

Accuvest

Global Advisors

Global Equity Investing: *Do Countries Still Matter?*

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INTRODUCTION

Globalization: a new century investment buzzword that is stirring confusion and misunderstanding among investors. With the gamut of investment options in world equity markets and the recent high inter-country correlations, the lack of clarity around globalization is not surprising. Investors, however, are behooved to research and consider global investing, as it is a viable way to achieve portfolio diversification.

World equity investment vehicles – sector and regional funds, single-country funds and an emerging market sector fund, just to name a few – can be dizzying, but are worth exploration. The following key topics about global investing provide a solid foundation for investors to both understand and make informed decisions about the role of country-focused investment strategies.

1. **Globalization:** Are investors reluctant to go global?
2. **Country versus Sector Effects:**
 - What does historical and recent research reveal?
 - Why have sector effects and country correlations increased?
 - How are baskets of stocks correlated to both their home country markets and global sectors?
3. **Implications for Investors:** What are the implications for investors seeking to build a portfolio of global equities?

GLOBALIZATION

Are Investors Reluctant to go Global?

An important question for investors in the portfolio construction process is whether to go global or not. While most investors likely consider global investing, the majority of investors – regardless of their country of domicile – exhibit a well-documented and significant home country bias.

A country-centric approach to a global equity mandate, with exposure to both developed and emerging countries, can positively affect performance; therefore, investors should be aware of and understand the natural tendency to avoid going global. A shift in mindset and knowledge of the benefits of global investing can open an investor's eyes to a larger investment pool.

Let us consider how this bias shows up in U.S. Endowments. As Exhibit 1 illustrates, the range of U.S. exposure for U.S. College Endowments is in the 54% to 75% range; the dollar-weighted average U.S. exposure is 56%; and, the equal-weighted average is 67%. Clearly, there is a correlation between the size of the endowment and its willingness to invest offshore, with larger endowments directing a greater allocation to non-U.S. holdings. At the same time, the U.S. represents roughly 43% of world market cap (as defined by the MSCI AC World index) and foundations have a strong country bias of 13% to 23%.

Exhibit 1: Equity Allocations of U.S. Endowments

	Total Equity Allocation	% Domestic	% Foreign
Greater Than \$1 Billion	26%	54%	46%
> \$500 Million to < \$1 Billion	37%	54%	46%
> \$100 Million to < \$500 Million	43%	60%	40%
> \$50 Million to < \$100 Million	51%	67%	33%
> \$25 Million to < \$50 Million	52%	71%	29%
Less Than or Equal to \$25 Million	51%	75%	25%
All Public	38%	58%	42%
Public Institutions Only	36%	56%	44%
Institution-Related Foundations	41%	61%	39%
Combined Endowment/Foundations	44%	59%	41%
Private	29%	55%	45%
Dollar-weighted Average	32%	56%	44%
Equal-weighted Average	46%	67%	33%

Source: 2009 Study of Endowments – NACUBO

A similar bias in pension plans of non-US. developed countries is documented by Alliance Bernstein in Exhibit 2. This home bias is substantially greater than that of the U.S., which can be explained, in part, by the large U.S. weight in the MSCI Index. Research revealed an even more prominent home country bias in the non-developed markets, confirming these results. (Foad 2008)¹

Exhibit 2: Home Country Allocations of Non-US Pension Plans

	Home country weight in MSCI World Index	Home Country Allocation	Rest of World
Australia	2%	63%	27%
Canada	3%	49%	51%
Japan	12%	60%	40%
UK	11%	64%	36%

Source: Alliance Bernstein – Pension Study 2009

As illustrated, investors around the globe widely prefer to invest in their local markets, as well as markets with close geographic proximity, and both cultural and language similarities.

Two fundamental reasons drive this inherent home bias:

What Do They Know?

First, investors are more comfortable to invest in what they “know.” Microsoft, Apple and Caterpillar feel like home to the U.S. investor, while an investor in Mexico is likely to buy America Móvil, Teléfonos de México and Cemex. Does the typical U.S. investor have the inside track on the 500 companies in the S&P 500 – or even a handful of companies? If so, is that information advantageous? The answer: a resounding no.

A U.S.-based investor can no more control or predict the movement of the S&P 500 than he can influence the German DAX or Mexican Bolsa. However, investing in stocks close to home creates a false sense of security, allowing investors to sleep a bit better at night.

What Do They Want to Avoid?

Second, investors are reluctant to assume additional “risks.” Among the risks U.S. investors typically seek to avoid are:

- Currency fluctuations
- Political and economic risks (including nationalization and expropriation)
- Weak or absent generally accepted accounting standards
- Lack of publicly available information concerning issuers
- Low levels of government regulation

Investors generally are keenly aware of these risks, while choosing to ignore similar risks in their own markets, such as:

- Presidential elections with unknown results for over a month
- Fraud perpetuated by the largest companies on the exchange
- Companies’ abuse of GAAP to hide poor results
- Inconsistent government regulation among different industries

When considering investment options, investors are encouraged to fairly consider the fact that risks are both present and natural in home and offshore markets.

Whether investment decisions are based on a country or sector-centric model, global investing presents an attractive option for a number of reasons. First, despite recent increases in correlation at both the country and sector level, correlations between countries generally offer lower overall portfolio volatility. Second, investors benefit from a broader selection of equities, sectors and countries.

For example, not a single time during the past 20 years has the U.S. ranked as the top-performing country compared to developed markets, according to Exhibit 3. Other trends include:

- No country has dominated the highest-ranking position over the past two decades.
- The U.K. has not claimed a spot in the top 10 over the past twenty years.
- In the last decade, Indonesia and Peru have ranked in the best ten-performing markets seven and eight times, respectively.

