

The North–South Divide: *Perspectives on Global Diversification*

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To describe socioeconomic and political divisions around the globe, we often oversimplify by splitting the world into two parts—one developed and the other emerging. The developed economies comprise countries and markets that are mature and wealthy, have moderate risk, and are sometimes called the North as they happen to be more concentrated in the northern hemisphere. The emerging economies, called the South, comprise countries and markets that are less developed, often have booming growth and higher investment risk, and are more generally concentrated in the southern hemisphere. Although the usual definition of north and south is geographical, the primary distinction examined in this article is investment behavior and its consequences—what we may call the great North–South divide between investors.¹

Investors in the North have portfolios that concentrate on developed markets, with a bias to the home market and small allocations to emerging markets. In contrast, investors in the South typically have portfolios that concentrate on the home market and related emerging markets, with smaller allocations to the developed markets. This pattern is one of “like investing in like,” with relative optimism for the home market and without full appreciation of the benefits of global diversification. Is this investing pattern optimal?² What assumptions are implicit

in this investment behavior? How will this pattern evolve?

Any investor should, at the least, have the goal of keeping pace with the performance of the average investor worldwide and should compare the returns of his portfolio with the returns of the average global investor, rather than with a local peer group. Investors who hold either the North or South portfolio, relative to a truly global portfolio, have a risk of underperforming the average investor worldwide and falling behind their current relative-wealth positions. This article compares the expected performance of typical North and South portfolios with the portfolio of the average global investor.

DEFINING THE NORTH AND SOUTH PORTFOLIOS

The equity portfolio of the average investor worldwide may be approximated by the MSCI All Country World Index (ACWI).³ The MSCI ACWI is a market-capitalization-weighted index portfolio spanning the U.S., World ex-U.S. (22 developed markets), and Emerging Markets (25 markets) indices. This article focuses on the equity portfolio, because equity returns usually drive the performance of the total portfolio. In addition, the greatest potential benefit from international diversification is derived from investing in global

equities. The MSCI ACWI is not a perfect measure of the average equity investor worldwide because it does not capture private equity, frontier markets, and non-traded assets. Further, the MSCI ACWI is not presumed to represent an optimal (mean-variance-efficient) allocation in an absolute sense. But given the broad scope of the MSCI ACWI, it is used in the analysis as a proxy for the average global investor. Some investors use this index as a benchmark for asset allocation and as a basis for hiring mandates, although it is more common for investors to set an asset allocation policy that separately weights the local and regional components of the index. In the latter case, investors are explicitly or implicitly betting on a portfolio that differs from the equity portfolio of the average global investor.

Exhibit 1 illustrates a simplified view of the portfolio of the average global investor (proxied by the MSCI ACWI) with the average allocations to equity markets in the U.S., Japan, China, Chile, and other developed and emerging markets.

Exhibit 2 shows examples of portfolios characteristic of North and South investors.⁴ The examples of North portfolios are the average equity portfolios held by large, defined benefit pension plans in the U.S. and Japan. Portfolios of these investors are evolving, but they show an average bias to the home market, with underweights to

other developed markets and emerging markets. Almost all portfolios of U.S. and Japanese investors show this bias to varying degrees. Similar biases are present in the portfolios of typical investors in the U.K., Canada, Australia, and the developed markets of Europe.

