaR for emerging market returns is -24.6% compared to only -14.7% for developed markets. Of course, this is largely caused simply by the higher variance of emerging market returns.

Exhibit 11. Downside and Tail Risk (Monthly Total Returns, in USD, January 1988 to December 2012)

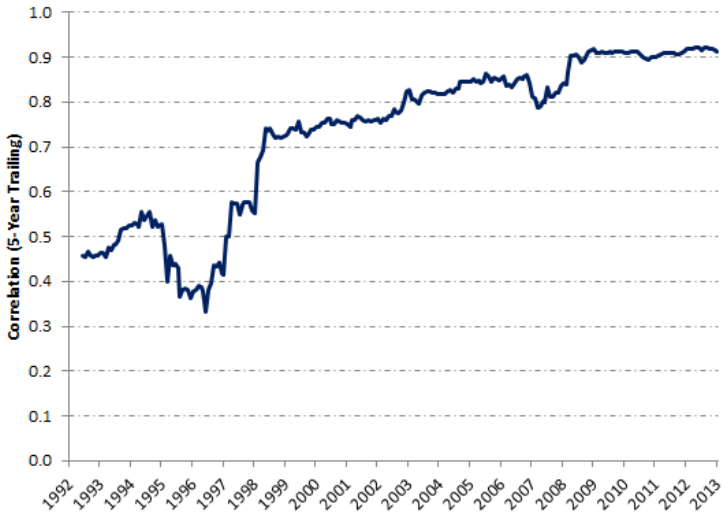
	MSCI World	MSCI EM
Average Monthly Total Return	0.7%	1.2%
Standard Deviation	4.4%	6.9%
Skewness	-0.6	-0.6
Kurtosis	1.4	1.7
VaR (95%)	-7.4%	-10.6%
VaR (99%)	-10.9%	-16.3%
Conditional VaR (95%)	-10.1%	-11.7%
Conditional VaR (99%)	-13.8%	-22.5%
Average Negative Return	-3.5%	-5.3%
Average Positive Return	3.5%	5.3%

Note: Simple average monthly total returns are shown above. Average monthly return is not annualized. Standard deviation is that of monthly returns, also not annualized. Both skewness and kurtosis are defined in the standard way; kurtosis is excess kurtosis here. Value-at-Risk is the realized monthly percentage loss at the relevant threshold. Conditional Value-at-Risk is the average loss once the threshold has been exceeded. Average negative and positive returns are simple averages conditional on the returns being negative or positive respectively. Source: MSCI

From an investment perspective, the absolute risk of emerging markets is largely irrelevant. Investors in developed markets will invest only a portion of their portfolio in emerging markets, and therefore the correlation between developed markets and emerging markets will be an important driver of the ultimate risk borne. When emerging markets were first touted as interesting investments for global investors in the early 90s, their diversification benefits were stressed. The emerging market index had a correlation with the world index of about 40%, leading to massive diversification benefits. However, this correlation has increased considerably over time. As Exhibit 12 shows, more recently the correlation stands at 0.90.

It is easy to explain some of the initial increases in correlations. At the end of the 1980s and the beginning of the 1990s, many emerging markets embarked on a liberalization process and these stock market liberalizations drove up the correlations with the rest of the world (see Bekaert and Harvey, 2000; Henry, 2000). However, since then the gradual increase in correlations has continued, making diversification benefits a poor rationale for investing in emerging markets.

Exhibit 12: Emerging Markets Have Become More Correlated with Developed Markets



Source: MSCI

The increasing correlations are partly the result of higher betas with respect to the world market, as shown in Exhibit 13. The other component in the increase is a 10% increase in the world versus emerging market volatility ratio (see exhibit 9). Betas now seem to fluctuate in a 1.2-1.6 band, making emerging markets a risky, high expected return asset class. The high betas do not suffice to explain the higher returns earned by emerging markets over the last 20 years.

Exhibit 13. Emerging Markets Rolling Beta to World Markets

Source: MSCI

The high correlations hide some interesting dynamics. In Exhibit 14, we separate out positive and negative performance. Emerging markets perform similarly to developed markets when developed markets are negative. However, emerging markets outperform developed markets when developed markets are positive. Again, this is based on averages and this measure as well as correlation could be affected by influential observations. In addition, the historical behaviour is only suggestive of future return patterns. Nevertheless, it is somewhat reassuring that the above pattern was realized in the period surrounding the recent financial crisis. In other words, the downside of emerging markets is less severe as the beta computations would suggest. If the beta is truly higher than 1, emerging markets should under-perform when developed markets do poorly, but Exhibit 14 suggests they perform about as well. This result is consistent with recent results on non-linear dependence in emerging market returns by Christoffersen, Errunza, Jacobs and Langlois (2013) and with recent work on contagion during the global crisis (see Bekaert, Ehrmann, Fratzscher, and Mehl, 2013).

Exhibit 14. Alternative Measures of Diversification

	Monthly Returns (Jan 1988 -Aug 2013)	**Annual (Year-End) Returns (Dec 1988 - Aug 2013)**
Average DM Return when DM Return is Negative	-3.51%	-16.50%
Average EM Return when DM is Negative	-3.38%	-15.64%
Average DM Return when DM Return is Positive	3.51%	18.86%
Average EM Return when DM is Positive	4.40%	31.62%

