Thinking Differently About Wealth Management … or Why Sixteen Seeds Should Shoot More Threes

It's About Meeting Real-Life Investment Goals. Not Managing to a Volatility Target

Several years ago Vivek Ranadive, a father in Northern California, decided to coach his twelve-year-old daughter's basketball team[1]. Originally from Mumbai, Ranadive had never played organized basketball. The only sports he knew were from his childhood — cricket and soccer.

Facing a steep learning curve, Ranadive set out to watch as many basketball games as possible to prepare. What he saw perplexed him. Why was it that after a team would score, they would immediately retreat to their own end of the court? Why concede seventy-feet of a ninety-four foot floor, only to defend twenty-four feet? This made little sense to Ranadive. He decided that his team would take a different approach. As in soccer, his team would defend the full length of the playing field. For every game and the entirety of the season, Ranadive's team employed a full-court press. In addition, they passed up 2-point field goals in favor of 3-pointers, taking as many long-range shots as possible.

Typically for an undermanned or less talented group, as Ranadive's team was, this strategy would seem counterintuitive. Applying full-court pressure was considered a high risk strategy. In addition, the 2-point field goal is said to be a

[1] As recounted in the book *David and Goliath: Underdogs, Misfits, and the Art of Battling Giants (2013)*, Malcolm Gladwell

"high percentage shot", that is less risky than 3-pointers. So choosing threes over twos also seemed foolish.

Ranadive thought differently, however, and his thinking paid off. His daughter's team reached the national championship.

As financial advisors we need to start thinking differently about the way in which we advise our client's as well.

Clients Want Dream Homes, Not Dream Annualized Standard Deviations

Imagine for a moment if Ranadive had planned for winning basketball games in the traditional way we plan for a client's individual investment goals. His strategy for every game would be roughly the same. He would optimize for all conditions, not the specific challenge he was facing. Regardless of circumstance — whether the team he was playing was faster, bigger, more talented or less — he would use the same approach.

This would mean his team would shoot as many two-point field goals as possible. Statistically this would give them the best chance at winning[2]. The most important factor for basketball success is to shoot a high field goal percentage. Teams that do win 75 percent of the time. So to optimize field goal percentage, Ranadive's team would logically shoot as many low-risk shots — that is two-pointers — as possible.

[2] According to the book *Basketball on Paper: Rules and Tools for Performance Analysis* (2004)

But they did not. His team chose to shoot threes instead of twos; they chose to press instead of playing half-court defense. They opted for the statistically riskier path, yet in doing so they won most of their games. Why?

Although maintaining a high field goal percentage is an indicator of success on average, the best chance for success for underdogs in basketball — that is teams not favored to win — is to adopt a "risky" strategy[3]. Counterintuitively, and despite it being a lower percentage shot, disadvantaged teams who engage in statistically riskier things, like shooting more 3-pointers, have a greater probability of winning.

This same dynamic can be observed in wealth management.

Just as not all basketball games are the same, neither are clients or their individual investment goals. Unfortunately, however, what often passes for investment advice amounts to a lot of "one-size-fits-all" ideas.

In some ways it is as if financial advisors have lost sight of their real objective. It is not to maintain a target standard deviation. It is not to outperform a benchmark. The point is to assist clients in achieving life goals. This begins with redefining risk.

Sometimes Less Risk is More Risk…and Vice Versa

The traditional practice of gravitating towards the least volatile portfolio with highest return, or simply seeking a mean-variance optimized portfolio on the efficient frontier, is not always in the investor's best interest. It's like optimizing a

[3] Ibid

portfolio for all conditions, versus one for the conditions the client faces. Doing so may not always be the safest path in terms of the likelihood of achieving goals.

This is because "safe" needs to correspond to the probability of success — not standard deviation or volatility. This is a critical distinction.

We are not suggesting that investor's seek more risk in their portfolios. What we are suggesting is that investor's need to consider the context of their life situation, and the specific goal they seek to achieve with their investment portfolio. Just as Ranadive's goal was to win the basketball game — not have the highest field goal percentage.

For investors the goal it is to achieve an outcome such as retirement income — not maintain a low annualized standard deviation.

For example, consider a client with limited capital and a short investment time-horizon who is seeking to maximize their retirement income. The traditional approach to wealth management would prescribe an optimized portfolio, one that minimized volatility while seeking to maximize return. But is this really in the investor's best interest? Not always. Just as shooting two-pointers for an overmatched basketball team reduces their chances of winning the game, decreasing volatility in an underfunded portfolio increases — not decreases — the risk of not attaining retirement goals. It's time to think differently.

