A SMALL PLAN'S STORY

Teck Cominco's foray into risk budgeting.

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One of the underlying premises of modern portfolio management is that risk is as important as returns. Small pension plans often focus on relative asset return performance without an appreciation of the impact of asset and interest rate risk (volatility). As a result, primary return objectives, funded ratios and the relationship between portfolio components often do not get sufficient attention.

A risk budget, in simple terms, is a conceptual way to measure portfolio risks. It should include benchmarks and reports that highlight the impact of volatility in the portfolio.

"IS A FORMAL RISK-BASED APPROACH WORTH [IT] FOR A SMALL PLAN?"

The risk for Teck Cominco's plans will be defined as fluctuations in the funded ratios and required cash contributions (this may be different in other plans). The fluctuations are the result of asset-liability mismatching, volatility of certain asset classes and the correlations between the fund managers.

What you measure the portfolio against and over what time frame are critical issues. A "least-risk benchmark" is a key part of the process and ideally will be determined as part of the asset-liability study process. Risk will be quantified in terms of funded ratios (interest rate risk), and policy and active risk (in terms of standard deviation from the least-risk benchmark). Policy and alpha risks and returns will be determined and monitored against the least-risk benchmark (or suitable proxy). Our funding requirements are affected by limited time frames and, therefore, will have to be considered part of the process.

In preparing the actual risk budget, the general objective will be to ensure that the marginal contribution to risk from each portfolio component is about the same. When managers or asset classes exceed their risk budget we will be aware of what is happening, and can review the situation and start asking questions.

The risk budget process is expected to provide information on the returns and volatility of the total portfolio, fund managers and asset classes. The correlations of the portfolio components will also have to be monitored regularly. Monthly total portfolio and fund manager performance data will be used to develop the system and is available through our custodian and performance measurement consultant.

Some of the key issues which I have briefly mentioned which need to be addressed in developing a risk budget are the role of asset-liability studies, benchmarks, time periods, interest rate exposure, allocating alpha and the availability of tools or systems to manage the budget model.

Risk budgeting has several limitations and pitfalls: there are data and statistical issues and shortcomings (e.g., distributions may not be normal); there is a reliance on historical data; diversification doesn't necessarily work when you need it, and; it is not a simple process. This leads me to the question: "Is a formal risk-based approach worth the time and effort for a small plan?"

There is more value in risk budgeting than in simply increasing alpha. Peripheral benefits can be gained, such as a better understanding of risk, more attention to asset-liability study assumptions, a greater awareness of risk in developing benchmarks and investment policies, stabilization of returns and contribution levels, better manager selection, and more effective portfolio rebalancing, each of which add value and contribute to better plan governance.

Risk budgeting for our plans is still in its infancy. However, I have come to the conclusion that a risk budgeting process, while requiring time and effort, will improve small plan governance and have a positive impact in terms of achieving the plan's objectives. ∎