HOW ON EARTH DO YOU ALLOCATE EFFECTIVELY WHEN THE US MARKET HAS GROWN SO LARGE?

A DISCUSSION ARTICLE BY THE BRANDES CENTER

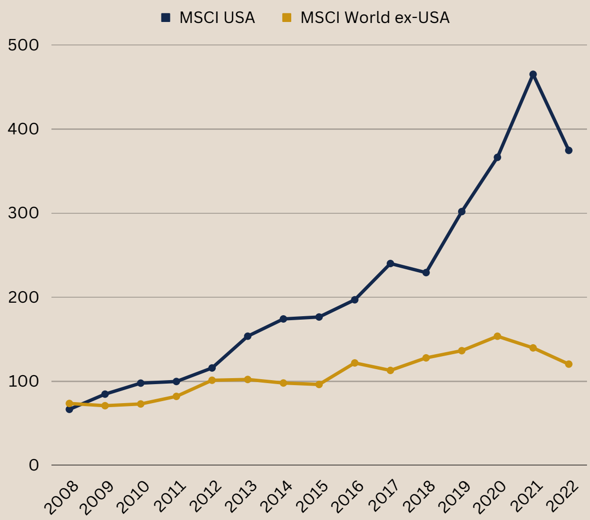
UC San Diego
RADY SCHOOL OF MANAGEMENT
The Brandes Center

Two major trends have impacted the geographical allocations of institutional equity portfolios over recent decades. Together, they now pose major questions for pension funds, other institutions, and even savvy individual investors worldwide.

The first trend has been very visible to investors. The US stock market, long the world's largest, has outperformed non-US equities for the past decade and a half. Exhibit 1 shows cumulative returns for the MSCI USA and MSCI World ex-USA Indexes between 2008 and 2022.

Exhibit 1 | US Stocks Have Outpaced Non-US Stocks Between 2008 and 2022

Growth of a Hypothetical $100 Investment

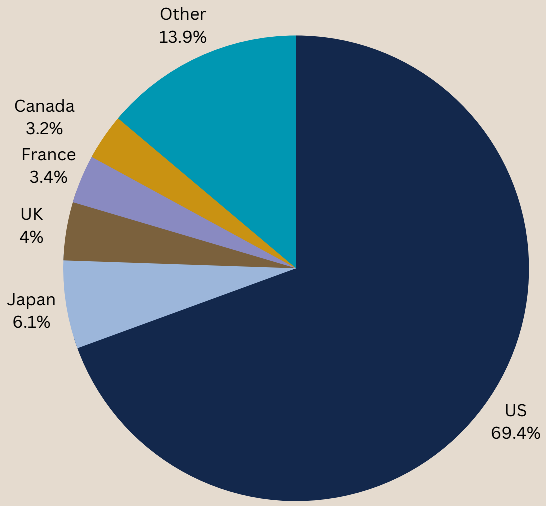


Source: MSCI, cumulative returns based on monthly data between January 2008 and December 2022

As a result, the size of the US market now dwarfs even its largest international counterparts, as measured by its weighting in the MSCI World Index (see Exhibit 2).

The US weighting in the Index has risen steadily (see Exhibit 3). Despite its prominent index weighting, the US economy, while large, is by no means as dominant relative to other countries. For example, in 2020, the US accounted for just 46% of the GDP (gross domestic product) of the developed countries making up the MSCI World Index.[1]

Exhibit 2 | MSCI World Index Country Breakdown, as of 7/31/2023



Source: MSCI, as of July 31, 2023

The second trend is more subtle: big institutions have been adopting a global approach when they analyze and allocate their equity portfolios. Decades ago in most countries, the norm was a domestic focus: any non-domestic exposure was a minority position in the portfolio. In the United States in the 1980s for example, non-US equities were considered "alternatives", an "optional extra" to the main business of managing domestic equities. Now, many large institutions have a true global process for allocating equities, and even those which maintain a boundary between their domestic and international equity portfolios tend to have a significant structural weight outside their home market.

