

# *Country Selection: A Powerful Technique for International Equity Investing*

Part 1: Problems with traditional international investment approaches

Part 2: The Country Selection Technique

Part 3: Employing the technique to build in international portfolios

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**Magni**

## EXECUTIVE SUMMARY

In Part 1, we note that projecting the future value of equities is a tough but potentially rewarding challenge. Even slightly improved insights and investment forecasts can generate significant outperformance. Incorporating new relevant information into the forecasting process is the holy grail to enhanced performance as, if valid, it virtually assures superior results. Country-level information potentially represents such an opportunity, as it has generally not been incorporated into investment analyses<sup>1</sup> and shows potential for reliably and consistently impacting future stock prices.

But is country selection productive? Do countries matter? The answer to both questions is, we submit, yes. We believe select country information does have analytical value and that:

- There are well-accepted principles that can favorably influence a country's economic vitality.
- The degree to which a country implements these principles measures that country's ability to create wealth.
- That ability in turns impacts the valuation of companies listed on the country's equity exchange.

In Part 2, we observe that, despite the value of this information, equity analysts have not incorporated it into their research process. They have been impeded by the obstacles involving its collection, standardization, and use. To make such information viable, analysts require access to methods that support the qualitative analysis of sovereign factors. They also need procedures for standardizing the analytical results.

Finally, in Part 3, we discuss how the Country Selection Technique is used to build international equity portfolios and how portfolios built using the Country Selection Technique have demonstratively delivered superior risk-adjusted performance for more than a decade.

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<sup>1</sup> "Financial Analyst Journal", September/October 2000 edition

## PART 1 - PROBLEMS WITH TRADITIONAL INTERNATIONAL INVESTMENT APPROACHES

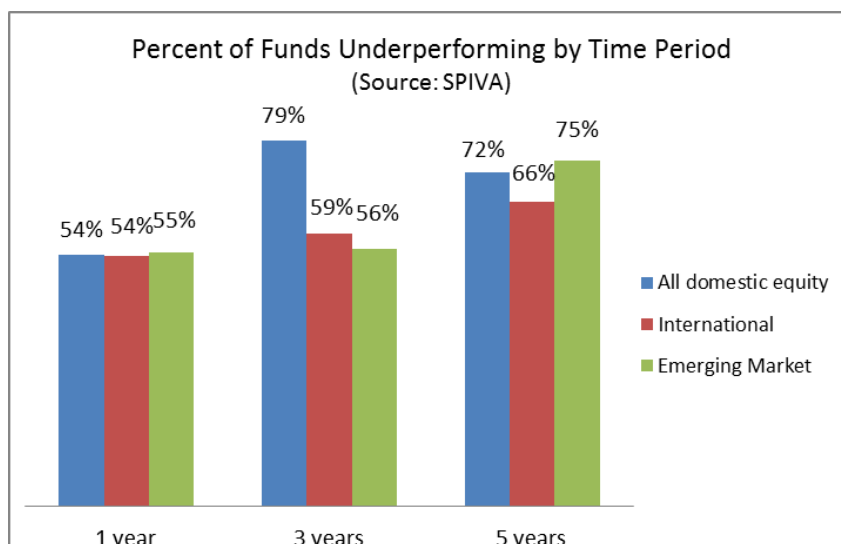
### Role of International Equities In Investment Portfolios

To achieve the highest return for a given amount of risk, an investment portfolio requires a high degree of diversification. Portfolio diversification is best achieved by including assets whose return is not correlated with other portfolio holdings. International assets provide returns that are less correlated with each other than one-country assets. Therefore, international equities when included in equity portfolios can supplement returns while often reducing portfolio risk. This cornerstone of portfolio management theory has led investors to diversify their portfolios with international equities.

Harry Markowitz introduced the concept of the efficient frontier in 1952. His research centered on identifying characteristics of portfolios that offered the optimal risk/return profile. Research based upon this concept concluded that, since 1970, the optimal mix of domestic equities and international equities has been about 70 percent domestic to 30 percent international equities<sup>2</sup>. Correlation between developed countries such as those in the EAFE index and the US has recently been increasing, thereby reducing their diversification potential. These rising correlations suggest investors should be looking beyond developed countries and considering emerging market and perhaps frontier market equities as potential diversification candidates.

