

Cryptocurrency

Cryptocurrency is "a digital currency in which transactions are verified and records maintained by a decentralized system using cryptography, rather than by a centralized authority."

Crypto assets are tracked on what is known as the "blockchain." The blockchain records all transactions that have occurred since the inception of the chain, with new blocks of transactions being added to the end of the blockchain. This chain is maintained across thousands and thousands of independent operators and computers, making it impossible to alter what has come before. As new blocks are closed and added to the chain, they have their own hash, which is mathematically created in order to ensure continuity of the chain. Since the hash is created based on the previous block and the data in the new block, any changes anywhere in the chain would change the hashes and be immediately noticed.



Crypto Mining

Using bitcoin as an example, someone has to maintain the blockchain and add new blocks of data to it. This function falls on what is known as "miners". Miners used computers to solve complex mathematical functions. The first one to solve the function receives a small amount of bitcoin and adds the next block to the chain. Essentially miners are the ones auditing the chain, and the bitcoin they receive for doing so is their "reward."

The newly mined bitcoin increases the amount in circulation. Eventually, all 21 billion bitcoins will be mined and in circulation, with no new coins being created. Other cryptocurrencies have no limits on the amount of currency that can be mined. For example, both Dogecoin and Ethereum have no fixed coin limit, but limit the amount that can be issued in a given period of time.



Mining Costs

The two major mining costs:

1. Technology – Mining requires extensive computing power. Primarily, mining is done using an application specific integrated circuit (ASIC), which does nothing else but mine. As an alternative, some miners, particularly in Ethereum, had taken to buying powerful graphics cards and cobbling together mining machines.

For example, when NVIDIA released the 30 series of graphic cards, they saw a massive run on these graphics cards as crypto miners bought them, causing a shortage in the gaming market and massively inflated prices. Following changes to Ethereum's mining method, which essentially eliminates the need for traditional mining hardware, as well as the downturn in cryptocurrency value over the past year, the market has been flooded with used 30 series cards as miners scaled back operations.



Mining Costs

The two major mining costs:

2. Energy – The second major cost is in terms of energy. Effective mining takes a lot of electricity, which makes mining a losing proposition for most small miners. As the number of miners increase, the more computing power and speed becomes necessary to effectively compete.

The amount of energy necessary to mine has become problematic in other ways too, as crypto mining's carbon footprint has become greater, result in widespread criticism. This is one of the major reasons that some currencies, like Ethereum, have moved away from traditional mining, to alternatives like proof of stake.



Changes to Ethereum Mining

With the costs of crypto mining, Ethereum has shifted its model from a proof of work to a proof of stake model. Under a proof of stake model, Ether will be "staked" by those wishing to become validators. A randomly selected validator is chosen and adds the new block to the chain. This is then verified by other randomly selected validators, serving as a type of block validation committee. Once they approve that the block is valid and meets Ethereum guidelines, the block is added and closed. Validators are then rewarded with new Ether coins. Should validators attempt to add blocks which do not conform, they will be subject to forfeiture of some of their staked Ether.

Since this method no longer requires solving complex mathematical computation, the level of technology and processing power needed in minimal compared to the traditional proof of work model. The major downsides to the proof of stake is a fear of centralization and, therefore, the ability of governments to regulate the currency or bad actors to influence the system.



Exchanges and Wallets

Cryptocurrencies are normally held by individuals or organizations in either wallets or on exchanges.

- 1. Wallets "A cryptocurrency wallet is a device, physical medium, program or a service which stores the public and / or private keys for cryptocurrency transactions." A wallet is a very accurate description. Like cash held in your physical wallet, lose the wallet, lose the cryptocurrency forever.
- 2. Exchange A cryptocurrency exchange is a business that functions in a similar manner to a traditional securities broker. It facilitates the buying and selling cryptocurrencies, allows users to hold cryptocurrencies through the platform, and makes it easy to exchange one currency for another.



Volatility of the Crypto Market

As a purely digital asset, cryptocurrency lacks any sort of underlying value like gold or other real assets and has no government backing like traditional fiat currencies. It generally grants no equity in any underlying assets or entity like stocks traditionally do, making its value almost purely based on the willingness of investors to utilize it.

This has resulted in crypto being highly vulnerable to speculation, with values often seeing extreme shifts in short periods of time. As the below charts show, in comparing bitcoin to the DOW Jones Industrial Average (DOW), bitcoin has lost two-thirds of its value in the past year versus the DOW, which has decreased approximately nine percent.