Exhibit 3: Annual Returns of Select Global Equity Markets, Ranked Highest to Lowest (USD)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AUSTRALIA	6	19	20	18	18	22	27	15	26	9	10	13	19	16	20	21	17	22	11	22
AUSTRIA	25	20	28	26	30	28	24	17	35	11	13	7	15	3	15	16	34	36	27	26
BELGIUM	17	15	31	16	6	26	17	2	38	20	15	23	29	9	28	15	36	35	19	34
BRAZIL	1	9	9	1	32	4	9	33	11	10	20	35	3	14	5	11	2	30	1	30
CANADA	20	21	34	23	14	12	19	20	16	3	25	20	18	22	10	29	16	13	21	16
CHILE	3	5	18	3	25	34	23	28	19	16	12	27	7	18	18	25	22	5	7	3
CHINA			23	34	34	8	32	36	28	29	31	22	6	37	19	1	5	23	17	32
COLOMBIA			25	8	35	27	5	35	37	31	3	6	11	1	2	33	25	1	8	4
EGYPT					16	2	8	26	7	32	38	11	5	2	1	31	6	26	31	24
FRANCE	12	12	33	25	17	19	20	5	22	8	29	29	25	26	26	19	26	11	32	35
GERMANY	22	18	21	19	15	24	11	8	24	17	28	37	13	28	27	18	13	14	36	27
HONG KONG	5	3	4	31	9	10	30	18	14	15	22	26	27	20	30	24	11	24	18	12
INDIA			22	15	38	31	21	24	8	24	24	10	8	27	8	6	4	34	4	17
INDONESIA	29	16	6	30	19	15	38	31	5	38	14	1	9	6	22	2	7	31	2	8
IRELAND	19	24	16	11	11	11	16	6	36	14	11	32	22	10	38	8	38	37	37	37
ISRAEL			35	32	7	32	12	19	13	1	36	36	17	24	12	37	12	2	23	31
ITALY	24	26	27	13	23	25	6	3	33	5	32	15	26	15	36	20	31	21	33	36
JAPAN	21	25	30	7	24	35	31	16	12	27	35	18	30	29	14	36	37	3	38	20
KOREA	27	13	24	6	28	38	35	1	6	36	2	9	31	21	4	34	14	29	13	11
MALAYSIA	23	6	5	29	22	17	36	30	3	19	9	14	38	31	37	17	9	10	24	5
MEXICO	2	4	13	33	33	21	3	32	10	22	5	21	34	7	7	13	27	12	22	10
NETHERLANDS	11	11	19	12	5	14	13	10	30	6	27	28	36	32	23	22	23	17	29	33
NEW ZEALAND	10	14	11	14	10	20	28	25	27	30	7	5	16	12	35	30	28	27	25	28
NORWAY	26	27	15	5	20	13	22	29	20	4	17	16	20	5	13	10	15	33	6	25
PERU			29	2	8	30	15	34	25	25	4	2	4	36	9	3	1	9	14	2
PHILIPPINES	4	1	3	27	31	23	34	13	32	34	23	33	23	19	17	4	10	25	15	6
POLAND			1	36	26	3	29	21	21	7	34	12	32	4	16	14	19	28	30	19
RUSSIA				36	1	2	38	2	28	1	8	10	35	3	5	20	38	3	18	
SINGAPORE	8	10	12	17	21	33	33	22	4	26	30	19	28	23	24	9	18	16	12	14
SOUTH AFRICA			10	4	13	36	26	27	15	21	21	3	21	8	11	28	24	7	20	9
SPAIN	13	23	26	24	4	5	10	4	31	18	16	24	14	17	34	7	21	8	26	38
SWEDEN	16	22	17	10	3	7	18	12	9	23	33	34	12	13	25	12	35	20	16	7
SWITZERLAND	14	7	14	20	1	29	4	9	34	2	26	17	33	30	21	26	32	4	35	23
TAIWAN	18	28	8	9	37	6	25	23	17	33	6	31	24	34	32	27	29	15	9	13
THAILAND	9	2	7	28	29	37	37	14	18	37	8	4	1	38	29	35	8	18	10	1
TURKEY	28	29	2	35	27	9	1	37	1	35	37	38	2	11	6	38	3	32	5	15
UNITED KINGDOM	15	17	32	22	12	16	14	11	29	12	19	25	35	25	31	23	30	19	28	29
USA	7	8	36	21	2	18	7	7	23	13	18	30	37	33	33	32	33	6	34	21
# of Countries	29	29	36	36	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38

Source: MSCI and Accuvest Global Advisors

COUNTRY VERSUS SECTOR EFFECTS

Historical Research

A pioneer in the study of diversification, Solnik (1974)², concluded that investors should diversify across countries due to modest cross-market correlations. Since then, researchers have sought to understand the reasons for the asynchronous movements in the economies and equity markets of various countries. Low correlations are generally attributed to inter-country differences in:

- Monetary policy
- Fiscal policy
- Economic cycles
- Sector composition of equity markets
- Tax regimes
- Foreign policy
- Economic systems
- Politics

In the 70s, 80s and early 90s, the country effect was widely viewed as the dominant driver of equity market returns, across both developed and emerging countries. This stance was unchallenged until the late 90s, at which time, the bubble began to reach a crescendo, and correlations started to rise across countries, regions and sectors. For the first time in nearly three decades, the conventional wisdom of a country-centric investment strategy was challenged. In fact, studies concluded that country effects no longer dominated sector effects in explaining variability in returns.^{3,4,5,6,7} As a result, many investment firms shifted their research and organizational structure from a country to a sector focus. (Fay, 2004)⁸

Concurrently, the sector effect gained popularity among researchers and practitioners, and the superiority of country over sector effects was confirmed by multiple studies.^{9,10,11,12,13} Researchers Del Negro and Brooks (2002)¹⁴ concluded that “outside of the U.S. and beyond the TMT (telecommunications, media and technology) and biotechnology sectors, there is only weak evidence that sectors are more important than countries.”

Evidence of this point is most succinctly summarized by Estrada et al. (2004)¹⁵, as follows:

- Country effects have been, on average, more important than sector effects.
- Sector effects have increased in importance over time.
- There is no agreement as to which effect is more important, which will be more important in the future.