### Traditional Investment Products

When building international equity portfolios, most investors do not pick individual companies and hence have two choices: active managers and passive managers. Active managers build custom portfolios. Their investment products include mutual funds, separately managed accounts, and hedge funds. Many active managers do not focus solely upon performance but rather build portfolios that meet their clients' needs. This can lead to



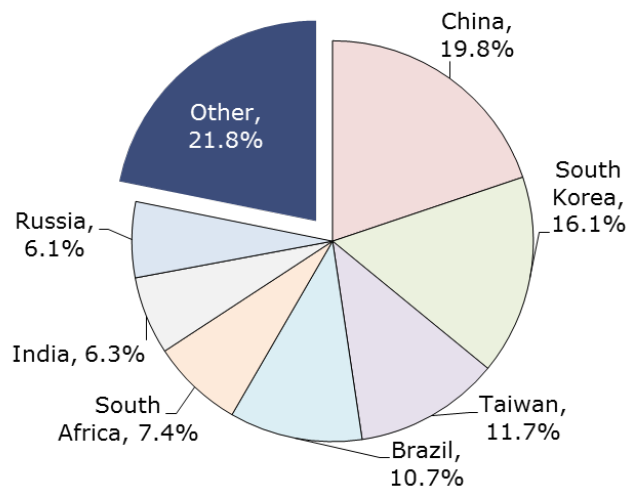
<sup>2</sup> Malkiel, Burton, 2012, "A Random Walk Down Wall Street", Tenth Edition, W.W. Norton & Company. Ferri, Rick, 2013, "Foreign Stocks For The Long Run". Ping, Jonathan, 2013, "Asset Allocation Revisited: How Much International Stock Exposure For Your Portfolio?"

managers underperforming their benchmarks<sup>3</sup>.

Passive strategies focus on delivering near benchmark performance at low cost. This can lead to better performance, but at the cost of portfolios failing to address specific needs. One vehicle for delivering passive performance is tradable Exchange Traded Funds (ETF's). The popularity of ETF's demonstrates the attractiveness of this approach. The most popular passive strategy is to weigh securities by their market capitalization. This strategy is seen as optimal by devotees of the efficient markets hypothesis devised by Nobel Laureate Eugene Fama and others.

Market capitalization approaches dictate heavily weighting large equity markets. Fund returns are thereby primarily determined by performance of the countries with the largest equity markets. Thus, more than three-quarters of the 24-country MSCI Emerging Markets ETF is concentrated in only seven countries, resulting in performance that is largely dependent upon the returns of that minority of countries.

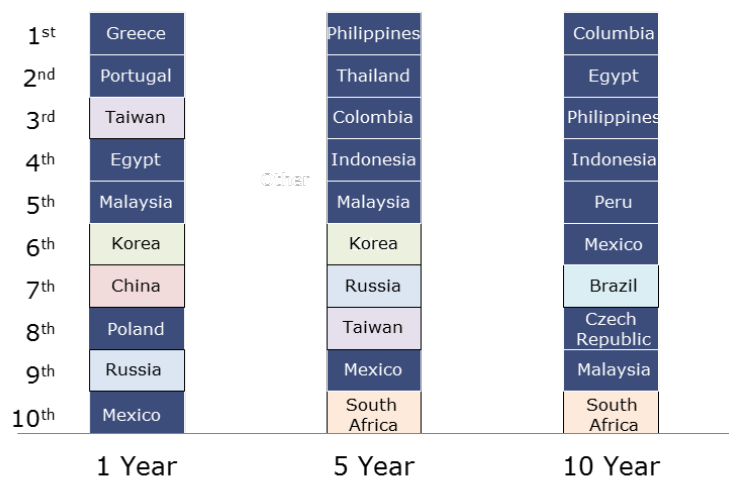
Top 7 MSCI EM Weightings (12/31/13)



Source: MSCI

The seven countries with the largest weightings are not heavily represented in the top performing countries. Thus, the performance of the emerging market ETF would be higher if it did not have such a concentrated position in the largest equity markets.

