

MONTHLY

VOLUME 8, ISSUE 7 JULY 2011

INVESTMENT HORIZONS AND RISK

Introduction

Most individuals think of themselves as long-term investors, because they accumulate assets over time to meet long-term goals such as retirement, educating their children, or providing ongoing support to their heirs or worthy institutions. We believe that a globally diversified portfolio can produce the returns needed to meet the financial needs of most long-term investors, as long as they follow a disciplined long-term investment approach. This includes understanding the risks associated with market returns and how time affects the range of possible outcomes.

During times of crisis, long-

term investors can become focused on protecting themselves from short-term losses by purchasing portfolio insurance or selling risky assets. Unfortunately, this protection often comes at the expense of long-term returns.

Understanding market risk and acting within the context of an investor's time horizon are critical components of a disciplined process that allows the investor to stay invested and capture market returns over time.

In this *Monthly*, we review some of the most commonly used measures of investment risk, and show how time impacts the effects of market volatility on portfolio

returns.

Measuring Risk

When purchasing an investment, investors have a general expectation of what future returns are likely to be. Investors also understand that investments capable of generating returns higher than cash come with a certain amount of risk. The most common way to quantify investment risk is through the use of a statistical measure known as the *standard deviation*. The standard deviation describes how much a single outcome is likely to deviate from the average or expected outcome. A low standard deviation of return indicates

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CURRENT TOPIC

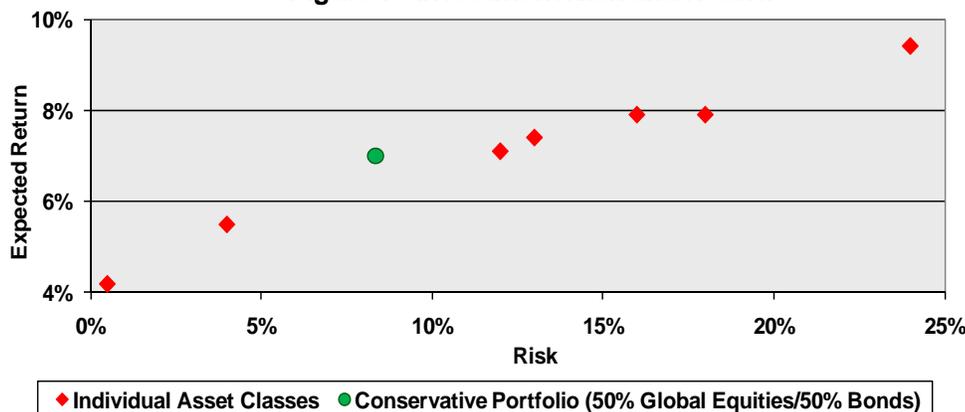
Investment Horizons and Risk

- *Introduction*
- *Measuring Risk*
- *Combining Assets to Reduce Risk*
- *The Effects of Time on Risk*
- *Conclusion*

Strategy

- *We made no strategy changes during the month of June.*
- *Portfolios remain modestly overweight developed market equity exposure and underweight bond exposure.*

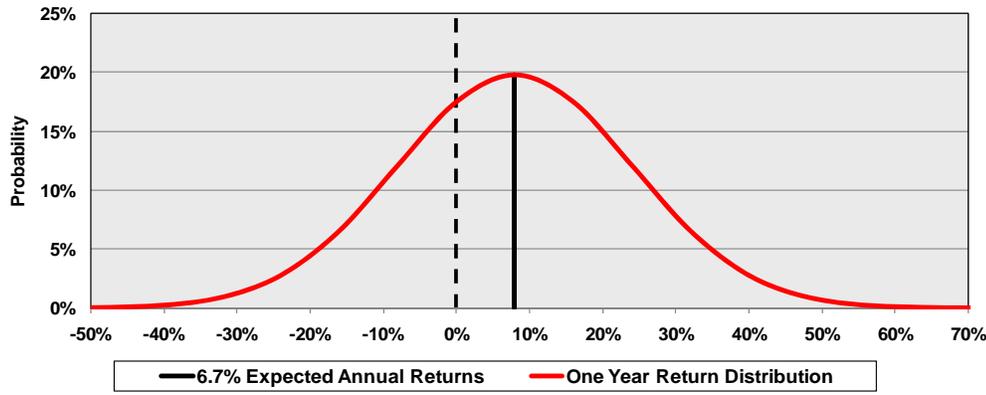
Figure 1 - Investment Risk and Return



“THE RELATIONSHIP BETWEEN RISK AND RETURN IS CONSISTENT WITH HISTORICAL OBSERVATIONS AND CAN ALSO BE EXPLAINED BY THE THEORY THAT INVESTORS REQUIRE COMPENSATION FOR TAKING RISK”

INVESTMENT HORIZONS AND RISK - CONT'D

Figure 2 - US Equity Return Distribution



“US EQUITIES CAN BE EXPECTED TO PRODUCE A NEGATIVE ANNUAL RETURN ROUGHLY 31% OF THE TIME”

that an investment has little risk of producing an outcome that is much worse (or much better) than the average or expected outcome.

