

Russell Research

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Part 1 of a 4-part series on global equities

Globalization, equity markets evolution and the perils of home-country bias

- What is the largest bank in the world, by market capitalization?
ICBC of China
- Where is General Electric's largest research & development facility located?
Bangalore, India
- How many of the top returns-generating companies over the last three years were in the U.S.?
One in the top 20¹

The world has changed

The year was 1985 – Ronald Reagan was sworn in for his second term in office, Mike Tyson made his professional boxing debut and Microsoft released Windows 1.0. The Dow Jones Industrials Index was comprised of companies such as Minnesota Mining & Manufacturing, Owens-Illinois Glass and American Can. McDonald's, which had just been added to the Dow Jones Industrial Average (DJIA), had 6,000 stores in the U.S. and just over 1,000 abroad. Companies competed locally, generating the majority of their revenue from within their country borders; stock market movements were highly dependent upon local economic trends.

The passage of 25 years has seen significant change on numerous dimensions, not least of which are the financial markets. Today, companies compete globally; world economies are increasingly intertwined, and stock markets are driven more by industry factors than by country of domicile. McDonald's now has more than 18,000 stores abroad and generates well over 50% of its annual revenue from outside the U.S. American Can ceased its packaging operations in the late 1980s and

¹ As measured by the Russell Global Index.

metamorphosed into Primerica, a distributor of financial products that now has a presence in several countries. 3M manufactures and sells products in 60 countries. On September 1 this year, Owens-Illinois Inc. acquired a Brazilian company in efforts to extend its reach in South America's largest container market. More than 40% of the revenue within the DJIA now comes from abroad.

In this note, we explore the evolution of markets and economies over the past 25 years, cite the forces that set globalization in motion and, more importantly, look closely at what this has meant for investors in equity markets. Investors have been slow to respond to the changing dynamics within global equity markets, and it can be argued that hesitation has cost them significantly over time. Investors with home-country biases have forgone opportunities to realize higher returns and to enjoy the lower volatility we have seen in portfolios with added international exposures. Passive investing has translated, in effect, to taking an active view on local country returns vs. returns potentially available outside home-country borders, and the consequence for many investors has been lower risk-adjusted returns.

The wheels were set in motion

Malcolm Gladwell has written a handful of popular books over the past 10 years, including *Blink* and *Outliers*, but *The Tipping Point*, his first, has thus far been the most widely read. For those not familiar with the book: Gladwell discusses a number of topics, from fashion fads to changing crime rates, and his key, overriding message is that trigger events, or "tipping points," can set profound trends in motion. Gladwell defined "tipping point" as "the moment of critical mass, the threshold, the boiling point."² In 2007, Time magazine environmental columnist Bryan Walsh called tipping points "the levels at which the momentum for change becomes unstoppable."³

Gladwell didn't extend his discussion to the topic of globalization, but had he done so, I would postulate that he would have considered 1989 as the tipping point and genesis for a new paradigm in the world economy – the point at which the momentum for change became unstoppable. When the Berlin Wall was torn down by 70,000 protesters in 1989, it represented a catalytic political event. Though talk of the Four Tigers (Singapore, Korea, Taiwan, Hong Kong) and tariff reductions had begun in the 1970s and '80s, the fall of communism had broad-reaching implications for the rest of the world – primarily, a renewed emphasis on capitalism and the knock-on effect of the world getting smaller.

The change in the global political landscape, the rise of international outsourcing, and the vastly improved communication and sharing of knowledge via the Internet have all served to reduce structural inefficiencies and foster a truly global economy that wasn't possible under the conflicting economic environments of capitalism and Western-style communism.

Greasing the economic wheels

Since 1989, further developments have more fully integrated economies around the world. One of the most important is increased free trade. Transformational trade agreements like NAFTA (1994), the formation of the World Trade Organization (1995), and the creation of the European Central Bank (1998) and the euro have fused economies together, far beyond even what pundits could have imagined in

² *The Tipping Point: How Little Things Make a Big Difference*. Little, Brown and Company, 2000.

