

HubSpot

# A Beginner's Guide to Cryptocurrency

+ A simple checklist to get started with crypto



# Table of Contents

Getting Started with Cryptocurrency Checklist .....	<b>3</b>
<b>SECTION 01</b> .....	<b>4</b>
How Crypto Works	
<b>SECTION 02</b> .....	<b>12</b>
The Most Popular Types of Cryptocurrency + Uses for Crypto	
<b>SECTION 03</b> .....	<b>16</b>
The ROI of Crypto	
<b>SECTION 04</b> .....	<b>17</b>
The Environmental Impact of Crypto	
<b>SECTION 05</b> .....	<b>19</b>
Risks + Safety Concerns About Crypto	
<b>SECTION 06</b> .....	<b>20</b>
3 Ways to Invest in Crypto	
<b>SECTION 07</b> .....	<b>21</b>
Resources to Keep up with Crypto Trends	
Conclusion .....	<b>22</b>

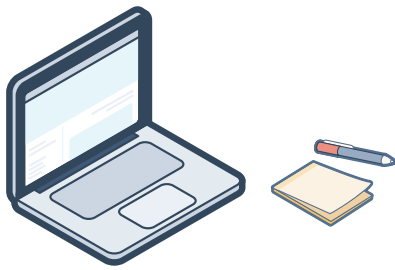
# Cryptocurrency Getting Started Checklist

## EVALUATING RISK

- Evaluate investment risk level
- Set a target APR
- Review environmental impact
- Additional benefits/perks

## INVESTING/MINING

- Review fluctuations against portfolio
- Analyze crypto value
- Create a wallet or exchange account
- Build the hardware needed for mining



## MANAGING YOUR PORTFOLIO

- Create a goal for your crypto portfolio
- Balance your portfolio with stocks, bonds, and other assets
- Diversify your crypto assets
- Track your crypto portfolio and set up alerts for significant changes
- Determine your backup strategy to liquidate assets

## RESOURCES/REMINDERS

- Crypto wallet/exchange
- Key storage information
- Regularly review your portfolio and ROI
- Keep up with industry analysis and best practices

## SECTION 01

# How Crypto Works

## What is cryptocurrency?

### How is it different from digital bank transactions?

Cryptocurrency, or “crypto,” is a recently popular technology that uses new advances in cryptography, computer science, and security protocols to support secure digital ownership and tracking. Crypto uses [blockchain](#) technology, a decentralized, network-based system supported by its users. Individual cryptocurrencies exist as a shared ledger that documents and records digital transactions for a specific blockchain. Depending on the community, utility, and usage, cryptocurrencies can vary widely in value.

**Crypto is a decentralized currency system that represents a completely digital value exchange with securely documented, encrypted transactions that are only accessible with a key.**

### Cryptocurrency

- ✓ Has value
- ✓ Is built on a decentralized network
- ✓ Runs on blockchain technology

“What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly...without the need for a trusted third party.”



**Satoshi Nakamoto**, who first [proposed the idea of cryptocurrency.](#)

Crypto technology supports a fast method of currency exchange and trading along with the foundation for building decentralized apps. [Web3 is built on Ethereum, and could lead to a completely decentralized internet](#), which could in turn reduce costs for video streaming, surface more emerging websites and brands, and accelerate time-to-value for organizations.

Whereas a bank or financial institution uses a centralized system that is regulated, stores client information on local servers, and has the potential to be hacked or lost if the bank goes under, cryptocurrency is decentralized and built on blockchain technology that stores and validates encrypted information across the internet.

One of the most well-known cryptocurrencies, and the first to be conceptualized in 2009, is Bitcoin. A couple of things to understand about [Bitcoin](#):

1

There is a finite amount of Bitcoin in circulation, and a good amount is lost forever due to its sharp rise in popularity, and thus, value. Many of the original Bitcoin investors paid pennies and lost their key or where they stored it.

