

Why Leading Financial Advisors Audit Their Clients' Financial Plans

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Many professional financial advisors have helped their clients organize their finances in a financial plan. Some financial plans are very sophisticated while others are more generalized and focus on retirement planning.

At the most basic level, financial planning is fairly straightforward. One generally starts by taking current investments, projecting the growth of those investments based on a reasonable return assumption, and adding in planned savings until retirement. At the planned retirement age, one then models retirement distributions sufficient to meet the desired lifestyle over the remainder of the life expectancy. In theory, as long as the plan is followed and achieves the assumed long-term return, the financial future should work out as planned.

Many advisors build financial plans for their clients. Currently, only a few leading financial advisors take the additional step to assess a potentially huge, but little known risk that is ignored by the average advisor. That risk is known as “timing risk.” Financial plans should be “audited” for this risk and the best financial advisors are going back to their clients’ original plans to audit them. A financial plan that ignores this risk is at best giving an incomplete picture.

If you are not yet familiar with “timing risk” and how much impact it may have on your plan, consider what a leading advisor uncovered for Albert and Mary Smith.

Mr. and Mrs. Smith are both 55 years old and earn a combined income of \$250,000. They have \$1,400,000 accumulated in various tax-deferred investments like 401Ks and annuities. They also have \$1,000,000 in brokerage accounts. Including employer matches, they save \$25,000 a year in their corporate retirement plans. They plan on retiring at age 65 with a \$200,000 after-tax retirement income so they can maintain their current lifestyle and travel. Their asset allocation is 50% large cap stocks, 25% small cap, and 25% fixed income. Finally, they would like to leave a large estate (\$10 million in today’s dollars) should they live to age 95, for their children and various charities.

Their financial plan spans forty years. Their financial advisor used an average return assumption of 11.73%, which he determined by calculating the average return for their planned asset allocation over the last forty years. Based on this return assumption, adjusting for various tax assumptions, their plan projected an estate worth over \$42 million at age 95. This projection ignored the erosion in spending power caused by inflation, so the advisor adjusted the plan for a 3% inflation rate. Adjusting the \$42 million estate for the impact of inflation, their estate would be worth a little over \$12 million in today’s dollars.

It appears that Smiths’ plan would have achieved their stated objectives. Appearances can be deceiving. The problem with this plan, like most financial plans, is that the projection ignored the impact of timing risk. The ending value of the plan projection was based on achieving 11.73% each year. Everyone knows that the market will not produce the exact same return each year. The market will obviously have ups and downs along the way.

Most investors and many financial advisors don’t realize the magnitude of estimation error in financial plans that ignore “timing risk.”

Our website allows financial advisors and their clients to assess their financial plans for estimation error caused by timing risk. Initially, Albert and Mary went to the website themselves and asked their advisor to work with them online. However, their former advisor gave them some excuse about his firm not allowing him to work on the Internet, so they went to the site’s advisor directory to find an advisor that could help them. (You can easily search the directory to find out if your current advisor is registered to use the service.)

The website is designed for use by sophisticated investment professionals. The audit report produced from the site can be over 60 pages, so unless you are an extremely experienced investor, you may have a little difficulty trying to interpret all of the analysis if you try to use the site without a professional. Doing so would also be a violation of the site's user agreement.

The "historical audit" the Smith's new advisor produced using the website, was astounding. Although Albert and Mary would have achieved the average return of 11.73% over the last forty years, *instead of the \$12 million estate they planned on, they would have ended up running out of money!*

How can this be? While their projected average return was achieved over the entire period, the ups and downs of the actual market returns in individual years produced vastly different ending values than the projection that assumed the exact same return each year. This outcome illustrates that for any individual plan, *when you receive the return is potentially **more important than the average return*** you achieve over time. Timing risk is somewhat counter-intuitive and it is a little difficult to understand. Let's look at a simplified example to understand the effect.

Say we are running projections for Sam. Sam is saving \$10,000 a year and is assuming a 12% average return. If we project how much money Sam will have in three years ignoring timing risk, we end up with a value of \$37,793 or \$7,793 of profits on \$30,000 worth of savings.

The market isn't very likely to produce exactly 12% each year. Instead it tends to be up some years and down others. What happens if Sam averages a 12% return over three years by earning 24% in two of the three years, but loses 12% in one year? If the 12% loss happened in the first year, the value of his account after three years would be \$41,307, for a total profit of \$11,307. If the 12% loss happened in the third year, his account would be worth only \$33,243 representing only \$3,243 of profits.

