8-2019

Financial reporting of cryptocurrency

Andrew Hartley
University of Tennessee at Chattanooga, ymp724@mocs.utc.edu

Financial Reporting of Cryptocurrency

Andrew Hartley
Departmental Honors Thesis
The University of Tennessee at Chattanooga
Accounting Department

Examination Date: July 15, 2019

Dr. Stephan Davenport
Assistant Professor of Accounting
Thesis Director

Dr. John Trussel
Professor of Accounting
Department Examiner

TABLE OF CONTENTS

ABSTRACT

Cryptocurrency is a digital form of currency that uses mathematical equations to encrypt data. This type of currency has significantly grown in popularity over the past 5 years due to more people and companies using it. Some companies have started accepting it as payment in exchange for goods and services. More people are going to be turning to cryptocurrency in the future. Businesses will have to come up with ways to deal with it; however, the FASB has yet to define cryptocurrency, leaving businesses with no formal guidance on the subject. The purpose of this paper is to recommend a solution on how companies should report cryptocurrency in the future.

INTRODUCTION

The technological revolution has exploded in the last decade. Beginning with the development of the internet, we now have limitless information at our fingertips. Things like Google Earth have allowed us to be able to see any part of the world (including private addresses) in a matter of seconds. The iPhone has given us instant access to the internet anywhere. Money can be paid through our phones with systems like Venmo and Apple Pay. Our society has more technology than any other generation before us. One of the major new types of technology that has come into the world recently is cryptocurrency.

Cryptocurrency is a digital form of currency that uses mathematical equations to encrypt data. This cryptic data regulates how many units of currency exists. Similar to physical currency, there is not one universal cryptocurrency that everyone uses. There are more than 1,600 cryptocurrencies in existence (Bajpai, 2019). The three most established cryptocurrencies are Bitcoin, Litecoin, and Ethereum. According to Coinbase.com, a website that allows you to trade cryptocurrency and keeps up with the price of cryptocurrencies, one Bitcoin is currently worth $11,342.42, one Litecoin is worth $132.89, and one Ethereum is worth $310.55 as of June 26, 2019.

This new digital currency market could be worth a lot of money. As of July 10, 2019, Bitcoin's entire market capitalization is 220 billion dollars. Bitcoin represents the majority of the cryptocurrency market (Total is close to 340 billion), but anything that has a value of 220 billion dollars is significant. Despite this, fewer than 8% of Americans currently own cryptocurrencies (Nova, 2018). However, with the growing popularity of cryptocurrency, businesses are having to pay more attention to the new digital asset, and have started incorporating it into aspects of their business.

Some businesses are now starting to accept cryptocurrency as payment for particular items. For example, Microsoft is one of the companies that accepts Bitcoin as payment for certain goods (their Xbox Live store). With companies starting to accept cryptocurrency as legitimate payment, companies need guidance on how they should account for cryptocurrency transactions. If they were holding cryptocurrency during the end of an accounting period, it would have to be reported on their financial statements somewhere. However, the accounting standard setters in the United States have not released any guidance concerning where cryptocurrency should be reported. Therefore, in this paper I attempt to answer the question: How should businesses report cryptocurrency on their financial statements?

SECTION 1: WHAT IS CRYPTOCURRENCY?

THE DEFINITION OF CRYPTOCURRENCY

Currency has been a fundamental part of society for centuries. With the advancement in technology that our world is going through, our money is getting more and more digitized. Sixty years ago, most people carried only hard forms of currency, like dollar bills and coins. Today, most people use debit and credit cards (which are tied to hard currency) to pay for goods and services. Using these cards was one of the first steps toward digitizing money because people realized they did not have to have a hard form of currency - plastic money was also accessible. Cryptocurrency is the newest form of digital currency. Since cryptocurrency is all online, it could be just as easy to use as a credit or debit card depending on how companies choose to accept it. Cryptocurrency is, "a digital or virtual currency that uses cryptography (application of encryption and decryption technology) for security" (Murthy, 2018).

Cryptocurrency is a mixture currency and technology. Nothing like it has been used as payment for goods and services in the past. Cryptocurrency uses cryptography to better protect the transaction information. Doing this allows the transactions between parties to be more secure. Cryptocurrency also uses a distributed ledger, which is operated on a decentralized system. The distributed ledger “eliminates all need of a central authority or intermediary to process, validate or authenticate transactions” (McLean, 2016). All transactions are run through this distributed ledger and verified that the currency is available to pay from one party to another. The decentralized system makes transactions between the two parties more secure.

Bitcoin is the largest and the most-researched cryptocurrency. Bitcoin’s price skyrocketed back in December 2017 (refer to Graph 1), with the price of one Bitcoin rising to 20,000 dollars. Some people believe that cryptocurrency is "powerful enough to take down the