³ "A Green Tipping Point." Available at <http://www.time.com/time/world/article/0,8599,1670871,00.html>.

1985. The concept of societal losses from tariffs and quotas crept to the fore, and free trade increased tremendously over the past 20 years. Many countries now produce only where they have a comparative advantage. In 1986, the tariffs for 169 major countries stood at 26% on average. By 2007, the average had fallen to just 9%,⁴ which had the effect of encouraging specialization and a global marketplace. As you can see from Exhibit 1,⁵ world trade as a percent of GDP has increased from just under 20% in the early 1970s to over 50% today.

Exhibit 1 - World Trade as a percent of GDP— economies becoming more integrated

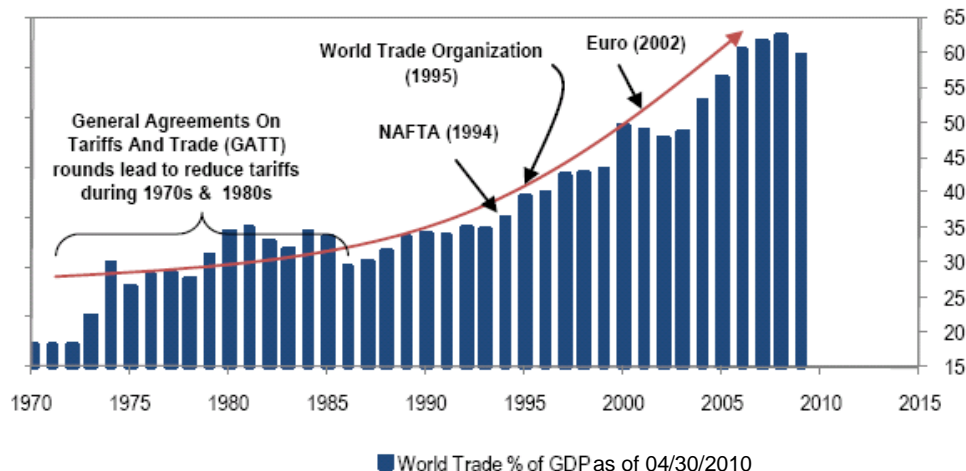
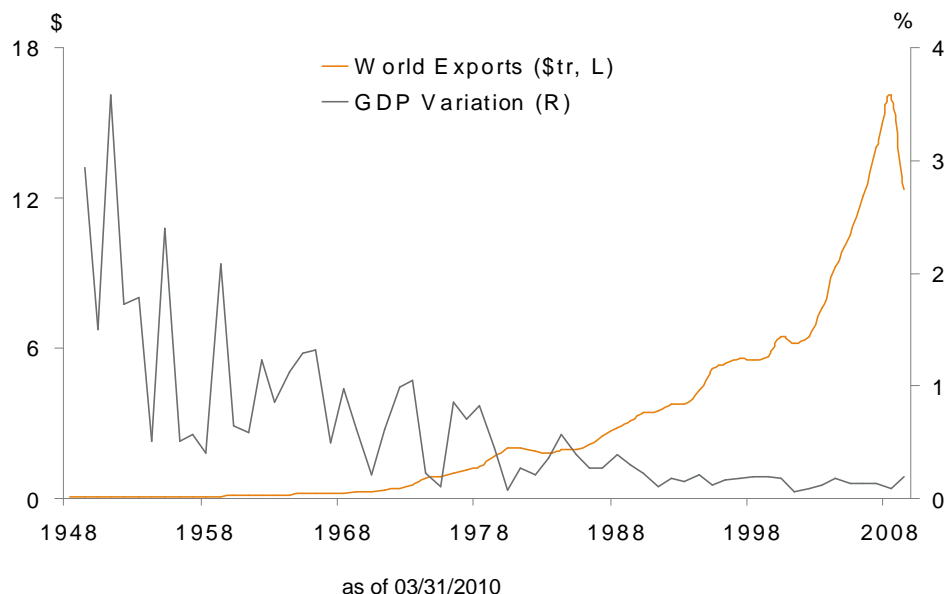


