CHAPTER I

INTRODUCTION

A. Background of Study

The dawn of cryptocurrencies, epitomized by Bitcoin, represents a pivotal shift in the financial world, introducing a digital, decentralized alternative to conventional fiat currencies. This transformative period in the financial sector, marked by the rise of cryptocurrencies, has ignited an array of discussions, particularly regarding their susceptibility to macroeconomic factors like the U.S. Government Reserve's financial approaches. These arrangement choices, especially concerning interest rates, organize vital financial factors such as inflation, business, and generally financial development (Corbet et al., 2019; Sören Karau, 2023).

Bitcoin, launched in 2009, is the first cryptocurrency, characterized by its finite supply of 21 million coins and its blockchain technology that ensures secure, transparent transactions without intermediaries. Its dual role as both a digital currency and a speculative investment asset sets it apart from traditional financial instruments (Nakamoto, 2008; Dwyer, 2015), Bitcoin's decentralized nature is underpinned by blockchain innovation, a distributed ledger that records all exchanges over a organize of computers.This system enhances security and transparency, eliminating the need for central authorities such as banks. where over the past decade, Bitcoin has experienced significant price volatility, impacted by different components counting innovative advancements, administrative improvements, and macroeconomic conditions (Glaser et al., 2014; Kristoufek, 2015). Leading up to 2022, Bitcoin's price has shown both rapid ascents and sharp declines, reflecting its speculative nature and the market's reaction to broader economic trends. The cryptocurrency's meteoric rise in 2017, followed by a dramatic crash in 2018, underscores its volatility. More recently, the market's dynamics have been shaped by institutional interest, increased adoption, and the evolving regulatory landscape.

In traditional financial markets, the narrative is well understood – higher interest rates generally incentivize savings and suppress borrowing, steering investors towards safer investment vehicles. However, the burgeoning cryptocurrency market, particularly Bitcoin, presents a unique scenario. Its distinct risk profile and decentralized nature render its reaction to economic stimuli somewhat unpredictable and divergent from traditional financial assets. Unlike conventional assets, Bitcoin is not directly tied to any central authority, making its price movements less predictable in response to traditional monetary policies (Cheah and Fry, 2015).

