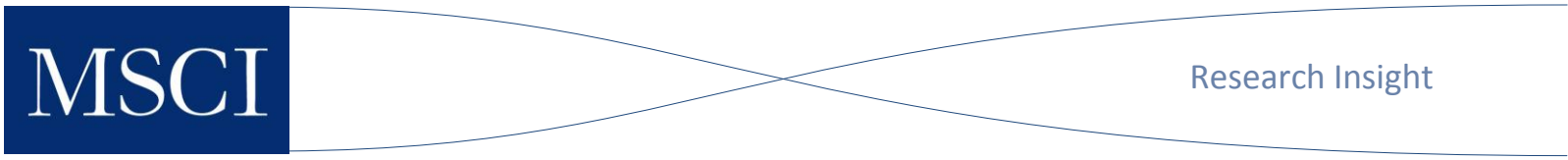

Research Insight

The Next Generation of Global Investors

Global Investing for Investors from High Growth Countries

Chin Ping CHIA and Billy HO

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Executive Summary

Institutional investors worldwide are increasingly moving away from a home-biased equity allocation framework and viewing global equities as a single broad asset class. In fact, beginning in the 1970s, the benefits of global investing were extensively addressed in research literature and then, over the next few decades, put into practice. Over the years, this movement has been unevenly distributed, often—though not always—concentrated among investors from developed economies. Up to now, global investing has not been common practice for equity investors from high growth economies.

Recently, a number of emerging forces have prompted investors from high growth economies to reexamine the question of how best to structure their equity allocations. On the one hand, regulatory hurdles for overseas investing in certain countries are being reduced. One example is the Qualified Domestic Institutional Investor (QDII) scheme in China where overseas investing is now a legitimate investment path. On the other hand, due to the strong wealth accumulation from fast-paced economic growth, many large domestic investors are increasingly concerned about the limited capacity of local equity markets and the risk associated with excessive home-country concentration, leading them to explore the option of global diversification.

This study shows that there are substantial benefits for investors from high growth countries who adopt a global equity allocation framework:

1) *Economic and financial globalization has transformed the equity investing landscape by expanding the global equity opportunity set. A global equity allocation framework provides investors with broad access to the full diversity of global investment opportunities and represents the natural starting point for any equity allocation.*

2) *Relying on economic growth as an equity return predictor can be a risky investment proposition. Historical data show that home-biased equity allocations of investors from high growth countries have produced mixed performance results. In particular, a domestic-oriented equity allocation can entail significant portfolio risk, even for investors from high growth countries.*

3) *On the other hand, over the last two decades, reducing home bias by increasing the allocation to global equities contributed to visible portfolio risk reduction (18% to 39%) and return-to-risk improvements (13% to 28%).*

Equity markets belonging to high growth countries typically represent a small subset of the full global equity opportunity set. By focusing solely on domestic equities, investors miss out on thousands of other companies available in the larger universe. In addition, in certain instances, a narrowly defined universe forces investors to take on a significant amount of sector risk due to missing or over-concentrated sector exposures.

One of the most commonly expressed rationales for investing in high growth economies is that high economic growth will be persistent and eventually translate into a superior home equity performance. However, this rationale has at least two critical weaknesses. First, experience shows that economic growth has its limits, both in terms of how fast and how long. Second, even for investors who are convinced that they can take advantage of a domestic economic growth trend, increasing globalization means that many companies no longer derive all of their revenues from the home country. Thus, a domestic equity portfolio may not necessarily represent the best option for capturing domestic economic growth.

Evidence for these conclusions is based on historical observations of 23 high growth economies, where analysis shows that high economic growth did not always guarantee positive equity returns. In over half

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of the examples we studied, single country portfolios of high growth economies actually underperformed geographically-diversified portfolios.

In addition to a return focus, the risk of home bias investing is a critical consideration for institutional investors that can manifest itself in two ways. One is the usual concern with the higher volatility associated with a single equity market as compared with a global portfolio. This concern is particularly relevant to emerging markets and comes at the cost of lower risk-adjusted returns over time. The second is the concern about concentration risk during severe downturns, as demonstrated by the Asian Financial Crisis and Russian Ruble Crisis in the 1990s. This has a significant implication in the context of a forced portfolio rebalancing during liquidity calls. Investors with limited diversification could be forced to sell their distressed domestic equities at the worst possible prices and aggravate the capital drawdown of their portfolios. Long-term wealth preservation can take a significant hit in these circumstances. In contrast, well diversified global equity allocations consistently mitigated the worst effects of the domestic downturn. Importantly, reducing home bias and increasing allocation to global equities can significantly improve the risk and return-to-risk profiles of equity portfolios.

The paper is organized in the following sections. Section I lays out the foundations of global investing and examines the characteristics of high growth country equity portfolios compared to a well diversified global portfolio. Section II reviews the rationales and historical performances of domestic-oriented equity allocations. Section III highlights some of the key risks associated with exclusive home country investing and examines the benefits of home bias reduction and a global approach to equity allocation. Section IV concludes.

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Section I – The Foundations of Global Investing

Institutional Trend in Global Investing

The globalization of equity policy portfolios is a powerful investment trend that has emerged in recent years. While investors have traditionally embraced a home-biased approach to equity allocation with limited geographical diversification, the evolution of the global equity landscape driven by the increased integration of global financial markets, improved accessibility resulting from the lowering of investment barriers, and the economic convergence of developed and emerging markets have led many investors to reexamine their equity allocation policies. Increasingly, institutional investors are reducing home biases and taking a more global approach to equity investing. The broad trend of the globalization of equity policy portfolios is evident by the increased adoption of MSCI ACWI or MSCI ACWI IMI as the choice equity policy benchmark.

There are ample supporting arguments. A global equity allocation framework encompasses the entire global equity investment opportunity set that spans across different size segments from developed and emerging markets. It significantly expands the number of companies that investors can invest in and potentially allows for thousands of investment choices. For investors without any investment constraints, a global equity universe serves as the natural starting point for their equity allocations.

The role of equities in the context of a multi-asset class portfolio is to provide for asset growth. The rebalancing of global economic growth towards high growth emerging countries suggests that the traditional investment definition of the "world" based on developed economies is an outdated notion. The increasingly integrated nature of global economies also means that companies are becoming more global and increasingly deriving revenues outside their home countries. A global equity portfolio limited by geographical boundaries often constrains the investor's ability to capture growth opportunities effectively.

From an investment process angle, a global equity allocation framework can bring several key advantages for investors. For example, an integrated global equity framework removes the artificial boundaries separating domestic versus non-domestic equities. For investors with no intention to market time, it avoids unnecessary risk arising from the periodic geographical rebalancing. In addition, an integrated approach to equity allocation streamlines investment processes and reduces the potential conflict of unintended bets resulting from independent investment decisions. By harmonizing the investment process, it also helps to facilitate better investment oversight and a more efficient deployment of valuable investment resources.

From an implementation angle, a global equity universe provides active investors the freedom to select the best stocks to construct their best portfolios. Kang, Nielsen and Fachinotti (2010) showed that the higher degree of freedom for managers to pick stocks globally and manage global sector and style exposures resulted in higher potential to generate alpha. In addition, an investable global equity portfolio captures the entire global equity beta comprehensively and provides an efficient basis of market exposure to passive investors.

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Why Global Equity Allocation Makes Sense for Investors from High Growth Countries

A high growth economy can be defined as an economy that displays above average GDP growth on a sustainable basis[1]. According to the Coordinated Portfolio Investment Survey (CPIS) from the International Monetary Fund (IMF), home-biased equity allocations—allocations that overweight the investor's home equity market compared to a global benchmark—are common for investors from high growth economies.

