Photo Credit: *Randy and Crystal Faelan, Switzerland*

International Investing:
Is Corruption an Investment Factor?

Thomas M. Denkenwolf

Introduction

All countries, even the United States, are subject to geopolitical risk. From an investment perspective, geopolitical risk is the threat posed to businesses by political, economic, military, or social risks that arise from a country's involvement in international affairs. The global economy is so complex and interconnected that it is impossible to avoid geopolitical risk; nonetheless, we can take steps to mitigate it. While gold is perhaps the most popular hedge against global calamity, (and we agree that gold is a valuable part of a portfolio; see How to Value Gold) we think that international diversification is an important way to protect against geopolitical risk. At Sankala Group, we believe that a global mindset improves portfolio design by expanding our opportunity set and broadening our geographic exposure to reduce individual country risk. The most robust investment factors[1] (value, momentum, and quality) have been shown to work in international markets, but we were curious to see if an individual country characteristic might be a new investment factor. In particular, we asked the question: is low country corruption associated with higher stock market returns?

Theory For Low Corruption

Culture matters. If a business exists in a country where corruption is the norm, we might expect that corruption would reduce the profit margins of the business. If business owners and employees see public officials divert funds for their own use with impunity, they might also be more likely to embezzle company funds for their own use. There is an inherent cost of doing business in a country with a weak rule of law as money is syphoned off to grease the wheels of a corrupt bureaucracy or legal system. Conversely, if high integrity is the national culture, businesses are more likely to do the right thing, and not have their profits confiscated by their government or unjustly taken by employees. Over time, more value should accrue to the shareholders of businesses that don't cut corners and are not beholden to corrupt governments.

Theory For High Corruption

Perhaps investors worry too much about corruption. Maybe a bribe here and there is just how business gets done. If enough investors decide, "I won't invest in Country X because they are too corrupt," the valuation of that country's stock market could be driven below its corruption adjusted intrinsic value. In this scenario, investing in more corrupt countries would yield an excess return.

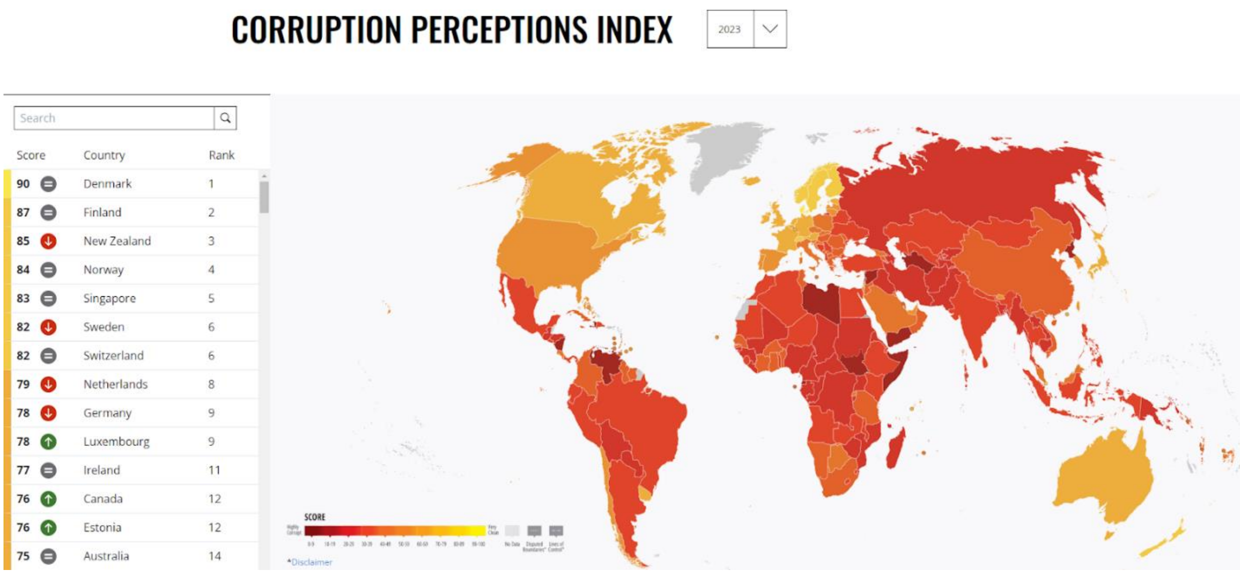
Corruption Perceptions Index

Transparency International is an independent, non-governmental, not-for-profit organization that works to stop corruption and promote transparency, accountability, and integrity at all levels and across all sectors of society. To enable its mission, it constructed

[1] Investment Factor - A style of selecting securities based on certain attributes that are associated with higher returns.

the *Corruption Perception Index* (CPI) to measure and track corruption around the world. The CPI scores countries based on how corrupt the public sector is perceived to be by experts and business executives. The index combines 13 surveys and assessments of corruption, collected by multiple reputable institutions. The CPI is the most widely used indicator of corruption worldwide, so we used it as our measure to rank country corruption (*Figure 1*). A high Corruption Perception Index score means that a country has low corruption. For example, Denmark's Corruption Perception Index score of 90 is the highest of any country, indicating that it has the lowest corruption in the world.[2]

Figure 1. Corruption Perceptions Index (CPI)



Results

The CPI has reported corruption levels since 1995, and we were able to obtain a large sample of country stock market returns starting in February of 1995. Thus, our study spans the 29.33-year period from 2/28/1995 through 6/30/2024. In an effort to get the most accurate reading of a country's corruption throughout the time period, we calculated the average corruption score using the data from every year. In Table 1, we show each country's corruption score and its annualized return over the 29.33-year period.

