Emerging Markets

Evidence for a premium?

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Important Regulatory Information

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Introduction

When considering global capital markets from an investment perspective, it's second nature to divide the world into "developed" vs "emerging". Index providers allocate countries to either classification depending on their stage of economic development and its sustainability. The two characteristics considered are "investability" such as size and liquidity, and then accessibility, which considers factors such as foreign ownership limits, ease of capital flows and operational stability.[1] Emerging economies are often associated with increased risk of inflation, geopolitical uncertainty and foreign exchange fluctuations. The overall systemic, or "market" risk, is elevated, resulting in a bumpier investment ride.

Given these risks, what is the rationale for investing in these economies?

Beta-convergence. This macroeconomic growth theory predicts that emerging economies will grow faster than their developed counterparts, until they reach the same level of economic development. Economic growth within a country is important to investors as over the long term, this is the main driver of a country's equity market value. If Beta-convergence holds, by investing in countries with faster-growing economies, investors should receive a greater return. The evidence suggests that emerging markets may converge[2] and thus experience higher rates of economic growth – which is subject to the adoption of appropriate economic, legal and political reforms.

Is there a potential premium to be gained from emerging markets?

To answer this, we observed the risk-adjusted returns of emerging market equities and developed equities over annualised rolling periods of 5-, 10-, 20- and 30-years. We also examined the growth of a £1 investment over time, using data from 1926 to 2020. Finally, we explored the possibility of a change in trend over the last 20 years between the performance of developed equities and emerging equities.

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[1] There is no universally agreed upon criteria for classifying economies as developed or developing (emerging). The IMF classifies 34 economies as developed and 150 as developing (emerging). It says that "this classification is not based on strict criteria, economic or otherwise and has evolved over time" (IMF 2011)

[2] IMF. 2011 Statistical Appendix In World Economic Outlook (September). Washington, DC: International Monetary Fund.

The Analysis

Methodology

Our analysis uses risk adjusted returns (the Sharpe ratio) to compare four sub-classes of equity[3]:

- Developed market
- Developed small cap
- Developed value
- Emerging market

The Sharpe ratio allows investors to gain a clearer picture of the return they receive from taking on additional risk by removing the return associated with a risk-free investment.[4] The ratio is the average return earned in excess of risk-free return per unit of risk (volatility). Higher Sharpe ratios indicate a more attractive risk-adjusted return.

$$Sharpe\ Ratio = \frac{(\text{Return on the asset (equity)} - \text{Risk Free Return})}{\text{Standard Deviation of the Return of the asset (equity)}}$$

$$Sharpe\ Ratio = \frac{(R_{equity} - R_{free})}{\sigma_{equity}}$$

To calculate Sharpe ratios, monthly return and volatility data from the start of 1926 to the end of 2020 was used. For example, for the 5-year period analysis, we calculate the return and volatility for every 5-year period; from January 1926 to December 1930, then from February 1926 to January 1931 and so on. Then, each 5-year period's return and volatility data are annualized. This data is used to calculate a Sharpe ratio for each of the 1080 5-year periods. Finally, the 1080 datapoints are rank ordered and percentiles identified.[5]

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[3] Developed Market: GFD Global Equities; Developed Small Cap: GFD Global Small Cap Equities; Developed value: GFD Global Value Equities; Emerging market: GFD Emerging Markets.

[4] The risk-free rate of interest is assumed to be zero in our analysis

[5] A percentile is a value below which a given percentage of values within a data set fall. The 40th percentile means that 40% of the values in the data set are equal or less than the calculated value.

