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# Assessing Your Board's Risk Tolerance

June 2014

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## About Commonfund Institute

Commonfund Institute houses the education and research activities of Commonfund and provides the entire community of long-term investors with investment information and professional development programs. Commonfund Institute is dedicated to the advancement of investment knowledge and the promotion of best practices in financial management. It provides a wide variety of resources, including conferences, seminars and roundtables on topics such as endowments and treasury management; proprietary and third-party research such as the NACUBO–Commonfund Study of Endowments; publications including the Higher Education Price Index (HEPI); and events such as the annual Commonfund Forum and Commonfund Endowment Institute.

# Assessing Your Board's Risk Tolerance

In the wake of the financial crisis, trustees of many endowed nonprofit institutions realized that their portfolio was riskier than they thought and their own ability to tolerate loss wasn't as strong as they imagined. What can board and investment committee members do to improve their ability to assess their – and their institution's – capacity for risk?

## Introduction: Lessons from the Financial Crisis

The risk tolerance of a nonprofit organization's board of trustees or investment committee with respect to its long-term investment pool is one of the most important topics to be considered when framing investment policy. Risk is usually addressed in some fashion in investment policy statements, but all too often it is handled in a summary or conceptual fashion, using vague language that refers to risk being held to an "acceptable" or "prudent" level, without inquiry into the actual risks being incurred by the investment goals and portfolio structure being proposed. Risk tolerance questionnaires—basically checklists in which fiduciaries attempt to gauge their appetite for risk—are rarely true reflections of sentiment, nor are they based on consistent principles of risk management. They consequently tend to yield a psychological snapshot of attitudes toward risk at a given moment rather than reflecting a thoughtfully-considered approach that can be applied over a longer period.

As a result, trustees have found themselves looking back in the aftermath of a severe market downturn and wondering how their "risk management system" could have failed them. Only with the clarity of hindsight do they realize that the risk in their portfolio exceeded the intended level, as a set of investment policies that once looked safe suddenly became a source of uncertainty.

While much has been written about risk tolerance in the aftermath of the global financial crisis, the topic has not received much attention in the nonprofit world, yet it is central to good governance and the duty of care that is every fiduciary's responsibility. This paper is intended for trustees and investment committee members who want to:

- understand their own level of risk tolerance;
- take steps to align the risk in their portfolio with their comfort level; and
- strive to achieve a balance between risk and return that is appropriate for their institution.

To achieve those objectives, it is necessary to understand how to put in place processes that yield sufficient self-knowledge to enable these fiduciary bodies to make better governance and portfolio decisions.

The severity of the financial crisis and the ensuing recession unsettled institutional investment decision-makers in profound ways. Prior to this period and its steep decline in asset values, risk was viewed in terms that tended to discount the possibility of sharp discontinuities and was largely defined, even in much academic and professional writing, as being essentially equivalent to volatility around a mean as measured by standard deviation.

The crisis forcefully introduced the concept of discontinuity in the form of events which, though once deemed unlikely to occur, had devastating consequences when they did. Questions such as "What if our endowment lost 50 percent of its value?" and "What if this decline turns out to last several years?" were no longer hypothetical. In 2008, the S&P 500 Index returned -37.00 percent and the NASDAQ Composite returned -39.98 percent. In the first two months of 2009—when the S&P 500 Index declined another 18.18 percent and the NASDAQ Composite fell an additional 12.44 percent—some nonprofit boards panicked and exited equities entirely, just before the U.S. stock market began a powerful and long-lived rally. Over the next 10 months the S&P and NASDAQ rose 42.10 percent and 49.52 percent, respectively. It would, however, take several years of generally improving but volatile markets to return asset values to their pre-crisis level.

Beyond direct investment losses, residual outcomes of the financial crisis surfaced that exposed risks influenced by the investment process. Gifts and donations, for example, declined sharply as individuals and grant-making institutions saw their portfolio values erode. According to Giving USA, charitable giving declined precipitously in the 2008-2009 period by about 15 percent, adjusted for inflation. And the recovery in giving, when it came, was slower than in previous recessions: while donations quickly returned to pre-recession levels after the downturns of 1973-75 and 2001-02, giving in 2012 was still 8 percent less, in inflation-adjusted dollars, than its peak in 2007.

