Sound Thinking

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Hold the Mayo!

How home country bias can spoil your lunch

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Identifying your own biases is hard – correcting for them harder still. When it comes to investment this matters a lot, because there are going to be periods of time when the biases you have will produce good results, and human nature will enable you to use those periods as justification for those biases. In this piece, I'll look at home country bias, which is one of the most prevalent biases many of us suffer from, and suggest a way to think about it that might help keep it under control.

My mother-in-law's difficult relationship with mayonnaise

I love my mother-in-law. She's been a fabulous grandma to our children, she spends a lot of time with us helping out (which allows me more time to go on dates and trips with my beautiful and supportive wife, Heather), and she's missing the flaws that comedians would suggest I should be complaining about. Despite all that, she does suffer from one baffling lapse in judgment: she simply can't abide mayonnaise[1]. I'm not talking about a simple dislike – more a complete and total physical repulsion. In fact, when we come home from a trip where grandma's been babysitting, the odds are high that the perfectly good pot of Best Mayonnaise that was sitting in the refrigerator will have vanished because "I thought it was out of date".

Now let's be clear, this is a minor flaw as these things go, with no serious implications for anything important. But there's an interesting result that this bias caused: my wife (who is a professionally trained chef with a wide-ranging palate) didn't realize that she actually liked mayonnaise until well into her late teens. She'd always been told she wouldn't like it, she'd never been around it, and she didn't consider trying it. Since trying it that first time, that attitude has changed completely, and she is now completely on the right[2] side of the "mayonnaise is disgusting / delicious" argument.

In investment terms, my wife had taken a view that she had established as a fundamental prior (mayonnaise is disgusting), and had shifted to a matter of opinion (Mom doesn't like mayonnaise– but I think it's delicious). Why was her view towards

1. *Unless it's in potato salad, at which point I guess it suddenly becomes delicious. I don't claim to understand the logic, though I'm sure it's there.*
2. *I do recognize some of the readers of this note may not yet have seen the light on this important issue — and promise to pray for your enlightenment…*

mayo a fundamental prior? Because the environment during her childhood was one where that negative opinion was unquestioned and the person telling her it was someone she trusted. On top of that, there was evidence that could be interpreted as backup for that view – look at all the food that was delicious and that didn't contain mayonnaise!

From mayo to macro

We're all subject to similar biases in the way that we think about investments, and often for no better reason than the one outlined above. The topic that I want to concentrate on today is one of the most prevalent: the problem of home country bias.

Home country bias is quite simple to describe, but can be hard to conquer. It is the common bias towards holding overweight positions in a portfolio of assets that are more domestic to the investor than would normally be justified using a blind, dispassionate investment approach. It's most commonly thought of as an equity phenomenon and that's what we'll focus on in this piece, although it can appear elsewhere.

How can you spot home country bias in portfolios? A good starting point is simply comparing the neutral weights in the policy documents and strategic portfolio construction process against what you could think of dispassionately as a neutral position. When investors hold more of their domestic market than would otherwise be justified they are displaying home country bias – if their portfolio construction approach is more like a true neutral position they are avoiding that bias.

What is neutral?

Of course, you can't spot a bias of this type unless you have something to measure it against. What's the best approach to do that?

At Verus we've long believed that the right starting point for measuring a market is the nature and structure of the market itself. That's not always easy to do[3], but for equity markets it is, at least roughly. We believe that there is such a thing as the global equity risk premium, and that there is a global market for equity, at least in the large cap space. There are global equity benchmarks easily available, and these represent the whole of the equity market. A little over 50% of these benchmarks are made up of U.S. equity – in other words about half of the global equity market is from the U.S. market. An allocation that matches these weights, then, would probably be a good definition of neutral.

That would make a portfolio with about 50% of its equity exposure in U.S. equity one that exhibits no home country bias, and a portfolio with more than 50% of the equity allocation[4] in U.S. stocks one that suffers from home country bias.

