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Risk and Return of Digital Currency: An Understanding Based on Behavioral Finance

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Abstract: With the increasing influence of digital currencies in global financial markets, it is especially important to understand their risk and return characteristics. This paper first describes the development status and characteristics of digital currency, and then, through the use of behavioral finance theory, reveals the problems existing in the current understanding of digital currency risks. Furthermore, this paper proposes a series of coping strategies for digital currency risks and evaluates the effectiveness of these strategies. Finally, the future research trends are prospected. This research aims to promote a deep understanding of digital currency risks and returns and provide effective management strategies.

Keywords: Digital Currency; Behavioral Finance; Risk; Return; Strategy

1. Introduction

With the development and innovation of technology, digital currency has gradually become a part of the financial market and has gained widespread attention around the world. Digital currencies, such as Bitcoin, Ethereum, etc., have attracted countless investors with their unique characteristics of decentralization and potential high returns [1] . However, at the same time, the high volatility and unknown nature of digital currencies also brings huge risks. Despite the huge market potential and influence of digital currencies, their risks and rewards are still poorly understood. In particular, current research often ignores the influence of investor behavior and psychological factors on risk and return. Behavioral finance, as a discipline that studies the behavior and psychological impact of investors, provides new perspectives and tools for understanding and responding to the risks and returns of digital currencies. This study aims to conduct an in-depth study on the risks and returns of digital currencies by using the theories and methods of behavioral finance. It will first discuss the development status and characteristics of digital currency, and then, through the perspective of behavioral finance, analyze and reveal the problems existing in the current understanding of digital currency risks. Next, a series of coping strategies for digital currency risks will be proposed, and the effectiveness and advantages of these strategies will be evaluated. Finally, future research trends will be prospected. This study is expected to provide a deeper understanding of the risks and returns of digital currencies and provide useful recommendations for risk management in practice.

2. Current status of digital currency

Globally, the digital currency market has developed rapidly and exceeded trillions in scale, and has become a part of the global financial system that cannot be ignored. At the same time, digital currency based on blockchain technology is leading a new technological revolution. Digital currency has the advantages of convenient cross-border transfers and open and transparent transactions, and is favored by more and more individual and institutional investors. Among them, Bitcoin, Ethereum, etc. have become the most well-known digital currencies [2] . However, at the same time, the risks of digital currencies have become increasingly prominent. Because the price of digital currency is extremely volatile, investors face huge market risks. In addition, due to the anonymity and cross-border nature of digital currency, it also brings considerable challenges to regulators. In my country, the government's attitude towards digital currency is relatively cautious. Although in 2017, the Chinese government banned the ICO

(Initial Coin Offering) and trading services of digital currencies in the country, this did not stop investors' enthusiasm [3] . In 2021, with the skyrocketing digital currency market, a large number of Chinese investors will conduct token transactions through digital currency trading platforms registered overseas. At the same time, digital currency mining in Inner Mongolia, Sichuan and other places will also reach a climax. However, due to the large amount of energy consumed by digital currency mining and the financial risks that digital currencies may bring, the central bank will issue a ban again in 2021, prohibiting domestic digital currency mining and cooperating with those that provide trading services to Chinese users. Overseas exchanges negotiated and asked them to stop providing trading services to Chinese users. This has severely impacted my country's digital currency market, and mines and mining machines in Inner Mongolia, Sichuan and other places have been closed and cleared. Hong Kong and Taiwan also have strict regulations on digital currencies. In Hong Kong, the Monetary Authority requires all digital currency trading platforms to obtain its license to operate [4] . In Taiwan, financial regulators have warned the public to be cautious about investing in digital currencies and have begun to study relevant regulatory measures.

Overall, although the scale of the digital currency market is expanding rapidly globally, due to its risk, especially in my country, the government's supervision of digital currency is being strengthened, which poses new challenges to the future development of digital currency.

3. Risk and return characteristics of digital currency

The risk and return characteristics of digital currencies are very unique, and the existence of these characteristics makes digital currency a challenging research object. These features are discussed in detail below:

(1) High volatility: Digital currencies, especially major cryptocurrencies such as Bitcoin, are known for their extremely high price volatility. This high volatility presents investors with the possibility of great returns, but also with great risk. In addition, the price of digital currency is often affected by various factors, such as regulatory policies, market sentiment, technological innovation, etc., which makes the price prediction of digital currency extremely difficult.

(2) Market manipulation risk: Due to the relatively small digital currency market and lack of transparency, market manipulation occurs from time to time. These actions may greatly disrupt the market order and cause losses to investors.