Operating budgets also suffered as endowment values declined in the market downturn. Institutions with larger endowments tend to fund a greater percentage of their operating budget from endowment than do those with smaller endowments, which rely more on tuition or membership fees, grants and other income. In the higher education sector, the 835 colleges and universities participating in the 2013 NACUBO-Commonfund Study of Endowments® (NCSE) reported that their endowments supported an average of 8.8 percent of the operating budget. There is a large disparity in this figure between institutions with endowment assets over $1 billion, where fully 16.2 percent of the operating budget is funded by endowment, and colleges and universities with assets under $25 million, where the support level is just 2.5 percent. Among other types of nonprofit, the degree of endowment dependence can be even higher; the cultural, religious and social service organizations participating in the FY2012 Commonfund Benchmarks Study® of Operating Charities reported that, on average, between 15 and 40 percent of their operating budgets were supported by their endowments. It can thus be seen that risk tolerance and its consequences can influence the ability of endowed nonprofit institutions to command sufficient resources to support their ongoing missions.

## Parameters and Definition

This paper addresses risk management not in an academic or technical sense, but rather in terms of actual practices that can be implemented. We do not limit the discussion to risk tolerance as it relates to normal market environments, using such criteria as standard deviation or whether a portfolio loses or gains a relatively modest amount. Instead, we propose that boards should be concerned principally with losses that are severe enough to jeopardize the institution's mission, or from which it takes an unacceptably long period to recover.

Viewed in this way, risk tolerance can be defined as the board's willingness to accept large but temporary losses in portfolio values in pursuit of potentially higher long-term returns. The causes could include market crashes, economic contraction, inflation or deflation, interest rate changes and geopolitical events, among others. Risk tolerance is thus most frequently considered in relation to the risks surrounding investment choices and investment policy. While other types of risk, such as liquidity risk, strategic risk, operational risk, credit/counterparty risk, by-product risk and balance sheet risk may also cause losses, they are usually considered to be the consequences of primary investment-related decisions.[1] We do not discount these risks, but for the purpose of this paper we consider such factors primarily to the extent that they compound basic investment risk.

1 By-product risk can be substantial: the accounting, settlement and transparency risks associated with Bernard Madoff's fraudulent investment operation were mostly by-product risks, but were masked by Madoff's too-good-to-be-true results, his prestige and his aura of inaccessibility.

In this context, it is important to note that permanent harm to an endowment can occur as a result of causes other than market declines. Risk aversion in the form of reluctance to accept reasonable levels of risk, which can lead to destruction of the real value of the portfolio through long-term underperformance, should also be taken into account. It is entirely possible – and much more common – for endowments to fail as a result of timidity, in a kind of slow-motion collapse. One commentator has pointed to this type of risk in noting that

> Boards are rarely concerned about investment risk, except during adverse times in the market. Nonetheless, trustees may focus on the following risks:
>
> 1. the endowment losing its purchasing power over time, resulting in the probability of reduced operating support from the endowment (inflation risk);
> 2. an inability to keep up with competitors (reputation risk); and
> 3. a misguided assumption of returns of underlying asset classes causing the investments to underperform because they have been invested in the wrong companies or industries (price risk).[2]

## Factors Shaping Risk Tolerance

A range of factors should be considered by a fiduciary body in the process of obtaining a better understanding of its tolerance for risk. These include:

- its definition of the relevant risks to the institution and the perceived likelihood of their occurring
- the institution's existing investment policy
- the group's composition and decision-making dynamics
- behavioral characteristics – the psychological and emotional factors that shape the process by which decisions are made as well as the decisions themselves
- individual and institutional fears
- risks stemming from information overload
- the institution's investment time horizon
- the group's ability to deal with portfolio complexity