Exhibit 1 illustrates the magnitude of home bias for a subset of high growth countries. Investors in countries such as the Philippines, India, Turkey, Indonesia, Mexico, Russia and Brazil are shown to have the highest degree of home bias with an average domestic equity allocation of over 98%. We also observe that while Singapore and Hong Kong investors have a much lower degree of absolute home bias, they are still significant compared to their country weights of 0.6% and 1.0% in the well diversified global equity portfolio, proxied by the MSCI ACWI Index. While investors from these high growth countries may not have a long history of global equity investing, there are many arguments that challenge the validity and relevance of a domestic-oriented approach to equity allocations. In this section, we examine some of the arguments.

Exhibit 1: Home Bias in Equity Allocation

Region	Countries	# Stocks in MSCI Standard Indices	# Stocks in MSCI IMI Indices	Country Wgt in MSCI ACWI	Country Wgt in MSCI ACWI IMI	% Domestic in Total Equity
Asia	**Philippines**	18	37	0.8%	0.1%	100.0%
	India	72	308	0.8%	0.8%	99.9%
	Indonesia	25	86	0.4%	0.4%	99.6%
	Thailand	20	83	0.2%	0.3%	97.3%
	Malaysia	42	141	0.4%	0.5%	92.7%
	Korea	105	438	1.9%	1.9%	91.3%
	Hong Kong	42	159	1.0%	1.0%	57.5%
	Singapore	32	120	0.6%	0.6%	30.8%
EMEA	**Turkey**	24	97	0.2%	0.2%	99.8%
	Russia	26	43	0.8%	0.7%	99.2%
	Egypt	9	26	0.04%	0.04%	98.2%
	Poland	22	49	0.2%	0.2%	94.1%
	South Africa	49	114	1.0%	1.0%	99.2%
	Czech Republic	3	8	1.0%	0.0%	75.7%
	Israel	13	76	1.0%	0.3%	73.0%
LATAM	*Mexico*	23	44	0.6%	0.5%	99.3%
	Brazil	81	160	2.7%	1.7%	98.3%
	Colombia	10	13	0.1%	0.1%	96.3%
	Chile	19	40	0.2%	0.2%	76.7%

Source: MSCI, and IMF. Data as of December 31, 2011

For comparison, # of stock of MSCI ACWI and MSCI ACWI IMI = 2,435 and 8,905 respectively as of December 31, 2011

China, Taiwan and Peru are not included in the IMF CPIS survey

Countries in italics are commonly perceived as high growth countries but fail the high growth country definition of this paper

[1] Based on nominal GDP data from 1970 to 2010, we calculated the average annual GDP growth rates among countries in the MSCI ACWI Index. Countries with a positive GDP growth rate above 0.5 standard deviation of the average GDP growth are classified as high growth economies. In order to derive a stable and meaningful sample, a minimum of three consecutive years of above average economic growth is used as a selection criterion. For more information, please refer to Appendix I.

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First, the dramatic expansion and increased accessibility of the global equity universe over the last few decades have significantly altered the equity landscape for global investors. Today, there are close to 8,500 companies in the global investable equity universe spanning 45 developed and emerging markets[2]. This is in sharp contrast to local equity markets of high growth countries which typically constitute only a small subset of the global equity investment opportunity set. A domestic-oriented approach to equity investing essentially limits investors to a very narrow subset of investment opportunities. From an investment point of view, this is a suboptimal starting point.

Second, while many of these high growth economies have been developing quickly and have produced some of the world's largest, most profitable and best quality companies, domestic investors are only exposed to a very small subset of the opportunity set. Exhibit 2 shows the number of companies that originate from high growth countries in the global top 500-company list, ranked by size, profitability and quality. Companies from high growth countries only account for a small proportion of the top companies in the world. In some countries, there is simply no representation. By focusing on a small domestic subset, investors essentially miss out on many potential investment opportunities that are domiciled outside their home countries. Valuations aside, it is difficult to justify why investors should systematically overlook stocks of such companies in their portfolios.

Exhibit 2: Top Global Companies by Size, Profitability and Quality

Region	Country	# securities in MSCI Standard Indices	# of securities represented in Global Top 500		
			By Size	By Profitability	By Quality
Asia	China	135	11	23	28
	Hong Kong	41	7	8	7
	India	73	4	29	28
	Indonesia	26	1	15	15
	Korea	104	8	5	15
	Malaysia	42	-	8	8
	Philippines	18	-	5	3
	Singapore	31	4	7	6
	Taiwan	114	2	18	23
	Thailand	25	-	6	6
EMEA	Czech Republic	3	-	-	-
	Egypt	8	-	-	3
	Ireland	4	1	-	-
	Israel	10	1	2	1
	Poland	20	-	5	3
	Russia	27	3	7	6
	South Africa	50	4	21	21
	Turkey	25	-	8	5
LATAM	*Brazil*	81	8	18	13
	Chile	21	-	2	4
	Colombia	14	1	1	1
	Mexico	26	5	6	7
	Peru	3	-	2	2

Source: MSCI, data as of December 31, 2012

* Selection of Top 500 securities is based on MSCI ACWI and MSCI ACWI Quality Indices

Size is measured by index market capitalization. Profitability is measured by return on equity (ROE)

Quality is measured by ROE, debt/equity ratio and earnings variability

Countries in italics are commonly perceived as high growth countries but fail the high growth country definition of this paper

[2] Based on the MSCI ACWI IMI Index as of May 31, 2013.

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Third, the limited investment opportunity set offered by a domestic portfolio means that investors are not able to take advantage of the full diversity of global sectors. In certain instances, this forces investors to take on an enormous amount of sector risk resulting from missing or over-concentrated sector exposures. Exhibit 3 shows the under- and over-representation of sectors in high growth countries compared with the MSCI ACWI Index.

Exhibit 3: Sector Distribution Profiles of High Growth Countries

		Under-represented Sectors				Over-represented Sectors			
Region	Country	# of missing sector	Smallest Sector	Sector weight	Underweight vs ACWI	# of Sectors > 20%	Largest Sector	Sector weight	Overweight vs ACWI
Asia	China	-	Health Care	1.5%	7.8%	1	Financials	36.7%	15.6%
	Hong Kong	-	Consumer Staples	0.0%	10.3%	1	Financials	56.9%	35.8%
	India	-	Telecommunication Services	1.8%	2.5%	1	Financials	30.6%	9.5%
	Indonesia	-	Information Technology	0.5%	11.7%	1	Financials	32.7%	11.6%
	Korea	-	Telecommunication Services	0.7%	3.6%	1	Information Technology	34.4%	22.3%
	Malaysia	-	Information Technology	0.2%	11.9%	1	Financials	31.0%	9.9%
	Philippines	2	Energy	0.6%	10.0%	2	Financials	41.6%	20.5%
	Singapore	-	Utilities	0.3%	3.1%	2	Financials	50.5%	29.4%
	Taiwan	-	Utilities	0.1%	3.4%	1	Information Technology	52.5%	40.4%
	Thailand	-	Information Technology	1.3%	10.8%	1	Financials	38.8%	17.7%
EMEA	Czech Republic	4	Consumer Staples	2.2%	8.2%	2	Utilities	46.6%	43.2%
	Egypt	3	Energy	1.0%	9.6%	2	Financials	46.5%	25.4%
	Ireland	4	Consumer Discretionary	7.6%	3.2%	2	Materials	34.2%	26.6%
	Israel	1	Consumer Discretionary	0.7%	10.0%	2	Health Care	47.6%	38.3%
	Poland	-	Health Care	0.3%	9.0%	1	Financials	42.9%	21.8%
	Russia	1	Health Care	0.1%	9.2%	1	Energy	55.8%	45.3%
	South Africa	1	Information Technology	0.5%	11.6%	1	Financials	26.9%	5.8%
	Turkey	-	Information Technology	0.2%	12.0%	1	Financials	51.6%	30.5%
LATAM	*Brazil*	-	Health Care	1.4%	7.9%	1	Financials	26.5%	5.4%
	Chile	-	Health Care	0.4%	8.9%	1	Utilities	22.4%	19.0%
	Colombia	4	Consumer Discretionary	0.3%	10.4%	2	Financials	39.8%	18.6%
	Mexico	3	Health Care	0.7%	8.6%	3	Consumer Staples	29.4%	19.1%
	Peru	5	Energy	0.4%	10.1%	2	Materials	56.5%	48.9%

Source: MSCI, data as of December 31, 2012

Countries in italics are commonly perceived as high growth countries but fail the high growth country definition of this paper

Certain high growth economies such as the Czech Republic, Egypt, Ireland, Colombia, Mexico and Peru are examples of countries that have no exposure to three or more sectors. Even countries with a complete sector representation generally tend to display a high level of sector underweighting compared to a well diversified global equity portfolio. Investing only at home limits the investor's ability to participate in opportunities available outside the home country's main sectors. In addition, equity sector profiles of high growth countries tend to be heavily concentrated in one or two sectors. In some cases, the exposure to one single sector can be over 50%. The most frequently observed high concentration sectors are Financials, Information Technology, Utilities and Materials. Consequently, performances of these domestic portfolios are heavily tied to the performances of single sector and therefore bring a high level of active risk to the portfolios.