Globally, governments are increasingly focusing on the regulation and development of cryptocurrencies. A notable development in this context is Indonesia's establishment of a state-backed cryptocurrency exchange, PT Bursa Komoditi Nusantara (CFX), reflecting a significant stride towards the integration of cryptocurrencies into the mainstream financial system. This initiative underscores the increasing recognition of cryptocurrencies' potential to influence traditional financial systems and the necessity of their regulation for investor protection and market stability (Website Kementerian Perdagangan Republik Indonesia, Juli 2023). Regulation aims to mitigate risks associated with cryptocurrencies, such as fraud, market manipulation, and financial instability (Foley, Karlsen, and Putniņš, 2019). Empirical studies such as those by Shaen Corbet, Grace McHugh, and Andrew Meegan (2017) have shown a negative correlation between Bitcoin prices and U.S. interest rates, suggesting that rate hikes often coincide with price drops. Liu & Serletis (2019) noted that higher interest rates can impact cryptocurrency prices by shifting capital to more stable assets. Corbet et al. (2022) found limited evidence of Bitcoin acting as a reliable inflation hedge, highlighting the need for further research into its effectiveness in this role. Despite the growing body of literature, there remains a gap in understanding the nuanced impacts of macroeconomic policies on Bitcoin, particularly in the context of simultaneous changes in interest rates and CPI. Bitcoin, the flagship cryptocurrency, operates independently of central banks and traditional financial institutions, relying instead on a decentralized network of nodes to validate transactions (Narayanan et al., 2016).This independence is one of Bitcoin's most attractive features, offering a hedge against traditional financial market fluctuations and political instability (Dyhrberg, 2016). However, this same characteristic also makes it highly susceptible to regulatory changes and macroeconomic factors. The unique position of Bitcoin as both a cash and an resource course has driven to noteworthy interest and venture from both retail and regulation financial specialists,contributing to its volatility. The relationship between Bitcoin and macroeconomic variables, particularly U.S. monetary policy, has been a subject of intense study. The Government Reserve's financial arrangement, which incorporates interest rate alterations, has far-reaching implications for monetary markets universally. Changes in interest rates can impact speculation procedures, capital streams, and ultimately asset prices, including those of cryptocurrencies like Bitcoin (Bouri et al., 2017). Higher-interest-rates regularly lead to a more grounded U.S. dollar, making Bitcoin, which is regularly seen as an elective venture, less appealing. On the other hand, lower-interest-rates can lead to expanded risk-taking and higher ventures in theoretical resources, counting cryptocurrencies (Urquhart, 2016), Research by Baur, Hong, and Lee (2018) indicates that Bitcoin does not fit neatly into traditional asset classifications. Instead, it exhibits characteristics of both a currency and a commodity, leading to its unique behavior in financial markets. Their study suggests that Bitcoin’s price movements are influenced by investor sentiment and market speculation more than by intrinsic economic factors, which is a stark contrast to traditional currencies that are heavily influenced by macroeconomic indicators and central bank policies (Katsiampa, Corbet, and Lucey, 2019). further, the position of Bitcoin as an inflation hedge has been debated extensively. Bouri, Molnár, Azzi, and Roubaud (2017) found that Bitcoin exhibits hedging capabilities during periods of financial market turmoil, but its effectiveness as an inflation hedge remains contentious. Their study suggests that while Bitcoin can serve as a hedge against market-specific risks, its role in protecting against broader economic inflation is less clear. This ambiguity stems from Bitcoin's volatility and its speculative nature, which regularly dominates its potential as a steady store of esteem , Another critical perspective to consider is the impact of administrative improvements on Bitcoin costs. Governments and regulatory bodies worldwide have taken varying stances on cryptocurrencies, ranging from outright bans to supportive legislation. For instance, regulatory crackdowns in China have historically led to significant drops in Bitcoin prices, highlighting the sensitivity of the cryptocurrency market to policy changes. On the other hand, supportive regulatory environments, such as those in certain U.S. states or countries like

Switzerland, have been associated with increased adoption and investment in cryptocurrencies (Catalini and Gans, 2016).

The establishment of Indonesia's state-backed cryptocurrency exchange, PT Bursa Komoditi Nusantara (CFX), is a prime example of how regulatory frameworks can influence the cryptocurrency market. This initiative reflects a significant step towards the mainstreaming of cryptocurrencies, emphasizing the need for regulatory measures to protect investors and ensure market stability. The Indonesian government's proactive stance indicates a growing recognition of cryptocurrencies' potential impact on traditional financial systems and underscores the necessity for regulatory oversight (website Kementerian Perdagangan Republik Indonesia, Juli 2023). Literature exploring the relationship between Bitcoin and U.S. monetary policy often points to a complex and multifaceted interaction. Empirical studies such as those by Chuen, Guo, and Wang (2017) recommend that Bitcoin's cost instability is impacted by a combination of macroeconomic components and investor behavior. their research indicates that Bitcoin's price is responsive to changes in interest rates, with higher rates typically resulting in lower Bitcoin prices due to reduced speculative investment, Conversely, studies by Makarov and Schoar (2020) highlight the role of institutional investors in stabilizing Bitcoin's price movements. As more institutional capital flows into the cryptocurrency market, Bitcoin's price volatility may decrease, leading to a more stable asset class. This influx of institutional investment is partly driven by the search for alternative assets in a low-interest-rate environment, further illustrating the interconnectedness of Bitcoin with broader economic policies, Despite these insights, significant research gaps remain, particularly concerning the simultaneous effects of U.S. interest rate changes and CPI fluctuations on Bitcoin prices. While individual studies have explored these variables separately, comprehensive analyses that integrate both factors are relatively scarce. This gap in the literature highlights the need for more nuanced research that considers the combined impact of these macroeconomic variables on Bitcoin (Al-Yahyaee, Mensi, and Yoon, 2018), The current research aims to address these gaps by examining the complex interplay between U.S. monetary policy, specifically interest rate adjustments and CPI changes, and Bitcoin's. By employing econometric models and leveraging data from Federal Reserve announcements, historical Bitcoin prices, and CPI indices, this study seeks to unravel the mechanisms through which these macroeconomic variables influence Bitcoin.