### Identifying and Prioritizing Risk

As a first step, fiduciaries may find it useful to attempt to identify risk events and define their likelihood and impact on the institution. One example, noted above, might be the risk of failing to maintain the endowment's purchasing power after inflation, spending and fees in a moderately long period such as five or 10 years or over a longer period such as 20 or 30 years. Another might be the impact of portfolio losses of five, 10 or 20 percent on the institution's budget and mission. Other risks such as an unexpected need for liquidity or a potential failure to make a scheduled payment on outstanding debt could also be analyzed. Members should ask themselves how the institution could respond to such events, try to rank them in terms of their perceived probability and assess the damage they could cause.

In carrying out these analyses, participants should also attempt to measure, in concrete terms, the potential effect of these events on the institution's mission. Discussing risk in terms of staff reductions, salary constraints, lost scholarships or cuts in research funding renders it less abstract. From this ranking of risks in terms of their probability and their impact, a more meaningful understanding of risk appetite can result.

A similar exercise that many institutions, including commercial firms, have found useful is to conduct a thought exercise in which a hypothetical damaging event is assumed to have occurred and the group works backward to ascertain how the event could have come to pass. This process can foster discussion of institutional weaknesses or gaps that might be difficult to see in prospect but that – as in real life – become all too clear in hindsight.

2 William S. Reed, *Financial Responsibilities of Governing Boards* (Association of Governing Boards of Universities and Colleges, 2001), p. 53.

## Risk Tolerance and the Investment Policy Statement

Every endowed institution should have an investment policy statement which should address, among other matters, investment objectives, asset allocation, spending and rebalancing. It is also important that it embody the attitudes toward risk held by the board, which can vary significantly. As one practitioner has noted, "Individuals and institutions will assign different priorities to different types of risk, depending on their views and risk tolerance. That is why a strong investment policy will explicitly describe and define the risks that the committee and staff believe are most relevant."[3]

Asset allocation and spending policy, two central building blocks of the investment policy statement, play a crucial role in risk management. Asset allocation is insufficiently valued as a determinant of investment success by many fiduciaries, particularly in comparison with manager selection. In fact, over 90 percent of the variation in a portfolio's return is attributable to asset allocation decisions.[4] Spending policy should balance the needs of the present and the future while limiting the year-to-year volatility of spending in dollar terms. Yet despite the fact that these two factors are recognized as being of the highest importance, evidence shows that boards consistently devote much more time to activities such as attempting to time the market and to hiring and firing investment managers, which add little and may even be destructive of value.

## Board and Investment Committee Composition and Decision-Making

The composition and leadership of the board and investment committee offer another opportunity to assess risk tolerance. In the case of the investment committee it is best to have an experienced investor as chair, but the other members should be chosen so as to bring a mix of backgrounds and skills to the group. While members with in-depth experience in investment management are obviously essential to the functioning of an investment committee, astute and thoughtful individuals from a variety of backgrounds and disciplines can bring a "culture of inquiry" to committee deliberations and decision-making, enabling the group to benefit from the "cognitive diversity" that stems from differing professional backgrounds, education and life experiences. As one example, an investment committee should have members who understand subjects such as audit and risk management in addition to those who have experience with investing.

Because it can be more challenging to manage such diverse groups successfully, many committees prefer to keep their membership relatively homogeneous. They may also prize a culture that elevates the importance of collegiality over dissent or debate. This approach can in itself constitute a source of risk. As one investor has written, "Most [investment] committees are determined by commonality. They are generally put together by one person, usually the chair, and they generally come from the same background, look the same and act the same. In fact, they can finish each other's sentences. They think they're very diverse—but they're not."[5]

Board and committee chairs who see a need to alter their group's composition may begin by envisioning the committee they would like to have and then recruiting to fill that vision. It may be helpful to create a skill and experience matrix describing the desired characteristics of potential members. A committee can be reshaped relatively quickly through attrition and recruitment. In this context, effective orientation of incoming committee members is very important. There is much for the new member to grasp, including the purpose of the institution and its endowment, the nature and procedures of the board or committee and the precedents set by earlier decisions, and the responsibilities of a fiduciary. The chair can also make use of the agenda, reorienting it away from topics such as meetings with investment managers and reviews of short-term returns and allocating significantly more time to strategic goals and investment policy. By this method, the chair can focus the committee on the larger, more important issues that ultimately shape long-term outcomes.