Exhibit 2 - World exports, GDP integration increasing as of 03/31/2010



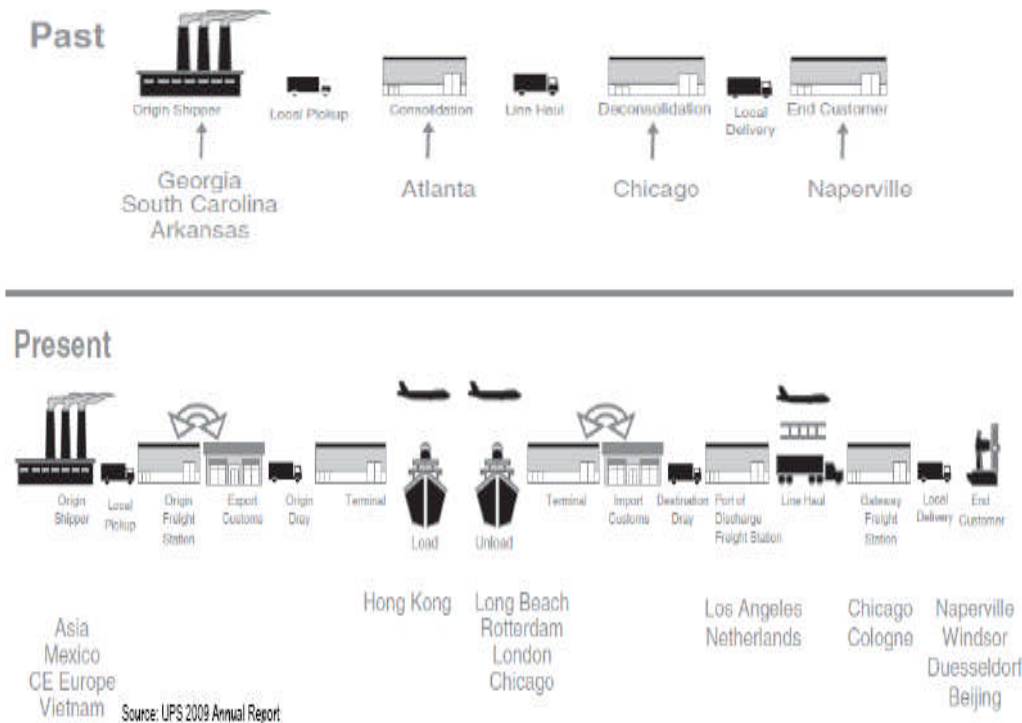
⁴ World Trade Organization Statistical Database. http://www.wto.org/english/res_e/statis_e/statis_e.htm
⁵ Wolfe Trahan. "It's Hard to Decouple When Globalization Is in Full Effect." May 17, 2010. Available on request at <http://wolfetrahan.com/research/2010/05/17/>.

With increased trading, global economies now move largely in tandem, despite transitory events such as the economic pressures in Greece and political upheaval in Thailand. As you can see from Exhibit 2,⁶ the GDP growth rate variation globally has declined steadily as world export has increased. World export for 142 countries as a percentage of GDP has doubled over the last 20 years. The financial crisis of 2007–2009 highlighted economic inter linkage. What started with an overextended U.S. housing market led to failures among financial firms, most notably Lehman Brothers, and within a matter of weeks devolved into a full-blown global liquidity crisis. An unprecedented, globally coordinated monetary and fiscal response by the Bank of Japan, European Central Bank, Bank of England, and the U.S. Federal Reserve was ultimately necessary to right the troubled global economy. Again, in the first half 2010, what occurred economically in one region directly impacted nations around the world. Sovereign debt problems in a country as small as Greece rapidly escalated into a global panic in markets, which was eventually brought under control by the European Union’s massive 750 billion euro rescue package. However, China, the U.S. and Japan, through the IMF, also pledged monetary support to stem what was essentially a local crisis, acknowledging that the impact of a slowdown in European economies would have significant ripple effects in other major economies.

