A NEW FINANCIAL INVESTMENT INSTRUMENT: BİTCOIN

Assoc.Prof. Dr.Huseyin Yilmaz

Bilecik Seyh Edebali University,
Faculty of Economics and Administrative Sciences,
Department of Business Administration,
Bilecik/ Turkey.
Email: huseyin.yilmaz@bilecik.edu.tr/ hyilmaz64@yahoo.com

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Bitcoin is a a digital currency. It is issued and usually controlled by its developers, and used and accepted among the members ofbitcoin community. It has no central issuing authority. It has no coin. It was introduced in 2008 by a programmer or group of programmers under the name Satoshi Nakamoto. It is accepted some merchants around the world..It is produced by bitcoin miners. Its limit is 21 million BTC. Probably, after this amount was completed, it will not be produced anymore. It should be taken into consideration by potential investors. However, it is pretty volatile. Its price from the July 2010 when it started trading to December 7, 2016 increased by 9,549,275%.Bitcoin isn't subject to traditional financial sector regulation. This may change in the future.To buy it there is a procedure different from the traditional financial investment instruments.

Keywords: Bitcoin, Cripto currencies, investment in bitcoin.

1. Introduction

Internet age shifted many things and behaviours. The one of them is arising of digital or cryptocurrencies. One of the digital currencies is Bitcoin. Bitcoin is the most accepted cryptocurrency in the world. In this study, I will investigate whether a financial investor should invest in Bitcoin or not. My motive for this study is to find new financial investment instruments for financial investors such as individuals, investment companies, and the other companies to invest their extra funds. Cripto currencies' full acceptance by societies could stimulate financial markets. Of course, Bitcoin arosein 2008 and it has continued growing since then. This community covers bitcoin miners, cryptographs, consumers, suppliers, and accepting companies as payment tool.The purpose of this paper is to investigate and question if investors should invest Bitcoin or or not. The concept is pretty new so it needs to be explained. For this reason, firstly, concept of Bitcoin will be explained.Then, value, riskiness, and unique investment procedure will be explained.

2. The Concept

Bitcoin is one of cryptocurrencies. Criptocurrency is a virtual currency that uses cryptography for security. All cryptocurrencies including bitcoins don't exist in any physical sense. They are not linked to any single country, government or economy (Bevan,2014). They are independent of them.

According to the European Central Bank, a virtual currency is “a type of unregulateddigital money which is issued and controlled by its developers and used and accepted among the members of a specific virtual community” (European Central Bank, 2012:13).

Digital currencies began to being used in 1980s. However, they became popular when Bitcoin was introduced in 2009 (Shah, 2014:5). The person introducing Bitcoin was Satoshi Nakamoto. Bitcoin is used for some transactions by merchants around the world (www.bloomberg.com). They are such asWordPress.com, Overstock.com, Amazon, Target,CVS,Subway,Victoria’s Secret, Namecheap, Bitcoin.Travel,Pembury Tavern, OldFitzroy, The Pink Cow, Japan,Virgin Galactic, The Pirate, Reddit,Zynga, PayPal/Ebay, Tesla, OkCupid, 4Chan.org, EZTV, Mega.co.nz, Lumfile,Etsy Vendors, PizzaForCoins.com, Tigerdirect, CheapAir.com, Expedia.com, Zappos, WholeFoods, BitcoinCoffee.com, GrassHill Alpacas, Jeffersons Store, Helen’s Pizza, Fiverr.com, Seoclerks.com, and Namecheap (www.bitcoinvalues.net).

Bitcoin is gaining legitimaty in the financial system. For instance, Goldman Sachs and Morgan Stanley is interesting in Bitcoins (BTC Geek, 2013). In my opinion, Bitcoin’s legitimaty is going to increase its usage.Especially, this will ocur in internet community. As the internet usage increases, the use of Bitcoin will increase, too.

It has no central issuing authority, anduses a public ledger to verify transactions (www.bloomberg.com).This means more risk than those of paper moneys issued by central banks because of not enough auditing.

It was all bit and no coin. There was no paper, copper, or silver. It had thirty one thousand lines of code and an announcement on the Internet (Davis, 2011).