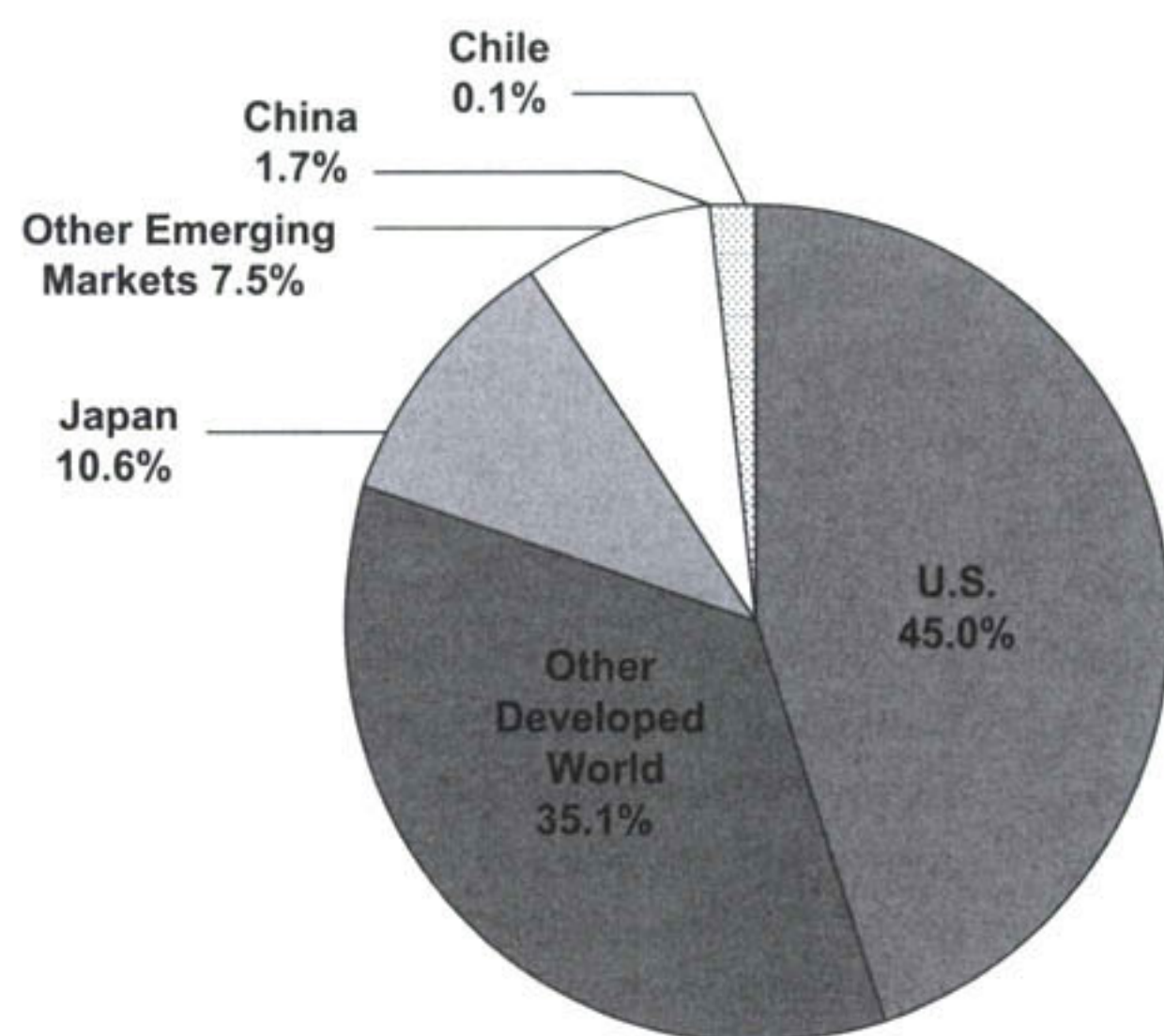
Examples of South portfolios, also shown in Exhibit 2, are the typical equity portfolios held by investors in China and defined contribution plan participants in Chile (Administradoras de Fondos de Pensiones, or AFPs). The situation in China is at an early stage of development so only rough estimates are possible. Most investors in China are only allowed to invest in the local markets, while the State Agency for Foreign Exchange (SAFE) and the China Investment Corporation (CIC), the two largest institutions in China, invest entirely outside of the local markets. The Chilean pension system was privatized in 1981 and is held up as a positive model of a responsible social security system that has been emulated across Latin America, with the notable exception of Brazil where a defined benefit system predominates. Regulators have limited the allocations to foreign investments in most South portfolios, so that investors holding South portfolios have asset allocations with a substantial home-country bias as well as a bias to other emerging markets. The same biases are present in many typical portfolios throughout Latin America and other parts of the developing world.

Exhibit 3 contrasts the biases implicit in North and South portfolios relative to the average global investor and highlights the magnitude of the overweight bias of the North portfolios to their home markets and to developed markets in general. Even more stunning is the magnitude of the overweight bias of the South portfolios for their home markets and, in the case of Chile, to other emerging markets. The comparison of biases in North and South portfolios reflects considered tilts in the portfolios that may be viewed as opposing active bets to outperform the portfolio of the average global investor.

Not surprisingly, both North and South investors face some resistance to increasing their allocations to foreign equities. South investors are typically constrained by government-regulated investment limits on foreign securities. Both asset managers and regulators in these countries are aware of best practices in portfolio construction and contribute to an active debate about the pace at which portfolio limits should be liberalized by regulators. The key considerations are safeguarding investors from volatility in their portfolios associated with international securities and managing the macroeconomic impacts of

