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Cliff Asness, Antti Ilmanen, and Dan Villalon

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Cliff Asness
is managing and founding principal at AQR Capital Management, LLC in Greenwich, CT.
cliff.asness@aqr.com

Antti Ilmanen
is a principal at AQR Capital Management, LLC in Greenwich, CT.
antti.ilmanen@aqr.com

Dan Villalon
is a principal at AQR Capital Management, LLC in Greenwich, CT.
dan.villalon@aqr.com

KEY FINDINGS

- US equities have outperformed other markets for over 30 years, making international diversification a losing experience for a generation of investors. As a result, few are inclined to shift away from persistently overweighting US stocks.
- The case for international diversification remains strong. Both theory and long-run evidence underscore benefits of diversification, particularly for active investors.
- Looking back, US outperformance since 1990 can largely be explained by relative richening against other equity markets. Investors betting on continued US outperformance may be making a perilous assumption that this richening will continue, despite historically high relative valuations suggesting the opposite is more likely—valuations tend to revert to the mean (eventually).

ABSTRACT

International diversification has hurt US-based investors for over 30 years, but the long-run case for it remains relevant. Both financial theory and common sense favor international diversification, which is buttressed by empirical evidence that is very supportive at longer horizons and for active strategies. Finally, it would be dangerous to extrapolate the post-1990 outperformance of US equities, as it mainly reflects rising relative valuations. If anything, the current richness of US equities may point to prospective underperformance.

Readers of publications such as this one probably already know in their heart-of-hearts (or at least their head-of-heads) that diversification is a good thing. But for an investor in the United States,[1] international equity diversification has been a losing strategy for more than 30 years.[2]

Today, in light of this three-decade loss, there is a lot of pressure to abandon international diversification, and—like all things that have disappointed for a long time—there's a cottage industry devoted to why it makes total sense for US investors today to hold even more of their portfolios in US equities (a cottage industry that undoubtedly said the opposite in 1990 when the message was likely "buy Japan"). The anecdotes in the field of investing devoted to telling you why something that has happened in the past will now happen forever are legion.

[1] This article will generally take the perspective of a US investor, as readers in many other countries probably don't need to be as convinced that international diversification is a good thing (it's generally worked out pretty well for them over the past few decades). That said, we believe our points and conclusions hold for all investors.

[2] For those of you just starting your careers, 30 years is a long time.

Despite the past 30+ years (in fact, partly *because* of them), we believe in international equity diversification, even for a US equity investor, and will focus on the following five points—either making arguments for them or countering arguments against them.

1. Basic theory and common sense say you should diversify. (*For.*)
2. Everything crashes at the same time, so why bother? (*Against.*)
3. Changes in valuations can lead people to make the wrong conclusions about the past. (*For.*)
4. Based on today's valuations, we should infer that US outperformance is unlikely to persist. (*For.*)
5. International diversification is especially useful for active investors. (*For.*)

We'll end with what makes a fairly obvious decision much harder than you might think (hint: it's behavioral and principal–agent issues).[3]

POINT 1: THEORY

Diversification is one of the most fundamental and important ideas in modern finance. It's also a practical result of how markets work.

This is because the only "market-clearing" or "macro-consistent" portfolio is one that's market-cap weighted—one investor's overweight is another investor's underweight. So, if anyone decides they're best off holding mostly their own country's equity market, then it means other investors in other countries must also be more home biased. The trouble with this proposition is that it's simply not logical for investors in every country to believe their home market is going to outperform. It may be patriotic, but it sure isn't rational.[4]

Of course, some markets have outperformed in the past and some will outperform going forward. Market clearing doesn't mean all markets give you the same returns, after all. So instead of diversifying across all of them, why not just focus your equity portfolio only on the "best" equity market?

Some very famous investors have made the case for at least US investors having a structural US overweight, due to features that have made it an exceptional place to invest (e.g., better institutions, markets, laws) or the global nature of US businesses.[5] And, at first blush, some long-run evidence supports this argument: for example, Dimson, Marsh and Staunton's (2022) annual dataset estimates that US markets outperformed non-US ones by about 2% from 1900 through 2021.

