**CHAPTER 6 BITCOIN AND MONEY**

DEFINITIONS

1. **virtual currencies** types of unregulated, digital money, which act as an alternative means of payment; *digital currencies, cryptocurrencies*
2. **money** an asset that is generally accepted as a medium of exchange
3. **legal tender** money which, by law, must be accepted in payment of a debt or obligation
4. **jurisdiction (1)** territory to which the authority of a court, tribunal or other official

organisation to make legal decisions and pass judgments applies

1. **peer-to-peer network** equal access system whereby all connected computers can behave as clients or servers as required, and can share resources without a client-server infrastructure; *P2P network*
2. **web application** a software program that utilizes web browsers and web technology to perform tasks over the Internet; *web app*
3. **wallet** a software program where Bitcoins are stored; *digital wallet*
4. **ownership** legal right of possession; *proprietorship*
5. **blockchain** a distributed (or shared) ledger that authenticates and records every bitcoin transaction
6. **mining** the process by which bitcoin transactions are verified and added to the public ledger (blockchain) and also the means through which new bitcoin are released; *bitcoin mining*
7. **double coincidence of wants** when each party to the exchange of one economic good or service for another without the use of a medium of exchange such as money, must be able to offer something which the other wants
8. **businesses (2)** commercial or industrial organizations that aim at making a profit by through their activities; *business enterprises, firms*
9. **giants** companies which are among the leaders in a particular sector of activity; *major players*
10. **online travel portal** an Internet site providing access or links to other sites enabling

customers themselves to arrange bookings for trips, accomodation and entertainment without necessarily going through travel agents

1. **online retailers** e-commerce businesses which sell goods in small quantities through the Internet directly to the final consumer
2. **e-commerce** buying and selling conducted through the Internet; *online business, online commerce*
3. **retail shops** stores at the end of the distribution chain, which generally buy a product from a wholesaler in order to sell it to the final consumer; *retail outlets, retail stores*
4. **exchange value** in foreign exchange, the quantified worth of one currency in terms of another
5. **currency** the banknotes and coins in circulation in a country’s economy used as a medium of exchange
6. **state-sanctioned currency** money which is accepted as legal tender by a government
7. **investment assets** tangible or intangible items obtained for producing additional income or held with the expectation that the items’ value will increase over time
8. **medium** a means by which something is accomplished
9. **supply** quantity of something available at a given time
10. **market capitalization** total value of bitcoins in circulation expressed in US dollars
11. **compete (with)** strive to outdo another in business

1. Turn to the **definitions** for the text *Bitcoin and Money*. They refer to the specialist

terms printed in **bold** type in the list of **Useful words and concepts**.

2. Use an **English** language dictionary to find the meanings (in context) of the other words in

the list.

3. Do the exercises to improve your language skills.

Bitcoin and Money

Virtual currencies, especially bitcoins, have attracted much public attention and scholarly interest over recent years, particularly concerning whether bitcoins could be qualified as “money” despite the fact that they do not have legal tender status in any jurisdiction.

**The Bitcoin System**

Generally speaking, bitcoin is an online payment system that can be used to transfer electronic units of value among users of a peer-to-peer network. The nominal unit of the network is referred to as Bitcoin or BTC. The transmission and receipt of bitcoins is performed by a software or web application called “wallet”, which stores all the information necessary to transact bitcoins.

The most salient feature of the bitcoin network compared to usual bank-to-bank transfers is that the proof and transfer of ownership of a bitcoin is performed without the involvement of a designated third party. The ownership of a Bitcoin-unit is determined on the basis of a publicly accessible transaction history called the “blockchain”. In order to add transactions to the blockchain and thus confirm them irrevocably within the bitcoin network, the user community needs to provide their computing power.

This is done by users performing cryptographic tasks using appropriate software tools. If the result of that task lies within a certain parameter, a “block” involving new transactions will be added to the blockchain and the person finishing the computational work required to validate those transactions will be credited with a certain number of bitcoins. This primary form of acquisition of bitcoins is commonly referred to as “mining”. As the number of bitcoins generated per block is set to decrease geometrically, the possible amount of circulating bitcoins is limited to approximately 21 million units.

However, a single Bitcoin-unit can be subdivided into eight decimal places.