EXHIBIT 1

Average Global Investor's Equity Allocation, December 31, 2008

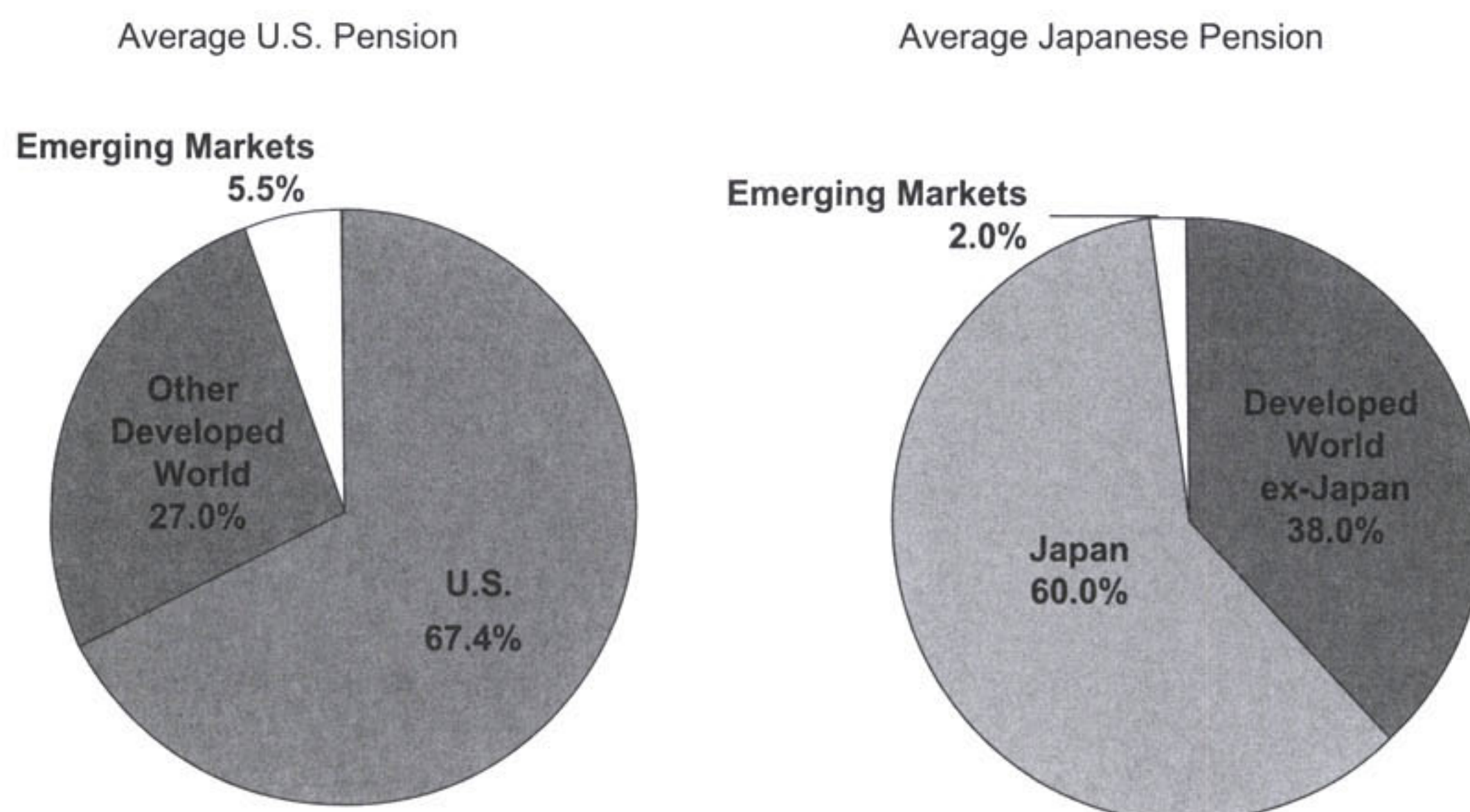


Source: MSCI.

