

June 5, 2009

Office of Regulations and Interpretations
Employee Benefits Security Administration
U.S. Department of Labor
200 Constitution Avenue, NW
Washington, DC 20210

Ms. Elizabeth M. Murphy, Secretary
Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Subject: File No. 4-582, Target Date Fund Joint Hearing

Dear sir or madam:

Please accept our firm's request to appear and testify at your June 18, 2009 joint hearing regarding Target Date Funds (TDFs). If selected New Frontier Advisors would be prepared to discuss:

- Our critiques of target date funds (5 minutes)
 - Serious limitations of glidepath risk for retirement investing
 - Inappropriateness of many TDF management policies
- Alternatives to target date funds (5 minutes)
 - Default risk portfolios for investors without investment advice
 - Best practices for those with access to competent financial advice

I have attached a more detailed discussion of these topics. A recent refereed paper on the state-of-the-art of investment theory and current practice on properly defining investment risk for long-term investing (Michaud 2003) is available upon request. If you have any questions regarding our request, please contact me at 617-482-1433.

Sincerely,



Richard O. Michaud, Ph.D.
President, CEO, CIO, New Frontier

Subject: File No. 4-582
From: Richard Michaud, CEO, CIO
Affiliation: New Frontier Advisors, LLC, Boston, MA 02110
Date: June 5, 2009
Discussion: Target Date Fund Joint Hearing – June 18, 2009

Introduction

A wide consensus exists that the single most important investment decision is the choice of level of risk, or stock/bond ratio, of an asset allocation for long-term investment.¹ Choosing an appropriate risk level for an individual or institution can be a complex decision with many theoretical subtleties as well as practical limitations.² Target date funds (TDFs), while superficially appealing, are often misleading, since an appropriate risk level is far more complex than one defined by age. For example, an unemployed 25 year old may rightfully be far more conservative than a wealthy octogenarian. Unfortunately, in the absence of professional investment advice, the best advice may be to hold a balanced fund; i.e., an investment closely representative of the economy. Deviations from a balanced fund often require competent professional advice as well as transparent risk-controlled investments.

Qualified Default Investment Alternatives (QDIAs)

Congress has recognized the importance of providing protections for investors saving for retirement. As a practical matter, many individuals do not have reliable information on appropriate investment products for retirement. Rules for defining a qualified default investment alternative (QDIA) fund are intended to provide safe, diversified, risk-controlled investments that protect investors from inappropriate high risk and high fee investments that may be proposed by unscrupulous or incompetent financial advisors.

Defining investment risk for long-term retirement planning is an important issue in modern finance. In practice, the long-term risk of a collection of asset classes can be largely summarized by the stock/bond ratio.³ Economic theory, as well as historical observation, shows stocks to have a higher expectation of return over time at the cost of less certainty of returns relative to bonds on average.⁴

The Promise of Target Date Funds (TDFs)

Target Date Funds (TDFs) are asset allocations that use glidepaths or age-based rules to define the appropriate level of risk for an investor. TDFs generally reduce equity risk as retirement approaches. Some TDF managers also attempt to add value by adjusting the level of risk based on market forecasts. TDFs are promoted as one-stop-shop retirement investing. Age-based rules require no expertise or knowledge of the investor for choosing investment risk, and therefore neatly answer the main investment question.

¹ Brinson et al (1986, 1991)

² See Michaud (2003) for a review.

³ Brinson et al (1986, 1991).

⁴ We note that this definition of risk has limitations when alternative assets such as hedge funds and commodities are considered.

Critiques of TDFs

Age-based rules alone are too simplistic an approach to defining appropriate investment risk. As in the example of the unemployed 25 year old and the wealthy octogenarian, age is often irrelevant or even perversely related to an appropriate level of risk for investors. Additionally, TDF investments are often inappropriately managed as QDIA investments, independent of the time horizon.