This extreme volatility has made cryptocurrency difficult to utilize in ways other than as speculative investments. While often promised as the currency of the future, businesses obviously cannot function with currencies subject to wild fluctuations.



Volatility of the Crypto Market

In order to combat volatility, many stablecoins have been introduced. Stablecoins attempt to hold a relatively fixed value, by either holding collateral assets such as fiat currency, gold, or other cryptocurrencies maintained by independent custodians or by using computer algorithms to control supply.

This low volatility allows stable coins to be used in business transactions and provides for little fluctuation in price. Example include Tether, which is one of the most popular cryptocurrencies.



Volatility of the Crypto Market

Disadvantages of Stablecoin

One problem that arises with collateralized stablecoins is an increase in centralization, as the underlying assets must be physically held by the issuer. This can also lead to transparency problems when attempting to verify that there are sufficient assets being held to back the stablecoin in question and increased government regulation not possible with more traditional cryptocurrencies like bitcoin.

Additionally, because of low fluctuations in price, stablecoins are not generally attractive investment options as their value rarely changes.

Lastly, algorithm based stablecoins can still be prone to massive fluctuations in time of crisis.



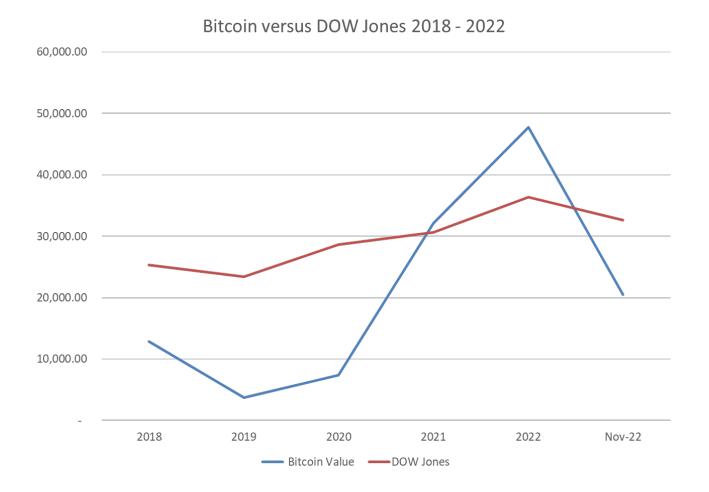
Bitcoin Value on the 1st of Each Month

Bitcoin Value on the 1st of Each Month Nov 2021 – Nov 2022 compared to DOW Jones





Bitcoin Versus DOW Jones





U.S. Taxation of Digital Assets

As a result of its unique nature, classifying cryptocurrencies for tax purposes has been challenging. The IRS, per Notice 2014-21, considers cryptocurrency to be property. Unfortunately, this classification leaves much to be desired. Simply put, cryptocurrency bears characteristics of a currency, a security, and property all at once, without neatly falling into any of those categories. Like other forms of property, it can be business property, investment property, or personal property.

Additionally, the decentralization of cryptocurrency, the ability to generate new currencies fairly easily, and the multinational and anonymous nature of cryptocurrencies makes tax tracking and enforcement difficult.



Taxable Transactions

There are numerous uses and events that can occur with cryptocurrency that cause a taxable transaction. Some of these include:

- Mining or Staking cryptocurrency This is how new cryptocurrency is created. When a crypto "miner" receives new
 cryptocurrency, they are subject to taxation on the FMV of the currency received. Fortunately, if the miner is
 operating as a trade or business, they can deduct operating expenses.
- Exchanging one currency for another, different cryptocurrency
 - When exchanged, this is treated as a sale of the one currency for the new one. Unfortunately, because like kind
 exchanges now only apply to real property, at the time of the sale, gains or losses on the exchanged currency
 will need to be calculated using the FMV of the currencies exchanged.
- Selling cryptocurrency for other assets, like fiat currency This results in a gain or loss.



Taxable Transactions

- Using cryptocurrency to purchase something, pay wages, or buy services Because this is also treated as a sale of
 the cryptocurrency, using the currency to make a purchase, pay a bill, or basically in anyway which cash would be
 used, triggers a gain or loss for the user. Additionally, it will trigger income for the recipient.
- Certain cryptocurrency forks A fork occurs when there is a change to the blockchain protocols, resulting in a change in how the blockchain operates. This can result in a divergence, whereby the blockchain splits into different directions, creating a new, second currency and while leaving the old one, or it may simply be a change in how the blockchain operates to do something like improve security. Forks are created by the digital community and not a central authority, though oftentimes original developers play a key role in generating the fork. When certain forks result in owners receiving more digital currency, it triggers a taxable event.