[3] Two issues we're not going to focus on here are currencies and industries. International equities are commonly held on an unhedged basis, but for the long-term returns we look at here, currency effects aren't nearly as big a story as changes in valuations (which isn't to say currency is unimportant or can't be helpful—see Boudoukh et al. (2019) for some ideas on currency hedging or making the most of currency risk). As far as industries, there's a separate issue of what benefits an investor can get from industry diversification versus country diversification. Evidence has been mixed over time, and both certainly contribute. Interested readers should look to Heston and Rouwenhorst (1994), Griffin and Karolyi (1998), and Cavaglia, Brightman, and Aked (2000) for the canonical studies and Attig and Sy (2023) for a recent summary.

[4] Granted, home bias is less of a "mistake" for US investors than for others, given US equity markets account for a bit more than half of global market capitalization and US multinational companies provide exposure to foreign markets (about 30% of S&P 500 firms' sales revenues come from abroad).

[5] See "A Stubborn Investing Rule Shared by Jack Bogle and Warren Buffett" by E. MacBride (April 17, 2017): https://www.cnbc.com/2017/04/17/a-stubborn-investing-rule-shared-by-jack-bogle-and-warren-buffett.html.

The resulting case against global diversification would be based on US exceptionalism rather than home bias.[6]

But again, the market has to clear. Not everybody can go into the "best" market without pushing up its price and pushing down its expected future return (more on this in points 3 and 4). Nor should they want to: under some pretty basic assumptions, a portfolio that's globally diversified is expected to produce superior risk-adjusted returns than any one country individually.

Theory—and we believe basic common sense in investing—comes down clearly on the side of diversification, even after three decades when it did not help US-based investors.

POINT 2: EVERYTHING CRASHES AT THE SAME TIME, SO WHY BOTHER?

We actually agree with the accusation here, just not the conclusion. At shorter horizons (e.g., months and quarters), worst cases for individual countries are similar to worst cases for globally diversified portfolios. Markets become more correlated in periods of great stress,[7] so having your equity allocation spread out across multiple countries usually doesn't save you from a big crash.[8]

But this particular argument against diversification is a red herring. Short crashes are of course painful, but there's an even bigger risk for investors: long-term pain. Extended bear markets are more likely to prevent investors from meeting their long-term wealth goals than short crashes.[9] So if we want to better evaluate the "true" value of diversification, we have to consider how it performs at these longer horizons.

Following the methodology in Asness, Israelov, and Liew (2011) and updating the data from 2008 to 2022, we find international diversification does a pretty great job of protecting investors over the long term. Exhibit 1 shows that over short horizons, global portfolios (dashed) can suffer almost as much as an average local portfolio (dotted); but once you look out a couple years or so, global portfolios fare much better.[10]

Intuitively, while different countries' equity markets can crash together, cyclical and even slower secular moves in economic and market performance can diverge widely across countries—think of Japan's boom in the decades before 1990 and the bust thereafter, which differed substantially from what played out in other countries over the period. This divergence can mean a lot to investors, as shown by the solid line in Exhibit 1 (which reports the globally diversified portfolio's average return during the worst periods for individual country equity markets).[11] International diversification works, eventually. For details, see the notes to Exhibit 1.

[6] This 122-year edge came largely through higher dividends-per-share growth, though we'll soon see that the edge in recent decades came mainly from changing relative valuations. The historical US exceptionalism needs not to have been all in the market's control—or to have been predictable and repeatable. It's entirely possible, for instance, that the big underlying contributors could have been things outside the direct result of corporate skill, which we might call "luck" (e.g., no revolutions over the period, no hyperinflation, no wars on home soil). See Dimson, Marsh, and Staunton (2021).

[7] As noted in Solnik, Boucrelle, and Le Fur (1996) and Asness, Israelov, and Liew (2011).

[8] And while it has not been the norm, nothing rules out idiosyncratic single-country crashes if the reasons are truly very local.

