

# Globalization of Equity Policy Portfolios

## A Fresh Look at Strategic Asset Allocation from a U.S. Investor Perspective

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Globalization is an irreversible process, not an option.<sup>1</sup> It has been a driving force of economic and financial integration. In recent decades many trade barriers and tariffs have been decreased or eliminated, foreign direct investments have continued to increase year over year, companies are increasingly producing and selling products abroad, a financial accounting standard has been adopted across more than 100 countries, and capital markets worldwide have become more accessible and efficient for foreign and domestic investors alike.

However, most investors—including U.S. investors—have yet to embrace a global approach in equity allocation. Instead, many maintain a strong home bias and strategic preference for domestic equities. Higher allocation to domestic equity relative to its share in the world portfolio is a bet on domestic equities. The best investment opportunities, however, are not necessarily found in the domestic market. For example, moving from a U.S.-only equity universe to a global equity universe triples the opportunity set.

Although home bias in equity investing is still prevalent among U.S. investors, recently a number of large and leading U.S. pension plans have been considering global equity as a single strategic asset class and lowering home bias in equity allocations.

### An Evolution of the Market Portfolio

The potential benefits of global investing are grounded in empirical evidence as well as in modern portfolio theory,

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particularly in the capital asset pricing model (CAPM), which is based on the diversification benefits of investing in the broadest possible global market portfolio (Markowitz 1952). In its original form, CAPM suggested that all investors hold a combination of the risky market portfolio and cash, depending on their risk tolerance (Sharpe 1964; Lintner 1965). The market portfolio—which was defined as a combination of all risky assets imaginable, including equities, fixed income, human capital, etc.—was neither observable nor investable, but proxies for the market portfolio were developed. In the United States, investors used the S&P 500 and later the broader Wilshire 5000 as an investable proxy for the market portfolio.<sup>2</sup>

Meanwhile, academic research has grown to support the case for international investing and extending the domestic CAPM to an international portfolio (I-CAPM) (Adler and Dumas 1983; Solnik 1977; Stulz 1981; Wheatley 1989). According to I-CAPM, in an efficient and integrated world capital market, the global market portfolio would replace the domestic proxy for the market portfolio, implying that

domestic allocations should not exceed the relative country share in the global market portfolio. Since the mid-1970s, this global market portfolio had been represented by the MSCI World Index, which at that time covered approximately 60 percent of the market capitalization from 20 developed-market countries, including the United States.

In the late 1980s, as more investors extended their equity opportunity set beyond developed markets and started investing in securities from emerging markets, the MSCI ACWI Index, which included 23 developed markets and 25 emerging markets, started replacing the MSCI World Index as the proxy for the global market portfolio. Beginning in the late 1990s, global investing underwent further transformation as investors saw the benefits of investing in international small-caps and broadening their opportunity set to the overall international market. Now some investors are looking at broad global indexes such as the MSCI ACWI IMI index, which covers approximately 99 percent of the global investable opportunity set, as a proxy for the global market portfolio.



The theoretical premise of I-CAPM is based on the existence of a fully integrated capital market. Historically, financial market segmentation arose from restrictions on capital flows and ownership of domestic companies, and other differences in treatment between domestic and foreign investors. Although some of the market inefficiencies still exist today, globalization has significantly reduced many limitations that resulted in market segmentation in the past.

