



# THE MISSING LINK

## Connecting Goals-Based Wealth Management to Investing

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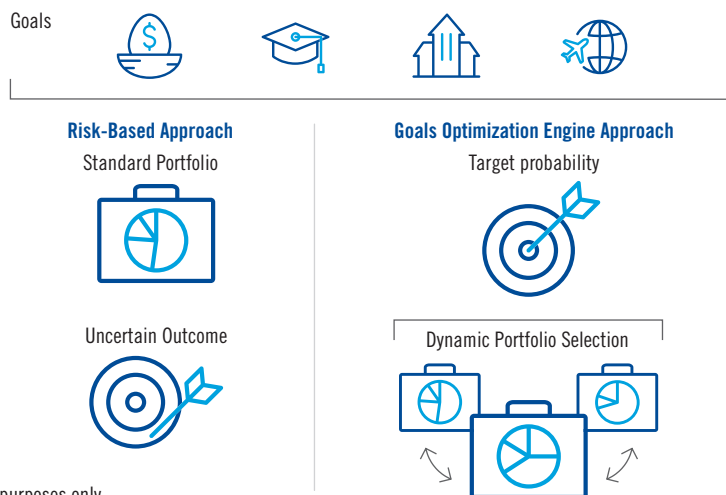
### WHAT IS GOALS-BASED INVESTING?

Our novel take on goals-based investing, called the goals optimization approach, simply means *working backwards* from one’s investment goals or objectives to choose and vary one’s investments over time so as to maximize the likelihood of achieving each goal, subject to the constraints imposed by reality. As such, goals-based investing flips an established process on its head. It is not a magic formula for success, but rather a set of disciplines and processes that help a financial professional to guide his or her clients in ways that are *likely, but not guaranteed*, to beat more traditional approaches.

Our approach to goals-based investing thus upends the tradition of maximizing savings, choosing an “optimal” portfolio (based on one’s risk tolerance), rebalancing periodically, and hoping that the end result is satisfactory. This tradition, while based in real science, is in dire need of updating. We believe the approach we propose should lead to better outcomes because, as Exhibit 1 suggests, it allows for—requires—change in the investment mix and risk level as circumstances change, something we all do in every other aspect of our lives.

### TWO APPROACHES TO INVESTING: THE OLD AND THE NEW

Exhibit 1: Risk- and goals-based approaches side-by-side



Source: Franklin Templeton. For illustrative purposes only.

The goals are typically multiple, and expressible as “needs, wants, wishes, dreams.” To that end, Franklin Templeton has created a Goals Optimization Engine, or GOE™, which converts needs, wants, wishes and dreams to portfolio allocations that respond to changing market conditions and individual circumstances. Needs should be fulfilled with as high a probability as is practical. Achieving any of the goals involves risk, which the goals-based process manages so as to increase risk when it is most likely to pay off (increase the probability of achieving the goal) and reduce risk as the investor gets closer to their goal.

### WHAT’S WRONG WITH THE TRADITIONAL METHOD?

The traditional asset allocation paradigm—based in Modern Portfolio Theory—does a good job of maximizing the efficiency of portfolios. However, just because a portfolio is efficient, maximizing return for the level of risk, does not mean it is aligned with a particular investor’s objective. Additionally, the traditional approach does not consider the vagaries of human behavior, the finite nature of human life, or the fact that portfolios are derived from market indexes and thus are not expressly designed to achieve any specific goal. These are very substantial shortcomings! In many cases, the connection between the portfolio and the goal is nebulous because the risk level chosen—often based on unrealistic psychological questionnaires<sup>1</sup>—really has nothing to do with the likelihood that investors can achieve their goals. The traditional or risk-based method also makes it hard to gauge progress and make necessary adjustments. We can do better.