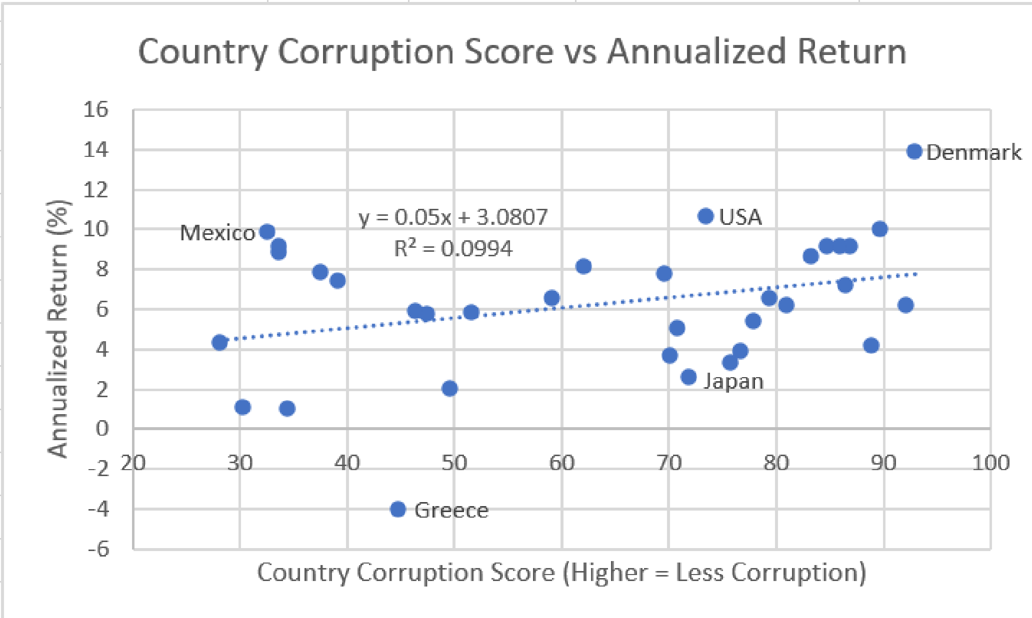
[2] Sadly, the United States currently has a Corruption Perceptions Index score of 69, giving us a global rank of number 24.

Table 1. Country Corruption Score and Annualized Return

Country	Corruption Score	Annualized Return (%)
Denmark	92.9	13.9
New Zealand	92.0	6.2
Sweden	89.7	10.1
Singapore	88.9	4.2
Switzerland	86.8	9.1
Norway	86.4	7.2
Netherlands	85.9	9.1
Canada	84.6	9.2
Australia	83.2	8.7
United Kingdom	80.9	6.2
Germany	79.4	6.6
Hong Kong	77.9	5.4
Austria	76.7	3.9
Ireland	75.8	3.4
United States	73.4	10.7
Japan	71.8	2.6
Belgium	70.8	5.1
Chile	70.1	3.7
France	69.6	7.8
Spain	62.0	8.2
Taiwan	59.1	6.6
Korea (south)	51.5	5.8
Malaysia	49.6	2.0
Italy	47.5	5.8
South Africa	46.4	5.9
Greece	44.8	-4.0
Turkey	39.1	7.4
Brazil	37.4	7.9
Thailand	34.4	1.0
Argentina	33.6	8.9
India	33.6	9.2
Mexico	32.5	9.9
Philippines	30.2	1.1
Indonesia	28.1	4.3

We then plotted each country's corruption score versus its annualized return over the time period (*Figure 2*).

Figure 2. Country Corruption Score vs Annualized Return



While the coefficient of determination is quite low (R^2 = 0.0994) there does appear to be a slight positive correlation between higher corruption scores and higher annualized returns (again, higher corruption scores mean lower corruption).

Some of the outliers have reasonable explanations: Japan had the lowest return of all low corruption countries, but it also started the period with an extremely overvalued PE ratio of 49.2. For comparison, Germany had the second highest starting PE, and it was only 16.5. On the opposite end of the spectrum, Mexico had the highest return of all high corruption countries, but its starting PE was very undervalued at only 9.7. The United States also punched above its weight, primarily driven by the world-beating performance of the Magnificent 7 which have approximately doubled its PE from a starting level of 12.3 up to 24.7, the second highest in the world!