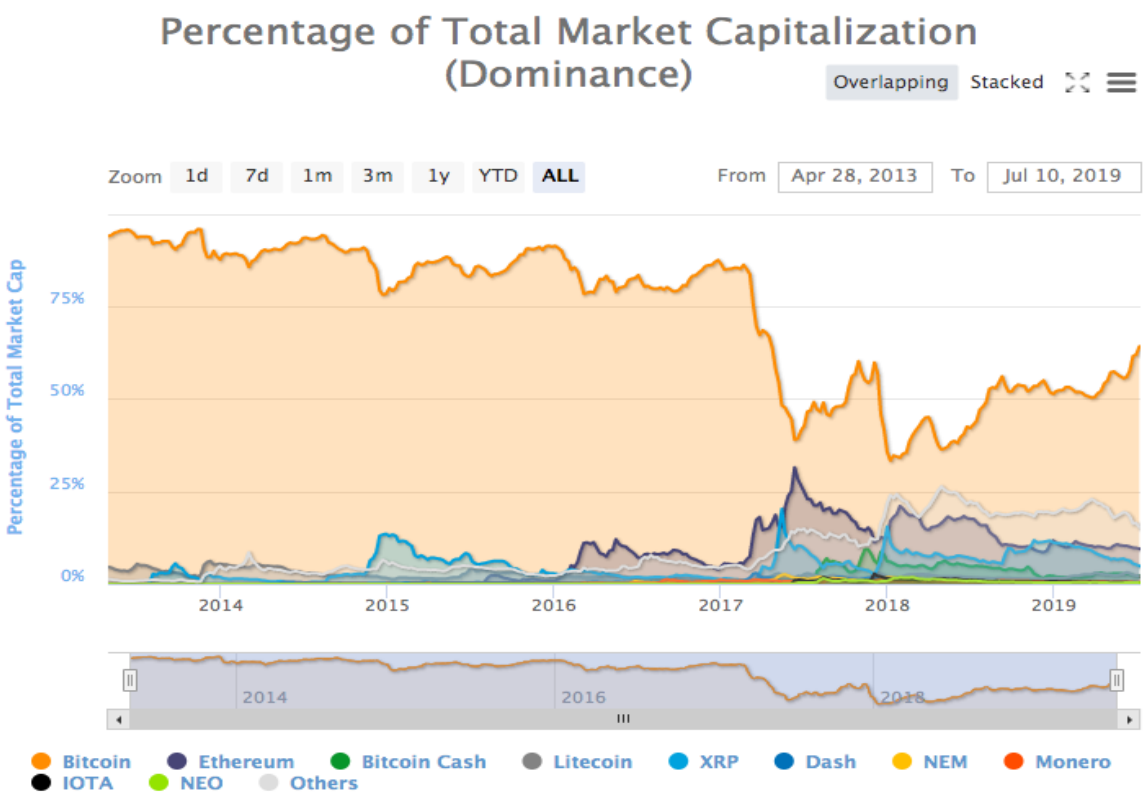
stock market as well as threaten the role of century-old banks and governments." (Nova, 2018). People talking like this has put cryptocurrency at the forefront of financial discussions. However, the majority of investors are not putting their money in Bitcoin. Cryptocurrency has a slow rate of adoption because people do not believe that it will last long-term. Graph 1 also shows the price fluctuations that Bitcoin has experienced since its inception.

Graph 1:
Bitcoin Price from Coinbase.com

CRYPTOCURRENCY IS VOLATILE

Bitcoin is a good indicator of what most cryptocurrencies are like because it is the most prominent cryptocurrency. As of July 10, 2019, Bitcoin has 65% of the entire cryptocurrency market. Referring to Graph 2 below, the only cryptocurrency that comes anywhere close to Bitcoin's market cap at any time is Ethereum. Since Bitcoin has the largest market cap, most of the other cryptocurrencies tend to follow Bitcoin's price.

Graph 2: Market Capitalization of cryptocurrency



(Graph from coinmarketcap.com)

A significant characteristic of Bitcoin (and all cryptocurrency) is how volatile the currency has been in the last ten years. There are numerous reasons for this expected volatility, but the most significant influence right now is the opinion of investors who are creating demand for the currency. Without those people creating demand, Bitcoin would become worthless. This is no different than any other equity investments that someone might invest in, but Bitcoin does not have any underlying assets that create value for investors.

Bitcoin is not managed or backed by a government or regulating body that has numerous assets behind it. It is considered to be an, "alternative to government-issued currencies" (England & Fratrik, 2018) unlike like the Dollar, Euro, or Yen. The lack of backing by a government can cause both positive and negative volatility against some hard currencies. The lack of sponsorship

by a formal entity can lead investors to believe that the future of Bitcoin is uncertain. According to Investopedia, “Bitcoin's value can swing based on news events much as we observe with fiat currencies” (Barker, 2019). If bad news comes for Bitcoin, the value of the currency will drop and vice versa. With the lack of backing, Bitcoin's volatility is much worse than standard currency. Investors do not want to invest because of the lack of certainty that Bitcoin will continue.

Bitcoin is also volatile because it has a slow rate of adoption. People do not fully trust Bitcoin's ability to be recognized as an actual currency. Whether it stems from negative news stories or just fear of uncertainty, most people are not investing in Bitcoin. Things that hurt Bitcoin are "geopolitical events and statements by governments that Bitcoin is likely to be regulated” (Barker, 2019). Threats like this and lack of information on Bitcoin cause volatility regardless of how Bitcoin is performing. Since Bitcoin is so new to the world, most people are not willing to invest.

Volatility plays a significant role in Bitcoin. However, all cryptocurrencies have a similar problem. Three of the most popular cryptocurrencies are Bitcoin, Ethereum, and Ripple. These three currencies have all survived for several years and are likely not going away. The graph of these cryptocurrencies shows a pattern among the three of them.

Graph 1:
Bitcoin Price

Graph 3:
Ethereum Price

Graph 4:
Ripple Price

(Graphs taken from Coinbase.com)

These graphs reflect the entire lifecycle of each of the cryptocurrencies. These graphs are not in the same scale as one another. Bitcoin's spike in price was in thousands of dollars, Ethereum's spike in price was in hundreds of dollars, and Ripple's spike in price was in cents. Even though the graphs are not a one for one ratio these graphs highlight to a pattern. When Bitcoin performs well, other cryptocurrencies perform well. When Bitcoin performs poorly,

other cryptocurrencies perform poorly. The supply and demand for cryptocurrency cause this volatility. Bitcoin, for example, became a hot topic in the beginning of 2017, causing the price to change to 20,000 dollars for 1 Bitcoin. Earlier that same year it was worth 1,000 for 1 Bitcoin. Since Bitcoin became popular people started searching for other things like it, pushing the price of other cryptocurrencies higher. Bitcoin represents how all cryptocurrencies act in regards to the market (as can be seen from the graphs above). It also shows the massive amount of volatility that all cryptocurrencies have. Volatility is relevant to classifying cryptocurrency in financial statements. This is not taken in to account with how companies are currently reporting it.