Fourth, one of the possible explanations behind active bets on the home country can be attributed to investors' intentions to access domestic economic growth. However, as a result of globalization, companies today are becoming more international. A domestic portfolio is not necessarily the best, nor the only option for capturing exposure to domestic economic activities. Based on the MSCI ACWI Economic Exposure Index, portfolios of companies in export-driven high growth countries such as Hong Kong, Singapore, Taiwan and Ireland derive less than 50% of their revenues from home (Exhibit 4a). Therefore, a domestic equity portfolio comprised of such securities does not always represent the optimal portfolio for capturing domestic growth opportunities.

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Today, to fully capture the growth opportunities of a local economy, investors need to broaden their investments to include foreign companies that have substantial business activities in the home country, but that are not necessarily domiciled there. For example, although a domestic equity portfolio of Chinese companies already captures a significant amount of revenues domestically (91%), there are also many non-Chinese companies that derive a substantial portion of their revenues from China. Exhibit 4b lists the top 20 foreign companies that derive substantial revenues from China. A holistic framework of global equity allocation can ensure such opportunities are captured comprehensively.

Exhibit 4a (left): Domestic Economic Exposure of High Growth Countries
Exhibit 4b (right): Top 20 MSCI ACWI Companies with Highest Economic Exposure to China

Region	Country	Economic Exp (%) Domestic
Asia	**China**	91
	Hong Kong	40
	India	68
	Indonesia	98
	Korea	62
	Malaysia	62
	Philippines	94
	Singapore	14
	Taiwan	31
	Thailand	86
EMEA	**Czech Republic**	84
	Egypt	46
	Ireland	3
	Israel	40
	Poland	70
	Russia	65
	South Africa	61
	Turkey	91
LATAM	***Brazil***	80
	Chile	53
	Colombia	58
	Mexico	54
	Peru	34

Source: MSCI, data as of December 31, 2012
Countries in italics are commonly perceived as high growth countries but fail the high growth country definition of this paper

Security Name	Country	Sector	Full Company MCap (USD M)	Exposure To China (%)
Fortescue Metals Group	Australia	Materials	15,032	97
Zhen Ding Technology	Taiwan	Information Technology	1,732	88
Airtac International	Taiwan	Industrials	868	88
Hopewell Holdings	Hong Kong	Industrials	3,740	72
Wpg Holdings Co	Taiwan	Information Technology	2,167	70
Tripod Technology Corp	Taiwan	Information Technology	1,128	70
Radiant Opto-Electronics	Taiwan	Information Technology	1,858	68
Parkson Bhd	Malaysia	Consumer Discretionary	1,860	68
Kumba Iron Ore	South Africa	Materials	21,594	65
Sesa Goa	India	Materials	3,100	61
Eternal Chemical Co	Taiwan	Materials	859	60
LSI Logic	USA	Information Technology	3,948	59
Lg Display Co	Korea	Information Technology	10,378	59
Catcher Tech Co	Taiwan	Information Technology	3,723	57
Delta Electronics	Taiwan	Information Technology	8,834	57
Asia Cement Corp	Taiwan	Materials	4,156	55
Hongkong China Gas	Hong Kong	Utilities	23,714	54
Eldorado Gold Corp	Canada	Materials	9,166	53
Hutchison Port Trust	Singapore	Industrials	6,880	53
New World Development	Hong Kong	Financials	9,539	51

Source: MSCI, data as of December 31, 2012

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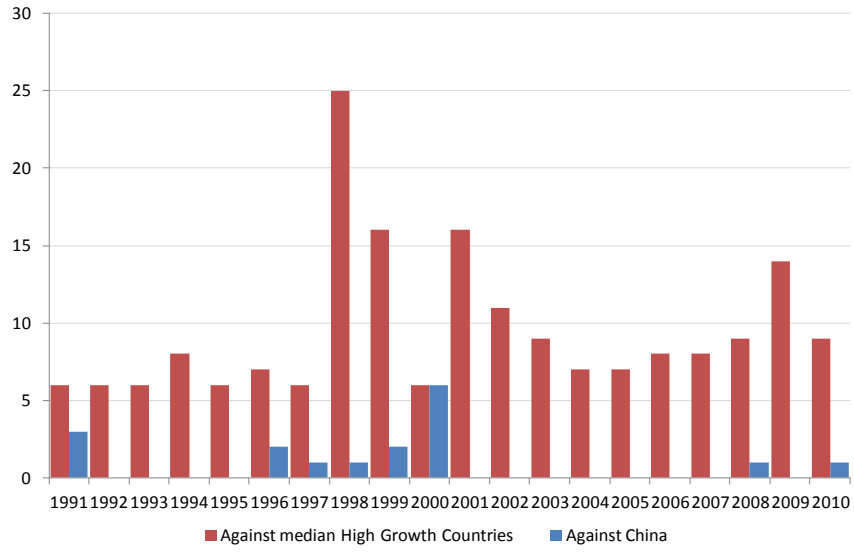
Section II – High Economic Growth Leads to High Equity Returns: Myth or Reality?

Institutional investors worldwide have increasingly realized that a home-biased equity allocation is an active investment decision. It is active because it implicitly assumes that home country equities will outperform, thereby justifying an overweight allocation. In the context of investors from high growth countries, one can further infer that the expectation of persistent economic growth plays a key role in the consideration. However, the entire logic is questionable.

History has shown that there is a limit at which economies can grow and that not even the fastest growing economies can sustain their pace of development. Exhibit 5 shows the number of MSCI ACWI countries that have achieved higher growth rates against the median growth rate in any year over the two decades from 1990 to 2010. A comparison against China is also included. Relative to the median high growth country, there were at least five other countries in the universe that grew faster at any point in time. Even for China, there were several other countries that eclipsed China's high growth position between 1996 and 2000. The bottom line is that economies go through cycles and there will always be other faster growing economies that investors should consider.

Exhibit 5: Number of MSCI ACWI Countries that Achieved High Growth Rate (1990 – 2010)



Source: MSCI

In addition, one of the critical assumptions of a home-biased equity allocation is that it boldly assumes that superior domestic economic growth ultimately translates into better equity market returns. However, there are ample empirical studies which show inconclusive links between equity returns and economic growth. For example, Bambaci, Chia and Ho (2012) attribute a mismatch between GDP growth cycles and equity market returns to intervening factors such as relative equity market valuations and investor expectations. At any point in time, asset prices reflect both current market conditions and expectations about the future. An equity market may be over-, under-, or fairly valued relative to its economic growth prospects. In addition, economic growth patterns are not highly correlated with shorter term equity returns, as returns data is typically observed at high frequency while economic

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activities are measured at low frequency with frequent revisions. Such data issues pose practical statistical challenges for deciphering the relationship between economic growth and returns. There is a succinct characterization of this relationship: the link between GDP growth and equity returns is akin to two drunken men tied by a rope walking down the street; while they are connected, they may not move in the same direction. Anecdotal experiences suggest that it is a risky proposition to rely purely on economic growth as an equity return predictor, especially over shorter investment horizons.