(3) Liquidity risk: Although digital currency can be traded globally, in some small or new digital currency markets, the transaction volume may be relatively small, which may lead to liquidity risk, that is, investors may trade in It is difficult to quickly sell the digital currency it holds when needed.

(4) Regulatory risk: The development and use of digital currency is affected by the regulatory policies of various countries. Different countries and regions have very different attitudes and regulatory policies towards digital currencies. Strict regulation of digital currencies can negatively affect their value.

(5) Technical risk: Since digital currency is based on blockchain technology, it also faces technical risks. For example, blockchain security issues, or new technologies (such as quantum computing) may threaten existing blockchain technology.

4. Existing problems in the risk and return of digital currency based on behavioral finance

Behavioral finance emphasizes the impact of people's irrational behavior on financial markets. It believes that people do not always act according to the "rational person" model in economic theory when facing investment decisions [5]. When applied to the digital currency market, some obvious problems can be found.

(1) Overconfidence and market participation: Many digital currency investors tend to be overconfident, believing that they can predict market trends and thereby obtain excess returns in the market. This overconfidence can lead to overtrading and high volatility in the market, further increasing market risk.

(2) Mental accounts and risk orientation: Many investors tend to regard digital currency as an independent investment category, which is a typical phenomenon of psychological accounts. They may invest too much money in digital currency, while ignoring the importance of asset allocation, resulting in excessive risk in the investment portfolio.

(3) Herd behavior and market bubbles: The digital currency market is often affected by herd behavior. After seeing others invest in digital currency and obtain high returns, many investors will choose to follow the investment, resulting in a bubble in the market.

Once the bubble bursts, the market may fall sharply, and investors will face huge losses.

(4) Framing effects and investment decisions: When faced with complex digital currency market information, investors are often affected by framing effects, that is, their decisions will be affected by the way information is presented. For example, investors may focus too much on short-term price fluctuations and neglect long-term market trends.

5. Countermeasures against digital currency risks

Corresponding to the problems of digital currency risks based on behavioral finance mentioned above, the following strategies can be adopted to deal with them:

(1) Addressing the problems of overconfidence and market participation: Overconfidence can be suppressed through investor education and open and transparent market information. For investors, they must learn to invest cautiously, face market fluctuations rationally, and not be swayed by temporary market upsurges. For the market, there needs to be a fair and transparent information disclosure mechanism to avoid misleading investors.

(2) For mental accounts and risk orientation issues: investors need to be aware of the importance of portfolio diversity and risk diversification. We should not rely too much on a single asset or a single market, and should make diversified investments to reduce risks.

(3) For herd behavior and market bubbles: For herd behavior, on the one hand, investors should maintain independent thinking, rational judgment, and not blindly follow the trend; on the other hand, regulators can prevent excessive market speculation through appropriate supervision of the market and foam formation.

(4) For framing effects and investment decision-making issues: investors should clarify their investment goals, look at investment returns from a long-term perspective, and avoid being affected by short-term market fluctuations. At the same time, providing clear and accurate market information and easy-to-understand investment guides can also help investors make better decisions.

6. Conclusion

As an emerging financial tool, digital currency has attracted a large number of investors due to its decentralization and high efficiency. At the same time, however, the high-risk nature also poses challenges for investors. Based on the understanding of behavioral finance, it can be found that there are some special problems in the risks and returns of digital currencies, such as overconfidence, mental accounts, herd behavior and framing effects. For these problems, this study proposes a series of coping strategies. First of all, investors need to improve their investment knowledge and financial management capabilities, clarify investment goals, and avoid blindly following the trend; second, they should try their best to diversify their investment portfolios and diversify risks; finally, regulators need to strengthen the appropriate supervision of the digital currency market, Guarantee the fairness, justice and transparency of the market. In the future, with the further development and popularization of digital currency, its status in the global financial system will be further improved, and it will also face more challenges and opportunities.

References

[1] Zhang X. Risks and Regulations of Encrypted Digital Currency[J]. Securities Market Herald, 2021, 2: 72-79.

[2] Chen WG, Ming YP. Digital Currency: From National Regulation to Global Governance[J]. Social Sciences, 2021.

[3] Huang KD, Yuan Pu. Review and Prospect of Digital Finance Research [J]. Finance, 2021, 12: 1.

[4] Yang F. The Application of Big Data Thinking in Finance Research [J]. China Business Theory, 2020, 2: 176-177.