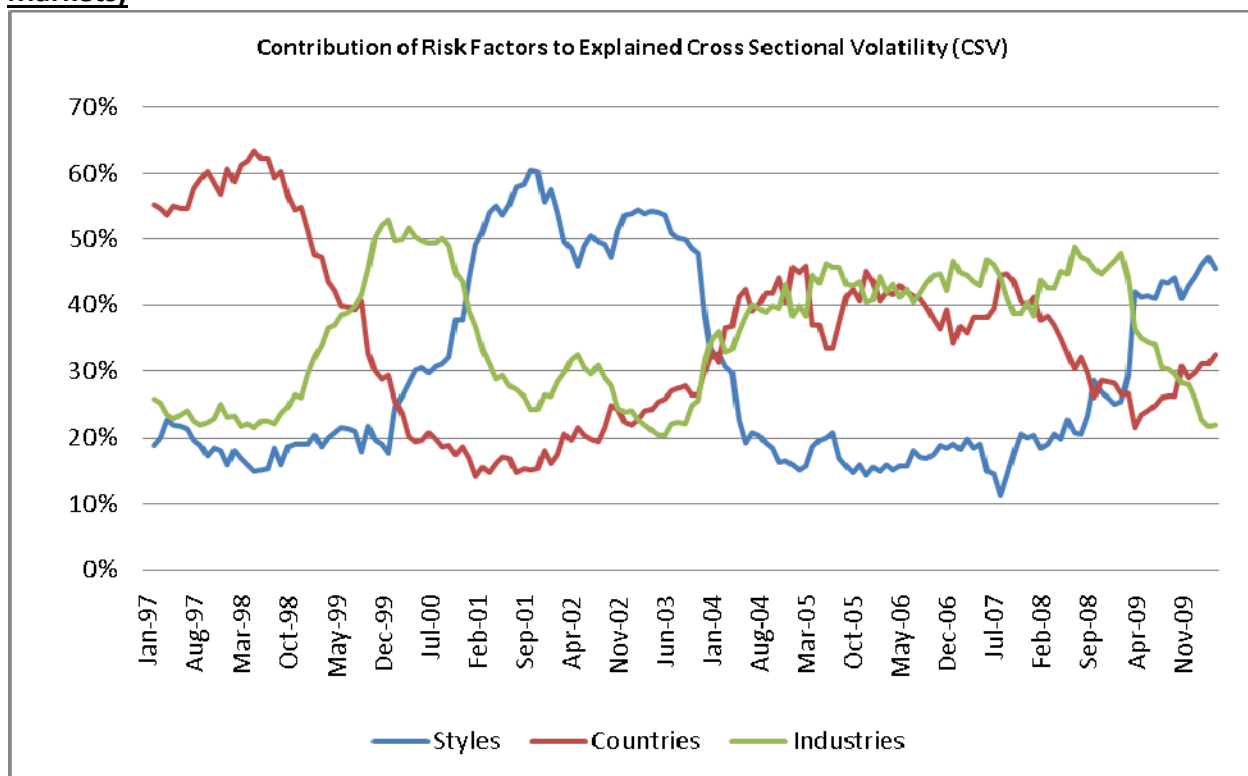
Recent Research

Recent research on this topic supports Estrada’s findings. According to Labarge (2008)¹⁶, “Our investigation of country versus sector effects found that the relative importance of country versus sector factors changes over time and depends on a number of considerations. Thus, investors seeking global representation in their investment portfolios should continue to consider diversifying broadly across both country and sector.”

Additionally, the relative importance of countries versus sectors is cyclical in developed markets, and is very strong in emerging markets. Kang, Nielsen and Fanchinotti (2010)¹⁷, Christofferson, Errunza, Jacobs, Jin (2010)¹⁸

Exhibit 4 presents the volatility of relative strength of country versus sector effects since 1997, confirming a number of the studies that claim that, moving forward, industry effects may be as important as country effects in developed markets.

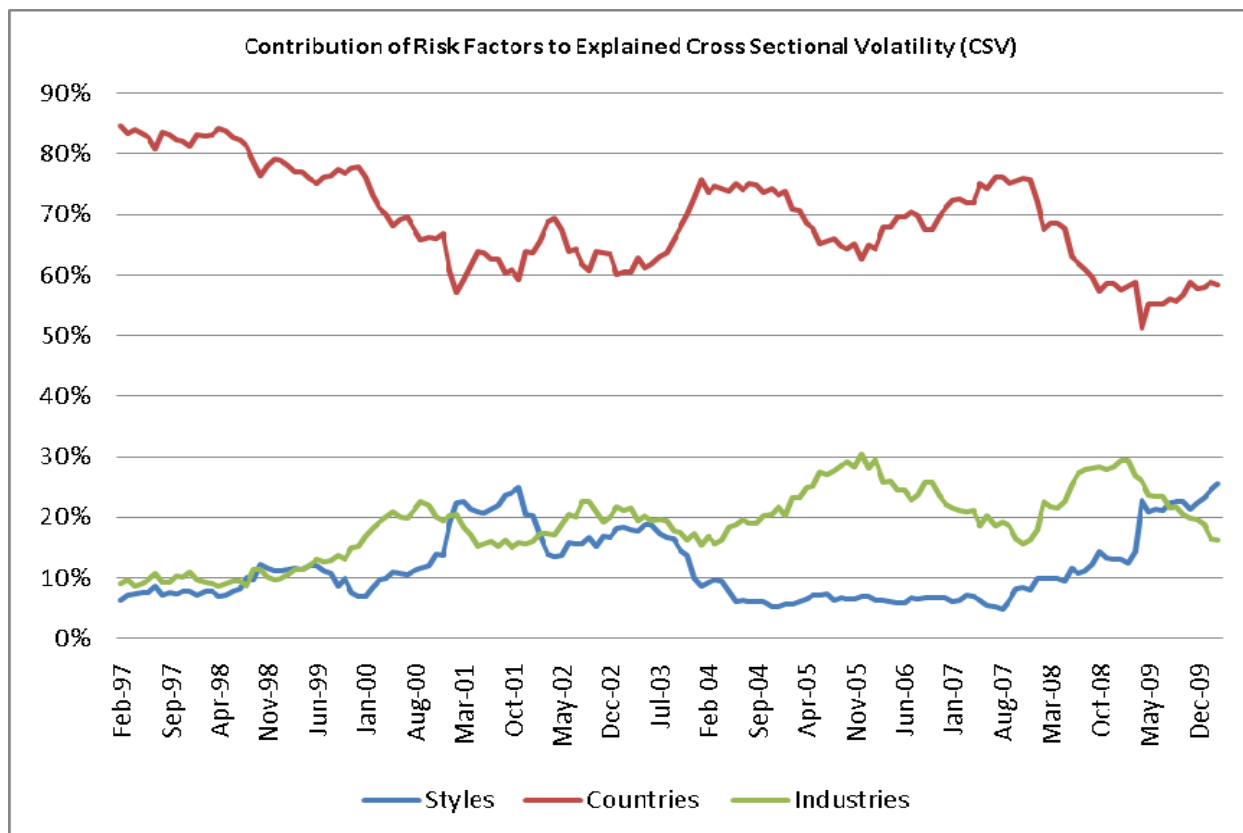
Exhibit 4: Contribution of Risk Factors to Explained Cross-Sectional Volatility (Developed Markets)



Source: MSCI. The contribution of risk factors to explain Cross-Sectional Volatility (CSV) indicates the relative importance of the country, industry and style factors in driving cross-sectional volatility. The explained-to-total CSV ratio indicates the importance of common risk factors (as opposed to stock specific risks) in driving cross sectional volatility. A Higher ratio indicates a higher importance of common factors.

