

The Investment Golden Rule

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“Proper allocation of capital is an investor’s number one job.”

— Charles Munger (Vice Chairman, Berkshire Hathaway)



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Introduction

Effective capital allocation involves distributing financial resources in a way that aligns the goals and objectives of an organization with its investment program. For institutional investors, this involves designing an appropriate strategic asset allocation (SAA), selecting competent investment managers, and then managing the resulting portfolio well. It is a dynamic and complex process that combines both quantitative and qualitative analysis. It can be difficult to tell if all the components of this process are working together in aligning strategy with the program’s goals. We believe there is a framework that can help, by formulaically aligning the components of the capital allocation process with the return objective. In this paper we will analyze some practical examples of the capital allocation process through the lens of this framework. We will show how it can provide a feedback loop for stakeholders to allow them to monitor the status of their portfolio relative to the stated goals. We believe this framework can help investors understand how each decision fits into the context of the overall portfolio, and how those decisions are working together to improve the existing investment program.

The Investment Golden Rule

The normal use of the phrase “the Golden Rule” relates to the commonly held principle that one should treat others as you would wish to be

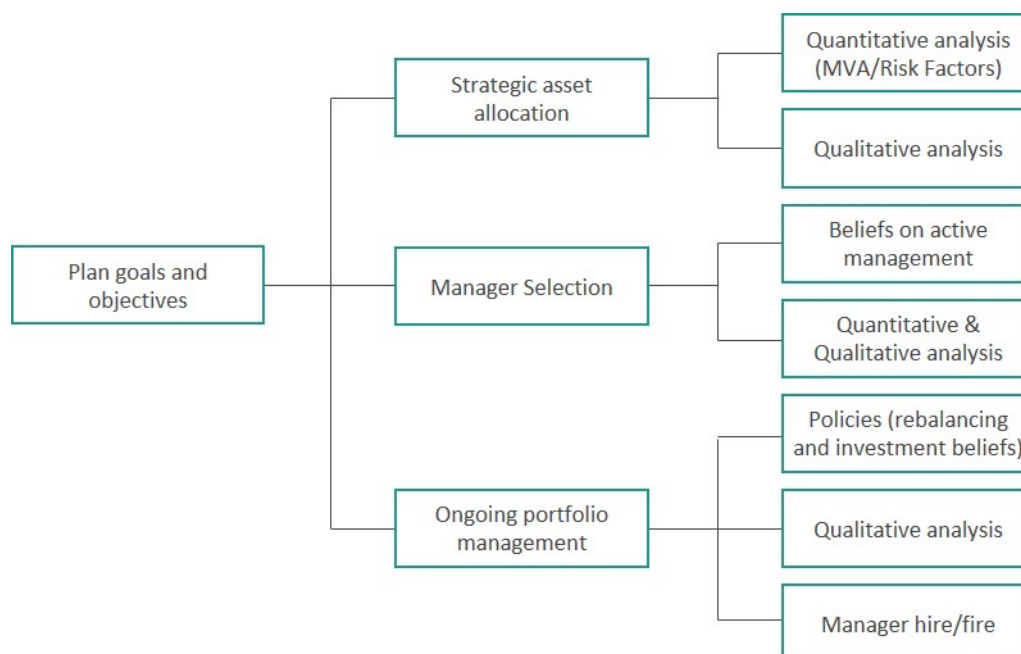
treated. In a similar way that inter-personal decisions can be guided by using the Golden Rule, we believe there exists a simple framework which can be used to improve decisions surrounding capital allocation – an “Investment Golden Rule” with similar broad applicability. In order to have consistency in decisions there needs to be consistency in how those decisions are analyzed. There is significant organizational power in using this approach: while it is extremely simple conceptually, it can be used as a way to bring decision processes and organizational structures and time prioritizations into line with the reality of the impact they are likely to have on the portfolio outcomes. In addition, strategic leaders can use this simple approach to build consensus within their organization and key stakeholders as they tackle difficult decisions. Importantly, the simplicity of the approach hides deep sophistication in the analytical underpinnings – and investors can use the framework as the jumping off point for detailed deep dives into the underlying individual components of the portfolio. In exactly the same way that the traditional Golden Rule can act as the basis of a philosophy of life, the Investment Golden Rule can act as a touchstone for senior leadership of investment teams. It can provide a means for leaders to bring their teams together and focus on the most important elements of the investment process.