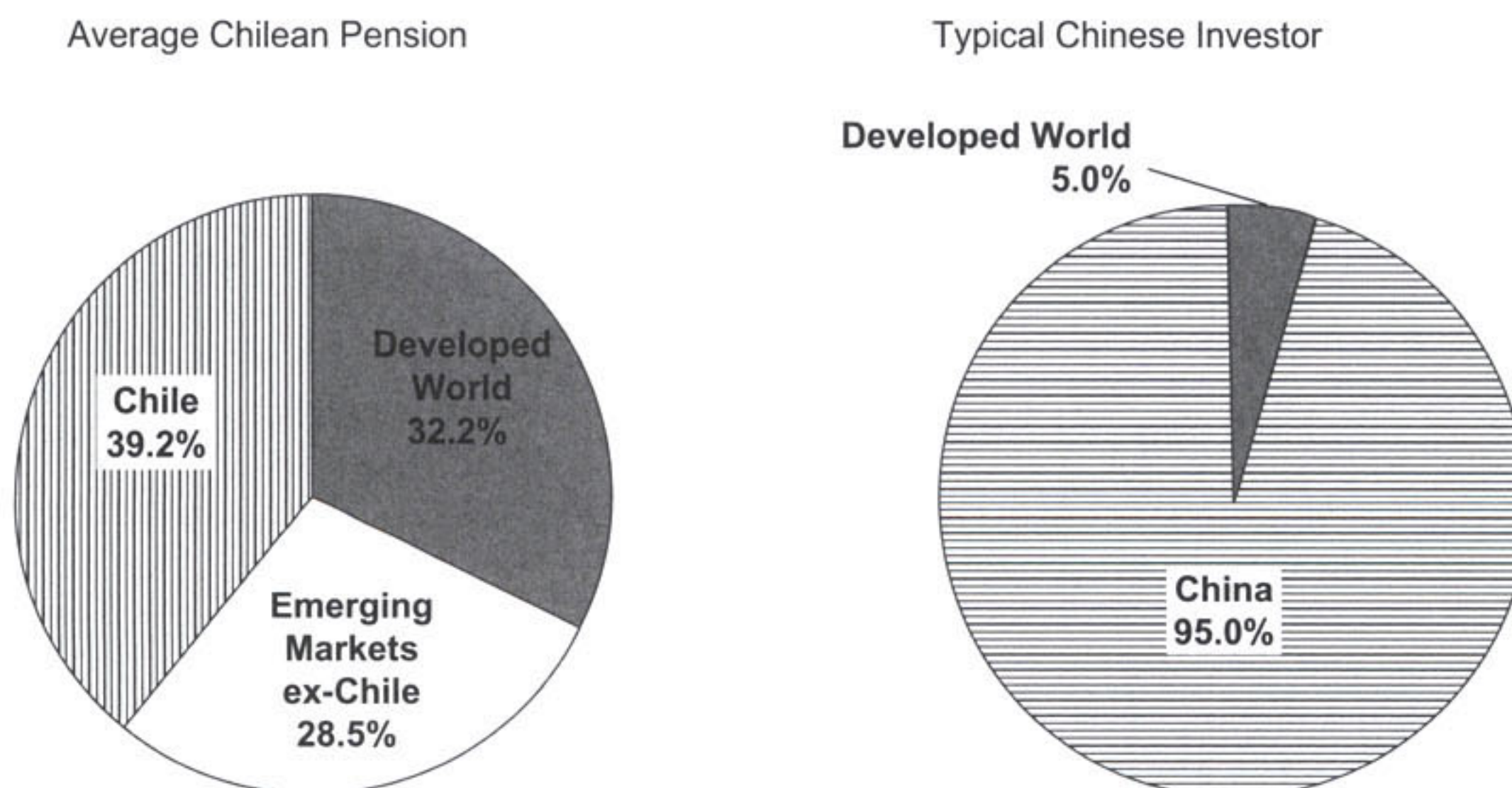
EXHIBIT 2

Equity Allocation of North and South Portfolios

THE NORTH



THE SOUTH



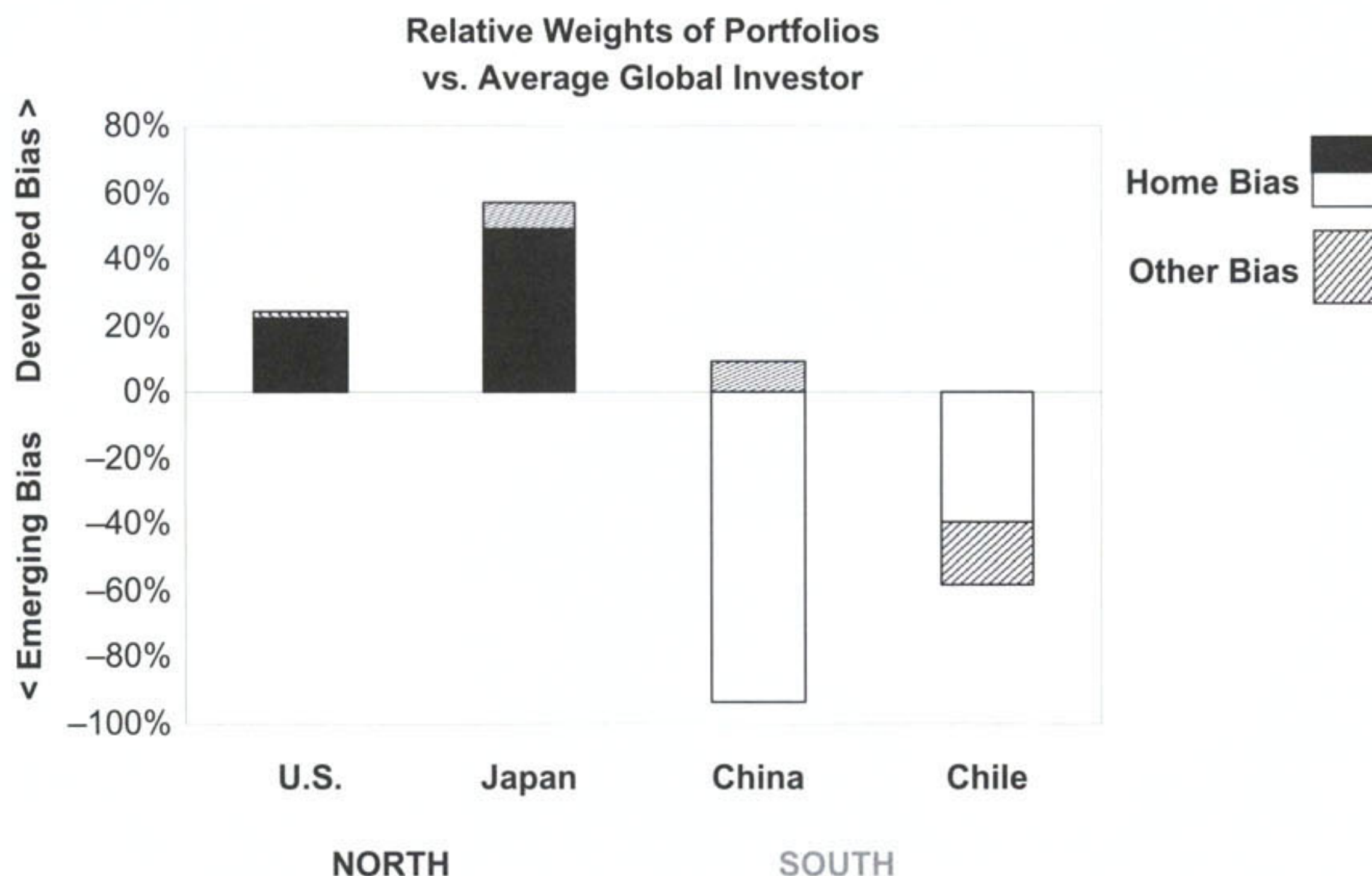
international investing. The macroeconomic impacts of liberalizing international investing restrictions include controlling capital outflows, managing foreign-exchange-rate volatility, and nurturing the development and stability of the local capital markets. (See Roldos [2004] for a more detailed account of the impact of pension reform and investment constraints on the capital markets of emerging economies.) Since 1997, Chilean regulators have been

gradually releasing constraints on foreign investments. This pattern has been followed by other regulators in the region, including Argentina (before the recent nationalization of its pension system), Peru, Colombia, and Mexico.

A barrier for North investors is concern about fat-tail events associated with extreme downside returns from periodic crises in emerging markets.⁵ Therefore, North investors who are more risk averse have resisted adding to

EXHIBIT 3

Biases Implicit in Equity Allocations of North and South Portfolios



these exposures in their portfolios. Nevertheless, looking beyond periodic crises in emerging markets, many institutional investors in the U.S. are carefully considering larger emerging market allocations, including an increasing interest in frontier market equity (the so-called deep South), a market sector that is growing rapidly, although it remains only a small percentage of world market capitalization.