Risk Adjusted Returns: 1926-2020

5 Year Sharpe Ratios				
Percentile	Developed Small Cap	Developed Markets	Emerging Markets	Developed Value
0%	-	-	-	-
10%	0.21	-	0.01	0.12
20%	0.43	0.28	0.22	0.37
30%	0.64	0.45	0.37	0.61
40%	0.77	0.62	0.57	0.79
50%	0.95	0.78	0.68	0.96
60%	1.14	0.94	0.80	1.15
70%	1.42	1.11	0.93	1.32
80%	1.80	1.25	1.08	1.52
90%	2.06	1.64	1.37	1.85
100%	2.76	2.84	3.40	2.59

10 Year Sharpe Ratios				
Percentile	Developed Small Cap	Developed Markets	Emerging Markets	Developed Value
0%	0.01	-	-	-
10%	0.48	0.24	0.26	0.29
20%	0.58	0.37	0.35	0.55
30%	0.70	0.50	0.41	0.66
40%	0.79	0.61	0.49	0.78
50%	0.92	0.70	0.61	0.90
60%	1.05	0.81	0.69	1.04
70%	1.18	0.95	0.78	1.21
80%	1.45	1.11	0.94	1.33
90%	1.81	1.36	1.06	1.57
100%	2.46	2.03	1.36	2.04

20 Year Sharpe Ratios				
Percentile	Developed Small Cap	Developed Markets	Emerging Markets	Developed Value
0%	0.33	0.06	0.20	0.25
10%	0.58	0.42	0.31	0.50
20%	0.65	0.48	0.40	0.57
30%	0.73	0.57	0.44	0.76
40%	0.94	0.69	0.47	0.94
50%	1.08	0.78	0.51	1.04
60%	1.17	0.84	0.58	1.11
70%	1.27	0.91	0.83	1.18
80%	1.33	1.01	0.90	1.27
90%	1.42	1.09	0.96	1.36
100%	1.66	1.39	1.20	1.57

30 Year Sharpe Ratios				
Percentile	Developed Small Cap	Developed Markets	Emerging Markets	Developed Value
0%	0.54	0.46	0.35	0.51
10%	0.65	0.56	0.42	0.61
20%	0.76	0.64	0.47	0.71
30%	0.93	0.71	0.51	0.88
40%	1.03	0.76	0.55	1.00
50%	1.09	0.79	0.60	1.05
60%	1.13	0.83	0.63	1.08
70%	1.18	0.88	0.75	1.14
80%	1.30	0.92	0.86	1.20
90%	1.36	0.97	0.90	1.26
100%	1.48	1.09	1.01	1.41

The analysis shows that small cap and value equities outperform both developed and emerging market equities, except for the 5-year period. Emerging markets did not consistently deliver superior risk adjusted returns across the timeframes analysed. This reflects the impact of the high volatility that emerging markets experience periodically. Very high returns or very low returns are normalised by the standard deviation used in the Sharpe ratio.

The next step taken was to examine any potential emerging market premium, by calculating the long-term growth of £1 invested at the beginning of 1926. The results are shown in the following chart:

Growth of £1 from 1926 to 2020
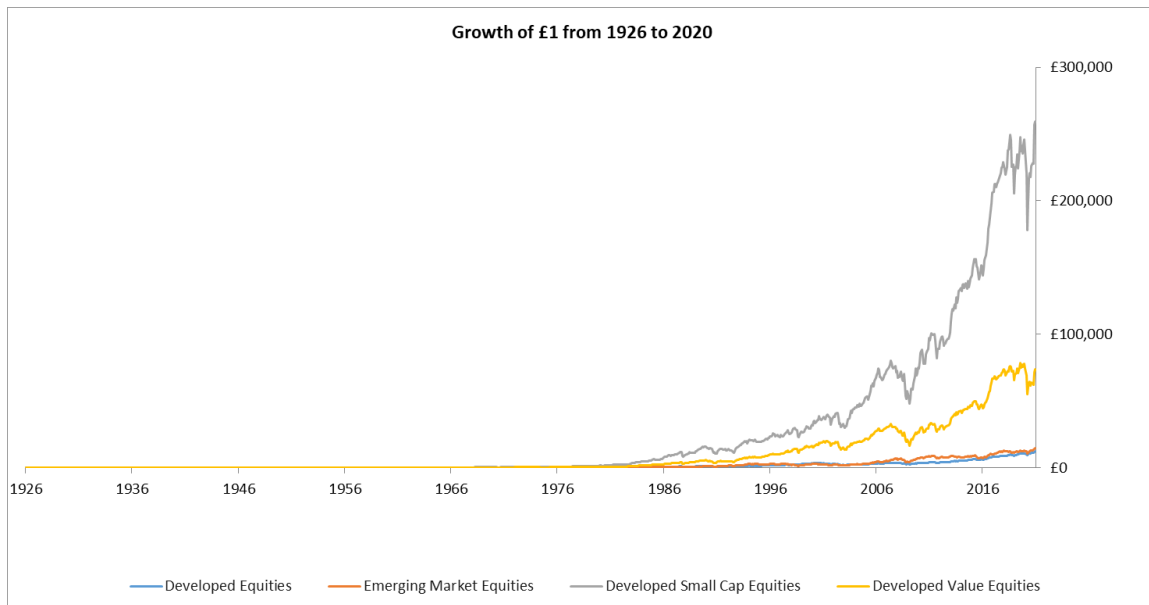
Source: GFD July 2021