Source: MSCI

Market Integration

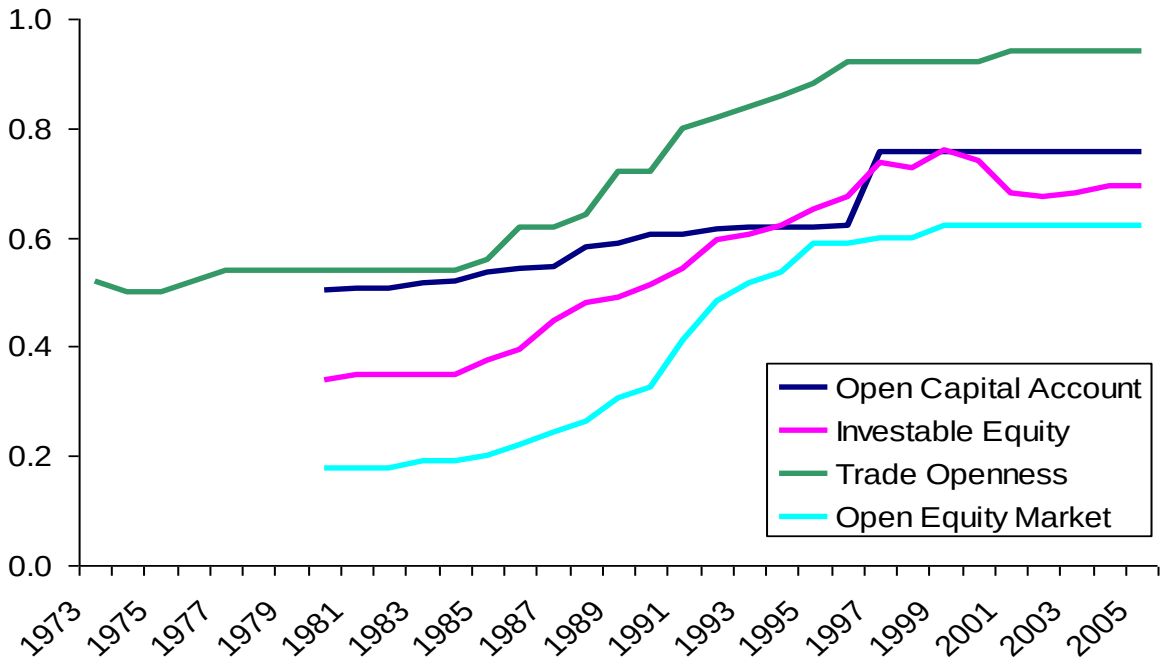
But are emerging markets still "different", do they constitute a separate asset class? The way an academic would pose that question is to ask whether emerging markets are effectively "integrated" in global capital markets. In integrated world markets, the project of the same risk (say a particular type of industry), should command the same expected return – no matter where the project is located. If a market is not integrated, we refer to the market as segmented. In reality, there is a continuum of possibilities between segmentation on one extreme and integration on the other.

It is well known that many emerging markets are not fully integrated into world markets (see Bekaert and Harvey (1995, 2000) and Bekaert et al. (2011)). Segmentation is first and foremost caused by regulations that make it difficult for the foreign investor to buy equity in the particular country.

The stock market and more general financial liberalization process that took place at the end of the 80s and throughout the 90s relaxed a lot of these regulations, creating the emerging market asset class in the process. The globalization process may serve to integrate emerging markets with global capital markets, but how do we measure it? In Exhibit 15, we focus on two aspects of (de jure) globalization. First, economic openness as measured by the Trade Liberalization Dummy, taken from Wacziarg and

Welch (2008). Wacziarg and Welch (2008) call a country open to trade when it satisfies a number of criteria regarding tariff and non-tariff barriers. It's a zero-one dummy. Second, financial openness for which we show two indicators: the Capital Account Openness Index from Quinn and Toyoda (2008), and the Equity Market Openness indicator from Bekaert, Harvey and Ng (2005). The capital account index scores the degree of capital account openness between 0 and 1 based on IMF data. The equity markets measure takes the ratio of "investable" to total market capitalization.

Exhibit 15. Openness Has Increased



We take these 0/1 measures for 50 countries, average them and graph them over time. The graph shows that there is a very clear trend upwards towards more openness. For trade, the world is "open" but there is some way to go towards full openness for capital account openness and equity market openness. In fact, in the recent global crisis, we most definitely witnessed a globalization reversal, but our measures are too coarse to pick this up.

For global asset managers, globalization has had "grave" consequences. As discussed before, it increased country correlations, and changed systematic risk measures and may therefore undermine standard asset allocation models. However, the integration process is far from complete. The third largest market in the world (China), for example, is largely closed to foreign investment. More importantly, a relaxation of restrictions on foreign investors does not necessarily lead to integration as other factors may effectively segment the market from global capital markets. A good example is extreme political risk, which may keep out important institutional investors restricted to invest in investment grade countries. Another example is corporate governance. Consider a set of country governance and political risk indicators in Exhibit 16. There is still a sharp contrast between emerging and developed markets with emerging markets showing mostly medium to low scores on these indicators of corporate governance, political stability and corruption.

