Abstract

The thesis attempts to determine how strategies used for forecasting and trading on foreign exchange and stock markets perform when applied to cryptocurrency markets. The approaches explored are ARIMA, VAR, MA Crossover, and Granger Causality using gold prices and S&P 500. The currencies traded are Bitcoin, Ethereum, Binance Coin, and Basic Attention Token. The models are trained on logarithmically transformed and differenced time series composed of the currencies' daily and hourly closing prices. Applying these strategies mostly leads to ambiguous results, with MA Crossover generally performing better than VAR, which in turn performs better than ARIMA. However, every strategy was moderately successful for at least one of the currencies examined. Trading on the hourly dataset was negatively influenced by sudden price jumps. ARIMA and VAR perform better in the inter-bubble periods. No significant Granger causality was found.

Keywords Cryptocurrency, Trading, Bitcoin, Ethereum,

Binance Coin, Basic Attention Token, ARIMA,

VAR, MA Crossover, Granger Causality

Title The Profitability of Standard Trading Strategies

in Cryptocurrency Markets

Author's e-mail miroslav.duda11@gmail.com

Supervisor's e-mail ladislav.kristoufek@fsv.cuni.cz