Volatility has also had people holding Bitcoin as an investment. People are optimistic on the value of Bitcoin, which causes them to consider it an investment. With the volatility that Bitcoin has experienced over its lifetime, people are hoping that the price will continue to rise; but does someone holding it with the intent to sell it for a profit make Bitcoin an investment? Not exactly. It does not easily fall into a single category. Cryptocurrencies do not fit into one category because of their unique nature. They are not quite cash, not quite an investment, and not quite an inventory item. The options are not as limited as to how one could try and justify cryptocurrency to different people. That begs the question, how should entities report cryptocurrency on their financial statements?

SECTION II: HOW OTHERS ACCOUNT FOR CRYPTOCURRENCY

FASB

The Financial Accounting Standards Board (FASB) sets the rules and standards for Generally Accepted Account Principals (GAAP). Companies use GAAP for recording and presenting accounting transactions in the United States (US). A company owned and operated in the US is going to follow the rules set by the FASB. So in regards to financial reporting, the FASB should be the first place that any company looks for guidance. That is no different when it comes to cryptocurrency. However, the FASB has not provided formal guidance with cryptocurrency or any other digital assets.

There are few publications or indication that the FASB is going to define how cryptocurrency should show up on company's financial statements. Their lack of guidance leaves the responsibility of deciding how to report cryptocurrency up to speculation of whomever is running the company. The only real indication that we have had that the FASB is even looking into the subject of cryptocurrency is from the "Report of the FASB Chairman: July 1, 2017 through September 30, 2017" merely stating that they had done research regarding "Digital Currency", but other than that they have been uninvolved in any of the talks of reporting cryptocurrency (fasb.org).

With the rapid growth of cryptocurrency and other digital assets, entities are speculating on how they should classify these assets. Entities like The "Big Four" accounting firms, AICPA, IFRS, and IRS have their own opinions, but until the FASB comes out with an official opinion as to how cryptocurrency needs to be reported there will be no definitive answers. Guidance needs to be given. Until then, companies and accountants are just speculating on how to report cryptocurrency.

THE "BIG FOUR" ACCOUNTING FIRMS

The "Big Four" are the four largest accounting firms in the world. They consist of Pricewaterhouse Coopers (PwC), Ernst & Young (EY), Deloitte, and Klynveld Peat Marwick Goerdeler (KPMG). These four firms have thousands of clients all around the world. Their opinions and research are essential to the entire accounting community. These four firms are not a governing body over accounting in any way, but that does not take away from the seriousness of what they say. The Big Four deal with companies that have the ability to accept cryptocurrency. The majority of their clients do not currently accept cryptocurrency, but that has not stopped the Big Four firms from researching it. They have come in contact with cryptocurrency at some point, and have already set a base opinion for how it needs to be reported.

PwC

PwC has done extensive research on the subject of cryptocurrency, and they ultimately believe that an "Intangible Asset" classification is the best option for cryptocurrency. According to them, "cryptocurrency is not cash, currency, or a financial asset; rather, it should likely be accounted for as an indefinite-lived intangible asset" (Paul, Currie & Ohl, 2018). The reason PwC classifies cryptocurrency as an intangible asset is currently no other appropriate classification exists. PwC believes that cryptocurrency has its own unique properties, and because of that reason intangible assets is the only available classification that can be used.

PwC does mention other classifications; however, they do not think that cryptocurrency can go into those accounts. For example, "Cash and Cash Equivalents" is one of their options, but because cryptocurrency is, "generally not accepted as legal tender, and are not backed by a government, they do not qualify as cash" (Paul, Currie & Ohl, 2018). Cryptocurrency does not

meet the requirements for “Financial Instruments” in their opinion. That is because cryptocurrency does not represent a contractual obligation to receive cash. They also do not think it can be a type of inventory because it is not a tangible object. PwC looked at each of these accounts relative to cryptocurrency to determine which classification would fit the best. In their opinion, “Intangible Asset” is the only account that cryptocurrency can fit into under current GAAP standards.

EY

EY has a different approach to cryptocurrency altogether. They do not give a specific explanation on how to account for cryptocurrency. PwC thought that the "Intangible Asset" classification was enough; however, EY believes that since cryptocurrency is so new and state of the art that the classification needs to be left on a case-by-case basis. EY says, “It is further observed that there is currently no standardized definition of crypto-assets” (Brody, 2018). Since there is no guidance, taking each case one at a time seems to be the best way.

EY did not put out an opinion on how to report cryptocurrency, instead they mention what regulating bodies have to say. For example, EY mentions that the Australian Accounting Standards Board (AASB) has done a lot of research regarding the issue of cryptocurrency and other crypto-assets. The AASB believes that cryptocurrency is also an Intangible Asset because it is a non-monetary asset without physical substance. They also mention that the FASB is doing research, but no major statement has been made regarding cryptocurrency by the FASB. EY is patient with their opinion of how to report cryptocurrency. I believe this is because there are not many of their clients who use cryptocurrency currently. EY is not issuing their own opinion on how to classify cryptocurrency. EY is relying on the guidance given by other regulating entities outside of the US.

DELOITTE

Deloitte has also done a lot of research concerning cryptocurrency. They believe that there are multiple ways of accounting for cryptocurrency, not just one standard form. Like most entities, Intangible Asset is one of the classifications companies could use. However, Deloitte also says that it could be considered Inventory or Investment under certain circumstances. The fact that Deloitte acknowledges other ways to classify cryptocurrency is significant.