Regardless of the rationale, the current biases inherent in North and South portfolios are sources of investment performance differences relative to the average global investor that may be considered as positive or negative excess return over any period. Estimates of performance differences depend on the asset class expected return and covariance assumptions used by the financial analyst. See the appendix for an explanation of asset class assumptions used in the examples.

The most subjective assumption, and the most critical one, is the long-term expected return spread between emerging and domestic markets. Historically, the return of the emerging markets equity index has exceeded the developed markets by approximately 2% to 3% per year over the last two decades, but with a high degree of volatility. The forward-looking spread is estimated to be approximately 2%, although many investors in emerging

markets argue enthusiastically for a greater differential to reflect the higher long-term economic growth prospects in emerging markets. This critical estimate drives the expected return differential of North and South portfolios, while the risk and correlation assumptions determine the volatility of excess return relative to the average global investor.

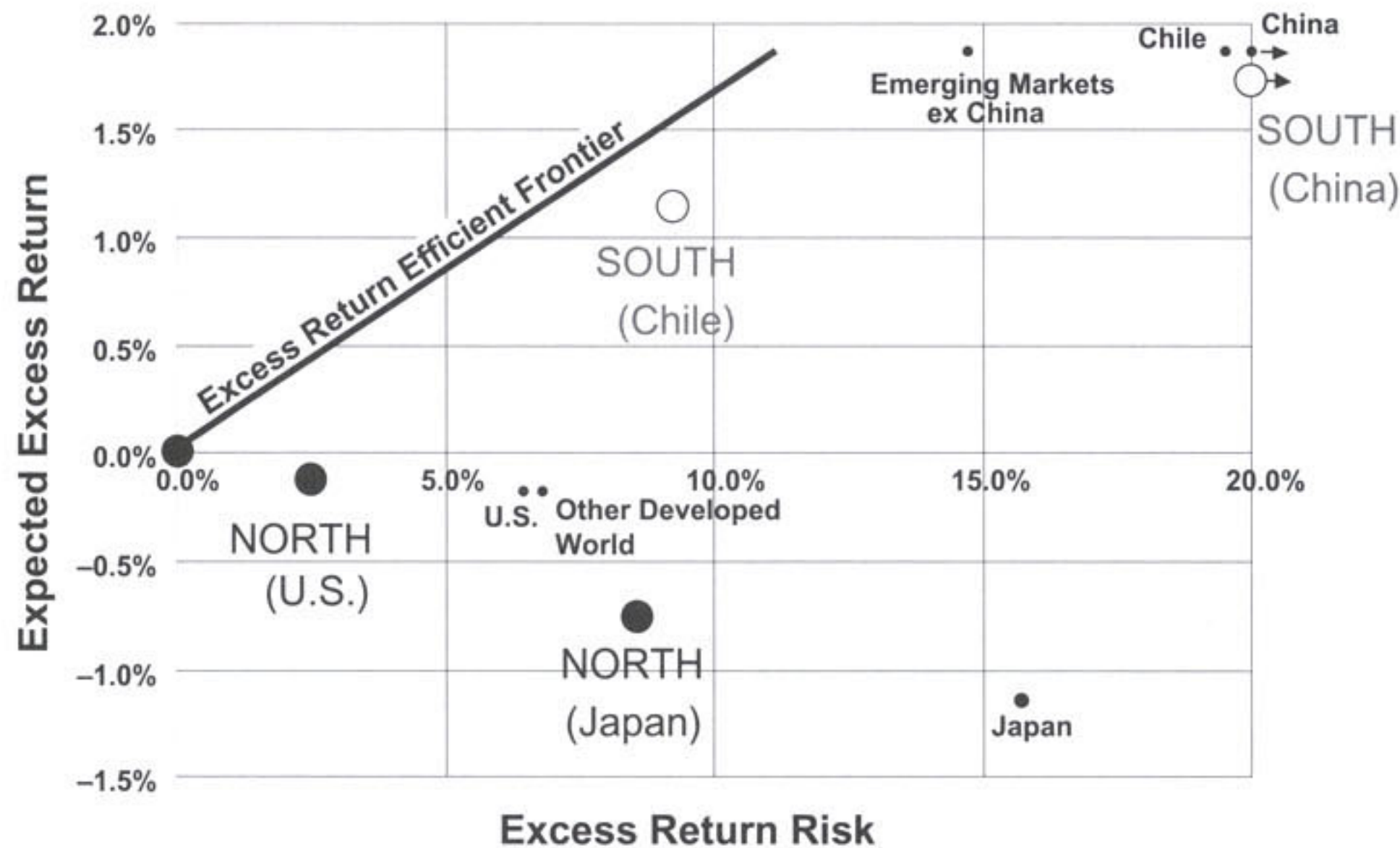
Presumably, North and South investors are holding their portfolios intending to optimize performance. But how much assurance can an investor have that the goal of outperformance will be realized?