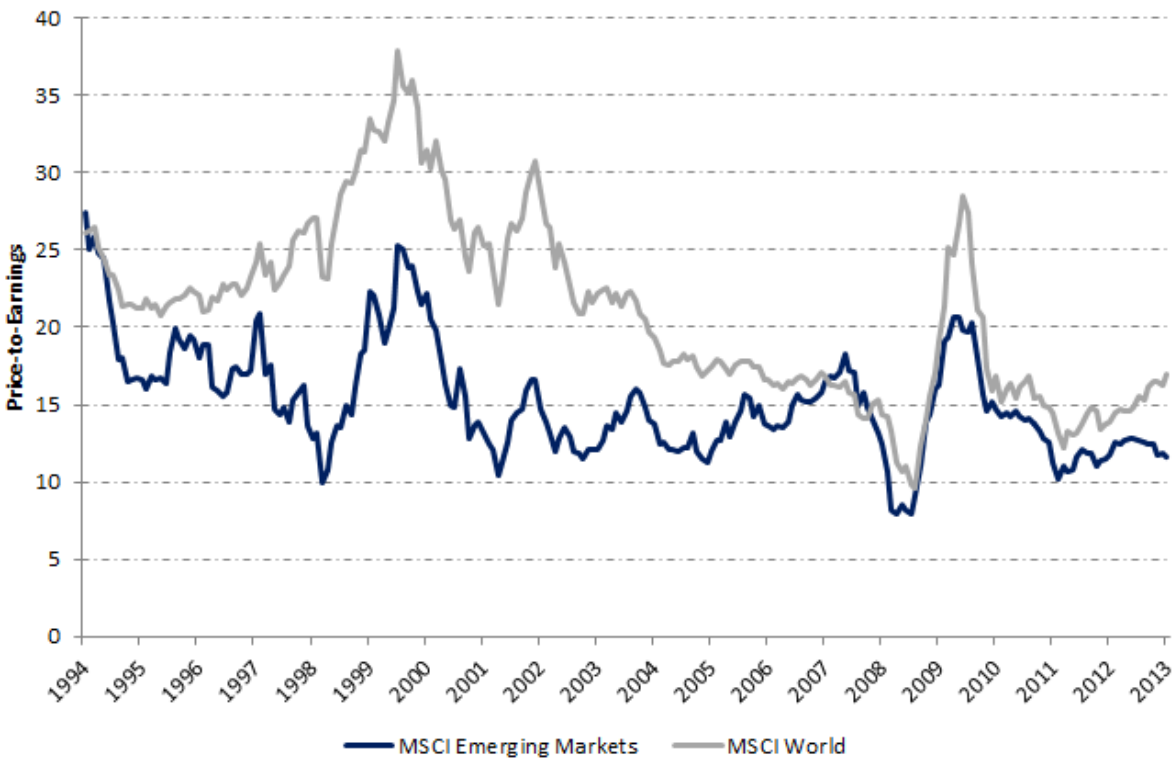
Exhibit 16. Select Country Governance Indicators for Select Countries (September 2013)

		Enforcing Contracts	Rule of Law	Regulatory quality	Voice and accountabili	Property rights	Political Stability	Control of corruption
Developed Markets								
Australia	DM	High	High	High	High	High	High	High
France	DM	High	High	High	High	High	High	High
Germany	DM	High	High	High	High	High	High	High
Hong Kong	DM	High	High	High	Medium	High	High	High
Japan	DM	High	High	Medium	High	High	High	High
Norway	DM	High	High	High	High	High	High	High
United Kingdom	DM	High	High	High	High	High	High	High
United States	DM	High	High	High	High	High	High	Medium
Emerging Markets								
Brazil	EM	Medium	Medium	Medium	Medium	Medium	Medium	Medium
China	EM	High	Medium	Medium	Low	Low	Medium	Low
Czech Republic	EM	Medium	High	High	High	High	High	Medium
Hungary	EM	High	Medium	High	High	High	High	Medium
India	EM	Low	Medium	Medium	Medium	Medium	Medium	Low
Mexico	EM	Medium	Medium	Medium	Medium	Medium	Medium	Low
Korea, South	EM	High	High	High	High	High	High	Medium
Russia	EM	High	Low	Medium	Low	Low	Medium	Low

Source: MSCI, World Bank (2010 WGI), Rank "Doing Business 2011", Heritage Foundation. Countries are assigned a rank of "High" if they have an MSCI ESG score below 3.0 for Government Risk Exposures (the first three columns) or above 7.0 for Governance Risk Management (the second four columns). A rank of "Low" is assigned for scores above 7.0 for Government Risk Exposures and below 3.0 for Governance Risk Management. Scores between 3.0 and 7.0 inclusive are assigned a rank of "Medium."

These factors may serve to segment markets but they can also create expected return opportunities for global investors. For example, Erb et al. (1996) claim that political risk is priced and therefore emerging market exhibiting severe political risk may offer attractive expected returns, as long as the political risk factor mean –reverts to more normal levels. More generally, special risk factors that cause emerging markets to be partially segmented from global markets may cause emerging markets to trade more cheaply than developed markets. This "emerging market discount" is apparent in Exhibit 17 where we graph the MSCI price–earnings ratios for the world market and the emerging market index. Through the mid-90s emerging markets traded at much lower multiples than developed markets, but since then there has been some convergence of price multiples. Note that these index averages do reflect large cross-country dispersion in valuation ratios. Also, the PE ratio may reflect to a considerable extent the industry structure of a country.

Exhibit 17. Price-to-Earnings Ratios (August 1994-August 2013)