There's Nothing Modern about Modern Portfolio Theory

A lot has changed in the world over the last 50 years. Consider technology for example. In the course of a generation televisions have gone from floor-sitting,

cathode-ray behemoths offering blurry 3x5 inch black and white images to gorgeous, high-resolution 75 inch LEDs so sleek they hang on walls. We've seen computers evolve from needing air-conditioned warehouses to sitting comfortably and unobtrusively on our wrists. In the 1960's cars didn't even have intermittent windshield wipers, yet today they are on the verge of driving themselves. Clearly much has changed. But what about in financial services? Specifically, what about in the way we advise clients on managing wealth and building portfolios? As it turns out not so much.

Sure, we've made tremendous strides in some areas. We offer many complex and smartly engineered products and securities — like ETFs and derivatives. Our distribution and reporting methods are more efficient and robust, with real time data and deep transparency. Even the machines we use to make investment decisions represent the very latest in computer processing technology and speed.

It could be said, however, that the tools we use to build client portfolios have remained stagnant. That the majority of current portfolio construction and asset allocation methodology is based on a mathematical construct defined nearly 60 years ago[4]. While there have been modifications on the periphery, for all intents and purposes the application of Modern Portfolio Theory (MPT) hasn't changed in decades.

Yes, there is still value in MPT; but it needs to be applied in a more holistic context, and within a more rigorous quantitative model.

[4] Modern Portfolio Theory (MPT); by Nobel laureate Harry Markowitz in his doctoral thesis published in 1952.

The good news is that as an industry we've started to move in the right direction. As we have discussed, this means we are starting to think differently about client goals and investment outcomes. We are beginning to think differently about the way in which we define risk. And we are thinking differently about the way in which we communicate with clients.

Goals Based Wealth Management — aka Common Sense

The industry nomenclature for this new thinking is Goals Based Wealth Management (GBWM), but really it is about common sense.

With GBWM we're looking at client portfolios in terms of individualized and specific goals, and bucketing those goals based on priority and desire. Portfolios are then built specifically mapped to those goals.

This may seem like an obvious and intuitive concept, but it really is a departure from the way in which we have built portfolios historically.

Frankly it is surprising it has taken this long to move this way. This is probably because we have conceptualized risk in the wrong way.

It has always been from the manufacturer's perspective — that is the performance of the fund or investment strategy. Instead it needs to be examined from the consumer's perspective — that is the utility it has in delivering desired outcomes to the client.

As we observed, MPT uses a risk-tolerance framework where risk is only defined as standard deviation; a measure of the volatility of the return stream. In this way

the consumer interests and risks play second fiddle, with the exception of abstract risk-preference notions assigned to portfolios like conservative, moderate, or aggressive. Objectively those terms make little sense to the way investors naturally think.

Investors think in terms of saving enough money for college, preparing for retirement, affording a vacation home. Not about mean-variance tradeoff and risk budgeting.

This is an added benefit of the GBWM approach. It aligns with behavioral finance theory and the way in which investors speak and think naturally.

How it Can be Done

Currently there are many different approaches considered in the marketplace for applying GBWM. While they all stem from the same philosophical foundation — that is outcome-focused investing intended to improve a client's ability to achieve personal financial goals — the methodology for doing so varies substantially.

One of the more robust frameworks we have seen outlined is in the paper "A New Approach to Goals-Based Wealth Management" (Das, Sanjiv Ranjan and Ostrov, Daniel N and Radhakrishnan, Anand and Srivastav, Deep, *A New Approach to Goals-Based Wealth Management* (February 4, 2018). Available at SSRN: https://ssrn.com/abstract=3117765 or http://dx.doi.org/10.2139/ssrn.3117765).

The paper describes a methodology for connecting probabilities to specific investment goals, and how those probabilities can correspond to specific intervals

of risk-return on an efficient frontier. It offers a mathematical foundation for building true goal-optimized portfolios, while also maintaining consistency with MPT.