Has Home-Biased Equity Allocation Paid off?

Exhibit 6 compares the annualized local currency equity performances[3] of domestic portfolios (proxied by their respective MSCI country indices) against well diversified global, developed, emerging markets and regional portfolios (proxied by the MSCI ACWI, MSCI World and MSCI Emerging Markets Indices and the MSCI AC Asia ex Japan, MSCI EM EMEA and MSCI EM Latin America Indices, respectively). In this exhibit, we present the analysis in two 10-year subperiods to better understand the variations of results over time. A positive excess return—the performance differential of the single country over global portfolios—indicates that investors from high growth economies would be better off with a domestic equity allocation while a negative excess return would suggest outperformance from geographically diversified portfolios. It is also important to emphasize that the MSCI global index return data are expressed in local currency terms. As such, the results factor in the gains or losses resulting from foreign currency exposures. Finally, this analysis focuses only on high growth economies in the 1990s and 2000s due to a lack of return data availability for emerging countries before then.

As shown in Exhibit 6, domestic equities belonging to high growth countries have generally performed well over the period, but this was not always the case. For example, China (-16.9%), Indonesia (-4.1%), Thailand (-6.8%) in the 1990s, and Ireland (-13.3%) in the 2000s registered negative local market returns despite achieving high economic growth.

Comparing to other diversified market portfolios, the results are mixed. In the 1990s, domestic equities from 20 out of 23 high growth economies (87%) suffered negative excess returns against at least one of the four geographically diversified portfolios. In other words, domestic equities underperformed. Of these 20 cases, 9 domestic equity portfolios ranked at the bottom, indicating that they were the worst performing portfolios in relative terms. In the 2000s, although domestic equity portfolios generally performed better, there were still 13 out of 23 high growth countries (57%) that produced negative excess returns against at least one of the four geographically diversified portfolios. As the annualized 10-year numbers can be highly time dependent on the period start and end dates, we also present in Appendix III and IV a similar analysis based on the entire 20-year period and the average one-year rolling excess return numbers. The results lead to a similar conclusion (i.e., from a pure return angle, there is no evidence to systematically support a home-biased equity allocation even for investors from high growth economies).

[3] We converted the USD return series of the MSCI ACWI, MSCI World, MSCI Emerging Markets and MSCI Regional Indices based on the foreign exchange spot rates against USD for each of the high growth economy currencies.

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Exhibit 6: Annualized Excess Returns of Home Country Equity Portfolios against Geographically Diversified Portfolios (1990s & 2000s)

Region	High Growth Countries	Local Currency	MSCI Country Return (LOC)	Excess LOC Return Vs				Order of Best Performing Portfolio
				MSCI ACWI	MSCI World	MSCI EM	MSCI Regional	
1990s	China *	HKD	-16.9%	-28.2%	-28.9%	-17.7%	-16.6%	World / ACWI / EM / Regional / Dom
	Hong Kong	HKD	13.5%	3.6%	3.3%	7.4%	9.7%	Dom / World / ACWI / EM / Regional
	*India**	INR	7.1%	-10.0%	-10.7%	1.0%	2.2%	World / ACWI / Dom / EM / Regional
	Indonesia	IDR	-4.1%	-33.5%	-34.0%	-29.1%	-26.4%	World / ACWI / EM / Regional / Dom
ASIA	Korea	KRW	0.0%	-16.3%	-16.7%	-12.3%	-9.9%	World / ACWI / EM / Regional / Dom
	Malaysia	MYR	2.9%	-10.8%	-11.2%	-6.9%	-4.6%	World / ACWI / EM / Regional / Dom
	Philippines	PHP	8.4%	-8.2%	-8.6%	-4.2%	-1.9%	World / ACWI / EM / Regional / Dom
	Singapore	SGD	5.9%	-3.9%	-4.3%	-0.1%	2.1%	World / ACWI / EM / Dom / Regional
	Taiwan	TWD	2.8%	-9.2%	-9.6%	-5.4%	-3.1%	World / ACWI / EM / Regional / Dom
	Thailand	THB	-6.8%	-22.8%	-23.2%	-18.8%	-16.4%	World / ACWI / EM / Regional / Dom
	*Czech Republic***	CZK	1.2%	-15.4%	-16.5%	2.7%	-18.7%	Regional / World / ACWI / Dom / EM
	*Egypt***	EGP	7.6%	-5.8%	-6.9%	11.8%	-9.1%	Regional / World / ACWI / Dom / EM
	Ireland	EUR	12.8%	-1.6%	-2.0%	2.4%	-2.8%	Regional / World / ACWI / Dom / EM
EMEA	Israel *	ILS	14.1%	-2.6%	-3.3%	8.4%	3.6%	World / ACWI / Dom / Regional / EM
	Poland *	PLN	37.9%	12.4%	11.7%	24.3%	9.6%	Dom / Regional / World / ACWI / EM
	*Russia***	RUB	52.2%	-4.7%	-6.2%	19.6%	-9.3%	Regional / World / ACWI / Dom / EM
	*South Africa**	ZAR	11.8%	-5.7%	-6.4%	5.4%	-8.4%	Regional / World / ACWI / Dom / EM
	Turkey	TRY	76.3%	-12.8%	-13.4%	-6.3%	-14.8%	Regional / World / ACWI / EM / Dom
	Brazil	BRL	249.2%	39.8%	38.7%	50.4%	24.4%	Dom / Regional / World / ACWI / EM
	Chile	CLP	16.4%	1.2%	0.8%	5.1%	-4.6%	Regional / Dom / World / ACWI / EM
LATAM	*Colombia**	COP	3.1%	-24.7%	-25.4%	-12.6%	-17.9%	World / ACWI / Regional / EM / Dom
	Mexico	MXN	25.6%	2.0%	1.5%	6.2%	-4.2%	Regional / Dom / World / ACWI / EM
	*Peru**	PEN	13.2%	-9.2%	-10.0%	2.3%	-2.8%	World / ACWI / Regional / Dom / EM
2000s	China	HKD	11.3%	10.0%	10.9%	-1.8%	1.0%	EM / Dom / Regional / ACWI / World
	Hong Kong	HKD	4.7%	3.5%	4.3%	-8.4%	-5.6%	EM / Regional / Dom / ACWI / World
	India	INR	16.7%	15.8%	16.6%	4.0%	6.8%	Dom / EM / Regional / ACWI / World
	Indonesia	IDR	25.8%	25.2%	26.1%	13.5%	16.3%	Dom / EM / Regional / ACWI / World
ASIA	*Korea*	KRW	16.7%	16.4%	17.3%	4.7%	7.5%	Dom / EM / Regional / ACWI / World
	Malaysia	MYR	8.6%	9.4%	10.2%	-2.2%	0.5%	EM / Dom / Regional / ACWI / World
	Philippines	PHP	7.7%	7.7%	8.5%	-4.0%	-1.2%	EM / Regional / Dom / ACWI / World
	Singapore	SGD	4.1%	5.8%	6.6%	-5.7%	-3.0%	EM / Regional / Dom / ACWI / World
	Taiwan	TWD	3.7%	3.6%	4.5%	-8.1%	-5.3%	EM / Regional / Dom / ACWI / World
	Thailand	THB	14.9%	17.2%	18.0%	5.8%	8.5%	Dom / EM / Regional / ACWI / World
	Czech Republic	CZK	12.1%	17.6%	18.4%	6.6%	18.1%	Dom / EM / ACWI / Regional / World
	Egypt	EGP	25.2%	19.7%	20.6%	7.4%	20.3%	Dom / EM / ACWI / Regional / World
	Ireland	EUR	-13.3%	-11.0%	-10.2%	-22.5%	-10.5%	EM / ACWI / Regional / World / Dom
EMEA	*Israel*	ILS	2.3%	4.6%	3.2%	-9.4%	-13.7%	Regional / EM / Dom / World / ACWI
	Poland	PLN	3.8%	5.9%	6.7%	-5.6%	6.4%	EM / Dom / ACWI / Regional / World
	Russia	RUB	20.4%	18.4%	19.3%	6.5%	19.0%	Dom / EM / ACWI / Regional / World
	South Africa	ZAR	13.0%	13.0%	13.9%	1.3%	13.6%	Dom / EM / ACWI / Regional / World
	Turkey	TRY	19.2%	9.1%	10.0%	-3.8%	9.7%	EM / Dom / ACWI / Regional / World
	Brazil	BRL	15.4%	15.7%	16.6%	4.0%	-0.3%	Regional / Dom / EM / ACWI / World
	Chile	CLP	14.7%	15.4%	16.2%	3.8%	-0.5%	Regional / Dom / EM / ACWI / World
LATAM	*Colombia*	COP	36.6%	36.9%	37.7%	25.2%	20.9%	Dom / Regional / EM / ACWI / World
	Mexico	MXN	19.0%	15.1%	15.9%	2.9%	-1.6%	Regional / Dom / EM / ACWI / World
	Peru	PEN	27.7%	28.7%	29.5%	17.1%	12.8%	Dom / Regional / EM / ACWI / World

