InvestmentMetrics

Peering Beyond Regions and Borders

by InterSec Research

Herein we glance at the equity landscape and see a market that is becoming more global. Using the MSCI Economic Exposure model, we are able to complement our traditional country attribution. This combined approach has provided interesting details on value added by looking at where revenues are generated which we hope will spark further discussion.

Consistently over the last five years, U.S. tax-exempt initial fundings to international equity mandates have shifted in favor of ACWI ex U.S. benchmarks (see Chart 1 on the following page). As addressed in previous memos by InterSec Research, such as ***Evolution of Emerging Markets***, this transition was driven both by an increased appetite for emerging markets, and a desire to utilize a more appropriate benchmark as international investment managers added a majority of their excess return from emerging markets listed companies.

THE MSCI Economic Exposure Model

In April 2012, MSCI introduced the MSCI Economic Exposure Indices which aims to measure the economic activity of index listed stocks “beyond their domestic borders”, and to “reflect the performance of companies with high economic exposure to specific regions and countries”[1]. Rather than determining the value a company is able to add to overall portfolio performance based on its country of domicile, MSCI has created a metric to calculate the economic exposure, or revenue exposure, of each company. MSCI defines economic exposure as the “proportion of its revenues coming from [a particular country or] region”[2], and is calculated as the distribution of revenues and the GDP weight of the countries and regions. For this paper InterSec ran the standard MSCI indices through the model as if it were a portfolio to compare economic exposure of the indices to manager portfolio holdings[3].

1 MSCI Research: Index methodology, MSCI Economic Exposure Indices. February 2013. © MSCI Inc.
2 Ibid.
3 Economic exposures shown are aggregated using the weights in the parent index (cap-weighted).

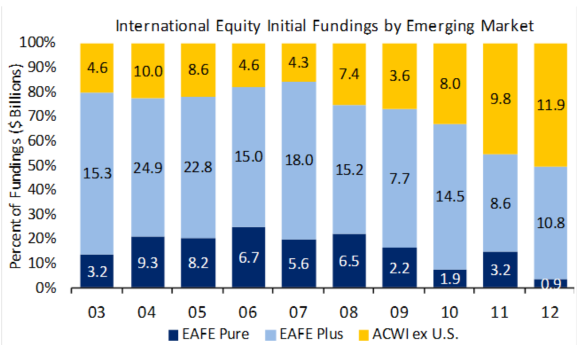


Chart 1.

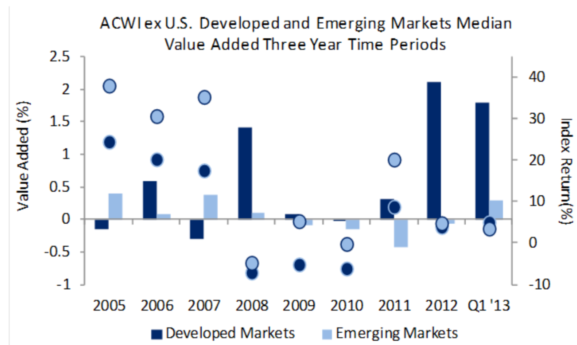


Chart 2.

Since 2008, there has been a material change in the biggest drivers of value added within international portfolios. Before the market crash, emerging markets played a pivotal role in adding value to an international portfolio, while developed market allocations consistently lagged emerging markets. Since then however, the greatest source of value added has come from developed markets. As seen in Chart 2, the navy blue bars depict the percentage of value added (left-hand axis) attributable to developed markets, while the light blue bars depict the same for emerging markets. The returns of the developed and emerging components of the MSCI ACWI ex U.S. Index are plotted on the right hand axis. Considering developed markets have either lagged or been in line with emerging markets, it becomes evident that the index returns cannot explain the resurgence of value added.

