



Executive Summary

Overnight Anomaly in the Swiss Bond Market

Are fixed income markets also affected by an overnight anomaly? In the past decade, numerous bodies of work have studied stock returns during non-trading hours and proven that a global overnight anomaly exists. Not only are returns during trading hours consistently negative over long periods of time, but overnight returns are also consistently positive and make up for the entire equity risk premium in numerous equity markets. In recent years much research has been done in order to give an explanation to the pattern, this paper however examines, whether the pattern of overnight returns can also be observed in the swiss fixed income markets.

With open and close prices from the Swiss Bond Index (SBI), intraday and overnight returns are calculated from 2012 to 2021. Analysing the returns shows, that a similar pattern exists for bonds. Over the entire observation period overnight returns average an annualized return of 1.10%, while intraday returns average -0.47% per year. This is remarkable, as this performance was achieved at an annualized standard deviation of 0.49%, which yields a Sharpe ratio of 2.50. Testing shows that the overnight returns are highly robust and not dependent on outliers. The only years where negative returns resulted were after the COVID-19 crash, the return in 2020 was -1.05%, 2021 returned -0.06%.

Proving the existence of the anomaly is exciting, as the bond markets are fundamentally different from equity markets and already commonly used as



underlyings in overnight short-term money-market instruments. This could therefore open the possibility of similar trading strategies.

In further tests, the dataset was separately studied for sectors, maturities and ratings. The pattern can also be observed in all sectors except Energy, where the returns are not significant enough. Sectors like Health Care and Consumer Discretionary outperform the other sectors in almost all years with annualized returns of 3.02% and 2.77% (Sharpe ratio 3.01 and 3.64). While all maturities yield significant results as well as most ratings, there are no clear patterns that would suggest that certain bond features can predict better returns. Ratings show mixed returns, standard deviation however generally increases with worse issuer ratings, therefore AA+ and AA-rated bonds look best, with Sharpe ratios of 2.39 and 2.40. Maturities range from 5 to 10 years, and while all years see significant results, no clear pattern can be observed. Bonds with 6-year maturities performed best at a Sharpe ratio of 1.97.

Analysing for seasonality shows that the returns are generally best in winter months (December, January, February) and summer months (July, August), which is a pattern that can also be observed on the equity markets. Months in between these periods see below-average returns, March and April are the only months that see negative returns.

Overnight returns generally seem to be more robust to common market factors than returns during trading hours. Plotting the data against the 10-year swiss government bond yield shows a correlation of -0.61 for intraday returns, which is in-line with the inverse relation bonds and interest rates have. Overnight returns show a correlation of -0.46, however fluctuate a lot less and seem to be less



affected. Notably, some of the best overnight returns were achieved in 2013, when yields moved up 64bps throughout the year.

Plotting the returns against an index of investment-grade Credit Default Swaps (CDS) shows a correlation of -0.24, which seems more like a coincidence, as generally interest rates seem to be the most determining factor for price changes and bigger moves in the CDS are not observable on the returns.

Considering these points, it can be shown that the “overnight anomaly” exists in the swiss fixed income markets. This is highly significant for Governments and Financials as issuers, as they make up around 79% of the 4533 observations in the dataset. The pattern also holds for all maturities from 5 to 10 years. While most sectors and ratings yield significant results, in further research they should however be tested again with a bigger sample size in order to gain conclusive evidence. It should also be investigated whether the overnight returns have recovered from the COVID-19 crash.