Together, these two trends pose a tough question for investors' worldwide equity exposure: what should you do when one country effectively dominates the global equity market (at least as defined by market capitalization)?

[1] https://www.theglobaleconomy.com/rankings/gdp_share/

This leads to further questions:

- Are market valuations distorted (or as efficient market theorists claim, they just reflect all available information)?
- What role should currency hedging play, for institutions with liabilities in domestic currency and equity exposure globally?
- Does "home country bias" still exist, and if so, how should it be defined and measured when domestic market cap weight is so high for US investors and so low for all others?

Answering these questions in detail is beyond the scope of this article. And the answers may well depend on whether an institution is based in the US or elsewhere. Our goal is to provide a framework to consider these topics, and share some insights on how leading practitioners worldwide address these issues. We hope you find it helpful.

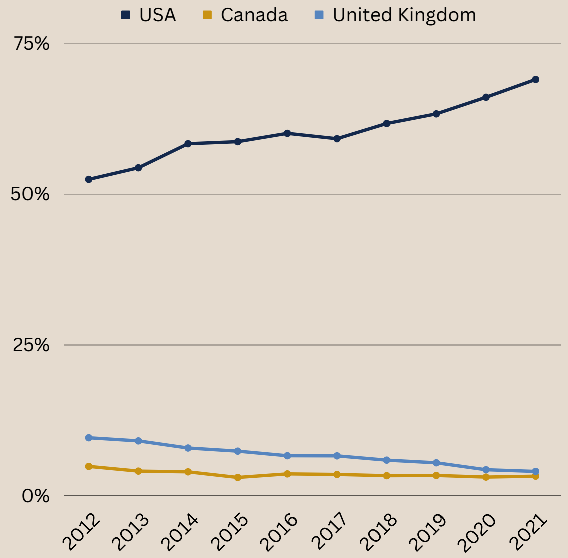
Let's start with a look at what pension funds have been doing in respect of their home country allocations.

Despite, or perhaps because of, the relative strength of the US market, many US pension plans have reduced their dedicated exposure to US stocks over the last 10 years and invested globally, according to data provided by CEM Benchmarking.[i] ("Dedicated" exposure refers to a specific allocation to equities in a plan's country of domicile that is independent of exposure that may result from a global allocation.) CEM Benchmarking provided aggregate holdings data for 101 US defined benefit funds, 44 Canadian funds and 25 plans based in the United Kingdom.

For context, Exhibit 3 shows the 10-year change in MSCI World Index weights for those three countries.

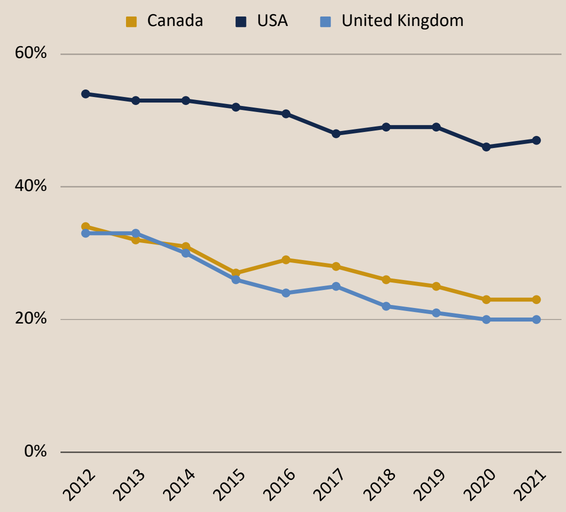
Exhibit 4 provides a contrast, showing what has happened to pension plans' dedicated equity exposure to their home market. Dedicated US equity exposure for US plans has declined since 2012. At the beginning of the period, that exposure was roughly in line with the US equity weighting in the MSCI World Index, but by the end, US plans were underweight relative to that index.