Top Performing Emerging Markets (12/31/13)



Source: FactSet

In addition to market-capitalization weighting, there are newer types of passive indexing, such as Fundamental Indexing, Equal Weighted, and Low Volatility. These are becoming known as "Smart Beta" strategies. Use of these alternate approaches can increase portfolio concentration. For example,

<sup>3</sup> SPIVA (S&P Indices Versus Active Funds) as of 6/30/13

the Wisdom Tree Emerging Markets Equity Income Fund (DEM) uses Fundamental Indexing that assigns an even higher weighting to its top seven countries<sup>4</sup> than do traditional cap weighted indices, yet these seven countries are also not heavily represented in the top performing countries.

A characteristic of most active and passive approaches is that they ignore the fact that each country has a unique economic infrastructure. The resulting differences in individual country economies have implications for equity valuation. There must be a way to incorporate these differences into investment processes.

Traditional Investment Analysis

To raise the standards for analysts in financial services, the CFA Institute<sup>5</sup> created certification programs focused on quantitative methods for transforming financial information into metrics suitable for building portfolios.<sup>6</sup> Investment analysis involves the incorporation of financial information into financial projections. As shown nearby, only information that can ultimately be transformed into a financial value has an impact on the end result of the model.

1. Relies on historical financials to forecast the future, such as

- 2012 Actuals
- 2013 Q1 Actuals

2. Focuses on information specific to the company as opposed to the country, such as

- Revenue
- Margins
- Free Cash Flow
- Diluted EPS
- P/E Multiple

**Exhibit 3: IBM Income Statement**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Operating Results</b>																		
Revenue	\$14,200.0	\$14,102.9	\$14,652.0	\$14,662.0	\$15,126.4	\$15,311.1	\$15,911.1	\$16,710.2	\$16,952.0	\$16,202.0	\$16,447.0	\$16,911.0	\$17,110.0	\$17,110.0	\$17,110.0	\$17,110.0	\$17,110.0	\$17,110.0
Operating Expenses	\$4,484.0	\$4,486.0	\$4,558.0	\$4,767.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0	\$4,768.0
Operating Income	\$9,716.0	\$9,616.9	\$10,094.0	\$9,895.0	\$10,358.4	\$10,543.1	\$11,143.1	\$12,142.2	\$12,184.0	\$11,434.0	\$11,679.0	\$12,143.0	\$12,342.0	\$12,342.0	\$12,342.0	\$12,342.0	\$12,342.0	\$12,342.0
Net Income	\$7,512.0	\$7,312.0	\$7,812.0	\$7,612.0	\$8,112.0	\$8,312.0	\$8,812.0	\$9,312.0	\$9,512.0	\$8,812.0	\$9,012.0	\$9,512.0	\$9,712.0	\$9,712.0	\$9,712.0	\$9,712.0	\$9,712.0	\$9,712.0
Diluted EPS	\$1.50	\$1.46	\$1.56	\$1.52	\$1.62	\$1.66	\$1.76	\$1.86	\$1.90	\$1.76	\$1.80	\$1.90	\$1.94	\$1.94	\$1.94	\$1.94	\$1.94	\$1.94

Source: Merrill Lynch research report on IBM 1/21/2014

While those efforts are important, the very structure of the approach, the scope of the information incorporated into the models and the need for quantitative research lead to the exclusion of other potentially valuable information.

Country-Level Information Impacts Financial Projections

The fact that economies differ between countries raises important questions.

