HOME COUNTRY BIAS
WHY IT CAN UNDERMINE RETIREMENT PORTFOLIOS

EXECUTIVE SUMMARY
When it comes to defined contribution (DC) investors and their equity portfolio allocations, the numbers tell an intriguing story.

DC participants devote 82% of their entire equity allocation to U.S. stocks.

As a result, participants overallocate to U.S. stocks by 33%.

Such a home country bias arises when investors turn to the tried-and-true equities. But what DC investors might not recognize is that sticking mainly with U.S. stocks can actually increase portfolio risk and simultaneously reduce returns.

The remedy for this situation: more global equity exposure. By adjusting their portfolio balances more toward global equities, DC investors also increase diversification, which can potentially increase returns by offering more exposure to fast-growing segments of the global economy.

Today, plan sponsors can help their participants strike a more appropriate balance by providing:
- **Access** – to global equity markets within the investment menu
- **Education** – to participants about the importance of diversification – and the potential pitfalls of a home country bias
- **Re-enrollment** – into target date funds, which often have a greater weighting to equities outside the United States than typical portfolios
**DC Equity Allocations**

DC plan participants overallocate to U.S. stocks, a phenomenon known as “home country bias.” In fact, the Northern Trust DC Tracker suggests participants hold 82% of the equity portion of their DC portfolios in U.S. equities. A home country bias can lead to suboptimal portfolio allocations with higher risk and lower returns. Although recent market conditions favored maintaining a higher allocation to U.S. equities, there are fundamental reasons to avoid this home country bias as a rule when looking forward, which we highlight in this research.

Since so many people rely on their DC accounts as the primary vehicle to fund retirement, asset allocation should allow for diversified, risk-efficient, long-term ways to grow account balances. There are at least two approaches that offer more-efficient stock allocations:

- Market-weighting based on global stock market capitalizations, and
- Geographic revenue weighting using geographic revenue sources.

Both methods result in a higher allocation to non-U.S. stocks that should benefit participants over the long run by introducing greater portfolio diversification and the potential for greater returns.

**Defining the Bias**

Our 2013 DC Tracker revealed that DC participant portfolios exhibit a home country bias, with only 18% of their equity allocation invested outside the United States. This compares to a 51% representation of non-U.S. equities within the MSCI All Country World Investable Market Index, a key index representative of the global equity market. The difference between the market weight of 51% and DC participant portfolio exposure of 18% to non-U.S. equities implies a 33% overweight bias toward U.S. stocks on a market-weighted basis. The bias jumps to 54% when measured against geographic revenue weighting.

**Calculating the Home Country Bias**

<table>
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<tr>
<th>Proxies by Which to Compare</th>
<th>DC Participant Actual Allocation</th>
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<tbody>
<tr>
<td>By Market Weight</td>
<td>By Geographic Revenue</td>
</tr>
<tr>
<td>U.S. Equity Allocation</td>
<td>49%</td>
</tr>
<tr>
<td>International (Non-U.S. Equity Allocation)</td>
<td>51%</td>
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Geographic-revenue home country bias (toward U.S.) = 54%

Market-weight home country bias (toward U.S.) = 33%

Sources: 2013 Northern Trust DC Tracker; Northern Trust Five-Year Outlook: 2014 Edition; MSCI
RE-THINKING “INVEST IN WHAT YOU KNOW”
Home country bias exists for several reasons. Behavioral economics and psychology show that people are more comfortable with the familiar and tend to heed the adage, “invest in what you know.” Negative headlines regarding accounting standards, corporate governance, government intervention and liquidity in developing nations may fuel investor discomfort. It’s important to note that the bias could also stem from the emphasis placed on U.S. stocks over international equities. According to the Plan Sponsor Council of America, a typical DC plan offers nearly three times more U.S. equity funds than international ones. With relatively few international options from which to choose, it’s not surprising DC participants would have an overweight in their portfolio. This partly is due to the fact that indices and investment strategies focused on overseas markets are relatively new. For example, the Dow Jones Industrial Average™ Index for U.S. equities was first calculated in 1896. In contrast, the MSCI Emerging Markets Index, one of the most widely followed developing world indices, was not created until 1988.

However, U.S. investors saving for retirement might do well to look past the familiar U.S. equity benchmarks and toward overseas markets, especially those in developing nations that are expected to outperform domestic U.S. markets over time. Here are some reasons behind this forecast.

