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# Maximizing Your Plan's Efficiency: Risk Budgeting



**Optimizing a portfolio through manager selection.**

It is unfortunate that, to date, plan sponsors have received minimal direction with respect to manager structure. No well-developed framework has been available to answer such questions as:

• How do you allocate and control active risk between managers?

• How many managers should you have and what should the allocation be to each?

• What should the mix between passive and active be?

This discussion focuses on the most typical application of this problem within a single asset class. One can achieve returns almost identical to the benchmark by investing in an index fund replicating that benchmark return. Many investors feel that added returns are possible and attainable by selecting active managers. When an investor hires an active manager, the plan sponsor is accepting the risk that the active manager may not outperform the benchmark. Our objective function, therefore, is to maximize the expected active return for a given level of active risk.

As with any optimization, the issue is to identify the appropriate risk budget, or the level of risk aversion that is appropriate. One can budget at a risk equal to zero (index fund) or as high as the single manager exhibiting the highest level of risk among other potential managers. Wherever the plan sponsor chooses to be along this continuum is a matter of setting the risk budget.

Invariably, they usually discover two attributes:

• The allocation between managers is suboptimal

• The actual risk budget they have assumed is either higher (most times) or lower (less frequent) than they desired.

For instance, our experience is that a fund with a structure that includes only traditional active managers will likely have active risk levels over 4 per cent at the total asset class level, an uncomfortable (and reducible) amount of risk.

The investor will need to identify either their risk aversion factor or (most likely) the absolute level of active risk they are willing to tolerate—the 'risk budget.' A simple way to do this is to ask, "If a 4 per cent active risk budget means that, in one year out of six, the asset class as implemented will underperform by 4 per cent or more, would I be comfortable communicating such bad new to the fund's stakeholders with that frequency? Would I be better off with a risk budget closer to, say, 2 per cent? Or some other amount?"

A related question addressing the perception that investors need to hedge against the possibility that they lack skill in manager selection is: "If I doubt my skill at selecting managers, just how big a loss am I willing to take to exercise it?" Note that the investor has a risk control 'dial'; the more it is turned to the left, to a lower level of risk, the more the allocation to core managers increases. The inverse is also true; the higher the risk level, the greater the allocation to traditional active managers.

As long as investors continue to use active managers, and no doubt they will, they are implicitly making alpha estimates. A better, more disciplined approach is to make explicit estimates that can be held up to the light of day, that will appear reasonable and will be defendable in debate. An effort to build a strong structure of managers should be made with the most transparent methods possible. ■

1. For a complete discussion and theoretical underpinnings of these concepts please read 'Optimizing Manager Structure and Budgeting Manager Risk, by Barton Waring, Duane Whitney, John Pirone and Charles Castille, Journal of Portfolio Management, Spring, 2000.