Redefining the Retirement Income Problem

Going Beyond Portfolio Allocation to
Match Solutions to Specific Income Needs

By

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A couple of months ago, I posted a question on the www.linkedin.com RIIA discussion group asking, "How would you define the problem that the retirement income industry is trying to solve?" I was both pleased and surprised to see the number of comments this simple question sparked – as of this writing on April 14, 2011, there have been over 55 comments and still counting.

My hypothesis was a simple one: more often than not the critical point of failure in problem solving is not in the quality of the solution, but in the way the problem is stated. As an industry, we've been focused on how we turn a pot of money into a stream of [real] income that the client doesn't outlive. But is this a relevant problem statement for our retired clients? For some, yes. But, for many others, as I'll show throughout this paper perhaps it's not. For them, it's more about finding income streams of different levels and durations during different periods of retirement.

The accumulation phase and modern portfolio theory

First, it may be helpful to take a step back and look at how we've gotten here as an industry. There are a lot of ways to save and invest money for a particular goal, but most of the industry agrees that other things being equal, asset (portfolio) allocation is the most significant factor in determining investment returns.

Enter modern portfolio theory (MPT) and the efficient frontier based on pioneering works by renowned academics, such as Nobel Laureates Harry Markowitz , PhD. and William Sharpe, PhD. Modern Portfolio theory suggests that there's an efficient frontier representing the optimal mix of assets for any given level of risk.[2] Note: The pioneering work by Harry Markowitz, PhD. created an efficient frontier excluding the use of a risk free asset. Subsequent academic work and common financial services industry practice, have extended the concept of the efficient frontier to include an allocation to cash, as a risk-free asset, along with stocks and bonds[3]. This efficient frontier suggests that for longer time horizons, an investor can assume more risk and therefore have a greater equity allocation, while for shorter time horizons, the allocation to equities would be less and the allocation to bonds and cash would be greater. The majority of financial services firms have "asset allocation questionnaires" and interactive tools to consider risk aversion and risk or financial tolerance in a formula that produces a suggested model portfolio on the efficient frontier. Risk aversion - one's comfort level with taking on risk is considered,

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[1] Retirement Income Industry Association, Retirement Management Analyst
[2] http://en.wikipedia.org/wiki/Modern_portfolio_theory
[3] http://www.sec.gov/investor/pubs/assetallocation.htm and http://www.ipers.org/calcs/AssetAllocator.html and http://personal.fidelity.com/products/funds/mutual_funds_overview.shtml.cvsr

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since a risk adverse investor might panic and sell at the worst possible time, particularly if the investor doesn't have an adequate emergency fund. Similarly, an investor in a weak financial position, might have to tap into a portfolio intended to be invested for the long-term, if they have a short-term emergency. In either instance, the real time horizon wasn't really the long-term horizon to the goal, but a shorter term until the triggering event. Presumably there are an infinite number of portfolios on the efficient frontier, but as a practical matter generally the process leads to one of 5 or 6 models.

Simplifying assumptions

As with most theoretical models, MPT required a number of simplifying assumptions, notably:

- Time horizon is to a single point in time at which the portfolio is liquidated
- The universe of asset classes in the original work was limited to domestic equity, bonds and cash
- There is no provision for different underlying securities in these broad asset classes to be held for different periods
- MPT informs strategic asset allocation only; there is no tactical asset allocation assumed
- Resulting conclusions hold in "normal" markets, i.e. Black Swan or "fat-tail" low-probability events are not addressed. Of course tactical asset allocation, used by many money managers and advisors, has the potential to mitigate the risk of "fat-tail" events. However, more often than not, these events prove the adage that "you can't consistently time the market" to be correct.

Other helpful industry findings and innovations

Of course in the accumulation phase, investors may benefit from dollar-cost averaging, since even if the market goes down at some point(s) in the accumulation phase, those new investments made buy more shares. Over the long run the investor benefits, assuming the long-term market trend is up and it doesn't go down dramatically just as the funds are withdrawn. This latter risk has lead to a wide spread acknowledgement that the sequence of returns, not just the long-term average return, matters, particularly as investors begin to utilize the money they've accumulated.

Enter a number of financial services industry solutions designed to help. Periodic rebalancing can help an investor harvest gains when a particular asset class outperforms and reinvest those gains in the underperforming assets class(es) while maintaining the investor's target risk level. Glide paths have been developed and incorporated in popular target-date funds to gradually rebalance and reduce the portfolio's level of risk as one's time horizon gets shorter.

Whether one believes the industry has executed well or not on these principles, doesn't change the fact that they are all reasonable extensions of MPT and are reasonable solutions to the problem as defined by MPT, namely how do you best allocate a portfolio to accumulate assets for future or current use.