The myth of age-based risk

No formal financial theory exists that rationalizes an age-based reduction in stock/bond risk for long-term investing. Age-based decision rules ignore relevant factors associated with retirement investment choice such as wealth level, volatility of income, risk-aversion, health, marital status, family issues, and legacies. Many financial economists have devoted much of their careers to the study of defining an appropriate level of risk for investment.⁵ In practice, institutional and individual consulting studies for defining long-term risk policy are often extensive and costly.⁶ Empirical evidence indicates that age is unrelated to the risk that investors assume even in aggregate.⁷

Age-based risk decision rules may also encourage the elderly to be too conservative and the young to be too reckless. Giving a false sense of security when none is available, age-based rules are essentially a marketing convenience for fund managers. Note that the simplicity of fund choice based solely on age greatly simplifies the marketing of the funds. Also, it should not be surprising that TDF managers are enthusiastic about rules that encourage investors to invest in the same fund for many years until retirement.

Unregulated management

There is no agreement on what constitutes an appropriate stock/bond ratio for a given investor's age. Consequently, TDFs often reflect wide variation on defining the stock/bond ratio for a given retirement target date. Such discrepancies highlight the serious ambiguity around the implementation of TDFs and their appropriateness for meeting long-term retirement objectives.

Additionally, TDF managers often actively manage the stock/bond ratio. For instance, if managers expect a market downturn, they may reduce the fund's stock/bond ratio. While a reliable market forecast will benefit investors, market timing as investment policy is known to be unreliable and self-defeating on average. The additional risk associated with active management of the stock/bond ratio may make the fund too risky or not risky enough to meet long-term objectives.

Many TDFs are not well-diversified or risk-controlled. Managers may use ineffective or out-of-date investment technology. Even worse, many TDF managers develop asset allocations with *ad hoc* methods that often ignore modern principles of risk management.

⁵ A classic theoretical study of the choice of risk for investment is given in Rubinstein (1973).

⁶ Michaud (1976) provides an example of such a study.

⁷ Smetters (2009) finds empirically that the age to stock/bond ratio has an inverted "U" shape that diminishes as educational level increases.

The Standard Solution

In aggregate, investors hold claims to the economic productivity of the economy. Mathematically, the average portfolio is proportional to the market portfolio, which is roughly equal to a 60/40 portfolio of major capital market index funds. Any deviation from this portfolio represents under-weighting of one segment of the economy, and, necessarily, over-weighting of another. These bets expose the investor to systematic risk that may or may not be appropriate for meeting long-term objectives. The market portfolio is well approximated with passive capitalization-weighted index funds for aggregate stock and bond markets.⁸ A purely passive, capitalization-weighted portfolio should be a standard or default QDIA portfolio. However, well-managed transparent risk-controlled asset allocations may also qualify.

An Enhanced Solution

We have two proposals for enhancing the value of retirement fund investing in practice: 1) Target-risk funds, defined below, as appropriate QDIA investments; 2) Implementation of more effective asset allocation risk management.

Target-risk fund (TRF) alternative

A target-risk fund (TRF) is a well diversified risk-controlled asset allocation indexed by the stock/bond ratio. TRFs represent a family of funds that span a spectrum of stock/bond ratios, for example, 20/80, 40/60, 60/40, 75/25, 90/10 and 100/0. Many sophisticated fund investment platforms provide such a range of TRFs for selection by advisors and investors for long-term retirement investing.

A 60/40 TRF has a special role within the set of TRFs. Often called a balanced fund, it represents a default or “market neutral” QDIA investment for investors who do not know or do not want to choose their risk level for retirement investing.⁹ This fund most closely represents the market portfolio.

TRFs with lower and higher stock/bond ratios than 60/40 are available for investors who desire or need the ability to customize investment risk. Deviations from a balanced TRF portfolio should be the result of advice from an investment professional, based on an individual’s objectives and status.

Properly managed TRFs typically have a fixed stock/bond ratio and avoid market timing. In a fixed stock/bond ratio, TRF investment risk is transparent and reliable. Investors are not locked in to a fund family and can choose to alter their risk as wealth, objectives, and status change over time. A TRF framework does not encourage either recklessness for the young or conservativeness for the elderly.

