

## Entropy Risk Factor Model of Exchange Rate Prediction

**Authors :** Darrol Stanley, Levan Efremidze, Jannie Rossouw

**Abstract :** We investigate the predictability of the USD/ZAR (South African Rand) exchange rate with sample entropy analytics for the period of 2004-2015. We calculate sample entropy based on the daily data of the exchange rate and conduct empirical implementation of several market timing rules based on these entropy signals. The dynamic investment portfolio based on entropy signals produces better risk adjusted performance than a buy and hold strategy. The returns are estimated on the portfolio values in U.S. dollars. These results are preliminary and do not yet account for reasonable transactions costs, although these are very small in currency markets.

**Keywords :** currency trading, entropy, market timing, risk factor model

**Conference Title :** ICAFE 2016 : International Conference on Accounting, Finance and Economics

**Conference Location :** Copenhagen, Denmark

**Conference Dates :** June 27-28, 2016