Exhibit 3 | Select Country Weights for the MSCI World Index (2012-2021)



Source: MSCI, as of December 31, 2021

Exhibit 4| US, Canadian and UK Plans Have Reduced Dedicated Exposure in Their Home Countries



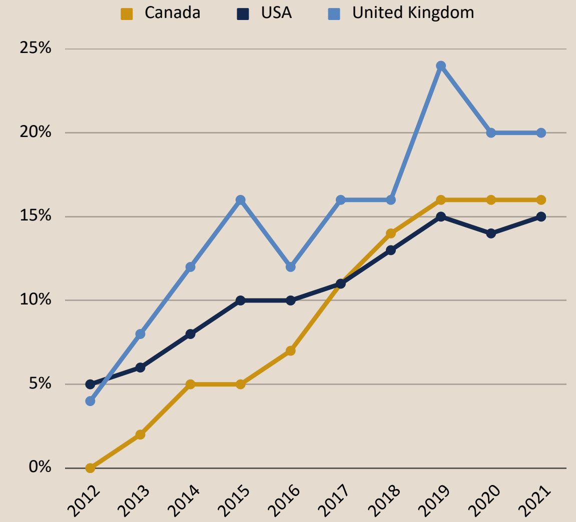
Source: CEM Benchmarking, 2012 to 2021

We see a similar trend in declining home country equity allocations for Canadian and UK-based plans, although at the end of the period those allocations were still materially overweight relative to the index.[2]

During this period, as dedicated allocations declined, the range of exposures for CEM clients stayed relatively consistent. At the same time, the range of UK exposures tended to be the widest among the three countries. See Exhibit 5.

In addition, CEM data shows a sharp increase in the number of plans with no dedicated, domestic stock exposure at all. See Exhibit 6.

Exhibit 6 | Percentage of CEM Plans With No Dedicated Domestic Stock Exposure



Source: CEM Benchmarking, 2012 to 2021

Exhibit 5 | Dedicated Home Country Exposure: Top & Bottom Quartile, 2012 & 2021

	United States		Canada		United Kingdom	
	Top Quartile	Bottom Quartile	Top Quartile	Bottom Quartile	Top Quartile	Bottom Quartile
2021	60%	39%	28%	15%	28%	12%
2012	63%	45%	38%	27%	45%	25%

Source: CEM Benchmarking, 2012 to 2021

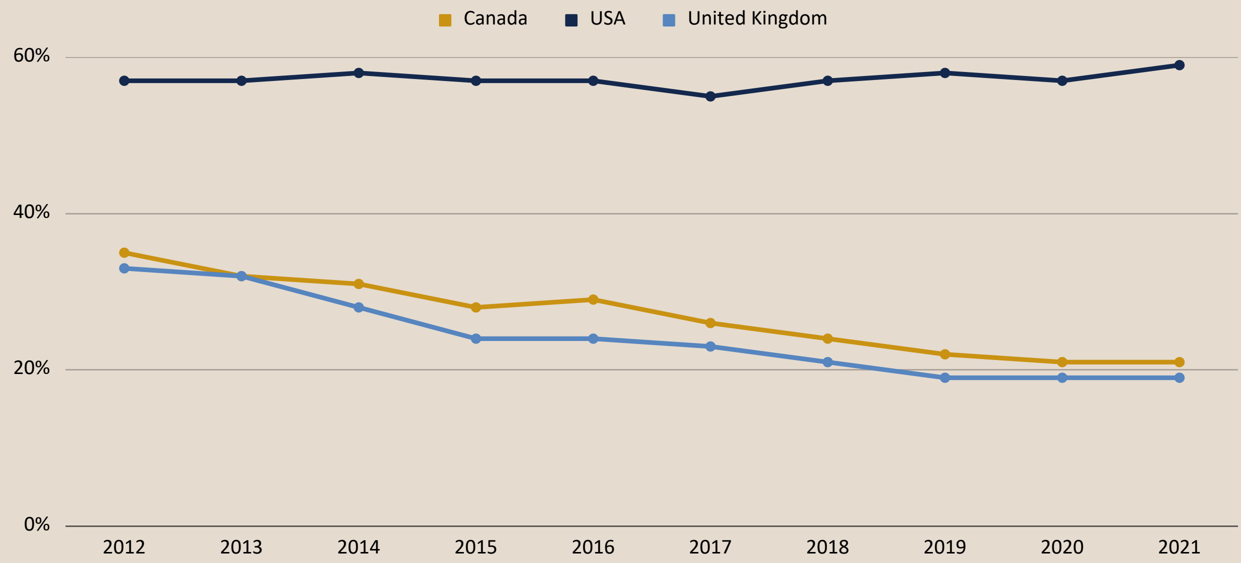
[2] As of Dec. 31, 2012, the US equity weighting in the MSCI World Index was 52.5%. By comparison, that was roughly equal to the dedicated exposure among US plans (as shown in Exhibit 3). But by year-end 2021, US plans were underweight in the US compared to the cap-weighted MSCI World Index; US plans had a roughly 60% overall exposure at year-end 2021 vs. 69.0% for the Index. As of July 31, 2023, the US weighting in the Index climbed to 69.4%.

