

## Section 4. Finance, money circulation and credit

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### TRANSACTION DEMAND VERSUS SPECULATIVE DEMAND OF CRYPTO CURRENCIES

**Abstract.** Crypto currencies have gained significant attention and adoption in recent years, but the motivation behind this adoption is a matter of debate. Some argue that the adoption of crypto currencies is driven by a transaction towards a decentralized financial system, while others argue that it is driven by speculative demand. The purpose of this research paper is to explore the transaction versus speculative demand of crypto currencies by analyzing the history of Bitcoin, the role of supply and demand in crypto currency markets, and the benefits and drawbacks of crypto currencies.

**Keywords:** Transaction Demand, Speculative Demand, Bit coin, Crypto Currencies.

#### **Introduction**

The emergence of Bit coin in 2009 has paved the way for other crypto currencies, and the demand for these digital assets has grown significantly in recent years. However, the motivation behind this demand is a matter of debate. Some argue that the adoption of crypto currencies is driven by a transaction a decentralized financial system, while others argue that it is driven by speculative demand. This research paper aims to explore the transition versus speculative demand of crypto currencies by examining the history of Bit coin, the role of supply and demand in crypto currency markets, and the benefits and drawbacks of crypto currencies.

#### **History of Bit coin**

Bit coin was created by an unknown person or group of people under the pseudonym Satoshi Nakamoto. Nakamoto released the Bit coin white paper in 2008, which proposed a decentralized network for digital currency transactions. In January 2009, the

first Bit coin block was mined, and the first Bit coin transaction occurred between Nakamoto and a programmer named Hal Finney.

Initially, Bit coin had little value and was primarily used for online transactions. However, in 2011, Bit coin gained significant attention when it was used to purchase illegal drugs on the dark web marketplace Silk Road. This attention led to an increase in demand for Bit coin and a subsequent increase in its value. In December 2017, Bit coin reached its all-time high of \$19,783.06.

#### **Supply and Demand in Crypto Currency Markets**

The supply and demand dynamics of crypto currency markets are similar to those of traditional financial markets. The supply of a crypto currency is determined by its mining rate and the maximum supply cap set by its protocol. The demand for a crypto currency is determined by its adoption rate, network effects, and investor sentiment.

The adoption rate of a crypto currency refers to the number of people and businesses that accept it as a form of payment. The network effects of a crypto currency refer to the value that the network provides to its users, which increases as more people join the network. Investor sentiment refers to the perception of a crypto currency's future value.

Empirical evidence suggests that both supply and demand are important factors driving the crypto currency market. The strong demand for crypto currencies, as indicated by market capitalization, trading volume, and Bit coin dominance, has driven the growth of the market. Meanwhile, the supply of crypto currencies, as indicated by mining revenue and adoption rates, has also played an important role in supporting the market.

Here are some statistics about supply and demand in the crypto currency market:

1. Market capitalization: The total market capitalization of all crypto currencies combined is a key indicator of demand. As of August 2021, the total market capitalization of all crypto currencies was over \$2 trillion, according to CoinMarketCap.

2. Trading volume: The trading volume of crypto currencies is another key indicator of demand. According to CoinMarketCap, the total trading volume of all crypto currencies exceeded \$300 billion per day in August 2021.

3. Bit coin dominance: Bit coin remains the dominant crypto currency in terms of market capitalization, accounting for over 40% of the total market as of August 2021, according to CoinMarketCap. This suggests that demand for Bit coin continues to be strong.

4. Miner revenue: Crypto currency mining is an important source of supply, as miners are rewarded with newly created coins for verifying transactions. According to Statista, global crypto currency mining revenue is expected to reach over \$15 billion by 2024.

5. Adoption rate: The adoption rate of crypto currencies among businesses and consumers is another important factor driving supply and demand. According to a survey by HSB, 36% of small and

medium-sized businesses in the US accept crypto currencies as payment as of June 2021.

### **Transaction Demand of Crypto Currencies**

One argument for the adoption of crypto currencies is that it is driven by a transition towards a decentralized financial system. Proponents of this argument believe that traditional financial systems are centralized and vulnerable to government and institutional control, resulting in limited financial freedom and privacy. Crypto currencies, on the other hand, operate on a decentralized network without the need for intermediaries such as banks, making them resistant to government and institutional control.

Additionally, crypto currencies offer fast and inexpensive transactions, particularly for cross-border transactions. Traditional cross-border transactions can take several days to complete and are subject to high fees. In contrast, crypto currency transactions can be completed within minutes and at a fraction of the cost.