Source: MSCI

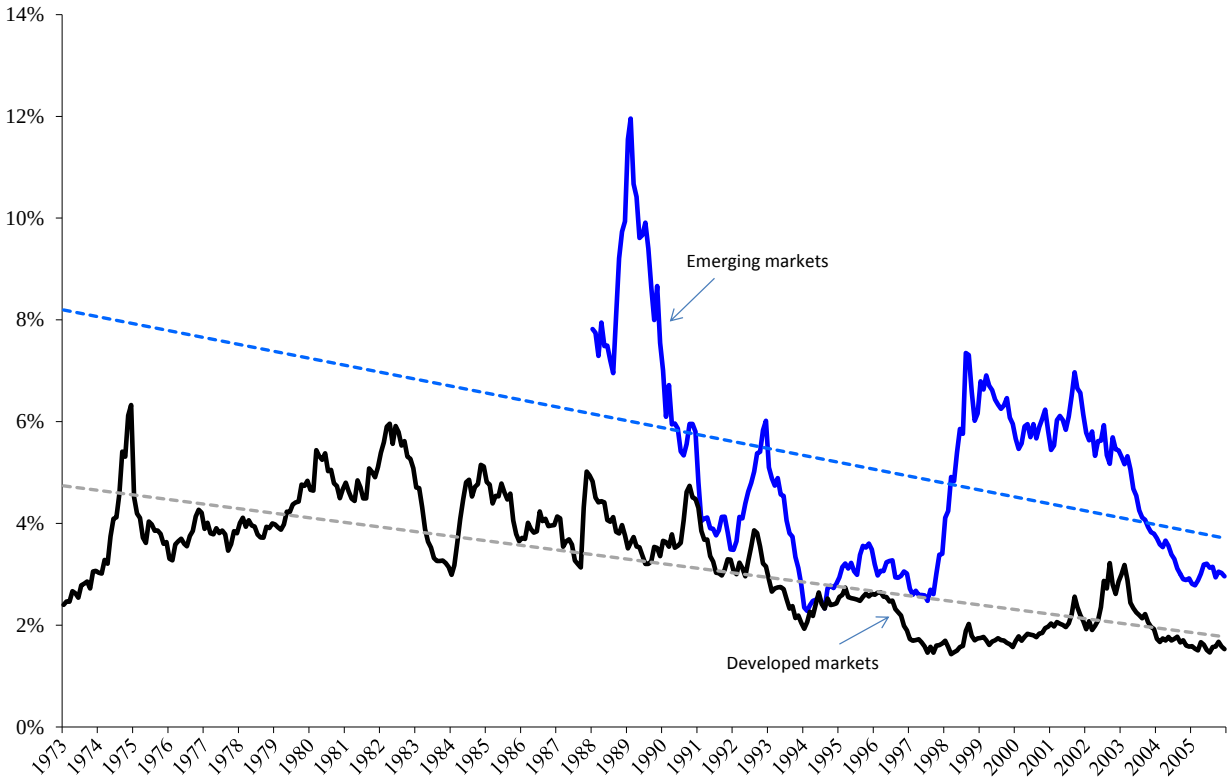
In a recent paper, Bekaert, Harvey, Lundblad and Siegel (2011) develop a measure of the degree of effective market segmentation (SEG) using valuation measures, being very careful to control for industry structure. With their SEG measure in hand, they ask questions such as: Has the degree of effective segmentation decreased over time? What was the role of the *de jure* globalization? What other factors drive valuation differentials across countries and time? The measure views each country as a basket of industries, weighted by their market capitalization. The proposed segmentation measure takes absolute differentials between the industry earnings yield and the earnings yield of that industry at the world level, doing this for 38 different industries. The market capitalization weighted sum of these absolute differentials is the segmentation measure. Under a number of assumptions, including a wide concept of "market integration", SEG should be small and relatively constant over time.

This is because the discount rate and the growth rate of (expected) dividends should converge for the same industries in different countries under the null of market integration. This strong concept of market integration assumes that industries have identical systematic risk across the globe and priced growth opportunities are industry-specific but global in nature. The latter assumption is plausible if growth opportunities are primarily driven by technological factors and capital markets are totally free. The valuation differential measure ignores financial risk, but country specific regulations may induce differences in leverage ratios, which affect valuations. The use of absolute values implies that a low number of firms within an industry group may cause "noise" and upwardly bias the measure. Lastly, earnings volatility may be priced and cause price differentials even across integrated firms. Because the

valuation differential can be measured at each point in time, controlling for these factors in a regression analysis is possible.

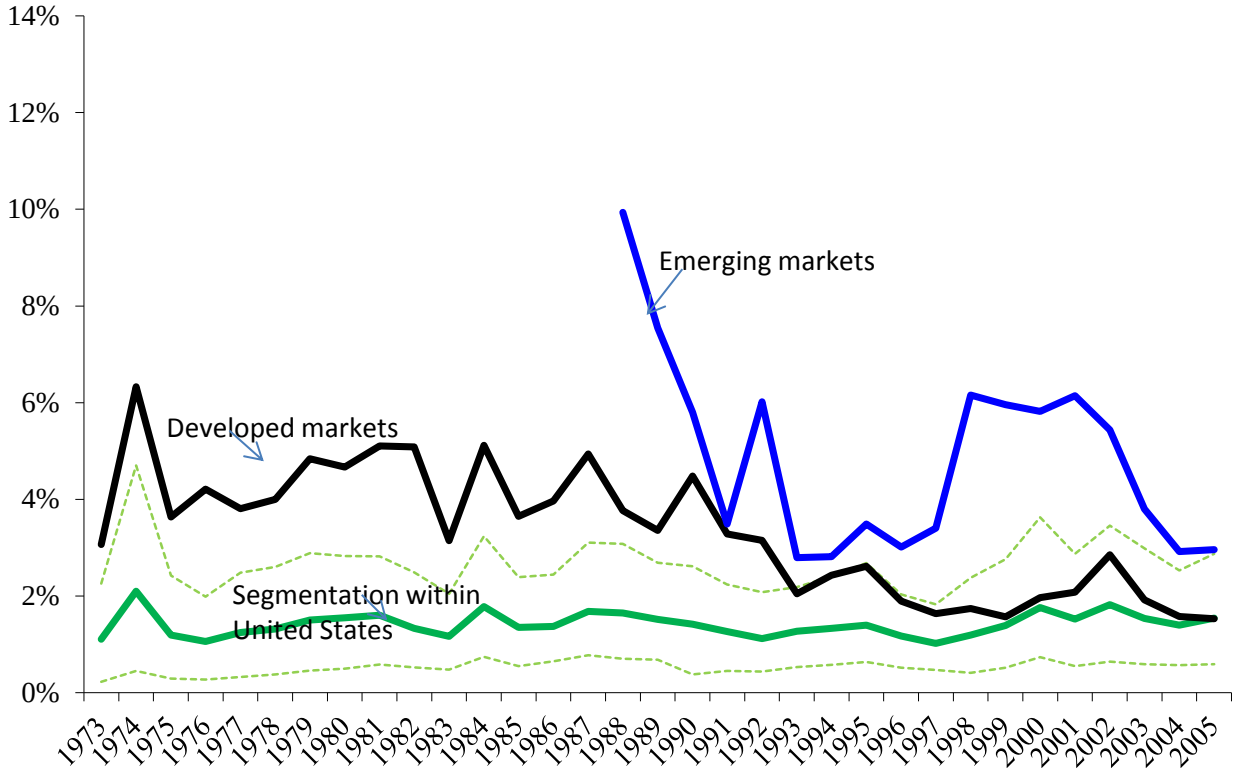
Exhibit 18 shows the earnings yield differentials for developed and emerging markets. The earnings yield differential was around 4.5% in the 70s for developed markets, but is now around 2%. For emerging markets, the differential went from around 10% to about 4%. Hence, there is indeed a downward trend; with earnings yield differentials converging worldwide.