According to Deloitte, cryptocurrencies should be, "(1) held for sale in the ordinary course of business and thus considered inventory (as in the case of a broker) or (2) accounted for as an investment by an investment company" (Uhl, Steele, & O'Donnell, 2018). Companies should report cryptocurrency based on their intent. For example, if I am mining for cryptocurrency with the full intent of selling it to make a profit later, it is similar to inventory and should be accounted for the same way. They go on to say, "investment companies that hold cryptocurrencies as investments should account for them as they would any other investment that they measure initially and subsequently at fair value" (Uhl, Steele, & O'Donnell, 2018). Investment or Financial Instruments are another account cryptocurrency can be classified as if you are using it in hopes that the value increases. They do qualify this by saying that this option is just for investment companies, though.

KPMG

KPMG has articles written on how cryptocurrencies (specifically Bitcoin and Ethereum) should be reported. Their opinion is merely saying that the International Financial Reporting Interpretations Committee (IFRIC) has given guidance on reporting cryptocurrency and that's what is right. Even though in the US we use GAAP instead of IFRS, the IFRIC giving an opinion

on how companies need to report this is significant. However, that report by the IFRIC is very similar to how Deloitte says it should be. KPMG said, "IFRIC proposes that cryptocurrencies are generally intangible assets" (Ruddenklau, 2019). Cryptocurrency can also be classified as Inventory depending on the intent that the company has. The only way to classify cryptocurrency as Inventory is holding it for sale in a normal course of business.

Each of the Big Four firms mention reporting cryptocurrency as an Intangible Asset. This came up in every single one of their opinions because under the current rules under GAAP, that is the only classification that cryptocurrency work in. The Big Four firms are not the only opinions that matter, though. Other relevant accounting bodies have different views on reporting cryptocurrency.

AICPA

The American Institute of Certified Public Accountants (AICPA) has not clearly defined what account cryptocurrency belongs in for public companies, but it has talked about how nonprofits should account for cryptocurrency. The AICPA says in a situation where non-profits are holding cryptocurrency then they should, “treat it as an investment for accounting purposes” (aicpa.org, 2018). Nonprofit accounting and regular GAAP accounting are different from one another, but the idea still stand that the AICPA still generally thinks that cryptocurrency should be reported as an Investment on non-profits financial statements.

IFRS Foundation and IASB

The International Accounting Standards Board (IASB) and the International Financial Reporting Standards Foundation (IFRS Foundation) are the international standard setters for accounting outside the US. They play a crucial role in accounting standards worldwide, and they

have already released an acceptable way to report cryptocurrency based on the rules that already exist.

Table 1: IFRS treatment for cryptocurrency

Standard	Categorisation	Acceptable under IFRS
IAS 7 Statement of Cash Flows	Cash and cash equivalents	No
IAS 39 Financial Instruments: Recognition and Measurement	Financial asset at Fair Value Through Profit or Loss	No
IAS 40 Investment Property	Investment property	No
IAS 16 Property, Plant and Equipment	Property, plant and equipment	No
IAS 38 Intangible Assets	Intangible assets	Yes
IAS 2 Inventories	Inventories	Yes*

* under certain conditions.

Intangible assets and inventories are the two ways that these entities classify cryptocurrency. The parameters of those two categories are broad enough for cryptocurrency to fit in. Since the IAS 2 standard allows cryptocurrency to be classified as inventory, this is a possible option for US GAAP as well.

IRS

The Internal Revenue Service (IRS) is not a governing body that handles financial reporting. They handle tax reporting in the US, and they have come out with an opinion on the matter of cryptocurrency. The IRS has classified cryptocurrency as property and has told people that, "income from virtual currency transactions is reportable on their income tax returns. Virtual currency transactions are taxable by law just like transactions in any other property" (irs.gov, 2018). That reminder was issued because of the substantial gains that people holding cryptocurrency had seen in the year 2017. Even though they say it is property, the IRS is also trying to get people to report the value of their cryptocurrency if it's in a foreign account. The

Foreign Account Tax Compliance Act (FATCA) requires foreign financial institutions to report US taxpayers' accounts regarding currency. "Why? Because the IRS is trying to get cryptocurrency owners to report the value of their wallets to the federal government" (Smalley, 2017). Property's value is recorded at historical cost in most instances, and gains or losses are reported when property is sold. This could present problems for companies who regularly accept and use cryptocurrency for ordinary transactions, because they will have to calculate gains or losses for each transaction. This is similar to how the IRS says that investments should be reported. On multiple occasions, the FASB and the IRS account for the same thing in different ways. The IRS has clearly defined how to account for cryptocurrency, and since other entities are defining and giving guidance for cryptocurrency FASB should as well.

The "Big Four" Accounting firms, AICPA, IFRS foundation, IASB, and IRS all say similar things, but they are not precisely uniform. There is a wide variety of ways to report cryptocurrency according to these various entities in the accounting field, and that is because there has been no guidance given by the FASB. Guidance on the way to classify cryptocurrency would help companies and these entities have a standard method to account for this new asset.

SECTION III: WHAT ACCOUNTS CRYPTOCURRENCY RELATES TO

Cryptocurrency is new enough that companies are not quite sure where to put it when it comes to their financial statement. The previous section showed how some entities in the accounting field are starting to account for it. The real question though is, does cryptocurrency fall within those classifications. Each account should be considered as a way to classify cryptocurrency. The classifications to look at are Property, Intangible Assets, Cash and Cash Equivalents, Inventory, and Investments. For reference, I have attached a portion of each one these accounts' Accounting Standards Codification (ASC) sections. The ASC is the collection of GAAP regulations and guidance relating to a particular area of the financial statements.