Source: MSCI

All return data is derived based on the corresponding price indices.

* The starting date of the analysis for these countries in the 1990s is 31 Dec 1992 due to data availability constraints.

** The starting date of the analysis for these countries in the 1990s is 31 Dec 1994 due to data availability constraints.

Correspondingly, returns of the MSCI ACWI, MSCI World, MSCI Emerging Markets and MSCI regional indices for these countries are adjusted accordingly.

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Section III – Global Investing: A Risk Diversifier?

Investing solely in home equity markets can incur significant risk. While risk can mean positive or negative returns, the preceding analysis shows that the record of home-biased investments in high growth countries is at best mixed. These results are compounded by the often persistent nature of prevailing asset allocation behavior. Witness Japan, where investors frequently bet on the wrong side of the market by holding onto home-biased portfolios while the domestic equity market steadily underperformed the global equity market.[4] A persistent home-biased allocation can bring significant market timing risk into the portfolio. In this section, we examine the multiple dimensions of risk associated with domestic-oriented equity allocations for investors from high growth countries.

Concentration Risk in Domestic Markets

Due to the overall smaller size and lower free float of equity markets in high growth economies (relative to larger, lower growth economies), investors from high growth economies are susceptible to domestic market concentration risk. The fast-paced economic growth of these countries over the last few decades has led to a strong accumulation of wealth. Increasingly, some of the largest domestic investors in these markets are finding themselves dominating their own markets. As illustrated in Exhibit 7, the domestic pension assets in countries such as Malaysia and Chile represent over three-fifths of the country's equity market capitalization. Such risk could potentially manifest itself during adverse market conditions.

Exhibit 7: Large Domestic Investors Are Crowding out the Local Equity Markets

Region	Country	Domestic Pension Fund Assets (USD m)	Est % Domestic Equity Allocation	Domestic Equity Assets Held by Pension Funds (USD m)	Index Mcap of Equity Market (USD m)	% Pension Domestic Equity Assets / Index Mcap
Asia	**Malaysia**	214,989	92.7%	79,719	114,960	69.3%
	Hong Kong	301,684	57.5%	69,388	265,439	26.1%
	Singapore	299,550	30.8%	36,950	157,604	23.4%
	Korea	288,143	91.3%	105,199	487,141	21.6%
	India	94,678	99.9%	37,818	200,664	18.8%
	Thailand	16,374	97.3%	6,376	63,101	10.1%
EMEA	*South Africa*	183,075	85.9%	62,915	254,262	24.7%
	Russia	119,210	99.2%	47,283	205,095	23.1%
LATAM	**Chile**	120,781	76.7%	37,041	57,436	64.5%
	Mexico	62,495	99.3%	24,833	152,728	16.3%
	Brazil	142,026	98.3%	55,817	488,126	11.4%

Source: AI Global 500, MSCI, IMF, World Bank. Data as of December 31, 2011

Assume an equity allocation of 40%. Exclude assets of institutions that do not invest domestically

Countries in italics are commonly perceived as high growth countries but fail the high growth country definition of this paper

[4] C.P. Chia, "Quantifying the Cost of Home Bias – A Japan Perspective", MSCI, October 2009.

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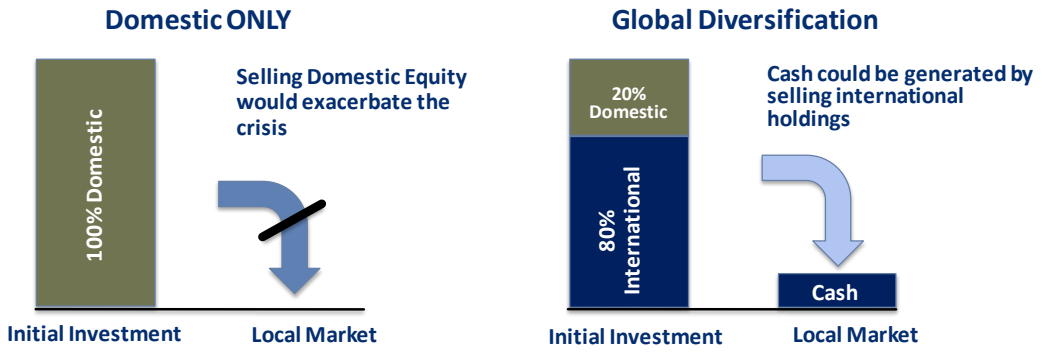
Global Diversification Is Particularly Useful during a Domestic Market Crisis

Imagine a crisis scenario where investors only invest in the local equity markets. These investors essentially become the forced sellers of their distressed equity allocations during liquidity calls. Not only can such action aggravate the capital drawdown of the portfolio, it can also create more volatility in the local market. On the other hand, equity investors with diversified global equity exposure could manage such liquidity needs by rebalancing their international equity exposures and leaving the domestic portfolio untouched.

Exhibit 8: Effect of a Forced Rebalancing During Crisis



The scenario described above is not hypothetical. If history is any indication, even the fastest growing countries are not exempt from extreme market events and sharp drawdowns. The 1997 Asian Financial Crisis, the 1998 Ruble Crisis and the 2008 Global Financial Crisis are some well known examples. Exhibit 9 shows the maximum drawdown of high growth countries in any given year over the last two decades and highlights that there have been many painful episodes of domestic crisis. Compared to the global equity returns of corresponding periods, not only do we see that a well diversified global portfolio has consistently lowered portfolio risk and achieved much better portfolio performance, but in many instances, the corresponding global equity returns after being translated into local currencies were positive. The historical evidence of the benefits of diversification should not be taken lightly.