Beyond global trade, there have been a number of other key changes within the global economy which have “greased the wheels” of globalization – mainly, outsourcing and technological innovation. Technological advances such as the tremendous expansion of the Internet and innovations within the global supply chain (a la Wal-Mart), have allowed companies to become more efficient and more global in nature. Economies of scale have also increased profitability for the biggest companies, thereby driving the incentive to expand globally. From Twitter to Facebook to MySpace to Bloomberg, information flow is astoundingly fast, allowing companies and individual employees to operate in a global fashion. One of the great strengths of India, for example, is a highly educated and technology-aware middle class. Companies within the U.S. now routinely take advantage of this highly capable population at a net cost savings. The UPS supply chain, long on the forefront, remains an extraordinary example (see Exhibit 3). The company went from a local business to a globally oriented platform that is now markedly more complex, yielding opportunities that could not have been realized if UPS had been content with doing business only in the U.S. However, a critical aspect of globally integrated supply chains is that they bind economies more closely together. For instance, supply problems in China will have virtually instantaneous and potentially significant knock-on effects to levels of production and costs for companies in Europe and the U.S.

⁶ World Trade Organisation, EcoWin, J.P. Morgan Asset Management. “Far horizons: International Investing in a globalised world” April 2010.

Exhibit 3 - The Changing Nature of the Global Supply Chain⁷



From economies to equity markets

Beyond economic advances, a number of important factors in equity markets have increased the integration of global markets. Accounting practices, taxes on foreign investment and regulations around foreign investment have all swayed in a more amicable direction for international investors. Twenty-four-hour trading platforms have become the norm, and companies with dual listings across the globe are increasing; multinational stocks like Nestlé trade on the London Stock Exchange and the New York Stock Exchange.

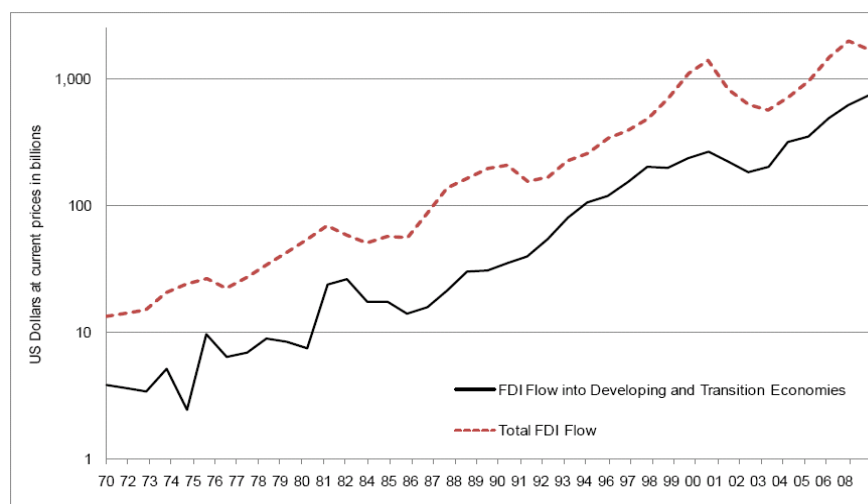
Today more than 110 countries around the world, including the entirety of Europe, have adopted the International Financial Reporting Standards (IFRS), an established broad set of rules that provides a foundation for accounting standards. Though there are still numerous shortcomings around global reporting uniformity, including annual instead of quarterly company reporting, IFRS adoption has increased transparency and given investors greater confidence in buying foreign shares.

Changing regulations and the subsequent increase in foreign direct investment have been additional important dynamics in the globalization of equity markets (see Exhibit 4). This has been most pronounced in emerging markets, but is true in developed markets as well. In the same way that free trade has been beneficial, countries have profited by establishing policies that encourage foreign investors to build local factories or develop retail facilities, which in turn has the favorable effects of creating new jobs and increasing aggregate economic output. Similarly, these more favorable policies have allowed local companies greater access to the capital

⁷ UPS 2009 Annual Report. Wolfe Trahan.