Applying MPT to generation of retirement income

Perhaps the most obvious adjustment that needs to be made is that there is no single time horizon, but rather a series of time horizons, some of which are very near and others that are still quite far away. To complicate things further, life expectancy and therefore the limit of this series of time horizons is

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unknown. However, conservative planning can assume a time horizon to a distant date where the probability that the client will still be alive and need income is virtually nil, say age 100.

The way many financial services firms have addressed the multiplicity of time horizons is to assume a sort of weighted average time horizon, which would generally be out 10 to 15 years into retirement. This at least in part explains the wide variations in glide paths of different investment manager's target date funds as some managers focus more on the retirement date as the target and others on this "weighted average" time horizon. [4]

Some firms who have developed managed payout funds have extended the target date concept, combined with a smart systematic withdrawal feature to pay regular amounts over a set number of years while adjusting the underlying asset allocation. Other firms offer managed payout funds that are based on an endowment approach, which have as a goal to payout growth and earnings only and leave the initial principle intact. These may incorporate different levels of risk and potential for payouts to increase to help keep pace with inflation.[5]

Other innovations applied to the retirement income "problem"

As firms have looked at the applicability and limitations of modern portfolio theory to the objective of providing retirement income, many studies have been done to validate MPT's applicability to the new challenge or expand it to better address the challenge. One of the most notable outcomes of this industry and academic research is the recognition that the amount one takes from a portfolio is perhaps even more important than how that portfolio is allocated. Many studies have let to the pronouncement of a "safe withdrawal rate", generally in the 3.5% to 4.5% range[6].

Another major area of focus has been trying to answer the question, "how much of a client's portfolio should be allocated to an immediate income annuity or variable annuity with living benefits" and how the inclusion of this "asset class" in the asset allocation can extend the life of a portfolio and reduce the risk of outliving it. Some of the most extensive work in this area has been done by Ibbotson Associates and summarized in a book, *Lifetime Financial Advice*[7]. In this book the authors take this question a step farther and for those including annuities in the portfolio allocation, provide a common sense approach to determining when an annuity should be added to the portfolio.

Those pesky simplifying assumptions, again

Of course, like the original work to develop MPT, the various industry experts and academics have had to make a number of simplifying assumptions to get to the theories, answers and rules of thumb their

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[4] http://personal.fidelity.com/products/funds/content/DesignYourPortfolio/freedomfunds.shtml.cvsr?refpr=zdypff004 and http://www3.troweprice.com/fb2/fbkweb/composition.do?ticker=TRRFX

[5] http://personal.fidelity.com/products/funds/mutual_funds_overview.shtml.cvsr and https://personal.vanguard.com/us/funds/vanguard/ManagedPayoutList

[6] http://www.bogleheads.org/wiki/Safe_Withdrawal_Rates

[7] Roger G. Ibbotson, Moshe A. Milevsky, Peng Chen, CFA and Kevin X. Zhu, *Lifetime Financial Advice,* CFA Institute Press

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work has produced. That's not to say it's not great work. I believe it is. And the conclusions reached by these studies are more similar than different, even if the industry does not yet have any broad consensus on the application of these principles. It just means they have limited applicability in the real world, even though they may help frame the conversation and serve as useful rules of thumb or starting points.

Theory meets practical reality

First let me acknowledge that there are real life situations that match the assumptions that have been used in developing these theories or are close enough that they can be applied without a great deal of adaptation. However, there are likely many more real life situations where the differences are substantive enough that they can no longer be presumed to hold. Let me list just a few examples of things that can throw the basic models off:

- The client already has sources of lifetime income to meet a substantial portion of the desired retirement income
- The client intends to work in retirement for some period of years and / or expects to receive some other temporary income, such as deferred compensation, restricted stock, etc.
- The client is married and the two spouses plan to retire at different times
- The client has a few years remaining on a mortgage, is still putting a child through college or has another "temporary" income need
- The client wants to plan for multiple phases in retirement, perhaps stepping down expenditures in a less active later phase
- Health issues and/or family history suggest a substantially shorter or longer life expectancy than average, or significantly higher health care costs
- There is a substantial legacy objective or alternatively the client has no children or other legacy objective at all
- The client has a substantial one-time or temporary expense objective, such as paying for a grandchild's college education
- The client expects a substantial inheritance at some point during retirement
- The client has a significant pension benefit that isn't adjusted for inflation and therefore needs a complementary source of income that doesn't just increase with inflation but increases fast enough to offset the loss of purchasing power of the fixed pension
- The client is substantially overfunded or underfunded relative to his or her resources

While many of these situations are common with today's retirees, others are less so. However, the chance that one or more of these situations will apply and make any given individual client's ideal solution different than the stereotypical retiree is significant.

