The Advantages of Global Investing

Global investing has risen to new prominence as changes in the world's economic and financial landscape have made the world smaller economically while simultaneously expanding investment horizons. We examine the advantages and perceived obstacles and find that the balance favors global investing. After considering the reasons for home country bias in light of modern capital theory, we address concerns that broad diversification failed to provide protection during the recent global market meltdown. A survey of today's economic and market environments offers observations in support of globalization. Finally, we build hypothetical global and local portfolios for Europe, Asia and the United States and compare their historical performance, finding that global exposure could have improved returns and reduced risk for virtually all investors in every jurisdiction compared to traditional stock/bond portfolios including only local investments.

The Advantages

Global investing is the process of diversifying investment capital across a mix of asset classes, securities and firms that are not limited to those in an investor's own country. It is not a new strategy, but dramatic changes in the global economy have made it so compelling that we believe globalization is a permanent condition and not a temporary set of circumstances. Reduced barriers to international trade and major advances in communications and transportation have catapulted global commercial activity to unprecedented levels. World exports as a percentage of global GDP have doubled in the past 20 years. Financial accounting standards have been adopted around the world, and the important capital markets are now accessible to domestic and foreign investors alike. Individual investors may now access mutual funds and SICAVs offering opportunities formerly limited to large institutions. The potential benefits of global investing are supported by empirical evidence and capital market theory, which advocates the broadest possible global market portfolio in order to realize potential diversification benefits.

Most observers would acknowledge that global investing offers:

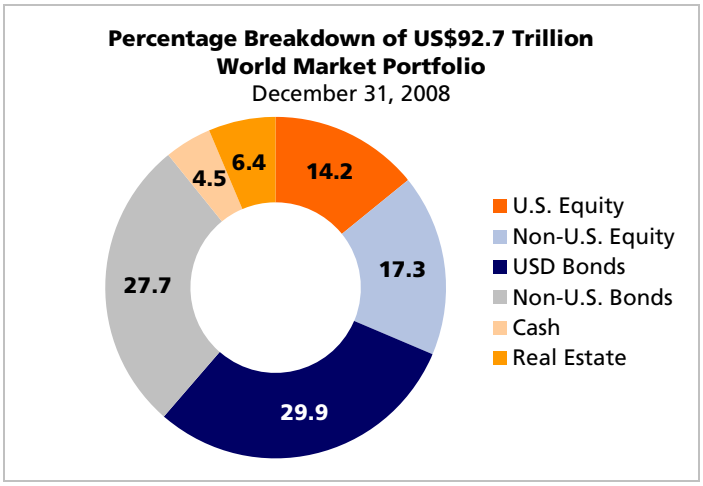
Expanded opportunity. The United States accounts for only about 40% of the world's equity market capitalization and about 50% of the world's outstanding fixed income obligations, and no country has a larger share. That means that investors limiting themselves to securities available in their local markets are neglecting at least 50% of existing opportunities. Investing globally means expanded horizons, which creates a richer set of investment opportunities.

Diversification. Spreading investment risk across foreign assets and non-traditional investment alternatives provides exposure to markets and sources of return that behave differently than those dependent only on the U.S. (or other local) economy. Economies are cyclical by nature, with periods of expansion and contraction that vary across global industries and sectors or within specific countries or regions.

Growth. Expectations for growth in many foreign economies, particularly in emerging markets, exceed those available in local developed markets, and capitalizing on that potential may be a lucrative source of improved returns. Many developing economies in Europe, Asia and South America, for example, are currently growing much faster than more mature markets as they "catch up" to the developed countries. Even as we slowly emerge from a global recession, prospects for growth are attractive in countries that offer genuine value in products demanded by consumers in other nations.

The alternatives available to investors today are much broader than is commonly realized (see Figure 1). Although it may not be advisable to utilize every available investment alternative, it is always preferable to have more, rather than fewer, choices. By expanding the breadth of investments in a portfolio, more opportunities exist to earn increasingly higher returns given a desired tolerance for risk. Similarly, broad diversification increases the probability of reducing risk for a given level of expected return.

Figure 1. World Market Portfolio Includes Choices Absent from Many Investors' Portfolios



Source: UBS Global Asset Management, Venture Economics, Ennis Knupp & Associates

In theory, an optimally diversified portfolio that seeks to capitalize on the lion's share of the world's investment potential would be allocated in a way that roughly approximates the opportunity set shown in Figure 1. Nevertheless, many investors have resisted global investing; in fact, some have retreated from it as an after-effect of the 2008 market meltdown. In the next section we consider some reasons for that resistance.

The Challenges and Obstacles

Investors must be rewarded for the risks they take on any investment; in fact, the existence of risk makes possible the promise of better returns. These risks of global investing vary by country, but there are a few perceived obstacles that are common to investors around the world.

Currency risk. Uncertainty about the future rate at which a foreign currency can be exchanged for an investor's local currency is a valid concern. Fluctuations in foreign exchange rates appear inscrutable to many investors and some regard them as little more than a series of random numbers. With no positive expectations about rewards from currency exposure, many investors are reluctant to accept it. Obviously, changes in exchange rates between foreign and local currencies can increase or decrease investment returns. When dividends are paid or assets are sold in foreign markets, the dividends or sale proceeds in local currency must be converted back into the investor's domestic currency. When a foreign currency is strong compared to the domestic currency, investors' returns in terms of local currency buy more, increasing the investment return. If the foreign currency weakens, this weakness reduces investment returns because the foreign earnings translate into fewer local currency units.

High volatility. Foreign markets, like all markets, can experience dramatic changes in market value. Over long time periods these impacts are dampened. But investors may react emotionally, and veering capriciously into or out of foreign markets is fraught with peril. Experience has shown that the probability of success in timing volatile markets is very low. On the other hand, a prudent commitment to a diverse array of asset classes and markets that perform differently over time is a sensible way to minimize the effects of short-term volatility.

Political and social risks. Investors are less likely to be well-versed in the political, economic and social conditions of countries outside of their own, not to mention the influence these factors may have on markets. These factors provide diversification, but they also contribute to the risk of international investing.

Liquidity risk. Relative to the major financial centers — such as New York, London and Tokyo — foreign markets may have lower trading volumes and fewer listed companies. They may only be open a few hours a day (which may not coincide with an investor's local market hours). Some countries restrict the amount or type of stocks that foreign investors may purchase, and foreign investors may be charged premium prices to buy and have difficulty finding a buyer when it is time to sell.

Legal and property rights risk. Laws in foreign countries may establish different degrees of protection for property owners, limited or unclear investor rights and court systems that would make it impractical to bring suit or seek other legal remedy in a situation that could be resolved easily in one's own country. Collection on a judgment against a foreign company could be highly problematical.

Operational risks. Foreign markets often operate differently from the major financial center exchanges. There may be different periods for clearance and settlement of securities transactions. Reporting can be slow compared to local markets. Rules for the safekeeping of shares by custodian banks or other depositories may seem unrefined, with the risk that shares may not be protected if the custodian has credit problems or fails.

Costs. International investing can be more expensive than investing in local markets. There may be unexpected taxes, such as withholding taxes on dividends. Transaction costs such as fees, broker's commissions, and taxes often are higher. Mutual funds and SICAVs that invest overseas often have higher fees and expenses, in part because of the extra expense of obtaining information and trading in foreign markets.