3 Jay A. Yoder, *Endowment Management: A Practical Guide* (Association of Governing Boards of Colleges and Universities, 2004), p. 26.

4 Brinson, Hood and Beebower, "Determinants of Portfolio Performance." *Financial Analysts Journal*, July/August 1986, Vol. 42, No. 4: 39-44.

5 Arnold Wood, "The Investment Crowd." *CFQ*, Spring/Summer 2006 (Commonfund), pp. 20-21

It will be seen from these examples that the importance of the board or committee chair is crucial. One helpful leadership technique is for the chair to avoid expressing an opinion first. Instead, the chair should emphasize the value of all the members of the group and guide the discussion so as to balance participation, managing and monitoring the quality of the group process as it unfolds over time.

In this regard, it is important that the chair manage information-sharing as an active process by identifying people with unique information and working to surface diverse informational items relatively early in a discussion. A thorough process should ensure that even conflicting evidence is presented and weighed in advance of the decision. The result should be a productive conflict of ideas but not of people that yields better information and higher-quality decisions.[6]

## Behavioral Investing, Group Dynamics and Committee Decision-Making

How boards and investment committees make decisions, and the rules – both formal and informal – that they use in arriving at those decisions, have become the subject of a large body of academic and empirical research in recent years. Emotional, psychological and behavioral factors enter prominently into investment decision-making, and the field of behavioral investing has shed considerable light on this process. Daniel Kahneman of Princeton, who won the Nobel Prize in Economics, and the late Amos Tversky of Stanford are regarded as two of the pioneering figures in behavioral finance. Contrary to the conventional view that humans are consistent, rational decision-makers who behave in a logical manner based on reliable information, behavioral investing proposes that extremes of fear, overconfidence and other human characteristics affect how individuals, boards and committees behave and interact among themselves.

One academic observer has noted that "The primary reason for committee decision-making . . . is clearly the view that committees or teams will make better financial decisions. With teams, committees, or groups it is felt that there will be more knowledge or information to be shared. This information argument for committee decision-making appears even more compelling as the world of financial decision-making becomes more complex and dynamic. Consequently, it becomes less likely that any single individual will have sufficient information and skills for good decision-making, and thus the growing need for committee decisions."[7] But, he cautions, some view investment committees much more negatively. This is because they meet infrequently, act slowly and, doubters believe, tend to make wrong decisions – including decisions about risk tolerance.[8]

This gap between the way committees perceive themselves and the way in which their actual records of decision-making can be analyzed can be substantial. A survey of investment committee members conducted in 2009 found that 80 percent of the respondents agreed with the statement, "My committee seldom makes bad decisions."[9] Yet, as author and writer Jason Zweig observed in a 2009 article about the financial crisis appearing in The Wall Street Journal, many billions of dollars "were lost by smart people trying to do good, honest work on behalf of others—usually as part of a committee."[10]

6 Douglas T. Breeden and John W. Payne, "Behavioral Aspects of Individual and Group Decision Making and Risk Management in Recent Financial Crises" (reference materials for presentation at the Commonfund Institute at Yale University), July 12, 2012, p. 65. http://www.dougbreeden.net/uploads/Breeden_CFund_Yale_Talk_on_Behavioral_Decision_Making_July_12_2012.pdf.

7 John W. Payne, "Investment Committee Decisions: Potential Benefits, Pitfalls and Suggestions for Improvement" (2009), p. 3. https://faculty.fuqua.duke.edu/~jpayne/bio/Investment%20Committee.pdf.