markets and the ability to expand their business footprints. Previously, a number of countries placed restrictions on foreign investment for such reasons as protecting immature local industries or protecting national interests in sensitive sectors such as defense or food production. As markets have matured and the concept of comparative advantage has been accepted, these barriers to entry have declined markedly. That said, some countries, such as India, still have notable hurdles to foreign investment – both direct investment, and investment within the local equity markets – but it is likely these barriers will also diminish with time.⁸

Exhibit 4 – Foreign direct investment: Total flows to developing economies



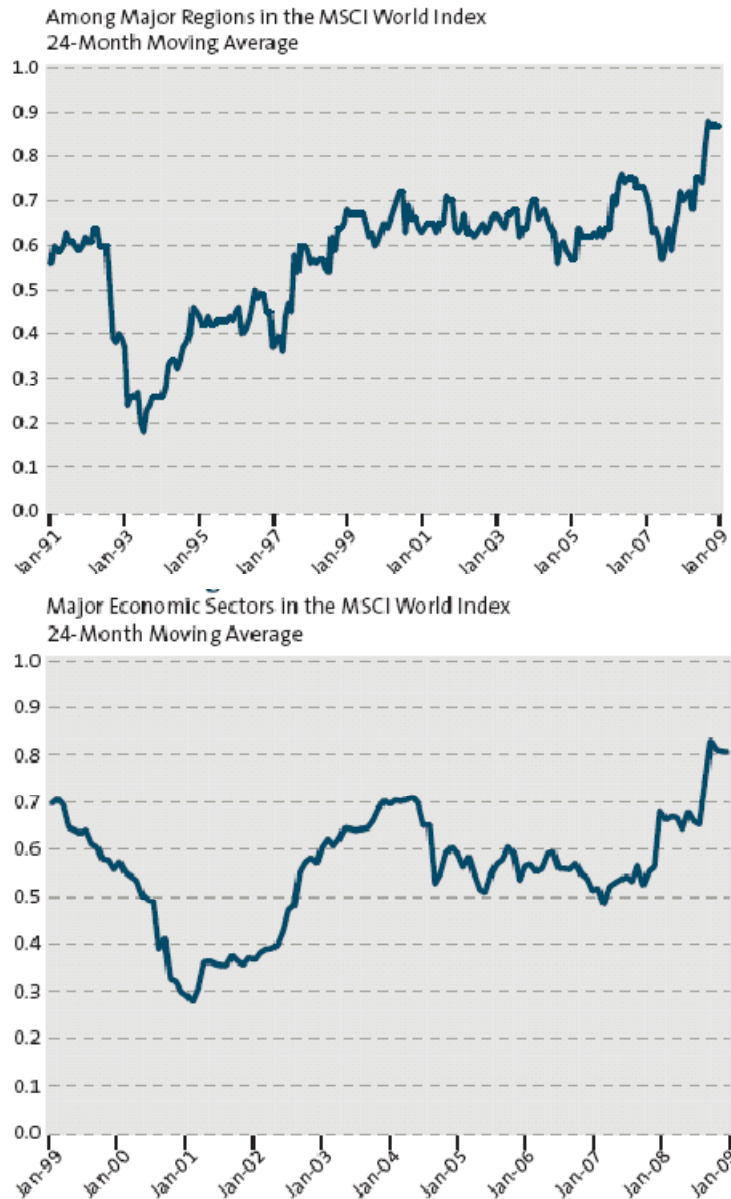
Source: MSCI Barra. "Globalization of Equity Policy Portfolios." October 2009.

Uniformity in reporting and increased foreign flows have been contributing factors in the globalization of markets and have led to changes in the drivers behind stock prices. Historically, after stock-specific factors such as product innovation and management execution, the most important factor driving the performance of a stock was the country in which it was domiciled. This trumped factors such as industry and capitalization. However, as economies have become more integrated, country-specific factors have played a diminishing role in explaining stock returns, whereas sector effects are more crucial. In small cap companies and emerging markets, this is less so, as companies are driven more by their local economies. In mid and large cap companies, this balance between country and sector influences has ebbed and flowed with near-term market dynamics (think Greece vs. the U.S. vs. Brazil today), and sector influences remain important; but, arguably, the path has been relatively consistent over longer periods. Though not perfect proxies for market integration, another way to think about this change is by looking at simple pair-wise correlations both between countries and between sectors over time. Both sector and country correlations have risen over time and are extremely elevated due to the recent strife in equity markets. Over the past 10 years, arguably, regions have behaved more similarly than sectors, and that intuitively makes sense. For example, a Reckitt Benckiser (UK consumer staples firm) behaves much more like

⁸ MSCI Barra. "Globalization of Equity Policy Portfolios." October 2009.