Information deficit. With full information, broad diversification is clearly optimal. However, under certain conditions the cost of obtaining information is so great that there is a powerful inducement to ignore or reject the optimal choices. Many foreign companies do not provide investors with the same information as public companies whose shares are issued in nearby financial centers. It may be difficult to locate up-to-date information, and the companies' announcements and reports may not be in any language spoken in major world business capitals. The potential benefits of global investing, overshadowed by the fear of errors caused by lack of information, may not seem sufficient to investors in large diversified economies.

Arrayed against these concerns are at least two kinds of risk that are almost certainly reduced by investing globally.

Purchasing power risk. Inflation and the fears of inflation are always in the news. Purchasing power risk is the possibility that returns on investment will be insufficient to maintain capital values that are constantly eroded by inflation. Investing in a world with inflation is reminiscent of *Alice in Wonderland*: "If you want to keep in the same place, you must run. If you want to go someplace else, you must run twice as fast." Higher nominal returns on investment are a tailwind that makes the marathon seem shorter and the post-race party possible. If returns are driven by economic realities, global investing will likely ease the way.

Interest rate risk. Besides the familiar inverse relationship between bond prices and interest rate changes, interest rates are also intimately connected to the value of all assets traded in a local economy. The effects of rising rates can be destructive to asset values, and interest rate anticipation is a binary decision — you are either right or wrong in any measurement period. Interest rate risk can be diversified away

— but only by investing outside the local economy where different interest rate conditions and trends may prevail.

Reconciling Home Country Bias with Capital Market Theory

Despite the fact that most investors are rational, at least in principle, and thus seek to attain high returns given their risk tolerance, most corporate equity tends to be held by domestic investors — across most markets (see Figure 2). Numerous studies and articles have detailed how international investment positions are well below optimal levels and in some cases below even the typical limitations on foreign holdings that apply to institutional investors. This lack of international diversification, known as "home-country bias", has puzzled economists for decades.

Figure 2. Investors Worldwide Remain Domestically Concentrated

Domestic vs. Foreign Equity
Percent Allocations – 2007

Country	Domestic	Foreign	% of Global Market Cap
United States	70	30	30
United Kingdom	50	50	6
Germany	71	29	3
France	76	24	4
Italy	88	12	2
Japan	63	37	7

Source: Wilshire Associates, Greenwich Associates, CIA — The World Factbook

Academic researchers have focused intently on the apparent discrepancies between financial theory and observed investor behavior. Within the context of the risks outlined above, the logic of the information deficit theory seems compelling. According to this explanation, domestic dedication implies that investors hold relatively optimistic expectations about their home market and accordingly, pessimistic expectations about foreign markets. Also, investors tend to have higher (but often unwarranted) risk perceptions about foreign assets due to relative unfamiliarity with foreign markets and institutions. Thus, these "estimation errors" in international markets are likely a principal cause of this paradox.

Financial theory assumes that investors form rational expectations about returns, risk and cross-market behavior (correlation) in the course of making portfolio decisions. The benefits of international diversification are based on these assumptions (estimates), which may or may not be accurate. When perceived variability in the estimation errors for international markets far exceeds the variability in the potential expected returns, domestic dedication will tend to dominate global diversification, thus inducing otherwise rational investors to prefer home-country dedicated portfolios over diversified portfolios.

Diversified portfolios based on erroneous or incomplete information must necessarily be "sub-optimal" relative to the portfolios that could be formed with the benefit of full information. With an impaired ability to make fully "rational" judgments, optimal portfolios based on full information are not attainable. The investor is left to make a choice between sub-optimal diversified portfolios based on faulty estimates or sub-optimal home country dedicated portfolios. Thus, estimation errors induce biases in portfolio allocations and result in inefficient portfolio choices.

The Apparent "Failure" of Diversification

Some investors have wondered whether the Great Recession proved that diversification as a risk control strategy was a failure, overlooking the fact that the objective of diversification is not to avoid all risk, which is impossible, but to minimize uncompensated risk. Investors should seek to be compensated for the risks they assume and avoid uncompensated risks. The asset allocation process attempts to control uncompensated risks by spreading them across various markets. Fortunately, while market risks are non-diversifiable within each market, markets themselves have idiosyncratic risks that may be "cancelled out" by diversification.

When risk appetites among investors decline in unison across all (compensated) market risks, correlations across markets move towards one (i.e., perfect correlation), and the prices of compensated risks must decline. In several episodes over the last 40 years, even the most highly diversified portfolios had disappointing returns; however, the biggest example of this was the 2008–2009 market/economic crisis, which affected all risky assets in similarly dramatic fashion. Such a systemic cross-market financial collapse has little to do with the kind of data that can be forecasted by traditional risk management techniques or asset allocation processes and in no way invalidates the information captured by them.

Thoughtful asset allocation decisions, hopefully supported by analysis of relevant data, are a necessary condition to avoid most investment risks on the road to successful long-term investing. There is more to it, however. Understanding the nature and possibility of unpredictable catastrophic events may be possible for experienced risk management officers and/or chief investment officers, but investors should not assume that systemic shocks based on unique events such as sovereign defaults, headline corporate bankruptcies or widespread fraud will be anticipated solely by examination of market and economic data, no matter how rigorous.

Global Investing in Perspective

World Market Returns

No single world market consistently delivers the highest returns, but some generalizations are possible by observing Figure 3. For instance, returns on U.S. and U.K. stocks (indicated by navy blue and orange boxes respectively) are never the highest, and emerging markets (medium blue) are often at or near the top. Notwithstanding historical data, we know that many investors prefer to "buy what they know" and avoid what they do not, which causes repetitive behavior in spite of that information. Yet investing in foreign markets is a proven approach to expanding opportunity and improving diversification.

Figure 3. Patterns of Returns Reflect Familiarity Bias

World Market Returns by Region - USD

2001	2002	2003	2004	2005	2006	2007	2008	2009
EME (2.4%)	Pac Ex-Japan (5.8%)	EME 56.3%	Pac Ex-Japan 29.6%	EME 34.5%	Europe Ex-UK 36.4%	EME 39.8%	Japan (29.1%)	EME 79.0%
Pac Ex-Japan (9.4%)	EME (6.0%)	Pac Ex-Japan 47.0%	EME 26.0%	Japan 25.6%	Pac Ex-Japan 33.2%	Pac Ex-Japan 31.7%	S&P 500 (37.0%)	Pac Ex-Japan 73.0%
S&P 500 (11.9%)	Japan (10.1%)	Europe Ex-UK 43.6%	Europe Ex-UK 22.4%	Pac Ex-Japan 14.8%	EME 32.6%	Europe Ex-UK 17.5%	Europe Ex-UK (45.0%)	UK 43.4%
UK (14.1%)	UK (15.2%)	Japan 36.2%	UK 19.6%	Europe Ex-UK 11.3%	UK 30.7%	UK 8.4%	UK (48.3%)	Europe Ex-UK 33.9%
Europe Ex-UK (22.0%)	Europe Ex-UK (19.9%)	UK 32.1%	Japan 16.0%	UK 7.4%	S&P 500 15.8%	S&P 500 5.5%	EME (47.1%)	S&P 500 26.5%
Japan (29.3%)	S&P 500 (22.1%)	S&P 500 28.7%	S&P 500 10.9%	S&P 500 4.9%	Japan 6.3%	Japan (4.1%)	Pac Ex-Japan (50.0%)	Japan 6.4%

Source: MSCI, Standard & Poor's, FactSet

International Economics

Home country bias cannot be justified on the basis of today's economic statistics. Economic and geopolitical trends, financial flows of funds and changing market dynamics favor global investing. For instance, the U.S. is the largest economy in the world, but is only about 5% of the world's population and 25% of its GDP. No other country has a larger slice of world economic activity, so the need to overcome home country bias is acute around the world.

