The Impact of U.S. Monetary Policy on Bitcoin Price in 2022: An Analysis of Interest Rate and CPI Announcements

THESIS

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Hereby declare that the thesis I have written is my own work. To the best of my knowledge, there are no works/opinions written/published by others except as references/citations with the usual scientific writing conventions.

Malang, June 17, 2024

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ABSTRACT

This research investigates the impact of U.S. monetary policy changes on Bitcoin prices in 2022, focusing specifically on Federal interest rate adjustments and Consumer Price Index (CPI) announcements, analyzed both individually and concurrently. Utilizing quantitative methods, the study employs monthly data sourced from publicly available datasets,Time series sampling and econometric models are utilized to explore the relationship between these macroeconomic variables and Bitcoin's average monthly price. The findings reveal that increases in U.S. interest rates have a significant negative effect on Bitcoin prices, supported by a t-value of -3.722 surpassing the critical value of 2.262 at a 5% significance level (p-value = 0.005). Similarly, CPI fluctuations demonstrate a negative impact on Bitcoin prices, with a t-value of -2.931 exceeding the critical value at a 5% significance level (p-value = 0.017). Moreover, the combined influence of both variables significantly affects Bitcoin prices, evidenced by an F-statistic of 76.794 surpassing the critical value of 4.10 at a 5% significance level. These results underscore the importance of U.S. monetary policy indicators in shaping Bitcoin price dynamics, providing valuable insights for investors and policymakers alike.

Keywords— U.S. interest rates, CPI, Bitcoin, monetary policy, cryptocurrency

PREFACE

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