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Exhibit 9: Maximum Drawdown of High Growth Countries within any Given Year (1990 – 2010)

Region	Country	Period Start	Period End	Country Max Drawdown (LOC)	Corresponding ACWI Return (LOC)	Excess Return (LOC)
Asia	**China**	Sep-97	Aug-98	**-79%**	**-6%**	**-73%**
	Hong Kong	Sep-97	Jul-98	**-57%**	10%	**-67%**
	India	Dec-07	Nov-08	**-60%**	**-31%**	**-29%**
	Indonesia	Mar-98	Sep-98	**-58%**	8%	**-67%**
	Korea	Jul-97	Jun-98	**-52%**	65%	**-117%**
	Malaysia	Sep-97	Aug-98	**-65%**	21%	**-86%**
	Philippines	Jan-97	Nov-97	**-50%**	45%	**-96%**
	Singapore	Nov-07	Oct-08	**-54%**	**-41%**	**-13%**
	Taiwan	Jan-90	Sep-90	**-77%**	**-18%**	**-59%**
	Thailand	Sep-97	Aug-98	**-70%**	9%	**-79%**
EMEA	**Czech Republic**	May-08	Feb-09	**-50%**	**-34%**	**-17%**
	Egypt	Apr-08	Feb-09	**-68%**	**-49%**	**-18%**
	Poland	Feb-94	Jan-95	**-73%**	6%	**-79%**
	Russia	Oct-97	Sep-98	**-78%**	177%	**-255%**
	South Africa	Apr-98	Aug-98	**-42%**	9%	**-51%**
	Turkey	Apr-00	Mar-01	**-56%**	33%	**-89%**
	Ireland	Apr-08	Feb-09	**-72%**	**-40%**	**-32%**
	Israel	Oct-00	Sep-01	**-51%**	**-24%**	**-27%**
LATAM	***Brazil***	May-08	Nov-08	**-51%**	**-20%**	**-31%**
	Chile	Sep-97	Aug-98	**-46%**	7%	**-53%**
	Colombia	Dec-97	Oct-98	**-53%**	31%	**-84%**
	Mexico	May-08	Feb-09	**-43%**	**-30%**	**-14%**
	Peru	Feb-08	Oct-08	**-62%**	**-32%**	**-30%**

Source: MSCI

Countries in italics are commonly perceived as high growth countries but fail the high growth country definition of this paper

Quantifying the Benefits of Home Bias Reduction and Global Investing

To better quantify the benefits of home bias reduction and the diversification benefits of global investing, we constructed portfolios with different degrees of local/global equity allocation mixes to compare their risk and return profiles. Exhibit 10 shows the historical risk reduction and risk-adjusted return improvements of local/global equity allocations relative to pure domestic equity allocations from 1990 to 2010. The best performing allocations for risk reduction and return-to-risk improvement are highlighted for easy comparison. It should be emphasized that this analysis focuses on historical observations rather than forward-looking recommendations on optimum equity allocations.

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Exhibit 10: Risk Reduction and Return/Risk Improvements Resulting from Home Bias Reduction and Global Equity Allocation (1990 – 2010)

High Growth Countries	Changes in Risk				Changes in Return/Risk			
	100% ACWI	25% Local 75% ACWI	50% Local 50% ACWI	75% Local 25% ACWI	100% ACWI	25% Local 75% ACWI	50% Local 50% ACWI	75% Local 25% ACWI
China	-56%	-47%	-34%	-18%	173%	123%	70%	29%
Hong Kong	-49%	-41%	-30%	-16%	-4%	6%	6%	3%
India	-54%	-48%	-35%	-18%	6%	18%	14%	7%
Indonesia	-14%	-34%	-39%	-25%	13%	49%	61%	32%
Korea	-13%	-34%	-39%	-25%	-7%	30%	49%	28%
Malaysia	-21%	-35%	-35%	-21%	9%	37%	43%	23%
Philippines	-48%	-47%	-36%	-20%	26%	40%	30%	14%
Singapore	-44%	-39%	-29%	-15%	5%	13%	11%	6%
Taiwan	-46%	-40%	-30%	-16%	63%	52%	33%	15%
Thailand	-35%	-45%	-39%	-23%	20%	50%	47%	22%
Czech Republic	-11%	-22%	-24%	-16%	-50%	-25%	-5%	2%
Egypt	-59%	-50%	-36%	-19%	-14%	4%	5%	3%
Ireland	-24%	-23%	-18%	-10%	154%	120%	79%	37%
Israel	-27%	-26%	-21%	-12%	14%	19%	16%	9%
Poland	-89%	-70%	-47%	-23%	76%	29%	12%	4%
Russia	-18%	-35%	-37%	-23%	-31%	4%	24%	16%
South Africa	2%	-12%	-18%	-13%	-33%	-13%	2%	6%
Turkey	-64%	-55%	-39%	-20%	78%	61%	34%	14%
Brazil	-32%	-24%	-16%	-8%	-6%	-4%	-2%	-1%
Chile	-48%	-46%	-35%	-19%	-18%	5%	9%	5%
Colombia	-42%	-51%	-43%	-24%	-11%	29%	33%	16%
Mexico	-26%	-35%	-33%	-20%	-19%	8%	19%	12%
Peru	-31%	-34%	-28%	-16%	-37%	-13%	0%	3%
Average	-37%	-39%	-32%	-18%	18%	28%	26%	13%

Source: MSCI

Countries in italics are commonly perceived as high growth countries but fail the high growth country definition of this paper

From a risk reduction angle, the results indicate that for high growth countries, almost every local/global equity allocation mix produced a superior risk profile than the pure domestic equity allocations. By reducing home bias and increasing global equity exposures in their equity allocations, investors were able to achieve a portfolio risk reduction of 18%-39% on average. For more than half of the high growth countries analyzed, the results indicate that a pure global equity allocation without home bias helped to achieve the greatest risk reduction.

A similar conclusion can be drawn from a risk-adjusted return improvement perspective. By adding global equities and reducing home bias, the return-to-risk profiles of equity allocations were improved by 13%-28% on average. Brazil was the one exception where domestic equities produced better relative returns during the period. However, it is important to emphasize that portfolio diversification is built on the foundation of risk reduction more than on the promise of better performance. It would require the investor to take an active view on portfolio returns to justify the appropriate allocation mix. In other words, unless investors have a perfect foresight, betting on returns can be a dangerous proposition.

The results above show that investors from high growth economies would have benefited by reducing their current high levels of home bias. For investors who are concerned about portfolio risk, the historical results provide an overwhelming support for well diversified global equity allocations with reduced or no home bias. The same conclusion applies to investors seeking return-to-risk improvements.

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Section IV – Conclusions

The globalization of equity portfolios is a key trend in equity investing. Since the last global financial crisis, many institutional investors from developed countries have gravitated towards a global approach for equity investing. At the same time, a number of thought-leading investors from high growth economies are increasingly questioning the merits of the traditional domestic-oriented approach to equity allocation.

The objective of this paper is to help investors from high growth countries to take a critical look at their prevailing equity allocation models. We presented the arguments in favor of having investors from high growth countries consider a global framework for equity allocation. We also investigated the performance track records of domestic-oriented equity allocations and quantified the benefits of home bias reduction and a global approach to equity allocation.

Our research findings indicated that home-biased equity allocations produced mixed results for investors from high growth economies. High economic growth has not been, and should not be, a justification for high levels of home bias and low levels of global allocation. On the other hand, a global framework for equity allocation provides broad access to a global investment opportunity set. Historical results show that diversification into global equities has helped to lower portfolio risk and, in many cases, to produce better risk-adjusted return improvements. Importantly, global equity diversification has been effective in mitigating the worst return outcomes at home during market crises. Any long-term investors concerned with the preservation of wealth should consider these implications before making their equity allocations.

In summary, unless investors have a strong conviction on the future performance of domestic equities versus global equities, home-biased equity allocations can bring significant active risk to investors' portfolios. There are clear benefits in terms of risk reduction and potential return-to-risk enhancement if investors from high growth economies consider adopting the best practice of global investing.

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Appendix

Appendix I lists the high growth economies defined in this study and the number of years over which they achieved above average growth within the decade. While many of the high growth economies were from emerging countries, there were several exceptions from developed economies. For example, Japan in the early part of 1970s, and Hong Kong and Singapore over the last four decades. In general, very few countries have managed to maintain consistently high economic growth over time. China was a notable exception as it achieved above average growth for every single year over the twenty years from 1990 to 2010. Within the sample, there were also many countries that registered extraordinary growth for one or two years but dropped out of the high growth universe in the following year. Examples were some of the commonly perceived high growth economies such as Brazil, Colombia, Mexico and South Africa in recent decades (Appendix II). For completeness sake, the analysis in this paper also includes countries that did not achieve three-year consecutive high growth.