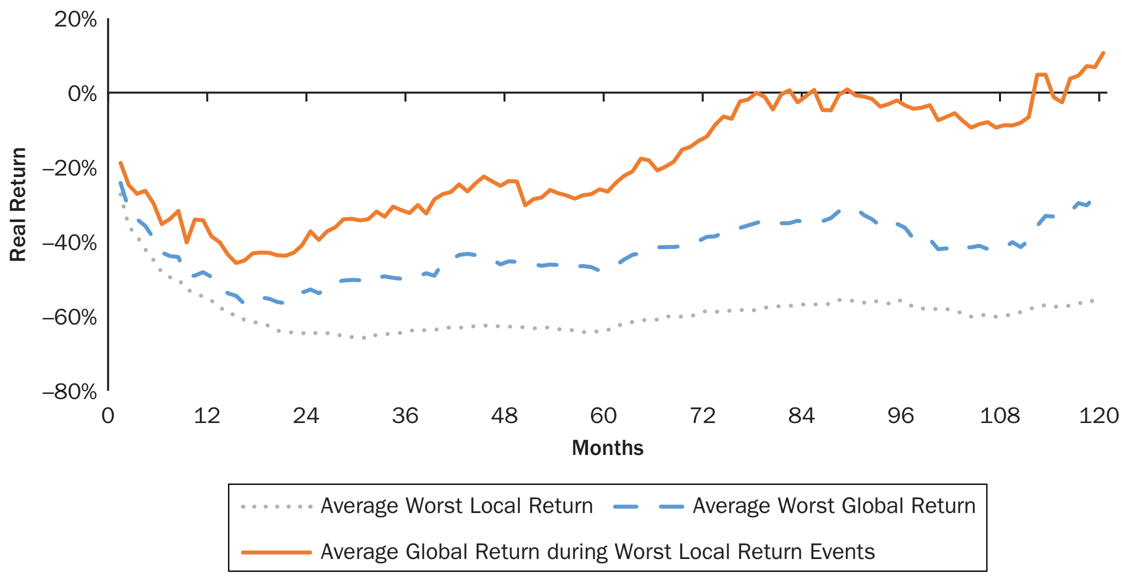
[9] See McQuinn, Thapar, and Villalon (2021).

[10] OK, technically, "much less worse." The gap between the lines is small over a monthly horizon but widens at longer horizons.

[11] This result holds under less stringent parameters, as well. For example, plotting the worst 5th percentile returns rather than the absolute worst returns gives the same general result.

EXHIBIT 1

Average Worst Returns over Various Horizons for Local and Global Portfolios, January 1950–December 2022



NOTES: This exhibit plots, across the dimension of return horizon, the cross-sectional average worst local returns, the cross-sectional average global returns during the concurrent period of the worst local returns for each country, and the cross-sectional average worst global returns generally (i.e., not necessarily bound to the concurrent periods of worst local returns per country) across 22 countries. Local portfolio returns are expressed in real terms, adjusted for local inflation. The global portfolio represents the portfolio held by an investor who chooses to diversify globally. We use an equal-weighted portfolio of all stock market indices as our proxy for this portfolio and do not hedge foreign currency exposure. The returns to this portfolio are expressed in real terms, adjusted for the home country's inflation. Note that the real returns to this global portfolio are not the same from each country's perspective owing to differences in currency returns and inflation. Therefore, we examined 22 separate global portfolios, 1 from each of the 22 countries' perspectives. All returns are gross of fees and of transaction costs.

SOURCES: AQR, Bloomberg, CANSIM, Global Financial Data, Datastream.

People focus on the short term and crashes. These both matter, of course. But bad decades matter a lot more. Examining only crashes and not bear markets asks the wrong question and thus delivers the wrong answer. Over longer horizons, diversifying has a darn good track record of helping when it's needed most.

POINT 3: THE US'S MULTI-DECADE VICTORY IS SMALLER THAN YOU MIGHT THINK

Asness (2021) explains how valuation changes can dominate and distort historical returns over surprisingly long periods.[12] This matters because *historical* returns are often an input investors use—intentionally or not—in forming beliefs about *expected* returns.

[12] The empirical examples include the S&P 500 Index, 10-year Treasuries, the value factor, and, yes, the US equities versus "Rest of the World," which is proxied by a currency-hedged version of the developed markets EAFE Index (hedged, as the use of unhedged dollar returns of foreign equities would bring noise to a study of the impact of relative equity market valuations on relative performance). In all cases, the main sample period was 1980–2020, but for the US–EAFE comparison, it was stressed that the 1980s belonged to the EAFE (partly due to the Nikkei rally), and the post-1990 period to US equities.

The most direct, if not straightforward, way to control for this distortion is to regress returns against contemporaneous changes in valuations.[13] The intercept that comes out of this regression is the average return you would have gotten if the asset hadn't gotten cheaper or more expensive during the period in question. If you're going to form opinions off historical returns (and who among us hasn't, even if we know we shouldn't), this is a less-biased number to use.

Adding two years to the analysis from Asness (2021) doesn't change the result one bit. Since 1990, the vast majority of the US's outperformance versus the MSCI EAFE Index (currency hedged) of a whopping +4.6% per year, was due to changes in valuations. The culprit: In 1990, US equity valuations (using Shiller CAPE[14]) were about half that of EAFE; at the end of 2022, they were 1.5 times EAFE. Once you control for this tripling of relative valuations, the 4.6% return advantage falls to a statistically insignificant 1.2%.

