
PRACTITIONER'S DIGEST

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A NEW APPROACH TO GOALS-BASED WEALTH MANAGEMENT

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Sanjiv R. Das, Daniel Ostrov, Anand Radhakrishnan and Deep Srivastav

Goals-based wealth management (GBWM) aims to reach an investor’s goals over a long horizon using efficient portfolios. Practically speaking, this means that risk is not defined as the portfolio’s variance, but instead as the probability of not reaching the investor’s goals. Merely choosing mean-variance optimal portfolios does not focus on getting an investor to their goals, which is generally the fundamental concern of investors. This paper presents the mathematics needed to conduct GBWM. Incorporating GBWM does not mean abandoning risk-based asset allocation. It is an overlay that remains fully consistent with portfolio construction based on modern portfolio theory, while at the same time minimizing the risk of not attaining the investor’s chosen goals.

GBWM is also not merely a glide path to goals as implemented by life-cycle funds. From a practical standpoint, life-cycle funds treat people of the same age in the same way even if they have different wealth and goals, whereas GBWM is customized for each investor. In GBWM financial advisors will elicit goals information using language and ideas that are intuitive for an investor and map this information to a specific portfolio that will best meet the investor’s goal-based specifications. In contrast with traditional planning where a static portfolio is generally selected and maintained through rebalancing, GBWM produces a portfolio that will move about on the Efficient Frontier, dynamically addressing changes to the market in order to optimize the investor’s goals. The trajectory of this evolution will depend not only on the market but also the investor’s preferences, which can be pre-selected both in the case when the portfolio is sufficiently funded and when it becomes underfunded if the financial situation worsens sufficiently.

The GBWM approach in this paper has implications for improving the relationship that advisors have with their clients, as well as the outcomes they can obtain for them. Investors are able to benefit not only from individualized advice but also from being able to explicitly see the effects of choices they understand on the probability of their outcomes. This delivers an experience for investors that is more

intuitive, transparent, and understandable, both in the initial set-up for their investment and for later discussions between the investor and the advisor as market conditions change.

DEFINED CONTRIBUTION PENSION PLANS AND MUTUAL FUND FLOWS **PAGE 31**

Clemens Sialm, Laura Starks and Hanjiang Zhang

We examine mutual fund flows that derive from defined contribution (DC) pension plans in order to determine how the pattern differs from that of other types of fund investors. Given the increasingly large proportion that DC plans constitute of mutual fund assets, the differences in behavior patterns between types of investors are important to understand. In our first analysis, we separate fund flows into those coming from DC plans versus those coming from other investors. We show that *for the same fund* the flows from DC plan participants are more sensitive to performance than the flows from other mutual fund investors. We also find an asymmetry in this effect on fund size in that the differences are greater for large funds with particularly poor recent performance and for small funds with particularly high recent performance. In a second analysis we divide mutual funds into three groups according to the size of the ratio of DC assets to total assets in the fund. The results are consistent with those of the first method in that the group of funds with the greatest relative amount of DC assets (highest DC ratio) tend to be more sensitive to poor performance.

A well-established behavioral finance finding for DC plans is that the participants tend to show inertia, rarely adjusting their portfolio allocations. Such behavior implies that the flows derived from these pension participants should not be as sensitive to fund performance as flows from other shareholders and consequently that the DC plan assets in the mutual fund would not be discerning about their investment choices. However, as shown in the analysis discussed above we find that the converse is true. The reason is that the DC plan assets are subject to decisions by both the plan sponsor and the plan participants and the plan sponsors adjust the plan's menu of investment options, removing the poorly performing funds and adding funds that have recently shown better than average performance.

PICKING THROUGH THE ALPHA GRAVEYARD

Correcting for Survivorship Bias in Investment Product Universes

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Gregory C. Allen, Ivan S. Cliff and Walter J. Meerschaert

Peer group comparisons are an important tool used by a wide range of investors to inform their investment decisions. Morningstar, for example, awards their star ratings based on the risk-adjusted performance ranking of a fund relative to a universe of peers. The current industry standard methodology for calculating the distribution of returns (or other return based statistics) for a peer group includes only the data for funds that have complete track records. All of the data for non-surviving funds is systematically ignored by the methodology. For high mortality peer groups such as hedge funds the data for these non-survivors can represent well over half of the available dataset. Ignoring this data introduces survivorship bias into the resulting peer group distributions. While the industry widely acknowledges that survivorship bias is a pervasive problem, no real effort has been made to correct for it in real time in the tools used by every day practitioners.

In this article we propose a practical technique to correct for survivorship bias across return distributions for investment product universes. The technique is designed to work efficiently in a large scale report production environment. It uses all of the available data for surviving and non-surviving products, corrects for bias across the full distribution from 1st to 99th percentile (allowing for more accurate rankings), and can be applied to other return-based statistics such as Sharpe ratio, standard deviation, correlation, etc. We then apply the technique to a variety of peer group universes over a ten-year period to demonstrate its impact. As expected, the correction technique tends to reduce returns across the entire distribution for each universe. The reduction in return is generally greater for the bottom quartile of the distribution than it is for the top quartile or the median. Furthermore the magnitude of the correction is greater for self-reported databases than for universes of 40-act mutual funds where reporting is required by the SEC as a condition of registration. Finally we conclude that hedge fund universes demonstrate the highest mortality rates over the analysis period, and consequently are plagued by the highest levels of survivorship bias.

While this analysis reveals some interesting generalized observations about the impact of survivorship bias, we believe that the ultimate promise of this technique lies in its adoption by the industry as a standard. If every day decision-makers used all of the available data to support their judgments rather than just focusing on the survivors, it would result in more realistic performance expectations for investment strategies relative to both peers and benchmarks. More realistic expectations across the industry would naturally lead to better investment decisions, which should in turn generate better investment outcomes and a more efficient allocation of capital.

MACRO-BASED PARAMETRIC ASSET ALLOCATION

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Richard Franz

In the long run the decision of when and in which asset class to invest determines the largest part of portfolio returns. Although there exist numerous studies on how to allocate single positions in a stock *or* bond portfolio, the allocation of asset classes within a portfolio has received less attention. Additionally, we have a good understanding that economic forces are interlinked with the financial returns of asset classes as stocks and bonds. However, existing models usually require more or less strong assumptions on the return structure to disentangle these links.

In this paper I suggest using a parametric approach to address both topics with the only assumption that this time is *not* different. This contributes greatly to the understanding of how economic variables as the term spread, credit spread, TED spread and value factors drive the return of asset classes. Having implicitly identified the dynamics of capital-markets, the approach provides a framework for the tactical between-asset-class decision.

The results are promising. The approach performs well in-sample and out-of-sample with respect to return, Sharpe Ratio, Investment Ratio, Jensen's Alpha and Certainty Equivalent. The outperformance remains largely when considering market frictions and the framework can be extended to include further asset classes.