### The Foundations of Globalization

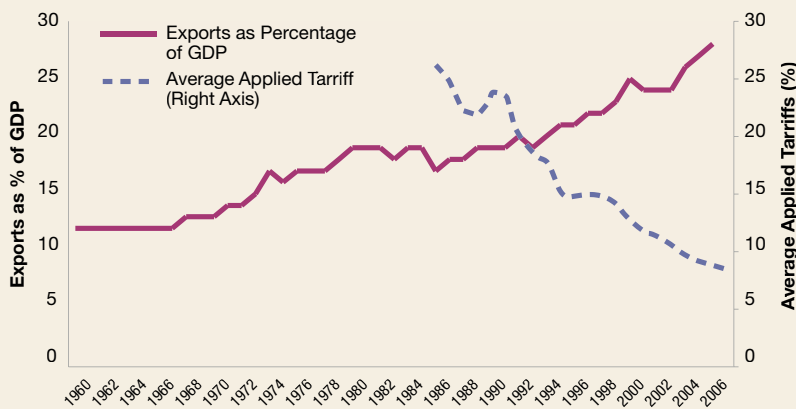
Globalization has been transforming economies and financial markets worldwide. Structural reforms, free-trade agreements, and wide-scale liberalization have allowed companies to compete for business and resources globally, supported by increasingly interconnected financial centers. The spectacular evolution of international trade has been a catalyst and an effect of the integration of economies around the world.

Figure 1 illustrates how world exports (for 142 countries) as a percentage of global gross domestic product (GDP) have nearly doubled in the past 20 years. This increase in world exports was made possible as countries removed trade barriers and opened their economies. Figure 1 also shows one of the results: Average tariffs in the world (for 169 countries) declined from 26.3 percent in 1986 to just 8.8 percent in 2007.

As the importance of foreign business grew, many companies moved from being exporters to setting up full-scale operations to take advantage of opened economies. Others shifted production sites to take advantage of lower costs or sought access to supplies of natural resources.

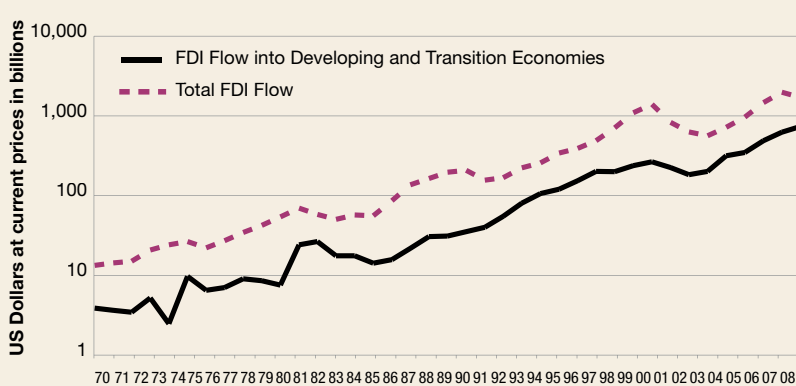
This move by companies outside their home countries is illustrated by the trend in foreign direct investment (FDI). Figure 2 shows how incoming FDI worldwide, and in developing economies in particular, has been growing over recent decades, albeit subject to global investment cycles.

**FIGURE 1: WORLD EXPORTS AS A PERCENTAGE OF GDP AND AVERAGE TARIFFS IN THE WORLD**



Source: World Bank

**FIGURE 2: FOREIGN DIRECT INVESTMENT: TOTAL FLOWS AND FLOWS TO DEVELOPING ECONOMIES**



Source: UNCTAD

As a result of these fundamental transformations in the world economy and in the way companies operate in it, it is today difficult to separate companies from their global footprints. Table 1 shows the percentage of foreign sales versus total sales and percentage of foreign assets of the countries in the MSCI World Index. Table 1 shows that an investor who buys domestic equities in any of these countries takes on significant international exposure.

The increased integration of economies and markets globally has resulted in a shift in the balance of economic weights from developed economies to developing economies. Table 2 details the relative contribution to World GDP

of developed and developing economies by focusing on the 10 largest economies. Based on U.S. Department of Agriculture (USDA) projections, in 20 years the BRIC nations (Brazil, Russia, India, and China) will be among the top 10 economies in terms of nominal GDP, highlighting for U.S. investors that growth is elsewhere.

