

Executive Summary

This Bachelor's thesis conducts an analysis of the pricing of Multi-Asset Barrier Reverse Convertibles in Switzerland. Lindauer and Seiz (2008) present a similar analysis about this structured product, but their analysis takes place before the financial crisis. Since then, markets have changed a lot and possibly also the pricing of Multi-Asset Barrier Reverse Convertibles. The goal of this empirical analysis is to implement a similar pricing framework as Lindauer and Seiz (2008) using current data. By comparison of the current results with those of Lindauer and Seiz (2008), it can be tried to estimate whether the pricing of Multi-Asset Barrier Reverse Convertibles has changed since 2008.

For the empirical analysis, a pricing framework is presented where stock prices are simulated based on a geometric Brownian motion. Using Monte-Carlo simulation techniques, where many outcomes are simulated, a fair value of the Multi-Asset Barrier Reverse Convertible is estimated. By comparing the empirical results to the findings of Lindauer and Seiz (2008) one can then investigate whether market pricing of these products has changed.

In this thesis, a total of 205 products are evaluated and their model value is compared to the respective market price. The pricing error is observed in the first third of a product's lifetime, and there is a life cycle analysis of the product's pricing errors. The results show that over the first third of the life cycle there is an average overpricing of 0.35%, which is significantly different from 0. However, compared to Lindauer and Seiz (2008), who found an overpricing of 1.62% in the first third of the product lifetime, the observed overpricing is substantially smaller. The life cycle analysis shows that at issuance there is an overpricing of 1.17%, which then declines during the lifetime of the product and at some point even turns into a price discount. Again, compared to the analysis of Lindauer and Seiz (2008), where the overpricing at issuance was 2.55%, this value is substantially smaller. The change of these values may well have been induced by the financial crisis, which led to different investment behavior and different derivative pricing.

The analysis in this thesis aims to prove that market pricing for Multi-Asset Barrier Reverse Convertibles has changed due to the financial crisis. Not only has the overpricing declined, but also the behavior of the pricing error during the lifetime. We will also see that the market structure for Multi-Asset Barrier Reverse Convertibles has altered since before the financial crisis. All these facts are an indication for a substantial change in the market pricing of Multi-Asset Barrier Reverse Convertibles.