Emerging Market Equities

In the 1980's, the term "Emerging Markets" is said to be coined by Antoine Van Agtmael, an economist at the International Finance Corporation (IFC), while promoting a global listed investment fund that pertained to developing countries. "Emerging Markets", based on the Investopedia definition, are countries or regions attempting to transition from a low income, often pre-industrial economy toward a modern, industrial economy with a higher standard of living.

In 2001, the term "Emerging Markets" in our opinion, gained momentum as investors began to realize the space as its own *Asset Class*, when Morgan Stanley launched its first comprehensive and consistent investable benchmark index for this component of the global equity markets, the Morgan Stanley Capital International (MSCI) Emerging Market Index. An asset class is a grouping of investments that exhibit similar characteristics and that may be subject to the same rules and regulations.[1] The most common recognizable Emerging Markets (*Top Five* — see chart, pp. 2-3) as of 10/31/2024 include the countries of Brazil, China, India, South Korea, and Taiwan, whose weightings as of 10/31/2024 represent over 78.5% of the MSCI Emerging Market Index.

Generally, International Investors view Emerging Markets as a core piece of their equity asset allocations, as the *Top Five* countries listed in the MSCI Emerging Market Index also represent about 25% of the MSCI All Country World Index Excluding United States, as of 10/31/2024.

In our opinion, one common theme that investors in international equities have deduced regarding the Emerging Market space is how underlying investment returns are more volatile than developed ones based on higher barriers to market entry, which may stem anywhere from varying governmental structures to currency illiquidity. In our opinion, the volatility of Emerging Market returns also may be due to the cyclical nature of the index sector weightings, as about 69.50% of the MSCI Emerging Market Index as of 10/31/2024 consists of Technology, Financials, Communications, and Consumer Discretionary, but we digress.

In an attempt to compare the underlying strength of the Emerging Market space to the underlying International Developed Space in our current de-globalization themed backdrop with tariffs sitting at the forefront of that argument, we have run weekly return regressions between the *Top Five* region weightings in each of the MSCI Emerging Markets (MXEF)[2] and MSCI International Developed Markets EX-US (M1CXBRU)[3] Indexes for the past three decades looking back from 10/31/2024. It is important to note that we include each benchmark in each correlation (R-Squared) comparison, as we believe it is important to include the correlation of each country to its respective index as well.

Based on our analysis, the average change in correlation of returns in our Emerging Market Country-to-Country-to-Index R-Squared data set seemed to have improved substantially by 50% from Decade #1 to Decade #2. On the contrary, the change in average correlation in our Emerging Markets data set from Decade #2 compared to Decade #3 has decreased or has trended in the direction of presenting an increase in uncorrelated returns.

Looking at the International Developed space, we find in our analysis that the directions of average change in terms of return correlation over the same time frames are identical to that of the Emerging Markets space. The main difference being that the correlation and proceeding de-correlation in the International Developed Markets space is more subtle, or in other words less volatile. This finding may help defend the argument that Emerging Markets returns are indeed more volatile than returns in developed markets.

Looking more broadly, based on the shrinking R-Squared values in both the Emerging Market space and International Developed space, we reach one major conclusion: that it may be becoming harder to predict the future returns of one country based on the returns seen in another country based on data from this past decade compared to its preceding decade. This emphasizes the importance and power of broad Index or Exchange Traded Fund product, as its use helps to eliminate any unwarranted risks that may stem from any individual country, whether it be Emerging, Frontier, or Developed.

1 https://www.investopedia.com/terms/a/assetclasses.asp
2 The MSCI EM (Emerging Markets) Index is a free-float weighted equity index that captures large and mid-cap representation across Emerging Markets (EM) countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country. Sources: Bloomberg, L.P.
3 The MSCI WORLD ex USA IMI USD NETR Index seeks to track the investment results of large-,mid- and small-capitalization developed market equities, excluding the United States. Sources: Bloomberg, L.P.

In an additional angle, as long-term Investors, we gladly welcome the opportunity to capture uncorrelated go-forward market returns, as it serves as a means of diversification to any singular downside risk scenario in a specific region or country. To summarize — even if de-globalization through the act of tariff implementation potentially stands a negative short-term catalyst for the global economy and exacerbates volatility of return, we will, as always, look to execute our strategy by buying underlying assets at discounted market prices and selling underlying assets as they approach their Net Asset Value in the future. And, although we remain unbiased to either Emerging Markets or Developed International Markets based on the outcome of this specific sample, we believe that it is important to shed light on what is happening under the surface to assist you in making well informed decisions now, and in the future.