Nevertheless, even as US plans have re‑allocated assets away from the United States over the past ten years, the effect of strong US market returns relative to non-US markets has actually increased their aggregate US exposure. Exhibit 7 shows the average size of dedicated home country portfolios relative to total stock. (The plot points in Exhibit 7 are calculated as follows: a plan's domestic allocation + its global allocation X its country's weight in the MSCI World Index.)

This effect works in reverse for other countries. In Canada for example, allocating less to a domestic Canadian portfolio, and more to a global one, will reduce the overall domestic exposure, as the Canadian weight in that global portfolio may be small.

US-based investors are faced with the reality that their domestic market now dominates the global landscape, clouding what may be the right, neutral "starting point" for an equity allocation. Most investors still use market capitalization weights, but there are other possibilities. As we've noted, GDP weights would put the US at a lower allocation, as would equal-weighted indexes. Another approach might be to consider the risk-reward trade-off—and looking at the world from the perspective of a US-based investor.

Exhibit 7| Total Size of Domestic Stock for US Plans Has Increased Between 2012 and 2021



Source: CEM Benchmarking, 2012 to 2021

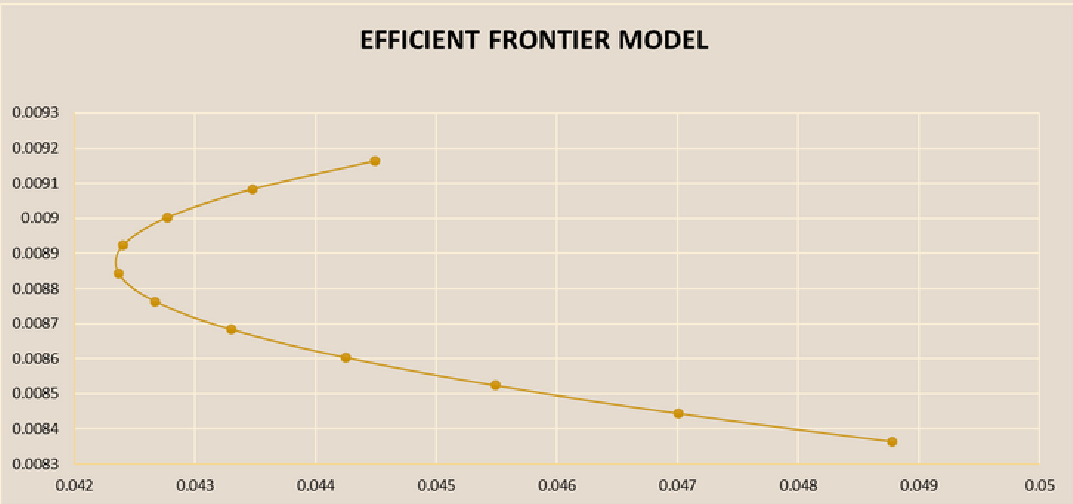
Toward that end, we created an efficient frontier chart using monthly return and standard deviation data for the MSCI USA and MSCI World ex-USA Indexes between January 1970 and May 2023. (We selected 1970 as it was the first year when data was available.) As shown in Exhibit 8, an increasing exposure outside the United States tended to lower returns and increase volatility during the period.