For institutional investors, the process of allocating capital can be broken down into three parts (as shown in Figure 1): the creation of the SAA, the selection of managers, and the ongoing management of the portfolio.

- The SAA sets the long-term plan for how the investment portfolio will be structured and is based around long term capital market assumptions. An SAA should be driven by the Enterprise Risk Tolerance of the organization, which is in part driven by the views and understandings of a broad group of stakeholders – communication with these stakeholders on an ongoing basis is vital to ensuring effective outcomes.
- Investment managers are selected based on mandate characteristics and portfolio fit. These decisions integrate both the structural exposures the managers are expected to provide and the alpha generative characteristics they are expected to display. An understanding of the role these managers can be expected to play, the value they can be expected to add, and the limits on what they are able to provide to the organization is vital as part of this selection process.
- Once the portfolio is implemented, there are ongoing portfolio management considerations. This can include rebalancing, the deployment of new capital, and the hiring and firing of managers. Most important is ensuring an ongoing understanding of where success was achieved, where failures happened, and how those successes and failures can be expected to impact the chance of successfully attaining the long-term goals of the investor.

The strategies and tools used for each of these types of decisions differ, but each step will involve a combination of quantitative tools to provide background, and qualitative assessments based on insight.

FIGURE 1: CAPITAL ALLOCATION PROCESS



The “Investment Golden Rule” formula is simple. This formula deconstructs expected returns into the contributions from the risk-free rate and beta, then adds an alpha component to the simple Capital Asset Pricing Model (CAPM) in order to measure the impact of active management in the portfolios. The end result represents the expected return of the entire investment program.

FIGURE 2: THE INVESTMENT GOLDEN RULE

| REQUIRED RETURN | | RISK FREE RATE | | BETA | | ALPHA |
|-----------------|---|----------------|---|--|---|---|
| 7.3% | = | 2.0% | + | 4.8% | + | 0.5% |
| | | | | <div style="display: flex; justify-content: space-around;"> <div>Absolute Risk 11.2%</div> <div>Sharpe Ratio 0.43</div> </div> | | <div style="display: flex; justify-content: space-around;"> <div>Active Risk 2.5%</div> <div>Information Ratio 0.2</div> </div> |

The left side of the equation defines the return goal of the portfolio – this is an input into the portfolio construction process, and setting this goal is one of the most important functions of the board. The right side of the equation details the strategy to be used to achieve that return, broken out into three sources of return. The risk-free rate is largely determined by central banks and therefore cannot be influenced by investors. Beta is the major determinant of risk and return in the portfolio and is driven by the SAA. Alpha is driven by active management. The sum of these three components provides the total portfolio expected return: the job of the investor is to ensure that this return matches or exceeds the required return with a tolerable level of risk.

Although we will move on to a detailed worked example in the next section of the paper, it is instructive to think broadly about the strategic implications of this approach. Most boards have members with a wide range of investment knowledge and trying to find common ground around the table on sophisticated investment conclusions can often be challenging. The sophisticated investors either feel constrained in their use of technical terms, or the newer board members sit silently, desperately trying to keep up. The simple approach that the Golden Rule outlines plays a powerful levelling role – the structure of the formula communicates deep truths about the portfolio drivers and their sources, while doing so in a simple way. Board leadership can keep bringing the conversation back to the simplicity of the formula when newer members look lost – and when extravagant ideas are proposed, the board can easily estimate the true likely impact.