3. *For example in currency markets and fixed income markets. In both cases there are possible solutions that we'll be talking about with our clients in the coming months: with currency, the rise of benchmarks that calculate something roughly like the beta behavior of those markets, and with fixed income a general approach to building fixed income portfolios that, where possible, aligns mandates with risk drivers within those portfolios rather than using over-board benchmarks and combining that with generous acceptance of large off-benchmark bets..*

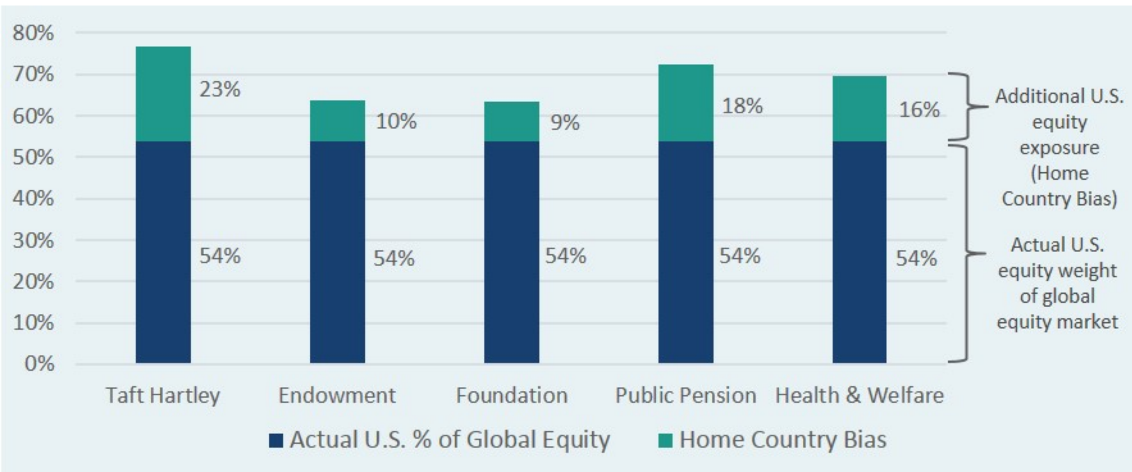
4. *In fact, nearly 54% at time of writing, but the point is the same.*

One thing to note. I'm not suggesting here that we should formally switch to using global equity benchmarks per se. While this may be right for some investors, others may prefer the separation of domestic and international for a range of reasons. Instead I'm simply looking at the relative weights of the allocations to domestic and international, whatever benchmarks are being used to describe them[5].

Everyone's doing it!

When we compare typical portfolios to this metric it becomes clear that most investors in the United States have a strong domestic bias. When we look at the InvestorForce universes by client type we can see how much this happens.

EXHIBIT A – MEDIAN U.S. EQUITY EXPOSURE (% OF TOTAL EQUITY EXPOSURE)



Source: InvestorForce, as of 12/31/16

In this chart, we provide a simple illustration of the magnitude of home country bias: the total U.S. equity allocation that the median portfolio in each universe holds (both bars), broken down into the true market capitalization weight of U.S. (blue bar) and the percentage of home country bias (green bar). It becomes very clear that the effect we are talking about is significant – especially when you realize that these figures are the average portfolio. Put another way, half of the Taft Hartley universe has an allocation within their equity portfolio of more than 77% to the U.S., compared to the 54% allocation within the equity portfolio they would have if holding at market weights. While the numbers are lower in other universes, they are all very large. Positions of this size really matter at the total portfolio level, and they are likely to have a material effect at both the risk and return level of the outcome.

So why might this be? Are there any good reasons for this bias?

5. *It is reasonable to adopt a global benchmark, and this may help solve some of the problems we're discussing in this piece, but it's by no means necessary for the outcome we're looking for.*

There's no place like home

There are several good reasons that investors might make a decision to allocate more to their domestic market. To understand how to think of them we should try to determine whether each of those reasons are investment reasons or if they have an alternative justification.

— **My liabilities are in my home country. My assets should be too.**
The goal of the asset portfolio is to make sure the liabilities can be met, to provide growth of the assets to meet that goal, and to provide enough of a cushion against a range of possible eventualities to ensure that the goal doesn't get diverted by chance events. It's possible that these goals will be made easier by a domestic bias in the asset portfolio – but it's also possible that they will be hampered. If the domestic economy hits a significant road-bump a sponsor may have to reduce contributions or fail altogether – having a domestic bias increases the chance that the same domestic turndown would cause significant losses in the asset portfolio, doubling up the risk.

