

Timing & Assumptions

Portfolio Construction and Asset Allocation

From the Desk of Jon Sundt
March 2007

"You know, sometimes, when they say you're ahead of your time, it's just a polite way of saying you have a real bad sense of timing." -- George McGovern

My father would roll over in his grave if he heard me quoting George McGovern, but on this point McGovern was right: timing is everything. In my last newsletter, I wrote about the importance of asset allocation and having an investment plan that makes sense prior to putting your money to work. In the world of wealth management for the high net worth investor, the subject of asset allocation is central to managing your money.

Our accredited investor client base generally understands the concept of asset allocation and diversification, but like many things in life, the devil is in the details.

MODERN PORTFOLIO THEORY & YOU

If you walk into a typical financial planner's office, they may ask you a myriad of invasive and somewhat obvious questions about your current portfolio, age, goals, risk tolerance, tax situation, etc. These are all-important inputs into determining your risk-reward profile and hence the ultimate design of your personal asset allocation. Typically, your advisor will input your answers into a software program based on Harry Markowitz's Modern Portfolio Theory and run an optimizer for you. Based on this model, your advisor is likely to suggest that you invest in a 60% stock, 40% fixed income allocation.

As many of you know, with a click of a button, this clever software program will generate a 20-page PowerPoint presentation complete with graphs, charts and "expectations" (not promises, of course) about the prospects of your future wealth. It shows you where you are now and where the firm expects you to be in "x" years. This is where the devil hoists his pitchfork out of the statistical details and screams for your attention. *The assumptions imbedded in such analyses can change your wealth forecast dramatically* - you need to understand them.

MPT: A BRIEF OVERVIEW

Nobel Laureate Harry Markowitz formed the Efficient Portfolio Theory, which is the basis of Modern Portfolio Theory, in the early 1950's. While investors before then knew intuitively that it was smart to diversify (i.e., don't "put all your eggs in one basket"), Markowitz was among the first to attempt to quantify risk and demonstrate why and how portfolio diversification works to reduce risk for investors.

He was also the first to establish the concept of an "efficient portfolio." An efficient (or optimal) portfolio is one that has the smallest attainable portfolio risk for a given level of expected return (or the largest expected return for a given level of risk). The process for establishing an optimal portfolio generally uses historical measures for return, risk and correlation. *Therein lies the problem... WHAT historical return, risk and correlation figures should be used?*

OPTIMAL PORTFOLIOS

Through computer programs that process the returns, risk (standard deviation of returns) and correlation coefficients data, it is possible to establish a number of portfolios for varying levels of return, each having the least amount of risk achievable from the asset classes included. These are known as optimal portfolios. The investor then simply has to choose which level of risk is appropriate for their particular circumstances (or preference) and allocate their portfolio accordingly...sounds so easy, right?

But as with the typical advisor's software program, the problem lies in the assumptions you use to establish the optimized portfolio. In short, the problem is in choosing the inputs.

INPUT 1: RISK & RETURN

The issue with relying on historical returns is that they are dependent on the time period you choose. For example, if you are allocating to US long-only equities, do you input the last ten years' returns for US stocks or the last 50? Let's say you choose the last 50 years. Sounds



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Altegris is headquartered in La Jolla, California, and specializes in finding unique alternative investments to help high net worth and institutional investors diversify their portfolios. Altegris' clients currently represent a trading level of over U.S. \$2 billion in hedge fund and managed futures investments.

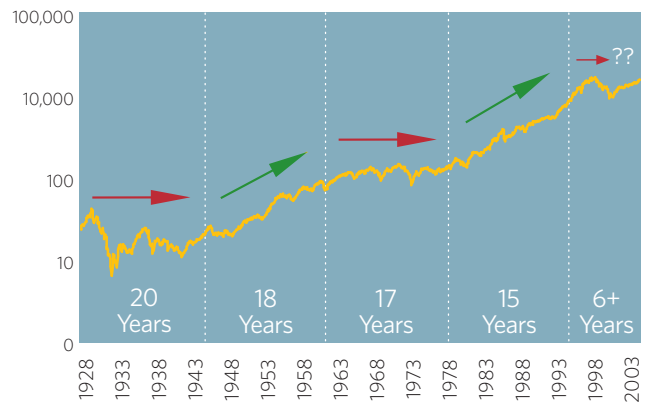
reasonable, right? If you were to do that, the S&P would show your annualized return as 6.98% with an annualized standard deviation of 14.36%. On the other hand, if you look at the S&P 500 for a different period, such as the 10-year period from January 1990 through December 2000, you get annualized returns of 12.73% and standard deviation of 13.82%. Why 1990-2000? This is a common date period used because 1990-2000 was witness to numerous financial cycles, beginning with a variety of market issues from the devaluation of the Mexican Peso to the Russian Debt Crisis.