Application of the Investment Golden Rule

A simple worked illustration shows how all the terms in the capital allocation process can be brought together, and how the Investment Golden Rule can be helpful in the decision-making process.

STARTING WITH A TARGET AND BETA

In this example, a pension plan has determined that they need to earn 7.25% over the next 10 years. An enterprise risk tolerance assessment determined the plan should not exceed 12% absolute risk because above that level there is a 5% chance the plan could suffer an unacceptable drawdown. The question the board and investment team need to determine is whether this return target is achievable, and how the portfolio will need to be structured to achieve it.

As a starting point in constructing this portfolio, the plan can begin with a 60/40 stock/bond allocation and can modify it as needed.

FIGURE 3: 60/40 PORTFOLIO



Using our current Verus Capital Market Assumptions the 60/40 portfolio is expected to return 5.4% and has a very low likelihood of hitting the objective return of 7.25%, so unsurprisingly more will need to be done.

To increase the expected beta-driven return of the plan, capital is allocated away from assets with lower expected risk adjusted returns towards higher expected risk adjusted returns. Figure 4 outlines an asset mix that improves the Sharpe ratio of the portfolio but retains the same level of risk as before. Adopting these changes increases the Sharpe ratio of the portfolio to 0.43, and the expected return to 6.1% - still short of the goal. Putting this process of adding new asset classes in the context of the Investment Golden Rule and assessing the impact of the allocation changes in that context, helps clarify the conversation and the role of each of the asset classes being considered.

FIGURE 4: IMPROVING SHARPE RATIO

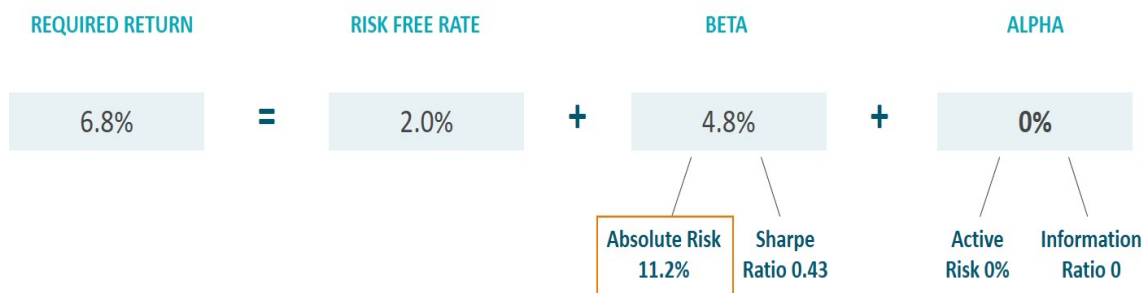
| Asset Class | 60-40 | Improved Sharpe Mix |
|---------------------------|-------|---------------------|
| US Large | 60 | 40 |
| International Developed | 0 | 10 |
| US Treasury | 0 | 10 |
| Core Fixed Income | 40 | 25 |
| Value Add Real Estate | 0 | 5 |
| Opportunistic Real Estate | 0 | 5 |
| Risk Parity | 0 | 5 |



Next, capital is allocated to strategies that maintain the same risk adjusted return (Sharpe ratio) but result in a higher absolute risk level. Figure 5 shows such an allocation – it involves a reduction in US large equity and core fixed income and an increased allocation to US small cap equity, international developed small cap equity, private equity, global sovereign ex US, commodities, and infrastructure.

FIGURE 5: INCREASING ABSOLUTE RISK

| Asset Class | 60-40 | Improved Sharpe Mix | Increase Risk Mix |
|---------------------------|-------|---------------------|-------------------|
| US Large | 60 | 40 | 15 |
| US Small | 0 | 0 | 5 |
| International Dev | 0 | 10 | 5 |
| International Dev Small | 0 | 0 | 5 |
| Private Equity | 0 | 0 | 10 |
| US Treasury | 0 | 10 | 12 |
| Global Sovereign ex-US | 0 | 0 | 10 |
| Core Fixed Income | 40 | 25 | 5 |
| Global Credit | 0 | 0 | 3 |
| Commodities | 0 | 0 | 10 |
| Value Add Real Estate | 0 | 5 | 5 |
| Opportunistic Real Estate | 0 | 5 | 10 |
| Infrastructure | 0 | 0 | 5 |
| Risk Parity | 0 | 5 | 0 |



The absolute risk level of the portfolio increases from 9.6% to 11.2% while the return efficiency of the portfolio remains the same. This causes the beta return to increase from 4.1% to 4.8%.