Small cap equities outperformed the other sub-classes of equity by a large margin. Value equities outperformed both developed and emerging equities by a significant margin. Emerging markets however appeared to have only a slight edge over-developed equity.

Comparing the performance of only developed and emerging equities shows that towards the latter part of the 1926-2020 period, emerging markets performed significantly better than their developed counterparts.

Growth of £1 from 1926 to 2020
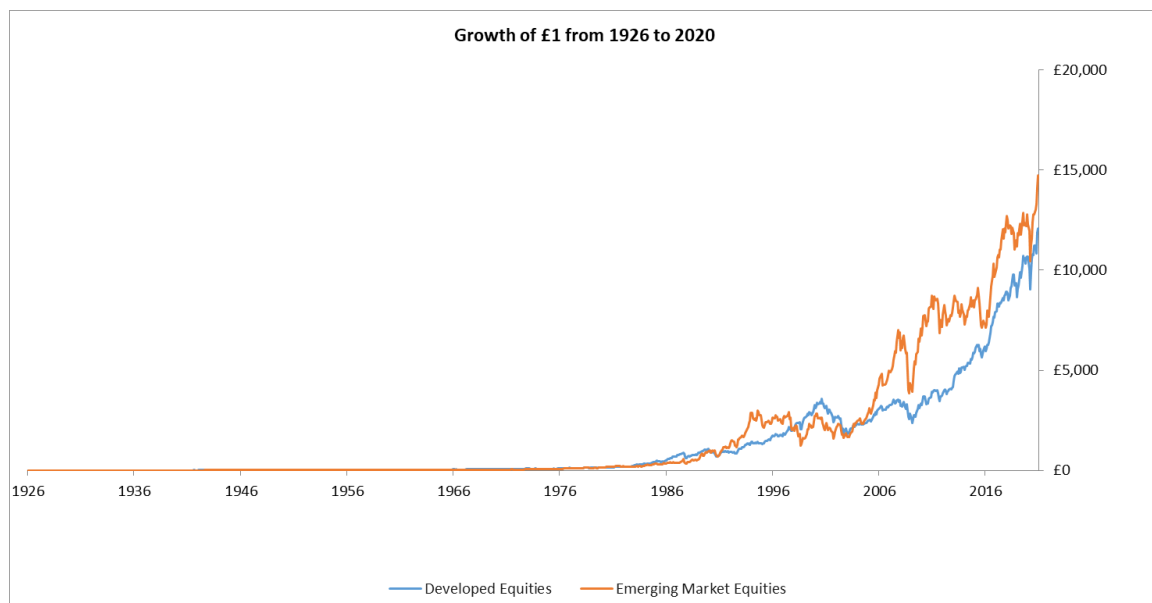
Source: GFD July 2021

The chart above serves to reinforce our Sharpe ratio analysis. While both developed and emerging equities can be seen to increase in value over the long term, the path of this increase is far more volatile for emerging equities. This lends support to the commonly held belief that emerging market returns are more volatile.