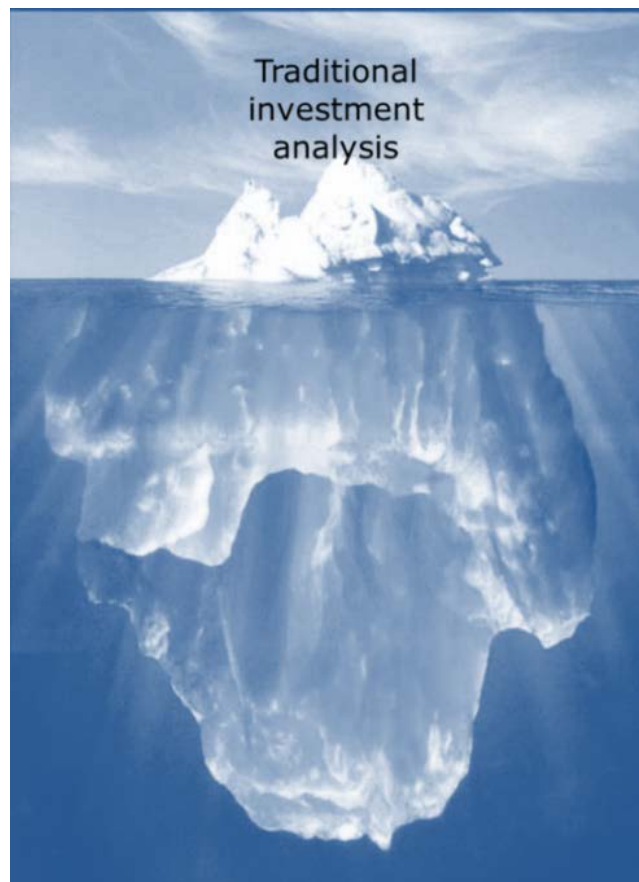
- Do portfolio countries differ in the degree to which they require that corporate financial statements accurately reflect the true performance of the company? Are some country's standards so lax as to render useless financial statements issued by their businesses? To the extent a country is lax in requiring accurate and uniform

<sup>4</sup> DEM weightings as of 1/14/14  
<sup>5</sup> See [www.cfainstitute.org](http://www.cfainstitute.org)  
<sup>6</sup> See [www.cfainstitute.org/learning/tools/gbik/Pages/index.aspx](http://www.cfainstitute.org/learning/tools/gbik/Pages/index.aspx)

financials, security analysis is less meaningful and stock valuations of that country's companies are more speculative.

- Do shareholders in portfolio countries benefit from the success of their holdings? Or in some countries are most of the benefits captured by insiders? Many countries have impediments to investors recovering the returns to which they are entitled, including corruption, a lack of legal shareholder protections, government sponsored monopolies extracting value from companies, and a court system unresponsive to shareholder interests.
- Can investors and company managements rely upon governments to enforce a culture of clarity and transparency so that investors and company management can deploy capital efficiently? If a country's fiscal and monetary policy environment is opaque, unstable, and/or susceptible to corruption, business investment is more risky. The management of a company in that country is less likely to invest in otherwise attractive projects as it will perceive that uncertain knowledge renders the risks as excessive. Since wealth is created by deploying capital on attractive projects, less wealth is created and that country's economic growth is stifled.

An iceberg is a metaphor for traditional investment analysis regarding international equities. Most international analyses parallel domestic analyses by focusing on the traditional metrics that are akin to the visible part of an iceberg. The hidden information is like the submerged portion of an iceberg. It is key to success, but not readily discovered.



## PART 2-THE COUNTRY SELECTION TECHNIQUE

If country-level information impacts financial projections and if financial projections are very important to many investment decisions, country-level information should impact investment decisions.

### *Well Accepted By Economists*

Economists have written many articles about the role of countries on company valuations<sup>7</sup>. The articles have common themes about an open, honest, efficient, and stable economic system enabling wealth creation for all stakeholders in a country. A recently published book by two highly regarded economists provides a large number of examples to reinforce this point. In "*Why Nations Fail*"<sup>8</sup>, the authors compare many examples where two similar economies experiencing different governments (and hence economic systems) produce very different results.

*Countries...became rich because their citizens overthrew the elites who controlled power and created a society where political rights were much more broadly distributed, where government was accountable and responsive to citizens, and where the great mass of people could take advantage of economic opportunities.*<sup>9</sup>

In short, a country requires an open, honest, efficient, and stable economic system if companies and the citizenry are to be successful.

