

Cross-Sectional Momentum in the Swiss Equity Market

Executive Summary

The momentum phenomenon has become a substantial area of research, challenging the traditional understanding of financial markets with the Efficient Market Hypothesis as its basis. Beginning with the Modern Portfolio Theory (MPT) from Markowitz (1952), the Capital Asset Pricing Model (CAPM) from Sharpe (1964), and Fama and French's (1993) Three-Factor Model, the understanding of financial markets evolved to include market risk, size effect and value effect when evaluating investment strategies. The collective efforts of Jegadeesh and Titman (1993) have substantially contributed to the understanding of the momentum phenomenon. Their findings have laid a robust foundation for many empirical studies. Building on this, many researchers, like Cirulli, Kobak and Ulrych (2022) extended the momentum strategies by incorporating new approaches or technologies. The momentum phenomenon has transcended the boundaries of US markets and has also attracted considerable attention in Europe and Asia. In Switzerland, Rey and Schmid (2007) showed that momentum strategies can generate abnormal returns by using the Swiss Market Index (SMI).

This study investigates momentum strategies by using the Swiss Performance Index (SPI), focusing on their profitability from 01.03.2005 to 01.03.2023. To ensure accuracy and mitigate the risk of survivorship bias, all equities within the SPI over the last 18 years have been considered, and affected companies were manually included in the dataset. Throughout this time span, a multitude of economic events, including financial crises, shifting market trends and bubble formations have taken place, which are relevant for the examination of momentum effects.

The developed model and the analysis of momentum strategies in this study went beyond analyzing formation and holding periods. A robustness test was conducted to examine additional parameters that might affect the performance of the strategies, such as lags, transaction costs, the size of the winner portfolios, the weights of the equities in the winner portfolios and the impact of short selling. This provided a more profound understanding of the complexity of momentum strategies. In addition to the robustness tests, the momentum strategies were also evaluated using the Three-Factor Model from

Fama and French (1993). This approach allowed for further interpretation of the results, considering market risk, size effect and value effect. By integrating this analysis, an insight into the significance of momentum strategies was provided.

The findings are consistent with the existing literature and confirm the validity of momentum strategies in the Swiss equity market. The results remain significant after risk adjustments, indicating that the momentum effect persists after controlling for risk. The study shows that medium formation and holding periods of three to six months generated the highest cumulative returns. The findings also emphasize the importance of a detailed examination of certain parameters, which can have a significant influence on the performance of strategies.

In particular, transaction costs have a substantial impact on the performance of a momentum strategy. High transaction costs, which can result from wide bid-ask spreads, can reduce the excess return generated and potentially eliminate them completely. It is crucial to consider the impact of transaction costs on returns and to implement cost measures in a realistic manner.

The implementation of lags, which is a concept utilized from Rey und Schmid (2007), Chan, Jegadeesh and Lakonishok (1996) and others, led to interesting findings. Strategies constructed without a lag lead to the highest cumulative return and strategies with a one month long lag appear to be most effective in terms of risk-adjusted returns. A one month long lag effectively reduces volatility, providing a degree of risk mitigation.

Another approach to mitigate risks is to increase the number of individual equities in the winner portfolios, which improves diversification and minimizes the impact of individual equity volatility. But it is important to consider the dilution effect. As the number of equities increase, the potential contribution of an exceptional equity to the overall portfolio return decreases.

This study is based on a simplified model and is inspired by the research of Jegadeesh and Titman (1993). It provides initial insights, but there are many ways to refine and improve this model. Improvements could not only enhance the performance of the strategies, but also improve the validity and reliability of its predictions. Consequently, while the simplicity of the current model is its strength, there remains potential for improvement.