Emerging economies, particularly those of Brazil, India and China, once regarded as unstable, weathered the worldwide economic recession better than most developed economies. A nation's competitive position in world markets is indicated, in part, by its exports. By that measure, emerging market countries — as net producers — are gaining competitiveness relative to net-consuming developed economies like the United States. The U.S. current account deficit has tripled since 1998. In a chronic deficit situation, a massive transfer of wealth is occurring that in the long-run must negatively impact both the value of the currency and the value of corporate net worth (stock prices).

Figure 4. U.S. Is the World's Single-Largest Economy, but Emerging Markets Are Flourishing

Countries	GDP				Trade (% of GDP)		Demographics	
Developed Markets (G7)	USD (Billions)	Per Capita	1-Yr Change	5-Yr Change	Exports	Deficit/ Surplus	Population (Millions)	Unempl.
U.S.	14,151	45.4	(3.8%)	1.1%	10.6 %	(2.4%)	312	9.7%
Canada	1,296	39.0	(3.2%)	1.2%	27.7%	(1.8%)	33	8.7%
U.K.	2,289	37.4	(3.0%)	1.4%	28.7 %	(2.4%)	61	7.8%
Euro zone	12,786	38.9	(4.7%)	0.8%	14.9%	(0.2%)	329	9.6%
Japan	4,943	38.8	(6.5%)	0.0%	12.0%	0.4%	127	5.7%
Emerging Markets								
Brazil	1,510	7.9	(1.2%)	3.2%	14.4 %	0.2%	192	8.0%
Russia	1,531	10.8	(10.9%)	2.2%	30.0%	8.0%	141	8.3%
India	1,083	0.9	6.1%	8.5%	24.5 %	(6.5%)	1,181	7.2%
China	4,477	3.4	7.9%	10.4%	27.3%	6.0%	1,321	4.3%
Mexico	849	7.8	(10.3%)	0.8%	6.4 %	0.1%	109	6.1%

Source: CIA — The World Fact Book, Bureau of Economic Analysis, FactSet

Long-Run Correlation

Multidimensional global investing reduces total portfolio risk because the correlation of returns between countries is always less than perfect. The absence of correlation is more powerful than its presence as an indication of potential diversification and risk-control benefits. For instance, international bonds, REITs, emerging markets equity and hedge funds have the most promising (i.e., low) correlation versus the U.S. large-cap investments that tend to dominate the portfolios of U.S. investors. However, markets that move in the same direction at the same time (but at different rates) may still offer diversification benefits. Annual returns of 8% (about the developed markets' return for the last 20 years) and 12% (emerging markets for the same period) are not the same, regardless of correlation.

Figure 5. Correlation Varies but Captures Only Part of Potential Diversification Benefits

Long-Run Correlation

	Std Dev	Cash	Bonds	Intl FI	Lg Cap	Sm Cap	Intl Eq	Emg Eq	REITS	Hdge Fds
Cash	0.56	1.00	0.06	(0.13)	0.07	(0.01)	(0.00)	(0.08)	(0.03)	0.07
Bonds	3.86		1.00	0.50	0.18	0.06	0.13	0.02	0.19	0.10
Intl FI	8.62			1.00	0.13	0.06	0.39	0.10	0.21	0.06
Lg Cap	15.03				1.00	0.79	0.72	0.68	0.56	0.72
Sm Cap	19.46					1.00	0.64	0.68	0.64	0.82
Intl Eq	17.46						1.00	0.71	0.48	0.67
Emg Eq	24.39							1.00	0.43	0.81
REITS	20.61								1.00	0.44
Hdge Fds	7.09									1.00

Last 24 Months Correlation

	Std Dev	Cash	Bonds	Intl FI	Lg Cap	Sm Cap	Intl Eq	Emg Eq	REITS	Hdge Fds
Cash	0.24	1.00	(0.27)	(0.14)	(0.31)	(0.22)	(0.32)	(0.37)	(0.16)	(0.47)
Bonds	4.79		1.00	0.77	0.50	0.40	0.63	0.57	0.46	0.44
Intl FI	11.76			1.00	0.42	0.33	0.49	0.43	0.31	0.34
Lg Cap	23.29				1.00	0.94	0.93	0.87	0.85	0.81
Sm Cap	29.58					1.00	0.87	0.81	0.91	0.72
Intl Eq	28.05						1.00	0.95	0.81	0.89
Emg Eq	37.03							1.00	0.70	0.93
REITS	48.10								1.00	0.60
Hdge Fds	9.64									1.00

Indexes

Cash — 3 Month T-Bill
Bonds — Barclays Aggregate
Intl FI — Barclays Global Agg ex-U.S.
Lg Cap — S&P 500
Sm Cap — Russell 2000
Intl Eq — MSCI EAFE
Emg Eq — MSCI Emerging Equity
REITS — FTSE/EPRA NAREIT
Hdge Fds —HFRI Composite

Source: Barclays Capital, MSCI, Russell Investments, Standard & Poor's, Citigroup, FTSE, NAREIT, HFR, FactSet

Emerging Opportunities in Bonds

Empirical studies show that the long-term expected return from bonds is about inflation plus 2% annually. Riskier fixed income investments (high yield, senior loans and emerging markets debt) have higher expected returns in line with their greater risk. Yet in 2008, U.S. Treasuries returned 13.7%, outperforming all risky bond investments as a classic "flight to quality" reflected investors' fears during the financial crisis. An expected return to more normal yield spreads relative to Treasuries represents a genuine opportunity for investors that are comfortable with the risks of corporate and foreign bonds. In a seeming paradox, global bonds have both higher returns and lower risk than U.S. bonds over recent measurement periods. Over long periods of time, the return-to-risk ratio of international bonds compares favorably with U.S. bond.

Global Returns — Local and USD — Show Effects of a Declining Currency

For the past five years, returns on U.S. stocks were the lowest of the countries shown in Figure 7; more important, all foreign market returns in 2009 have been higher for U.S. investors than local investors because of the declining U.S. dollar. Future investment returns and the impact currency exchange rates have on them are unknowable, but the returns of virtually all asset classes in 2009 exemplify the advantages of expanded opportunity and diversification.

