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Tax Policy Analysis


- Rachana Khandelwal, MST Student

What is a cryptocurrency?

A cryptocurrency such as bitcoin or alternative coins (“alt-coins” such as Ethereum, Dash, Monero, Zcash etc.) are digital, decentralized, open source assets and their value is entirely driven by market forces. Cryptocurrency holds no intrinsic value due to an absence of any asset backing. Cryptocurrency is significantly different from traditional or fiat currency such as US Dollar and Euros. Traditional currency is a legal tender with a central bank backing and is globally accepted as a medium of exchange.

Generally, cryptocurrency can be exchanged for goods and services or it can be held as an investment. These assets have gained popularity among users because of ease of transfer, low transaction costs, and some anonymity as they might be usable without disclosing the user’s information. However, a cryptocurrency also has some significant downside such as price volatility, potential vulnerability to hacking and fraud, and in some situations, an absence of a paper trail.

How does a cryptocurrency transaction work?

A bitcoin\(^1\) transaction takes place in a bitcoin wallet and all the transactions are recorded in a distributed ledger called the blockchain. When an exchange takes place over a peer to peer network,\(^2\) the record of transactions is maintained between user addresses and not the actual users. A bitcoin address is an alphanumeric code called a ‘public key.’ Each public key has a corresponding private key, which needs to be protected and stored safely by the user. The public key is used to receive bitcoin while the private key is used to send bitcoin. A bitcoin can be purchased or used in fractions equivalent to cash amount smaller than $1.

When a buyer decides to purchase, say a cup of coffee using bitcoin, he/she needs to transfer bitcoin equivalent to the cash value of the coffee into the seller’s bitcoin wallet. The seller shares his bitcoin address (public key) with the buyer and thereafter, the buyer using his private key

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\(^1\) For the purpose of this article, Bitcoin is used as an example owing to its popularity and the highest market capitalization as compared to other cryptocurrencies floating in the cryptocurrency exchange.

\(^2\) Investopedia defines peer-to-peer network as the “exchange or sharing of information, data, or assets between parties without the involvement of a central authority. Peer-to-peer, or P2P, takes a decentralized approach to interactions between individuals and groups. P2P refers to the exchange of currencies that are not created by a central banking authority, and an especially common application is with cryptocurrency exchange networks such as Bitcoin.” Peer- To- Peer (Virtual Currency), available at https://www.investopedia.com/terms/p/ptop.asp.
transfers bitcoin into the seller's wallet. The bitcoin miners\(^3\) verify and validate the transaction between buyer and seller to avoid double-spending\(^4\) of a bitcoin. A bitcoin wallet is not linked to personal details and the identity of the user can remain hidden.

**Tax treatment of cryptocurrency**

In March 2014, the IRS provided general guidance through Notice 2014-21\(^5\) to treat cryptocurrency as property for U.S. federal tax purposes. Thus, a taxpayer using cryptocurrency is required to calculate gain or loss based on the fair market value of cryptocurrency on the transaction date and the taxpayer's basis in the currency. In the case of multiple transactions in a day, tracking fair market value on each cryptocurrency transaction and reporting gain can be burdensome for the taxpayer. Although, software such as Libra and Cointracking exist to help cryptocurrency users calculate gains/losses, simplifying the tax code by addressing common tax issues could be a helpful solution in the long term.

At present, a taxpayer purchasing goods and services using cryptocurrency is required to keep track of gains and losses and report them to the IRS. For example, every time a taxpayer buys a cup of coffee using a cryptocurrency, they need to calculate gain based on the fair market value as on that date and basis and report that gain or loss (assuming held for investment or business use) on Schedule D of Form 1040. This means a taxpayer using cryptocurrency for everyday transactions may have to complete many pages of Schedule D when filing their return.

Also, the current tax treatment of cryptocurrency allows taxpayers the flexibility to alter between an investor and a buyer holding cryptocurrency for personal use. Example: John bought 10 bitcoins with an initial intent to use for them for personal shopping, and subsequently bitcoin lost value. John decides to treat the purchase of bitcoins as an investment. If John sells these bitcoins at a loss, then John will get an advantage of deducting a capital loss on the tax return to the extent of capital gains and up to $3,000 of ordinary income. On the other hand, if John uses bitcoin for personal purpose, John won't get a deduction for the losses incurred, but gains are reportable.

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3 Bitcoin mining is a process of solving a mathematical algorithm to verify user transactions using specialized software on a powerful computer. The miner is rewarded with bitcoin as an incentive to approve the transaction and prevent double spending. Mining brings into circulation new bitcoins; thus, it can also be construed as a form of minting new bitcoins.

