Executive Summary

Financial service providers use rule-based strategies as a part of their investment solutions. A main component of these rule-based strategies is momentum. The Swiss financial service provider VZ VermögensZentrum AG uses momentum strategies as a part of their wealth management solutions. Motivated by a research paper that extends the classical time series momentum by a risk-adjusted approach, this thesis aims to find out whether the consideration of the risk measure volatility can optimise the existing momentum strategies of VZ VermögensZentrum AG.

The following Research Question will be answered: Is it possible to generate abnormal returns by applying an investment strategy based on a momentum strategy which is adjusted by risk (measured in volatility)?

The thesis will first provide an overview on the existing literature on momentum and describe the different forms of momentum that exist. One of the key reasons why momentum strategies are applied and why they do work is the investor behavior when it comes to financial decisions. In order to provide an understanding of the link between the field of Behavioral Finance and the application of momentum strategies, the thesis will first shed light on the limits to the Efficient Market Hypothesis. Second, it will pick out the behavioral biases of investors as an important reason for the limitations to the Efficient Market Hypothesis.
Trend-following strategies that are based on momentum can help investors to hold on to initially taken investment decisions. The thesis will explain the trend-following rules that use moving averages.

After having introduced the theoretical foundations of momentum and trend-following, an investigation on stock indices will provide an answer to the Research Question. For this purpose, an overview on existing risk-adjusted approaches will be given. From this set of approaches, six risk-adjusted strategies are created and tested on an investment horizon from 2001 until 2019 as well as on specific market phases, namely upward, downward and sideways market trends.

As a result, rule-based investment strategies can benefit from this extension of a risk-adjustment with volatility. The most profitable and consistent results were achieved during sideways market phases. In these phases, an adjustment by risk could enhance the returns compared to a classical Buy-&-Hold strategy and to the time series momentum strategy used by VZ VermögensZentrum AG.