Bitcoins are produced by powerful computers that mine the coins. A coin is produced when the mining computer solves a mathematical problem set by the Bitcoin software. It's an ingenious algorithm that makes it progressively harder to mine Bitcoins as time goes on, and the software ensures that there will never be more than 21 million Bitcoins in existence (Bevan, 2014). The number of Bitcoin inNovember 30,2016 was 16,016,013 BTC(bitcoincharts.com).This increases the Bitcoin's price because of supply decrease. In this way,Bitcoin investors will increases their yields.

Bitcoin transactions are recorded in a public computerised ledger called the "blockchain" which is maintained by the miners. Everybody can see the blockchain via websites such as blockchain.info, although the blockchain doesn't reveal who has carried out the transaction. Bitcoins serve purposes similar to gold. They are an alternative store of value, a source of asset diversification, and a possible hedge against inflation. It may also offer independence from political control. Advantages of bicoin are low transaction costs, international transferability and convertibility, protection from some political risk and inflation. Disadvantages of Bitcoin are currently volatile value, limited adoption by retailers, combined with other software, possibility of being used for illegal purposes, lack of trusted intermediaries to challenge, unauthorized transactions and fraud, potential to expose a user's transaction history to the public uncertainty about the cryptocurrency's security and operational resiliency, inadequate mass-market understanding, and not being protected by deposit insurance (Deloitte, 2014:4). It seems that itsdisadvantages are more than the advantages. This means that some studies should be done and some measures should be taken to persuade the investors

Unlike government issued money, the supply of bitcoin is mathematically limited to twenty one million bitcoins and that can never be changed. For this reason, bitcoins are impossible to be counterfeited or inflated. Blocking Bitcoin payments are impossible, and bitcoin wallets can't be frozen. Unless the entire world's internet is turned off, the Bitcoin network is unstoppable and uncensorable. While Bitcoin brings unparalleled freedom, it also requires increased user responsibility(www.bitcoin.com).

Bitcoin can be seen as standard economic good that is priced by interaction of supply and demand on the market. These factors can be driven by macro financial development or by speculative investors (Bartos, 2015:10).

In 2015, the commodities markets accepted Bitcoin as a new commodity. The Commodity Futures Trading Commission (CFTC) moves to regulate the currency as a commodity (Commodity Futures Trading Commission, 2015). This move could change both the commodities markets and the Bitcoin markets. After the regulation, it could be used as a monetary hedge against inflation. The investors of the new asset may startto change. Institutional investors who need to follow laws and regulations consistent with fiduciary duties could never have invested in Bitcoin before the regulation. Now that the CFTC is regulating the currency, it is much more defensible as an investment. Over time that will lead to a change in the investor base holding Bitcoin and likely a change in the character and volatility of the market for Bitcoin. Bitcoin trading represents a new era of purely electronic commerce. Trading in the commodity itself will require new teams of traders and supporting personnel who understand the currency and can make an intelligent forecast about supply and demand going forward. Banks and trading firms will also need to find potential end users who are interested in hedging some sort of risk using Bitcoin. Without such hedgers, speculation in the commodity is moot since there is no ultimate demand for the product. Over time, Bitcoin could become an alternative investment choice for those who want to store value in an asset that is independent of the value of the U.S. dollar. That could include many foreign nationals who do not understand the U.S. economy, but do not trust the currency of their own government. That level of global acceptance could take decades to build, but for the first time, with the implicit backing of the CFTC, Bitcoin may actually have a viable future as a true investment product (McDonald,2015). The success of Bitcoin in the Futures markets as an investment and hedging tool will be seen in the near future. As the internet society increases, Bitcoin demand will probably increases, too.

Economic demand factors, supply structures, and macro-financial stability risks are shown at the Table 1 below:

Table 1: Economic Demand Factors, Supply Structures, and Macro-Financial Stability Risks

Subject	Situation
Economic Demand Factors: - instrinsic value - claim to issuers? - legal tender - used as a medium of exchange -used as unit of account -used as store of value	 -none -no -no -small, but rising especially in online retail -no - yes,subject yo very high exchange rate risk and sudden confidence shock
Supply Structures: -monopoly/decentralized -supply source -supply quantity -supply rule -supply rule change (by issuers) possible? -cost of production	 -decentralized -private -inflexible -computer program -yes with agreement of majority miners -high (electiricy consumption for computation)
Macro- Financial Stability Risks: -risk of hyperinflation due to over- supply? -risk of long- term hyperdeflation -base Money quantity changes to temporary shocks? -can the issuer be lender of last resort with outside Money?	 -no for individual virtual currencies -high -no (limitedeven with rule changes) No

Source:IMF Staff Discussion Note, “Virtual Currencies and Beyond:Initial Considerations”, January 2016,SDN/16/03, pp. 14-15. http://www.imf.org/external/pubs/ft/sdn/2016/sdn1603pdf.