TOWARD MORE EFFICIENT GLOBAL PORTFOLIOS

Exhibit 4 shows the approximate placement of North and South portfolios in excess-return space relative to the average global investor. The exhibit is similar to the familiar efficient-frontier space, but, in this case, expected excess return (return relative to the MSCI ACWI benchmark) and excess-return risk (volatility relative to the MSCI ACWI benchmark) is measured rather than total return and total risk. North investors (U.S. and Japan), having negative excess return and moderate excess-return risk, lie in the southwest section of the exhibit, and South

EXHIBIT 4

Expected Performance of North and South Portfolios



	Expected Excess Return	Excess Return Risk	1-in-10 Downside Return
NORTH (U.S.)	-0.11%	2.36%	-3.14%
NORTH (Japan)	-0.72%	8.21%	-11.24%
SOUTH (Chile)	+1.15%	9.02%	-10.41%
SOUTH (China)	+1.73%	26.28%	-31.95%

investors (China and Chile), having positive excess return and high excess-return risk, lie in the northeast section of the exhibit. The exact placement of the North and South portfolios is uncertain because of sensitivity to asset class assumptions, but the placement of the average global investor at the origin is not subjective. The return of the average global investor matches the MSCI ACWI by our definition, thereby eliminating the chance of underperforming that benchmark—zero expected excess return and zero volatility of excess return.

An optimization of excess return generates an excess-return efficient frontier, the set of all portfolios that maximize the expected excess return for a given excess-return risk. Whereas the average global investor's portfolio lies on the efficient frontier by default, both the North and South portfolios are positioned away from it and are therefore inefficient. The North portfolios lie substantially below the active efficient frontier with a negative expected excess return, while the South portfolios lie to the right of the frontier with a very high level of risk relative to the global

benchmark. Efficient portfolios on the frontier have return-risk performance that improves upon the North and South portfolios with an asset allocation that is more balanced in the direction of the average global investor's portfolio. For example, a higher expected excess return than can be obtained with the North portfolio is possible at the same level of excess-return risk by increasing the North's allocations to foreign developed markets and emerging markets. Likewise, moving toward the frontier from the South portfolios implies a higher allocation to developed markets and a reduced allocation to the local market and other emerging markets.

Investors' views (forecasts) on the expected returns of developed and emerging markets are implicit in the current holdings of North and South portfolios. In order to argue that any one of these portfolios is efficient, substantial adjustments to the expected return assumptions of the portfolio would need to be made so that the portfolio would sit on, or even close to, an efficient frontier. South investors would need to believe that the expected return

for their local market would exceed the expected return for the average global investor by 10% or more per year over the long run. North investors would need to believe that the developed markets would outperform emerging markets by 2.5% to 5.0% per year over the long run in order for the North portfolios to lie on the efficient frontier. These hypothetical assumptions appear unrealistic. Further, the opposing views of the investors cannot both be right. From this point of view, investors not claiming special insights ought to move their portfolios toward the excess-return efficient frontier to avoid inconsistency.

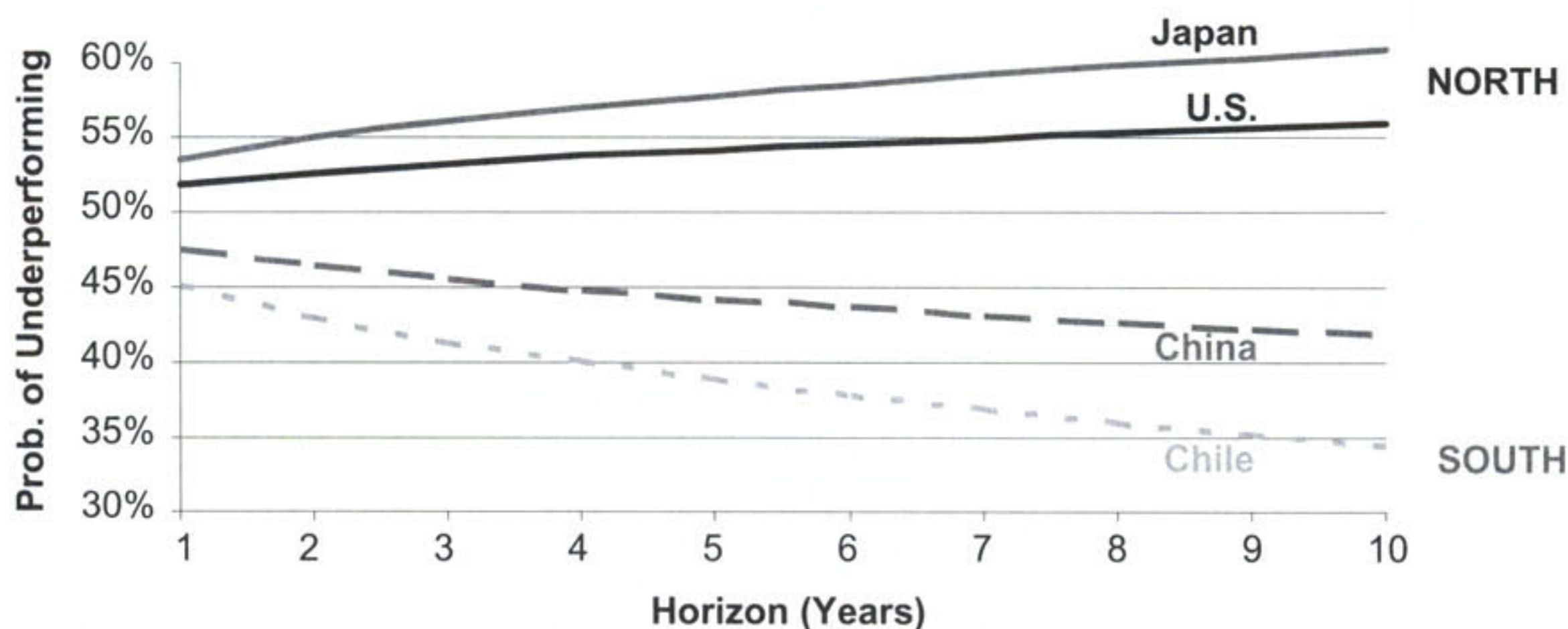
Another critique of North and South portfolios is based on the likelihood that they will underperform the average global investor over various horizons. Exhibit 5 shows that the probability of underperformance for the North portfolios increases over time; it is more than likely, although uncertain, that typical U.S. and Japan portfolios will underperform over any time frame. For the South portfolios, the chance of underperformance is less than 50/50 in any one year. The probability of underperformance decreases over time because the South portfolios' asset allocation is slanted toward higher expected return markets but a material risk of underperforming remains, depending on the investment horizon. A typical investor in China is more likely to underperform than an investor in Chile. Although the China portfolio's expected excess return is slightly higher than that of the Chile portfolio, its excess-return risk is substantially higher, resulting in a higher probability of underperformance over any horizon. Further, as shown in Exhibit 5, there is substantial volatility