Some current applications of the traditional method use Monte Carlo analysis<sup>2</sup> to assess the probability of success, relative to some expressed goal. This is a step in the right direction. If the assessed probability of success is low, the investor and financial professional may revisit the goal, adjust some combination of the savings rate and/or initial endowment, the asset mix, and the time allotted to achieving the goal, and come up with a new portfolio and a new assessment. But this is a clumsy process, difficult and time-consuming to initiate and implement for an individual on an ongoing basis. In practice, it also typically involves assessing the probability of attaining only a single goal or looks at all the goals and removes unrealistic ones, without accounting for differences in goal priority or incorporating real-life complications. And, most critically, the likelihood of achieving the goal is not maximized.

### TOWARD A BETTER PROCESS

While goals-based investing as a concept has been around for some time, effective implementation of it is fairly new, and academic research has recently begun to take it seriously. A 2018 paper on the topic, entitled “A New Approach to Goals-Based Wealth Management,” won the prestigious Harry Markowitz Award given by the *Journal of Investment Management* and *New Frontier Advisors*.<sup>3</sup> The four writers of the paper include two Franklin Templeton authors, Anand Radhakrishnan and Deep Srivastav. The authors write,

**Risk is understood as the probability of investors not attaining their goals, not just the standard deviation of investors’ portfolios.**

This is crucial. Fluctuations in asset values contribute to risk, but the ultimate measure of risk is whether you can pay your bills—or, in the case of loftier goals, afford that second home or leave a meaningful inheritance to your kids. In this way, goals-based investing is analogous to the approach used by liability-driven, longer-horizon investors like defined benefit pension funds, where fully funding the liability is more important than any particular year’s return.

Another important point is that all risk management takes into account the probability times severity of a bad outcome. If your goal is to spend US\$500,000 on a second home, but you fall short by 10%, a US\$450,000 second home might not be so bad. If you fall short by 50% or 100%, you won't get the home. Goals-based investing, like any other risk management discipline, takes account of this distinction.

### **PROBABILITY OF SUCCESS: A DRIVER, NOT A CHECK ON PERFORMANCE**

One of the key elements of our process is that the probability of achieving each goal is the primary driver of the asset allocation and the associated risk level at each point in time, rather than just a reality check to see how well we're doing. After a given goal is articulated and quantified, the portfolio's initial asset allocation is set in order to maximize the probability of success with respect to that goal.

Given that there are typically multiple goals, there are also multiple portfolios. Thus goals-based investing uses separate mental accounts, one for each goal, and also separate physical accounts if logistical and tax considerations dictate that such separation is needed.<sup>4</sup>

The heart of the goals-based investing process is this: On a time schedule set by the financial professional (typically annually), the asset allocation is reset for each mental (goal-specific) account, in response to:

- The market and portfolio performance that has been realized
- Updated capital market expectations for the future
- The amount of time remaining before the goal is expected to be achieved, and
- Any other individual circumstances faced by the investor.

This process continues until the investor's goals are achieved or updated, maximizing the probability of success with respect to each goal at each reset. This has the advantage of buying risky assets when they are cheaper since GOE will add risk, up to the investor's intended risk levels, if the probability of success falls. For example, if the investor's goal status is tracking below target and adding to riskier assets, such as equities, increases goal probability, GOE will allocate more to these assets. Typically, market declines reduce goal probabilities, triggering the "buy low, sell high" approach that is the secret to long-term success.