Procter & Gamble (U.S.) than, say, BHP Billiton or BP, despite the fact that these two companies are also domiciled in the UK. From a policy perspective, it also makes sense that country correlations have been increasing, as global monetary and fiscal coordination has been widespread. The debate continues as to which factor – country or sector – drives companies more today. However, the pendulum has swung closer to the middle, compared to 20 years ago.

Exhibit 5 - Average Pair-wise Correlations

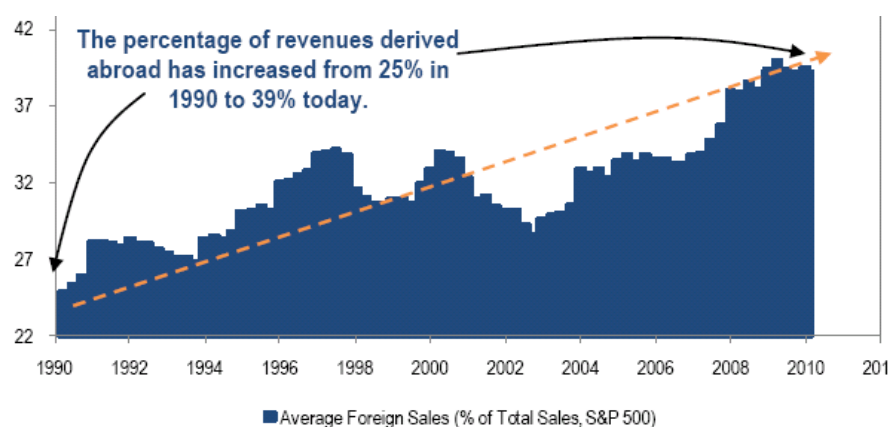


Source: T. Rowe Price. "The Case For Global Equity: Expanding the Opportunity Set for Active Management. MSCI. Zephyr.

A central driver to rising country correlations, beyond shorter-term stresses, has been the growth in the number of multinational companies. As discussed earlier, companies are increasingly getting a majority of their revenue from foreign

markets. And this is true not just in large developed countries like the U.S., UK and Japan; today more than 21,500 multinational companies are found within the emerging markets alone.⁹ Gary Brinson, in his paper entitled “The Future of Investment Management,” puts it well, saying, “The globalization of financial markets, which mirrors the conduct of businesses themselves, will continue to expand in breadth and scope. . . . More than 70 percent of world equity market capitalization is made up of companies conducting their business on a multinational platform.”¹⁰ Nintendo competes directly with Microsoft in gaming consoles across the world; Roche in Switzerland competes with Bayer in Germany, which competes with GlaxoSmithKline in the UK, and so on (see Exhibit 6).¹¹

Exhibit 6 – Average foreign sales for S&P 500 Index



Source: Wolfe Trahan. “It’s Hard to Decouple When Globalization is in Full Effect.” May 17, 2010. Available on request at <http://wolfetrahan.com/research/2010/05/17/>.

More than just an integration story

Beyond market integration, the changing makeup of global equity markets is another important factor that merits note. In 1985, global equity market capitalization was below \$2 trillion USD. Today the figure is better than \$27 trillion, with most of the increase coming from non-U.S. markets.