Utilizing traditional country attribution, we determined that 90% of developed markets value added was derived specifically from European stock selection. Despite this fact, many of the asset managers that InterSec spoke with indicated that their investments were viewed more from a global perspective rather than a regional one, and therefore the developed Europe relative success may in fact be an emerging markets story.

In order to capture the global market factors driving managers’ stock selection in Europe, InterSec applied the MSCI Economic Exposure model to the ACWI ex U.S. Index (Chart 3). Results show that 51% of the revenue exposure for developed Europe comes from outside the region, while nearly 80% for emerging markets is derived internally. In fact, 18% of the external exposure in developed Europe comes from the U.S. and 22% comes from emerging markets. Considering top international equity new business winners added 2.5% through stock selection in developed Europe (blue diamond), we analyzed their top five common holdings. Exhibit 1 in the addendum highlights that over 50% of

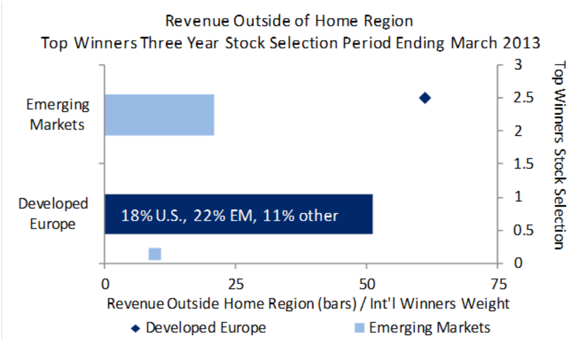


Chart 3.

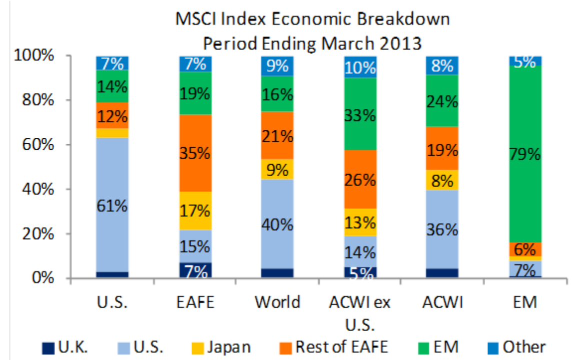


Chart 4.

the revenue exposure for each of the common holdings comes from outside of developed Europe. As an example, Unilever has the strongest relative performance and the largest emerging exposure (Exhibit 2, addendum). Using the Economic Exposure model confirms the portfolio manager conclusions about their own performance and that the surge in value added coming from the securities domiciled in developed Europe is a result of their revenue exposure to emerging markets and the U.S.

Underlying Economic Exposure of the Benchmark

After uncovering the differences between the country of domicile and economic exposure within Europe, we applied the model globally (Chart 4). Table 1 depicts each major indices' stated exposure to the U.S. and to emerging markets based on country weights, and their actual exposure when the sources of revenue are accounted for. The largest discrepancy between domicile weights and the corresponding economic exposure is in the MSCI U.S. Index, where only 60.5% of total revenue is generated from its domestic market. These results could give investors a better understanding of their portfolios true exposures.

Index	U.S.		Emerging Markets*	
	Stated Exposure	Actual Exposure	Stated Exposure	Actual Exposure
U.S.	100.0%	60.5%	0.0%	14.3%
EAFE	0.0%	14.7%	0.0%	19.3%
World	53.8%	39.7%	0.0%	16.2%
ACWI ex U.S.	0.0%	13.6%	23.1%	32.5%
ACWI	47.2%	35.7%	12.2%	23.9%
EM	0.0%	7.0%	100.0%	79.2%

Table 1.

Additionally, we analyzed the economic exposure of each MSCI GICS sector within the EAFE Index. Chart 5 highlights the largest differences of the country/region economic exposure vs. their stated exposure in the traditional cap weighted index (active weight). The two strongest performing sectors during the last three years were health care and consumers staples, which happen to have the largest exposures to the U.S. market. Interestingly, these are two of the sectors in which managers have struggled to add value through stock selection. (The actual weight and economic exposure of each country/region by each sector of the EAFE Index is referred to in Exhibit 3 of the addendum.)