4 Double spending arises when a digital currency is spent more than once. This risk is inherent to digital currency because it is easy to replicate a digital file and potentially re-use it for executing different transactions. Also see- Sean Ross, “How does a blockchain prevent double-spending of Bitcoins?,” Investopedia available at https://www.investopedia.com/ask/answers/061915/how-does-block-chain-prevent-doublespending-bitcoins.asp.

Why there's a need to add an exception to the current law

In 2016, the IRS issued a John Doe summons\(^6\) to Coinbase Inc. seeking information on about 500,000 U.S. taxpayers, who had transactions in cryptocurrency during the period from 2013 through 2015. The IRS stated in the summons that Coinbase Inc. served 5.9 million customers in the U.S. with $6 billion in transactions and only 800 to 900 taxpayers reported bitcoin gains on their tax return, thus, implying that a substantial number of taxpayers failed to report or under-reported their income.

Initially, Coinbase Inc. resisted sharing a large volume of data in order to protect the privacy rights of its customers. However, after further negotiations and litigation, the IRS narrowed the summons to specific types of information about accounts “with at least the equivalent of $20,000 in any one transaction type (buy, sell, send, or receive) in any one year during the 2013-2015 period.”

On February 2018, Coinbase Inc.\(^7\) notified 13,000 customers about sharing their details with the IRS. It’s interesting to observe that, out of 500,000 Coinbase Inc.’s customers only 13,000 customers had aggregate transactions of $20,000 in a year and therefore, a reasonable assumption can be made that most of the users may not be undertaking high-value transactions. Thus, the requirement of the IRS to report gain for every transaction is burdensome for many taxpayers and may result in small gains and losses.

The Proposed Law Change

“The Cryptocurrency Tax Fairness Act”\(^8\) (H.R.3708) introduced by Rep. Jared Polis and Rep. David Schweikert on September 7, 2017, proposes to exclude from gross income de minimis gains on sale or exchange of cryptocurrency transactions below $600 for other than cash or cash equivalents. The sales or exchanges which are part of the same transaction or a series of related transactions is to be treated as one sale or exchange. The proposal also mentions that the dollar amount of gain to be excluded would be adjusted annually for inflation.

This bill aims to encourage the use of new cryptocurrency technology in small day to day transactions by providing relief to taxpayers from reporting requirements of any gain or loss on such transactions.

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Principles of Good Tax Policy

The following section analyzes H.R. 3708 using the Guiding Principles of Good Tax Policy outlined in the AICPA Tax Policy Concept Statement No. 1.  

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<th>Does the proposal satisfy the criteria? (explain)</th>
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| *Equity and Fairness* – Are similarly situated taxpayers taxed similarly? Also, consider any different effects based on an individual's income level and where they live. | This proposal is fair for the users of cryptocurrency because the amount of exclusion is not based on the taxpayer’s income level. However, a high-income taxpayer may get a greater benefit than a low-income taxpayer because of the likelihood of owning more cryptocurrency.  
*Horizontal Equity*- It establishes the principle that taxpayers with equal ability to pay will pay the same amount of tax.  
In Notice 2014-21, the IRS has stated that cryptocurrency is a ‘property’ and therefore any gain/loss arising on the use of cryptocurrency as an investment or for a personal purpose shall be treated as a capital gain/loss. Cryptocurrency can serve as a medium of exchange if a seller and buyer agree to accept cryptocurrency in lieu of a traditional currency such as US dollar.  
This proposal treats the users of a cryptocurrency irrespective of their income level by allowing the exclusion of gains on sale or exchange transaction below $600.  
*Vertical Equity*- It establishes the principle that taxpayers with greater ability to pay will pay more tax.  
Its more likely that a low-income taxpayer owns a lesser amount of cryptocurrency than a high-income taxpayer.  
Excluding gains on cryptocurrency transactions below $600 as per this proposal would be beneficial for a low-income taxpayer as it will reduce the tax compliance burden for these taxpayers. | +    |

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<td>In case of a high-income taxpayer, this proposal would be less burdensome as they invariably fall under the mandatory tax compliance category. Thus, this proposal satisfies the equity and fairness principle by considering an individual’s income level and by treating similarly situated taxpayer similarly.</td>
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**Certainty** – Does the rule clearly specify when the tax is to be paid, how it is to be paid, and how the amount to be paid is to be determined?

The proposal clearly states to exclude from the gross income, gains from sale or exchange transactions of cryptocurrency below $600 for other than cash or cash equivalents. It further states that all sales or exchanges which are part of same transaction (or a series of related transactions) would be treated as one sale or exchange. A taxpayer entering into a sale or exchange of transaction involving a cryptocurrency can reasonably estimate the tax liability they might owe by excluding transactions below $600. Also, this proposal does not impact the timing and the method of tax payment. Hence, the proposal meets all the aspects of the principle of certainty.