**Bitcoin and Money**

Money is an instrument of economic organization. It differs from traditional means of exchange in that it does not need to match the individual and immediate needs of the exchange partner. Due to its widespread acceptance, money eliminates the need for a “double coincidence of wants” between two transacting parties because, depending on the particular circumstances, everyone is willing to trade goods or services for money in some greater or lesser quantity. This results in easier and less expensive trading. Any item used as money takes on three basic functions: It has to work as a *medium of exchange,* a *store of value,* and a *unit of account.*

*Medium of Exchange*

The most important function of money is that it can facilitate transactions in an attempt to satisfy the needs and wants of the person holding it. The functional character of a medium of exchange thus depends on its widespread acceptance among transacting parties.

According to some recent press reports, bitcoins are currently accepted by over 500,000 businesses worldwide. Among them are the computer giants Dell and Microsoft as well as the online travel portal Expedia. However, out of the leading 500 online retailers, only a small minority currently accepts bitcoins. Apart from e-commerce, bitcoins also enjoy some minor acceptance in everyday commercial activity. For example, in the so-called “Bitcoin-Kiez” in Berlin’s Kreuzberg district, around 20 to 25 retail shops and companies accept bitcoins as a means of payment for goods and services.

*Store of Value*

In order to act as a medium of exchange, an item must hold its value over time. This allows one to acquire this item one day and then use it to purchase goods and services at a later date. Obviously, bitcoins embody value in so far as there continues to be an ongoing demand. Since November 2013 the exchange value of bitcoins towards the U.S. Dollar has always exceeded USD 150, and in December 2017 it reached a high, exceeding USD 19,000.

*Unit of Account*

Money functions as a unit of account in that it provides for a common denominator to designate the prices of the goods or services being exchanged. The value of every good and service can be expressed in terms of a monetary unit, i.e. a national currency unit such as the Euro or the U.S. Dollar.

The Bitcoin-system also provides for a nominal unit (BTC) that can be used to quantify the values of goods or services and make them comparable. However, the value of a Bitcoin-unit is more volatile than practically any other state-sanctioned currency.

**Prospects for virtual currencies**

It is not currently possible to say whether and to what extent acceptance of bitcoins or other

virtual currencies will increase in the future. Empirical data indicates that, in most cases, bitcoins are used to acquire investment assets rather than as a means for transactions in goods and services.

As the supply of bitcoins is not subject to the control of a central authority and the possible amount of units in circulation is limited to approximately 21 million, bitcoins and other virtual currencies could offer an alternative to conventional state-sanctioned banking systems. Like in the case of gold, bitcoins obtain their value from the fact that they are not reproducible in unlimited quantities but – unlike physical items – offer most of the cost and flexibility advantages that go along with using non-cash means of payment. In view of a worldwide capitalization of virtual currencies to the amount of approximately five billion U.S Dollars, as at January 2015, the number of units in circulation will, however, not provide a solid basis to compete with national currencies1.

Excerpt from: Benjamin Beck, *Do Bitcoins Fulfil the Classic Economic Functions of Money? An Analysis and its Legal Implications*, Lichter-FilmFest Frankfurt International Programm (2016)

1. The market capitalization of bitcoins stands approximately at USD 159 billion, as at 8 May 2018. The price per bitcoin unit currently stands at $9,354

EXERCISE 1 ***Comprehension***

**True / False** Circle the correct choice and justify your answer

1. Bitcoins can undoubtedly be considered as “money”. T / F

2. The proof and transfer of ownership of a bitcoin require the involvement of a third party. T / F

3. There is no upper limit to the acquisition of bitcoins. T / F

4. Trading without money is likely to be more difficult between two transacting parties if there is not a “double coincidence of wants”. T /F

5. Bitcoins meet the criterion of acceptance as a medium of exchange between businesses only in the area of e-commerce. T / F

6. The ongoing demand for bitcoins is evidence that they are viewed by users as a store of value. T / F

7. The author believes that bitcoins are able to fulfill the basic economic functions of money. T / F

8. Bitcoin’s volatility is not viewed by the author as a drawback. T / F

9. Users of bitcoin or of other virtual currencies do not see them primarily as a convenient means of exchange. T / F

10. Bitcoins are compared to gold because they are not reproducible in unlimited quantities. T / F

EXERCISE 2 ***Vocabulary***

**(A)** Use the list of definitions above to **select the appropriate terms** to fit each sentence

1. It seems premature to characterize bitcoins as “real money” merely because of their growing acceptance by ..........

2. There is no doubt that .......... have been far more volatile than gold or most national

currencies.