Figure 6. Emerging Opportunities in Bonds

Index	% Index	Spread (bps)	2009	Dec-09	2008	2007	2006	2005	2004	1 year	3 years	5 years
U.S. Investment Grade (%)												
Barclays Aggregate	100.0	61	5.9	(1.6)	5.2	7.0	4.3	2.4	4.3	5.9	6.0	5.0
Treasury	27.6	1	(3.6)	(2.6)	13.7	9.0	3.1	2.8	3.5	(3.6)	6.1	4.8
Government-Related	13.2	49	2.5	(1.5)	8.5	8.0	4.3	2.6	3.6	2.5	6.3	5.1
Corporate	18.8	172	18.7	(0.8)	(4.9)	4.6	4.3	1.7	5.4	18.7	5.7	4.6
Fixed-Rate MBS	35.0	19	5.8	(1.5)	8.5	7.0	5.2	2.6	4.7	5.8	7.1	5.8
ABS	0.4	100	24.7	(0.1)	(12.7)	2.2	4.7	2.1	3.0	24.7	3.6	3.5
CMBS	3.2	473	28.5	0.3	(20.5)	5.6	4.7	1.8	4.1	28.5	2.5	2.8
Hybrid ARM	1.7	5	7.8	(0.1)	6.1	6.3	4.8	NA	NA	7.8	6.8	NA
Other (%)												
High Yield		617	58.2	3.3	(26.2)	1.9	11.8	2.7	11.1	58.2	6.0	6.5
Global Aggregate		54	6.9	(3.8)	4.8	9.5	6.6	(4.5)	9.3	6.9	7.0	4.6
Emerging Markets		274	25.9	0.2	(9.7)	6.5	10.5	11.9	11.8	25.9	6.6	8.4
Senior Loans		703	51.6	2.9	(29.1)	2.0	6.8	5.1	5.2	51.6	3.1	4.2

Source: Barclays Capital, J.P. Morgan, Standard & Poor's

Figure 7. Global Returns — Local vs. USD — Reveal Benefits of a Declining Currency

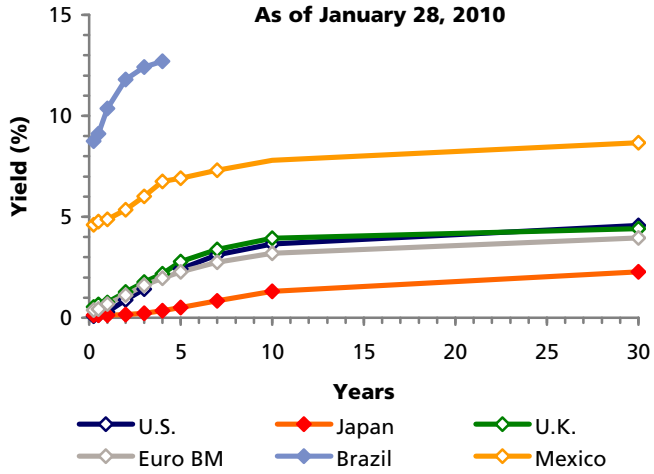
Index	Currency	2009	Dec-09	2008	2007	2006	2005	2004	2003	2002	1 year	3 years	5 years
Global Markets (%)													
International	*USD*	32.5	1.5	(43.1)	11.6	26.9	14.0	20.7	39.2	(15.7)	32.5	(5.6)	4.0
	local	25.4	5.6	(39.9)	4.0	16.9	29.5	13.1	20.8	(25.8)	25.4	(7.8)	3.5
Emerging Mkt	*USD*	79.0	4.0	(53.2)	39.8	32.6	34.5	26.0	56.3	(6.0)	79.0	5.4	15.9
	local	62.8	4.2	(45.7)	33.5	28.9	35.8	16.4	46.7	(7.0)	62.8	5.7	15.6
Regions (%)													
Euro ex-UK	*USD*	33.9	1.0	(45.0)	17.5	36.4	11.3	22.4	43.6	(19.9)	33.9	(4.7)	5.6
	local	29.0	5.2	(42.7)	6.6	22.5	28.6	13.3	21.2	(32.4)	29.0	(7.7)	4.4
UK	*USD*	43.4	2.6	(48.3)	8.4	30.7	7.4	19.6	32.1	(15.2)	43.4	(7.1)	2.4
	local	27.7	4.3	(28.5)	6.6	14.6	20.1	11.5	18.8	(23.4)	27.7	(0.9)	6.0
Pac ex-Japan	*USD*	73.0	2.2	(50.0)	31.7	33.2	14.8	29.6	47.0	(5.8)	73.0	4.4	11.7
	local	45.8	3.6	(41.6)	21.6	25.9	20.3	25.3	20.4	(11.8)	45.8	1.2	9.4
Japan	*USD*	6.4	0.8	(29.1)	(4.1)	6.3	25.6	16.0	36.2	(10.1)	6.4	(10.2)	(0.7)
	local	9.3	8.9	(42.5)	(10.1)	7.3	44.7	10.9	23.0	(18.6)	9.3	(17.3)	(2.6)
S&P 500		26.5	1.9	(37.0)	5.5	15.8	4.9	10.9	28.7	(2.1)	26.5	(5.6)	0.4

Source: Barclays Capital, J.P. Morgan, Standard & Poor's

Yield Curves: Untapped Diversification

The positive slopes of global yield curves encourage investors to accept greater risk. Different slopes of global yield curves indicate both investment return (note the yield advantages in Mexico) and diversification potential. Diversification of interest rate risk, regardless of where you live, is only possible by investing in foreign markets, because the prices of all local assets are affected uniformly by changes in local interest rates.

Figure 8. Global Yield Curves

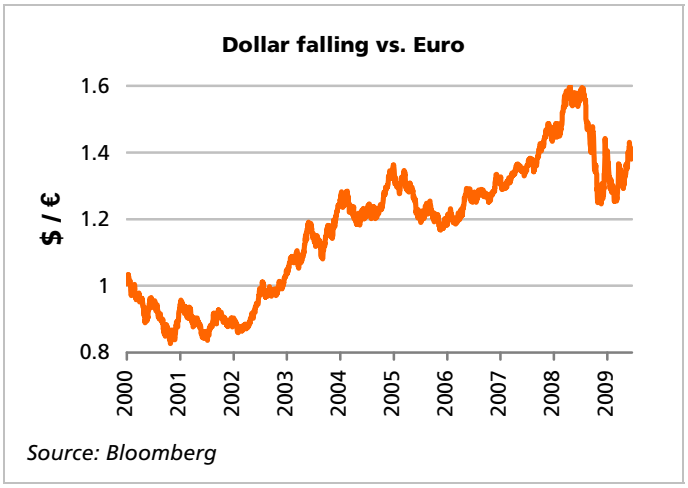


Source: Bloomberg

Currency Opportunities

Financial flows do not favor the U.S. dollar as the world economy recovers from the Great Recession and economic fundamentals return to prominence as the main driver of exchange rates. Currency diversification can be even more beneficial when an investor's local currency is vulnerable; as the local currency declines, returns on foreign investments are enhanced relative to local investments.

Figure 9. U.S. Dollar Falling vs. Euro



Source: Bloomberg

Solutions that Improve Returns and Risk

To put the potential benefits of global investing into historical perspective, we identified major asset classes for consideration as the global components in hypothetical portfolios. The returns and risk for each of the local and global assets from a U.S. investor's perspective are reproduced in Figure 10 below. Statistics for the local and global asset classes for European and Asian portfolios are in the Appendix. Explanations of the reasons for our choices follow.

