

## Abstract

This thesis examines the profitability of popular technical trading rules across the four asset classes – equities, currencies, commodities, and cryptocurrencies – over the period 2014-2024. This work's contribution lies in a comprehensive analysis of the differences in performance of technical analysis on different asset classes, which were historically present in the empirical literature. The analysis was conducted with a valid framework robust to data-snooping bias using the Model Confidence Set procedure, incorporating risk and transaction costs on the universe of 2870 rules. The results obtained show significant risk-unadjusted outperformance of the buy-and-hold strategy but very insignificant risk-adjusted outperformance, suggesting that technical analysis may increase the returns only at the expense of greater risk exposure. It holds for both cases with and without transaction costs. Also, this translates into substantial differences across the asset classes in risk-unadjusted returns but not in risk-adjusted returns. The main reason is the decreased performance expressed by lower average returns of the optimally selected trading rules and their higher variability in the out-of-sample period across the instruments within asset classes. This evidence corresponds to and contributes to the empirical trend of increasing efficiency of financial markets, which holds even for those markets without efficient fundamental pricing models.

**Keywords** Asset class, commodity, cryptocurrency, equity, forex, indicator, profitability, technical analysis, technical rule, trading

**Title** Technical Analysis Profitability Across Different Classes of Assets