Again, we can step back and look at the strategic benefit of tying this conversation around the Investment Golden Rule concept. By using this simple framework, the asset allocation has moved from simple to complex in a manner which has clarified the reasoning – and necessity – behind each step. Concerns and disagreements along the way can be more easily corralled, assessed and addressed, concentrating the conversation on the specific part of the task at hand, rather than allowing the discussion to diverge.

MOVING FROM BETA TO ALPHA

The total portfolio now has an expected return of 6.8%, but this is still short of the goal. For our purposes we assume that there are no changes to the beta allocations which can improve this beta-driven outcome.

The next place the Board will choose to turn is to the generation of alpha. They can attempt to generate alpha in two ways:

- Tactically allocating away from the strategic benchmark
- Using active investment management

In this example we will assume that the investor does not implement asset allocation tilt decisions, so the hiring of active managers will be the focus. Expected returns are still 45 basis points away from the goal, and this gap needs to be bridged by alpha generation.

This is the point in the strategic conversation where discussion around active and passive management will often heat up – and may generate more heat than light. By using the Investment Golden Rule, the leadership can calm much of this potentially challenging conversation. The Investment Golden Rule simply and clearly identifies the gap that will need to be filled through active management and the generation of alpha. If the Board determines, as some do, that they do not believe the claims of the active management industry that they can consistently generate alpha, then that gap can be filled in one of two ways: finding a more effective beta-driven asset allocation to meet the target return, or being aware that adjusting the expected return of the investor downwards may be required.

Filling the gap in return from active management can be accomplished by creating a portfolio of active managers with an information ratio of 0.2 and 2.5% tracking error. Figure 6 provides an example portfolio with these characteristics – actually constructing such a portfolio requires close interaction between active manager research professionals, risk professionals and the investor.

FIGURE 6: ALPHA TARGET

| Asset Class | Weight (%) | Stand-alone Asset class Tracking Error | Active Correlation | Tracking Error Contribution |
|-------------------------------|-------------|--|--------------------|-----------------------------|
| US Large | 15% | 3.0% | 0 | 0.0% |
| US Small | 5% | 4.0% | 0.5 | 0.1% |
| International Developed | 5% | 4.0% | 0.5 | 0.1% |
| International Developed Small | 5% | 4.0% | 0.5 | 0.1% |
| Private Equity | 10% | 12.0% | 0.9 | 1.1% |
| US Treasury | 12% | 0.5% | 0 | 0.0% |
| Global Sovereign ex-US | 10% | 0.5% | 0 | 0.0% |
| Core Fixed Income | 5% | 0.5% | 0 | 0.0% |
| Global Credit | 3% | 0.5% | 0 | 0.0% |
| Commodities | 10% | 8.0% | 0.6 | 0.5% |
| Value Add Real Estate | 5% | 6.0% | 0.6 | 0.2% |
| Opportunistic Real Estate | 10% | 7.0% | 0.5 | 0.4% |
| Infrastructure | 5% | 5.0% | 0.3 | 0.1% |
| Total | 100% | | | 2.5% |



The portfolio that results from this process is now expected to achieve the required return of 7.25%. Throughout this process, each decision was decomposed and analyzed in terms of the impact on the portfolio in both risk and return terms. It was clear how the decision to improve the return efficiency and increase absolute risk changed the expected return. Targets for how much risk the portfolio is expected to take have been defined in both absolute and active terms, and tied back to the expected portfolio goals.