Trouble with Taxation

There are a series of unique hurdles that make taxing cryptocurrency transactions difficult:

- 1. Tracking and maintaining an accurate basis Tracking basis can be very difficult for a variety of reasons:
 - Assets are often held in and traded across numerous wallets and exchanges. This arises because many
 exchanges don't trade all cryptocurrencies, especially new ones, and individuals move currency from one wallet
 or exchange to another to take advantage of trading opportunities. As a result, if the individual doesn't keep
 track of his or her basis, the exchanges will often not have correct basis numbers, making accurate reporting
 more difficult.
 - Cryptocurrency holders often don't understand basis tracking, or what types of transactions result in taxable events.
 - Exchanges are both domestic and international, meaning that many don't keep or produce the same types of records. Additionally, some foreign exchanges have actually deleted transaction history, meaning that if the individual didn't keep track, it is often not easily recovered.



Trouble with Taxation

- 2. The need to calculate gains and losses with nearly every transaction For the average investor who may buy and sell limited amounts of cryptocurrency, this is less problematic, but for someone regularly trading and moving cryptocurrency assets or utilizing them for actual purchases or to pay bills, this requires the holder to keep track of gains and losses as they go.
- 3. The lack of accurate tax documents Under the new Infrastructure Bill, exchanges will have to begin issuing 1099's starting in 2023. On one hand, this will alleviate some of the problems with cryptocurrency taxation, while at the same time possibly creating a different problem. If what the basis information exchanges have is inaccurate, gains and losses reported on 1099's will be inaccurate. Additionally, if a person transfers currency between foreign and domestic exchanges, they may only receive 1099's from the domestic ones, leaving an incomplete picture. Some traditional brokers, like Robinhood, allow clients to trade cryptocurrency assets, but only on their platform and don't allow the holder to transfer cryptocurrencies, allowing the broker to issue traditional 1099's. While this would be ideal for tax preparers, most traders will not want to be limited in this way.



Trouble with Taxation

- 4. International reporting issues Many exchanges are based in the United States, but many are also based in other countries. FBAR reporting is expected to be mandated soon for foreign exchange accounts. In addition, other foreign disclosures may be needed under certain circumstances. Many cryptocurrency holders may not have any other foreign assets, and they may not realize that moving crypto assets in and out of foreign exchanges could generate disclosure filing requirements even if there is no taxable event.
- 5. Diversity of holdings There are numerous cryptocurrencies, with new ones created regularly. This allow plenty of speculative investments, and often results in multiple exchanges and wallets being used.
- 6. The need to use specialty software As it exists now, when someone is actively trading, the data produces by the exchange often requires the use of specialty software to generate a usable gain / loss report. Some exchanges have issued 1099-K's, but these are not very helpful in determining tax liability. Tax software, like Lukka, which is recommended by the AICPA, can help tax preparers in generating usable reports, but the preparer needs a complete history in order to ensure correct numbers are generated.



Other Tax Considerations

- No wash sales One of the major benefits of cryptocurrencies is that there are no wash sale limitations. Because
 cryptocurrency is property, you can sale it for a loss and immediately buy it back and still recognize the loss. This
 can help in years when gains are expected in other assets, like stocks, and means that cryptocurrencies are
 starting to become part of people's tax planning strategies.
- Donate appreciated cryptocurrency Because holders often buy into cryptocurrencies when they launch, they can
 be subject to spectacular growth. Consider gifting appreciated cryptocurrency rather than cash or other assets to
 charity.
- Self Directed IRA's Another good strategy is to use your IRA to buy speculative cryptocurrencies as the initial investment is often low and utilizing the IRA will allow you to sell without having to pay taxes immediately.



Other Tax Considerations

- Utilize trusts Gift low FMV, speculative cryptocurrencies to trusts, allowing them to grow outside your estate.
 This allows you to put in assets you expect to grow significantly while using little of your lifetime exclusion when initially gifting them.
- Attempts have been made to subject digital assets to both constructive sale rules and wash sale rules. In the Build Back Better Act, which ultimately failed to pass, digital assets, like cryptocurrency, would have been made subject to both constructive sale and wash sale rules.