Asset allocation technology

A diversified risk-controlled asset allocation suitable for QDIA investment requires effective risk management. Unfortunately, many asset allocation managers do not use

⁸ The concept of the market portfolio is central in modern finance (Sharpe 1964, Lintner 1965).

⁹ The Swedish Social Security System found that roughly 70% of participants preferred a default risk investment option.

rigorous risk management principles. Managers who use investment technology to optimize their asset allocations for risk management typically use a variation of a fifty-year-old procedure.¹⁰ While theoretically valid, traditional optimizers have well known limitations in practice, including a strong likelihood of poor out-of-sample performance.¹¹ On the other hand, many asset allocation managers ignore risk management technology. *Ad hoc* risk management is often unreliable and ineffective. Recently, new technologies have been developed to account for uncertainty in investment information. These procedures result in more robust portfolios that have been shown to increase real-world performance and manage risk more effectively.¹²

Summary:

Because no formal financial theory exists that rationalizes an age-based reduction in stock/bond risk for long-term investing, no consensus on an appropriate age-based stock/bond ratio can exist. Therefore, TDF risk levels often vary widely by fund families and across time. TDF age-based decision rules are unreliable and often perverse in defining risk suitable for QDIA retirement investing for very many investors.

Alternatively, a TRF QDIA framework is transparent and may reliably manage risk. A 60/40 fixed-ratio TRF serves as a risk-balanced QDIA appropriate for many investors who do not want to make a risk decision or do not have the expertise to do so. A TRF family provides a range of transparent risk investments suitable for meeting a wide range of retirement objectives.

Asset allocation management is often deficient in the technology used for risk management. Active management of the stock/bond ratio adds an additional, often inappropriate level of risk for QDIA investing. New technology is available for more modern and effective risk management.

Recommendations:

- Avoid TDFs for QDIA retirement investments
- Use a fixed 60/40 TRF as a default QDIA investment
- Use fixed ratio TRFs as QDIAs for investors with access to professional advice
- Avoid active stock/bond ratio management in a QDIA
- Avoid ineffective risk management asset allocation technology

¹⁰ The mean-variance (MV) efficient frontier developed in Markowitz (1959).

¹¹ Jobson and Korkie (1981), Michaud (1989).

¹² See Chernoff (2003). The Resampled Efficient Frontier was co-invented by Richard Michaud and Robert Michaud and was allowed a U.S. patent. See Michaud and Michaud (2008a, 2008b) for further description.

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New Frontier Advisors, LLC (NFA) is an institutional research and investment advisory firm specializing in the development and application of state-of-the-art investment technology. Based in Boston, NFA provides consulting and investment advisory services as well as licensing of patented and proprietary software. NFA principals invented the world's first broad spectrum, provably effective, portfolio optimization, rebalancing, and monitoring process; the Resampled Efficient Frontier™ is globally recognized as a landmark development for asset allocation and equity portfolio management. Through monographs, refereed academic and professional papers, patents, white papers, seminars, and invited presentations, NFA continues to pioneer new developments in portfolio management, investment strategy, and financial planning tools. NFA combines practical investment experience, patented techniques, and world class research and management skills to offer uniquely effective institutional quality investment services.

Dr. Richard O. Michaud is President and CIO, New Frontier Advisors. He has a Ph.D. in Mathematics from Boston University and taught investment management at Columbia. He is co-holder (with Robert Michaud) of three U.S. patents in portfolio optimization and management. He has authored numerous refereed academic and professional publications as well as Efficient Asset Management, Oxford 1998), 2nd edn. (with Robert Michaud) OUP, 2008. He is a Graham and Dodd Scroll author, former Editor of the Financial Analysts Journal, Director of the Institute for Quantitative Research in Finance, and Editorial Board member at the Journal of Investment Management. Prior positions include: Director, Research and Development, Acadian Asset Management; Head, Equity Analytics, Merrill Lynch.