Conversely, Exhibit 5 tells an entirely different story. Again, consistent with the academic findings, country effects continue to dominate both industry and style effects.

Exhibit 5: Contribution of Risk Factors to Explained Cross-Sectional Volatility (Emerging Markets)



Source: MSCI. The contribution of risk factors to explain Cross-Sectional Volatility (CSV) indicates the relative importance of the country, industry and style factors in driving cross-sectional volatility. The explained-to-total CSV ratio indicates the importance of common risk factors (as opposed to stock specific risks) in driving cross sectional volatility. A Higher ratio indicates a higher importance of common factors.

Considering the most recent research findings, the question of countries versus sectors seems to be open for debate.

Is global diversification waning?

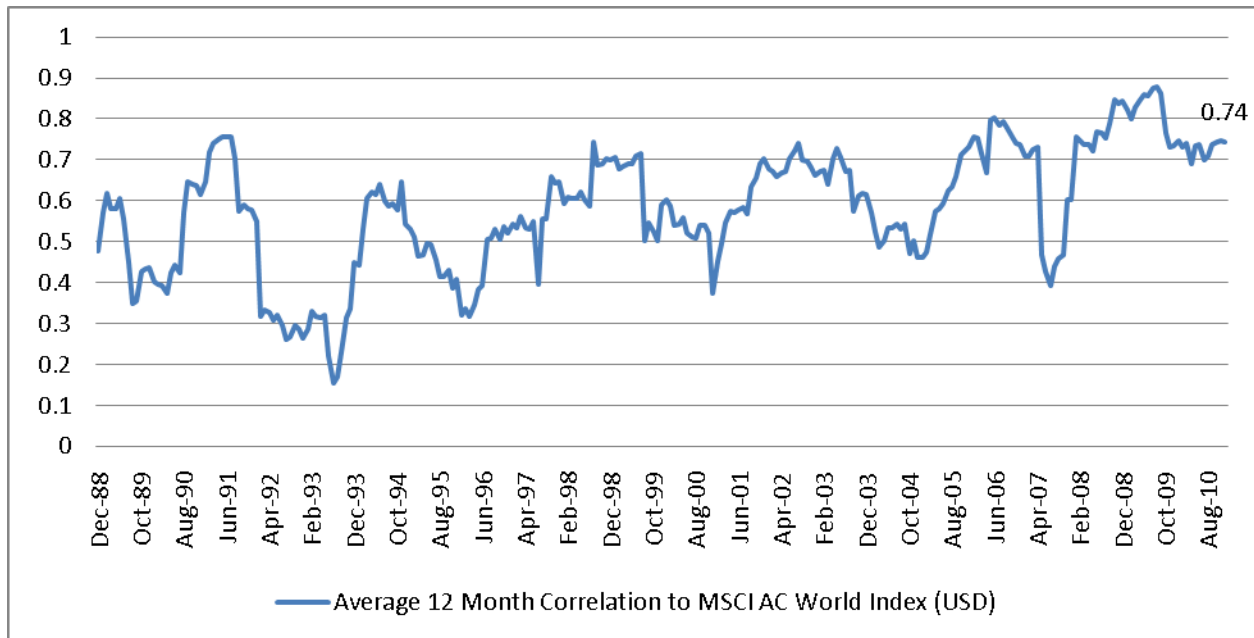
A look at the trend of correlations between countries over time, followed by an examination of the cross-sectional volatility of returns of a broad universe of countries, offers insight into whether global diversification is waning – and even disappearing.

Our proprietary analysis included MSCI single-country indexes (gross of dividends) since 1985, with a subset of 38 countries with single-country ETFs currently available.¹⁹ These countries provided an understanding of current activities and happenings in countries where we can

implement an investment strategy without costly structured product or local market implementations.

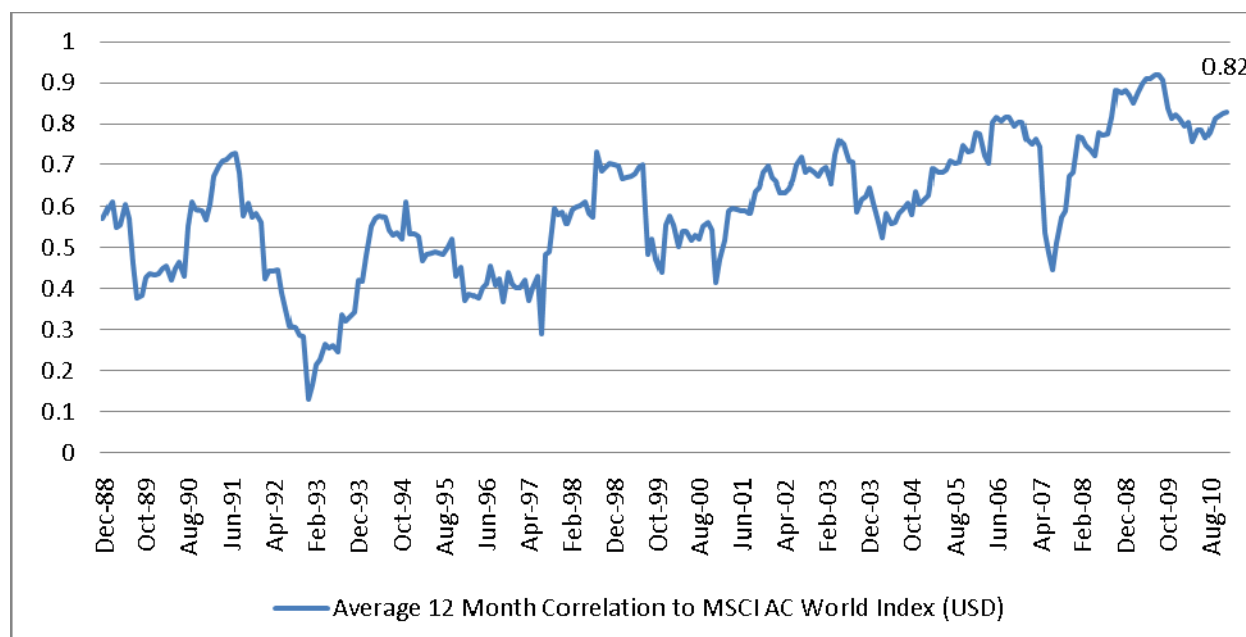
Exhibits 6 and 7 present the average 12-month correlation of the country basket to the MSCI World Index. Since the early 90s low of 0.13, the correlations trend upward, albeit fairly volatile in nature. According to Exhibit 8, the average correlations since 1985 and 1995 are 0.60, and 0.67, respectively. The correlation peaked at 0.92 in mid-2009, while dipping to a low of 0.32 in late 1987.