Common Methods of Generating Income with Digital Assets

- Buying and selling cryptocurrency
- Mining
- Staking
- The creation and selling of Non-Fungible Tokens (NFT)
- Yield Farming / Lending



Non-Fungible Tokens

Non-Fungible Tokens represent a unique digital asset that is not interchangeable. This is recorded on the blockchain and is used to represent or convey ownership of an asset, such as art, games, films, meme, etc.... NFT's are created and pegged to a particular asset and convey either ownership or usage rights to that asset.

NFT's have several problems associated with them that have impacted the crypto market and made the use of NFT's very divisive:

- 1. NFT exchanges on the blockchain rarely represent any sort of enforceable, legal transference of ownership of, or rights to, the underlying asset.
- 2. They are rarely practically enforceable, as copying things like a digital art piece is easy.
- 3. They are subject to easy scams, such as using multiple accounts to artificially increase prices or creating NFT's liked to art or images not actually owned by the creator of the NFT.

Non-Fungible Tokens

- 4. NFT's are energy intensive, creating a higher carbon footprint.
- 5. There are concerns about money laundering.



Yield Farming

Yield farming refers to several different types of transactions, primarily revolving around using liquidity pools in lending transactions. Yield farmers deposit their crypto currency in pools, which then engage in money making transaction such as lending. This result in a return of interest to the investor.

Interest rate yields can be quite large, however, risks associated with yield farming include losing part or all your stake.



8 of the Most Popular Cryptocurrencies

- 1. Bitcoin
- 2. Ethereum
- 3. Tether (Stablecoin)
- 4. USD Coin (Stablecoin)
- 5. BNB
- 6. Binance USD (Stablecoin)
- 7. XRP
- 8. Dogecoin





Research Tax Credit: Qualifications & Recent Developments

Research Tax Credit Statistics

- 17,824 taxpayers claimed \$12.6 billion in research tax credits in most recently released data
- Many taxpayers are surprised to learn that they are engaging in activities that qualify for the credit because they assume "research and development" means performing laboratory research
- Many industries can qualify under the right circumstances
 - Generally, any industry that includes developing or improving a product or process can qualify



Impediments to Claiming the Credit

- Lack of understanding
 - Difference between tax deduction and tax credit
 - Activities that qualify
- Limited resources to devote to collecting info
- Busy
- Not worth it
- Consulting expense not in the budget
- No taxable income so can't use credits



Research Tax Credit: What Activities Qualify?

- Must meet all parts of a 4-part test
- Part 1: Developing a new or improved product or process
 - Includes inventions, techniques, formulas, software
 - Improvement must be related to function, performance, reliability or quality
- Part 2: Work has technological component
 - Work must be based on hard sciences
 - Physical, biological, chemical, computer sciences, engineering



Research Tax Credit: What Activities Qualify?

- Part 3: Work intended to eliminate technical uncertainty
 - Capability, methodology or appropriateness of product design
- Part 4: Process of experimentation
 - Trial and error process designed to evaluate one or more alternatives
 - Evidence of process of experimentation
 - Patents, modeling, prototypes, designs of experiments, test results



Example for Construction Industry

- Trying new construction materials
 - Experimenting with sustainable materials
- Developing new/improved construction techniques
- Taking on design/engineering responsibility
- Designing unique temporary construction systems
- Developing new computer software



What Costs Qualify?

- Wages of employees working on project
 - Includes supervisors and supporters
- Supplies used to develop the product
 - Includes cost of raw materials used during development
 - Dyes, tooling, fixtures, etc.
- Payments to outside contractors
 - Sending product out for testing, evaluation, etc.



How Much is the Credit?

- Generally, the federal research credit is around 8% of total qualifying wages, supplies, and outside research
- \$1 million in qualifying expenses = \$80,000 credit
- Taxpayers should consider the time and resources available to document the research activities taking place



Importance of How Company is Paid

- Contractor must have economic risk if research fails
 - Getting paid by the hour = no economic risk
 - Getting paid fixed price = significant economic risk
- Must retain substantial rights to the research
- Careful review of contract terms important



What if you Aren't Paying Taxes?

- Beginning in 2016, qualified small businesses (QSBs) can use tax credits to offset up to \$250,000 in payroll taxes, even if the QSB has no taxable income! Inflation Reduction Act of 2022 increased this to \$500,000.
- Tax-exempts do not qualify
- Must have current year gross receipts of \$5 million or less; must have less than 5 years of gross receipts
- Must make election on original return, including extensions
- Up to \$250,00 credit is applied against 6.2% employer portion of OASDI
- Up to \$250,000 credit is applied against employer portion of 1.45% Medicare payroll taxes





Tax Law Changes RE: IRC Section 174 Research and Experimental Expenses

What Does Section 174 Cover?