### *A Lack of Information Has Prevented Incorporation in Investment Analysis*

If understanding the economic infrastructure of countries has investment value and the connection is well-accepted among economists, logically, investment professionals should be incorporating country-level information in their analyses. Unfortunately, the available information about the economic infrastructure of countries is not standardized and is inherently qualitative. Non-government organizations perform substantial research on countries, including economic statistics (e.g., GDP, GDP per capita, trade balances) and social welfare (e.g., child labor, environmental quality). While such research is important and has many uses, it does not provide what the investment community needs. Researchers need to place the available facts into frameworks yielding clear overall pictures of the economic infrastructure so that analysts can compare countries on an

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<sup>7</sup> Rousseau, P. L. and P. Wachtel, 1998, "Financial Intermediation and Economic Performance: Historical Evidence from Five Industrial Countries", *Journal of Money, Credit and Banking*, 30: 657-678; Rousseau, P. L. and P. Wachtel, 2000, "Equity Markets and Growth: Cross-Country Evidence on Timing and Outcomes, 1980-1995", *Journal of Business and Finance*, 24: 1933-1957; or Demetriades, P. and K. Hussein (1996), "Does Financial Development Cause Economic Growth? Time Series Evidence from 16 Countries", *Journal of Development Economics*, 51: 387-411.

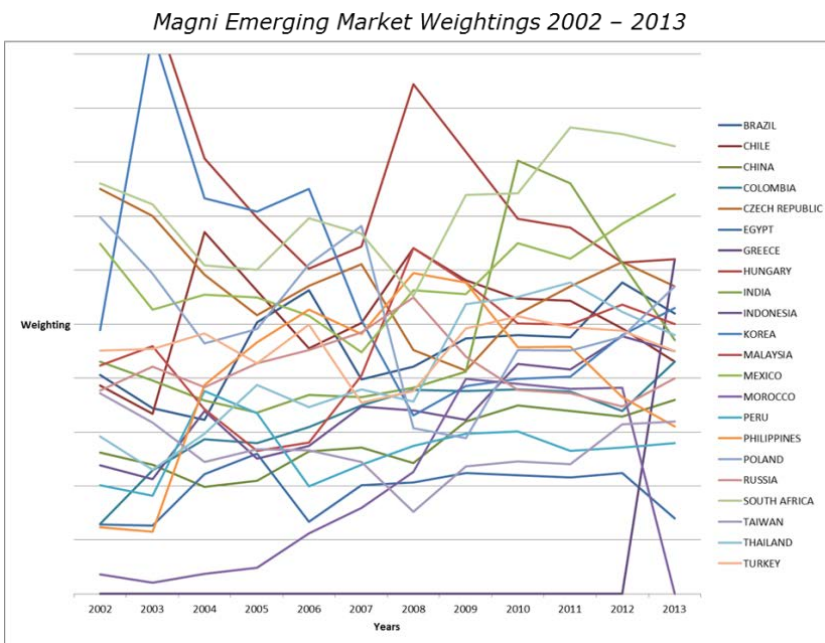
<sup>8</sup> Acemoglu, Daron, and James A Robinson, 2012, "*Why Nations Fail: The Origins of Power, Prosperity and Poverty*". 1st ed. New York: Crown.

<sup>9</sup> Ibid, page 15.

“apples to apples” basis. This is not easily accomplished; if it were easy, analysts would already access such information.