Theories for converting portfolios to level (real or nominal) streams of income, don't recognize these common real-life differences in client circumstances and needs. Doesn't it stand to reason that the way you would allocate a portfolio for retirement income might differ greatly given the wide range of individual circumstances? Of course taking these important considerations into account requires a

deeper understanding of the client and the client's income needs, not just the client's portfolio. Also, it requires greater time, skill and more complex models.

"Go slow to go fast"

One of the many pieces of sage advice that Stephen Covey has given us[8] is the notion that you not only get to a better end result, but that you actually get there more quickly if you take the time up front to lay the proper foundation for the work you're trying to accomplish, i.e. clearly identify the problem or objective before crafting the solution.

While it may seem like it requires the advisor to take extra time, I would propose that the fastest way to get to a sound workable retirement income solution is to avoid the portfolio allocation trap and go through some basic steps to determine the client's specific income needs and other sources of income at different stages of retirement and then match the most appropriate product solutions to those needs. In some cases, there may be a straightforward suitable solution, e.g. set up a systematic withdrawal program or purchase a set amount of annual income through a Single Premium Immediate Annuity (SPIA) or a Variable Annuity(VA) with minimum withdrawal or income benefits. In other cases it will be necessary to build income solutions for each of several stages of retirement.

Prerequisite validating of objectives

Before you can actually begin developing specific income solutions, however, it's useful to determine if the client's resources are sufficient to cover the desired goals. If the client is significantly underfunded, the 1st step is to make adjustments to the plan (e.g. reduce expenses, delay retirement, work more in retirement, etc.). If the client is only somewhat underfunded or constrained, there may be opportunities to meet the objectives by increasing the use of annuities, taking advantage of "mortality credits" assuming the annuities are both suitable for and acceptable to the client. If not, other adjustments to the plan will need to be made. Most retirement income planning software tools do a fine job of determining a confidence level of achieving the retirement income goal or the potential shortfall, if any.

Once there's a workable balance between resources and objectives, the next step is perhaps the most tedious, but one of the most important, i.e. going year by year or perhaps phase by phase, and determining the desired retirement income for that period and the sources of income already in place or expected, e.g, Social Security, pensions, employment income, deferred compensation, etc. It's helpful to identify those income needs that are non-discretionary for that period, as it is important that non-discretionary needs are met either by dependable sources of income identified above or through converting a portion of the clients portfolio to fill these gaps.

First build a floor

In following the RIIA Advisory Process, the next step is to look at these income gaps versus the dependable income needed to meet these non-discretionary expenses (or other level agreed upon with the client) and begin to use the client's investment portfolio to create reliable income streams to fill these gaps. While a single income stream, such as one provided by an income annuity, may on the surface match the need and offer a simple solution, in many cases there will be different needs during

[8] *7 Habits of Highly Successful People* 1989 Free Press, Stephen Covey

different periods, in which case the advisor needs to go to the product tool box and pull out temporary income solutions, such as certain period annuities, CD or bond ladders, Treasury strips, etc.

While I wouldn't suggest that this has to be precisely calculated for each year, the flooring plan should account for significant variations in the need for certain income during different portions of retirement.

In tackling the exercise of building the floor, I like to heed another piece of sage advice from Stephen Covey, "begin with the end in mind". A good period to focus on first is the period from the client's life expectancy through the end of the client's lifetime or period designed to exceed any reasonable likelihood of still being alive. Here pure longevity insurance would be a good match, if it were available in real dollars. (Buying nominal income to begin in 20 or 25 years isn't particularly helpful unless you at least double the amount.) Alternatively, allocating a sufficient amount of the portfolio to very secure long term fixed income instruments such as TIPs, can meet the need. If the client has a need for a floor of income throughout retirement of approximately this amount or more, a lifetime income annuity with a COLA can meet this need, as well. Additional needs during other periods of retirement can be met through temporary income streams. Of course actual product choice should reflect among other things, the client's current health and family history of longevity, as well as whether or not the client is over funded, or actually at risk of outliving assets.

Unfortunately, current planning tools don't conveniently map out this flooring need. Some do generate a year by year report of income needs and sources of income, assuming all income shortfalls are made up from withdrawals from the client's portfolio. A small adjustment to one of these reports, perhaps in a spread sheet, could show the shortfall from dependable income sources against a flooring target, say non-discretionary expenses.

Then expose to upside

With the funding adequacy evaluated and the flooring need determined and met, the final step is perhaps the simplest one. Determine the amount, if any, of the portfolio left and invest it in a portfolio designed to meet discretionary expenses and provide upside potential for increasing lifestyle, unplanned expenses, gifting and legacy objectives.

Here traditional asset allocation approaches may well be suitable. The time horizon considered may vary from medium-term to very long-term, depending on whether the upside portfolio is expected to be used primarily for regular discretionary expenses or primarily for leaving a legacy.