The 6.98% and 12.73% figures are obviously very different. Which time period is your advisor using? Which makes more sense to use? And more importantly, over the next 15-20 years, which is more likely to approximate how the markets will behave?

INPUT 2: CORRELATION

Building a portfolio with non-correlated assets is the hallmark of Modern Portfolio Theory. Questions you might ask are: How will your portfolio do if the US markets decline by 30% over the next two years? Will your diversification save you? To answer those questions, I suggest you look at how the investments in your portfolio are correlated with each other. Modern Portfolio Theory will tell you that the lower a portfolio's correlation, the lower the portfolio's standard deviation; in other words, your portfolio hopefully won't get crushed in a big decline of one part of the markets.

CHART 1 S&P 500 Average 1928 - Present

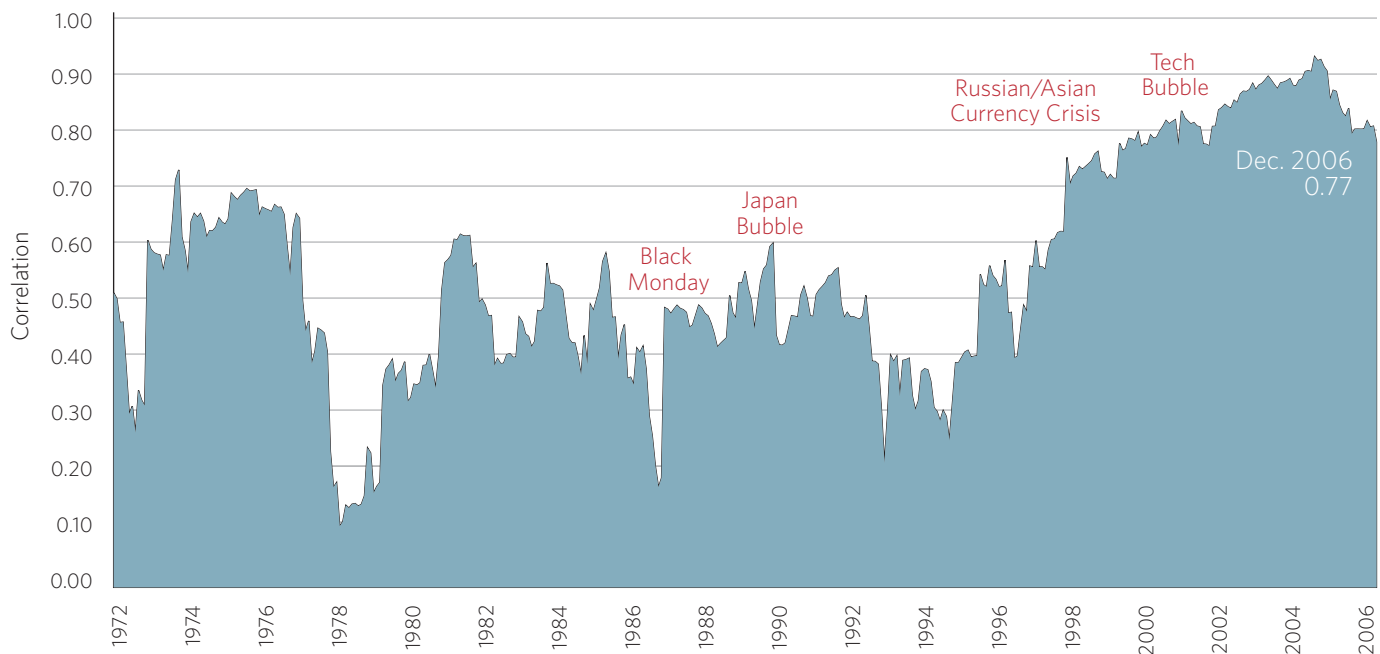


PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS. Source: International Traders Research, Inc. (An affiliate of Altegris Investments)

However, if you were constructing your optimal portfolio in 1998, you might have relied on the low correlation between the MSCI EAFE and the S&P 500 for the last 20 years (0.46). Based on this low correlation, you might have loaded up on international equities believing the diversification would help you dramatically if the markets tanked...well, it clearly didn't work. Over the last 25 years, correlations have accelerated to over 0.77 on a rolling basis. (See the chart below.)