PROPERTY

WHY IT SHOULD BE REPORTED AS PROPERTY

The IRS said that cryptocurrency should be treated as property for federal tax purposes. Even though this is how the IRS says it should be handled for taxes, there are relatively few reasons why cryptocurrency should be reported this way on financial statements. The only reason property should only be used is because of the long-term aspect that both property and cryptocurrency have. This is the main reason to classify it as property

WHY IT SHOULD NOT BE REPORTED AS PROPERTY

According to the ASC 360-10-05-3, "Property, plant, and equipment typically consist of long-lived tangible assets used to create and distribute an entity's products and services" (ASC 360). One of the fundamental elements of cryptocurrency is being a digital asset. This means that it is not a tangible asset. Also, property has an expected life versus cryptocurrency that could theoretically go on indefinitely. There is a possibility that the cryptocurrency could ultimately fail, but that is not a specific useful life like property. Stocks are also property according to the

IRS. Stocks and property have a different classification when it comes to financial reporting. The IRS is classifying cryptocurrency closer to stocks for tax reasons, rather than physical property. The IRS's classification does not follow the same reporting standards the FASB does, so property is not a good way to classify cryptocurrency. These reasons should be enough for companies not to report it as property.

INTANGIBLE ASSETS

WHY IT SHOULD BE REPORTED AS INTANGIBLE ASSETS

Intangible Assets was the most common recommendation for reporting cryptocurrency because of the current framework for GAAP. The ASC standard for Intangible Assets (outside of Goodwill) says, "Assets (not including financial assets) that lack physical substance. (The term intangible assets is used to refer to intangible assets other than goodwill.)" (ASC 350). Cryptocurrency is an asset that lacks physical substance. This is the primary reason that cryptocurrency has fallen into this classification. Intangible Asset is a broad category that can capture a lot of different things because it is not well defined. Any non-physical asset that the company has are all thrown into the same category. Cryptocurrency properly falls into this category for that reason.

WHY IT SHOULD NOT BE REPORTED AS INTANGIBLE ASSETS

The way cryptocurrency works is not similar to most intangible assets. "Cryptocurrency represents a digital asset, whose main purpose is to be a medium in exchange" (Milutinović, 2018). Most intangible assets are not used as a medium for exchange like cryptocurrency. How companies are trying to use cryptocurrency does not conform with the standard use of Intangible Assets. These reasons do not completely disqualify cryptocurrency form being reported as an Intangible Asset, especially since it does fit in the classification under GAAP. However, since

Intangible Assets are now being used as a medium for exchange, this classification needs to be updated for it to actually work.

CASH AND CASH EQUIVALENTS

WHY IT SHOULD BE REPORTED AS CASH AND CASH EQUIVALENTS

To exchange good and services, we use cash as a medium that each person accepts because each party agrees on the value of cash. Cryptocurrency is designed with that same purpose. Bitcoin is the first digital currency that we exchange for goods and services that is not backed by a government or some form of tangible assets. Cryptocurrency intends to be the same as any other type of currency.

Cash Equivalents are assets that can be converted to cash quickly. According to the ASC in regards to Cash Equivalents, "investments with original maturities of three months or less qualify" (ASC 210). Cryptocurrency can be converted to cash in less than three months using online cryptocurrency wallets; however, there is no maturity for cryptocurrency. If you are using cryptocurrency as an investment and are converting it to cash within three months, it could loosely be considered a cash equivalent.

WHY IT SHOULD NOT BE REPORTED AS CASH AND CASH EQUIVALENTS

Cryptocurrency is supposed to be similar to Cash. However, cryptocurrency is not recognized by a government or entity that can support it. For this simple fact, it cannot be classified as cash. If cryptocurrency had some legal tender rather than it just being valued by supply and demand, cash could be the proper classification. Being decentralized and using cryptography is one of the key factors of cryptocurrency, though. There is no indication this will change anytime soon; and for it to be classified as cash, a different digital currency that was not cryptic and decentralized would have to be made.

Cash Equivalents are not that similar to cryptocurrency. Cash Equivalents have to be, "(1) Readily convertible to known amounts of cash (2) So near their maturity that they present insignificant risk of changes in value because of changes in interest rates" (ASC 210). Cryptocurrency is incredibly volatile, so there is never a time where the value has no risk of insignificant risk of change. The extreme volatility surrounding it discredits cryptocurrency from being convertible to a known amount of cash in the future. Cryptocurrency does not meet the two requirements in order to be a Cash Equivalent. Therefore, cryptocurrency should not be classified as a Cash Equivalent.

INVENTORY

WHY IT SHOULD BE REPORTED AS INVENTORY

Inventory is defined as "items of tangible personal property that have any of the following characteristics: (1) Held for sale in the ordinary course of business (2) In process of production for such sale (3) To be currently consumed in the production of goods or services to be available for sale" (ASC 330). Companies are mining and holding cryptocurrency to sell in the future. Depending on the intent companies have for the cryptocurrency they receive from mining, it could qualify as inventory under current US GAAP standards since it only has to meet one of the requirements. For example, a company that mines Bitcoin as its main activity holds it for sale in the ordinary course of business.

WHY IT SHOULD NOT BE REPORTED AS INVENTORY

Cryptocurrency could be classified as inventory. However, since cryptocurrency is not a tangible asset the classification of Inventory does not work. Inventory under current US GAAP standards must be tangible. There are no ways around this standard to report cryptocurrency as inventory even though it does meet the requirements in certain situations.

