

This work studies stock markets efficiency and predictability using the information-theoretic concepts of approximate entropy (ApEn) and sample entropy (SampEn) and compares them to the estimates of the Hurst exponent. This is assessed together with the property of distinguishing between developing and developed markets. Moreover, an investment strategy based on the value of the sample entropy is tested. ApEn shows very weak relationship with other measures and performs poorly as a measure of efficiency. SampEn and the Hurst exponent clearly confirm lower overall efficiency of developing markets. The sample entropy also forms quite strong downward linear relationship with hit-rates of forecasting models. ARMA shows highest hit-rates in periods with SampEn values around 1.6 - 1.7. This could be considered as an investment strategy with lower risk; however, also as one with potentially lower accumulated returns due to smaller investing windows.