— **I don't want currency risk in the portfolio. Staying domestic avoids that.**
There are a lot of different ways to manage currency risk – many cheap and effective. Simply avoiding non-domestic exposures is a rather radical way to do so. To come back to our mayonnaise analogy, it's a little like avoiding scrambled eggs because there are eggs in mayonnaise.

— **I'm worried about peer risk.**
Peer risk is a coherent concern – after all fiduciary standards tend to focus on what reasonable people in the same circumstance would do, and that will generally involve looking at what peer organizations do. It likely should be part of the discussion, though, rather than the core driver of the total allocation policy. The fact that all of one's peers have a significant overweight to the domestic market may make it hard to take a different position, but we should do all that we can to make sure that these decisions are made explicitly rather than backed into.

— **I believe in the U.S. economy and I want to capitalize on its strength**
This is a totally reasonable view. The United States is the most powerful market in history, and has a huge range of strengths that make it a superb destination for investment capital. The people are smart, the societal systems are robust, the legal system is as effective as it is mocked, and the markets are deep. As a foreigner who is proud to be a Permanent Resident of the United States I can hardly object. But at heart this is an investment argument – that the U.S. equity markets will outperform other markets – not a "starting point" argument. We should measure investment arguments based on how well they perform relative to a neutral position, rather than allow them to alter that neutral. We'll cover this in the next section.

— **I want to support the U.S. economy and U.S. workers**
This is also entirely reasonable, and may be a particular concern for labor organizations and public pension funds. Making sure that the capital designed to provide secure retirements is also used to bolster the local economy may be an acceptable focus of these organizations – but such a decision should be taken clearly by the board, and where possible the effects of

such a decision should be measured. It's perfectly possible that the effect will be positive, not negative, but if possible boards should understand what that effect is, rather than just being in the dark.

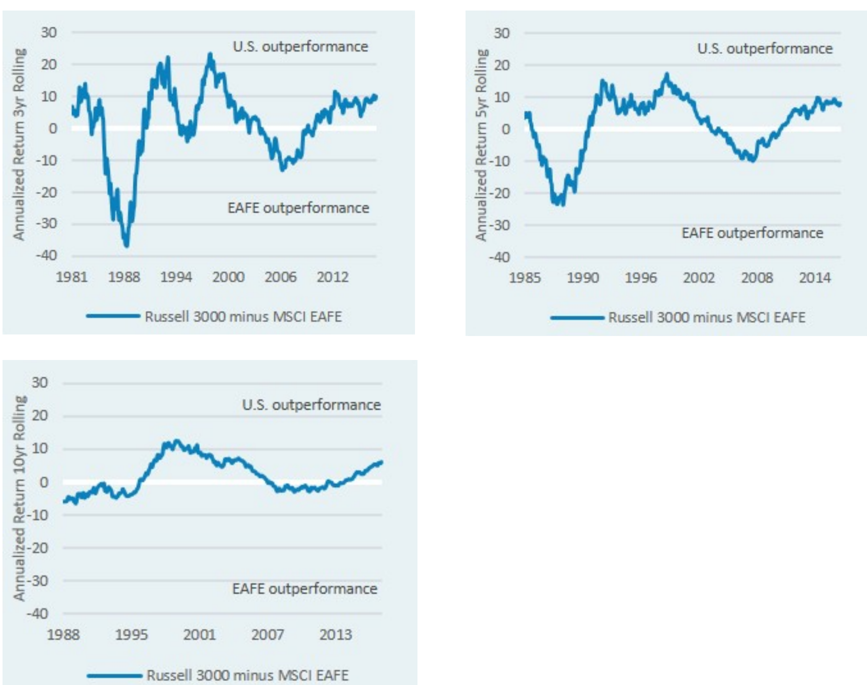
All of these possible reasons have some good sense behind them, then, but I would argue that most of them are reasons for ***sometimes ending up with*** an over-allocation to domestic assets ***as an investment decision*** rather than an argument for an inherent and strategic overweight to domestic assets.

But it works!