**The convenience of payment** – is the tax due at a time that is convenient for the payor?

This proposal allows a taxpayer using cryptocurrency in a sale or exchange transaction to plan their tax liability by allowing them to restrict the amount involved in each transaction in a taxable year. Taxpayer entering into transactions below $600 will not pay any tax. This proposal makes it convenient for the taxpayer to control their tax liability and gives them an opportunity for tax planning. Thus, it meets the principle of the convenience of payment.

**Effective Tax Administration** – Are the costs to collect the tax at a minimum level for both the government and taxpayers? Also, consider the time needed to implement this tax or change.

For the IRS, implementing this proposal would eliminate the cost of policing taxpayers failing to report or under-reporting gains on sale or exchange of cryptocurrency transaction below $600 for other than cash or cash equivalents. It also allows the IRS to divert its resources on tracing cryptocurrency transactions involving large amount.

For a taxpayer using cryptocurrency, this proposal would eliminate the requirement of tracking gains every time they enter into a micro transaction such as buying a bedsheets or a cup of coffee.

Thus, implementing this proposal will satisfy the effective tax administration principle, costs of administration for
| Information Security – Will taxpayer’s information be protected from both unintended and improper disclosure? | Using a cryptocurrency has inherent risks of hacking because of its digital nature. The private key controls a user’s wallet and if the private key is leaked or lost, the cryptocurrency in the user’s wallet is gone forever resulting in financial loss to the user. A user can store cryptocurrency in a wallet hosted by a third party such as exchange or on the user’s computer. If the user’s wallet is hosted by an exchange, the private key is stored with the exchange and can be vulnerable to hacking. However, storing the private keys on the user’s own computer does not necessarily protect the private key from hacking as it can be easily stolen if the computer is not secured. Storing codes on one’s own computer has additional risks such as poor memory, loss of private key or technical glitch in the hard drive. Once the taxpayer’s wallet is compromised, it cannot be compensated or blocked, unlike credit cards. This proposal does not require a taxpayer to report any sensitive information subject to information security risks such as their private key. Hence, this proposal does not have any effect on the principle of information security. | +/- |
| Simplicity - can taxpayers understand the rules and comply with them correctly and in a cost-efficient manner? | Taxpayers using cryptocurrency for a day to day purchases will not have to bother reporting taxable gains on sale or exchange transactions below $600, which is simple and easy to understand the rule. However, the proposal also states that all sales or exchanges which are part of the same transaction (or a series of related transactions) shall be treated as one sale or exchange. The proposal, however, has not defined the meaning of a ‘related transaction’. This makes it unclear as to what can be construed as a related transaction. For example- X bought two pieces of furniture using cryptocurrency worth $599 each from Overstock.com on the same day but at different point of time, so would that count as one single related transaction or two separate transactions? The proposal is ambiguous and therefore | - |
| **Neutrality -** The effect of the tax law on a taxpayer’s decisions as to how to carry out a particular transaction or whether to engage in a transaction should be kept to a minimum. | The proposed law would influence a taxpayer’s decision of using cryptocurrency over a credit card or debit card. Credit cards involve third-party authorization such as banks, and personal information such as users name, address and credit card number are required to be shared with third parties to process transactions. These third parties also tend to sell users personal data to companies involved in push marketing. Cryptocurrency transactions involve sharing of alphanumeric codes, which are recorded on an encrypted robust network called the blockchain. The buyer and seller transact using wallet address without disclosing any personal details. This proposal will encourage taxpayers with highly appreciated cryptocurrency to use it for the purchases and proactively restrict the transaction amount to $600 in a tax year. Hence, implementing this proposal will have a significant impact on the taxpayer’s decision and behavior. | - |
| **Economic growth and efficiency – will the tax unduly impede or reduce the productive capacity of the economy?** | This proposal will satisfy the economic growth and efficiency principle. Taxpayers willing to pay for goods and services using cryptocurrency will encourage small businesses to accept cryptocurrency. It will help them cut down credit card transaction processing fees, thereby boosting profits. The increased liquidity would encourage small businesses to grow or diversify their businesses. | + |
| **Transparency and Visibility – Will taxpayers know that the tax exists and how and when it is** | This proposal satisfies the transparency and visibility principle. Currently, cryptocurrency exchange such as Coinbase Inc.\(^{12}\) is spreading awareness and educating taxpayer | + |

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imposed upon them and others?  