So which value do you use today if you are constructing a portfolio...correlations from the last 36 months? The last ten years? Or the 50-year value?

CHART 2 Rolling 36-Month Correlation: MSCI EAFE Index to S&P 500*



PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS. Source: International Traders Research, Inc. (An affiliate of Altegris Investments)

*Correlations are subject to change. There is no guarantee that the addition of alternative investments to a portfolio will increase returns or avoid losses.

NO SIMPLE SOLUTION

Let me give you an example. Suppose your name is George Livingood. Pretend it's 1998 (since all financial modeling is pretending...based on history). You're content for now and living comfortably, but you still need to think about the future and your retirement. You are currently liquid for around \$5 million. You have 1 ex-wife, 3 kids, and 4 grandkids. Bottom line, you spend about \$300,000 a year to keep your "life" going or about 6% of your portfolio. You also want to leave some money to your kids, grandkids, and have some extra cash for emergencies.

You figure you will live about 25 more years. Your goal is to earn enough per year over the next 25 years with some money left to leave to your loved ones. Since your goal is to beat 6% after taxes, you figure you will need about 10% annually. Piece-of-cake, you think. You then go to your financial planner, he runs an optimizer for you and based on his models, he suggests you invest in a 60% stock, 40% fixed income allocation.

Let's assume that your advisor bases his analysis on the last ten years of historical data (1987-1997). Using this standard method, your advisor's optimizer predicts an expected return of 11.61% with a standard deviation of 9.88%, by allocating 60% to stocks (S&P 500) and 40% to bonds (Lehman Aggregate).

So you go home that night, thinking that you'll earn around 11% a year on your investments and be able to take out some money each year. You feel pretty good.

REALITY BITES

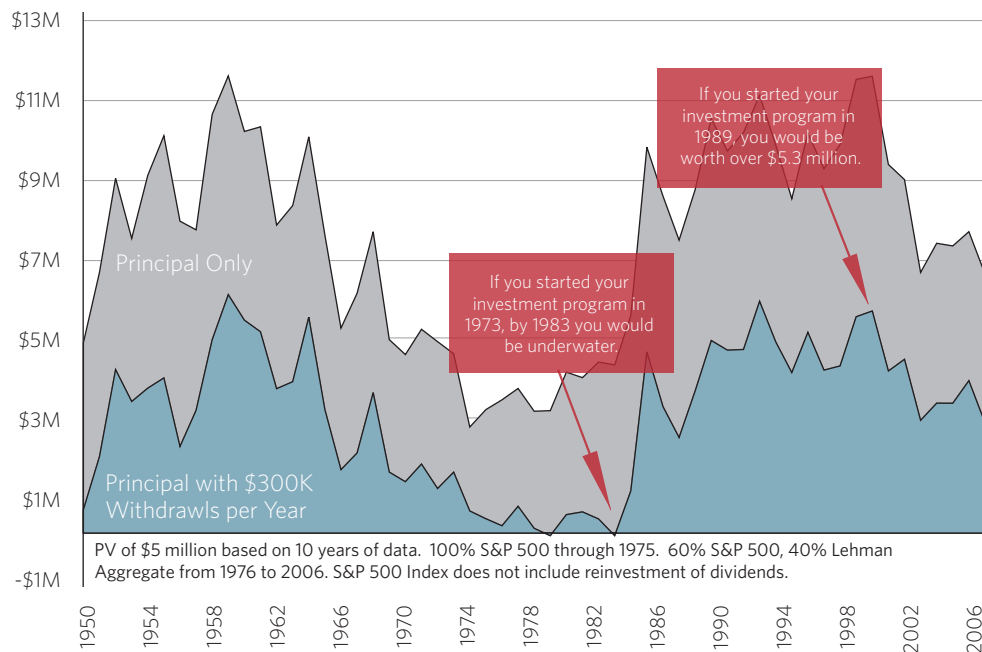
Now fast forward to what would have actually happened had you followed the advice of your planner. Given this recommendation, at the end of 2006 you would only have around \$2.6 million! At that rate, you could lose all your money by the end of 2016, leaving you broke after 18 years with nothing left to give your family. If you adjust the above calculations for taxes, you end up bankrupt in 2014.