Figure 10. Long-Term Asset Class Returns and Risk

Asset Class Performance
January 1990 - October 2009

Asset Class	Annual Return (USD%)	Annual Risk (StDev%)
U.S. Large Cap Equity	8.75	15.23
U.S. Aggregate Fixed Income	6.94	3.85
International EAFE Equity	5.82	17.92
Emerging Markets Equity	12.84	24.41
Global REITs	13.27	17.86
Global Hedge Funds	11.75	7.12
Global Fixed Income	7.68	8.55
Global Emerging Markets Bonds	11.91	13.57

Source: MSCI, Standard & Poor's, FactSet

Global Building Blocks to Improve Returns and Risk — Part 1, Emerging Markets Equity

Emerging markets equities — even after outpacing the returns in developed market stocks by abut 400 basis points over the past 20 years — still comprise a small percentage of the world market portfolio, and valuations in some emerging countries still look like bargains.

In recent years, emerging market economies have expanded at a record pace — without excessive leverage or huge government deficits. Goldman Sachs has estimated that Brazil, Russia, India and China (the "BRIC" countries) have recorded 45% of all global growth in the past two years, and global capital flows are expected to follow that productivity surge. Their total equity market capitalization, once mired at 20% of GDP, is now closer to 70%. In a September 2009 paper, consultant McKinsey argued that the next big source of growth will reside in the non-Western world.[1]

Figure 11. Lack of Excessive Leverage Helped Emerging Countries Weather the Storm

Asset Class	GDP ($Trillion)	Market Value	Domestic Credit	Debt/GDP (%)
BRIC Countries	$15.57	$10.92	$7.94	25.9
United States	$14.44	$19.95	$15.06	37.5
European Union	$14.94	$15.57	$21.17	62.0

Source: ING IM analytics

The contrasts between China and Brazil, among the brightest stars in emerging markets, and the mature economies of the world dramatize the risks of home country biases. The sun is shining on the Chinese economy, where economic growth has rebounded. A year ago, thousands of Chinese workers rioted outside factories closed in the global recession. Now many factories, even those hard hit by dependence on exports to the United States and Europe, are starting to rehire workers. No one is complaining about a jobless recovery, while in the United States, the economy stumbles toward better times, despite double-digit unemployment.

A combination of fiscal stimulus and liberal bank lending has turned the recessionary tide in China, where tighter control of economic planning allowed quick disbursement of fiscal stimulus, which funded the types of new infrastructure projects that American politicians are still discussing in the future tense. The state banking system coasted through the global financial crisis with nominal losses — as earnings for American financial institutions plummeted.[2]

Brazil has also made steady progress to the point where forecasters anticipate, at some point in the next decade, it may become the world's fifth-largest economy, overtaking Britain and France. Although it did not avoid the global downturn, it was among the first to show signs of recovery. Its economy is growing again at an annualized rate of 5%. Brazil is a high-functioning democracy, foreign investment is pouring in, poverty is falling and the middle class is growing. The country has strong political institutions and a free and expressive press. It's abundant food supply and mineral reserves make it a natural exporter to less well-endowed nations. As reported in *The Economist*, "Its take-off is all the more admirable because it has been achieved through reform and democratic consensus-building."[3]

Emerging markets equities seem to have offered two benefits for the price of one: investment in faster-growing economies and escape from the declining U.S. dollar. When future returns have been recorded, the divergence between emerging and developed markets may be even wider.

Global Building Blocks to Improve Returns and Risk — Part 2, Global Real Estate Securities (REITs)

Real estate is distinct among equity investment alternatives. With unique locations, physical structures and tenant mix, each individual property is non-interchangeable and relatively illiquid, given the costly, complex and lengthy negotiations associated with purchases and sales. When this "liquidity premium" is added to the often generous cash flow, relatively steady market appreciation, availability of financial leverage and favorable tax treatment, the historic and expected returns compare favorably with traditional securities investments.

Some would argue that cumbersome real estate appraisal processes should cast doubt on the validity of the low volatility and the low cross-correlation of returns for real estate investments. Fortunately, those issues can be sidestepped by investing in Real Estate Investment Trusts (REITs) and other pooled-fund arrangements that enhance diversification and liquidity compared to a portfolio of individual commercial properties, an option reserved for large institutional investors. Since REITs are traded on national stock exchanges, they are admittedly an indirect route to the advantages afforded by real property ownership and not a pure form of real estate investing. However, their availability in many countries makes global diversification possible, and real estate's liquidity issues are entirely circumvented.

By stock market standards, the prices of REITs tend to perform like small-value stocks in that they generate well-above average dividend yields, have total market capitalizations at the low end of the spectrum and, due to their use of leverage to finance property acquisitions, are sensitive to changes in interest rates. None of these attributes would tarnish their stature as a valuable component in a broadly diversified global portfolio.

Global Building Blocks to Improve Returns and Risk — Part 3, Global Hedge Funds

Global opportunities for investing include more than long-only investments in conventional stocks and bonds. Hedge funds, comprised largely of stocks, bonds, currency exposures, commodity positions and other instruments to hedge and manage risk, offer global exposure to potentially enhanced returns and portfolio diversification. Hedge fund replication strategies have made hedge fund-like returns available to virtually everyone by directly accessing the sources of those returns instead of investing in hedge funds. Based on full replication of the average returns of a large sample of hedge funds, a replication strategy sidesteps some of the pitfalls of hedge funds — such as high costs, high minimum investments and limited transparency — that may make them unsuitable for many investors. Over the last ten years, hedge funds, on average, have outperformed both stocks and bonds while delivering mostly positive results in down markets.

Looking ahead, hedge funds are subtly, but not trivially, positioned to capitalize on one feature of the current boom in emerging markets. With their ability to invest in commodities markets, hedge funds provide exposure to the rapidly rising demand curve for most commodities, virtually all of which now deserve a place at the asset allocation table. It is unlikely that in the long run commodity and real estate prices will move in tandem with bond prices because the former are driven by inflation, which is bad news for bonds. Thus hedge funds, at least those that are not fixed income-oriented, are a natural, if not perfect, hedge against falling bond prices, an essential need of portfolios in a world of rising fiscal and current account deficits.

Global Building Blocks to Improve Returns and Risk — Part 4, Global Bonds

In a world of uncertain expected returns, managing risk exposures becomes increasingly important. Most investors would stipulate that a primary advantage of investing in bonds is their ability to absorb risk when equities are in trouble. Unfortunately, if we look to the future, the structural increase in demand for commodities combined with an easy monetary policy must exert upward pressure on inflation and

interest rates and downward pressure on the prices of bonds. The good news is that not all bonds across all world markets will be affected in the same ways — provided investors have the foresight to invest in bonds across world markets. Contrary to intuition, international bond portfolios have two major characteristics — currency and yield curve diversification — that have produced a risk level for international bonds that is acceptable by comparison with U.S. bonds while delivering higher returns. If investors like the yield and risk-control properties of domestic bonds, they should welcome global bonds in their portfolios.

Our global portfolios also include a modest allocation (maximum 5%) to emerging markets bonds. Their historical volatility indicates that caution is appropriate for rank and file investors, but compensation for the risk exposure takes the form of equity-like total returns, exceptionally high income potential and low correlation with most other asset classes.