### Current Approaches in Equity Allocation

In a multi-asset-class portfolio, the policy objective of equity allocation is generally to maximize asset growth. Figure 3 demonstrates that over the past 40 years, and despite two major market crises in the past 10 years, the



**TABLE 1: FOREIGN SALES AND ASSETS AS A PERCENT OF TOTAL SALES AND ASSETS FOR MSCI WORLD COUNTRIES**

Country	Foreign Sales as Percent of Total Sales	Foreign Assets as a Percent of Total Assets
Australia	33.1%	14.1%
Austria	57.9%	21.4%
Belgium	22.9%	32.0%
Canada	36.7%	34.1%
Denmark	43.9%	7.8%
Finland	71.5%	31.7%
France	48.1%	27.8%
Germany	57.4%	9.3%
Greece	15.4%	17.0%
Hong Kong	52.9%	23.3%
Ireland	79.2%	62.3%
Italy	36.0%	18.9%
Japan	27.7%	15.9%
Netherlands	56.4%	36.0%
New Zealand	33.2%	26.9%
Norway	41.1%	30.1%
Portugal	34.9%	24.9%
Singapore	60.6%	34.6%
Spain	35.9%	30.7%
Sweden	67.9%	60.2%
Switzerland	52.2%	70.6%
United Kingdom	55.9%	33.5%
United States	32.2%	9.8%

Source: MSCI Barra, Worldscope. Data as of May 31, 2009.

cumulative return of equities has been higher than that of a global bond portfolio, although with higher volatility.

Historically, given the large weight of U.S. public equity markets in the global equity opportunity set, investors traditionally have allocated a higher proportion of money to U.S. public equities while investing a smaller proportion to international equities. However, the U.S. share of global equities has declined since 1970, as shown in figure 4. The share of the U.S. equity market within the MSCI World Index declined from around 70 percent in 1970 to 48 percent by August 2009 (and to 42 percent of MSCI ACWI).

The top 200 U.S. defined-contribution plans in 2009 in aggregate allocated 83 percent of their assets to U.S. equities while U.S. equities had a market capitalization weight of 43 percent in the global opportunity set, as measured by MSCI ACWI. This gap implies an active bet on U.S. equities. This pattern of investment behavior, where investors allocate a smaller share of their portfolios to foreign assets relative to their actual weights in the global opportunity set, is known as “home bias.” Over time more investors have started concluding that the arguments supporting home bias are less valid and have slowly reduced the home bias in their equity allocations.

Table 3 shows how the share of international equities has remained relatively small within the total equity allocation for the 200 largest U.S. defined-contribution pension plans.

What have been the arguments for keeping a disproportionately high allocation in domestic equities? The three most common are the following:

- International markets are hard to access.
- Domestic equities are a better match for domestic liabilities.
- International equities are more risky due to currency risk.

With respect to the first argument, accessibility to international capital markets generally has improved. For example, today investors can gain exposures to interna-

**TABLE 2: TOP 10 GDP WEIGHTS: PAST, PRESENT, AND FUTURE**

Rank	1987		2008		2030*	
	Country	GDP Wt	Country	GDP Wt	Country	GDP Wt
1	United States	30.1%	United States	26.7%	United States	22.8%
2	Japan	16.2%	Japan	9.1%	China	15.5%
3	Germany	6.6%	China	6.3%	Japan	5.2%
4	United Kingdom	4.9%	Germany	6.1%	Germany	4.3%
5	France	4.5%	United Kingdom	4.8%	India	4.2%
6	Italy	3.9%	France	4.6%	United Kingdom	3.7%
7	Canada	2.3%	Italy	3.6%	France	3.3%
8	Brazil	2.1%	Canada	2.6%	Brazil	2.6%
9	Spain	1.8%	Spain	2.5%	Russia	2.4%
10	Russia	1.7%	Brazil	2.3%	Italy	2.3%

\* Projected Source: World Bank, U.S. Department of Agriculture



tional markets through index funds and exchange-traded funds that track these markets but are listed on U.S. exchanges. Also, for some companies investors can purchase American Depositary Receipts (ADRs) that are shares of foreign companies denominated in U.S. dollars and are listed and traded on major U.S. exchanges.