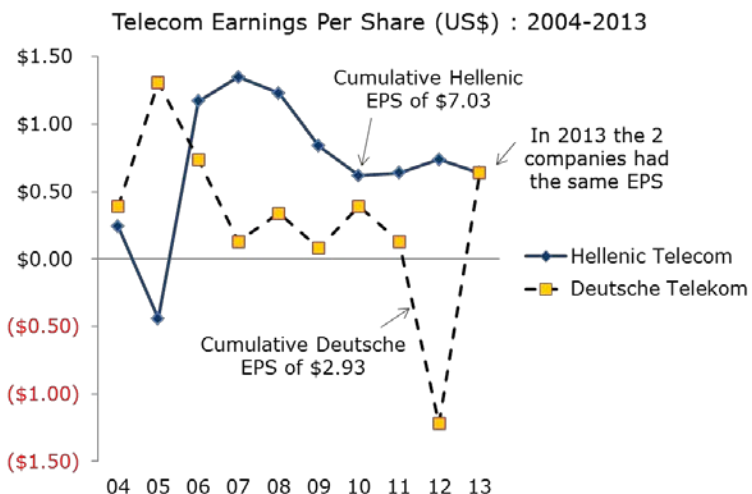
Countries Matter™:  
Considerations Vary  
Significantly Over Time

Economic systems change at a fast pace. As illustrated by the nearby graph of weightings based upon the Country Selection Technique, over a multi-year timeframe, the economic systems of countries can change significantly<sup>10</sup>. Since the systems vary over time, they need to be continuously monitored to gain timely insights when making investment decisions.



The Country Where a Company is Listed Matters

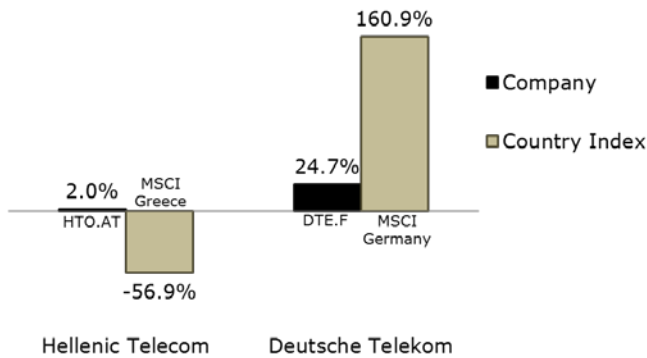
To help understand the importance of the country where a company is listed, two well-established, successful companies in the same industry, but listed on different exchanges are compared. Deutsche Telekom (DTE.F) is listed on the DAX (German), while Hellenic Telecom (HTO.AT) is listed on the Hellenic exchange (Greek). They are in the same business and each has a large market capitalization on its exchange. The nearby chart graphs the earnings per share of the two companies over the prior decade. Hellenic Telecom generated more total profits and delivered more consistent profits over the time period. Based solely on company profitability, Hellenic Telecom would be the better investment.



<sup>10</sup> Relative weightings of investible countries from country-level portfolios that are derived from a country's adherence to Sustainable Wealth Creation principles, Magni Asset Management LLC, [www.magnifunds.com](http://www.magnifunds.com).



Telecom Company Performance Comparison\*  
2004-2013



\* For each company, the left hand performance is the cumulative stock price change and the right hand performance is the cumulative change in the country level index where the company is listed.

Despite its lower and more inconsistent profitability, Deutsche Telekom was the better investment. The black bars in the chart on the left show the equity performance over the same time period. Adjacent to each company's equity performance is the performance of the exchange where the company is listed with the MSCI index used as the measure of performance in each country. Hellenic Telecom significantly outperformed the overall Greek exchange. Conversely, Deutsche Telekom significantly

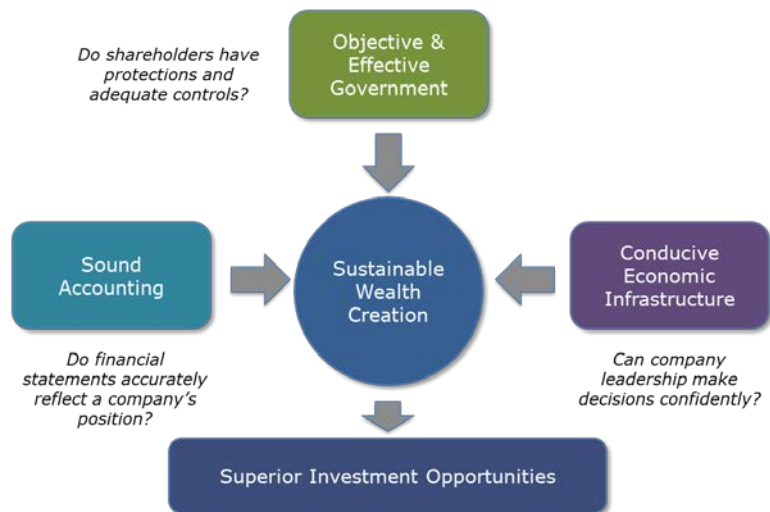
underperformed the overall German exchange. The equity performance of both companies was strongly influenced by the exchange where they are listed. The ETF representing the German exchange had higher performance than either company. Understanding a country and its investment prospects is important. Investing in a country's equity market can be a better choice than investing in specific companies.

