# Economics Forces, the APT and the Swiss Stock Market

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# Abstract

The Arbitrage Pricing Theory implies the pricing of macroeconomic factors in stock prices. However, these factors have not yet been determined for the Swiss stock market.

The objective of this thesis is to identify the economic factors that are priced in the Swiss stock market in accordance with the Arbitrage Pricing Theory. To reach this goal, a version of the Fama-MacBeth (1973) technique is employed. Furthermore, the robustness of the results against different portfolio structuring techniques is tested.

The methodology of this thesis consists of three stages. First, stocks are grouped into portfolios in order to diversify idiosyncratic risk and to reduce the errors-in variables problem. Second, the factor loadings, i.e. the sensitivities of the stock returns to the surprises in the economic factors, are estimated using time-series regressions. In the third stage, these factors loadings are used as independent variables in order to estimate the risk premiums that are associated with the economic factors using cross-sectional regressions. The resulting risk premiums are tested for significance.

In a further step, the most insignificant variables are eliminated from the model and the estimation process is rerun for a new, restricted model with fewer variables.

This procedure is employed for portfolios that have been grouped by sorting the stocks by CAPM beta and firm size. Thus, the robustness of the results against these two structuring techniques can be tested.

Several economic factors were found significantly priced in the overall testing period from January 1993 to May 2011 and for sub-periods. However, these results showed robustness against the portfolio structuring technique. Moreover, the results of the restricted model bore no resemblance to the unrestricted models.