3. The use of bitcoins is considered legal in most ..........

4. Bitcoin cannot be deposited in a bank; instead it must be held in “digital .......... ”.

5. January 13, 2018 marked a milestone for Bitcoin when 16.8 million bitcoins or 80 percent

of the entire Bitcoin .......... were mined.

6. Bitcoin’s decentralized nature enables small .......... to expand and open their doors to

international buyers.

7. The acceptance of bitcoins is obviously much lower than with .......... or other national

currencies.

8. During 2013, Bitcoin’s .......... towards the dollar was about 10 times more volatile than

that of the euro, yen or any other major currency.

9. The .......... does not lend itself easily to making intellectual-property claims.

10. In January 2018, Bitcoin’s .......... amounted to only about one third of the crypto- currency market.

**(B) Fill in the blanks** in the following texts with the words from the lists below

spending / currency / money / use / tax / virtual / property / legal / fungible / play

**Legal Classification of Bitcoin**

Although the .......... (1) of bitcoins is considered .......... (2) in most jurisdictions, the role

.......... (3) currencies will .......... (4) in the future will, among other things, depend on their

precise legal classification. For example, now that the Internal Revenue Service1 has stated

that it will treat Bitcoin as .......... (5) rather than a .......... (6) for U.S. federal tax purposes,

a person .......... (7) bitcoins will have to figure out which particular bitcoin he or she wants to

spend, and what the respective .......... (8) treatment will be. One consequence of this might

be that bitcoins are no longer .......... (9), which makes them unworkable as .......... (10).

1. U.S. tax department

primary / store / central / volatile / maintain / stability / remains / currency / aims / national

**Price Stability**

There is no doubt that bitcoins have been far more .......... (1) than gold or most ..........

(2) currencies. The question that .......... (3) is how far the quality of a .......... (4) of value

depends on absolute .......... (5). By comparison, the stability of a country’s .......... (6) is one

of the primary .......... (7) of many, if not all, .......... (8) banks. For example, Article 127 of

the Treaty on the Functioning of the European Union (TFEU) states that the .......... (9) objective of the European System of Central Banks (ESCB) shall be to .......... (10) price stability.

EXERCISE 3 ***Grammar***

**Infinitive or Gerund?**

**Complete** the following sentences using the *infinitive* or the *gerund*

1. Money is supposed to (*serving / serve*) three purposes: it functions as a medium of exchange, a unit of account, and a store of value.

2. Some economists question the reasons for (*qualify / qualifying*) Bitcoin as money.

3. Recent reports suggest that some firms have chosen to (*seek / seeking*) patent protection on improvements to the blockchain.

4. It makes sense for smaller business customers to (*use / using*) bitcoins in connection with

online sales.

5. For an item to act as a medium of exchange requires (*hold / holding*) its value over time.

6. One of the primary aims of a central bank is (*maintaining / maintain*) the stability of its

national currency.

7. Bitcoin’s volatility in its exchange rate with the dollar has made economists (*question /*

*questioning*) its reliability as a medium of exchange.

8. Using bitcoins to (*launder / laundering*) money is a criminal offence.

9. The fact that very few patents have been issued so far hasn’t stopped firms from (*claim /*

*claiming*) ownership for blockchain innovations.

10. Many companies that have a stake in Bitcoin’s success are looking forward to (*benefit /*

*benefittin*g) from regulation to enhance the currency’s credibility.

EXERCISE 4 ***Assignment***

Bitcoin’s extreme volatility and the upper limit of 21 million coins in circulation have been

described as “fatal economic flaws”1.

It can nonetheless be argued that there are advantages to using Bitcoin as a medium of exchange.

**Find out** what economists say about digital currencies and draw up a list of their advantages

and drawbacks.

**Debate** the issue, dividing the class into proponents and opponents of virtual currencies.

1. David Yermack, *www.technologyreview.com*, February 2014