Comparing the Performance of Local vs. Global Portfolios

To test the historical effectiveness of global investing, we built hypothetical global index portfolios from the "building blocks" described above plus global equities. For each of three world regions — the Americas, Europe and Asia — we created 50 portfolios varying the stock-bond allocations in 2% allocation increments, ranging from 100% bonds to 100% equities. Then we compared their historical returns and risk with those of local stock and bond portfolios assuming similar allocations. We measured the performance for the full period for which all index returns were available or since January 1990, whichever was less.

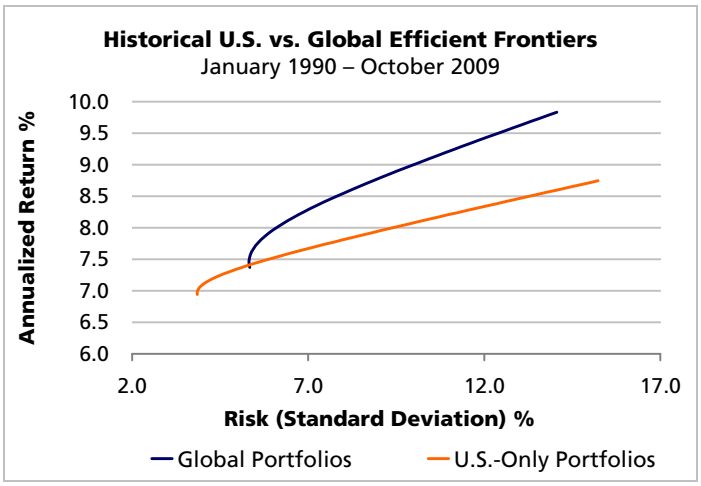
In each global portfolio, we re-allocated 50% of the local portfolios to global components across the various risk profiles, and scaled the assumed positions accordingly. We purposely avoided using an optimization technique that might be difficult for many investors to evaluate. Accordingly, we make no representation that the resulting portfolios are, or would have been, optimal in the mean-variance sense. However, this simplification offered three advantages: 1) the portfolios are (or would have been) attainable by most investors; 2) with one-half of each portfolio "globalized", adjusting allocations for lower (or higher) levels of global exposure is intuitive and easy; and 3) we avoided the need for expected return, risk and cross-correlation estimates for every portfolio component and eliminated concerns about the sensitivity of optimization programs to estimation errors. Detailed examples of the allocations and performance for the regional global and local portfolios are reproduced in the Appendix.

After calculating the historical monthly returns for every portfolio from inception of each return series through October 2009, we measured the average annualized returns and risk (standard deviation) for each. Index returns for the U.S. portfolios were available since January 1990 (except emerging markets bonds, for which index data began January 1993). Complete index returns for both stocks and bonds for the European and Asia-ex-Japan portfolios were available from January 1999 and July 2000, respectively. The availability of returns from different inception dates offered an unexpected benefit: We were able to compare the performance of the global vs. local portfolios over very different market "regimes", the effects of which are obvious in the efficient frontier graphs that follow. The U.S.-oriented portfolio returns were denominated in U.S. dollars. We used the euro for both the European and Asia ex-Japan portfolios. Converting the Asia ex-Japan returns to local currency would not have materially affected the outcomes.

Several observations are apparent from examination of the graphs. Most importantly, global portfolio performance dominated local portfolio performance across all three regions. With only one exception — U.S. portfolios comprised of 100% fixed income — regardless of location, allocation, risk levels or measurement period, for each level of risk the global portfolios produced better returns.

With the one exception noted above, for U.S. investors the global portfolios offered progressively better risk-return profiles across the full range of risk levels (Figure 12).

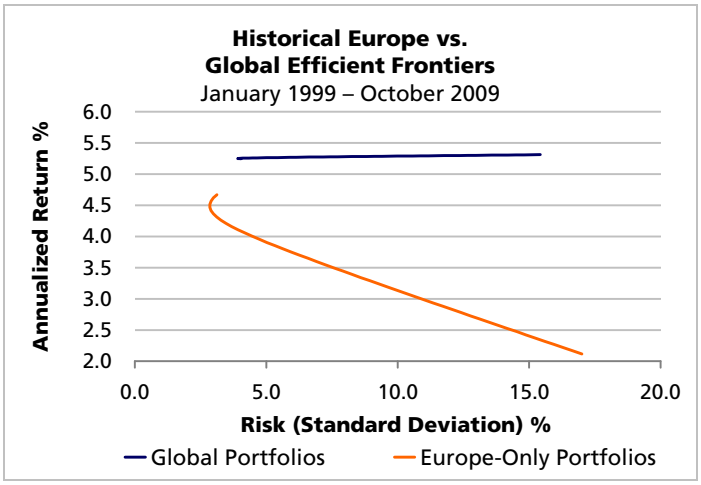
Figure 12. U.S. Local vs. Global Portfolios



Source: ING Investment Management, Barclays Capital, MSCI, Standard & Poor's, FactSet

In the European setting, risk did not relate to return in a rational way for local investments over the period studied; that is, the greater the assumed risk, the lower the actual total return. Thus, for European investors the difference in total returns after adding the global options was profound because of the very low local stock returns. In a very real sense, confinement to local investment options defied accepted investment principles, and global investing would have virtually restored order.

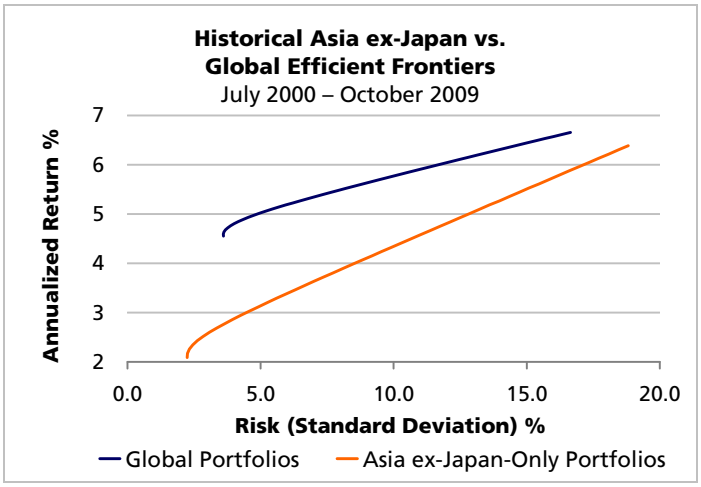
Figure 13. Europe Local vs. Global Portfolios



Source: ING Investment Management, Barclays Capital, MSCI, Standard & Poor's, FactSet

For Asia ex-Japan investors the extreme differences in returns and risk between local stocks and bonds were significantly mitigated in the global portfolios. Both the lowest returns and the highest risk levels of the local portfolios were unattainable in the global portfolio sets. Note, however, that for every attainable risk level, returns for the global portfolios exceeded those for local portfolios. Note also that except where Japan was included in the global indices, returns for Japanese home portfolios were excluded from the study. Japan's experience has been so idiosyncratic, and at the same time pervasively important, that separate and distinct treatment was warranted.

