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Exchange Rate Sensitivity of Swiss Stock Return

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Executive Summary

This thesis examines the relationship between the exchange rates and the Swiss stock market, running from the former to the latter. The data used for this analysis covers the period from January 2000 to September 2011 and is obtained on a daily and monthly basis. The period is again separated in different subperiods to allow for more comprehensive conclusion for crisis and non-crisis data. The Swiss Performance Index (SPI) and its industry, subsector and size indices are used as the stock market variable. The currencies are chosen based on Switzerlands economic interaction with the respective countries or region. Hence, EUR, USD, CNY, GBP and JPY are introduced for the analysis. An Error Correction Model (ECM) observes whether a long- and a short-run relationship exists, when the exchange rate and stock market index is observed to be cointegrated. If not, a Granger causality test is applied for analyzing the short-run causation.

Only few time series are found to be cointegrated. The ECM reveals, that the long-run association between the stock market and the exchange rates is not of major relevance for the Swiss market. Indeed, for the USD and the CNY, as well as GBP in the multivariate approach, most cointegrated indices appear to be related to the exchange rates in the long-run. Further to that, the JPY also indicates certain relations in the long-run. However, since only few cointegrating time series are found and they appear with different outcomes for the ECM, a concluding long-run behaviour of exchange rates and stock market indices should rather be neglected.

More data is analysed by the Granger causality test. Again, a concluding picture for all indices is difficult. The findings reveal, that for daily data, more significant relationships are obtained. Among the currencies, the EUR exhibits the most influences on the different indices. This can be expected because the EU is the most important trading partner for Switzerland. The currencies, EUR, USD and CNY are observed to affect the stock market negatively, when a significant relationship exists. Contrary, GBP and JPY, indicate in this case positive relationships for daily data. For specific indices, which exhibit a significant relationship, a dependence on foreign exchange rates can be explained because of their global oriented business. However, other indices that should also belong to this group, do not show the same behavior.

Because of the negative relationship, especially for companies that are expected to be export oriented, the assumed positive effect of exchange rates on the financial statement and thereafter on the stock price has to be refrained. Moreover, the indirect effect through the inflation and the effect arising from the investors behavior is rather able to explain the dependence. Besides, the results may also indicate, that the import prices, are more relevant for the financial statement and hence, the stock price.

However, it is advised by the author, based on the findings from the analysis, that rather other influence factors may possess more power for the purpose of forecasting the development of the stock market return.