Figure 1, which is constructed using our long-term forward looking market assumptions, illustrates that higher return assets generally come with more risk. The relationship between risk and return is consistent with historical observations and can also be explained by the theory that investors require compensation for taking risk.

Another more intuitive measure of investment risk is the probability of losing money over a given timeframe. The expected return and standard deviation statistics described above are used to calculate

this number. Figure 2 uses a common graphic known as *the bell curve* to illustrate the probability of an annual loss for US Equities. The figure shows that US equities can be expected to produce a negative annual return roughly 31% of the time. Assets with lower volatility, like high-quality bonds, have a lower probability of producing negative returns.

Combining Assets to Reduce Risk

The mix of assets in a portfolio has been shown to have the largest impact on risk and returns. Because high-quality fixed income investments have volatility that is materially lower than equity volatility, increasing the weight of fixed income investments in a portfolio decreases the overall return volatility. This relatively simple rule of thumb is why mutual fund ratings companies and institutional consultants categorize portfolios based on their overall equity exposure when comparing historical returns.

Another way that combining assets can reduce risk in a portfolio is if the returns of the assets follow different paths over time. The relationship between the returns of different assets is known as the *correlation*. If the returns of two assets move in lock-step, then they are perfectly correlated and have a correlation coefficient of +1. If returns move in opposite directions, then they have a negative correlation coefficient. Our correlation assumptions for selected asset classes are shown in Figure 3. This information is valuable when constructing portfolios, because combining assets

with correlations of less than +1 reduces the risk of the overall portfolio over time.

The conservative portfolio shown in figure 1 was constructed using 50% high quality bonds, 25% US equities, and 25% foreign equities. Because these assets are not perfectly correlated, the investor benefits from overall risk that is lower than what would be implied by an average of the underlying assets.

The Effect of Time on Risk

Total returns compound over time, but the annualized average return does not change based on the time period. In contrast, the annualized risk for an investment can change dramatically depending on the time period being considered.

Overall risk increases over time. However, annualized risk actually declines both in absolute terms and relative to expected returns. As total returns compound, this makes it less likely that re-

(Continued on page 3)

Figure 3 - Asset Class Correlation Matrix

	US Equity	Foreign Equity	Emerging Equity	US Bond	High Yield	Emerging Bond
US Equity	1.00					
Foreign Equity (Unhedged)	0.75	1.00				
Emerging Market Equity	0.75	0.80	1.00			
US Bond	0.10	0.05	0.00	1.00		
High Yield	0.65	0.60	0.65	0.25	1.00	
Emerging Market Bond	0.60	0.60	0.70	0.40	0.65	1.00

Source: Stairway Partners

About Stairway Partners, LLC

Stairway Partners was formed to provide our clients (starting with ourselves) with an effective and comprehensive solution for managing their wealth. Our disciplined and rigorous approach comes from our collective knowledge in serving large institutional clients over many years.

Our core investment belief is that asset allocation is the single most important determinant of success in any investment plan. The dominant amount of risk and return comes not from your choice of individual investments but from your asset class mix. Stairway Partners focuses our resources on risk management and asset allocation. This includes building your custom blue-print (investment policy and benchmark) and aligning your portfolio with our investment strategy utilizing the global capital markets.

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turns will be negative over longer time horizons.

The dashed lines in Figure 4 show the annualized return ranges expected for the balanced portfolio described above and shown in Figure 1. These estimates are based on our forward looking expected returns, risk, and correlations for global equi-

ties and US Bonds. The convergence of the lines as the time period expands illustrates the reduction of annualized risk over time.

To show that all of these statistical assumptions have value in predicting potential outcomes, we compared our forward looking risk estimates to actual history. Since downside risk is most important to investors, we took the worst observed returns for one to fifteen year time periods and compared them to our estimates for the worst 1% of expected outcomes. The figure shows that the annualized worst case returns converged to the expected average annual return as the horizon increases, which validates the theory that annualized risk decreases over time. The results also

show that for investment horizons of five years or more actual worst case results were described very accurately by our pessimistic statistical estimates.