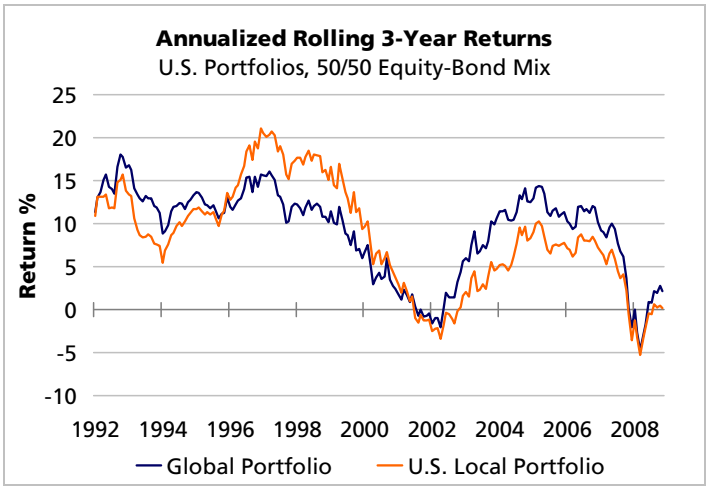
Figure 14. Asia ex-Japan Local vs. Global Portfolios



Source: ING Investment Management, Barclays Capital, MSCI, Standard & Poor's, FactSet

A comparison of balanced stock-bond portfolio returns for U.S. investors over rolling three-year periods (figure 15) shows that with the exception of the technology bubble period (about 1997–2001), the global portfolio returns generally exceeded local market returns — with lower overall risk.

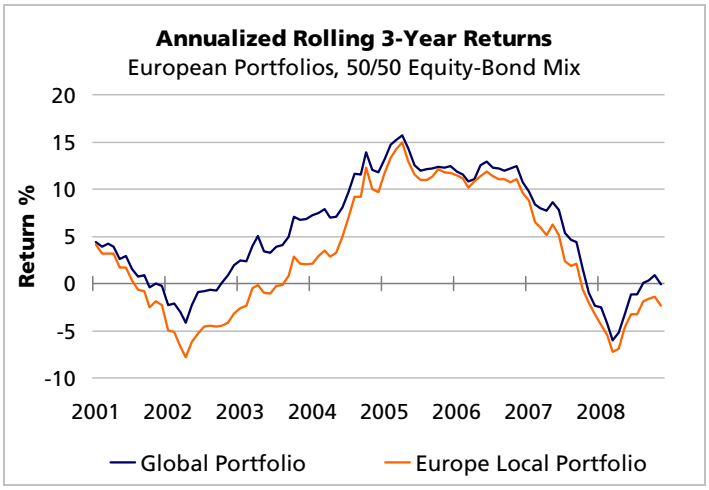
Figure 15. Rolling Returns for U.S. Balanced Portfolios



Source: ING Investment Management

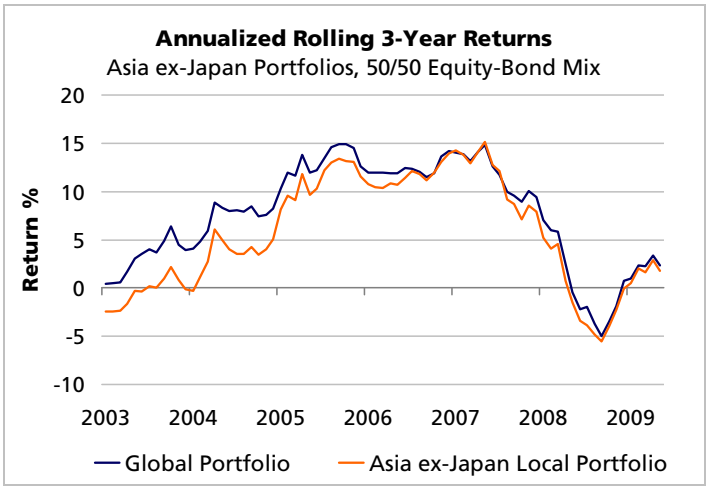
The rolling three-year return experience was similar for the European and Asian markets (see Figures 16 and 17 on page 11). Though not obvious in the graphics, the average annual excess return for a 50/50 portfolio was twice as high in Europe and Asia than in the U.S. — about a 2% excess return advantage annually — with a comparable reduction in total volatility for the periods covered in the study. Note that in both locations, big contributions to excess returns occurred when stock market performance was relatively poor.

Figures 16. Rolling Returns for Europe Balanced Portfolios



Source: ING Investment Management

Figure 17. Rolling Returns for Asia ex-Japan Balanced Portfolios



Source: ING Investment Management

Conclusions

Economic liberalization, financial and legal reforms and communications advances make global investing inevitable, desirable and attainable for most investors.

Based on past experience, global investing offers potential benefits for all investors, regardless of whether their primary objective is capital growth, capital preservation or a balance between them. A table summarizing the historical return-to-risk relationships is included in the Appendix.

A promising but superficial examination of large-scale categories cannot capture all the potential excess return benefits attainable by abandoning local-market focus. For instance, the prospects for small-cap equity, equity strategies in locations where alpha may be plentiful, plus others such as senior loans, high yield bonds and portable alpha (where the list of possibilities is endless) are not reflected at all.

Investigating index returns ignores possible gains from active management. As a result, index returns are just the beginning for some global components. For instance, while the risk-return profile of global bonds is attractive, the average active global bond manager has consistently exceeded passive benchmarks. Small-cap equity managers have also dependably outpaced small-cap benchmarks — in a category that has historically produced higher returns than any of the large-cap indices included in this analysis.

Studies of past performance are limited by the actual returns realized over any measurement period. This end-period dominance problem is particularly evident in the periods covered by this study — even as long as 20 years — because of the extraordinary market reversals in 2008- through early 2009. The overall disappointing total returns — when compared with historical norms — should only encourage investors to take necessary steps to re-evaluate future possibilities.

The performance aspects of this study assumed a "holistic" approach to globalization of portfolios in the sense that every portfolio was balanced between components with return-generating and risk-management characteristics. An "ad hoc" approach, for example adding only emerging markets equity and REITs, would have produced very different results, perhaps detrimental to investment strategies determined to reduce risk. Investors interested in global investing should consult with their financial advisers to develop a strategy where the outcomes are completely consistent with their own objectives and risk tolerance.

"Common sense tells you that you will find more and sometimes better investment opportunities if you search everywhere in the world rather than limiting yourself to only one nation."