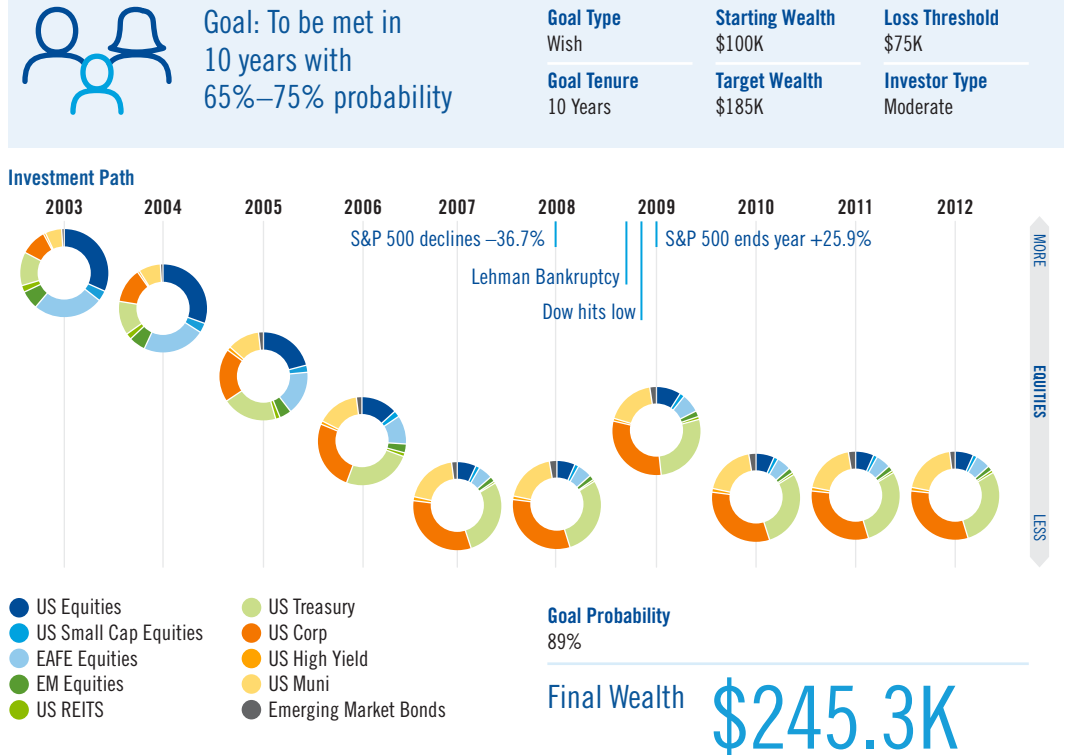
Again, the first-level goal of providing a minimal level of financial support for the investor in retirement should be considered a necessity, with a very high probability of success being the objective. All other objectives will, by definition, have a lower probability-of-success target but GOE tries to maximize success for all types of goals until the goal is achieved or modified.

### **ADAPTIVE ASSET ALLOCATION: PROBABILITY OF SUCCESS GUIDES THE RISK LEVEL FOR EACH GOAL**

Unlike conventional target-date funds or "set-it-and-forget-it" asset allocation strategies, our GOE is responsive to portfolio performance and progress toward the goal, as well as changes in capital market prospects and specific events (such as infusions or withdrawals of capital). Exhibit 2, on the next page, illustrates. For an investor who, in 2003, had a "wish" that he or she wanted to fulfill with at least 65% probability in 10 years, the allocation had a relatively high level of risk at the outset (about 70% in equities) because GOE calculated that this risk level would maximize the probability of success, given that the investor had a relatively generous 10-year time horizon.

## GOE'S PATH TO GOAL ACHIEVEMENT

Exhibit 2: Annual portfolio allocation over 2003–2012 for “Investor,” who has a US\$185,000 “wish” goal, starting with a US\$100,000 initial investment, to be achieved in 2012.



Source: Franklin Templeton. For Illustrative Purposes Only.

As markets rose in 2003–2006, GOE reduced the risk level, because market appreciation had greatly helped the investor get closer to achieving the goal. Going into the crash of 2007–2009, GOE allocated less than 20% to equities. GOE reduced the risk level because doing so maximized the probability of achieving the goal, not just because the goal date was closer. Again, this is analogous to a pension fund reaching fully-funded status and reducing investment risk.

This positioning helped greatly in the crash, but note what GOE did after the crash was over. A more conventional approach might have increased the risk level materially, but GOE kept the risk low because the investor’s progress toward the goal was tracking ahead of expectations—and adding more risk, other than the little bump up in 2009, could have negatively impacted the likelihood of goal attainment.

This illustration is one of many that could be displayed to show the logic behind GOE. As markets and individual circumstances fluctuate simultaneously, each goals-based portfolio has to react appropriately and that is what GOE is designed to do.