Exhibit 18. Measuring the Changes in Market Segmentation



But how high or low is 2%? Because of the use of absolute values a value of 0 is not the right benchmark. What level of segmentation would be observed in an integrated world? To get a grip on this, BHLS perform a simulation experiment. They use U.S. data to construct a segmentation measure for a non-segmented equity market. Specifically, they construct 100 data sets from random draws of U.S. firms and use the overall U.S. market as the "world" market. That is, the U.S. serves as an "integrated planet" and random samples of U.S. stocks are used to create 50 pseudo-countries, which replicate the cross-sectional and temporal variation in the number of firms in the actual sample of countries. The SEG index for the "integrated" world then produces a 5% - 95% a confidence bound for the measure. Using these bounds, Exhibit 19 shows developed markets have effectively converged since the mid-90s but emerging markets have not. So yes, emerging markets are still not fully integrated within global capital markets and are rightfully still a separate asset class.

Exhibit 19. Market Segmentation Using a U.S. Benchmark



BHLS also assess the determinants of valuation convergence, by running panel regressions of the SEG measure onto a large set of factors as potential determinants of valuation differentials. They find that a relatively parsimonious set of variables explains the cross-sectional and time series variation quite well, including de jure openness, investment profile (a measure of political risk from the International Country Risk Guide), and the VIX and corporate bond spread. The latter two variables can be considered as measures of risk aversion and/or risk premiums. Thus in a crisis, you would expect valuation differentials to diverge and segmentation to increase. This did happen in the recent global financial crisis.

The relative higher degree of "segmentation" of emerging markets is also reflected in the dominance of "country factors" as drivers of variation in firm returns as opposed to "industry factors." In Exhibits 20 and 21, we detail the amount of the cross-sectional variance in developed and emerging market returns that is accounted for by industry factors and country factors.[2] For developed markets, both industry and country factors contribute about equally to the cross-sectional variance. For emerging markets, it is a much different story: country factors are twice as important as industry factors.

[2] Estimates are based on the Barra Global Equity Model which includes 55 country factors, 34 industry factors, 8 style factors and 55 currency factors. The sum of country and industry contributions is not 100% because we omit from the graph the contribution of the style factors.