The percentage of total Non- US market cap has grown from just below 35% to over 53% in 2005 and over 57% today. This is a trend that is projected to continue. While some non-U.S. markets, such as Japan’s, have been in decline, others have more than made up the slack. Goldman Sachs estimates that China’s GDP will be 17% of world GDP in 2020 and that all of the BRIC countries (Brazil, Russia, India and China) will be in the top 10 economies in terms of total world GDP.¹²

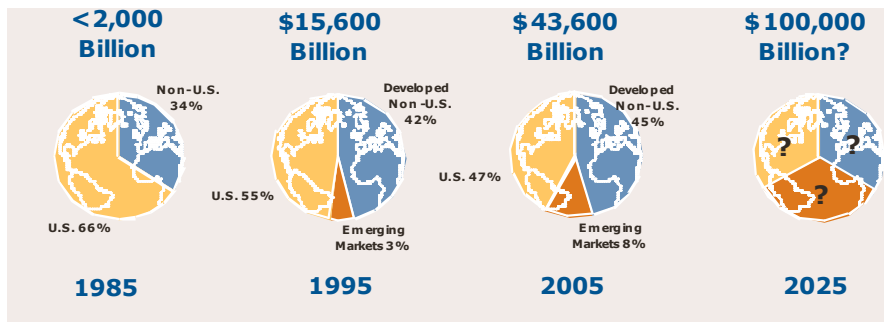
⁹ United Nations World Investment Report, 2010.

¹⁰ *Financial Analysts Journal*, July/August 2005. Available at <http://www.cfapubs.org/doi/pdf/10.2469/faj.v61.n4.2739>

¹¹ Wolfe Trahan. “It’s Hard to Decouple When Globalization is in Full Effect.” May 17, 2010. Available on request at <http://wolfetrahan.com/research/2010/05/17/>.

¹² GS. Global Economics Paper No: 204. “EM Equity in Two Decades; A Changing Landscape”. September 8, 2010.

Exhibit 7 – Global equity market evolution



Source: Russell Investments, Factset, S&P Citigroup BMI Index, Russell Global Index as of 6/30/2010

Investors' reactions to globalization: muted

With globalization much discussed in books like Milton Friedman's *The World Is Flat*, investors have adapted their portfolios to include more international exposure. Since the 1980s, international exposure has become a staple in asset allocations (Russell has advised the inclusion of international stocks in client plans since 1981). That said, plans' international holdings have not increased sufficiently to replicate global market capitalization and, arguably, have lagged the opportunities that a fully global context offers. In a JP Morgan study (Exhibit 8),¹³ researchers found that across the globe, investors continually under-allocate to international equities, having an average exposure of only 51%. Take, for instance Italy, which makes up less than 1.5% of the global market cap. Italian investors allocate only about half of their equity exposure abroad and the remainder to domestic equities. As measured by the Russell Global Italy Index on August 31, 2010, ENI made up 16.3% of the Italian equity market. Though a global company, with a little math it is easy to see that there is tremendous company-specific risk inherent in the average equity plan within Italy, specifically to companies like ENI at about 8.1% weight in their portfolios.

Investors within the U.S. are no different, from the allocation perspective. In an extreme example, a 2008 Greenwich Associates study showed U.S. plan sponsors allocating 25%, on average, to foreign markets, whereas non-U.S. plan sponsors commonly allocate 40%. Behavioral biases, such as patriotism and familiarity; misconceptions about the volatility of international investments; and leaning on local multinationals for international exposure are common reasoning behind this home-country bias. There is some merit in U.S.-based investors having lesser international exposure, given the U.S. market is deeper and broader in its range of local industries, which in turn offer diversification beyond what may be achieved by domestic investors in other countries. In addition, the U.S. remains far and away the single-largest equity market (43%) as measured by the Russell Global Index and contains a large number of multinational companies that tap into global growth. Beyond this, there is also some merit to the argument that domestic exposure better matches the liabilities of plan participants, but volatility in currency markets suggests that this argument isn't as cut and dried as it has been historically. While

¹³ JP Morgan asset Management Company. "Far horizons: International investing in a globalized world." April 2010.

the local “spoiled for choice” argument holds some water, it fails to trump the added benefits of global diversification and potentially improved returns from increased investment abroad. Investors are not taking full advantage of the benefits of diversification.