Some allocation approaches count the portion dedicated to flooring as part of the fixed income allocation and some look at the upside portfolio independently of other assets chosen for flooring. Without passing considering either approach right or wrong, clearly the approach should be consistent with the way Social Security and pensions are viewed when allocating a retirement income portfolio.

Consider two similar clients, one with a $500 thousand portfolio and a $25,000 annual pension and the other with a $1 million portfolio and no pension. Would you allocate the two portfolios the same way or would you consider the lack of a pension by the client with the $1 million portfolio and allocate it more conservatively? Assuming you were able to convert $500 thousand of that portfolio to a $25,000 annual

annuity, would you then allocate the two $500 thousand dollar portfolios the same way, other things being equal? The fact that the client now has a secure floor of lifetime income should be considered in determining the client's risk tolerance, but in a way that is consistent with the Social Security benefit and pension is considered. In fact this may be similar to the way have a secure job or an emergency fund is considered in allocating an accumulation portfolio.

Review periodically or as the client's circumstances change

This is the standard rule for all financial plans and arguably is that much more important for a retirement income plan. Changes in health, death of a spouse, birth of a grandchild, may all be reasons to revisit a retirement income plan, in addition to the basic issues of exceeding budgeted expenses or significant changes in portfolio values.

Frequently, long term plans are created and then filed away and ignored. Perhaps one of the reasons is that many plans presume that they are a plan for the rest of the client's life. Things change and none of our crystal balls are that clear. Having a floor of long-term financial security, combined with flexibility to periodically review and update seems more in sync with real life. A lot changes between age 40 and 65. Why would we expect it to stop changing between 65 and 90, or beyond?

Practical time limitations and segmentation

Of course, there will likely still be a significant investment of an advisor's time required to thoroughly address the client's needs and overall situation. As a practical matter there are limits to the amount of time that advisors are willing and can afford to spend developing a retirement income solution, particularly with mass market and mass affluent clients who do not have straight forward situations.

Many advisors already limit their practice to certain client segments that they feel they can effectively serve at a level of fees commensurate with the time required to serve them. As a practical matter, few advisors, with the retirement management expertise and resources required to follow the basic process I've outlined above, can effectively serve the mass market, and in some cases the mass affluent market in this manner. While some advisors may be able to serve these clients well with somewhat simplified approaches, it's likely that many mass market and mass affluent retirees will be underserved or worse yet, poorly served relative to retirement income.

What we do for the clients we serve

While the process I've outlined above requires a disciplined approach and considerable expertise, it can be summed up quite succinctly for a client or prospect. Our approach to creating a retirement income plan is a simple 3 step process:

1. Assess your overall financial situation and goals to determine if your resources are sufficient to meet your goals
2. Determine the level of secure income needed throughout your retirement, the secure income you already have in place, and fill any gaps with product solutions that fit your needs and provide secure income
3. Invest any remaining assets to provide the opportunity for growing your lifestyle, meeting unexpected expenses or for providing gifts or a legacy.

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At the end of the day, isn't this the peace of mind that our clients trust us to provide?

Next steps

In writing this, one of my goals has been to be provocative and to encourage those in the retirement income industry who are working very hard to develop new and innovative solutions to take a fresh look and perhaps redefine the problem and think about developing solutions from a different perspective, i.e. looking at the clients income needs rather than starting from the client's investment portfolio.

In writing this, I've focused primarily on a framework for how we might think about those solutions differently and tried to pose some important questions to stimulate others thinking. I hope that many others will join the discussion and add their unique knowledge and expertise to advancing the state of the art of the Retirement Income Industry.

Also, I would encourage those firms that provide planning tools in this space to think about how to add a simple retirement income cash flow module that would map out income needs throughout the various phases of retirement drawing attention to gaps in secure income relative to non-discretionary expenses or other set level(s) of desired flooring. It would be great to take this a step further to then allocate the client's portfolio, first to providing flooring to fill these gaps and then apply asset allocation methodologies to allocating any remaining portfolio to upside and systematic withdrawals.

Lastly, and perhaps highest on my wish list would be for those highly skilled practitioners and academics who have already advanced the industry's expertise in thinking about how annuities fit in a retiree's portfolio to consider expanding their models in a couple of very important ways:

1. Break the analysis into the two components of:
    a. First establishing a floor of secure retirement income
    b. Allocating any remaining portfolio assets to provide the opportunity for growing your lifestyle, meeting unexpected expenses or for providing gifts or a legacy
2. Incorporate the client's existing sources of dependable lifetime income, e.g. Social Security and pensions
3. Address wide differences in personal longevity expectations based on current health and family history

I'm confident that this work could lead to some amazing breakthroughs for our industry and perhaps even begin to break down many of the silos, as different firms within the industry better define how their products fit in a framework designed to provide an overall client driven solution.

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