There are statistics that suggest that there is a growing demand for crypto currencies driven by a transition towards a decentralized financial system. However, it is important to note that the adoption of crypto currencies is still in its early stages, and there is significant uncertainty around the future of digital assets. Actually, there are several statistics that indicate the transaction demand of crypto currencies. Here are a few examples:

1. Adoption rate: The adoption rate of crypto currencies has grown significantly in recent years. According to a report by Cambridge University, the number of verified crypto currency users nearly tripled from 35 million in 2018 to 101 million in Q3 2020.

2. Institutional adoption: Institutional adoption of crypto currencies is on the rise, indicating a transition towards a more mainstream financial system. According to a report by Fidelity Digital Assets, 80% of institutional investors surveyed find crypto currencies appealing, and more than one-third have already invested in digital assets.

3. **Crypto currency market capitalization:** The total market capitalization of crypto currencies has grown significantly, indicating an increase in demand. According to Coin Market Cap, the total market capitalization of all crypto currencies exceeded \$2 trillion in April 2021, up from \$200 billion in 2019.

4. **Central bank digital currencies (CBDCs):** Several central banks are exploring the development of CBDCs, indicating a transition towards digital currencies. According to a report by the Bank for International Settlements, 86% of central banks are actively researching CBDCs, up from 65% in 2019.

### **Speculative Demand of Crypto Currencies**

Another argument for the adoption of crypto currencies is that it is driven by speculative demand. Critics of crypto currencies believe that they lack intrinsic value and are highly volatile, making them a speculative asset rather than a legitimate currency or investment.

Some investors have also been drawn to crypto currencies due to their potential for high returns. However, the highly volatile nature of crypto currency markets means that these potential returns come with a significant level of risk.

There are statistics that suggest that there is a significant amount of speculative demand in the crypto currency market. However, it is important to note that speculative demand is only one factor driving market activity, and it may not be the primary driver in all cases. Additionally, some argue that speculative demand is a natural part of market dynamics and is not necessarily a negative phenomenon. There are several statistics that indicate the speculative demand of crypto currencies. Here are a few examples:

1. **Crypto currency price volatility:** Crypto currency prices are highly volatile, indicating the presence of speculative demand. For example, the price of Bit coin, the largest crypto currency by market capitalization, has fluctuated between \$3,000 and \$64,000 over the past five years.

2. **Retail investor participation:** Retail investors have been a major driver of speculative demand in

the crypto currency market. According to a report by Chainalysis, retail investors accounted for 92% of all crypto currency transactions in 2020.

3. **Trading volume on exchanges:** High trading volumes on crypto currency exchanges suggest that speculative demand is driving market activity. According to data from CoinMarketCap, the total trading volume of all crypto currencies exceeded \$500 billion per day in May 2021.

4. **Google search trends:** Google search trends for crypto currencies have been highly correlated with their prices, indicating a link between speculative demand and market activity. For example, Google search interest for Bit coin peaked in December 2017 when its price reached an all-time high.

5. **Initial coin offerings (ICOs):** ICOs have been a popular way for crypto currency startups to raise funds, but many have been criticized for being speculative in nature. According to a report by PwC, ICOs raised \$7.8 billion in 2018, but the majority of them failed to deliver a product or service.

### **Benefits and Drawbacks of Crypto Currencies**

Crypto currencies have several benefits over traditional fiat currencies. One of the primary advantages of crypto currencies is their decentralization, which allows for fast and inexpensive transactions without the need for intermediaries. This decentralization also offers greater financial freedom and privacy for users.

However, crypto currencies also have several drawbacks. The lack of regulation in crypto currency markets has led to concerns about their use in illicit activities such as money laundering and terrorism financing. Additionally, the high volatility of crypto currency markets has led to concerns about their suitability as a store of value or means of exchange.

### **Conclusion**

In conclusion, the motivation behind the adoption of crypto currencies is a matter of debate. While some argue that it is driven by a transition towards a decentralized financial system, others argue that it is driven by speculative demand. The supply and

demand dynamics of crypto currency markets are similar to those of traditional financial markets, with the adoption rate, network effects, and investor sentiment playing a critical role in determining a crypto currency's value.

Crypto currencies offer several benefits, including decentralization, fast and inexpensive transactions, and privacy, but also have several drawbacks, including lack of regulation and volatility. The future

of crypto currencies is uncertain, but many believe that they will continue to play a significant role in the global financial system.

The development of decentralized finance (DeFi) platforms and the adoption of crypto currencies by institutional investors suggest that crypto currencies may become an integral part of the financial ecosystem. However, regulatory clarity and stability will be critical for the long-term success of crypto currencies.

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