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Influences on the Price of Bitcoin

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Influences on the Price of Bitcoin

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What Influences the Price of Bitcoin

Master of Science (MSc) in Banking and Finance

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Abstract

Digital currencies are a critical part of the digitalization process. Along with gaining momentum with investors, digital currencies are being prominently covered by the media. Bitcoin, in particular, has reached multiple peaks within the previous few years while showing a continuous upward trend in value. The research conducted in this paper aims to uncover the major influencers of the value of bitcoin. An approach using microeconomic and macroeconomic models is used to categorize bitcoin as commodity or currency. Furthermore, five major digital currencies are also analysed for correlation with the value of bitcoin and analysis of volatility in the exchange rates. Based on the evaluation criteria, it is found that bitcoin can be classified as commodity more than currency due to high influence of supply and demand rather than macroeconomic factors. Also, it can be concluded that price of bitcoin is highly correlated with digital currency *Monero* while the other currencies analyzed show a small to medium correlation based on Pearson correlation coefficient. The paper also analyzes major changes in the historical timeline of bitcoin by qualitative analysis of major events that may have caused volatility. In conclusion, a future outlook is provided which outlines upcoming changes per the author's opinion.

Keywords: Digital currency, Cryptocurrency, Microeconomic, Macroeconomic, Supply, Demand, Variance Inflation Factor, Bitcoin, Litecoin, Ethereum, Monero, Dash, Ripple, Correlation, Volatility

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1. Introduction

Recently, the surge of digitalization has played an important and significant role in the outlook for the financial industry. Where banks have dominated the deposits, savings, currencies, and payments systems, the emergence of Bitcoin and other such cryptocurrencies are slowly but surely changing the level playing field of the traditional financial industry. The role of digital currencies in the age of internet have inadvertently lowered costs for consumers, made products and processes more convenient and faster, and lastly, resulted in a more efficient system as a residual of increased competition. While the upside is endless, such new digital currencies have brought along with them new and complicated social, legal, and economic challenges. It is importance to identify and understand the variables that characterize the decentralized, unregulated currencies to further optimize their benefits while minimizing any adverse effects.

While early research has been conducted to identify the impact of internet on money, the extent to which the research progressed over the years has declined. Research for topics such as development of digital currencies was widespread in the 1990s, during the infancy stage of the internet, and many theorized that the progress of internet would lead to new kinds of currencies that is away from traditional-backed currencies, however, as the newness of the internet began to wear off, so did the research and interest in the potential to generate new forms of currency. Furthermore, the media has concentrated greatly on such currencies while attention from lawyers and economists has been deflected [1, Dwyer (2014)]. As of the past fifteen years however, more research and attention has been focused on the formulation, emergence, valuation, and effects of digital currency on the economic and financial landscape.

Electronic money can be categorized into two types: currency and deposits. Currency is mainly defined as an asset which can be passed from one owner to the next and can be validated by the balance that the owner of the currency maintains. Deposits, on the other hand, are defined as money that is validated by an account at a bank, thus proving as assets to its owners and a liability to the institution where it is housed. A distinct characteristic of digital or electronic currency is the store of value in the form of an electronic medium such as one a hard disk. Digital currencies are not drastically different from electronic currency in storage of value except for concerns about theft [1, Dwyer (2014)]. However, digital currency's transfer without intermediation of a financial institution is the main contrary factor, thus characterizing it as decentralized.

Decentralization factor has lead to ambiguity in regulation of such digital currency. Double-spending problem is yet another issue where it is imperative that users are not able to create multiple copies and spend same digital currencies twice. The double-spending problem can be equated to counterfeiting of paper currency [1, Dwyer (2014)]. In this respect, there is not institution checking to ensure the transfer of purchasing power reflects available funds. For currency to have true value, it is important to ensure that it is not being duplicated or being used twice while double spending problem is exactly where the value of currency is negligible since the cost of reproducing is negligible.

In this paper, I aim to identify and understand the variables influencing the price of bitcoins, explore competitors of bitcoins and understand the relationship between government-backed traditional currencies and new-age digital currencies, if any.