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. Sure, 1.2% isn't anything to sneer at, but a statistically insignificant number that is nearly four times smaller than it might seem at first glance isn't something that merits a massive portfolio bet going forward.[15]

To be clear, we are not saying the 4.6% advantage didn't happen—it did happen! We are saying that our job is to think about the future, and using that full 4.6% for your future forecast is basically forecasting that the revaluation (from ½ to 1½ CAPE from 1990 on) happens again. Another way to see how the past 30-year sample might be misleading is to note that US equities actually underperformed EAFE in three of the past five decades (1970s, 1980s, 2000s), including the two decades just before our sample period began.[16]

So, what does it mean that almost all the US's victory came from repricing?[17] At a high level, there are two ways a country's equity market can beat the competition: 1) outgrow on the fundamentals or 2) outgrow on the price multiple to fundamentals (i.e., become more expensive).

The first way—winning on fundamentals—may or may not be repeatable (fundamental edges at the very least might be sticky, so they could be somewhat persistent). But, as shown here, this was hardly the case for US equities over the past 30 years.

The second way—winning simply because people were willing to pay more for the same fundamentals—is likely *not* repeatable. In other words, don't get too excited if a country wins mostly because it got more expensive. If anything, valuations have a slight tendency to mean revert, at least when they are at extreme levels. Which brings us to our next section.

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[13] Not for everything. For assets such as stocks and bonds it can be pretty useful, but for higher turnover strategies less so, as "wedges" get introduced that create noise between returns and changes in valuations. See, for example, Ilmanen, Nielsen, and Chandra (2015).

[14] CAPE is the cyclically adjusted price-to-earnings ratio derived by Robert Shiller.

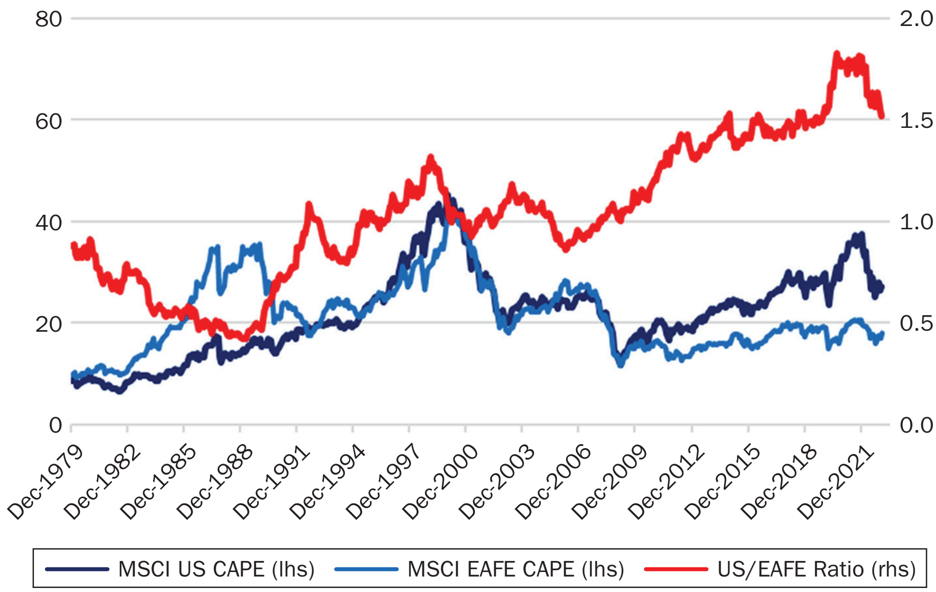
[15] Thirty-plus years is a long time, but the result holds over a more recent sample as well. From 2008 to 2022, the US outperformed EAFE by 4.7% a year, but once we control for valuations, that shrinks to 1.2% (and once again, the intercept is statistically insignificant). This recent outperformance was very consistent, as the US was ahead in 12 of those 15 years (and the edge was even larger for unhedged returns).

[16] Overall, US equities outperformed EAFE from January 1970 to end-February 2023 by 0.8% a year (currency-hedged; on an unhedged basis, the edge was 0.9%).

[17] As noted earlier, US equities outperformed non-US since 1900 by 2% a year, and this long-run edge came from faster growth. However, in recent decades, the edge mainly came from valuation changes.