As a corollary, Chart 6 provides the active exposure of the major countries and regions of the MSCI Emerging Markets Index. While the emerging exposure in the EAFE Index is generally spread out evenly across all sectors, applying the same model to the Emerging Markets Index shows that the developed market presence is more sector dependent. For example the information technology sector has a 50% exposure to the developed market countries, over half of which is the U.S. When investing

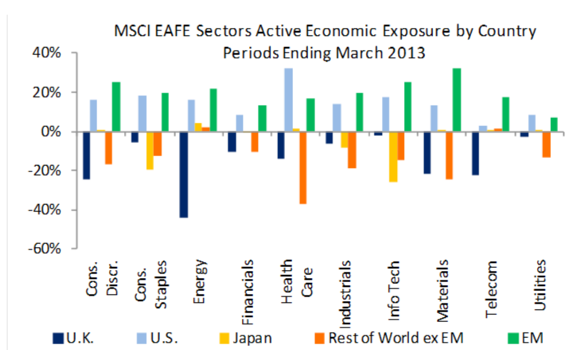


Chart 5.

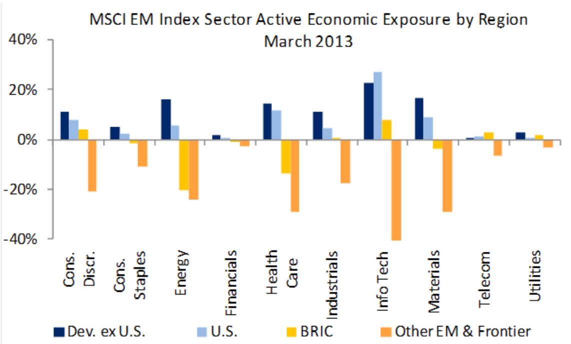


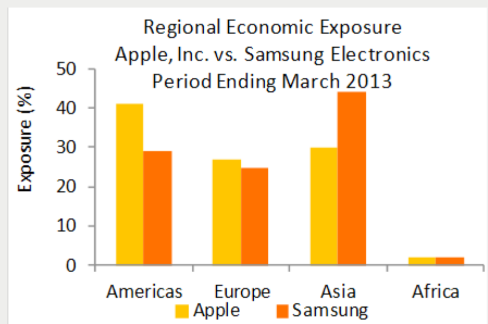
Chart 6.

into this sector, the health and strength of developed markets are equally as important as the environment in emerging markets. However, if pure emerging country exposure is targeted, concentrating investments to the consumer staples, financials, telecom, and utility sectors will provide the most exposure to emerging markets.

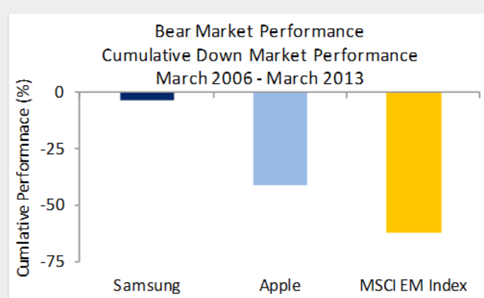
Investor Case Study

To better demonstrate the implications of economic exposure, InterSec analyzed a public defined benefit plan as a sample investor. Table 2 provides the characteristics of the twelve non-U.S. actively managed portfolios of the plan.