Methodologically, this research will focus on econometric analysis to understand the relationship between U.S. monetary policy changes and Bitcoin price performance. The study will use data from authoritative sources, including the Federal Reserve, the Bureau of Labor Statistics, and reliable cryptocurrency market platforms. The dependent variable in this study is the monthly average Bitcoin price, while the independent variables are the U.S. interest rate and the U.S. Consumer Price Index (CPI), By exploring these intertwined elements – the macroeconomic influence of interest rates and CPI, their specific impact on Bitcoin returns, and the broader role of the U.S. economy – this thesis seeks to illuminate the complex relationship between traditional economic instruments and this novel asset class. As the cryptocurrency market continues to grow and evolve, understanding this connection will be increasingly vital for ensuring stability and responsible development in this innovative financial frontier.

Based on the problems mentioned above, the researcher feels it is necessary to conduct research on several factors entitled

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

B. Identification of Problems

From the background of the study described above, the author identifies the existing problems as follows:

1. Bitcoin experiences significant price volatility influenced by various factors including macroeconomic conditions.
2. The relationship between U.S. monetary policy changes, particularly interest rate adjustments and CPI fluctuations, and Bitcoin's price is complex and not well understood.

C. Limitations and Problem Formulation

Based on the background described above, the problems in this research are limited to ensure accurate and focused results. The scope is limited to the analysis of Bitcoin price in response to U.S. monetary policy changes and CPI fluctuations in 2022. The independent variables considered are U.S. interest rates and the Consumer Price Index (CPI), while the dependent variable is the monthly average Bitcoin price.

D. Problems Formulations

In the context of this study, the research revolves around a central problem, with the aim of seeking answers to questions framed as follows:

1. How do announcements of changes in US interest rates impact the Bitcoin in terms of its price dynamics in 2022?
2. What is the correlation between fluctuations in the Consumer Price Index (CPI) and the dynamics of Bitcoin prices in 2022?
3. How do announcements of changes in US interest rates and fluctuations in the Consumer Price Index (CPI) collectively influence the price of Bitcoin in 2022?

E. Research Objectives

1. To analyze and examine the individual impacts of announcements of US interest rate changes on Bitcoin price movements in 2022.

2. To analyze and examine the individual impacts of the Consumer Price Index (CPI) and Bitcoin price dynamics in 2022.

3. To analyze and examine the joint and combined impacts of US interest rate changes and CPI fluctuations on the overall price of Bitcoin in 2022.

F. Research Benefits

a. For Academics, researchers and scholars gain valuable insights into the practical implications of traditional monetary policy changes on the cryptocurrency market, enhancing the academic understanding of the dynamic relationship between macroeconomic factors and digital assets.
b. For Investors, the findings empower investors in the cryptocurrency market to make more informed decisions. Understanding how US interest rate changes and Consumer Price Index (CPI) fluctuations influence Bitcoin prices provides a practical foundation for investment strategies and risk management.
c. For Regulatory Authorities and Policymakers, they can utilize the study's insights to inform regulatory approaches in the evolving landscape of digital assets. Understanding the impact of traditional monetary policy on cryptocurrencies aids in crafting policies that consider the coexistence of traditional financial systems and emerging digital currencies.
d. For Businesses and Financial Institutions, Entities operating in the cryptocurrency space, such as exchanges, traders, and financial institutions, can develop more effective market strategies based on a practical understanding of how US interest rate changes and CPI fluctuations jointly influence Bitcoin.