Over this period, the combination of US and World ex-US exposures with the highest Sharpe ratios are shown in Exhibit 9.

The data in Exhibits 8 and 9 seems to suggest an optimal US equity weight for a US-based investor would be 80%, and only exposure materially above 80% would be considered biased. The counterargument would be that this data, like market capitalization measures, favors the US market due to its outperformance in recent years, and so the question for investors is whether they expect this to continue—or at least not reverse!

Exhibit 8| Does the Efficient Frontier Help Define Home Country Bias?

Monthly Returns and Standard Deviation for the MSCI USA and MSCI World ex-USA Indexes between January 1970 and May 2023



Source: CEM Benchmarking, 2012 to 2021

Exhibit 9 | Highest Sharpe Ratios for MSCI US and MSCI World ex-US Exposure (1970-2023)

Sharpe Ratio	US Exposure	Non US-Exposure
17.15%	80%	20%
17.11%	70%	30%
17.06%	90%	10%

Source: MSCI, January 1970 to May 2023, monthly data

With all of this as background, we opened the topic for discussion at a meeting of The Brandes Center's Advisory Board. The Board includes senior investment professionals from North America, Europe and Asia-Pacific. Guests at this meeting included:

- Paul Erlendson, former Senior Consultant with Callan;
- Jay Malick, former Managing Director at Bank of America Merrill Lynch; and
- Chris Flynn, CFA, Director of Product Development at CEM Benchmarking

The conversation covered diverse aspects of global equity portfolio allocation and construction, including home country bias. Board members focused particularly on four aspects for investors assessing existing allocations and the potential for making changes:

1. Defining a "neutral" country allocation, and identifying home country bias
2. Managing currency exposures from a global perspective
3. The influence of peer pressure and career risk on decisions about country allocation
4. The degree to which the potential for alpha generation does—or should—influence country allocation, including exposure to the home country

1. Defining a "neutral" country allocation, and identifying home country bias

Barry Gillman, CFA, Research Consultant for The Brandes Center, said, "As investors, we all have reasons for doing things. It's our process. We end up with the allocations that are entirely rational to each of us—even though they may be totally different from each other. With respect to home country bias, we might explore explanations for differences in exposure, but we should be focused on the rationale behind those exposures."

Board members shared a few ideas on what defines a "neutral" country allocation, including a cap-weighted index, an equal-weighted index, a GDP-weighted or revenue-weighted index, or a mean-variance optimized portfolio, among others.

Kim Shannon, CFA, Founder and Co-CIO at Toronto-based Sionna Investment Managers, said, "In Canada, we've gone from many pension plans having a 25% to 35% weight here all the way down to 4%. Americans have a tremendous amount of home country bias because we're dealing with this whole issue of cap-weighted benchmarks. Cap weighting is based on popularity; it's what stocks the world loves the most. And we all know the world's being dominated right now by a handful of tech stocks. Is that a rational way to invest?"

Erlendson agreed. "If one were to look at more of an equally weighted index, it would eliminate this whole capitalization bias, and I'd be intrigued to find out if it would change the nature of investors taking a home country bias. I think Kim has nailed it. Capitalization is really the issue."

The US exposure in the MSCI World Equal Weighted Index on July 31, 2023 was only 43.1% vs. 69.4% in the cap-weighted World Index.

Gillman said, "With different approaches, we may come up with quite different country allocations. That is not home country bias; home country bias is more of a psychological aspect. We should decide what is the rational allocation, and then look for exceptions. And they have to be big exceptions."