Data Set Contents	Definition	Data Set Contents	Definition		
MXEF Index	MSCI Emerging Markets Index	M1CXBRU Index	MSCI International Developed Index (Ex-US)	DECADE #1	October 31, 1994 – October 31, 2004
MXBR Index	MSCI Brazil Index	MXCA Index	MSCI Canada Index	DECADE #2	October 31, 2004 – October 31, 2014
MXCN Index	MSCI China Index	MXFA Index	MSCI France Index	DECADE #3	October 31, 2014 – October 31, 2024
MXIN Index	MSCI India Index	MXDE Index	MSCI Germany Index		R-Squared Example:
KOSPI Index	Korea Stock Exchange Index	MXJP Index	MSCI Japan Index		100% of MXEF Index Returns can be explained by MXEF Index Returns marked by a value of 1
TAMSCI Index	MSCI Taiwan Index	MXGB Index	MSCI United Kingdom Index		

TOP FIVE EMERGING MARKET CORRELATION OF RETURNS

10/31/1994 - 10/31/2004 Index	Benchmark MXEF Index	Brazil MXBR Index	China MXCN Index	India MXIN Index	South Korea KOSPI Index	Taiwan TAMSCI Index
MXEF Index	1	.46	.25	.20	.36	.27
MXBR Index	.46	1	.04	.04	.07	.05
MXCN Index	.25	.04	1	.04	.09	.11
MXIN Index	.20	.04	.04	1	.09	.05
KOSPI Index	.36	.07	.09	.09	1	.12
TAMSCI Index	.27	.05	.11	.05	.12	1
R² Average	42%	28%	25%	24%	29%	27%
R² Average of Space	29%					

10/31/2004 - 10/31/2014	MXEF Index	MXBR Index	MXCN Index	MXIN Index	KOSPI Index	TAMSCI Index
MXEF Index	1	.79	.71	.56	.70	.58
MXBR Index	.79	1	.44	.35	.45	.35
MXCN Index	.71	.44	1	.41	.49	.41
MXIN Index	.56	.35	.41	1	.37	.33
KOSPI Index	.70	.45	.49	.37	1	.50
TAMSCI Index	.58	.35	.41	.33	.50	1
R² Average	72%	56%	58%	50%	59%	53%
R² Average of Space	58%					

10/31/2014 - 10/31/2024	MXEF Index	MXBR Index	MXCN Index	MXIN Index	KOSPI Index	TAMSCI Index
MXEF Index	1	.41	.70	.43	.62	1
MXBR Index	.41	1	.13	.20	.22	.15
MXCN Index	.70	.13	1	.16	.27	.30
MXIN Index	.43	.20	.16	1	.34	.28
KOSPI Index	.62	.22	.27	.34	1	.74
TAMSCI Index	.61	.15	.30	.28	.55	1
R² Average	63%	35%	43%	40%	53%	51%
R² Average of Space	46%					

TOP FIVE INTERNATIONAL DEVELOPED CORRELATION OF RETURNS

10/31/1994 - 10/31/2004	Benchmark	Canada	France	Germany	Japan	United Kingdom
Index	M1CXBRU Index	MXCA Index	MXFA Index	MXDE Index	MXJP Index	MXGB Index
M1CXBRU Index	1	.35	.56	.51	.44	.49
MXCA Index	.35	1	.09	.34	.11	.28
MXFA Index	.56	.09	1	.09	.70	.09
MXDE Index	.51	.34	.09	1	.14	.56
MXJP Index	.44	.11	.70	.14	1	.13
MXGB Index	.49	.28	.09	.56	.13	1
R² Average	56%	36%	42%	44%	42%	42%
R² Average of Space	44%					

10/31/2004 - 10/31/2014	M1CXBRU Index	MXCA Index	MXFA Index	MXDE Index	MXJP Index	MXGB Index
M1CXBRU Index	1	.70	.60	.75	.53	.77
MXCA Index	.70	1	.33	.55	.34	.65
MXFA Index	.60	.33	1	.31	.77	.33
MXDE Index	.75	.55	.31	1	.39	.80
MXJP Index	.53	.34	.77	.39	1	.39
MXGB Index	.77	.65	.33	.80	.39	1
R² Average	73%	59%	56%	63%	57%	66%
R² Average of Space	62%					

10/31/2014 - 10/31/2024	M1CXBRU Index	MXCA Index	MXFA Index	MXDE Index	MXJP Index	MXGB Index
M1CXBRU Index	1	.66	.71	.71	.53	.62
MXCA Index	.66	1	.37	.51	.35	.54
MXFA Index	.71	.37	1	.40	.75	.32
MXDE Index	.71	.51	.40	1	.42	.62
MXJP Index	.53	.35	.75	.42	1	.34
MXGB Index	.62	.54	.32	.62	.34	1
R² Average	70%	57%	59%	61%	56%	57%
R² Average of Space	60%					

PERCENT CHANGES ACROSS DECADES

Emerging Markets	(MXEF Index)	Brazil	China	India	South Korea	Taiwan
Decade #1 to Decade # 2 Δ	42%	51%	56%	53%	51%	50%
Average Δ	50%					
Decade #2 to Decade #3 Δ	-15%	-60%	-35%	-25%	-10%	-3%
Average Δ	-27%					

International Developed Markets	(M1CXBRU Index)	Canada	France	Germany	Japan	United Kingdom
Decade #1 to Decade # 2 Δ	23%	39%	24%	30%	26%	35%
Average Δ	30%					
Decade #2 to Decade # 3 Δ	-3%	-4%	6%	-4%	-1%	-14%
Average Δ	-3%					