One of the arguments above can be very powerful – that for long periods of time an overweight to the U.S. market has been a more effective investment strategy. Is this true? To investigate this I asked my colleagues in Strategic Research to run some simple charts to track the effects of the average overweight.

We begin by looking at the most simple analysis. What was the rolling performance difference between the U.S. and Non-U.S. equity markets? The charts below show this data on a range of different periods.

EXHIBIT B – HOME COUNTRY BIAS PERFORMANCE



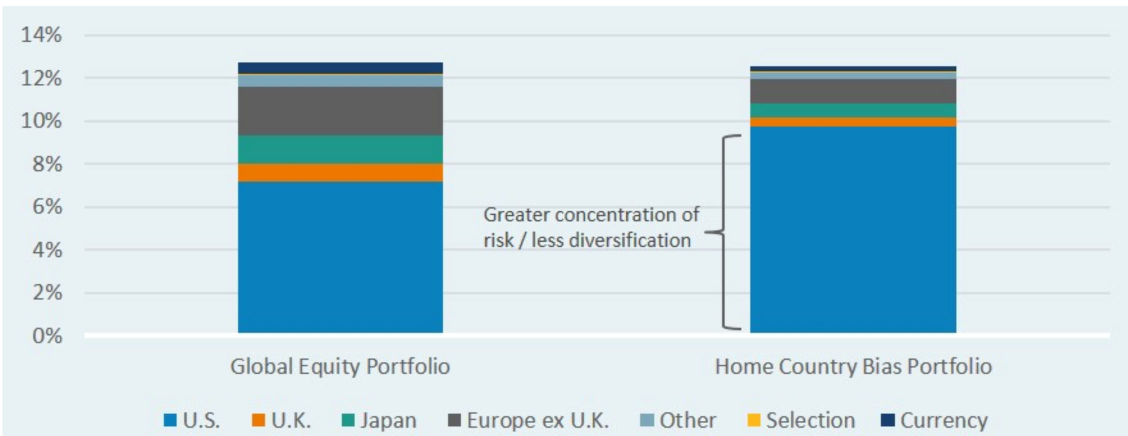
Source: Russell, MSCI, as of 2/28/17

What's clear from these charts is that there are differences, and that while these differences do change over time with some degree of cyclicality, there are long periods where there has been a strong cumulative effect in favor of a U.S. equity bias and there are long periods when this approach resulted in losses. On a rolling 10-year basis the U.S. equity market produced cumulative outperformance for the whole period from the mid-1990s to the late 2000's. However there were plenty of periods on a three and five year rolling basis where a home country bias would have hurt a U.S. investor. What would those investors have done as a reaction to that result?

The key here isn't that having a home country bias has been a tailwind for U.S. investors – for some time periods it has, for some it hasn't. Behaviorally, of course, this pattern causes a problem. Our brains will often anchor on the successful periods to show that "this was the right decision", while dismissing the periods where the decision had negative impact as "just a temporary glitch"[6].

We can also examine the effects of home country bias through a portfolio risk lens. The charts below illustrate the greater concentration of risks associated with this positioning and the accompanying tracking error relative to the true global market capitalization equity portfolio.

EXHIBIT C – RISK DECOMPOSITION – HOME COUNTRY BIAS



Source: Barra, Verus, as of 3/28/17 – "Home Country Bias Portfolio" is defined as a developed equity portfolio with a 20% overweight position to U.S. equities

6. *For proof of this behavior ask the next five people you meet at a cocktail party about their investment portfolio. You'll discover that you know a remarkably talented group of investors who never make a wrong call. It's even possible they'll find the same thing about you...*

