

AN INVESTIGATION OF THE Q-FACTOR MODEL BASED ON THE SWISS STOCK MARKET

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Abstract

This thesis investigates the q-factor Model, developed by Hou et al. (2015), based on the Swiss stock market. Using balance sheet and market data of the companies in the SPI, in the period between 2009 and 2018, the factor returns of the q-factor model, of Sharpe's (1964), Lintner's (1965), and Black's (1972) Capital Asset Pricing Model, of the Fama and French (1993) three-factor model and of Carhart's (1997) four-factor model are estimated, followed by time series regressions on 9 types of testportfolios. This empirical test in combination with an examination of the theory underlying these models, provides an indication of the extent to which the application of the q-factor model with the Swiss stock market could be of benefit. The theory-based reasoning of the models, their structure, and their strenghts and weaknesses are shown.

In general, the empirical results confirm Hou et al.'s (2015) theory, and largely match their findings for the American stock market, for the data sample used in this work. In the last section, it is being asked which purpose and which persons or institutions asset pricing models should serve, if the existing asset pricing models do already fulfill these tasks and what future research should focus on.