Exhibit 8 – Home bias – part of equity portfolio invested outside of resident’s own country

Country	Foreign investment share	Country	Foreign investment share
Austria	58%	Italy	48%
Belgium	71%	Netherlands	93%
Denmark	56%	Norway	73%
Finland	58%	Spain	20%
France	36%	Sweden	55%
Germany	56%	Switzerland	47%
Greece	24%	United Kingdom	50%
Average	51%		

A muted response = muted returns

Investors with home-country biases point to periods like 2008, postulating that diversification benefits from international investing are minimal. Markets all fell in tandem, and no country was spared. In their March 2010 paper entitled “International Diversification Works (Eventually),”¹⁴ Clifford Asness et al, of AQR Capital Management, took a further look at diversification benefits to investors. They found that “international diversification might not protect you from terrible days, months, or even years, but over longer horizons (which should be more important to investors) where underlying economic growth matters more to returns than short-lived panics or global coordinated events, it protects you quite well.” Asness and team also ran a study to back up their claims, looking at home-country returns compared to that of a global portfolio. The research looked at the worst 1, 5 and 10 years since 1950 for each country named in the table below (Exhibit 9). In each instance, the global portfolio outperforms the home country; this is especially true over the longer term, where global portfolios outperformed the home-country portfolio by an astounding average of 22.8% during the worst 10 years. The benefit

¹⁴ Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1564186.

of avoiding these terrible downdrafts in equity markets is that the ability to build wealth long term is increased by compounding that starts from a larger base value. For example, the U.S. investor who lost 40% over a 10-year window needed a 67% subsequent return to get back to their original asset level. However, if that same investor had incurred only a 16% loss, just a 19% gain would have been required to get back to the base asset level again.

Exhibit 9 – Real cumulative returns (%) from each investor’s perspective since 1950

	Worst 1-Year (%)		Worst 5-Years (%)		Worst 10-Years (%)	
	Home Country	Global Portfolio	Home Country	Global Portfolio	Home Country	Global Portfolio
Japan	-47.2	-51.2	-47.4	-47.7	-53.8	-40.6
Germany	-54.4	-38.7	-53.1	-46.8	-44.6	-30.4
U.K.	-60.8	-46.8	-67.1	-36.4	-61.3	-20.9
France	-53.0	-42.7	-52.9	-44.6	-57.9	-25.0
U.S.	-47.5	-47.3	-44.8	-31.9	-39.9	-15.7
Australia	-47.6	-44.2	-60.1	-43.6	-33.6	-21.3
Average	-51.8	-45.2	-54.2	-41.8	-48.5	-25.6
Global - Home Average	6.6		12.4		22.8	

Source: Dalostream. Analysis from 1/1/1950 through 08/2009.

“Globalization is an irreversible process, not an option.” Kofi Annan, former United Nations Secretary-General

A light at the end of the tunnel?

Globalization has begotten dramatic changes in the world’s equity landscape. In spite of these changes, plan participants have continued – in many cases, unknowingly – to place an active bet that their home country investments will outperform a global portfolio. Thus they have run the risk of being negatively surprised. Investors have structured portfolios, wherein the weight to international markets is below that of the global equity market cap outside their home country’s borders, and as you can see from Exhibit 9, this has led to suboptimal returns over time. There is some anecdotal evidence that consultants and investors have got the message and are heading in the right direction: the California State Teachers’ Retirement System (CalSTRS) has implemented a fully global equity platform; according to multiple reports this year, global equity was the leading equity asset class in terms of search activity in 2009 and in 2010 thus far; and, finally, Russell has proactively shifted to higher allocation to global equities within our internally managed balanced funds.¹⁵ Economies and markets will continue down the path from being domestically driven to being globally driven. Companies will increasingly derive revenues from outside their borders. The U.S. GDP will continue to shrink as a percentage of total global GDP. Investors are advised to change their strategies to keep up with changing markets, or they will continue to miss the increasing opportunities for reduced risk and potentially higher returns offered by global equities.

¹⁵ CalSTRS Moves on Global Equity, Infrastructure,” *Pensions & Investments*, 21 July 2008.

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