- Section 174 covers the tax treatment of a taxpayer's research and experimental expenditures
- Research and experimental expenditures include "all costs incident to development or improvement of a product"
- Includes U.S. and foreign expenditures
- Must intend to discover information that would eliminate technical uncertainty



What Does Section 41 Cover?

- Section 41 provides for a federal tax credit based on certain direct research and experimentation expenditures
- While both sections 174 and 41 apply to research and experimentation expenditures, a broader range of expenses fall under section 174



Comparison of Section 174 and 41

Section 174 research and experimentation expenditures	Section 41 research and experimentation expenses eligible for research tax credit
Defined in Treas. Reg. 1.174-2(a)(1). Very broadly applies to "all costs incident to the development or improvement of a product." Includes:	In-house research expenses. More narrow focus on:
 Costs of obtaining patent Attorneys' fees expended in making and perfecting a patent application Salaries Heat, light, and power Drawings Models Lab materials Depreciation of build attributable to R&D project Overhead Includes foreign expenses 	 Wages paid to employees directly performing qualifying research and/or supervising/supporting research efforts Supplies used in the conduct of qualified research (e.g. prototypes, tooling, fixtures, dies) Computer rental used in conduct of qualified research Payments to outside third parties who are performing qualified research Only U.Sbased activity is included



Pre-2022 Section 174

- Prior to January 1, 2022, taxpayers had flexibility. It was possible to treat Section 174 research and experimental expenses any of 3 ways:
 - Deduct completely in the year paid or incurred
 - Elect to amortize the expenses over a period not less than 5 years, beginning with the month that the taxpayer first realizes benefits from the expenditures
 - Elect under Section 59(e) to amortize over 10 years
- Many taxpayers likely deducted section 174 expenses as ordinary and necessary business expenses under section 162



TCJA Changes

- Starting January 1, 2022, there is one option. Section 174 expenses must be amortized over 5 (U.S. research) or 15 years (international research)
- Amortization begins at midpoint of year expense paid or incurred
- Guidance has not been published, but likely taxpayers will be required to file automatic accounting method change using cutoff basis



Why is this Important?

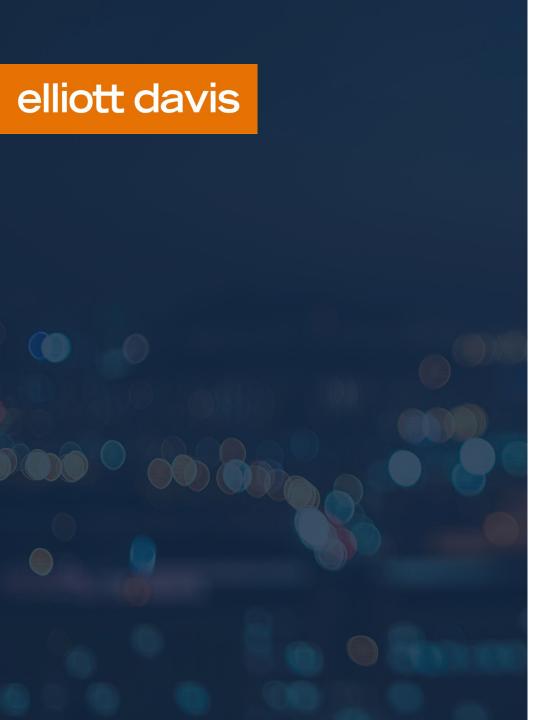
- Taxpayers should assess whether they are engaging in activities that should be amortized as research and experimental activities under Section 174
 - Any expenditures directly related to developing new products or improving existing products
 - Employee wages, supplies, equipment
 - Indirect research expenses
 - Rent for office, lab or workshop
 - Utilities, travel expenses, dues and publication expenses
 - Attorney and patent filing fees



Is There a Chance This Will Be Delayed?

- Every draft of the Build Back Better Plan delayed the effective date of these changes until 2026
- Many interested parties are pushing to eliminate or delay the provision
- Potential post-election tax-extenders package





Disclaimer

This material was used by Elliott Davis during an oral presentation; it is not a complete record of the discussion. This presentation is for informational purposes and does not contain or convey specific advice. It should not be used or relied upon in regard to any particular situation or circumstances without first consulting the appropriate advisor. No part of the presentation may be circulated, quoted, or reproduced for distribution without prior written approval from Elliott Davis.