Risk Adjusted Returns: 2000-2020

Upon observing the difference in returns between developed and emerging equities over the 1926-2020 period, we noted that the last 20 years appeared to show a significant divergence. To investigate further, Sharpe ratios over 1-year rolling periods were computed in an attempt to discover any discernible emerging market premium.

1 Year Sharpe Ratios (2000-2020)				
Percentile	Developed Small Cap	Developed Markets	Emerging Markets	Developed Value
0%	-	-	-	-
10%	-	-	-	-
20%	-	-	-	-
30%	-	0.27	-	-
40%	0.50	0.59	0.24	0.54
50%	0.92	0.89	0.56	1.01
60%	1.23	1.17	0.96	1.24
70%	1.53	1.54	1.40	1.64
80%	1.98	1.97	1.96	2.26
90%	2.83	2.52	2.61	2.65
100%	8.25	4.61	5.34	7.77

A £1 investment starting from the year 2000 was also modelled in both regions. Results are shown in the following chart:

Developed Markets vs Emerging Markets
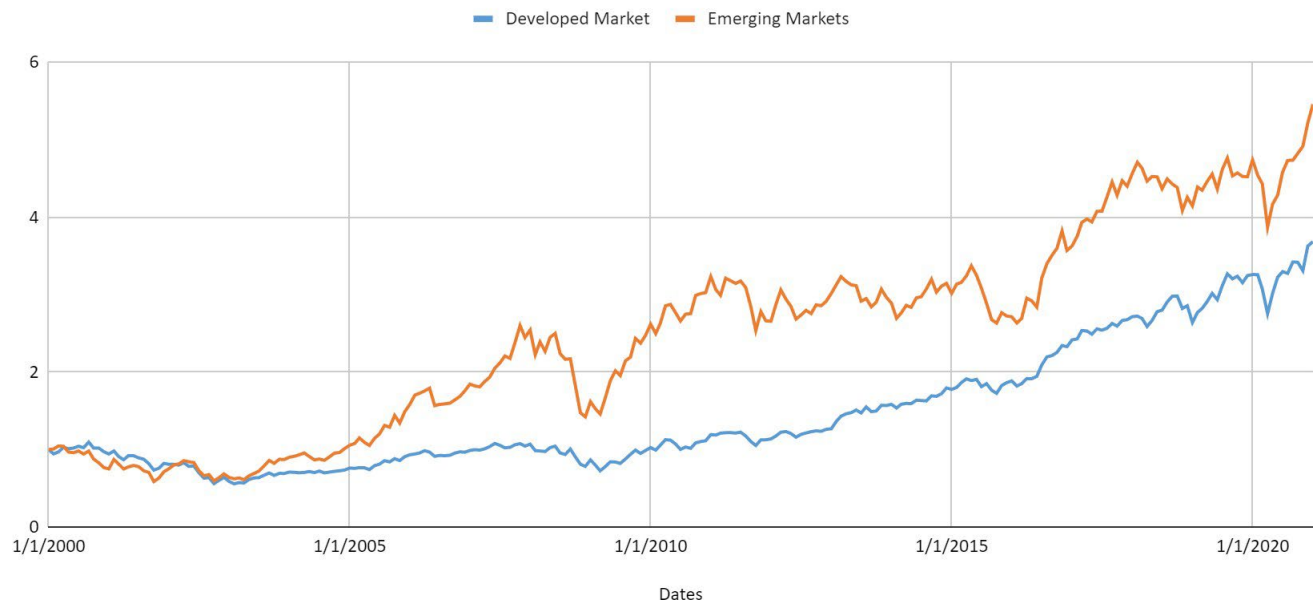
Source: GFD July 2021

Clearly, emerging markets have outperformed developed equities over the last 20 years. However, as with all investments, return cannot be viewed in isolation. The

risk of the investment must also be considered. By reviewing the risk adjusted returns (the Sharpe ratios), we can see that only after the 80th percentile, that the emerging market equites have provided a better risk-return profile.

Annualised Returns: 1926-2020

The final step in our analysis was to identify the percentiles of the 5-, 10-, 20- and 30-year annualised returns of the rolling periods from the year 1926 until the end ofthe year 2020. This would give us a clear picture of the actual returns of each sub- class of equity.