Sustainable Wealth Creation Principles

We created the Sustainable Wealth Creation principles<sup>11</sup> to enable the collection and organization of country-level data about the respective economic infrastructures.

Sustainable Wealth Creation addresses three very important questions.

- Do financial statements accurately reflect a company's position?
- Do shareholders have protections and adequate controls?
- Can company leadership make decisions confidently?



Sustainable Wealth Creation principles help answer these important questions by examining the accounting, legal, regulatory, adjudicative, and economic structures of a country. The principles are a primary intellectual basis of the Country Selection Technique.

<sup>11</sup> Created by Dr. Roger Conant, Ph.D., Economics, Columbia University, who is the founder and CIO of Magni Asset Management LLC

## PART 3- THE COUNTRY SELECTION TECHNIQUE AND INTERNATIONAL PORTFOLIOS

### Building the Portfolios

Smart Beta portfolios resemble index funds but they use weighting techniques other than market capitalization. One such weighting technique is based upon the Country Selection Technique.

The technique utilizes a hierarchical set of analytical measures. The Sustainable Wealth Creation principles described above are at the top. These are divided into

twelve Economic Standards that in turn are further subdivided into 270 Qualitative Sovereign Factors. Analysts measure each Qualitative Sovereign

Factor by determining a country's level of intent to abide by each factor plus its *actual* level of adherence. To enhance objectivity, the analysts rely when feasible on neutral third-party research analytics.

<u>Economic Standards</u>
• Monetary policy transparency
• Fiscal policy transparency
• Data dissemination
• Banking
• Securities
• Insurance
• Corporate governance
• Accounting
• Auditing
• Payment systems
• Market integrity
• Insolvency

<u>Examples from the 49 Qualitative Sovereign Factors within Market Integrity</u>
• Money Laundering Offense
• Confiscation and Provisional Measures
• Secrecy Laws
• Customer Due Diligence
• Record Keeping
• Suspicious Transaction Reporting
• Criminalize Terrorist Financing

The analysts then convert each Qualitative Sovereign Factor into investible quantitative scores. They employ a single objective scale to facilitate this conversion. The possible scores range from 0 to 10 as listed in the nearby chart. This clear and simple scale makes the research reasonably objective and minimizes distortions attributable to analytical biases.

<u>Common objective scale for quantitative conversion</u>	
Score	Definition
0	Insufficient Information
1	No Compliance
3	Intent Declared
6	Enacted
8	Compliance in Progress
10	Full Compliance

### Creating Target Weightings

We accumulate the Qualitative Sovereign Factor scores for each Economic Standard as computed using the common objective scale and then aggregate these totals into overall country scores. The higher the overall score, the greater is the adherence to the Sustainable Wealth Creation principles. The country scores are converted into initial target weightings. These weightings are adjusted based on country-level liquidity in order to constrain exposure to less liquid countries. The resulting weightings are further adjusted to maximize the prospective ratio of reward to risk as measured by the Sharpe Ratio, yielding the Smart Beta portfolio.

We began building and testing the Country Selection Technique in 2003. We built portfolios applying our weightings to the holdings in the applicable MSCI country-level indices. For the test, we determined target weightings at the beginning of each month and rebalanced the model portfolios at the end of that month. We describe this test as “Forward Testing”.