EXHIBIT 2

Valuations of US and Other Equity Markets, January 1980–February 2023



NOTES: Country-level CAPE (cyclically adjusted price-to-earnings ratio) metrics are created by comparing the recent equity index price with 10-year past average earnings. The EAFE composite is created by taking country-level data and weighting it according to the MSCI weights.

SOURCE: Bloomberg, MSCI, Consensus Economics.

POINT 4: WHAT INVESTORS *SHOULD* INFER ABOUT VALUATIONS

Exhibit 2 shows that the relative valuations (using the Shiller CAPE ratio) between US and EAFE equities kept increasing through the 2010s and rose to a historic high of 1.8 in 2020–2021. The relative CAPE ratio fell in 2022 but remains extremely wide. The positive story is that the US is rich for a reason—it is indeed hard to love European or Japanese equities except for valuation reasons.[18] But valuations count. Historically, value strategies outperform, but not because they pick better companies (or here, better countries), rather because the discount/premium in the worse/better companies (or countries) was too extreme.

If investors only recall US outperformance in recent decades and do not know it is mainly due to relative richening, they may take the past as prologue and extrapolate it indefinitely—effectively acting as momentum investors at horizons where reversals are more common. Research has shown,[19] and simple economic logic would support, that countries selling at lower valuations (lower price to fundamentals) should have a higher long-term expected return.[20]

Historically, valuation-based or contrarian strategies have worked in many different asset classes, but they can also disappoint for a long time. The 2010s was a period of an exceptionally long US business expansion and bull market during which many contrarian strategies underperformed: not just country allocation but also market timing in stocks and bonds as well as stock selection. Mean-reverting forces are not

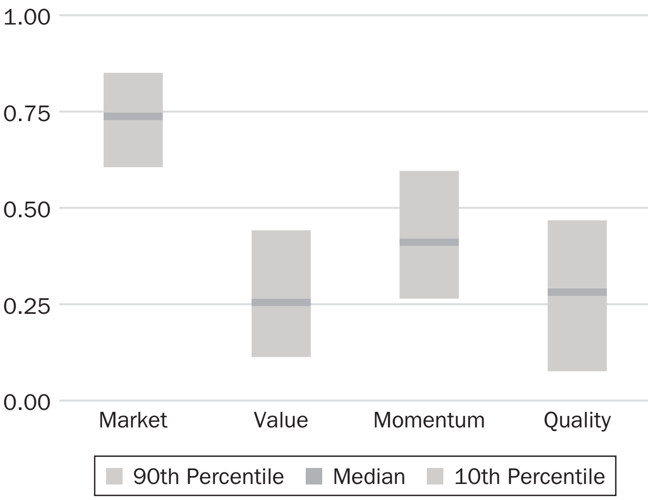
[18] We don't include here emerging markets but they look even cheaper than EAFE markets today. For further discussion, see Aghassi and Villalon (2023).

[19] See, for example, Asness et al. (1997) and Ilmanen et al. (2021).

[20] This doesn't require valuations to mean revert, either—just the "carry" component is sufficient explanation for why you might expect an expected return advantage here.

EXHIBIT 3

Correlations across Country Equity Markets, January 2003–December 2022



NOTES: Analysis covers 24 developed equity markets, using monthly returns. Results are similar using shorter, more recent windows. "Market" is the country equity market performance in excess of the risk-free rate; "Value" is the "HML Devil" factor as defined in Asness and Frazzini (2013), "Momentum" is the UMD factor based on methodology used in Fama and French (1996) and Asness, Moskowitz, and Pedersen (2013), and "Quality" is as defined in Asness et al. (2019).

SOURCE: AQR Data Library: https://www.aqr.com/Insights/Datasets.

very strong, but financial markets often eventually take any fundamental development too far, and this overreaction, which sometimes takes the form of a bubble/bust, is then followed by a correction. The relative valuations of US stocks versus EAFE or emerging markets are wide enough today that one does not need a big catalyst to start a correction. We don't know what the catalyst will be or when—China reopening? US recession?—but we like an asset especially when it has both valuation and momentum tailwinds.

It is also worth noting that the rising relative valuation of US equities over EAFE in the past decade likely means that US equities prospectively offer a lower income—a carry disadvantage even if valuations do not mean revert. In that case, the US needs either a greater growth edge than before or continued richening to offset this carry disadvantage and keep outperforming.[21]

So, at best you don't want to assume a repeat of the US victory over the past 15/30 years based on increasing multiples. There's actually a reasonable argument that the long phase of rising valuations signals the opposite.

