This paper introduces a new theoretical framework to price hedge funds' equity. It is inspired on the famous framework of Black and Cox for the valuation of companies' equity as call options. Our structural model describing hedge funds uses barrier options (i.e. down-and-out call options as well as up-and-out put options) to allow for the special structure of hedge funds' debt position. The quality of these models is evaluated by its capability to reproduce a high range of historical hedge fund returns. Different variations of the model are compared using this criteria. To fit the model parameter to real hedge fund data the method of moments is used. The application of the models to a set of over 1000 hedge funds showed that the model fits the first four moments of the real returns quite well. Especially the documented stylized features of high kurtosis and skewness are very well captured by this model.
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