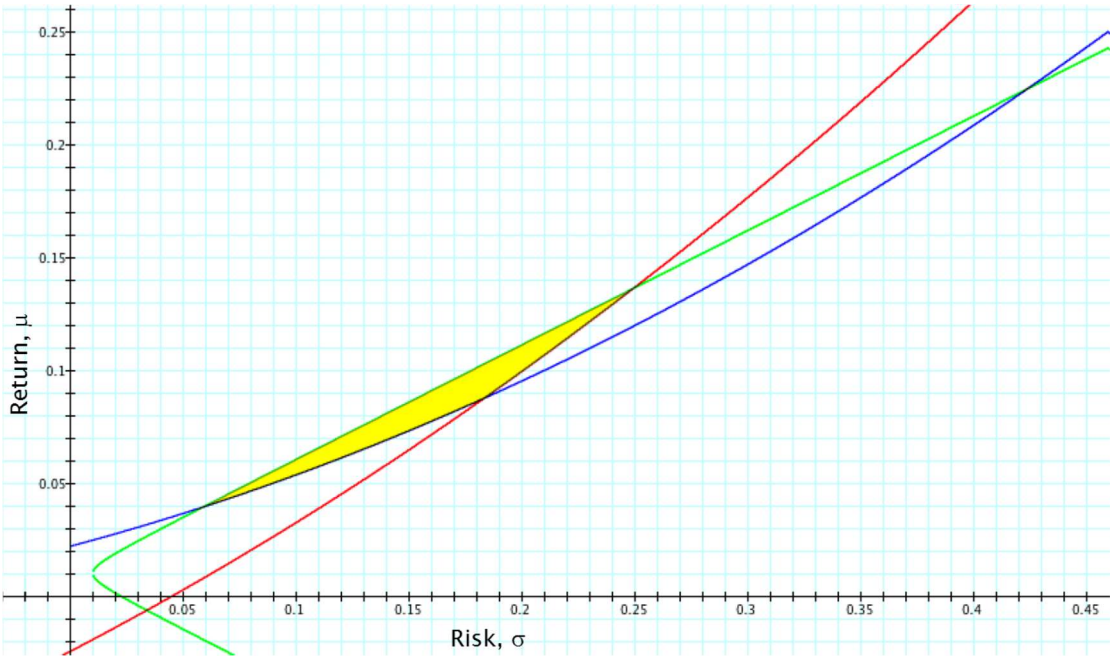
The rigorous quantitative methodology of the approach is what we believe differentiates it from many other GBWM practices in the marketplace.

The details of how it's done are a bit complex. The author's describe the methodology as a "simple" geometric analysis. For those who are comfortable with concepts like geometric Brownian motion and Lagrange multipliers then yes, perhaps it is simple. For everyone else, not so much.

The process seeks to define a portfolio by determining and analyzing the parabolic geometry in the risk-return plane that corresponds to a specific goal probability. It then considers the intersection of these parabolas with the hyperbolic geometry that corresponds to the MPT efficient frontier. As they said…simple (ahem).

The best way to conceptualize the algorithm is to observe it graphically, as illustrated in Exhibit A. The red and blue lines represent goals based probability curves. These will always be upward curving (convex). The efficient frontier curve, represented by the green line, is downward curving (concave). The intersection of these three curves creates the regions where a specific GBWM portfolio could reside.

Exhibit A.



Source: A New Approach to Goals-Based Wealth Management (February 4, 2018). Available at SSRN: https://ssrn.com/abstract=3117765

What is important to note is that the methodology allows for the probability of attaining an investor's goal —be it growing the worth of a portfolio above a target wealth or staying above a loss threshold — to be quantified. It clarifies the role these probabilities play in a target GBWM portfolio.

In this way optimal advice can be given to the investor. Specific portfolios can be constructed that map tangibly to stated goals … not one-size fits all goals. In addition, the algorithm does not abandon traditional portfolio optimization. It is an overlay, working in conjunction with traditional methods based on modern portfolio theory. The result will be a portfolio that is optimal, but also cognizant of *consumer* risk — that is not meeting stated investment goals.

A Fresh Set of Eyes Often Sees Differently

When Vivek Ranadive set out to coach is daughter's basketball team, his intent was not to deliberately be contrarian. He did not employ a game strategy that was counterintuitive to basketball traditionalists simply because he wanted to challenge convention. He did what he did because it made sense to him. With a fresh set of eyes and totally unvarnished perspective, he saw something that was obvious to him but invisible to others, many who had coached basketball for decades. As it turned out his observation was correct.

As advisors we need to bring a fresh set of eyes to how we advise clients.

The 'appropriate' portfolio — that is the one that exposes clients to the least amount of volatility — may not always be the best portfolio. The best portfolio should be the one that gives them the best chance, in the face of multiple risks, of meeting goals. Some client goals may involve longer investment horizons —like saving for college. Others may be shorter term, such as income for caring for a dependent. Some goals may be aspirational, like a vacation home, while others like retirement income are considered essential. For some goals clients may be willing to risk a little more to increase the likelihood of success, while for others they may wish to be as conservative as possible to minimize the risk of capital loss.

Traditional asset allocation strategies make vague, often inaccurate assessments about investors' risk tolerance. GBWM considers risk capacity — the financial ability to withstand particular downturns and still stay on track to meet goals. A risk-capacity assessment also recognizes that risks extend beyond manufacturer-

centric market volatility to real life consumer-centric risk — such as whether you will outlive your savings in retirement. This is the way we need to start thinking. In a way that produces for clients better outcomes.