### Measuring the Portfolio Performance

The forward tested Country Selection Technique demonstrated significant outperformance across portfolios when compared to their MSCI benchmarks on both an absolute and risk-adjusted basis. This outperformance was demonstrated on a consistent basis<sup>12</sup> using forward testing, which is a stronger testing approach than the back testing typically used when testing new investment approaches.

### Forward Testing

Back testing is about developing a model to fit existing performance data. The forward tested Country Selection Technique is run in a manner very similar to the management of actual investment accounts:

- The Magni model has been run *continuously* since starting at the beginning of 2003
- The target weightings were applied *before* investment results were known
- The Magni model is *unchanged* over entire period
- Throughout most of the measure period, performance was computed by *independent* vendors.

### Relative Performance of Emerging Markets Portfolios: 2003 to 2013<sup>13</sup>

	Annualized Return	Standard Deviation	Alpha	Sharpe Ratio	Information Ratio	R-Squared vs. Market
Magni Emerging Markets	17.03%	22.13%	3.16%	0.70	0.43	94.40%
MSCI EM	14.63%	23.31	0.00%	0.56	0.00	100.00%

### Country-Level Impact on Portfolio Risk

Even though the Country Selection Technique exhibits volatilities equal to or less than the associated index, we believe that volatility fails to fully capture the risk associated with cap weighted portfolios. There are other types of risks than those incorporated into measures of volatility. Portfolios built using the Country Selection Technique constrain some of these non-measured risks. Examples include:

<sup>12</sup> Investment professionals can see specific performance information at [www.magnifunds.com](http://www.magnifunds.com).

<sup>13</sup> Performance is forward tested on a concurrent basis. Returns reflect the reinvestment of dividends and other earnings, but not trading costs, and are presented net of a 0.75% expense ratio.

- The risk of an investment going to zero. Magni invests in country indices, thereby providing protection against complete failures. While country indices can and do decline sharply on occasion, countries seldom fail completely, and, if they do, investors in that country's stock will lose their positions, as virtually all stocks in that country lose all value. Accordingly, the risk of total loss is much greater if one invests in a handful of companies in a country than if one invests in that country's stock index.
- The risk of a country collapsing. Country's markets do collapse. For example, cap weighted international portfolios were heavily impacted by the sharp fall in Japan's market. Since each Magni portfolio contains indices of many countries, Magni provides some protection against the country-specific risk that is assumed by cap weighted and other portfolios concentrated in a small number of countries.
- Illiquid markets. Some countries have thin markets resulting in low liquidity, which can reduce liquidity and make costly the liquidating of holdings. Since Magni's portfolios each have over a dozen countries, there is only limited exposure to low-liquidity countries.
- Magni utilizes long only positions with no hedging.<sup>14</sup>

Portfolios built using the Country Selection Technique exhibit the characteristics desired in Smart Beta portfolios. Their performance is excellent and their risk, as measured by standard deviation, is at or below those of traditional cap weighted indexes.

## CONCLUSION

International equities are playing an ever more important role in investment portfolios. Despite well-accepted economic principles about the role of economic infrastructure on equity valuations, traditional investment analyses do not incorporate relevant information as it is not available in a consistent, usable format.

At the beginning of this paper, we asked if countries matter. Yes, they do. The Country Selection Technique incorporates this fundamental concept. We have developed a repeatable process for measuring the economic infrastructure of countries and turning these measurements into investable information. Portfolios built using the process have demonstrated significant absolute and risk-adjusted performance for more than a decade using a rigorous forward-tested process.

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<sup>14</sup> Hedging and other complex financial products have counterparty, systemic, and other risks not captured in the measure of volatility.

### About Magni

Magni Asset Management LLC is a Minnesota based asset management firm founded by Dr. Roger Conant, previously the Chief Investment Officer for the St. Paul Companies/Travelers. Magni provides management and advisory services to investment professionals, including RIA's and institutional investors. The firm believes *Countries Matter*<sup>™</sup> when investing internationally and applies its proprietary research-driven investment strategy to create global equity portfolios. For more information, please visit [www.magnifunds.com](http://www.magnifunds.com).