

Measuring the Time-Varying Market Efficiency in the Prewar Japanese Stock Market

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Abstract

This study explores the time-varying structure of market efficiency of the prewar Japanese stock market based on Lo's (2004) adaptive market hypothesis (AMH). In particular, we measure the time-varying degree of market efficiency using new datasets of the stock price index estimated by Hirayama (2018, 2020). The empirical results show that (1) the degree of market efficiency in the prewar Japanese stock market varied with time and that its variations corresponded with major historical events, (2) Lo's (2004) AMH is supported in the prewar Japanese stock market, (3) the differences in market efficiency in this study and in earlier studies depend on the manner in which the price index is constructed, and (4) the price control policy beginning in the early 1930s suppressed price volatility and improved market efficiency.

Keywords: Efficient Market Hypothesis; Adaptive Market Hypothesis; GLS-Based Time-Varying Model Approach; Degree of Market Efficiency; Equity Performance Index.

JEL Classification Numbers: C22; G12; G14; N20.