INVESTMENT (FINANCIAL INSTRUMENT)

WHY IT SHOULD BE REPORTED AS AN INVESTMENT OR FINANCIAL INSTRUMENT

An investment or financial instrument is a possible classification for cryptocurrency. People are using cryptocurrency in the same way they use investments or financial instruments. Financial Instrument is defined as a contractual obligation, "(1) To deliver cash or another financial instrument to a second entity (2) To exchange other financial instruments on potentially unfavorable terms with the second entity." (ASC 260). Cryptocurrency in this situation would be the Financial Instrument that someone receives. It represents an actual value that can be exchanged for a hard currency, like the dollar, at a later point. Cryptocurrency is more similar to equity investments rather than debt investments since there is no maturity. The fact that equity investments are long term and indefinite make it similar to cryptocurrency. Equity investments also do not have an established value that is going to be paid out with certainty. The price can fluctuate based on the value of the company. Cryptocurrency also fluctuates in value based on different factors, such as demand and supply. All this being said, cryptocurrency theoretically could be accounted for as an investment.

WHY IT SHOULD NOT BE REPORTED AS AN INVESTMENT OR FINANCIAL INSTRUMENT

Cryptocurrency is not currently recognized as actual currency or a Financial Instrument. This is not due to the lack of accounting standards but a lack of knowledge over the subject of cryptocurrency. Cryptocurrency is still new and the fact that the rate of adoption is slow makes being recognized as an investment or financial instrument more difficult. Most investments or financial instruments have a clear value that is established by a tangible asset. Since

cryptocurrency does not have some type of tangible asset to back it, justification to classify it as an investment or financial instrument will be more difficult.

There are multiple possibilities when reporting cryptocurrency on financial statements. As illustrated in the previous discussion, there are pros and cons to each possible option. With the current US GAAP standards, there is not a perfect option that fits cryptocurrency. Cryptocurrency is very different than all other types of assets, so the best classification that US GAAP has now is as an Intangible Asset. Since there is merit to each of these classifications, the FASB should consider the intent companies have for cryptocurrency when deciding its classification.

SECTION IV: HOW CRYTOCURRENCY SHOULD BE REPORTED

Because of the many potential uses of cryptocurrency, I believe that current accounting standards for GAAP do not have an appropriate way to handle cryptocurrency. It's not like any other account that has existed before. The fact that cryptocurrency is a digital way to exchange currency has changed how we can pay for goods and services. However, the way we account for such transactions has not changed at all. There is no reason to expect that new technology will fit into a system that has never thought about the possibility of digital currency.

Rather than trying to fit cryptocurrency into the already established system, we should use a different approach to account for the new digital asset. There are multiple ways to accomplish this. Accounting for cryptocurrency as Intangible Assets is the only option that works with the current GAAP standards, but combining multiple standards would be a better approach. Under current GAAP standards, the amount of cryptocurrency companies are holding would be accounted for as an intangible asset for the purchase price and would be subsequently adjusted for an impairment loss. None of the holding gains and losses cryptocurrency accumulates would be recognized through classifying it as an Intangible Asset. This could result in a serious misstatement of the value of the asset due to the large volatility of cryptocurrency. The value of the cryptocurrency a large company like Microsoft is holding would probably be immaterial. However, as it becomes more popular in the future, it could become a significant amount for certain companies. Combining a mixture of accounting principles that already exist would allow us to better assess the value of this new type of asset. I believe that the best way to account for cryptocurrency would be to use a combination of these different accounting classifications based on the intent of each company: inventory, equity security (Investment), foreign currency, and intangible assets.

CRYPTOCURRENCY AS INVENTORY

Mining for cryptocurrency (specifically Bitcoin) is when companies use high-powered computers to solve complex math problems; once they are solved they create new Bitcoin. Companies mining for cryptocurrency should classify it similar to inventory. Even if cryptocurrency could be accounted for as Inventory, there would need to be an intangible component to the inventory codification. This would allow cryptocurrency to be considered as a unique type of Inventory. When companies intend to mine it then sell it immediately afterward, they incur costs every time that they mine. This gives cryptocurrency that was mined a Cost of Goods Sold component, and it also meets the criteria of a "Held for sale in the ordinary course of business" (ASC 330). The value of the cryptocurrency will be able to be valued as FIFO, LIFO, or Average Cost like other Inventories. Inventory is valued at lower of cost or market (LCM); however, for precious metals (like gold), GAAP has an exception for the valuation. The exception says that precious metals can be valued at market value rather than LCM. Cryptocurrency should be valued the same way. Adding an intangible component to the inventory section would allow companies that are mining cryptocurrency to classify it as an intangible inventory.

CRYTOCURRENCY AS AN INVESTMENT

Companies should also be able to hold onto cryptocurrency, if they do not want to sell it immediately in hopes that it appreciates. Cryptocurrency as Investment should be treated similarly to an equity security. A security is defined as, “A share, participation, or other interest in property or in an entity of the issuer or an obligation of the issuer” (ASC 320). Cryptocurrency does not meet this definition because it is not a share of ownership. Many individuals are holding onto Bitcoin in hopes that it appreciates, similar to how people hold equity investments. If

companies that are intending to hold cryptocurrency with the hope that the value increases, then the accounting for it is similar to an equity security. Cryptocurrency that is sold quickly is like a trading security. Trading securities are reported at fair value with unrealized gains and losses reported in earnings. Investments that are held long-term in the hope that it appreciates over time would be classified as an available for sale security. Available for sale securities are reported at fair value with unrealized gains and losses reported in Other Comprehensive Income. In this case the cryptocurrency is reported as either a short-term investment for trading securities, or long-term investment for available for sale securities. The accounting standards already exists for both of these methods, and cryptocurrency could easily be classified the same way with minor adjustments to the current standards.