Since no one knows what return they will receive in any particular year, what good is it to know that the average doesn't forecast things very accurately? Surely, the average should represent a reasonable approximation over time. After all, isn't a 12% average, better than 5%? What about 20%? Surely that is better than 12%.

The answer really is no, as it depends on how that 5% and 20% average return is produced. (See *Table A*)

Table A - Future portfolio values based on saving \$10,000 a year for three years:

Average Return	12%	12%	12%	5%	20%
Year 1 Return	12%	-12%	24%	-35%	45%
Year 2 Return	12%	24%	24%	25%	45%
Year 3 Return	12%	24%	-12%	25%	-30%
Ending Value	\$37,793	\$41,307	\$33,243	\$38,281	\$31,867

As you can see in *Table A*, the average return you achieved over time really had nothing to do with the ending value of your portfolio. A 5% average return ended up with a greater value than two of the 12% average return scenarios. A 20% average ended up with a lower value than any of the 12% scenarios and also less than the 5% average return scenario.

If a 20% average return can produce an ending value less than 5% average return, why are financial plans based on average return assumptions?

This illustrates how Albert and Mary Smith's plan would have run out of money, even though their original projection, based on the same average return, showed \$42 million at age 95. Of course, one 40-year period might just be an anomaly. The 40-year period that produced this result was 1959 through 1998.

What if the Smith's went to their advisor to create a plan last year instead of this year? The forty-year period used would have excluded the return from 1998 and included the return from 1958. The average return for their asset allocation over that 40-year period was 12.20%. The projection their advisor would have shown them, assuming 12.20% return each year, would have their estate valued at over \$53 million. The actual result based on the market ups and downs along the way, would have been a little under \$32 million.

What if their advisor ran the projection based on one of the worst historical periods, like starting the year of the '29 Crash? The average return for the Smith's asset allocation over the 40 years starting in 1929 was only 9.17%. Their plan, based on assuming 9.17% each year, would project the estate value to be only \$238,000. An audit of their plan for that period showed they would have run out of money at age 73, twenty-two years before their planned life expectancy of age 95! So, even if a plan has been based on more optimistic or pessimistic average return assumptions, those projections could still be meaningless.

Of course, once timing risk has been evaluated, advisors will suggest improvements to the plan to "optimize" the chance of meeting the stated financial goals. This is significantly different than optimizing asset allocation to achieve the most efficient return, as many advisors practice. Table A clearly illustrated that higher average returns do not necessarily mean higher ending values. Optimizing returns can easily be accomplished with software that solves for that one variable...the asset allocation that provides the highest return per unit of risk.

By definition, financial goals include many variables like annual savings, retirement age, retirement income and asset allocation. Since each of these variables uniquely affects the chances of a plan working, there obviously are choices that must be made. These choices are best made in conjunction with a skilled financial advisor who can identify a plan's most sensitive variables. Then, through consultation with the investor, choices can be made about which variables should be changed to improve the chances of meeting one's goals.

The Smith's new financial advisor showed them that a few 5% shifts among asset classes, plus a few tax strategy improvements, would result in at least a \$5 million estate (in today's dollars) in every historical market period, barring another great depression. These minor modifications also improved the chance of meeting their \$10 million target estate value (in today's dollars) from 27% in the original plan to over 60% in the optimized plan! How could you put a price on the value of that kind of advice? Advisors that find solutions like this are truly worth their weight in gold.

Financeware allows you and your advisor to test your plan's results in every historical period. The system automatically "back-tests" each plan throughout every historical period and shows the ending results ranked in 3% probabilities from highest (top 3%) to the lowest (bottom 99%).

The "Summary Probability Analysis" gives a sense of a wide range of potential historical results for any plan. It also plainly illustrates what percentage of all back-tests would have achieved the desired wealth target or the percentage of actual market periods where the plan would not have run out of money. The website also shows which market periods produced each result and what the average return was over the given market period.

Since the site is free to conduct an initial test of any plan, there is no excuse for having a plan that has not been tested for this risk. Financeware believes that leading financial advisors will subscribe to the site to continually monitor their clients' plans. We believe that a plan is only as good as the assumptions within it, and while monitoring performance may be useful, monitoring the likelihood of meeting a plan's goals will be the standard by which leading advisors are measured.

Of course, this web site just provides another way to look at planning projections and it is unlikely that history will repeat itself. None-the-less, it may be helpful to understand the range of results history would have produced. We believe that plans that expect to exceed the best history had to offer (or ignore the worst) is at a minimum very risky.