So, what is "rational?" What is "neutral?" What is a big exception? With each of the ideas listed above, the notion of "bias" remains nebulous.

"My suspicion is a lot of existing exposures are the result of history," said Flynn. "But I'm fascinated when we find investors who have a reason why they are 10% higher than the global weight with their domestic exposure. My question for them is why 10%? Why not 5% or 20%? It's not clear to me whether there's a lot of rigor behind that decision—which is fascinating, given how rigorously they make other decisions."

"Why have predetermined allocations to countries at all?" asked Zev Frishman, former Vice President of Global Equity Strategies at Ontario Teachers' Pension Plan. "Why not just look around the world and pick the best opportunities? I'm a believer in a mostly bottom-up approach. You could overlay a country or regional allocation, but I would use that more for risk management."

2. Managing currency exposures from a global perspective

"You could be a small fund in Canada and if you want to run a currency-hedged portfolio, you go to any of the large banks, and for a couple basis points, they do the underlying hedging for you," Frishman said. "It's not going to cost you that much if that's really what you want to do."

"When you're talking about a very large, non-home country bias, currency management becomes more of an issue," said Rachel Farrell, former CEO and Country Head for JP Morgan Asset Management in Australia. "Managing hedges from a practical standpoint may require you, for example, to hold cash to roll over the futures—and that may have an implication on how you run your portfolio and it may make it difficult to have that much foreign exposure."

Bob Maynard, former CIO at the Public Employee Retirement System in Idaho (PERSI), said, "The liabilities of a pension fund are very heavily tied to home country inflation. In your mean-variance model, you could either come up with a 15% non-US weight if you tied inflation in, or a 25% non-US weight if you ignored inflation or if you hedged.

"We acknowledged that we couldn't pick between the two options, so we gave 10% of our allocation to global managers on the assumption that Zev mentioned earlier—that they would make that decision between US and overseas markets.

"We found it was better to keep up with local inflation," Maynard said. "And how much your inflation is tied to your liabilities helps you come up with a kind of precise number. It's not solely throwing dust into the wind and seeing where it lands."

"Depending on your inflation assumptions, there's maybe an argument to overweight your domestic stock market for liability purposes," Flynn said. "But that's only going to work if your domestic stock market is representative of the domestic economy."

3. The influence of peer pressure and career-risk on decisions about country allocation

"Career risk is real," said Flynn. "Especially if you're an Australian superannuation fund and your members can switch to a competitor if they have a better year of performance than you."

Under the Australian government's "Your Future, Your Super" reforms, enacted July 1, 2021, participants in an "underperforming" fund are notified by the Australian Prudential Regulation Authority. Underperformance, determined annually, is based on a comparison of fees vs. performance over seven years, according to an article at abc.net.au.[ii]

Flynn added, "It seems every big, public sector DB fund with an 80-year horizon still knows that they're going to get splashed in their local papers for how they did relative to their peers—and a major region or country bet can really throw you away from the herd. Some plans are making the jump to global investing, but for many, it's almost like a group of penguins trying to move from A to B without straying too far from the rest of the group."

Frishman agreed. "We've talked about rational decisions, but that doesn't always mean the best risk-return consideration," he said. "If I'm an asset manager or a large pension fund, my real risk may be losing my job. One of the things that funds may do is look around and see where other funds are—and make sure that their exposure is not that different."

Maynard added, "It's hard to get away from what peers are doing or where the benchmark is for career-risk reasons." He echoed Frishman's comments, noting that investment managers face career risk, as well. He cited the global managers that PERSI hired to help the fund split its US and non-US allocation. "That just didn't work," he said. "There is a business risk issue that few global managers ever made a huge US versus overseas call and stuck with it. And for those that did, as soon as they ran into the early 2000s, they lost it."

Investors, especially institutional investors, must manage their portfolios and expectations from various stakeholders including peers, consultants, board members, beneficiaries, and the financial and/or popular press.