3. Financial Investmentin Bitcoin

3.1. Value of Bitcoin

Bitcoin is a digital asset so it has a value like other assets.

Investors buy[1] and hold Bitcoins because they believe that the Bitcoins have value.It can be argued that if the developers control consensus about the rules and the miners control consensus about history it's the investors who control consensus that Bitcoin has value (Narayanan and others, 2016:199). It is logically and scientifically correct. Actually, at the primary market,the developers and miners are at the supply side and the investors are at the demand side of the trade.Then, at the secondary market, investors sell their Bitcoins to other bitcoin investors. Hence, a value is created at the result of the supply and the demand.

Some factors influence the prices of digital currencies including Bitcoin. These factors are (Bank of England, 2014:5):

- the expected real return of holding the digital currency relative to other alternatives,
- any risks associated with holding the digital currency relative to other currencies including risks of theft or fraud, and price volatility,
- the relative benefits of using the digital currency asa medium of exchangewhen compared to traditional systems including availability, transaction fees,and degrees of anonimity,
- any time constraints or costs associated with switching wealth between the digital currency and more traditional assets including sterling,
- any non-monetary concernssuch as an ideological preference for one particular currency,
- a view on how much other people value the currency based on the above factors and how this is expected to change in the future.

3.2. Riskiness of Bitcoin

There is a certain degree of Bitcoin price volatility because it is a new financial instrument. This should be taken into consideration by potential investors.

The volatility of Bitcoin prices are seen at the Table 2below.

[1]Having Bitcoin actually can be realised by different methods. They are making micro earnings, writing about Bitcoin, supplying Bitcoin related services, lending and investing mining,gambling,bitcoin trading, bitcoin affiliate marketing, open a faucet/rotator,play games, and earning Bitcoins by answering questions (Beigel,2016).However, in this paper, it is supposed that Bitcoins are bought and sold by the investors.

Table 2: Bitcoin Prices between 2010 and 2016

Date	Price of Bitcoin as a $US	% change from the prior year
July 2010	0,008	-------
31.12.2010	0,3000	+3750
31.12.2011	4,7220	+1474
31.12.2012	13,5100	+186,11
31.12.2013	757,4953	+5406,92
31.12.2014	319,6958	-57,80
31.12.2015	430,0500	+34,52
7.12.2016	763,95	+77.64

Source: The second column was calculated by the writer using data at https://en.wikipedia.org/wiki/History_of_bitcoin.The third-eightcolumns were calculated by the writer using data at www.bitcoin.com. The last column was calculatedby the writer using data at http://bitcoinexchangerate.org.

As you can see from the Table 2, price of Bitcoin has changed dramatically. It increased 1,474% between 2011 and 2012, and 5,406% between 2012 and 2013. Between 2013 and 2014, its price decreased by 57.80%.

Between the beginning and December 7, 2016,the price of Bitcoin increased by9,549,275 %.

Bitcoinis approxitimaly 8 times more volatile than the stock market (Shah,2014:3). This type of investment does have a role in a well balanced investment portfolio, but isnot an investment for those with a low risk tolerance (Secor,2015).It is probably the most risky investment of all financial investment family.

Speculators have seen trading virtual currency as a method to make a quick profit. This is areason for virtual currency prices have been wildly volatile and for being impossible to forecast. Speculative trading carries significant risk and has caused many investors to lose money. Because of how virtual currencies are created and processed, the identity of the user behind a virtual currency address remains anonymous. This together with the current lack of regulation has made virtual currency attractive for use in illegal activity, including money laundering, drug dealing, terrorist financing and fraud (OSC Investor News, 2014:12**).** Digital transactions are also subject to being hacked and computer theft (The Wall Street Journal, February 17,2016). So, people transferring Bitcoin must be carefull while they are transferring Bitcoin.