Exhibit 20. Country vs. Industry Factors: Developed Markets

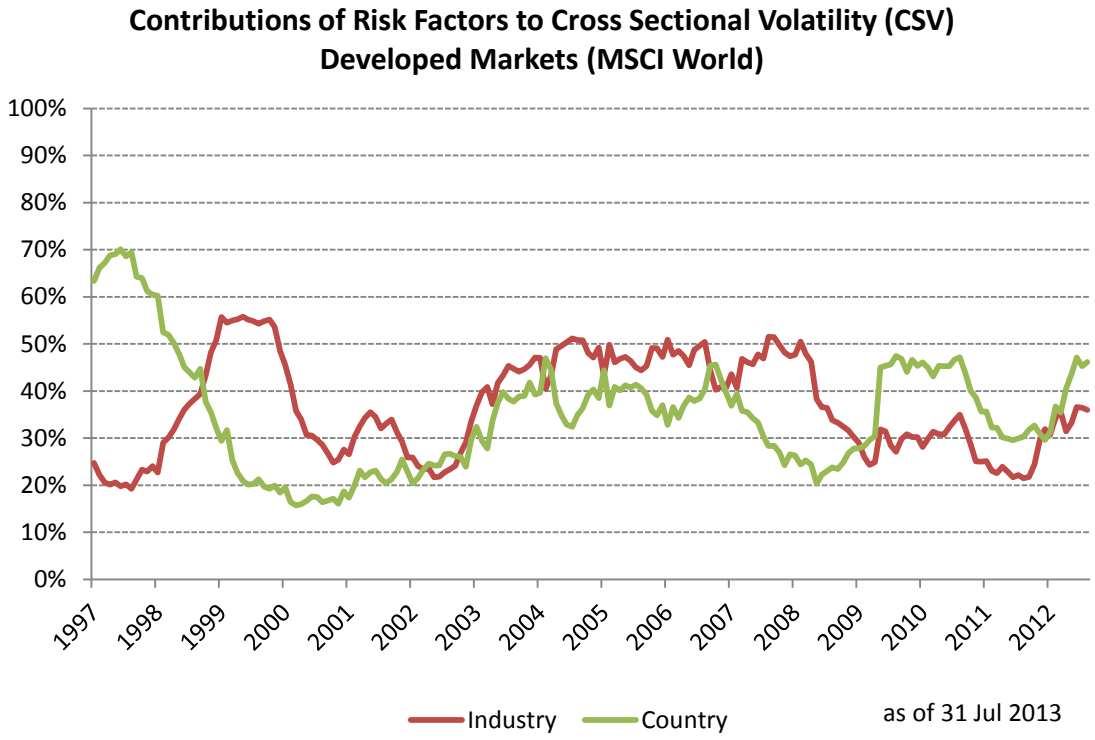
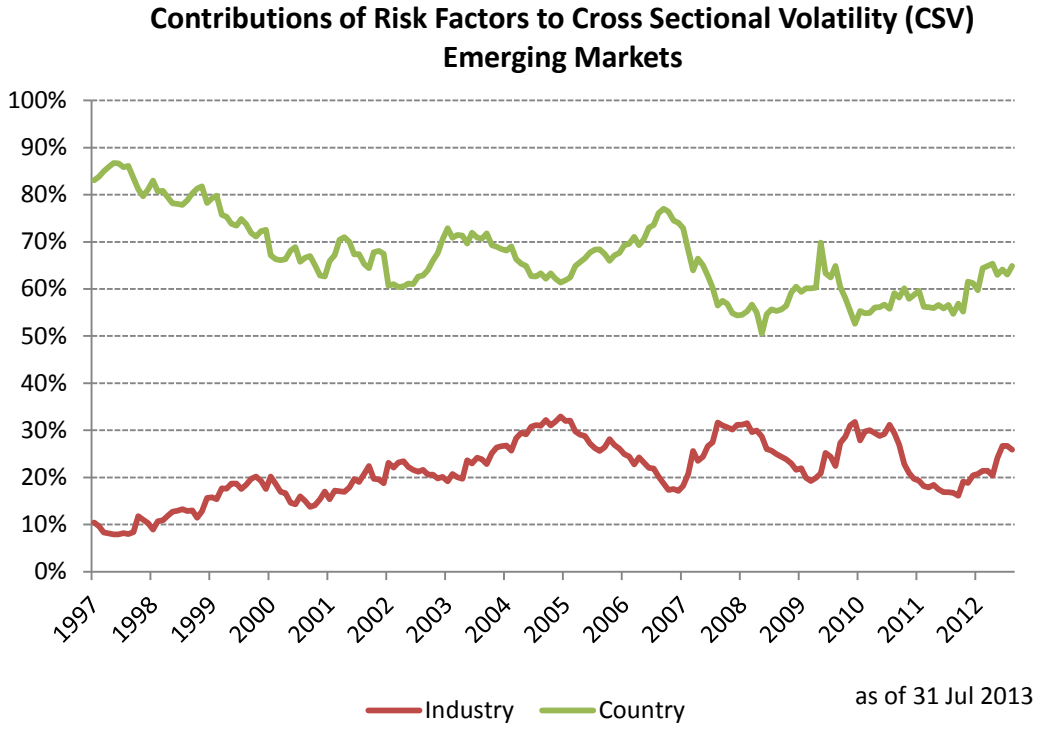


Exhibit 21. Country vs. Industry Factors: Emerging Markets



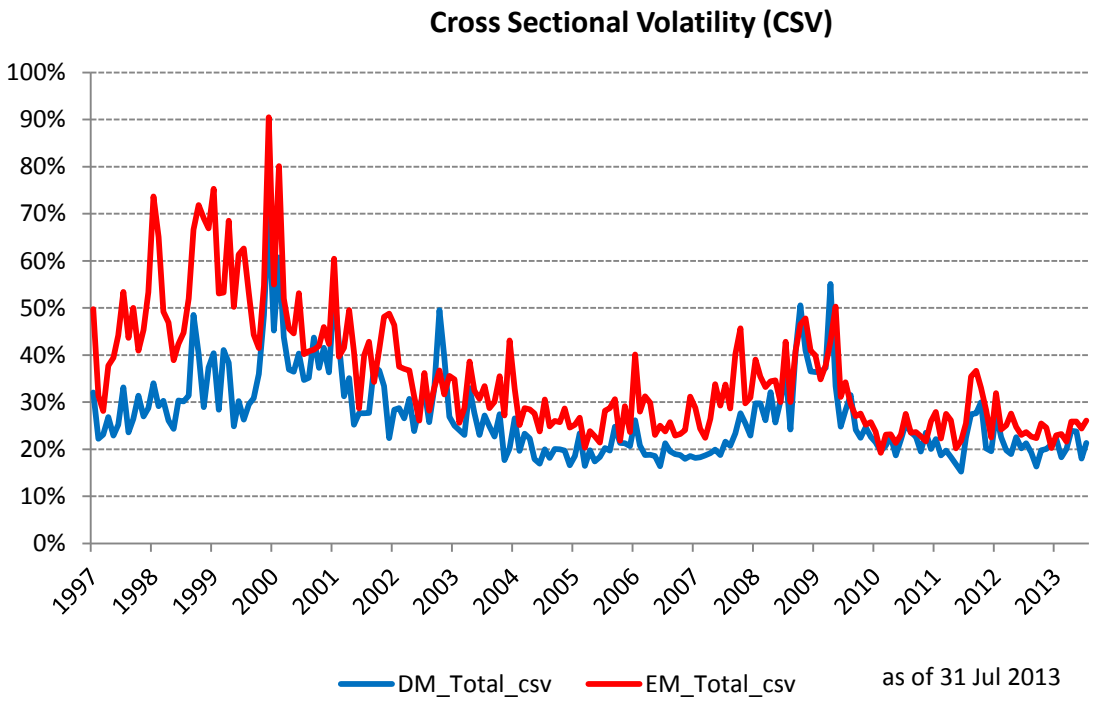
Source: MSCI

The Case for Emerging Markets Revisited

At first blush, some of the recent developments have made emerging markets less attractive investments. Globalization has increased country return correlations with developed markets and valuations seem to have somewhat converged. In addition, an investment in any individual country is very volatile. However, the high individual country volatility is exactly what an active asset manager is looking for. The high volatility and country factors create opportunities for out-performance. For example, if you were to record the best and worst performing equity markets since 1990; you would find that in more than 90% of the cases, it's an emerging market.