Apple vs. Samsung



Managers which invest in developed markets listed companies potentially have the opportunity to benefit from emerging markets growth with a lower risk profile. Two commonly held companies by many investment managers (both domestic and internationally focused) are Apple and Samsung. Samsung, the largest company in the MSCI EM Index, has been a very common holding in EAFE portfolios, and even within some U.S. equity focused portfolios because of the global reach of their product lines. The argument has been that Samsung trades very much like a developed markets company. The economic exposure analysis suggests this is accurate, as the developed vs. emerging markets revenue split is 51%/49%. While Asia accounts for more than 40% of the revenue, the top countries of exposure are the U.S., Korea, and China (all 14% or more). Similarly, Apple has consistently been one of the largest holdings across the U.S. indices. Currently, Apple sits slightly behind Exxon Mobile as the world's second largest company, and is a commonly held name in many institutional portfolios. While much of Apple's revenue is derived from developed markets (the U.S. accounts for nearly 30%), more than a third of its economic exposure comes from emerging markets, with exposure to China accounting for 16%.



When we examined the performance of the indices and these individual companies we noticed two key aspects. While the index correlations have increased significantly since the market crash (above 0.8 today), the standard deviation of the MSCI Emerging Markets Index has been quite a bit higher than the EAFE and U.S. indices. There appears to be an apparent attractiveness of developed market listed companies with high emerging markets exposure, as they can avoid some of the market turbulence. However, as Chart B highlights, a safe multinational company such as Samsung offers similar protections in down markets. Basically, as uncertainty entered the market the flight to a safe, multinational company, such as Samsung proved valuable.

	Mandate	Process	Orientation	Style	Holdings	Active Developed Economic Exposure (MSCI EAFE)	Active Emerging Economic Exposure (MSCI Emerging Markets)	Active Other Economic Exposure (Off Benchmark)
1	Developed Markets	Fundamental	TD/BU	Value	51-75	-8%	0%	8%
2	Developed Markets	Fundamental	Top Down	Core	350+	-9%	0%	9%
3	Developed Markets	Fundamental	Bottom Up	Value	51-75	-23%	-2%	25%
4	Developed Markets	Fundamental	Bottom Up	Core	101-150	-15%	4%	11%
5	Developed Markets	Fundamental	Bottom Up	Growth	26-50	-21%	-1%	23%
6	Developed Markets	Fundamental	BU/TD	Value	51-75	-13%	-5%	18%
7	Developed Markets	Quantitative	Bottom Up	Core	201-250	-42%	-4%	45%
8	Emerging Markets	Fundamental	Bottom Up	Growth	51-75	3%	-10%	8%
9	Emerging Markets	Fundamental	Bottom Up	Value	76-100	-5%	-9%	13%
10	Emerging Markets	Fundamental	BU/TD	Value	51-75	-5%	-3%	8%
11	Emerging Markets	Fundamental	Bottom Up	Growth	101-150	-3%	-8%	11%
12	Emerging Markets	Fundamental	Bottom Up	Value	51-75	-3%	-24%	27%

Table 1.

Interestingly, both developed and emerging markets managers appear to be underweight their respective mandates due to high off benchmark exposures. Within the developed mandates, the off benchmark component mainly consists of small cap names, where the emerging mandates include both small cap and frontier. Chart 7 compares the overall plan allocation by domicile and revenue exposure for their developed and emerging portfolios. As a plan that actively manages the allocations within their global equity portfolio, a better understanding of economic exposures can help the investment team make more informed decisions.

As pointed out earlier, running the sectors as separate portfolios through the model will provide a new outlook on the exposure of a portfolio. Chart 8 plots the active sector market cap weights of the portfolio (blue bars) vs. the corresponding revenue exposure of the index (yellow dots). The three sectors with the largest emerging markets economic exposure are financials, utilities, and telecom, of which the plan is underweight all three. Subsequently, the plan is overweight information technology, the sector with the largest exposure to the U.S. and developed markets (50%). Although the plan has a rather high allocation to emerging markets at 40%, it's revenue exposure by sector indicates more of a developed market bias.

Conclusion

Since the creation of the first international indices in 1968, investors have defined companies by their country of domicile. With continued globalization, this method may not be as useful as it once was. The MSCI Economic Exposure model provides a new method to characterize companies. Given differences in global accounting standards, not all company reporting is equally in depth.