The lesson here is that historical modeling (pretending) pales in comparison to **WHEN** you invest. It's all about timing.

THE PHILOSOPHY OF TIMING

One of Markowitz's favorite authors is René Descartes, the famous philosopher. Descartes once wrote, "It is a truth very certain that when it is not in our power to determine what is true, we ought to follow what is most probable." How do you know what time period is most probable?

CHART 3 Portfolio Value



PAST RESULTS ARE NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.
Source: International Traders Research, Inc. (An affiliate of Altegris Investments)

How do you know you will earn 11% for the next 25 years based on previous years' data? Again, look at Chart 1 on the previous page. Where you are in the timeline could dramatically affect your return assumptions. If you were unlucky enough to retire in 1967, your 60/40 stock portfolio would have done poorly. If you were lucky enough to retire in 1984, you would have fared well. But what about today?

Let me put that example in more concrete terms. Most proponents of Modern Portfolio Theory state that market timing is one strategy for investing and that asset allocation is another. Our argument is that you never know where you are going to end up on the line in Chart 1. If market timing isn't going to get you there, and the medium-term outlook

*"...historical modeling pales in comparison to **WHEN** you invest."*



for equities is bleak, where do you go? Depending on what time period you select, the value of your portfolio could be completely different. In Chart 3 on the previous page, you can see that depending on which ten-year period you are starting from, the value of your \$5 million can look as low as \$2.6 million or as much as \$11 million in today's dollars. If you take out \$300,000 a year, or a mere 6%, the values are even lower. You would have gone broke if you retired in 1984 or made a decent return if you retired in 1989. So the real question is...what do the next 20 years hold?

PROBABLE ALTERNATIVES

I realize that this is an over simplification of Modern Portfolio Theory and how it may apply to you. The purpose, as I mentioned earlier, is for you to have a greater dialogue with your investment advisor and thus a greater understanding in general of your future wealth; not to try to boil down Markowitz's acumen in a few pages. He is the Nobel Laureate and I am not.

Altegris, however, specializes in alternative investments, and I believe we can speak to their benefits and risks. In my opinion, hedge funds' greatest potential advantage is that their returns are often specifically designed to be independent of general market returns across most market environments, and accordingly can exhibit low correlations. Although there is no guarantee, adding hedge funds to your portfolio can potentially add diversification and reduce your overall standard deviation, which is another way of reducing the risk in your portfolio. Reducing standard deviation by adding truly uncorrelat-

ed asset classes is a powerful way to potentially smooth out the returns in your portfolio and put you on more solid footing for the future.

This topic alone could be the premise for future letters in perpetuity. But what I want to make clear is that hedge fund managers often inherently have more flexibility to avoid market hazards. They also may have more flexibility to pile into market opportunities. Hedge funds, in general, are designed to be absolute return vehicles, using their nimbleness to maximize the potential to make money in both up and down markets. They have the potential to make money regardless of market direction because they are not limited to simply buying long and holding and/or trading around positions. Shorting allows hedge funds the potential to excel even in down markets. While hedge funds can be risky investments, and while there is no guarantee that any specific hedge fund will provide an investor with diversification, as a whole, their diversification benefits are well documented. Past results are not indicative of future results.

While the bulk of your assets may be tied up in long-only stocks and bonds, as per an allocation designed by your investment advisor, it can be comforting to know that a portion of your assets are invested in an asset class (hedge funds) having a unique risk/return profile and expanded investment opportunity set. Perhaps more importantly, the anticipated future performance of hedge funds is not predicated on past results, but instead, on a manager's potential skill in foreseeing market events and maneuvering around market cycles to extrapolate alpha.

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