Ideas @ Edelweiss Multi Strategy Funds – Drawdown Control

In this month's Ideas @ Edelweiss Multi Strategy Funds, we look at two novel alternatives to the two most common methods of drawdown control - the stop loss and constant-proportion portfolio insurance (CPPI). Any drawdown control approach has to have the following three properties. First, at the high water mark, the portfolio has to be fully invested. Second, at the floor, the portfolio has to be completely disinvested. Third, all else being equal, the greater the loss, the less the portfolio has to be invested.

One method of drawdown control, improves upon CPPI's linear ratcheting of risk by moving to a Pareto-curve. This is an idea that is inspired by the Gini-coefficient except in reverse. The percentage invested equals (1 - (1/maxLoss) x (1-current NAV / High Water Mark)) ^ (1 - 1 / alpha). Alpha is a parameter that controls the curvature of the drawdown function with alpha = 1 giving you a stop-loss and a very high value of alpha giving you CPPI. The advantage of a Pareto-based drawdown control is that you are less subject to short-term whipsaws with smaller amounts of drawdown for smaller losses and larger reductions in risk for larger losses. Intuitively, investors would agree that this makes sense. The Pareto-based drawdown control is also a non-parametric method that is free of estimation risk and is hence very valuable as a risk mitigation tool.

The other method of drawdown control relies on portfolio volatility to maintain a constant probability of hitting the floor price. This builds on the concept of Value-at-Risk. All else being equal, the more volatile the portfolio the less you will hold for the same level of loss. This a parametric approach to drawdown control that can incorporate both normal and tail losses through a modeling of the distribution of asset returns.

Both methods have their pros-and-cons but we think both are superior approachs to risk mitigation viz-a-viz stop-losses and CPPI.