Exhibit 6: Average 12-Month Correlation of Country Universe to MSCI AC World Index (Local Currency) Through 12/2010



Source: MSCI and Accuvest Global Advisors (In certain instances, country data was not available for every time period; therefore, the universe is comprised of only countries with available data during those periods.)

Exhibit 7: Average 12-Month Correlation of Country Universe to MSCI AC World Index (USD) Through 12/2010



Source: MSCI and Accuvest Global Advisors

Interestingly, the current level of local currency correlation, 0.74, has been hit roughly five times since 1985, as illustrated in Exhibit 8. Also of significance is the fact that a 2-year drop has followed each peak in correlation. While this pattern does not seem predictive, it is evidence that correlations are more cyclical than historically believed.

Exhibit 8: Average 12-Month Correlation of Country Universe (LC) to MSCI AC World Index (USD)

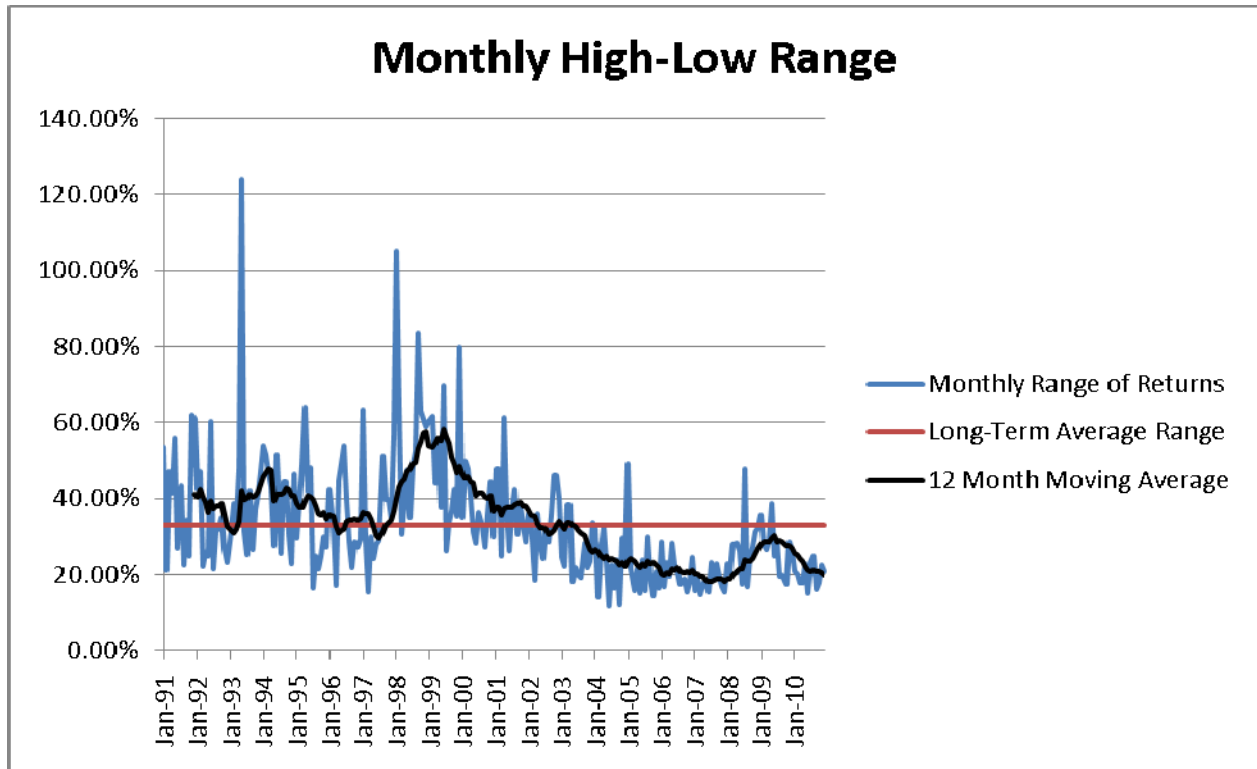
	Since 1986 LC	Since 1995 LC	Since 1986 USD	Since 1995 USD
Current 12 Month Trailing Correlation	0.74	0.74	0.82	0.82
Average 12 Month Correlation	0.58	0.64	0.59	0.66
Max 12 Month Correlation	0.88	0.88	0.92	0.92
Min 12 Month Correlation	0.16	0.37	0.13	0.29

Source: Accuvest Global Advisors

Does Increased Correlation Equal Decreased Cross-sectional Volatility?

The impact of cross-sectional volatility in the country universe is an interesting study. As illustrated in Exhibits 9 and 10, as country correlations increase, volatility decreases.