MODERNIZATION
Modernization of governments and private industries since the early 1990s fostered freer cross-border trade and allowed some previously export-dependent nations to establish their own internal markets. This had a material impact on the world economy. For instance, in 1988 emerging markets represented 1% of the world equity market capitalization. By 2013, that figure had increased to 11%.

CATCHING UP
As international markets, especially developing nations, continue to modernize their internal economies, it is likely their share of the global economy will continue to increase. The International Monetary Fund (IMF) projects that the combined share of global gross domestic product (GDP) for the most populous emerging market countries – China and India – is set to balloon to almost 40% by 2030 from 24% in 2011.

Let’s consider where the U.S. economy and equity markets stand relative to the rest of the world.

Biased Proportions
The U.S. share of the global equity opportunity set is disproportionate to its population and economy, as measured by GDP. The United States represents 5% of the world’s population and 23% of its GDP, but it accounts for nearly half of the global equity opportunity set. In striking contrast, the developing world (including emerging markets and frontier markets) accounts for 70% of the world’s population and 37% of global GDP – but only 11% of the global equity opportunity set.
A LOOK AT THE GLOBAL DISPROPORTIONS

<table>
<thead>
<tr>
<th></th>
<th>Global Equity Market</th>
<th>Global GDP</th>
<th>Global Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>49%</td>
<td>23%</td>
<td>5%</td>
</tr>
<tr>
<td>Developing World*</td>
<td>11%</td>
<td>37%</td>
<td>70%</td>
</tr>
</tbody>
</table>


*Developing world includes emerging markets and frontier markets

Biased Growth

What could cause these proportions to change? The United States is considered a developed market because it has some of the highest levels of infrastructure, standards of living and financial market development in the world. Meanwhile, developing countries are playing catch-up. This leads to three consequences. First, developing nations have more low-hanging fruit at their disposal. For example, while the United States already has one of the most sophisticated transportation systems in the world, many emerging nations are just now building ports and highways for more efficient transportation of goods. The gains from improvements to basic infrastructure reverberate through a country’s economy more readily than higher-level changes. Second, because developed nations already experimented with different development strategies, developing nations have a historical roadmap of policy examples from which to choose. Finally, the developing world can skip some stages in development altogether. For instance, unlike the United States where there is a bank seemingly on every corner, large portions of Africa lack the brick-and-mortar infrastructure and instead access banking services through mobile platforms. In fact, three quarters of the countries that use mobile banking most frequently are located in Africa.10

We can see these trends reflected in real (inflation-adjusted) GDP growth rates from 1970 through 2014. Whereas the U.S. average increase was 2.8% during this period, the developing world experienced average growth of 5%. These growth differentials are even more striking after compounding.

A COMPARISON OF HISTORICAL GROWTH RATES

Source: Northern Trust; USDA Economic Research Service
While there may be short-term fluctuations, we believe these trends will continue in the medium- to long-term. According to the IMF, real economic growth in the United States is expected to be 3% per year over the next five years, while the equivalent projection for some parts of the developing world is much higher: 7% for China, 6% for emerging Asia ex-China and 5% for Africa and the Middle East. As a consequence, Northern Trust expects U.S. equity markets to return 7% per year in the next five years, while the emerging market equivalent is 9%.1

These growth rates should not be considered in isolation because that would ignore one of the most important benefits from expanding beyond the U.S. equity allocation: diversification. Broadening the equity allocation to more international jurisdictions not only increases the probable return profile but also potentially lowers the risk profile. This is because one nation’s equity market gains may offset a different country’s negative equity market performance.

CHOOSING A WEIGHTING STRATEGY
While there may not be a “right” way to determine global equity allocations, there are many good reasons why investors should consider either a market or geographic revenue weighting.

WEIGHTING ALTERNATIVES TO ADDRESS THE BIAS

Market Weighting

The market weight is a weighted average of the dollar value of global equity markets. As you can see in the market weight pie chart, the U.S. dominates by market capitalization, with 47% of the market. Efficient market hypothesis suggests markets are efficient in the long run, where efficiency implies that security prices reflect underlying value. Market participants who successfully spot and profit from divergences in price and value should survive in the long run and help the market remain an efficient pricing mechanism over time. Thus, any deviation from market weights is an active bet that the market is not pricing securities efficiently.