CRYPTOCURRENCY AS FOREIGN CURRENCY

If the intent is to use cryptocurrency as currency for ongoing purchase and sales transactions, similar to what Microsoft is doing, then it should be accounted for like a foreign currency transaction. This is covered in ASC 830-20, Foreign Currency Matters - Foreign Currency Transactions. When a company makes a sale to a customer in exchange for Bitcoin, it is like an accounts receivable in a foreign currency with an indefinite settlement period. The accounting for Bitcoin would be the same as any other foreign currency. For example, if a company has a receivable in euros, the company has to adjust them to fair value at the end of every reporting period with the unrealized holding gain or loss being reported in earnings. In this case, the euros would be reported as accounts receivable. If companies are going accept Bitcoin for ongoing purchase/sales transactions then it fits into a current asset, similar to Accounts Receivable in foreign currency.

A summary of these accounting approaches are included in Table 2. In my opinion, any one of these classifications would work for cryptocurrency, depending on the circumstances of holding this digital asset. Since cryptocurrency is not like any other asset that existed before it, it does not already fit into our current US GAAP or IFRS. This does not mean that the FASB has to create a new way to account for cryptocurrency, but rather give guidance that cryptocurrency should be reported in one of these ways that aligns with how a company intends to use it. This is not different than what the FASB has done before. The FASB has changed and updated accounting standards to accommodate new assets or give further guidance on an existing asset, and with the growing popularity of cryptocurrency, new guidance should be given soon.

Table 2: Summary of Recommended Accounting for Cryptocurrency

Account	**Purpose of Cryptocurrency**	**Valuation on Balance Sheet**	**Treatment of Holding Gains and Losses**
Cryptocurrency Inventory	Mining for resale	Current asset at fair value	Earnings
Investments in Cryptocurrency	Held for speculation	Current or long term asset (based on intent) at fair value	Earnings (current) or Equity (long-term)
Foreign Currency (Cryptocurrency)	Currency for ongoing operations	Current asset at fair value	Earnings

CONCLUSION

With new emerging technologies like cryptocurrency, current accounting rules need to be changed or reformatted to accommodate them. For example, Blockchain is an incredible technology (similar to a General Ledger system) that is associated with cryptocurrency transactions that experts believe could permanently change how companies keep records. These new technologies are going to change how we handle both regular transactions and cryptocurrency transactions for the future. The FASB does not need to have an immediate reaction to the new technologies, but the FASB has had no reaction. Businesses are still wary about incorporating cryptocurrency into their financial statements, but as its use becomes more mainstream companies are going to be using some form of cryptocurrency indefinitely. The FASB needs to give guidance on how companies should record cryptocurrency on their financial statements.

Bitcoin, Ethereum, and Ripple may not exist in the future, but some digital currency or token will. Companies are already jumping on the idea of a type of cryptocurrency. Facebook has recently introduced their own cryptocurrency, Libra. Libra will, "let you buy things or send money to people with nearly zero fees" (Constine, 2019). This is just the beginning of cryptocurrency. Other companies are going to start using the same types of technologies, and creating their own type of cryptocurrency in the future. It would not surprise me if business came up with a cryptocurrency in which they traded between one another. Banks send each other capital to each other every day, a cryptocurrency that was used from business to business could eliminate some of the transaction fees. There are thousands of possibilities for cryptocurrency.

The FASB is in position to make a unique decision that can lead the accounting community in how to report crypto-assets. Inventory, investments, and accounts receivable are

the best options that exist right now; however, guidance still needs to be given to companies for the future. Trying to stick crypto-assets into our current framework will not work. The FASB is not making any decisions as of now, but cryptocurrency is here to stay. The accounting community has to embrace it. Guidance has to be issued soon because these new technologies are not slowing down or going away.

SOURCES

Bajpai, Prableen. "The 10 Most Important Cryptocurrencies Other Than Bitcoin." Investopedia.com, 25 June 2019, www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin/. Accessed 22 July 2019.

Barker, Johnathon M. "Why Bitcoin Has a Volatile Value." Investopedia.com, www.investopedia.com/articles/investing/052014/why-bitcoins-value-so-volatile.asp.

Bitcoin Basics for NFPs: Accepting and Valuing Cryptocurrency Gifts." AICPA.org, AICPA, 22 Oct. 2018, www.aicpa.org/interestareas/notforprofit/resources/governancemanagement/bitcoin-basics-accepting-valuing-cryptocurrency-gifts.html.

Brody, Paul. "IFRS: Accounting for crypto-assets." ey.com, ey, Mar. 2018, www.ey.com/Publication/vwLUAssets/ey-ifrs-accounting-for-crypto-assets-new/$FILE/ey-ifrs-accounting-for-crypto-assets.pdf.

Constine, Josh. "Facebook announces Libra cryptocurrency: All you need to know." techcrunch.com, Grant Thornton, techcrunch.com/2019/06/18/facebook-libra/.

England, C., & Fratrik, C. (2018). Where to Bitcoin? *Journal of Private Enterprise, 33*(1), 9–30. Retrieved from http://search.proquest.com/docview/2043221157/

"IFRS Viewpoint: Accounting for cryptocurrencies – the basics." grantthornton.global, Grant Thornton, www.grantthornton.global/globalassets/1.-member-firms/global/insights/article-pdfs/ifrs/ifrs-viewpoint-9---accounting-for-cryptocurrencies--the-basics.pdf.

"IRS reminds taxpayers to report virtual currency transactions." *IRS.gov*, 23 Mar. 2018, www.irs.gov/newsroom/irs-reminds-taxpayers-to-report-virtual-currency-transactions.

McLean, S., & Deane-Johns, S. (2016). Demystifying blockchain and distributed ledger. technology - hype or hero? *Computer Law Review International, 17*(4), 97-102.