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| about the current tax treatment of cryptocurrency by the IRS.  
The proposed law will also be visible to the users of a cryptocurrency through media platforms such as blogs, dedicated cryptocurrency websites such as coindesk.com. |

| Minimum tax gap – is the likelihood of intentional and unintentional non-compliance likely to be low? Is there any way people may intentionally or unintentionally avoid or evade this tax or rule? | The current law treats cryptocurrency as a property, and any gain made on the personal transaction using cryptocurrency is taxable as a capital gain. To calculate gain, a user must keep track of the basis of cryptocurrency and report income on Form 1040. This is a time-consuming activity especially when a taxpayer enters into multiple small transactions in a year.  

Also, it may be possible that an existing taxpayer using cryptocurrency in small transactions has not been reporting the gains on their Form 1040. This was the main concern of the IRS at the time of issuing a John Doe summons\(^\text{13}\) when only 800-900 people reported gains on cryptocurrency between 2013-2015.  

Taxpayers using cryptocurrency for small transactions will be able to do tax planning and minimize their tax liability by ensuring that the sale or exchange transaction amount remains below $600. This is a favorable proposal for the people who intentionally or unintentionally avoid paying tax. |

| Accountability to taxpayers – Do taxpayers have access to information on tax laws and their development, modification, and purpose; is the information visible? | Cryptocurrency is an internet currency, and because of its growing popularity and price volatility, it has attracted the attention of media and news channels across the globe. Taxpayers are made aware of the tax consequences of bitcoin transactions by the exchanges such as Coinbase Inc., industry experts, and think tanks.  

Thus, educating taxpayers about the proposed law should be easy and effortless. |

| Appropriate government revenues – will the government be able to determine how much tax | The proposed law allows to exclude from gross income de minimis gains on sale or exchange of cryptocurrency transactions below $600 for other than cash or cash equivalents as compared to the current tax law of imposing a tax on every penny gain on the cryptocurrency whether or not used for personal purpose. The |

revenue will likely be collected and when?
government will lose revenue if this proposal is to be implemented.
Currently, cryptocurrency as an alternate payment method is still at a nascent stage. The government can possibly estimate the loss to the revenue with the help of advanced technology. The IRS has contracted with Chainalysis Inc. to provide a cryptocurrency tracking software.\textsuperscript{14} This software is intended to analyze transactions in a digital wallet, identify money laundering activities and expose tax evaders.

Similar software could be of value to determine the impact of this proposal on the revenue figures by tracking user spending on cryptocurrency transactions.
Thus, estimating the loss to the revenue could be a challenge given the fact that cryptocurrency is still at an evolving stage as an alternate method of payment.

\textbf{Summary}

H.R.3708 (115\textsuperscript{th} Congress) satisfies eight out of twelve principles of good tax policy. It is simple and easy to understand without involving any complex calculations. At present, recordkeeping and calculating gains on every cryptocurrency transaction can be burdensome for a taxpayer. Further, reporting these everyday transactions on Schedule D of Form 1040 is a time-consuming task. This proposal will reduce the taxpayer’s compliance costs and ensure that the taxpayer does not have to worry about taxes when buying a bedsheets or a cup of coffee.

This proposal would equally benefit the IRS in terms of policing taxpayers evading taxes or under-reporting income. The IRS will be able to focus its resources more efficiently to other high-value cryptocurrency transactions.

However, lawmakers also need to take into consideration the intention of a taxpayer in buying a cryptocurrency. It may happen that a taxpayer bought cryptocurrency with an initial intention of investment but subsequently decides to use it for personal purposes. In such a case, the taxpayer would prefer to keep the sale or exchange transactions amount below $600, rather than pay tax on the gains after selling the cryptocurrency on an exchange and reporting it as ordinary income.

Considering the price volatility of bitcoin, the intention of a taxpayer plays a crucial role in ensuring that a cryptocurrency user does not use this proposal as a tax avoidance mechanism. The AICPA and cryptocurrency experts have consistently mentioned in their articles and comment that the IRS needs to provide a de minimis provision to facilitate taxpayers using cryptocurrency. H.R.3708 supports taxpayers who wish to use cryptocurrency in lieu of a traditional currency for personal consumption purposes. By providing a de minimis exemption to exclude capital gains from gross income on sale or exchange transaction not exceeding $600 would highly benefit taxpayer in terms of time and costs in maintaining records and reporting it to the IRS. This bill also supports new technology and innovation, and it can also be viewed as a tool to promote economic growth and efficiency.

Acknowledgement

I would like to express my deep gratitude to Professor Annette Nellen for her expert guidance and helpful critique.

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15 The price of bitcoin is highly volatile and has fluctuated from 7 cents on August 16, 2010, to $19343 on December 16, 2017. See Bitcoin Price History Chart available at https://www.buyBitcoinworldwide.com/price/.
