Summary of the thesis “Structured Products and Behavioral Finance”
by Dr. Dominik Helberger, CEFA

In the last few years, financial innovations have led, particularly in Europe, to rapid growth in the market for structured products. Many of these products are characterised by the fact that they combine an underlying investment in equities with the use of options for a new, tradable security. As a result these products often ensure a (conditional) return guarantee and (conditional) protection against losses. Within just a few years, a billion-euro market has developed from this that covers many different types of products. The starting point for this paper is the examination of which reasons determine the demand for this asset class and its variety of products.

Some of the particularities of this asset class indicate that it is not just rational reasons that play a role in the demand for structured products. Drawing conclusions about such investment behaviour is the focus of behavioural finance research. For this purpose various behavioural anomalies are first presented (e.g. the Friedman-Savage utility function, the equity premium puzzle). Several theories from behavioural finance are then employed to explain these biases (e.g. prospect theory, SP/A theory, behavioural portfolio theory and myopic loss aversion). During this process, notable characteristics shared with structured products become apparent. In particular the popular prospect theory of Daniel Kahneman and Amos Tversky is especially consulted as the central and most productive behavioural finance theory for the interpretation of the demand for structured products. Here is an example of this:

A key essential of the prospect theory is the value function (please see below). The value function expresses how investors value gains and losses, starting from a reference point. According to this function the typical empirical investor does not value gains and losses on an equity investment as utility according to a linear method, but rather according to an s-shaped value function. As a result the initial gains and losses, for example, are seen as especially valuable or especially grave. Structured products often ensure a (conditional) return guarantee and (conditional) protection against losses, starting from the reference point. Compared to investments in “simple” equities, the gains therefore can occur frequently in the areas in which they are typically rated very highly by investors. By the same token, losses can occur less frequently in the areas in which they are typically rated as very grave by investors. Structured products can, therefore, (under certain conditions) appear more attractive than a capital investment in the underlying assets. It has been shown that the degree of hedging and the degree of the bonus return chosen by the investors can provide information about the empirical value function.

For this reason, the paper also investigates whether the features common to both behavioural finance and structured products identified in the theoretical part can in fact also be empirically observed in the market. In doing so, the s-shaped distribution of the value function can effectively be confirmed. One of the other observations made, for example, is the fact that a smaller volatility in returns can be achieved via investments in structured products than via direct equity investments.

Therefore both theoretical and empirical findings demonstrate that the demand for structured products can in fact be interpreted using insights from behavioural finance research.