4. The degree to which the potential for alpha generation does or should influence country allocation, including exposure to the home country

"A home country bias can be the result of a pro-active structuring or active, bottom-up or top-down insights," said Barclay Douglas, Founder of Criterium Advisors. "If the investor favors an active approach, and perceives that specific market segments have meaningful excess return potential along with competitive beta projections, these insights will be factored into return expectations and translate into higher regional weightings than the neutral position."

Farrell added, "In my experience, there were discussions around the reasons for the US capital markets potentially having better performance based on the structure of that market versus other structures. In other words, in the US, there's a strong view that the shareholder is the primary motive, and that the system is set up to reward the shareholder. That may not be necessarily true in other markets."

We looked at rolling, 3-year returns for the MSCI USA and MSCI World ex-USA Indexes to see if there were any notable performance cycles. Exhibit 10 shows annualized 3-year returns for the USA Index minus the World ex-USA Index. When the line is above zero, it notes periods when US stocks have outperformed non-US stocks. The performance advantage US equities have shown since February 2010 has pulled back from its peak, but we remain in the longest period of US stock outperformance since 1970. Whether it continues remains to be seen.

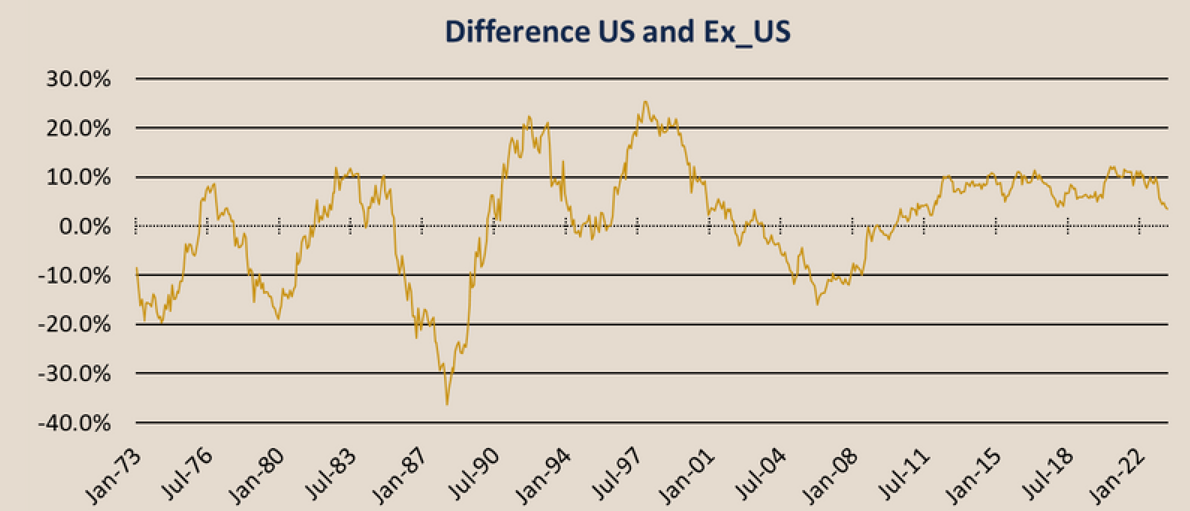
In addition, rising prices for US stocks also have lifted valuation measures—especially relative to non-US stocks. "Since 1990, the vast majority of the US's outperformance vs. the MSCI EAFE Index (currency hedged) of a whopping +4.6% per year, was due to changes in valuations," according to an article in the June 2023 issue of The Journal of Portfolio Management. While the article authors use the MSCI EAFE Index as a proxy for global equities outside the United States rather than the MSCI World ex-USA, we believe the conclusion remains valid. The authors of that article (Cliff Asness, Antti Ilmanen and Dan Villalon) added, "In other words, the US victory over EAFE for the last three decades—for most investors' entire professional careers—came overwhelmingly from the US market simply getting more expensive than EAFE." They concluded by warning that a similar expansion in multiples over the next few decades "…is likely not repeatable."[iii]

