Valuation and Performance of Financially Distressed Stocks
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The focus of this project is on financially distressed stocks (stocks of companies with substantial probabilities of going bankrupt in the future). Financially distressed stocks are an interesting subject for a variety of reasons from both academic and practitioner points of view.

First, financially distressed stocks earn abnormally low returns, which seems counterintuitive as such stocks are deemed riskier and therefore it is natural to assume that investors will demand additional compensation for bearing this risk and therefore higher expected returns. This constitutes a "distress puzzle" to which there is no widely accepted explanation.

Second, a few academic studies present evidence that many return anomalies like size, value, momentum, and others are concentrated among financially distress stocks. There is yet no answer in the literature to why this is the case. Distressed stock are also typically disliked by institutional investors, while some of those stocks still have the potential to generate high returns, so it is important to develop a valuation tool tailored specifically to distressed stocks. There is also a well-known analogy between equity in a firm with debt in its capital structure (and especially a financially distressed firm) and a financial call option, so it is natural to incorporate this analogy into a valuation model for distressed stocks.

In this project we intend to address these and related issues by building an option-based model to value distress stocks. The model will let us explicitly compute the value of the option to default. We then plan to implement the model on the US data and classify stocks into over- and undervalued based on the difference between market and model values and examine their performance. This is interesting from an academic perceptive because this will shed light on whether option values embedded in distressed stocks are reflected in their valuations, and also from a practitioner prospective because our model can be potentially used to generate alpha for an investor in distressed equities. We also intend to use our valuation model to look deeper into return anomalies among distressed stocks. Can those anomalies be attributed to misvaluation by investors? Our valuation model can shed light on this question and help explain whether misevaluation drives return anomalies.

We also plan to carry out an extensive international study of the performance of distressed stocks. How do such stocks perform outside of the US? Do we observe the same puzzle in other developed and emerging countries? By relating performance of distressed stocks to country specific characteristics (like development of financial markets or takeover legislation) we can also potentially shed light on the causes of the distress puzzle in the US.

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Fields of Research
Capital Markets
Corporate Finance
Quantitative Methods in Finance