Over shorter time periods, the pessimistic estimate did not capture the full extent of the market's negative returns. This rather dramatic deviation occurs because market panics, like we had in 2008-2009 can lead to price movements beyond what long-term statistical analysis would anticipate. Panics can also lead to increased correlations between investment as investors sell indiscriminately, seeking safety in cash. Unfortunately, these short-term deviations can cause people to lose faith in the markets, and abandon their long-term investment strate-

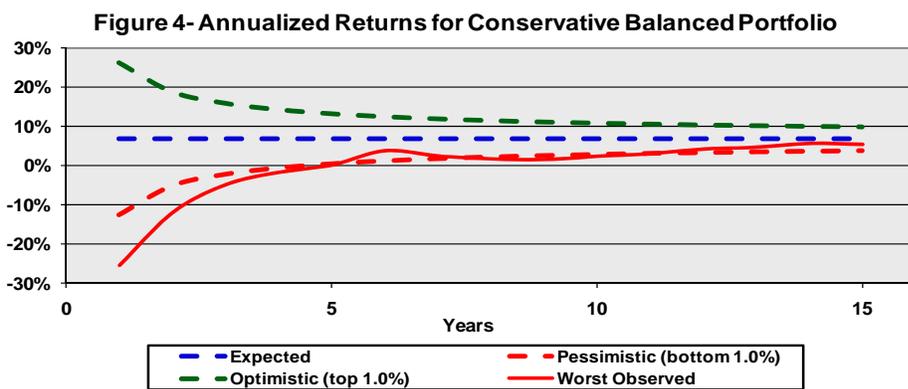
gies after markets have declined. We have written extensively about this topic in the past, in an effort to reinforce our belief in the benefits of maintaining a long-term focus. The most recent piece on the topic was the May 2009 Monthly, titled "Diversification Hasn't Failed".

Conclusion

Accurately predicting future returns is difficult, but we believe that investors have a very good chance of achieving results within a well defined range of outcomes if they stick to a disciplined long-term investment approach. Having reasonable return expectations and understanding long-term investment risks helps investors build portfolios that can meet their objectives with an appropriate amount of risk.

Maintaining a long-term focus through times of crisis and looking beyond violent short-term market movements gives investors a much better chance of achieve their long-term goals

"FOR INVESTMENT HORIZONS OF FIVE YEARS OR MORE ACTUAL WORST CASE RESULTS WERE DESCRIBED VERY WELL BY OUR PESSIMISTIC STATISTICAL ESTIMATES"



Sources: Stairway Partners, Standard and Poor's, MSCI, Barclays Capital

Strategy

Asset Class	Expected Return	Hurdle Return	Strategy Exposure	Comment																									
Equities																													
US	11.8%	4.2%	over	Exposure above benchmark weight due to attractive pricing																									
Non-US Developed			over	Exposure above benchmark weight due to attractive pricing																									
Eurozone	27.4%	5.0%																											
Japan	1.6%	3.8%																											
UK	26.6%	4.9%																											
Emerging	5.0%	8.4%	neutral	Asset class is modestly above fair value																									
Fixed Income																													
US Treasury Bonds			under	Most Treasuries expensive, other sectors offer better value																									
2-Year	0.0%	0.9%																											
5-Year	-1.3%	1.4%																											
10-Year	-1.3%	1.9%																											
30-Year	-1.5%	2.2%																											
US Municipal Bonds			under	In most maturities, municipal bonds are close to fair value																									
2-Year	0.2%	0.8%																											
5-Year	-0.6%	1.2%																											
10-Year	0.3%	1.6%																											
20-Year	3.9%	1.8%																											
US High Yield	2.9%	3.0%	neutral	Sector is close to fair value																									
Non-US Government Bonds			under	Yields remain below fair levels																									
Euro 10-Year	-2.5%	1.7%																											
Japan 10-Year	-0.7%	1.7%																											
UK 10-Year	-3.7%	1.7%																											
Canada 10-Year	-2.2%	1.8%																											
Emerging Markets Debt	1.1%	3.3%	under	Sector is modestly above fair value																									
Cash	0.6%	---																											
<table style="width: 100%; border: none;"> <tr> <td></td> <td></td> <td style="text-align: center;">10-Year</td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">Expected</td> <td style="text-align: center;">Equity</td> <td style="text-align: center;">Bond</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">FX Change</td> <td style="text-align: center;">Return with</td> <td style="text-align: center;">Return</td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Currency</td> <td style="text-align: center;">with</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Currency</td> <td></td> </tr> </table>							10-Year				Expected	Equity	Bond			FX Change	Return with	Return				Currency	with					Currency	
		10-Year																											
	Expected	Equity	Bond																										
	FX Change	Return with	Return																										
		Currency	with																										
			Currency																										
Currencies																													
Euro	-4.4%	21.8%	-6.8%	Euro is modestly above fair value																									
Japanese yen	-0.9%	0.7%	-1.6%	Yen is near fair value																									
UK pound	-1.4%	24.9%	-3.5%	Pound is near fair value																									

Notes:
As of: June 30, 2011

The expected return is our estimate of the annualized return likely to be generated over a 3-year horizon.

The expected returns are expressed in local currencies (e.g., Japanese equity return is stated in yen terms).

The hurdle rate represents the annualized return that an asset needs to generate in order to cover its risk.

Equity Return with Currency (in Currencies section) is the annual return we would expect a US dollar investor to earn from holding foreign equity markets.

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