year to year, with a 1-in-10 chance that the Chile and China portfolios will underperform by 10% and 32%, respectively, in any one year. These estimates assume that the probability distribution of returns is normal, and thus do not account for the additional risk of extreme events (fat tails) noted earlier.

The question of currency hedging strategy arises in connection with an increase in foreign holdings subject to foreign exchange risk. The comparison of North and South portfolios on a fully hedged basis has focused on the differential investment returns associated with geographic market diversification, separate from the effects of currency exposures. This is consistent with best practice because it is possible to separate the global diversification decision from the currency exposure decision by employing currency hedging strategies. For example, Black [1989] derived a universal hedging formula that, based on the present example, suggests an optimal hedge ratio of approximately 55% of foreign exposures, assuming global market equilibrium and no hedging costs. Strategies that are not fully hedged imply slightly greater risk for investors while reducing the marginal cost associated with hedging; in practice, investors will set the ideal trade-off between the cost of hedging and the reduction in foreign exchange risk. If foreign exchange risk is assumed to be approximately 8% per year (consistent with historical data), then the net increases to excess return volatilities are approximately 0.5% to 1.0%, if unhedged, for the North and South investors, compared to the fully hedged volatilities presented in Exhibit 4.

EXHIBIT 5

Probability of Underperforming the Average Global Investor



These illustrations should influence North and South investors (and regulators) to reassess their asset allocation policies. Whatever the rationale behind these contrasting portfolios, it appears that neither side can be certain to have “the right answer.” Over time, both North and South investors should, and will, change their assumptions and their asset allocations as both groups of investors are able to observe the differences in the realized performance of their respective portfolios. If not, investors should justify why they are maintaining the status quo in light of this compelling evidence. Considerable progress has been made over the last decade, with U.S. institutional investors reducing home allocations from approximately 80% to 67%, and Chilean funds from 90% to 40%.⁶ Further, investors around the world are increasingly interested in exploiting the benefits of global active mandates even when the asset allocation policy reflects home-country and other biases. As investors converge to more global benchmarks, active portfolios that blend regional and global managers will be viewed even more favorably.

CONCLUSIONS

The disparity between North and South portfolios signifies a high level of uncertainty about the relative performance of regional markets. North–South differences in views, investment constraints, and the practice of simply following the peer group are all responsible for biases in the construction of equity policy portfolios. A considerable divide in North–South expectations exists and may become a chasm in investment realizations if this pattern persists.

Both North and South investors face a material chance of underperforming the average global investor. North and South investors should also consider the degree of period-by-period volatility in their portfolios’ performance—avoiding a rocky path to a final outcome may be just as important as seeking higher expected returns, depending on risk preferences and investment horizons.

For these reasons, we expect that North and South investors’ portfolios will continue to converge toward more-balanced global asset allocations over time. Investors are implementing skillful active management with global mandates in combination with regional mandates, even in advance of the convergence

of North–South investment policies. The evolution of investment policy toward more-global benchmarks and the use of skillful active management will help investors decrease their chances of underperforming the average global investor and, in so doing, narrow the North–South investment divide.

APPENDIX

Asset Class Assumptions

For purposes of asset allocation, investment managers and consultants estimate expected return assumptions for asset classes to represent consensus views of long-run equilibrium returns. The estimates are based on a synthesis of historical data, a build-up from factor risk premiums, and imputed expected returns from relative market values, as described in Sharpe [1974]. However, Grinold [1996] points out the limitations of Sharpe’s reverse-optimization technique when dealing with international assets, that is, the currency risk and local-market risk components of global assets must be handled separately or expected return estimates may be unrealistic.

A reasonable expectation for the forward-looking equity risk premium is in the range of 3% to 5% for developed markets. Japan’s premium is assumed to be approximately 1% less than other developed markets because of slow demographic growth. Starting with this range of estimates for the market price of risk and using historical covariances of returns and global market-cap weights, the imputed, forward-looking spread between emerging markets and domestic markets can be calculated. From a U.S. dollar perspective, including local market and currency risk, the imputed spread is approximately 1.3%. From a local market perspective, separating out currency risk, the imputed spread is approximately 1.0%. Estimates made in this manner may require further adjustments to account for an illiquidity premium for emerging markets, as suggested by Bekaert, Harvey, and Lundblad [2007] who showed that local market liquidity is an important driver of expected returns in emerging markets. Consolidating the ranges of estimates, the forward-looking expected return spread between emerging and developed markets is assumed to be approximately 2.0% (rounded).