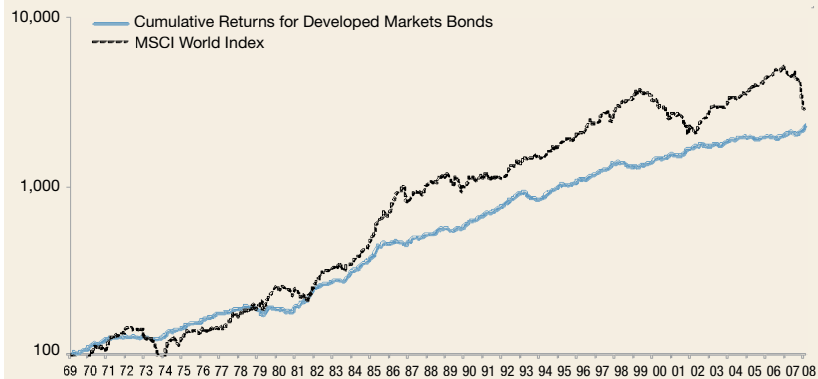
With respect to the second argument, some have maintained that a higher allocation to domestic assets provides a better hedge for domestic liabilities. While the long-term-growth nature of equities also may provide some hedge—versus inflation for example—equities are not the relevant asset class for cash-flow liability matching. For liability matching, domestic fixed income may be a more suitable asset class. Because asset growth is the main objective of equity allocation, biasing an allocation toward the domestic market may come with potentially huge opportunity costs. Table 4 provides the correlations of U.S., non-U.S., and fixed income to a pension liability index. Both U.S. and non-U.S. equities exhibited very low correlations with pension liabilities, indicating that both are equally unsuitable as a short-term hedge for growing pension liabilities.

The third argument for home bias is the supposedly higher risk of international equities because of currency movements. The currency risk for equity is time-dependent. The long-term hedged and unhedged non-U.S. equity performance for U.S. investors has been quite similar, validating the argument that prices of cross-border real assets tend to equilibrate over time.

Table 5 shows how, over the past 40 years, replacing a U.S.-only portfolio with a fully global equity allocation reduced volatility over the long run, even with no currency hedging.

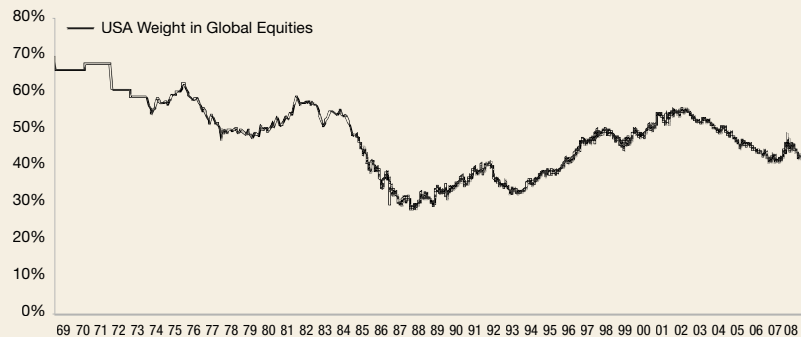
Most institutional investors today make a currency-hedging decision once they have defined the relevant investment universe. Therefore the discussion of currency risk does not affect the

**FIGURE 3: CUMULATIVE RETURNS OF GLOBAL EQUITIES AND BONDS: DECEMBER 1969–AUGUST 2009**



Source: MSCI.  
 \* The cumulative returns for developed market bonds are constructed using the long-term government bond yields for 10 countries from the Organization for Economic Co-operation and Development (OECD).  
 \*\* MSCI World until 1987, MSCI ACWI afterward.