Milutinović, M. (2018). CRYPTOCURRENCY. Ekonomika, 64(1), 105-122. doi:http://dx.doi.org.proxy.lib.utc.edu/10.5937/ekonomika1801105M

Murthy, S. S. N. (2018). Bitcoin – the high volatile cryptocurrency. Sansmaran Research Journal, , 1-15. Retrieved from https://proxy.lib.utc.edu/login?url=https://search-proquest-com.proxy.lib.utc.edu/docview/2090302696?accountid=14767

“Notice 2014-21." IRS.gov, IRS, 2014, www.irs.gov/pub/irs-drop/n-14-21.pdf. Accessed 28 June 2019.

Nova, Annie. "Just 8 percent of Americans are invested in cryptocurrencies, survey says." cnbc.com, CNBC, 16 Mar. 2018, www.cnbc.com/2018/03/16/why-just-8-percent-of-americans-are-invested-in-cryptocurrencies-.html.

Paul, Beth, et al. "Cryptocurrencies? Time to Consider Plan B." *pwc.com*, Mar. 2018, www.pwc.com/us/en/cfodirect/assets/pdf/point-of-view/cryptocurrency-bitcoin-accounting.pdf.

"Report of the Chairman July 1, 2017 through September 30, 2017," *FASB*, http://www.fasb.org/jsp/FASB/Document_C/DocumentPage&cid=1176169470918, accessed 27 June 2019.

Simpson, Sarah. "Cryptography Defined/Brief History." laits.utexas.edu, www.laits.utexas.edu/~anorman/BUS.FOR/course.mat/SSim/history.html.

Smalley, Craig W,E.A., M.S.T. "The Classification of Bitcoin and Cryptocurrency by the IRS." *CPA Practice Advisor*, vol. 27, no. 11, 2017, pp. 13. *ProQuest*, https://proxy.lib.utc.edu/login?url=https://search.proquest.com/docview/1975993034?accountid=14767.

"Top 50 cryptocurrency prices." coinbase.com, www.coinbase.com/price. Accessed 22 July 2019.

Uhl, Robert. "Classification of cryptocurrency holdings." www2.deloitte.com, 9 July 2018, www2.deloitte.com/us/en/pages/audit/articles/fra-classification-of-cryptocurrency-holdings.html.

APPENDIX A: ASC Standards

05-3 Property, plant, and equipment typically consist of long-lived tangible assets used to create and distribute an entity's products and services and include:

a. Land and land improvements

b. Buildings

c. Machinery and equipment

d. Furniture and fixtures.

Intangible Assets

GLOSSARY TERM USAGE | **SEE TOPIC(S)** **350, 610, 805, 958**

Assets (not including financial assets) that lack physical substance. (The term intangible assets is used to refer to intangible assets other than goodwill.)

Cash Equivalents

GLOSSARY TERM USAGE | **SEE TOPIC(S)** **210, 230, 320, 610, 715, 830, 958**

Cash equivalents are short-term, highly liquid investments that have both of the following characteristics:

a. Readily convertible to known amounts of cash

b. So near their maturity that they present insignificant risk of changes in value because of changes in interest rates.

Generally, only investments with original maturities of three months or less qualify under that definition. Original maturity means original maturity to the entity holding the investment. For example, both a three-month U.S. Treasury bill and a three-year U.S. Treasury note purchased three months from maturity qualify as cash equivalents. However, a Treasury note purchased three years ago does not become a cash equivalent when its remaining maturity is three months. Examples of items commonly considered to be cash equivalents are Treasury bills, commercial paper, money market funds, and federal funds sold (for an entity with banking operations).

Inventory

GLOSSARY TERM USAGE | **SEE TOPIC(S)** **330, 740, 810, 842**

The aggregate of those items of tangible personal property that have any of the following characteristics:

a. Held for sale in the ordinary course of business

b. In process of production for such sale

c. To be currently consumed in the production of goods or services to be available for sale.

The term inventory embraces goods awaiting sale (the merchandise of a trading concern and the finished goods of a manufacturer), goods in the course of production (work in process), and goods to be consumed directly or indirectly in production (raw materials and supplies). This definition of inventories excludes long-term assets subject to depreciation accounting, or goods which, when put into use, will be so classified. The fact that a depreciable asset is retired from regular use and held for sale does not indicate that the item should be classified as part of the inventory. Raw materials and supplies purchased for production may be used or consumed for the construction of long-term assets or other purposes not related to production, but the fact that inventory items representing a small portion of the total may not be absorbed ultimately in the production process does not require separate classification. By trade practice, operating materials and supplies of certain types of entities such as oil producers are usually treated as inventory.

Financial Instrument

GLOSSARY TERM USAGE | **SEE TOPIC(S)** **260, 480, 505, 815, 820, 825, 954**

Cash, evidence of an ownership interest in an entity, or a contract that both:

a. Imposes on one entity a contractual obligation either:

1. To deliver cash or another financial instrument to a second entity

2. To exchange other financial instruments on potentially unfavorable terms with the second entity.

b. Conveys to that second entity a contractual right either:

1. To receive cash or another financial instrument from the first entity

2. To exchange other financial instruments on potentially favorable terms with the first entity.

The use of the term financial instrument in this definition is recursive (because the term financial instrument is included in it), though it is not circular. The definition requires a chain of contractual obligations that ends with the delivery of cash or an ownership interest in an entity. Any number of obligations to deliver financial instruments can be links in a chain that qualifies a particular contract as a financial instrument. Contractual rights and contractual obligations encompass both those that are conditioned on the occurrence of a specified event and those that are not. All contractual rights (contractual obligations) that are financial instruments meet the definition of asset (liability) set forth in FASB Concepts Statement No. 6, Elements of Financial Statements, although some may not be recognized as assets (liabilities) in financial statements—that is, they may be off-balance-sheet—because they fail to meet some other criterion for recognition. For some financial instruments, the right is held by or the obligation is due from (or the obligation is owed to or by) a group of entities rather than a single entity.