Virtual currencies should be approached with extra caution. Software glitches, hackings and exchange shutdowns,and cases of outright fraud show the speculative and risky nature of virtual currency. As with any financial product, investors need to do their research, understand the hazards and know who they're dealing with when it comes to owning and trading these electronic assets. Virtual currency isn't subject to traditional financial sector regulation. This may change as regulators consider and make new rules to oversee its use and activities related to it (OSC Investor News, 2014:11**).** When Bitcoin is regulated by the Authorities or Countries, it will probably less risky than that of today.

3.3. Different Procedure for Bitcoin Investment

To make an investment via bitcoin, these steps are followed: (www.bitcoin-investment.com):

1.The investor downloads and runs the Bitcoin Software or gets an online wallet.

A Bitcoin wallet is a software program where Bitcoins are stored. To be technically accurated, Bitcoins are not stored anywhere there is a private secret number for every Bitcoin address that is saved in the Bitcoin wallet of the person who owns the balance. Bitcoin wallets facilitate sending and receiving Bitcoins and gives ownership of the Bitcoin balance to the user. The four main types of wallets are desktop, mobile, web and hardware(http://www. investopedia.com).

2. The investor buys bitcoin. There are different methods to buy Bitcoin.

Bitcoin exchanges are businesses that at least from the user interface standpoint function in a similar way to banks. They accept deposits ofbitcoins and will promise to give them back on demand later. Bitcoin investor can also transfer fiat currency[2] into an exchange by doing a transfer from his/her bank account. The exchange promises to pay back either or both types of currency on demand. The exchange lets him/her do various banking-like things. He/She can make and receive Bitcoin payments. That is, the investor can direct the exchange to pay out some bitcoins to a particular party, or he/she can ask someone else to deposit funds into the particular exchange on his/her behalf. The exchanges also let the investor exchange bitcoins for fiat currency or vice versa. Typically, they do this by finding some customer who wants to buy bitcoins with dollars and some other customer who wants to sell bitcoins for dollars, and match them up. In other words, they try to find customers willing to take opposite positions in a transaction. If there's a mutually acceptable price, they will consummate that transaction.

For instance, an account at some exchange holds 5,000 dollars and three bitcoins and the account owner uses the Exchange. He/she puts in an order to buy 2 bitcoins for 580 dollars each, and the exchange finds someone who is willing to take the other side of that transaction and the transaction happens. Now,the investor has five bitcoins in his/her account instead of three, and 3,840 dollars instead of 5,000. The important thing to note here is that when this transaction happened involving

[2] traditional currency like dollars and euros.

him/her and another customer of the same exchange, no transaction actually happened on the Bitcoin block chain. The exchange doesn'tneed to go to the block chain in order to transfer bitcoins or dollars from one account to another. All that happens in this transaction is that the exchange is now making a different promise to me than they were making before. Before, they said, "we'll give you 5,000 USD and 3 BTC" and now they're saying "we'll give you 3,840 USD and 5 BTC." It's just a change in their promise. There is no actual movement of money through the dollar or through the block chain. Meanwhile, the other person has had their promises to them change in the opposite way(Narayanan and others, 2016:113-114).

The best 10 Bitcoin Exchangers of2016 are (www.bestbitcoinexchange.io) Coinbase, Poloniex, Local Bitcoins, Paxful, Bitstamp, Kraken, bitsquare, CEX 10, Coin ATM Radar, and Circle.

3. He or she opens the Bitcoin software, clicks send Bitcoin, enters the amount he or she would like to send, and exchanger's Bitcoin address.

4. Conclusion

Bitcoin could be though as a financial investment instrument. It is bought and sold in digital form. It could be produced by mining. It is mined by Bitcoin miners. If the investor selects to produce Bitcoin, he/she can do it by mining.In that case, he/she will need some capital investment such as special software. Bitcoin has no coin or paper. Its amount is limited to 21 million BTC. It is a pretty risky investment because of its limited use and not having regulations by countries. However, there are some regulation preparations in some countries such as the U.S and China. In my opinion, after the regulations have been completed and issued, its use and acceptance will increase, institutional investors will startto invest in Bitcoin, and the investor number will increase. Consequently, the risk will decrease. However, the tax will be introduced for the investors after its legacy. As a result, tax advantage will lose. The investors need to study carefully before a bitcoin investment they are planning.

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