**FIGURE 4: U.S. WEIGHT IN GLOBAL OPPORTUNITY SET, DECEMBER 1969–AUGUST 2009**



Source: MSCI Barra. The U.S. weight represents the market capitalization weight of the MSCI USA Index in the MSCI World Index until 1987 and its weight in the MSCI ACWI Index since then.

**TABLE 3: TOP 200 U.S. DEFINED CONTRIBUTION PLANS AGGREGATE ALLOCATION TO U.S. AND NON-U.S. EQUITY**

	2009	2008	2007	2006
Proportion of U.S. Equity in the Global Equity	83%	84%	83%	86%
Proportion of Non-U.S. Equity in the Global Equity	17%	16%	17%	14%

Source: Pensions & Investments

decision about how to allocate between domestic and nondomestic equities.

**Toward an Integrated Global Equity Investment Process**

The increased integration of economies and markets is causing some institutional

investors to view global equity as the relevant market portfolio, and they are considering eliminating or reducing home bias in their equity allocations.

A globally integrated equity approach that uses the global market portfolio as the natural starting point



**TABLE 4: CORRELATIONS OF PENSION LIABILITIES WITH EQUITIES AND BONDS (JANUARY 1995–MAY 2009)**

	MSCI ACWI ex USA IMI Index	MSCI ACWI IMI Index	MSCI USA IMI	Citigroup U.S. Govt. Bond 7–10 Yr.
Correlation with Pension Liability Index	0.10	0.09	0.09	0.71

Source: MSCI Barra, Citigroup. Note: The pension liability index is represented by Citigroup Pension Liability Index.

**TABLE 5: LONG-TERM RETURN AND VOLATILITY OF U.S.-ONLY AND GLOBAL PORTFOLIOS**

	Annualized Return	Annualized Volatility
MSCI USA	9.3%	15.6%
MSCI ACWI*, unhedged	9.5%	15.1%
MSCI ACWI*, hedged	9.0%	14.3%

\* MSCI World Index until December 1987. Annualized return for the period from 1969 to August 2009.

for equity allocation is theoretically sound and practically viable. It contemplates the entire global investment opportunity set to take advantage of diversification benefits from exposures to different geographical regions, market segments, sectors, and currency movements. It acknowledges that deviation from market weights represents an active decision that needs to be made on the basis of a clear investment responsibility.

For a passive approach, a global equity policy benchmark that captures the global opportunity set provides the basis for efficient investment vehicles to capture the global market beta.

For an active approach, funds that focus on the entire global equity universe may provide greater alpha opportunities for active managers, who may benefit from increased breadth.

Global equity funds are neither the only solution nor necessarily the best solution. Investors may prefer regional funds, for example, if they want to be in a position to make active tactical decisions by varying the exposures of the portfolio relative to the global equity universe benchmark.

**Conclusion**

Globalization has brought about a major rethinking of equity investment. Thought leaders in the industry are questioning the merit of existing equity allocation practices and are increas-

“ Thought leaders in the industry are questioning the merit of existing equity allocation practices and are increasingly looking toward integrated global equity investment. ”

ingly looking toward integrated global equity investment. The domestic/non-domestic approach to equity investing may have been built on the grounds of segmented economies, high levels of foreign investment restrictions, and heavily domestically focused companies, but its validity is challenged by a changing and more-integrated global equity landscape. Traditional arguments supporting home-bias equity allocation are less defensible; an integrated approach to equity investing may be the next stage in the evolution of investment processes and a natural consequence of globalization. 

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**Endnotes**

<sup>1</sup> Former U.N. Secretary General Kofi Annan (September 1999), <http://www.un.org/documents/ga/docs/54/plenary/a54-358.htm>.

<sup>2</sup> The S&P 500 is a market capitalization weighted portfolio of the United States' largest stocks and covers approximately 75 percent of the U.S. equity universe. The Wilshire 5000 index is the broadest index for the U.S. equity market, measuring the performance of all U.S. equity securities with readily available data. See Tito (1974) for more information.

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