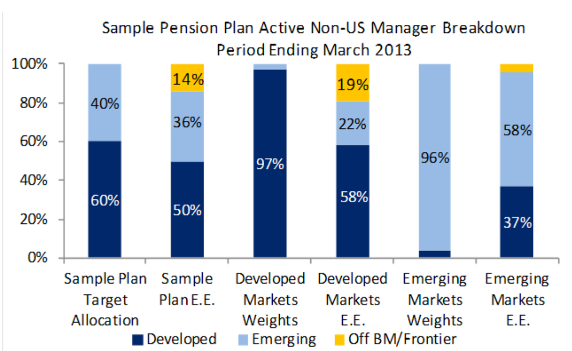


Chart 7.

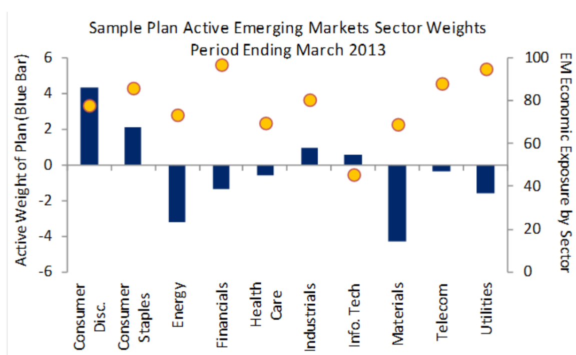


Chart 8.

For those which report revenues by region, MSCI currently uses a GDP weighting to distribute revenues to individual countries. As accounting standards improve and become more universal, so will revenue exposure reporting. For pension plans, understanding economic exposures can help identify "blind spots" and be used to help mitigate systematic risk. Investment consultants and asset managers, including several on InterSec's 2012 new business winners lists, have already started utilizing such tools. Comparing InterSec's top and bottom international equity performers over a rolling three year time period (Exhibit 6, addendum), both the allocated weights and economic exposures towards developed and emerging countries are different. For the ACWI ex U.S. Index and both top and bottom performers, economic exposures are lower than stated allocations to developed countries, and economic exposures are higher than stated allocations to emerging countries. An overlay of economic exposure analysis complements traditional market attribution, and is able to shed more light on security selection. While traditional market attribution relative to peers remains a valuable keystone to explain manager performance, incorporating MSCI's economic exposure tool will provide a unique lens to evaluate investment portfolios.

Addendum

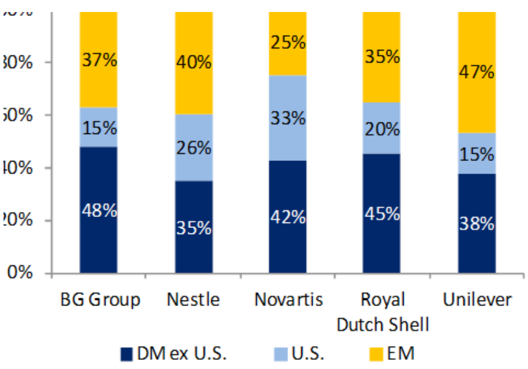


Exhibit 1.

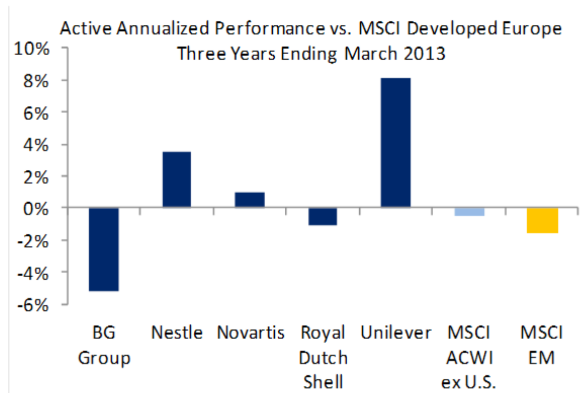


Exhibit 2.

