ABSTRACT

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AN EMPIRICAL APPROACH TO DETECTING THE GAMESTOP SHORT SQUEEZE
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GameStop is an American video game retailer which stock price jumped over 150% in 10 trading days back in January 2021, resulting in a short squeeze. A short squeeze is a stock market phenomenon that occurs when the price of a heavily shorted stock suddenly spikes due to various reasons. In January alone, the total loss suffered by short sellers and hedge funds due to the GameStop short squeeze is reported to have reached \$6 billion. Detecting the onset of a short squeeze can alert traders and give them time to act accordingly, and therefore minimize the losses incurred. The aim of this thesis is to find out which quantitative method can best detect the onset of a short squeeze using only empirical data, i.e. trading price, trading volume, and number of tweets related to GameStop. The experiments show that the Coefficient of Variation Method can detect the onset of a short squeeze the earliest and most accurately among the five methods, given sufficient data, and that there is a positive linear relationship between the number of tweets mentioning GameStop and its stock price. Additionally, the GameStop short squeeze was heavily influenced by a number of factors that were not present in previous short squeezes, making it a unique case.

Keywords : GameStop, short squeeze, quantitative analysis, regional price variation, simple linear regression

Reference : 25 (1977-2021)