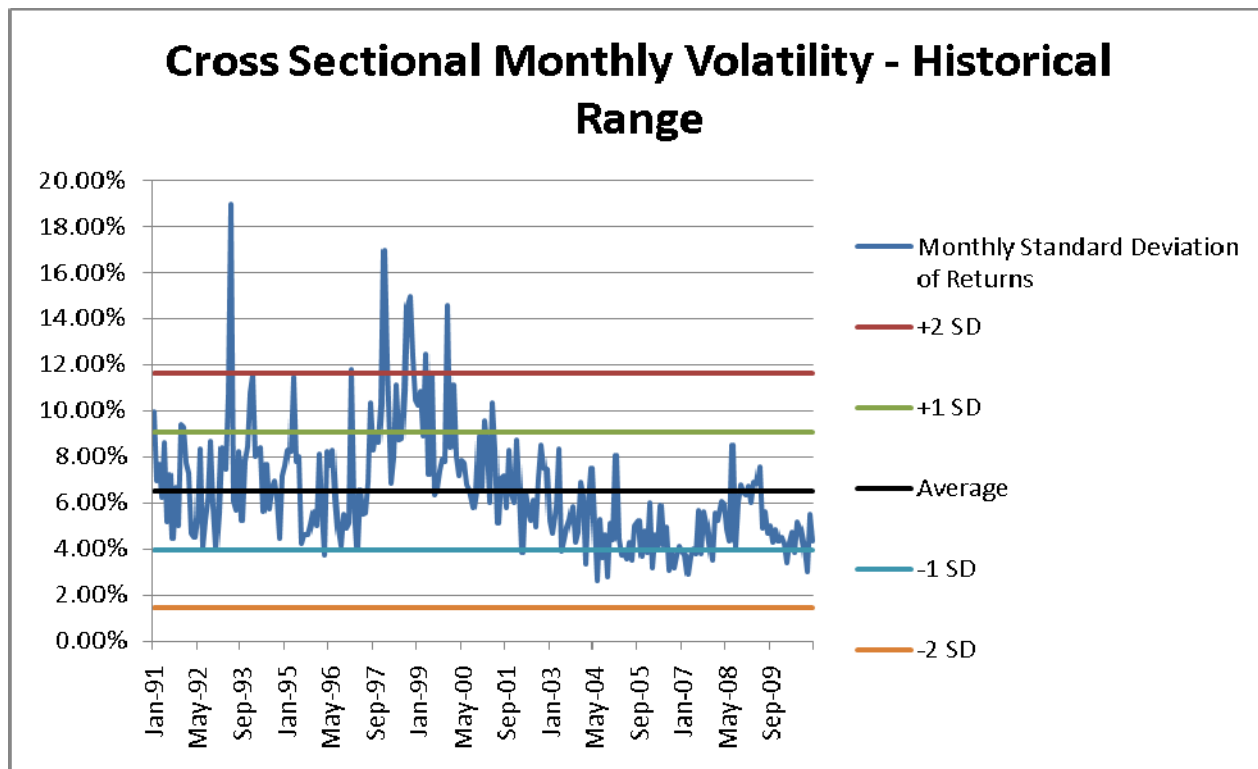
Exhibit 9: Monthly Range of Returns for Country Basket (High – Low) Through 12/2010



Source: Accuvest Global Advisors

In Exhibit 9, the average monthly differential between the best and worst performing countries is just over 33%. By this measure, dispersion was consistently high through the decade of the 90s, with two or three short exceptions, and has been lower than average since 2002.

Exhibit 10: Cross-sectional Monthly Volatility of the Country Basket Through 12/2010



Source: Accuvest Global Advisors

A similar pattern is illustrated in Exhibit 10. Since 2003, dispersion of returns has been lower than average, currently sitting at approximately 1 standard deviation below the long-term average of 6.5%. Current levels of volatility are at both multi-year – and multi-decade – lows, and the recent trend of volatility has declined.

This analysis implies that, in recent time periods, it has been difficult to reduce risk (or create alpha) by allocating among different countries; a phenomenon not unique to top-down portfolios. In the past five years, correlation has also risen between individual stocks, while dispersion has decreased substantially.

The question: why are country correlations increasing and cross sectional volatility decreasing? For many academics and practitioners, the answer comes down to a single word: globalization. The primary argument is that the country of domicile of a stock is less important than where they do business; a point that is particularly true in an environment where global fiscal and monetary policies are in synch across countries and regions.

Europe led this synchronization process in the 90s with the establishment of the European Union and its single currency unit, the Euro. Other countries and regions have followed suit by adopting this easy fiscal and monetary policy, which has significantly decreased the volatility of

their respective economic results (e.g., GDP). As a result, the correlation between GDP results of individual countries has increased significantly.

Prior to the beginning of the market crisis in 2007, most of the world's countries experienced a multi-year process of managing their economies. Clearly, countries tried to gain wisdom from the 1998 Russia/Asian Contagion debacles, which cost some countries their credibility in world markets (at least for a period of time). In addition, investors (many of whom were new to equity investing) were badly bruised in the 2000 to 2002 bear market.

No longer was it enough for central banks and policymakers to manage inflation, or the integrity of the banking system. Now the weight of figuring out a way to create more certainty for equity investors was squarely on their shoulders. Specifically, they were tasked with management of fiscal and monetary policies that would minimize the volatility of economic growth, and with it, handling the corresponding uncertainty about the earnings of stocks on their local exchanges. Policymakers around the world were successful in moderating economic volatility. As evidenced in Exhibit 10, cross-sectional volatility among countries decreased measurably from 1999 to 2007.

During the past four years, the biggest watchwords for portfolio management have been “risk on” and “risk off.” As investors took risk “off” in 2007 and 2008, correlation between risky assets spiked, which included stocks spanning capitalization ranges, sizes and geographies. In addition, real estate, hedge funds, high-yield bonds and emerging market bonds showed similar correlation increases. Coaker comments: “High correlations are a sign that investors are worried the crisis has not passed.” In other words, this change in investor sentiment has less to do with fundamentals at an asset level and more to do with systemic problems in the world financial markets. (Coaker, 2010)²⁰

In yet another twist, during the time of increasing risk asset and inter-country correlations – mid 2007 to early 2009 – cross-sectional country volatility increased. This is inconsistent with the common belief that all risk assets are highly correlated, and will continue that same path.

In terms of portfolio construction, this was a cue for managers to get the general trend right – to be long. Opportunities for generating alpha through country selection increased. Indeed, it looks as though investors were being more discriminating in their analysis than initially thought.

Do Global Stocks Equal Diversification?

As mentioned, some practitioners and researchers maintain that the domicile of a company, and its stock, are less important than where it conducts business. Their thesis being that if a company is based in the U.S., but does 70% of its business outside the U.S., then that stock should generate better global diversification than a company that does business solely in the U.S.

With proprietary research that started with a basket of the 10 largest stocks in 29 different equity markets, we tested this theory. The correlation of the stocks was measured to a series of indexes, including their local market, the MSCI ACWI, the MSCI EAFE, the MSCI Emerging

Markets, the S&P 500 then a series of 10 MSCI ACWI Sector Indexes. The data source is Bloomberg. Exhibits 13 to 16 include a 12-country subset of the full 29-country universe.

