

Quarterly Newsletter - July 2015

July 15, 2015

Dear Client,

This letter is going to be about diversification, rebalancing, and international investing. Both U.S and international markets have had a remarkable recovery from the 2007-2009 crash. During the crash we rebalanced against the fall in stock prices by selling bonds and buying stocks. As the recovery unfolded and stock markets rose we were selling stocks and buying bonds. Now there is deep uncertainty in China and in Europe as well. Uncertainty creates market volatility. We would like to talk about what we will be doing during this volatility. If the markets do not do much we will not be doing a lot of rebalancing. If they rise we will continue to trim stocks and buy bonds. If the U.S. stock markets fall, we will be selling bonds and buying U.S stocks. If the international markets fall, we will be selling U.S and buying abroad. This is the way our method always works. Take some money away from what is doing well and add to what is doing badly. But we would like to discuss this with you in some greater detail.

Good data for international equity returns begins in January 1970. We will therefore begin our discussion on that date. We are going to compare the performance of three different portfolios all of which will be allocated 60% in stocks and 40% in bonds. All three will begin at \$1,000, as of January 1 1970. The bonds will always be 50% five year Treasury bonds and 50% Barclays US Aggregate Bond Index. The stock will be as follows: In Portfolio 1 the stock side will be 100% U.S. using only the S&P 500. This is a non-diversified portfolio. In Portfolio 2 the stock will be still be 100% U.S. but spread out across multiple asset classes. This portfolio is semi diversified. Portfolio 3 will split the stock evenly between U.S. and international and also spread out among multiple asset classes, both U.S. and international. This portfolio is fully diversified. In both the second and third portfolios, diversification means that the stock position will be divided up into large and small companies, and growth and values companies, with equal percentage allocations to each. The portfolios will be rebalanced back to the policy weights annually.

We are interested in two things ? first the ending value of the portfolio as of December 2014 (higher is better) and second the degree of risk taken by the portfolio on its way to the final value. Risk is measured by the standard deviation (volatility, variation, bumpiness of the ride) of the annual risk adjusted rates of return on their way to final value. (lower is better here). And click ? the research is done. The results are presented to you in the attached table. We are using data from Dimensional Fund Advisors but the calculations are ours. We are using a table format for this analysis from the article *The One Free Lunch in Investing* written by a fellow DFA advisor at a firm named Serv? Wealth Management. We like the title, because we agree, there is a free lunch available for long term investors with gumption. Now look at the table. Look at the bottom three rows. Portfolio 1 has a final value of \$65,828 and an annualized rate of return of 9.75%. Portfolio 2 has a final value of \$141,711 and an annualized rate of return of 11.64%. Portfolio 3 has a final value of \$164,623 and an annualized rate of return of 12.01%. Portfolio 3 ? fully diversified ? wins hands down. The return is much better. Go diversified and go international and rebalance when necessary. The numbers shout this out. What about the risk? Here it is a bit more complex. From Portfolio 1 to Portfolio 2 the risk (standard deviation) rises some ? though not as much as the return. From Portfolio 2 to Portfolio 3 (going international) the return rises a bit and the risk falls a bit. Both are going in the proper direction but the risk in Portfolio 3 remains higher than Portfolio 1. What does this mean? It means that standard deviation standing alone is an ok measure of risk, but it is not a good measure of portfolio efficiency. We need a measure of portfolio efficiency. With cars, speed is measured by miles per hour. How long it will take the car to get from here to there. With portfolios, speed is measured by annualized rate of return. How fast the portfolio is moving along to make you rich. With cars, efficiency is (sort of) measured by miles per gallon. But there is a problem. Speed is not mentioned. Just as rate of return is not mentioned in the standard deviation. At zero miles an hours the car is no doubt very efficient, but it is not going anywhere. We need miles per gallon at a given speed. Miles per gallon at 50 miles per hour. That measures the efficiency of the car at that speed. With portfolios, efficiency is measured by the Sharpe ratio. This is called risk adjusted return. The return delivered per unit of risk taken. How efficient is the portfolio at delivering the return. How well is the risk budget used. Unlike with standard deviation, higher is better for the Sharpe ratio. Higher means more return per unit of risk. And measured by the Sharpe ratio (right hand column in the data table) Portfolio 3 wins again. Portfolio 3 is much more efficient than Portfolio 1, and more efficient than Portfolio 2 as well. The return per unit of risk is much higher. So fully diversified wins on both measures. The return is higher and the efficiency is also higher. You cannot do better than that. (We don't think at least).

Portfolio efficiency is not glamorous ? but it should be. Portfolio 3 (40% bonds) has both a higher return and a lower standard deviation than a zero bond, all stock S&P 500 portfolio. The return is higher ? (12.01% compound annual vs. 10.47%) and the risk (standard deviation) is lower (12.34% vs. 17.59%). The return is a lot higher, and the risk a lot lower ? not just a little bit ? so the portfolio owner can achieve equity like returns while taking much less than equity risk. This is exactly what a free lunch is. Better returns combined with lower risk.

This all comes from using a diversified method and then rebalancing. But it does take gumption, or grit. Please notice that the international positions generally have higher volatilities than the U.S. positions. The standard deviation of the annual returns for the internationals is generally higher than the U.S. positions while the returns are roughly the same. This higher risk comes (in part) from currency risk. Currency risk is uncompensated risk. Because currencies are not real. Currencies are merely nominal (like ghosts). (See the work of Donald Davidson for the distinction between real and nominal in philosophy. See the website [themoneyillusion](#) for the distinction between real and nominal in economics). Currencies are not real because it is all just trading. The winnings of the winners exactly match the losses of the losers. But currency trading leaves real volatilities behind. Especially bad currency (monetary) policy. Currency pays zero real but the currency risk remains in the form of those higher volatilities. Like Hamlet's ghost ? a nominal ghost from the past that is really scary. But when one adds those not-impressive international assets to a properly diversified portfolio there is a payoff for the currency risk. And the name of that payoff is rebalancing opportunities. The international positions, taken one at a time are not impressive. But, when added to the portfolio, they make the whole portfolio better (more efficient). This better efficiency is coming, at least in part, from rebalancing against currency risk. Currencies are very volatile, but they also reliably revert. (Like ghosts ? the apparently real returns vanish in the broad sunlight of reality). They go up and then down. So rebalancing should work with them. But only if the rebalancing trades are actually made.

And this is the scary part, actually doing the trades, especially when the markets are in the headlines from falling a lot. Some famous person will be on tv telling us (you) that it is the end of the world, and perhaps it is this time. All those tables of fancy statistics will not mean one thing if the world falls apart. Well, this is what you hire us to do, to actually make the trades in the face of all the shouting. And we will be making them, with your money.

We are not saying it will feel good. What we did in the 2007-2009 crash didn't feel good, when we were rebalancing against straight fear. The crash was truly frightening ? so the prevailing trade, all over the world, was the fear trade. Selling fear (get rid of it by selling equities) and buying safety (bonds). We rebalanced against the fear trade by selling safety (bonds) and buying fear (stocks). We did that trade literally hundreds of times during the crash. That has worked out quite nicely. Now we may be rebalancing against both a rising dollar and also lower stock prices, with your money. If the equity markets fall we will be buyers of stocks, U.S. and abroad. We expect that will work out well also. It is after all the same basic trade. Love is real while fear is merely nominal. Therefore sell what you love and buy what you fear. Buy stocks when there is blood in the streets. The markets are nothing if not heartless.

Jim John Richard & Ryan.