5 Year Annualised Rolling Returns				
Percentile	Developed Small Cap	Developed Markets	Emerging Markets	Developed Value
0%	-13.58%	-9.41%	-11.48%	-14.55%
10%	4.03%	-0.29%	0.20%	2.41%
20%	7.79%	4.29%	3.60%	6.70%
30%	10.57%	6.69%	5.41%	10.09%
40%	12.03%	8.81%	7.23%	12.05%
50%	13.92%	10.28%	9.60%	13.60%
60%	15.84%	11.75%	12.82%	15.09%
70%	18.39%	13.51%	15.67%	16.69%
80%	21.05%	16.29%	18.35%	18.28%
90%	26.07%	20.35%	23.05%	21.68%
100%	39.67%	37.25%	41.29%	38.35%

10 Year Annualised Rolling Returns				
Percentile	Developed Small Cap	Developed Markets	Emerging Markets	Developed Value
0%	0.29%	-1.41%	-1.94%	-1.78%
10%	8.38%	3.72%	4.52%	6.00%
20%	10.10%	6.17%	5.57%	9.03%
30%	11.36%	7.63%	6.42%	10.91%
40%	12.90%	8.74%	7.79%	12.07%
50%	14.30%	9.62%	9.13%	13.28%
60%	15.56%	10.93%	11.31%	14.66%
70%	17.27%	12.63%	15.00 %	15.99%
80%	18.84%	15.66%	17.40%	17.40%
90%	21.93%	18.40%	20.42%	20.12%
100%	36.43%	23.96%	28.47%	28.70%

20 Year Annualised Rolling Returns				
Percentile	Developed Small Cap	Developed Markets	Emerging Markets	Developed Value
0%	6.99%	0.93%	4.06%	5.05%
10%	9.92%	6.45%	5.60%	8.41%
20%	10.84%	7.49%	6.33%	9.70%
30%	12.38%	8.67%	7.34%	12.35%
40%	14.73%	9.78%	8.75%	13.41%
50%	15.90%	11.03%	10.62%	14.88%
60%	16.79%	12.16%	12.37%	15.88%
70%	17.73%	13.03%	13.96%	16.56%
80%	19.03%	14.17%	16.14%	17.24%
90%	21.05 %	15.55%	18.48%	18.39%
100%	24.18%	18.02%	22.52%	20.98%

30 Year Annualised Rolling Returns				
Percentile	Developed Small Cap	Developed Markets	Emerging Markets	Developed Value
0%	8.75%	7.76%	4.98%	8.44%
10%	11.18%	8.72%	6.35%	10.45%
20%	13.17%	9.90%	7.56%	12.25%
30%	14.54%	10.84%	9.23%	13.94%
40%	15.58%	11.22%	11.18%	14.63%
50%	16.51%	11.55%	12.22%	15.26%
60%	17.32%	11.98%	13.14%	15.72%
70%	17.99%	12.55%	13.85%	16.20%
80%	18.53%	12.90%	14.85%	16.50%
90%	19.59%	13.33%	17.28%	16.89%
100%	21.63%	15.26%	20.30%	18.45%

The percentiles of the annualised returns show emerging market returns exceeding those of the other sub-classes of developed equity, only after the 60th percentile.

Conclusion

In conclusion, when considering risk adjusted rates of returns, there is not an observable emerging market premium due to the higher volatility of returns observed in those markets. A large downside or upside return would not be perfectlycaptured by the Sharpe ratio, as the calculation normalises and adjusts the output based on the volatility of the return.

Considering annualised returns in isolation, we found clear evidence to suggest that investors would benefit more from holding emerging market equities. Another significant observation was the premium potential of global small cap equities. It can be inferred that global small cap equities are far superior to the other three sub- asset classes of equity used for this research.

In short, emerging markets provide potential for superior returns, but at the cost of higher volatility.

Our Classic and ESG portfolio ranges overweight emerging markets relative to their market capitalisation to offer clients access to these higher returns, within the volatility parameters that their risk profiles can withstand.

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