Exhibit 13 – Summary of 1-Year Correlations Ending 12/2010

	Australia	Brazil	China	France	Germany	Japan	Korea	Mexico	Switzerland	Turkey	United Kingdom	United States
Trailing 1 Year - Weekly Data												
Correlation to Home Country	0.85	0.82	0.56	0.87	0.82	0.66	0.71	0.74	0.76	0.81	0.77	0.73
Correlation to ACWI	0.81	0.69	0.32	0.80	0.75	0.43	0.63	0.66	0.70	0.60	0.70	0.70
Correlation to EAFE	0.78	0.64	0.32	0.82	0.76	0.47	0.59	0.59	0.71	0.61	0.71	0.64
Correlation to Emerging Mkts	0.79	0.74	0.32	0.70	0.67	0.43	0.67	0.63	0.64	0.60	0.67	0.60
Correlation to US	0.76	0.63	0.30	0.73	0.69	0.36	0.58	0.68	0.63	0.53	0.63	0.73
Correlation to Highest Sector	0.80	0.74	0.34	0.81	0.74	0.46	0.63	0.68	0.69	0.60	0.71	0.70
Differential Home vs. Top Sector	0.05	0.08	0.21	0.06	0.08	0.20	0.08	0.06	0.06	0.21	0.05	0.03
Consumer Discretionary	0.78	0.62	0.31	0.74	0.73	0.45	0.61	0.64	0.63	0.58	0.65	0.69
Consumer Staples	0.74	0.63	0.33	0.78	0.72	0.35	0.56	0.59	0.68	0.59	0.70	0.67
Energy	0.76	0.70	0.27	0.75	0.71	0.37	0.59	0.65	0.65	0.57	0.70	0.66
Financials	0.79	0.65	0.31	0.79	0.72	0.42	0.59	0.63	0.69	0.60	0.67	0.67
Healthcare	0.72	0.53	0.28	0.74	0.67	0.43	0.55	0.54	0.68	0.48	0.65	0.60
Industrials	0.77	0.64	0.29	0.71	0.68	0.39	0.61	0.68	0.64	0.57	0.62	0.70
Information Technology	0.75	0.61	0.30	0.69	0.70	0.46	0.61	0.62	0.61	0.53	0.63	0.69
Materials	0.80	0.74	0.32	0.74	0.69	0.40	0.63	0.68	0.67	0.58	0.69	0.64
Telecommunications	0.75	0.68	0.34	0.81	0.74	0.38	0.54	0.58	0.67	0.60	0.71	0.62
Utilities	0.73	0.64	0.31	0.81	0.73	0.35	0.54	0.58	0.68	0.59	0.68	0.64

Exhibit 14 – Summary of 3-Year Correlations Ending 12/2010

	Australia	Brazil	China	France	Germany	Japan	Korea	Mexico	Switzerland	Turkey	United Kingdom	United States
Trailing 3 Years - Weekly Data												
Correlation to Home Country	0.78	0.89	0.64	0.80	0.80	0.67	0.78	0.82	0.76	0.83	0.79	0.68
Correlation to ACWI	0.73	0.80	0.10	0.73	0.75	0.54	0.58	0.74	0.70	0.65	0.74	0.64
Correlation to EAFE	0.73	0.77	0.12	0.76	0.76	0.56	0.58	0.68	0.72	0.64	0.75	0.58
Correlation to Emerging Mkts	0.68	0.79	0.17	0.64	0.68	0.52	0.67	0.70	0.61	0.66	0.69	0.53
Correlation to US	0.65	0.74	0.06	0.66	0.69	0.46	0.51	0.72	0.63	0.59	0.66	0.68
Correlation to Highest Sector	0.70	0.82	0.17	0.71	0.73	0.53	0.62	0.72	0.68	0.64	0.75	0.64
Differential Home vs. Top Sector	0.08	0.07	0.48	0.09	0.07	0.14	0.16	0.10	0.08	0.19	0.04	0.04
Consumer Discretionary	0.69	0.74	0.07	0.66	0.70	0.52	0.62	0.72	0.63	0.63	0.67	0.63
Consumer Staples	0.66	0.68	0.10	0.68	0.69	0.49	0.50	0.68	0.66	0.58	0.67	0.63
Energy	0.66	0.80	0.08	0.68	0.69	0.47	0.49	0.68	0.66	0.58	0.75	0.59
Financials	0.69	0.73	0.06	0.69	0.69	0.50	0.54	0.70	0.67	0.64	0.67	0.59
Healthcare	0.59	0.62	0.17	0.63	0.64	0.46	0.42	0.61	0.63	0.49	0.61	0.57
Industrials	0.70	0.77	0.10	0.69	0.72	0.53	0.60	0.72	0.66	0.64	0.69	0.61
Information Technology	0.66	0.74	0.09	0.65	0.70	0.50	0.60	0.67	0.60	0.59	0.67	0.64
Materials	0.67	0.82	0.12	0.68	0.70	0.48	0.59	0.69	0.64	0.63	0.72	0.54
Telecommunications	0.67	0.76	0.14	0.71	0.73	0.51	0.52	0.67	0.68	0.62	0.71	0.59
Utilities	0.63	0.69	0.13	0.69	0.68	0.49	0.44	0.58	0.65	0.54	0.68	0.55

Exhibit 15 – Summary of 5-Year Correlations Ending 12/2010

	Australia	Brazil	China	France	Germany	Japan	Korea	Mexico	Switzerland	Turkey	United Kingdom	United States
Trailing 5 Years - Weekly Data												
Correlation to Home Country	0.77	0.89	0.57	0.78	0.77	0.74	0.61	0.64	0.71	0.75	0.64	0.64
Correlation to ACWI	0.70	0.79	0.10	0.72	0.72	0.50	0.55	0.71	0.69	0.63	0.71	0.60
Correlation to EAFE	0.71	0.76	0.12	0.74	0.73	0.53	0.54	0.66	0.70	0.62	0.72	0.53
Correlation to Emerging Mkts	0.67	0.80	0.17	0.62	0.64	0.49	0.63	0.66	0.58	0.64	0.65	0.49
Correlation to US	0.62	0.72	0.06	0.64	0.66	0.42	0.47	0.69	0.61	0.56	0.63	0.64
Correlation to Highest Sector	0.68	0.81	0.14	0.68	0.69	0.50	0.57	0.68	0.66	0.61	0.72	0.60
Differential Home vs. Top Sector	0.09	0.08	0.43	0.10	0.08	0.24	0.04	(0.05)	0.05	0.14	(0.08)	0.04
Consumer Discretionary	0.66	0.73	0.08	0.65	0.68	0.49	0.57	0.68	0.62	0.60	0.64	0.58
Consumer Staples	0.63	0.67	0.09	0.67	0.67	0.45	0.46	0.65	0.65	0.56	0.65	0.59
Energy	0.62	0.77	0.08	0.65	0.65	0.42	0.45	0.63	0.62	0.56	0.72	0.53
Financials	0.66	0.71	0.06	0.68	0.66	0.47	0.51	0.67	0.66	0.60	0.64	0.56
Healthcare	0.56	0.59	0.14	0.61	0.62	0.42	0.38	0.58	0.61	0.48	0.59	0.53
Industrials	0.68	0.76	0.11	0.68	0.69	0.50	0.57	0.68	0.64	0.61	0.66	0.57
Information Technology	0.62	0.71	0.10	0.63	0.66	0.47	0.56	0.64	0.58	0.56	0.62	0.60
Materials	0.66	0.81	0.12	0.66	0.67	0.46	0.56	0.66	0.62	0.60	0.70	0.49
Telecommunications	0.63	0.73	0.14	0.68	0.69	0.46	0.47	0.63	0.66	0.59	0.68	0.55
Utilities	0.60	0.67	0.11	0.67	0.65	0.44	0.40	0.56	0.63	0.54	0.65	0.50

