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MARKET ANOMALIES AND DATA PERSISTENCE: THE CASE OF THE DAY-OF-THE-WEEK EFFECT

Abstract. This paper investigates the degree of persistence in the financial markets' data during different days of the week over the last twenty years. This allows taking a brand new look on the day-of-the-week effect and providing additional evidence against the efficient market hypothesis. The variety of the financial markets includes developed and emerging stock markets, FOREX, commodity and cryptocurrency markets. To measure the level of persistence the R/S analysis is used. The findings indicate that the level of persistence is different for different days of the week. This is inconsistent with the Efficient Market Hypothesis: data do not follow a random walk; and there can be indirect evidence in favor of the day-of-the-week effect. Conclusions on non-randomness of the data are important, because they allow choosing the best model to describe price dynamics so that to increase the predictive power of the existing models. Differences in the long-memory properties of the market data during different days of the week is an important finding that can lead to better understanding of the behavior of financial markets. High level of persistence implies data predictability, and therefore suggests that trend following technics can be applied to make profits from trading.