One way to formalize this potential is to examine the cross-sectional volatility in emerging versus developed markets. We plot this cross-sectional volatility over time in Exhibit 22. While the cross-sectional volatility in emerging markets was multiple times that in developed markets up to 2000, the differences have decreased over the last 10 years. One potential reason is the continuing integration of emerging markets within global capital markets and the recent global crises that have affected many countries simultaneously.

Exhibit 22. Cross-Sectional Volatility: Emerging vs. Developed Markets



Note: Cross-sectional standard deviation of country returns is calculated every month for (separately) emerging and developed markets. The above exhibit presents a 12-month average of the standard deviations. Source: MSCI

So emerging markets remain an attractive asset class for very simple reasons. First, country factors still dominate cross-country valuations. Investment barriers and other country factors are priced, but "risk appetite" factors are important too. The country factors are nowhere larger than in emerging markets, leading to high country-specific volatility. Second, a diversified basket of emerging markets is not risky. It has about the same volatility as the bigger developed markets. Third, the globalization process led to

valuation convergence but the process is not smooth. This in itself may provide opportunities for excess returns from global tactical asset allocation programs. Fourth, emerging markets account for less than 15% of Market cap but more than 30% of GDP. This is no guarantee for outperformance; as most of the catch-up should come through share issuances. However, as the last decade has shown, some emerging markets, such as Brazil, really took off and had very high returns during the decade at a time where many developed markets had dismal returns. It is hard to predict which markets will be next. But you are not in them at your peril. To the extent that valuation convergence has not completely eliminated the emerging market discount, some of the gap between in market capitalization and relative GDP may be driven by further valuation convergence. However, such valuation differentials are better exploited in fundamental–based tactical asset allocation strategies.

One simple exercise is to look back in time. What does the return of a GDP weighted allocation to emerging and developed markets look like? Using an annual rebalancing based on the previous year's GDP weights, the average geometric return of a GDP weighted allocation to emerging and developed markets produces an 8.3% annual average return. Using market capitalization weights, the return is 7.4%. The average annual outperformance of GDP weights is thus 102 basis points. While the volatility is slightly higher for the GDP weighted allocation, the Sharpe ratio is still higher using GDP instead of market capitalization weights.

Emerging Asset Classes in Emerging Markets

We focused the discussion on equities but new asset classes are "emerging." The emerging market corporate bond market has exploded in size. Ten years ago, U.S. dollar denominated corporate bonds represented a small fraction of sovereign issuance. Now, 86% of new issuance of emerging market dollar bonds is from corporations. Indeed, the emerging market corporate bond market now rivals the U.S. high yield market in capitalization.[3] Moreover, emerging markets seem to have overcome the "original sin" of being unable to borrow in their own currencies, and local currency debt markets are growing fast, see Burger, Warnock, and Warnock (2012).

In addition, currencies have become more likely floating and investable. Investors can obtain emerging market currency exposure though investing in local currency emerging market bonds, or through forward contracts and options. Gilmore and Hayashi (2011) claim that the risk return profile of long investments in emerging market currencies has been historically quite attractive. Importantly, the return of emerging market currencies mostly comes from their high "carry," as they typically have higher yields than developed market currencies. Such a strategy features negative skewness, just as a carry strategy in developed market currencies does. However, recently interest rate differentials have converged across the world making it somewhat unlikely the historical performance of emerging market currencies will be repeated over the next decade.

An important consideration here is how correlated equity markets are with their currencies. In developed markets such correlation is quite low and even often negative, but in emerging markets these correlations are quite a bit higher In Exhibit 23, we show the correlation between the equity market return in local currency and the change in the dollar value of the local currency for 22 emerging markets. The correlations are invariably positive. Hence, for a U.S. investor, the currency increases the risk of the equity investment, and emerging market currencies and equities are not independent investments. One reason for this is that some emerging markets are rich in resources and commodity currencies generally show higher correlations between their equity markets and currencies, as is for instance also true for

[3] See, for example, King and Williams (2013).

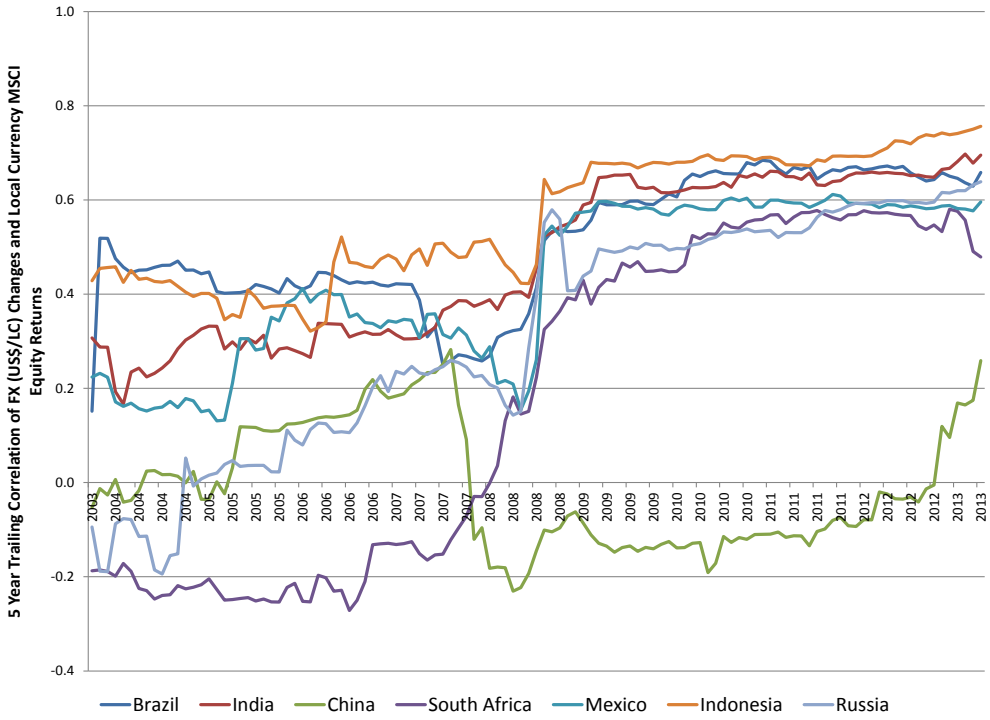
Australia and Canada. Another reason is of course the fact that both the equity market and the currency market provide an option on the long-term economic performance of the country.