The Investment Golden Rule helps throughout this final stage of the process, again by describing the nature of the investment problem in clear simple terms, but without sacrificing the underlying sophistication required to construct an effective active portfolio. The framework allows different modelling approaches of possible outcomes to be applied, and for board members to frame out an understanding of how they might fail to achieve their active management goals, and what the implications of that might be.

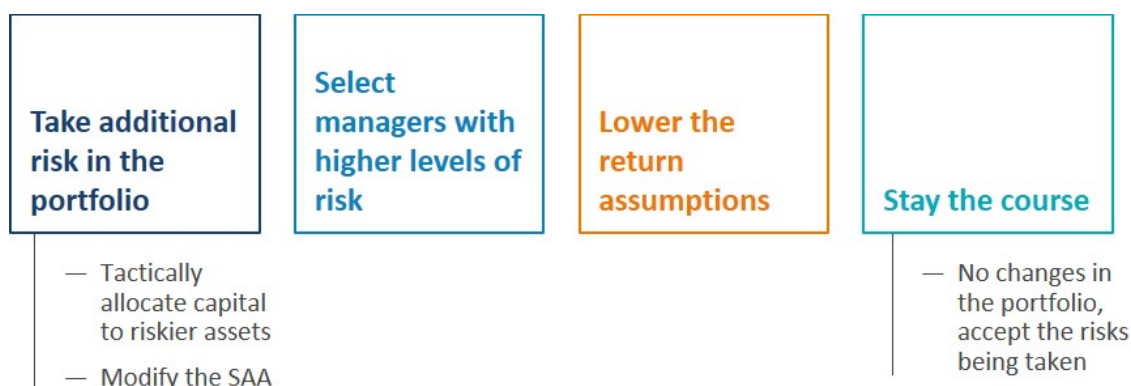
Managing the portfolio - the feedback loop

Most of the time, of course, investors are not focused on building a portfolio from scratch: The Investment Golden Rule can also assist with the continuous monitoring of the portfolio. The exercise of identifying each interrelated component in the framework and decomposing risk and return provides insight into the investment program. When stakeholders use this framework, they create a roadmap for how returns will be achieved and can make more informed decisions. Each step in the decision process can be monitored, and when results deviate from those which were expected, adjustments to the portfolio (or to expectations) can be made.



It might be useful to consider the scenarios/events that may cause a deviation from the set path. Continuing with the same portfolio designed in Figure 6, we can consider how the portfolio might behave in a low volatility environment. Absolute portfolio risk might turn out

to be 8% (rather than the expected 11.2%), which would lower the expected return to 6%. The tools an investor will have to address this are very clear. The investor can:



The decision for what to do is entirely dependent on the risk tolerance and governance policies of each investor. The Investment Golden Rule makes these payoff choices clearer, makes them more understandable and less emotive, and makes them available for all of the people around the table, regardless of their experience. Ideally, stakeholders can use the tool in advance to help understand what types of events might cause them to deviate from a set strategy. Identifying these events ahead of time can eliminate the likelihood of responding emotionally to market movements or hastily making changes to the portfolio, thus improving the governance of the plan.

Conclusion

The phrase “The Golden Rule” usually refers to a simple clear rule of thumb with very broad implications, describing how to treat others. The Investment Golden Rule, in a similar way, can provide insight and understanding for investors and board members across the spectrum of investment sophistication. As a tool for investment and board leadership it is extremely powerful: it can be used to describe and frame both the broadest strategy points and the smallest details relating to allocation issues. Investment processes improve with clarity – using the Investment Golden Rule as the heart of the portfolio process can help provide that clear-eyed understanding. It can also help boards and investors to make more effective and sustainable decisions through a greater understanding of the capital allocation process.

Notes & Disclosures

1. Findings were from the Verus Capital Market Assumptions. Learn more here: <https://www.verusinvestments.com/2019-capital-market-assumptions-webinar/>

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