Appendix I: High Growth Countries (1970 – 2010)

1970s	1980s	1990s	2000s
China (4)	China (7)	China (10)	China (10)
			India (9)
			Peru (7)
Singapore (7)	Singapore (8)	Singapore (9)	Singapore (7)
Indonesia (3)		Indonesia (6)	Indonesia (8)
Egypt (3)			Egypt (5)
			Russia (8)
			Philippines (6)
Malaysia (4)	Malaysia (7)	Malaysia (9)	Malaysia (7)
Thailand (4)	Thailand (7)	Thailand (6)	Thailand (4)
Korea (4)	Korea (10)	Korea (8)	
Hong Kong (8)	Hong Kong (6)	Hong Kong (4)	Hong Kong (5)
		Poland (4)	Poland (4)
		Turkey (6)	Turkey (6)
Chile (4)	Chile (5)	Chile (6)	
Brazil (6)			
			Czech Rep (3)
		Israel (5)	
Taiwan (10)	Taiwan (8)	Taiwan (8)	
		Ireland (6)	Ireland (3)
Mexico (3)			
Japan (3)			

Source: MSCI

Order of countries are sorted by their average annual nominal GDP growth over 2000s

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Appendix II: List of High Growth Countries without Consecutive Growth

1970s	1980s	1990s	2000s
India (2)	India (4)		
Peru (1)	Peru (3)	Peru (3)	
	Indonesia (5)		
Morocco (2)	Morocco (4)	Morocco (4)	Morocco (5)
	Egypt (4)	Egypt (2)	
		Russia (2)	
Philippines (3)			
			Korea (4)
Colombia (1)	Colombia (1)	Colombia (1)	Colombia (3)
Turkey (2)	Turkey (4)		
			Chile (4)
	Brazil (2)		Brazil (2)
			South Africa (1)
Israel (1)	Israel (2)		Israel (2)
	Australia (1)	Australia (2)	Australia (2)
			Taiwan (3)
Ireland (3)	Ireland (1)		
		New Zealand (2)	New Zealand (2)
Greece (4)			Greece (2)
		Spain (1)	Spain (1)
		Sweden (1)	
Hungary (2)		Hungary (1)	Hungary (2)
		Canada (2)	
		Finland (2)	
	Mexico (1)	Mexico (3)	
	USA (1)	USA (1)	
Norway (1)	Norway (1)		
		Germany (1)	
	Japan (1)		
Portugal (1)	Portugal (2)	Portugal (1)	

Source: MSCI

Order of countries are sorted by their average annual nominal GDP growth over 2000s

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Appendix III: 20-year Annualized Excess Returns of Home Country Equity Portfolios against Geographically Diversified Portfolios (1990 to 2010)

Region	High Growth Countries	Local Currency	MSCI Country Return (LOC)	Excess LOC Return Vs				Order of Best Performing Portfolio
				MSCI ACWI	MSCI World	MSCI EM	MSCI Regional	
ASIA	China *	HKD	-2.2%	-7.9%	-7.7%	-9.7%	-7.7%	EM / ACWI / Regional / World / Dom
	Hong Kong	HKD	9.0%	3.5%	3.8%	-0.5%	2.0%	EM / Dom / Regional / ACWI / World
	India*	INR	12.3%	4.5%	4.7%	2.6%	4.7%	Dom / EM / ACWI / Regional / World
	Indonesia	IDR	9.8%	-4.2%	-4.0%	-8.7%	-5.9%	EM / Regional / ACWI / World / Dom
	Korea	KRW	8.0%	0.1%	0.3%	-4.1%	-1.5%	EM / Regional / Dom / ACWI / World
	Malaysia	MYR	5.7%	-0.5%	-0.2%	-4.6%	-2.0%	EM / Regional / ACWI / World / Dom
	Philippines	PHP	8.0%	0.0%	0.3%	-4.1%	-1.5%	EM / Regional / Dom / ACWI / World
	Singapore	SGD	5.0%	1.1%	1.4%	-2.9%	-0.4%	EM / Regional / Dom / ACWI / World
	Taiwan	TWD	3.2%	-2.6%	-2.4%	-6.7%	-4.2%	EM / Regional / ACWI / World / Dom
	Thailand	THB	3.5%	-2.9%	-2.7%	-7.1%	-4.5%	EM / Regional / ACWI / World / Dom
EMEA	Czech Republic**	CZK	7.9%	5.7%	5.8%	5.1%	4.9%	Dom / Regional / EM / ACWI / World
	Egypt**	EGP	18.3%	9.9%	10.1%	9.2%	9.1%	Dom / Regional / EM / ACWI / World
	Ireland	EUR	-1.1%	-6.8%	-6.6%	-10.9%	-7.1%	EM / Regional / ACWI / World / Dom
	Israel *	ILS	7.4%	0.3%	0.5%	-1.6%	-6.1%	Regional / EM / Dom / ACWI / World
	Poland *	PLN	17.8%	8.4%	8.7%	6.5%	7.7%	Dom / EM / Regional / ACWI / World
	Russia**	RUB	31.4%	11.6%	11.8%	10.9%	10.7%	Dom / Regional / EM / ACWI / World
	*South Africa**	ZAR	12.5%	5.1%	5.3%	3.2%	4.3%	Dom / EM / Regional / ACWI / World
	Turkey	TRY	45.0%	0.7%	1.0%	-4.9%	0.3%	EM / Dom / Regional / ACWI / World
LATAM	*Brazil*	BRL	100.8%	25.1%	25.5%	18.3%	6.9%	Dom / Regional / EM / ACWI / World
	Chile	CLP	15.5%	8.6%	8.8%	4.4%	-2.5%	Regional / Dom / EM / ACWI / World
	*Colombia**	COP	20.6%	9.2%	9.4%	7.2%	2.5%	Dom / Regional / EM / ACWI / World
	Mexico	MXN	22.2%	8.9%	9.2%	4.5%	-2.8%	Regional / Dom / EM / ACWI / World
	Peru*	PEN	21.1%	12.2%	12.5%	10.3%	5.7%	Dom / Regional / EM / ACWI / World

Source: MSCI

All return data is derived based on the corresponding price indices.

* The starting date of the analysis for these countries in the 1990s is 31 Dec 1992 due to data availability constraints.

** The starting date of the analysis for these countries in the 1990s is 31 Dec 1994 due to data availability constraints.

Correspondingly, returns of the MSCI ACWI, MSCI World, MSCI Emerging Markets and MSCI regional indices for these countries are adjusted accordingly.

Countries in italics are commonly perceived as high growth countries but fail the high growth country definition of this paper

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Appendix IV: Average 1-year Rolling Excess Returns of Home Country Equity Portfolios against Geographically Diversified Portfolios (1990s & 2000s)