POINT 5: ACTIVE INVESTORS SHOULD BE ESPECIALLY BIG FANS OF INTERNATIONAL DIVERSIFICATION

Up to this point, we've taken the perspective of a passive investor. But we (and we presume many of you reading) are active—and here we think the case for international diversification is even stronger.

Active management takes many forms; for simplicity, we'll focus on just a few well-known academic factors.[22] Much literature has looked at diversification across different factors,[23] but here we'll look at the same factor across different countries. In Exhibit 3, we show the distribution of pairwise correlations of 24 countries' equity markets and three long–short factors applied within those same markets.[24]

Country equity markets have offered some degree of diversification even over the short run (0.75 median correlation across markets), and we've already argued how valuable that diversification can be, particularly over the long run. But correlations among long–short factors (e.g., the stock selection value factor in one country compared with the same implementation of value in another country) are substantially lower—0.26 median correlation across countries for the value factor up to

[21] On a positive note, the sector composition in the US equity market may imply a larger share of intangibles, goodwill, and so on, that could make reported ("GAAP") earnings in CAPE understate underlying earnings (more in the US than elsewhere, given its higher tech sector weight).

[22] Obviously no "real-world" manager trades exactly these factors, but they do help explain how some well-known real-world managers have generated their returns, as shown in Brooks, Tsuji, and Villalon (2019).

[23] See for example, Asness, Moskowitz, and Pedersen (2013), Israel et al. (2018), and Aghassi et al. (2023).

[24] Data from AQR's Data Library (https://www.aqr.com/Insights/Datasets).

0.42 for the cross-country momentum factor. This is largely because long–short (truly long–short or alpha of tilts versus a long index) strategies remove the large common market-directional element. And for positive expected return risk premia, who wouldn't want lower correlations?

In addition to how diversifying these factors are across countries, they also tend to be fairly lowly correlated to equity markets themselves—that is, not only do these factors tend to be strongly diversifying to each other, they also tend to be strongly diversifying to the main risk in most investor portfolios and to macro risks.[25]

We are still in a low-expected-return environment.[26] Even after last year's repricing of stocks and bonds, expected real returns are still low by historical standards. This means any additional sources of returns, especially ones that are highly diversifying to what's already in investor portfolios, are more valuable than usual.

CONCLUSION: DOING THE RIGHT THING IS *USUALLY* HARD

Something that doesn't get talked about enough when it comes to diversification is the tension between how it looks ex ante versus ex post. A diversified portfolio that you hold today might look completely sensible; tomorrow, it will look full of mistakes. After the fact, that portfolio will almost always have lots of positions that have underperformed (even if you have more winners, you're still going to have a lot of losers).

International equity diversification has all these warts and more. For a US investor, it hasn't worked for an awfully long time.[27] For many investors, it hasn't worked in their professional careers. That's given plenty of time and fodder for a generation of commentators to explain that US outperformance is simply how the world works—and they've been given more credibility and airtime than they'd normally get.

It's hard within organizations, too. Fans of diversification have often been relegated or are gone, and many now report to somebody who has succeeded due to decisions based on the logic of "we need more US and less of everything else." Many people have only a limited capacity to take pain and lack the energy to defend a concept that's underperformed for decades from those two levels up in the organization.

But as a professional investor, this is the job. No pain, no premium.[28] Small edges—and global vs. US is a small edge—that are theoretically strong, fit common sense, and are empirical successes if viewed correctly (e.g., here that means thinking about it from each country's perspective, not knowing which one will lead next) are always hard to stick with. The long-run winning investors will be those who can do more of what's right while surviving, which admittedly isn't always an easy call.

International diversification is still worth it, even if it hasn't delivered for US-based investors in 30 years. Most of the US equity outperformance during this period reflects richening relative valuations, hardly a reason for raising or even retaining US overweights today. If anything, historically wide relative valuations point the other way.

Today is an unusually bad time to take the wrong lessons from the past. Unfortunately, rarely has doing the right thing been so hard (and it's never easy).

[25] See, for example, Figure 2 in Asness et al. (2015) and Exhibits 2 and 3 in Ilmanen, Maloney, and Ross (2014).

[26] For much, much more on this, see Ilmanen (2022).

[27] Again, we'd note that it has worked quite well for most non-US investors (obviously), and it seems really odd that people would have a permanently different opinion of diversifying internationally based on what country they are in.

[28] Corey Hoffstein's great mantra.

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