Geographic Revenue Weighting

Geographic revenue weighting is based on geographic sources of revenue regardless of firm domicile and is an investment theme we recognize as "asset classes without borders." The goal of this approach is to better align stock allocations to economic output. Whereas the United States accounts for nearly half of the world’s market capitalization, it accounts for 28% of the global weights by sources of revenue – and even less when measured by GDP. On the other hand, while emerging markets account for 13% of the world by market capitalization, these countries account for nearly a third of the world when measured by GDP or by sources of revenue. When viewed from this perspective, exposure to emerging markets becomes increasingly important. For instance, according to the Organization for Economic Co-operation and Development, China’s share of world GDP is expected to balloon to 28% by 2030 from 11% in 2011. Because geographic revenue weighting is a relatively recent concept, it is transitioning from theory to practice as its real track record is still being established, with MSCI’s 2012 launch of its Economic Exposure Indices providing a step in that direction.

WHICH WEIGHTING?

When choosing a global equity weighting, there are several considerations to review. Given the long-term nature of DC plan investments, we believe using a market-weighted approach is the more appropriate choice. It is easily implemented through a time-tested benchmark such as the MSCI All Country World Index (ACWI). In addition, this methodology has transitioned from theory to practice with a proven track record as investors have accessed global equity markets using market-weighted indices for several decades.
YOUR ACTIONS. THEIR OUTCOMES.

Today, plan sponsors can help their participants overcome the downside of home country bias by providing the following:

1. **Access to Global Equity Markets**

   Work with your record-keeper or consultant to review your investment menu. Does it foster a better balance between U.S. and international equity options? To gauge the extent to which your participants may overallocate to U.S. equities, you should consider the following question: Does the plan offer enough investment options to ensure participants can avoid the bias?

   If your menu does not have a global equity option, consider adding one that uses a broad investment strategy benchmarked to an index like the MSCI ACWI or the MSCI ACWI Investable Market Index (ACWI-IMI), which also includes small-cap equities in developed and emerging market countries.

2. **Education About Home Country Bias**

   Perhaps participants are not aware they are displaying a home country bias. Or, they may intentionally choose to overallocate to U.S. equities, unaware of the adverse effects.

   - Identify those participants who exhibit a bias and make them aware of their asset allocation – and the diversification benefits they could achieve if they adjusted their asset mix to include non-U.S. equities.
   - Ask your record-keeper or investment managers if they have content that can be used to educate participants about the longer-term advantages of a more globalized allocation to equities.

   Raising the awareness level and providing education about the benefits of a more globally diversified asset mix will help empower participants to make better asset allocation decisions.

3. **Re-enrollment into a qualified default investment alternative (QDIA)**

   For many plan participants, inertia is sometimes too powerful a force to overcome. One way to turn this into an advantage is by implementing re-enrollment into your plan’s QDIA, which often includes multi-asset class strategies, such as target date funds. These options offer participants professionally managed solutions that may incorporate more globally diversified equity exposure, minimizing potential home country bias.
HELPING PARTICIPANTS

In today’s DC environment where individuals increasingly are responsible for their own investment outcomes, asset managers, consultants and plan sponsors must empower them to make better investment decisions. This includes helping DC investors overcome their reliance on U.S. stocks and adopting allocation strategies that provide broader, deeper exposure to non-U.S. stocks, preferably using a market-weighted approach. Reducing home country bias in their retirement portfolios may produce more optimal asset allocations and potentially improved retirement outcomes.

ENDNOTES

1, 2 Northern Trust’s Defined Contribution Tracker. Northern Trust, December 31, 2013. The DC Tracker serves as a barometer for participant flows within a universe of 85 DC plans, representing $190 billion, a subset of the total DC assets managed or serviced by Northern Trust.
3 Plan Sponsor Council of America 56th Annual Survey of Profit-Sharing and 401(k) Plans.
4 Dow Jones Industrial Average™ Fact Sheet.
5 MSCI.
6, 9 Northern Trust “Point of View,” International Completion Strategies, 2010.
8 Wessel, David, En Garde, “WSJ.Money” interview with International Monetary Fund Managing Director Christine LaGarde (May 2013).
12 Towers Watson (Global Pension Asset Study 2014) (January 2014).

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