Exhibit 23. Correlation of FX (US$ per local currency) changes and local currency MSCI equity returns for individual emerging markets

Jan 1998 – Dec 2012	
Brazil	0.311
Chile	0.272
China	0.043
Colombia	0.202
Czech Republic	0.153
Egypt	0.033
Greece	0.239
Hungary	0.435
India	0.490
Indonesia	0.499
Korea	0.350
Malaysia	0.215
Mexico	0.396
Morocco	0.049
Peru	0.213
Philippines	0.371
Poland	0.447
Russia	0.260
South Africa	0.153
Taiwan	0.429
Thailand	0.557
Turkey	0.250
Average	0.289

Exhibit 24, displaying five-year trailing correlations, shows that the correlation between equity markets and currencies has increased substantially for a number of countries, reducing their diversification potential.

Exhibit 24 Five-year trailing correlation of FX (US$ per local currency) changes and local currency MSCI equity returns for individual emerging markets



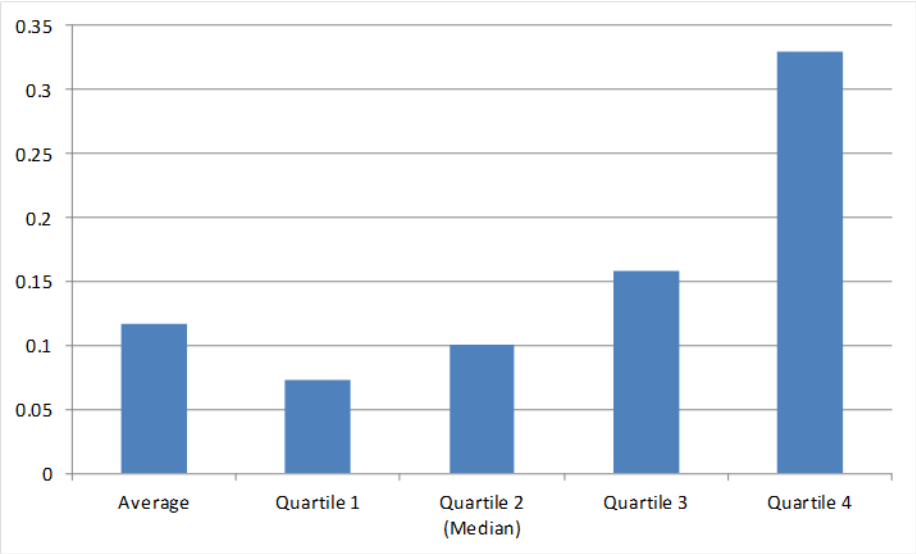
Conclusions

Emerging markets only represent 15% of world equity market capitalization, but more than 30% of world GDP. This does not necessarily make emerging markets interesting investments. Since the liberalization process in the late 80s and early 90s, the correlation between emerging markets and developed markets has increased substantially and valuation ratios have partially converged. However, recent research by Bekaert et al. (2011) suggests that emerging markets are still not fully integrated into world capital markets, and therefore emerging markets should still be viewed as a separate class. Part of the increase in correlation is due to the higher beta of the emerging market index, making emerging markets high return but risky investments. At least historically, the "downside" beta seems to be lower than the "upside" beta, so that the increase in correlations has not eliminated diversification benefits as much as one might initially believe. Finally, the emergence of a large corporate and sovereign bond market and investable currencies has substantially increased the available investments opportunities in emerging markets for developed market investors.

Given these reflections, strategic allocations somewhere in between market capitalization weights and GDP weights would be easy to defend. Institutional investors, however, appear still under-weight in emerging markets. In 2011, MSCI conducted a survey of asset allocation

and risk management practices across the world for institutional investors. Among the 85 participants, there were 35 public plans, 16 corporate plans, 10 endowments/foundations or sovereign wealth funds, and 24 unclassified institutions. Exhibit 25 shows that the average allocation to emerging markets was well below 15%, that is, less than the market capitalization weight of emerging markets. There is considerable dispersion across institutions with some allocating over 30% to emerging markets. The survey also found that there is a general trend towards decreased allocations to domestic and developed ex-domestic equities and towards increased exposures to emerging markets equities. Given the findings in our research, we expect this trend toward increased allocation to emerging markets to continue.

Exhibit 25: Emerging Equity Market Exposure of Institutional Investors in 2011



Source: MSCI survey of 85 institutional investors.

Our paper has important policy implications for investment management. First, given that emerging markets are still not fully integrated into world capital markets, they should be treated as a separate asset class. Second, the share of world output accounted for by emerging markets is far greater than their share of equity market capitalization. As a result, market capitalization weighting of emerging markets should be the minimal allocation and ideally the weight should be higher than market capitalization. Third, any allocation to emerging markets should now include relatively new assets such as emerging market corporate bonds. Fourth, an institutional investor's allocation must take into account the fact that emerging markets have evolved from an asset class with relatively low correlation with developed markets to an asset class with a much higher correlation. Finally, emerging market asset still have higher risk than most developed markets, and as a result, continue to command higher expected returns.

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