— Sir John Templeton

Global and Local Portfolio Components and Performance

U.S. Local Portfolios	Allocations					
Large Cap U.S. Equity	0%	20%	40%	60%	80%	100%
U.S. Aggregate Bonds	100%	80%	60%	40%	20%	0%
Annualized Average Return	6.9%	7.3%	7.7%	8.0%	8.4%	8.8%
Annualized Risk	3.9%	4.8%	6.9%	9.6%	12.4%	15.2%

Global Portfolios	Allocations					
Large Cap U.S. Equity	0%	10%	20%	30%	40%	50%
U.S. Aggregate Bonds	50%	40%	30%	20%	10%	0%
EAFE International Equities	0%	2.5%	5%	7.5%	10%	12.5%
Emerging Markets Equity	0%	2.5%	5%	7.5%	10%	12.5%
Global REITs	0%	2.5%	5%	7.5%	10%	12.5%
Global Hedge Funds	0%	2.5%	5%	7.5%	10%	12.5%
Global Bonds ex-U.S.	45%	36%	27%	18%	9%	0%
Emerging Markets Bonds	5%	4%	3%	2%	1%	0%
Annualized Average Return	7.4%	7.9%	8.4%	8.9%	9.3%	9.8%
Annualized Risk	5.3%	5.8%	7.3%	9.3%	11.6%	14.0%
Total Equity	0%	20%	40%	60%	80%	100%
Total Fixed Income	100%	80%	60%	40%	20%	0%

European Local Portfolios	Allocations					
Large Cap European Equity	0%	20%	40%	60%	80%	100%
European Aggregate Bonds	100%	80%	60%	40%	20%	0%
Annualized Average Return	4.7%	4.2%	3.7%	3.1%	2.6%	2.1%
Annualized Risk	3.1%	3.7%	6.6%	10.0%	13.5%	17.0%

Global Portfolios	Allocations					
Large Cap European Equity	0%	10%	20%	30%	40%	50%
European Aggregate Bonds	50%	40%	30%	20%	10%	0%
World ex-Europe Equity	0%	2.5%	5%	7.5%	10%	12.5%
Emerging Markets Equity	0%	2.5%	5%	7.5%	10%	12.5%
Global REITs	0%	2.5%	5%	7.5%	10%	12.5%
Global Hedge Funds	0%	2.5%	5%	7.5%	10%	12.5%
Global Bonds	45%	36%	27%	18%	9%	0%
Emerging Markets Bonds	5%	4%	3%	2%	1%	0%
Annualized Average Return	5.3%	5.3%	5.3%	5.3%	5.3%	5.3%
Annualized Risk	4.0%	4.5%	6.6%	9.4%	12.4%	15.4%
Total Equity	0%	20%	40%	60%	80%	100%
Total Fixed Income	100%	80%	60%	40%	20%	0%

Asia-Pacific Local Portfolios	Allocations					
Pacific ex-Japan Equity	0%	20%	40%	60%	80%	100%
Asian Aggregate Bonds	100%	80%	60%	40%	20%	0%
Annualized Average Return	2.1%	3.0%	3.8%	4.7%	5.5%	6.4%
Annualized Risk	2.3%	4.3%	7.7%	11.4%	15.1%	18.8%

Global Portfolios	Allocations					
Pacific ex-Japan Equity	0%	10%	20%	30%	40%	50%
Asian Aggregate Bonds	50%	40%	30%	20%	10%	0%
World ex-Japan Equities	0%	2.5%	5%	7.5%	10%	12.5%
Emerging Markets Equity	0%	2.5%	5%	7.5%	10%	12.5%
Global REITs	0%	2.5%	5%	7.5%	10%	12.5%
Global Hedge Funds	0%	2.5%	5%	7.5%	10%	12.5%
Global Bonds	45%	36%	27%	18%	9%	0%
Emerging Markets Bonds	5%	4%	3%	2%	1%	0%
Annualized Average Return	4.6%	5.0%	5.4%	5.8%	6.2%	6.7%
Annualized Risk	3.6%	4.7%	7.3%	10.3%	13.4%	16.6%
Total Equity	0%	20%	40%	60%	80%	100%
Total Fixed Income	100%	80%	60%	40%	20%	0%

Source: ING IM analytics

Long-Term European Market Component Performance

Asset Class Performance January 1999 - October 2009		
Asset Class	**Annual Return (EUR%)**	**Annual Risk (StDev%)**
Europe Large Cap Equity	2.12	17.01
Europe Aggregate Fixed Income	4.67	3.12
World ex-Europe Equity	0.00	16.78
Emerging Markets Equity	16.66	25.06
Global REITs	10.55	20.17
Global Hedge Funds	8.10	7.40
Global Fixed Income	5.26	5.13
Emerging Markets Bonds	11.55	11.18
Source: MSCI, Standard & Poors, FactSet		

Long-Term Asian Market Component Performance

Asset Class Performance July 2000 - October 2009		
Asset Class	**Annual Return (EUR%)**	**Annual Risk (StDev%)**
Asia ex-Japan Large Cap Equity	6.39	18.82
Asia Pacific Aggregate Fixed Income	2.09	2.25
World ex-Japan Equity	-3.45	16.65
Emerging Markets Equity	13.88	25.50
Global REITs	11.47	21.09
Global Hedge Funds	5.80	6.74
Global Fixed Income	6.56	5.17
Emerging Markets Bonds	10.12	11.38
Source: MSCI, Standard & Poors, FactSet		

Footnotes

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Index Definitions

Barclays Capital Asian Pacific Aggregate Bond Index is an unmanaged, market-weighted bond index used as a general measure of the performance of Asian investment-grade fixed income securities.

Barclays Capital Euro-Aggregate Bond Index is an unmanaged, market-weighted bond index covering euro-denominated fixed income securities.

Barclays Capital Global Aggregate Bond Index measures a wide spectrum of global government, government-related, agencies, corporate and securitized fixed-income investments, all with maturities greater than one year.

Barclays Capital Global Emerging Markets Bond Index tracks total returns for external-currency-denominated debt instruments of the emerging markets: Brady bonds, loans, Eurobonds, and U.S. dollar-denominated local market instruments in 47 countries.

Barclays Capital U.S. Aggregate Bond Index is composed of U.S. securities in Treasury, Government-Related, Corporate, and Securitized sectors that are of investment-grade quality or better, have at least one year to maturity, and have an outstanding par value of at least $250 million.

FTSE NAREIT U.S. Real Estate Index is designed to present investors with a comprehensive REIT performance that spans the commercial real estate space across the U.S. economy, offering exposure to all investment and property sectors.

The FTSE EPRA/NAREIT Developed Index is designed to track the performance of listed real estate companies and REITs worldwide. The index constituents are free-float adjusted, liquidity, size and revenue screened.

FTSE EPRA/NAREIT Global Real Estate Index is designed to represent general trends in eligible real estate equities worldwide. Relevant real estate activities are defined as the ownership, disposure and development of income-producing real estate.

HFRI Fund Weighted Composite Index ("HFRI") is designed to reflect hedge fund industry performance through an equally weighted composite of constituent hedge funds, as reported by the hedge fund managers listed within HFR Database. The HFRI encompasses over 2000 funds.

MSCI EAFE Index is a free float-adjusted market capitalization weighted index designed to measure the developed markets' equity performance, excluding the U.S. & Canada, for 21 countries.

MSCI Europe Index is a free float-adjusted market capitalization weighted index designed to measure equity performance of the developed markets in Europe consisting of 16 country indices.

MSCI Pacific ex-Japan Index is a free float-adjusted market capitalization weighted index designed to measure developed markets' equity performance of the in the Pacific region consisting of four countries (Australia, Hong Kong, New Zealand and Singapore).

MSCI Emerging Markets Index is a free float-adjusted market capitalization index that measures emerging market equity performance of 22 countries.

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of 23 developed market country indices.

MSCI World Ex-Japan Index is a constituent of the MSCI World Index that excludes the equity market performance of companies domiciled in Japan.

MSCI World Ex-Europe Index is a constituent of the MSCI World Index that excludes the equity market performance of companies domiciled in Europe.

S&P 500 Index is a widely regarded as the best single gauge of the U.S. equities market, including 500 leading companies in major industries of the U.S. economy.

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