## FLEXIBILITY OF THE GOALS-BASED METHOD

With goals-based investing, a financial professional can also accommodate the inevitable changes to the investor’s circumstances and goals that happen in any decades-long life path. These could include a change in the goal for any reason, including new aspirations and desires; illness or disability; birth, marriage, divorce, or death of a family member; or anything else.

A change in available resources could also occur for any reason, such as acceptance of a higher- or lower-paying job, purchase or sale of a residence or other major asset, inheritances, or other infusions into or redemptions out of the portfolio before the goal is achieved.

Finally, market returns can be very different from what was expected, justifying a revision in the asset allocation of the portfolio.

## **CONCLUSION**

Goals-based investing, which starts with probability of success as the focus of decision-making, is a novel, investor-focused (rather than capital markets-focused) approach that we expect to generate much better outcomes. We demonstrate this by comparing it to the traditional method.

An example of the problem with the traditional approach is that, if the market underperforms shortly before retirement (taking retirement as an example of an investor goal), the investor is more or less out of luck. Delaying retirement is one possible response (but it is not always possible). Reducing the goal is the other, unpleasant option, with the third possibility, saving more, having been ruled out by the lapse of time.

With Franklin Templeton's approach to goals-based investing, as embodied in the Goals Optimization Engine, the means of attaining the retirement goal should be engineered so that it has as great a chance of success as possible. If this is done successfully, the portfolio will not have much risk as the investor approaches retirement. As a result, a market decline at that time will not have as much impact on the investor's total wealth.<sup>5</sup>

Moreover, if our approach to adaptive asset allocation is successful (something that can be pursued with some degree of confidence but not guaranteed), the probability of success should be higher than that of a set-it-and-forget-it portfolio or, alternatively, a target-date fund. Our internal testing indicates a consistent pattern of improvement in investor outcomes from using GOE.

The advantages of goals-based investing should be made available to all clients of financial professionals. They have worked hard for their savings and are forced to take risk in pursuit of their goals. Let's make this saving and risk-taking as fruitful as possible, using technology that is up-to-date and that takes account of all the variables involved in solving an investor's problem. Clients deserve such thoughtful treatment and will get it with Franklin Templeton's approach to goals-based investing.

## Endnotes

1. See Joachim Klement's excellent CFA Institute Research Foundation Brief, "Investor Risk Profiling: An Overview" (2015).
2. Monte Carlo analysis consists of simulations that help to explain the impact of risk and uncertainty in making forecasts by calculating the probability of different outcomes when certain variables, for example the rate of return on an investment, are allowed to fluctuate randomly.
3. "A New Approach to Goals-Based Wealth Management," by Sanjiv R. Das, William and Janice Terry Professor of Finance at Santa Clara University's Leavey School of Business; Daniel Ostrov, Professor in the Mathematics and Computer Science Department at Santa Clara University; Anand Radhakrishnan, Vice President—Goals Based Wealth Management, at Franklin Templeton Investments (India); and Deep Srivastav, Head of Client Strategies and Analytics at Franklin Templeton Investments. *Journal of Investment Management*, 2018, vol. 16, no. 3.
4. The concept of separate mental accounts was first enunciated by the University of Chicago financial economist Richard Thaler, who won the 2017 Nobel Memorial Prize in Economics.
5. We'd note that target-date funds, exemplifying the traditional approach, have an industry average allocation of 56.3% in equities and equity-like securities for an investor aged 65. See Richard Shaw's "Retirement Target Date Allocation Glide Path In-Depth View," *Seeking Alpha*, January 31, 2020. We find such a high level quite surprising.

## WHAT ARE THE RISKS?

**All investments involve risks, including possible loss of principal.** The value of investments can go down as well as up, and investors may not get back the full amount invested. Stock prices fluctuate, sometimes rapidly and dramatically, due to factors affecting individual companies, particular industries or sectors, or general market conditions. Bond prices generally move in the opposite direction of interest rates. Thus, as prices of bonds in an investment portfolio adjust to a rise in interest rates, the value of the portfolio may decline. Special risks are associated with foreign investing, including currency fluctuations, economic instability and political developments.



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