MSCI EAFE Index Sector Weights and Economic Exposures by Country and Region Period Ending March 2013

Period Ending March 2013

	U.K.		U.S.		Japan		Rest of World ex EM		EM	
	Weight	E.E.	Weight	E.E.	Weight	E.E.	Weight	E.E.	Weight	E.E.
Cons. Discr.	32%	7%	0%	16%	11%	12%	57%	40%	0%	25%
Cons. Staples	13%	8%	0%	18%	40%	21%	47%	34%	0%	19%
Energy	52%	8%	0%	16%	4%	8%	44%	46%	0%	22%
Financials	18%	8%	0%	8%	18%	17%	64%	54%	0%	13%
Health Care	17%	4%	0%	32%	14%	15%	68%	32%	0%	17%
Industrials	12%	5%	0%	14%	33%	24%	55%	37%	0%	19%
Info Tech	5%	3%	0%	18%	52%	26%	43%	28%	0%	25%
Materials	25%	4%	0%	13%	15%	16%	59%	35%	0%	32%
Telecom	31%	9%	0%	3%	19%	19%	50%	51%	0%	18%
Utilities	25%	23%	0%	9%	16%	16%	59%	46%	0%	7%

Exhibit 3.

Addendum

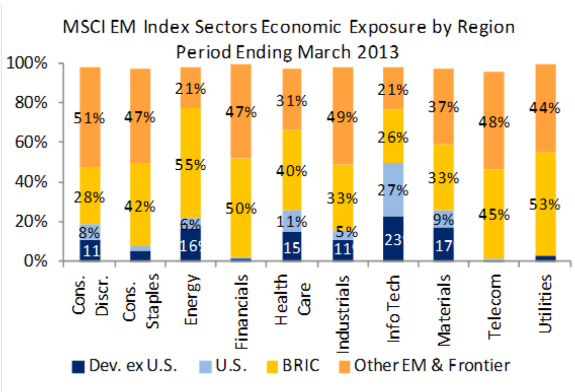


Exhibit 4.

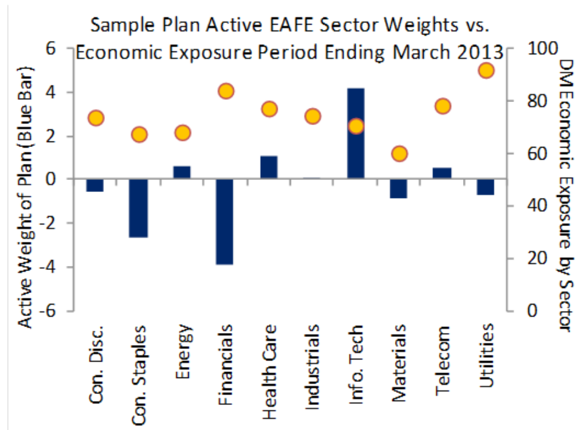


Exhibit 5.

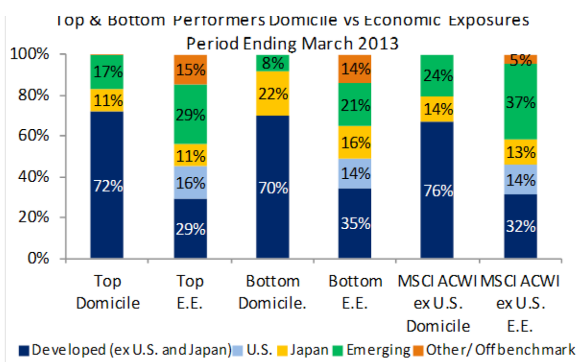


Exhibit 6.

InvestmentMetrics

Based in Darien, Connecticut, Investment Metrics is an independent provider of investment performance analytics, manager research, reporting and data solutions for investment consultants, wealth advisors, asset managers and investors.

For more information, please visit our website at invmetrics.com.

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