8 Ibid. at p. 4.

9 Kimberly A. Stockton, "Investment Committee Decision-Maker Study". Vanguard (2009), p. 10. http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&cad=rja&uact=8&ved=0CDgQFjAA&url=http%3A%2F%2Fagb.org%2Fsites%2Fagb.org%2Ffiles%2Fu16%2FVanguard%25205.pdf&ei=rat_U83TDdHMsQTgl4DwAg&usg=AFQjCNGrc_e4OsUdIOIue6DNLsYtSfvZYg.

10 Jason Zweig, "How Group Decisions End Up Wrong-Footed", *The Wall Street Journal*, April 25, 2009. http://online.wsj.com/news/articles/SB124061065847354263.

While the truth doubtless lies somewhere between these two perceived extremes, it can be difficult for the members of a committee to see themselves, their group's procedures and their decisions in a completely objective way.

## Individual and Institutional Fears

As investment markets fluctuate, committee members and trustees may naturally feel a wide variety of emotions, ranging from pride and confidence to shame and fear. During a market downturn, the desire to minimize losses in the short term can lead to poorly-informed decisions that may have a lasting negative effect on the value of the endowment. In the emotion of the moment it may seem better to take action—any action—than to sit by and watch asset values fall. The source of this fear is often worry over damage to reputation or career among those who preside over a period of deep portfolio losses. In the committee context, these concerns can result in decisions that highlight latent contradictions within the institutions themselves, which may have articulated a long-term return objective but still measure themselves in the shorter term against their peers.

## Information Overload

Other situations in which behavioral factors can influence decisions include times when information is incomplete or changing rapidly; when objectives are ill-defined; and when group dynamics or interaction with others is ineffective or dysfunctional. For many fiduciaries, the sheer volume of information that must be assimilated stands in the way of better decision-making. One academic notes that for investors, freedom of choice and access to information have never been greater, yet the volume and complexity of information can become overwhelming. In the current age of information overload, the scarce resource is not information itself, but people's attention and their ability to make use of all the information that is available. The consequences of information overload can include both avoidance of decisions and oversimplification in decision-making.[11]

## Time Horizon

Thoughtful fiduciaries continue to believe that the most reliable way to measure the efficacy of a plan is over a full market cycle or longer. Yet, in times of crisis, there is a propensity to veer from the plan and compound the problem when standing pat may well be the better option. For one observer, "Market tops and bottoms provide especially fertile ground for flawed decisions. Investment committees are social groups and their members are vulnerable to emotionally charged reactions versus rational responses. Not only are committee members sensitive to the environment of their own committee but also to what other endowments or foundations are doing. The pressure to conform is great . . . ."[12]

Most endowed nonprofit institutions consider their investment horizon to be perpetual. In times of crisis, however, investment horizons can become compressed as events that were expected to unfold over a long time period can instead occur in a matter of days. In such circumstances, the time frame for investment decisions can become dangerously short term. A practitioner observes:

> Tolerance to risk (volatility) is a function of many things, including the actual—as opposed to the stated—time horizon and the propensity of trustees to abandon a long-term strategy because of current market conditions. The proper time horizon for most colleges and universities, as perpetual institutions, is at least 10 to 15 years. Often, however, the effective time horizon becomes much shorter, to the detriment of the endowment, because of investment committees' natural inclination to take action (usually resulting in a change of strategy) in order to minimize any negative outcomes during its watch. It is important to note that the longer the time horizon and the lower the propensity to panic, the more risk any endowment can assume and, therefore, the greater returns it can achieve over the long term.[13]

11 John W. Payne, "Overcoming Information Overload in Decision Making", Presentation at Allianz Global Investors Center for Behavioral Finance (2011). http://befi.allianzgi.com/en/befi-tv/Pages/john-payne.aspx.