Historical performance data and expected performance estimates used in the examples are given in the following exhibit. The correlation between the China market and other regional equity markets is assumed to be low, approximately +0.2. The correlation between the Japan market and other regional markets (except China) is assumed to be +0.4. All other correlations between regional equity markets are estimated to be +0.7.

	Historical Performance (1993–2008)*		Expected Performance (Long Run)**	
	Return	Risk	Return	Risk
United States (MSCI)	5.96%	15.14%	7.50%	15.50%
Japan (TOPIX)	–3.38%	17.83%	6.50%	17.00%
Other Developed World (MSCI)	5.01%	14.52%	7.50%	14.50%
China (Shanghai Composite)	8.81%	30.71%	9.50%	28.00%
Chile (MSCI)	8.74%	19.87%	9.50%	28.00%
Emerging Markets (MSCI)	7.43%	21.05%	9.50%	24.00%

*Source: MSCI, TOPIX, Bloomberg. Historical performance is based on 15 years of data from a local-market (hedged) perspective as of December 31, 2008. Chile returns begin in January 1999. Shanghai composite returns begin in February 1995.

**This is an example only; it is not a forecast.

ENDNOTES

The Latin America team and the Americas Institutional Business at Barclays Global Investors facilitated contact with clients in the North and South regions that provided the original inspiration for this theme. The author also received valuable comments from Matt Scanlan, Ron Kahn, Marcia Roitberg, and Daniel Gamba, and technical support from Dan Ransenberg and other colleagues in the Client Advisory Group at BGI.

¹The idea of the North–South Divide was popularized by a United Nations commission to study differences in economic development in the late 1970s. The chairman of the commission was former German chancellor Willy Brandt whose report highlighted the lower rate of economic development in the poorer, least-developed countries (the South), compared to that of the wealthier, developed countries (the North). The report of the commission set the dividing line between North and South at the 30th parallel, the so-called Brandt line (Brandt [1980]). The report urged improvement in trade relations between the North and South countries to alleviate imbalances in international finance. The world's division of wealth and opportunity has changed materially since then, with many countries in the South having experienced rapid economic growth, while many countries in the North have experienced slower growth.

²Justifications for a home bias in asset allocation include investor familiarity and optimism for the local market; governmental nurturing of local financial markets in the developing stages (via regulatory constraints), and liability-driven investing considerations because local assets are usually a better hedge against the investor's liabilities than foreign assets. The actual benefits of global diversification are often debated. One concern is the rising correlation among markets due to financial integration. Statman and Scheid [2005] argued that the benefits of global diversification remain high due to the dispersion of returns, even in the presence of high correlation. Another concern is expected

return performance differentials. Olma and Siegel [2004] wrote at a time when international equities had underperformed U.S. equities, but supported international investing for its risk-reduction benefits. Another theme is the redundancy of international investing because of the increasing geographic scope of large, multinational businesses; see Grinold, Rudd, and Stefek [1989]. Soriano and Climent [2006] confirmed the dominance of country effects over industry effects except during periods of extreme volatility. Chen, Bennett, and Zheng [2006] argued that the relative importance of region and sector effects differs for emerging markets compared to developed markets. Country effects dominate in emerging markets while sector effects have increased in importance in developed markets in recent years.

³Morgan Stanley Capital International (MSCI) is one of five leading index providers. Other index providers include FTSE International (FTSE), Salomon Smith Barney (SSB), Standard & Poor's (S&P), and Dow Jones (DJ). For a discussion of the relative strengths and weaknesses of the benchmarks, see Schoenfeld and Ginis [2004]. MSCI also provides GDP-weighted indices for which country weights are based on the size of the country's economy rather than the size of its equity market. Capitalization-weighted indices are preferred for the type of analysis discussed in this article as they are, by definition, a better representation of the average global investor. Otherwise, the conclusions of this article do not depend on which set of cap-weighted benchmarks is used.

⁴The U.S. example is based on the average holdings of the top 200 defined benefits plans in the U.S. as of December 31, 2007 (*Pensions & Investments* [2008]). The Japanese example is an approximation based on translated reports from Japanese pension fund associations and discussions with other Japanese investors. The Chile example is based on average holdings of defined contribution plans as reported by *Gobierno de Chile Superintendencia de AFP* as of December 31, 2008.

⁵The historical return distribution of the MSCI Emerging Markets Index shows fat tails, with kurtosis equal to 5.5 over the last 15 years of monthly data as of June 30, 2008, compared with a kurtosis of 3.0 for a normal distribution. The distribution fails statistical tests for normality, although the curve appears reasonably bell shaped. For comparison, the kurtosis for the MSCI World Index is 3.8 (less peaked) and for the HFRI Fund of Funds Index is 6.6 (more peaked) over the same period. Kurtosis is a statistical measure that describes whether a probability distribution is peaked or flat relative to a normal distribution. Larger values of the statistic indicate a more peaked distribution with a higher frequency of extreme events than would be expected under the assumption of a normal distribution (i.e., fat tails).

⁶Data sources: FIAP (International Association of Pension Fund Administrators) for Chile and *Pensions & Investments* [2008] for the U.S.

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