Region	High Growth Countries	Local Currency	Average 1 yr Rolling Country Return (LOC)	Average 1 yr Rolling Excess LOC Return Vs				Order of Best Performing Portfolio
				MSCI ACWI	MSCI World	MSCI EM	MSCI Regional	
1990s	China *	HKD	-9%	-22%	-23%	-16%	-16%	World / ACWI / Regional / EM / Dom
	Hong Kong	HKD	18%	8%	7%	8%	8%	Dom / World / EM / ACWI / Regional
	*India**	INR	16%	-3%	-4%	5%	5%	World / ACWI / Dom / Regional / EM
	Indonesia	IDR	4%	-41%	-42%	-28%	-22%	World / ACWI / EM / Regional / Dom
ASIA	Korea	KRW	12%	-6%	-6%	-4%	-2%	World / ACWI / EM / Regional / Dom
	Malaysia	MYR	11%	-5%	-5%	-2%	-1%	World / ACWI / EM / Regional / Dom
	Philippines	PHP	13%	-6%	-6%	-4%	-3%	World / ACWI / EM / Regional / Dom
	Singapore	SGD	9%	-1%	-2%	0%	0%	World / ACWI / EM / Dom / Regional
	Taiwan	TWD	9%	-4%	-4%	-3%	-2%	World / ACWI / EM / Regional / Dom
	Thailand	THB	1%	-16%	-17%	-14%	-13%	World / ACWI / EM / Regional / Dom
	*Czech Republic***	CZK	11%	-13%	-14%	0%	-15%	Regional / World / ACWI / EM / Dom
	*Egypt***	EGP	20%	5%	4%	17%	3%	Dom / Regional / World / ACWI / EM
	Ireland	EUR	12%	-3%	-3%	-3%	-4%	Regional / EM / World / ACWI / Dom
EMEA	Israel *	ILS	18%	-1%	-1%	6%	-4%	Regional / World / ACWI / Dom / EM
	Poland *	PLN	77%	48%	48%	55%	46%	Dom / Regional / World / ACWI / EM
	*Russia***	RUB	120%	35%	33%	59%	35%	Dom / World / ACWI / Regional / EM
	*South Africa**	ZAR	12%	-8%	-9%	0%	-11%	Regional / World / ACWI / EM / Dom
	Turkey	TRY	106%	11%	11%	8%	9%	Dom / EM / Regional / World / ACWI
	Brazil	BRL	976%	297%	302%	159%	95%	Dom / Regional / EM / ACWI / World
	Chile	CLP	27%	9%	9%	9%	-4%	Regional / Dom / World / EM / ACWI
LATAM	*Colombia**	COP	14%	-16%	-17%	-8%	-14%	World / ACWI / Regional / EM / Dom
	Mexico	MXN	35%	9%	8%	11%	0%	Regional / Dom / World / ACWI / EM
	*Peru**	PEN	22%	-1%	-2%	6%	1%	World / ACWI / Dom / Regional / EM
2000s	China	HKD	16%	14%	15%	2%	5%	Dom / EM / Regional / ACWI / World
	Hong Kong	HKD	6%	4%	5%	-8%	-5%	EM / Regional / Dom / ACWI / World
	India	INR	20%	19%	20%	7%	10%	Dom / EM / Regional / ACWI / World
	Indonesia	IDR	28%	26%	27%	14%	17%	Dom / EM / Regional / ACWI / World
ASIA	*Korea*	KRW	15%	14%	15%	3%	6%	Dom / EM / Regional / ACWI / World
	Malaysia	MYR	8%	8%	9%	-4%	-1%	EM / Regional / Dom / ACWI / World
	Philippines	PHP	10%	9%	10%	-3%	0%	EM / Dom / Regional / ACWI / World
	Singapore	SGD	7%	8%	8%	-4%	-1%	EM / Regional / Dom / ACWI / World
	Taiwan	TWD	2%	0%	1%	-12%	-8%	EM / Regional / Dom / ACWI / World
	Thailand	THB	15%	16%	17%	4%	7%	Dom / EM / Regional / ACWI / World
	Czech Republic	CZK	16%	21%	21%	9%	20%	Dom / EM / Regional / ACWI / World
	Egypt	EGP	39%	32%	33%	19%	31%	Dom / EM / Regional / ACWI / World
	Ireland	EUR	-7%	-5%	-4%	-17%	-6%	EM / Regional / ACWI / World / Dom
EMEA	*Israel*	ILS	5%	5%	5%	-8%	4%	EM / Dom / Regional / ACWI / World
	Poland	PLN	7%	9%	10%	-2%	8%	EM / Dom / Regional / ACWI / World
	Russia	RUB	23%	21%	22%	9%	21%	Dom / EM / Regional / ACWI / World
	South Africa	ZAR	14%	12%	13%	0%	11%	Dom / EM / Regional / ACWI / World
	Turkey	TRY	21%	10%	11%	-2%	9%	EM / Dom / Regional / ACWI / World
	Brazil	BRL	19%	19%	20%	8%	2%	Dom / Regional / EM / ACWI / World
	Chile	CLP	15%	15%	16%	4%	-3%	Regional / Dom / EM / ACWI / World
LATAM	*Colombia*	COP	38%	38%	39%	27%	20%	Dom / Regional / EM / ACWI / World
	Mexico	MXN	19%	15%	16%	2%	-5%	Regional / Dom / EM / ACWI / World
	Peru	PEN	28%	28%	29%	16%	9%	Dom / Regional / EM / ACWI / World

Source: MSCI

All return data is derived based on the corresponding price indices.

* The starting date of the analysis for these countries in the 1990s is 31 Dec 1992 due to data availability constraints.

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Appendix V: Risk Reduction and Return/Risk Improvements Resulting from Home Bias Reduction and Global Equity Allocation for Other High Growth Countries (1990 – 2010)

High Growth Countries	Changes in Risk				Changes in Return/Risk			
	100% ACWI	25% Local 75% ACWI	50% Local 50% ACWI	75% Local 25% ACWI	100% ACWI	25% Local 75% ACWI	50% Local 50% ACWI	75% Local 25% ACWI
Australia	0.1%	-6.2%	-8.5%	-6.3%	-33.4%	-20.0%	-9.0%	-2.2%
India	-53.7%	-47.6%	-34.7%	-18.3%	6.3%	18.0%	14.3%	6.8%
Japan	-3.9%	-9.9%	-11.3%	-7.8%	-1009.7%	-799.9%	-536.2%	-255.6%
Korea	-13.1%	-34.2%	-39.5%	-25.5%	-7.4%	29.7%	49.1%	27.6%
New Zealand	-4.8%	-16.5%	-19.8%	-13.7%	65.6%	71.6%	60.7%	32.7%
Taiwan	-46.5%	-40.4%	-29.5%	-15.7%	63.2%	52.0%	32.9%	14.8%
Egypt	-59.4%	-50.5%	-35.9%	-18.6%	-13.7%	3.6%	5.3%	2.9%
Finland	-59.7%	-49.5%	-34.8%	-17.9%	2.8%	11.1%	8.4%	4.0%
Germany	-14.6%	-12.5%	-9.3%	-5.1%	-0.4%	1.5%	2.0%	1.4%
Greece	-44.0%	-37.5%	-27.2%	-14.4%	120.7%	88.4%	53.5%	23.7%
Hungary	-52.8%	-45.3%	-33.1%	-17.5%	-2.8%	7.7%	8.6%	4.6%
Israel	-26.9%	-26.4%	-21.2%	-12.0%	14.2%	19.1%	16.4%	9.0%
Morocco	-9.9%	-17.7%	-18.5%	-12.2%	-37.8%	-18.6%	-4.3%	1.3%
Portugal	-20.2%	-19.6%	-15.8%	-9.1%	43.4%	38.0%	27.4%	13.9%
Russia	-17.9%	-34.7%	-36.9%	-23.2%	-30.7%	3.7%	24.4%	16.3%
South Africa	2.0%	-12.1%	-17.8%	-13.3%	-33.2%	-13.3%	2.3%	6.2%
Spain	-14.3%	-14.8%	-12.4%	-7.4%	-5.7%	0.5%	3.3%	2.8%
Sweden	-36.8%	-30.1%	-21.4%	-11.2%	-17.9%	-8.5%	-3.3%	-0.9%
Brazil	-32.2%	-24.4%	-16.4%	-8.2%	-5.7%	-3.5%	-2.0%	-0.8%
Canada	-13.7%	-16.3%	-14.6%	-9.0%	-28.9%	-15.1%	-5.5%	-0.7%
Chile	-48.3%	-45.6%	-34.7%	-18.7%	-17.7%	4.7%	9.1%	5.3%
Colombia	-42.2%	-50.7%	-43.1%	-24.1%	-11.0%	29.1%	33.2%	15.8%
Mexico	-25.8%	-35.2%	-32.8%	-19.7%	-18.8%	8.3%	19.2%	12.2%
Peru	-30.8%	-33.6%	-28.2%	-16.3%	-36.7%	-12.8%	0.2%	2.6%
USA	-2.4%	-3.8%	-3.9%	-2.6%	-15.3%	-9.5%	-5.0%	-1.8%

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