Malick added, "Another way of framing this issue is in terms of laws, accounting standards, the type of government and its stability, the size of the military, the liquidity of securities markets, etc. These standards have to be factored in. If Warren Buffett were on this call, I think we'd all agree he's rational. But when you look at how much he has in the U.S. versus international markets, I bet he's in the 90% range. His company Berkshire Hathaway is predominantly invested in U.S. domiciled companies—albeit many with large international operations. Before he starts looking at anything, I'd surmise that he assesses the risk of getting his capital back from a liquidity of securities markets and rule of law perspective—things like weak rule of law, liquidity risk, expropriation risk, political or government interference risk, etc." Malick also noted that Buffett benchmarks Berkshire Hathaway's performance versus the S&P 500 and not a global benchmark.

Along this line of risk, Dr. Aswath Damodaran, NYU Finance Professor and Brandes Center Advisory Board member, recently published a detailed update to his ongoing work on

Exhibit 10 | Recent Outperformance of US Stocks vs. Non-US Stocks

Rolling 3-Year Annualized Returns for the MSCI USA Index Minus the MSCI World ex-USA Index (January 1970 to May 2023)



Source: MSCI, as of May 30, 2023, monthly data country risk premiums at his blog, Market Musings.

At his blog, Damodaran writes, "…it is almost impossible to value a company or business, without a clear sense of how risk exposure varies across the world." He adds, "…country risk is a continuum, with some countries exposed less to it than others. It is for that reason that we should be cautious about discrete divides between countries, as is the case when we categorize countries into developed and emerging markets, with the implicit assumption that the former are safe and the latter are risky." Among the country-specific factors he evaluates are political system, violence, corruption, legal protection, default risk and sovereign ratings.

The blog post is available here. The detailed report is available here at ssrn.com.

"The real question is: how many of these factors actually will change?" Flynn asked. "A related question is why Americans may be more likely to be overweight the United States than Europeans are overweight the US. They should be just as likely to hold the view—whether it's right or not—that the US stock market is going to continue to outperform. So, again, what leads people to make different decisions?"

That question is a fitting one to end our article: what indeed leads people to make different decisions?

We hope that the information and discussion in this article may help our readers in their own deliberations, as well as thoughtful discussions with financial advisors, colleagues, consultants, Board members or others.

Divsehaj Anand, a Research Analyst with The Brandes Center, conducted research, analysis, writing and editing for this report.

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[i] Based in Toronto, CEM has provided fund sponsors with insights on various topics, such as investing and benchmarking. CEM clients include more than 400 sponsors in 25 countries. Those funds manage about $15 trillion collectively for about 80 million members. More information on CEM available at its website here.

[ii] Khadem, Nassim. "Australians Urged to Switch Where They Invest for Retirement as Best and Worst Superannuation Funds Revealed." ABC News, 8-31-21. [2] As of Dec. 31, 2012, the US equity weighting in the MSCI World Index was 52.5%. By comparison, that was roughly equal to the dedicated exposure among US plans (as shown in Exhibit 3). But by year-end 2021, US plans were underweight in the US compared to the cap-weighted MSCI World Index; US plans had a roughly 60% overall exposure at year-end 2021 vs. 69.0% for the Index. As of July 31, 2023, the US weighting in the Index climbed to 69.4%.

[iii] Asness, Cliff, Antii Ilmanen, and Dan Villalon. "International Diversification—Still Not Crazy after All These Years." The Journal of Portfolio Management. Vol. 49, No. 6. June 2023. [2] As of Dec. 31, 2012, the US equity weighting in the MSCI World Index was 52.5%. By comparison, that was roughly equal to the dedicated exposure among US plans (as shown in Exhibit 3). But by year-end 2021, US plans were underweight in the US compared to the cap-weighted MSCI World Index; US plans had a roughly 60% overall exposure at year-end 2021 vs. 69.0% for the Index. As of July 31, 2023, the US weighting in the Index climbed to 69.4%.

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