The slope of the trendline is 0.05 which means that for every 10 points higher on the corruption scale, the average country's market return was 0.5% higher. If the coefficient of determination were considerably higher (>0.7) we would be much more confident that corruption is a standalone investment factor. Given the wide range of outcomes that can be seen in Figure 2, we view country corruption as a tie-breaker: all else equal, we would select Denmark over Italy if we wanted to increase our European exposure, and we would select Singapore over the Philippines if we wanted to lift our holdings in the Asian Rim.

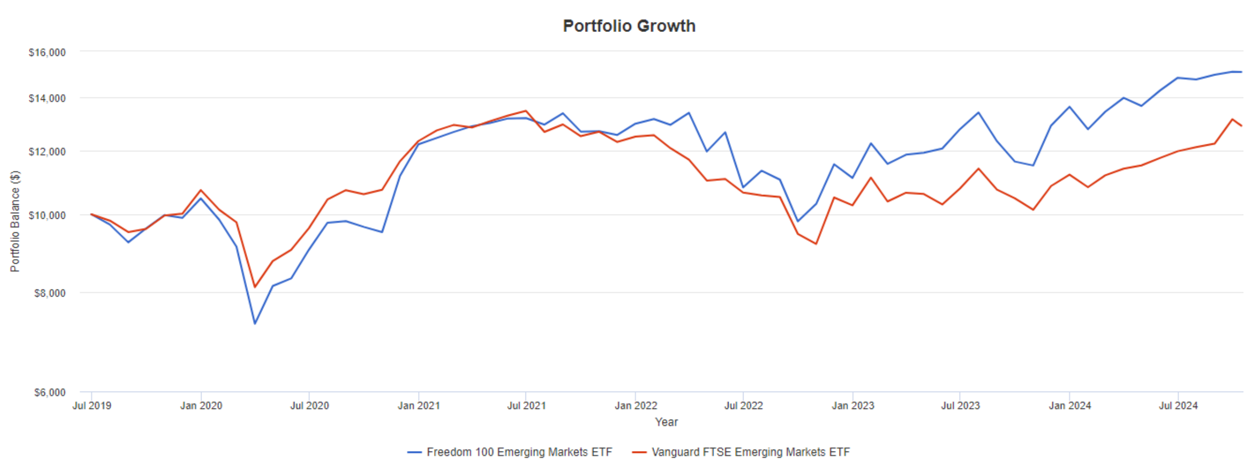
We then tested 34 diversified International and Emerging Market mutual funds and ETFs to see if their composite corruption score was predictive of performance. As expected, there was virtually no correlation because other investment factor tilts such as value, momentum, and quality overwhelmed the corruption effect (data not shown).

Nonetheless, there was one standout among Emerging Market funds: the Freedom 100 Emerging Markets ETF (FRDM). While this fund does not specifically aim to invest in low corruption countries, it does aim to invest in countries that score highly on personal and economic freedom metrics. Per our analysis, this fund had the highest composite corruption score (58.8) of all the Emerging Market funds that we tested; it scored 15.9 points higher than the Emerging Market benchmark ETF: Vanguard FTSE Emerging Markets ETF (VWO). Given the slope from Figure 2, we would expect FRDM to have a 0.8% higher annualized return than VWO. Since its July 2019 inception, FRDM has beaten VWO by 3.1% annualized (*Figure 3*.)

Figure 3. Freedom 100 Emerging Markets ETF (FRDM) vs. Vanguard FTSE Emerging Markets ETF (VWO)

Portfolio	Initial Balance	Final Balance	CAGR	Stdev	Best Year	Worst Year	Max. Drawdown
Freedom 100 Emerging Markets ETF	$10,000	$15,078	8.00%	22.37%	22.81%	-14.48%	-30.34%
Vanguard FTSE Emerging Markets ETF	$10,000	$12,911	4.91%	17.34%	15.19%	-17.99%	-31.86%

Portfolio Growth



A five-year time period is much too short to draw any firm conclusions, but it is encouraging to see that tilting towards freedom and low corruption has produced excess returns in line with longer term country corruption data.

Conclusion

To answer the question posed in the introduction: yes, it appears that low country corruption is associated with higher stock market returns. Given the caveat that the correlation is not strong, and it may not hold into the future, we can cautiously say that a culture of integrity leads to higher returns. When I was growing up, I was told that honesty is the best policy, and although it is not the easiest policy at times, my direct experience has taught me that it is, in fact, the best policy. We are pleased that we were able to conduct some statistical testing around that observation, and find that honesty also appears to be the best policy when it comes to international investing. From a portfolio design standpoint, while this new research is not strong enough to justify a major shift, it is promising enough to support a tilt towards low corruption countries after other critical investment factors like valuation, quality, and growth have been considered.

Best,

Thomas M. Denkenwolf

Thomas M. Denkenwolf
Sankala Group LLC
T: (720) 549-3355

Sankala Group