Exhibit 16 – Summary of 10-Year Correlations Ending 12/2010

	Australia	Brazil	China	France	Germany	Japan	Korea	Mexico	Switzerland	Turkey	United Kingdom	United States
Trailing 10 Years - Weekly Data												
Correlation to Home Country	0.74	0.82	0.57	0.68	0.71	0.57	0.69	0.73	0.71	0.88	0.66	0.55
Correlation to ACWI	0.60	0.62	0.09	0.61	0.64	0.39	0.47	0.60	0.59	0.44	0.58	0.51
Correlation to EAFE	0.62	0.60	0.11	0.64	0.64	0.42	0.46	0.54	0.61	0.45	0.60	0.42
Correlation to Emerging Mkts	0.56	0.64	0.13	0.47	0.52	0.38	0.60	0.57	0.44	0.50	0.48	0.36
Correlation to US	0.50	0.53	0.05	0.53	0.57	0.31	0.39	0.57	0.52	0.36	0.50	0.55
Correlation to Highest Sector	0.60	0.64	0.11	0.61	0.61	0.41	0.50	0.57	0.59	0.44	0.59	0.49
Differential Home vs. Top Sector	0.14	0.18	0.46	0.07	0.10	0.16	0.19	0.16	0.12	0.44	0.07	0.05
Consumer Discretionary	0.56	0.56	0.07	0.55	0.60	0.41	0.50	0.57	0.53	0.41	0.51	0.49
Consumer Staples	0.46	0.43	0.07	0.52	0.48	0.20	0.29	0.41	0.54	0.30	0.49	0.45
Energy	0.50	0.57	0.07	0.53	0.50	0.25	0.33	0.47	0.48	0.36	0.59	0.43
Financials	0.58	0.55	0.07	0.61	0.60	0.34	0.41	0.55	0.59	0.42	0.54	0.46
Healthcare	0.39	0.39	0.08	0.48	0.45	0.20	0.24	0.37	0.52	0.25	0.45	0.39
Industrials	0.58	0.58	0.10	0.58	0.61	0.39	0.47	0.55	0.55	0.41	0.55	0.49
Information Technology	0.43	0.44	0.06	0.41	0.49	0.39	0.41	0.48	0.38	0.34	0.36	0.41
Materials	0.60	0.64	0.11	0.57	0.58	0.34	0.48	0.53	0.53	0.44	0.58	0.41
Telecommunications	0.46	0.54	0.09	0.48	0.54	0.33	0.36	0.49	0.46	0.36	0.45	0.36
Utilities	0.49	0.52	0.09	0.52	0.50	0.25	0.28	0.43	0.50	0.34	0.51	0.37

These results are intriguing. During the past three years, cross correlations have been high, and industry effects in developed markets significantly affected the variability of stock market returns. Despite both of those factors, the stocks in each country basket were more highly correlated to their home markets than any global sector.

For instance, the average correlations of the top 10 basket in the U.S. were 0.73 versus the S&P 500; 0.64 versus the EAFE; and, 0.60 versus the Emerging Markets. The industrials sector was the most highly correlated sector at 0.70. Notably, the correlations were higher than historical averages. That said, in no case was the basket more closely correlated to any global sector than it was to its home country. In fact, over the last 1, 3, 5 and 10-year periods, in 99% of the cases, the average correlation of the 10-stock basket was higher to its home country than any global sector.

IMPLICATIONS FOR INVESTORS

Is a country-centric investment strategy a sensible investment strategy? Both historical and recent research points to the fact that countries do, in fact, still matter. In the last decade, sector and industry effects have undeniably increased in importance, but have yet to eclipse country effects in a global equity mandate that includes both emerging and developed markets. Therefore, global mandates with exposure to both developed and emerging countries can benefit from a country-centric investment model.

De-synchronization of both fiscal and monetary policies between countries will likely increase cross-sectional volatility in various global markets. Along with the increased dispersion in returns, expect an increased opportunity set for investors seeking alpha through the country selection.

From an implementation perspective, the number of single country ETFs has increased in the past five years. With 39 single country ETFs currently in existence – and an additional 9 ETFs dedicated to single-country, small-cap stocks – choices are plentiful for country-focused portfolio managers. Managers are able to express their investment opinions with specific, targeted implementation vehicles that minimize single-security risk.

Bottom-line: Individual stock- and sector-focused investing will always have their place in the context of an overall portfolio strategy. The wane – and even potential disappearance – of the country effect has been greatly exaggerated!

KEY CONCLUSIONS

1. Investors around the globe exhibit a persistent home country bias in their equity investments.
2. Global diversification, even in the face of recent high correlations, is desirable.
3. Country effects tend to dominate sector/industry effects over long time periods.
4. Sectors dominated in developed markets from 1999 to 2001, and again in 2007 and 2008.
5. Country effects significantly dominate sector effects in developing markets in all time periods.
6. Inter-country correlations have increased over the past five years.
7. Cross-sectional volatility (dispersion) of country returns has decreased over the past five years.
8. The 10 largest stocks in each country in our universe are more highly correlated to their home country market than to any global sector, on average, for last 1, 3, 5, and 10-year timeframes.

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¹⁹ The country universe includes Austria, Australia, Belgium, Brazil, Canada, Chile, China, Colombia, Egypt, France, Germany, Hong Kong, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Malaysia, Mexico, Netherlands, Peru, Poland, Russia, Singapore, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Kingdom, USA. Vietnam, which does have a single country ETF was excluded due to an extremely short index history.

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Disclosure

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