Making Sense of Trailing Performance

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This article is inspired by a question that I received from a trial user of our portfolio planning software. This person likes a mutual fund called the ***American Funds Capital World Growth and Income Fund*** (ticker: CWGIX). This fund, currently rated five stars by Morningstar, has generated annualized returns over the past five years (through 8/31/2007) of 20.7% per year. This is, as it name implies, an internationally focused fund, and world stock indices have done very well over this period---but this fund has out-performed the indices against which Morningstar benchmarks it, and this is the cause of the five star rating. Fair enough. The investor was analyzing this fund as part of a portfolio using ***Quantext Portfolio Planner***, a planning tool and he felt that he had found a paradoxical result in QPP's forward view. The issue with this particular fund bears on the far larger issue of how to treat trailing performance of a fund.

The investor in question was very surprised when ***Quantext Portfolio Planner*** (QPP) projected an average annual return of 7.7% per year for this fund going forward. Naturally, anyone who has been investing in a fund that has returned 20+% per year does not want to think that this fund will generate less than half that amount going forward, and the user felt that there must be something wrong. Is a forward-looking expected return of 7.7% for this fund plausible or reasonable?

To answer this question, let's take step back in time to the period from 1994-1998. Over this five year period, the S&P500 index generated almost 25% in average annual return. Investors were practically giddy and many investors believed that all you had to do was to harness your financial wagon to this index and everyone would be wealthy. If you run QPP using this five year period as input, QPP would have projected 8.3% in annual return going forward. This is not at all what investors would have wanted to hear, but it was a far better estimate of future performance than simply looking at trailing performance. Over the next five years (1999-2003), the S&P500 generated an average annual return of about 1% and the average index fund was right at break even. For the period from 1999-2006, the average annual return on the S&P500 was up to about 5%. The point here is that standing back at the end of 1998, QPP's projection of 8.3% per year for the expected annual return was far closer to what would actually happen than

simply assuming that the trailing return was a reasonable forward-looking estimate. This phenomenon is what John Bogle, founder of Vanguard, likes to call "reversion to the mean." While this effect consistently holds over long periods of time, investors overwhelmingly put considerable emphasis on recent years' performance in choosing what to invest in. This effect, widely noted in behavioral finance, is called the 'availability heuristic.' People tend to assume that what has happened recently is likely to happen again or continue to happen, while they discount things that have not happened for a while. This effect is why, for example, people tend to buy less property insurance the longer it has been since a big natural disaster, and more immediately after one.

Now, I would assume that it is pretty clear where my argument is going. We see a similar lead-in for CWGIX. Five year annual returns of 20+% per year are likely to go where? QPP estimates 7.7% per year. This does not mean that every asset class or fund with high returns will be projected to generate lower average returns in the future. There are plenty of asset classes that have been generating high returns over recent years that QPP projects will continue to generate high returns---see for example this article that I wrote back in March of 2007 that looked at trailing and QPP-projected performance of a series of ETF's:

http://seekingalpha.com/article/30306-outlook-for-select-ishares-etfs

That article shows that QPP was projecting 20% expected annual returns for the energy sector in particular, including the ETF's IYE and IXC. On the other hand, QPP was projecting that the future expected returns for ICF were 11.7% per year, when the trailing average annual return was 26% per year. When a fund or asset class has generated very high returns for some period that cannot be explained by the risk level associated with that investment, however, it is likely that the future will be far less rosy---and this is exactly the situation that QPP projects for CWGIX. The high volatility in the energy sector, however, can support a high long-term expected return.

Now, let's look at the 7.7% projection for CWGIX another way. The trailing ten year annual return for CWGIX is about 13.4% (through August 2007). The trailing five year annual return is 20.7%. If we average the trailing five-year results with the QPP-

projected average annual return, we get an annual return of about 14%---remarkably close to the ten-year average! What this tells us is that a five-year period (going forward) with average returns of around 7.7% will just bring the recent very high five year period generally back into line with the trailing ten-year average return. This is a very approximate estimate, but it gives me some reason to believe that CWGIX—even if very well managed---is going to generate returns more on the order of 8% per year going forward.

Now, I am not saying that CWGIX is not a well-managed fund. That is not what I am analyzing. I am not saying that the managers there are not capable of generating meaningful value—I have not even addressed this issue. What I am saying is that the statistics suggest that CWGIX has been generating returns over the past five years that are substantially in excess of what can be justified on the basis of the risk (i.e. volatility) in this fund. While risk and return can go out of balance for substantial periods of time, they will ultimately come back into line if the markets are at all efficient. Further, to bet that this fund is likely to continue to generate it's 20+% a year is implicitly to assume that the past five years are a more realistic long-term benchmark for this fund and its broader asset class of international equities than the last ten years. The benchmark for CWGIX is the EAFE index and CWGIX has beaten the EAFE index by 1.2% per year over the past five years. If we were to assume that (1) this is due to manager skill, and (2) that this is going to continue, we might bump the projected average returns up to 9%. This would be great, but doing this requires a fairly strong assumption about the persistence of manager out-performance. On average, fund out-performance does not persist on time scales longer than a year.

All of the arguments presented here are ***statistical*** and have nothing to do with global economic trends, etc. That said, experience suggests that the basic long-term balance of risk and return is a remarkably reliable thing. The basic similarities between the recent performance of CWGIX relative to its risk level and the performance of the S&P500 back in 1994-1998 are striking. QPP is a statistical tool that accounts for these kinds of effects

in portfolio planning and investors would be better off using projections from QPP (or models like it) than using trailing performance as a basis for looking ahead.

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