EXHIBIT D – RISK TILTS

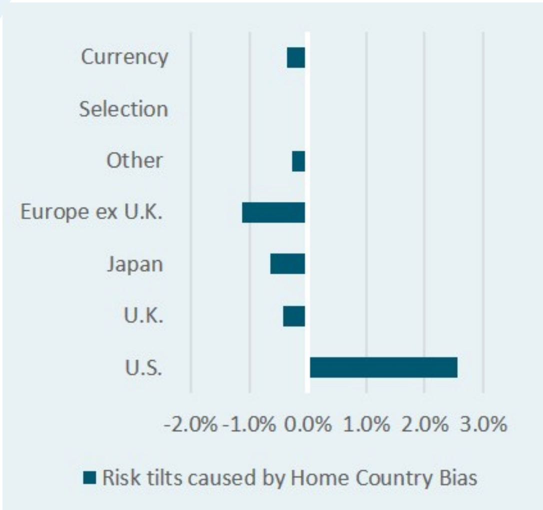
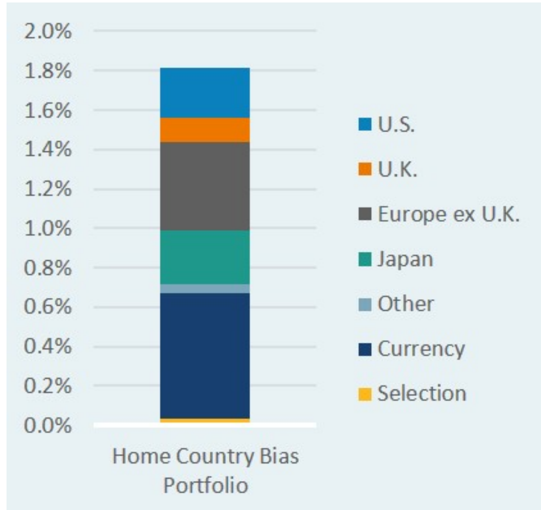


EXHIBIT E – TRACKING ERROR



Source: Barra, Verus, as of 3/28/17 – "Home Country Bias Portfolio" is defined as a developed equity portfolio with a 20% overweight position to U.S. equities

What really matters is that we understand these overweights correctly. So how should we do that?

A bet is a bet

So far we've seen that home country bias is a major part of many investment portfolios, that there may be good reasons for that bias, but that those reasons are mainly of a type that makes this over-weighting an investment decision rather than a strategic "neutral" one. This train of thought might help us find a way to more effectively understand what we're doing when we make these overweights.

I suggest that the best way of thinking about these decisions is to separate the "neutral bet" decisions from the "over-weight home" decisions.

— The "neutral bet" decisions impact our strategic portfolio construction, and serve as a benchmark and policy framework for our portfolio: at this level, we should always use an approach that includes equity markets at their true weights (effectively a global equity portfolio).

— The "overweight home" decisions are the result of quite a different thought process, and are driven either by investment reasons or for policy reasons. In each case, we should understand the impact on the total portfolio of these decisions, and assess the decision on that basis.

By doing this we separate what the market gives us from the decisions we make. This doesn't necessarily mean that we need to dial back an over-allocation to domestic markets: there are many reasons why we might want that exposure. What it does mean, though, is that we correctly understand that over-allocation is a specific decision that we've made, and we recognize this decision has investment consequences. It will change the risk and return dynamics of the portfolio, and it may have long term investment consequences. The fact that those consequences have often been good isn't a reason to assume that they'll always be so. By making an allocation of this type we're making an investment bet, and often a very large one. We should recognize that.

Back to the refrigerator

I began this piece in the kitchen, so I'll come back to where I started. Just as my wife was raised in an environment where the fundamental prior was strongly against mayonnaise, we have all been raised in an environment where we're comfortable with our domestic markets, and where an overweight to those markets (relative to the global markets) is a normal and assumed phenomenon. The simple fact of thinking about the decisions we're making in a different way might well, if tried, change our mind about these allocations. Even if it doesn't change our allocations, a clearer way of thinking about the implications of those allocations may help us have a better understanding about the bets we're actually taking when we build portfolios. If we choose to overweight our domestic markets we should do so with thought, and with an understanding of the likely effects of that overweighting.

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Mr. Toner has a degree in Law from the University of Oxford in the United Kingdom and is a CFA charter holder (Chartered Financial Analyst). He is a regular author and speaker on a range of investment topics. He is a member of the CFA Institute and the CFA Society of Seattle. Mr. Toner is a trustee of Charles Wright Academy, an independent co-educational school based in University Place, WA, where he also sits on the finance and endowment committees. He is also a board member at the Seattle Metropolitan Chamber of Commerce, where he co-chairs the finance & audit committee. He has been married to his wife, Heather, for nearly 25 years, and is the proud father of two children.

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