12 Arnold Wood, "Time for Fame". *CFQ*, Fall 2002 (Commonfund), pp. 16-17.

13 Yoder, *op.cit.* at 17.

### Behavioral Finance – A Closer Look

A wide range of behaviors intrudes on clear, dispassionate investment committee decision-making. Three of the more prominent behavioral categories are:

- **Aversion to loss**, where the prospective or actual pleasure of making investment gains is outweighed by the pain associated with losses
- **Trend extrapolation**, where it is believed that a current negative or positive trend will continue and will have enduring consequences
- **A focus on the short term**, where investors tend, in times of crisis, to abandon long-term policies and forecasts

Within this group, a number of specific behaviors have emerged of which investment committee chairs and members should be aware – and which, perhaps, they may even recognize in their past deliberations:

#### Optimism Bias

This condition causes some people to believe they are less likely than others to experience a negative event. Typical examples of optimism bias are smokers who believe that they are less likely than other smokers to contract lung cancer and traders who think that they are somehow less exposed to losses in the financial markets.

#### Confirmation Bias

This term describes the tendency to pay more attention to information that supports one's own beliefs while ignoring or rationalizing that which is at odds with them.

#### Hindsight Bias

This behavior tends to occur in situations in which a person or committee believes, after the fact, that the past event was predictable and obvious, whereas in reality the event could not have been predicted with any degree of certainty.

#### Following the Herd

This condition is simply the social pressure to conform – to think like the larger group, no matter how irrational that thinking (or behavior) may be. Here, it is assumed that the odds of the larger group being wrong are low, and thus that the group is making the right choice.

#### Anchoring

This term describes the human tendency to rely too heavily on the first piece of information received when making decisions and, thereafter, to interpret additional information by reference to the initial "anchor" information.

## Potential Solutions

What can fiduciaries do to gain a realistic understanding of their risk tolerance?

*Alignment of Goals*

The first step is to seek an alignment between risk tolerance and institutional objectives. The institution's investment policy statement should set the overall risk control framework by addressing asset allocation, spending and rebalancing, among other topics. Is it consistent with the institution's mission and resources?

The achievability and internal consistency of these goals can be tested by the use of a number of quantitative tools:

- Computer-generated stress tests and simulations can indicate a portfolio's probable behavior under a wide range of hypothetical (or "what if") financial scenarios.
- Back-testing enables the group to examine prior time periods to gauge the past performance of an asset allocation or investment strategy and ascertain its possible future course should similar conditions prevail.
- Another approach is to review worst-case scenarios for various investment strategies and portfolio structures. These are extreme, "left tail" risk events that are deemed highly unlikely to occur but that can cause serious harm to the portfolio or the institution.

*Confirmation of Investment Time Horizon*

Fiduciaries should evaluate their own attitudes toward risk and return over time in order to discern, for example, whether they are willing to risk underperforming institutional objectives for only a short period of time (say, for under one year) or whether they are willing to accept a longer period of poor returns (for example, for two or three years or more) if higher long-term returns are the likely outcome.

Within this investment policy view, they should operate with a clear philosophy regarding their willingness to undertake market timing and tactical shifts in asset allocation. Market timing has largely been discredited, but there is active debate about the value of tactical shifts based on secular economic and market trends. In a related area, they should also form a view as to whether the main driver of wealth creation is active or passive management. The use of index strategies creates a different set of risks than active management, and some alternative strategies cannot be implemented using index products.

It is prudent to record these policy choices in the investment policy statement, which should serve as a reference and guide to the group in both stable and unsettled times.

## Conclusion

Understanding a board's risk tolerance is not an exercise with a precise beginning and end. It is an ongoing, continuous process, both qualitative and quantitative. In times of stress fiduciaries should strive to avoid reactions that undermine their settled policies and thus are contrary to the organization's long-term interest. A candid and thoughtful evaluation of their own ability to accept risk can help them to be strong stewards of the assets that have been placed in their charge.

# About the Authors

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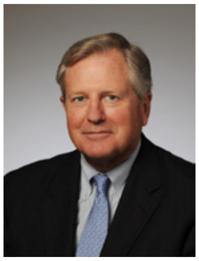

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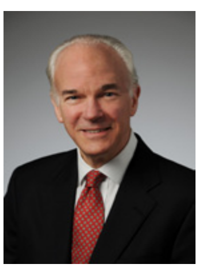

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