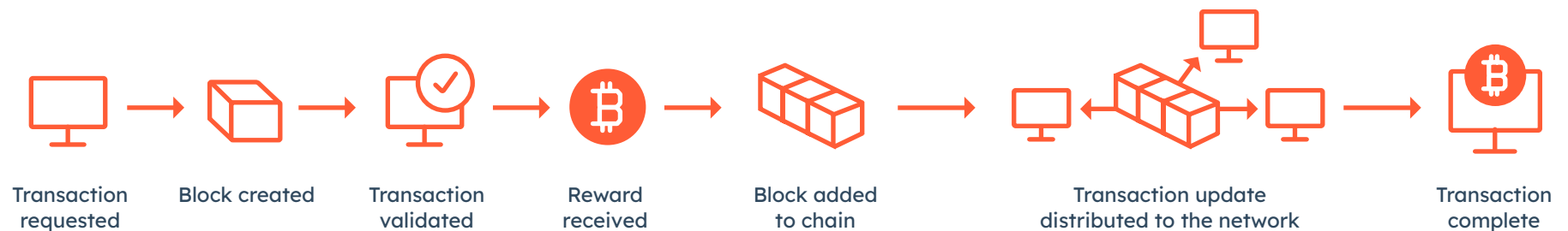
2

The original creator of Bitcoin, Satoshi Nakamoto, wrote a whitepaper called “Bitcoin: A Peer-to-Peer Electronic Cash System” envisioning the peer-to-peer decentralized electronic cash system. It’s considered recommended reading for those interested in crypto. Find [Nakamoto’s whitepaper](#) in 40+ languages here.



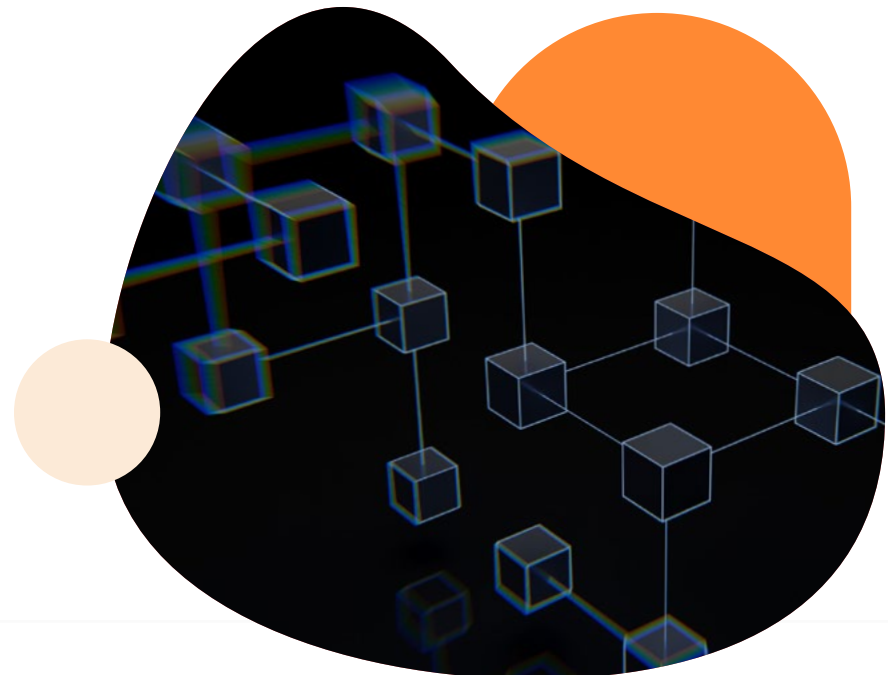
# What is blockchain?

Blockchain is essentially a digital database of records stored securely in blocks of information. A blockchain represents a more secure system because it's a chain that keeps on growing, rather than an organized database that can be hacked. It's a system of mass information storage and record-keeping in chronological order with timestamps, and blockchain code can't be reversed. Crypto transactions happen once in time and can't be reverted, the purchaser would simply need to sell to someone else. **Blockchain has a strict no refunds, no exchanges policy.**



There have only been a few instances of hacking in the crypto community, which were controversial, and the [largest of which resulted in the downfall of Mt. Gox](#), one of the most popular crypto exchanges from 2010 to 2014.

[Blockchain is the technology that powers cryptocurrencies](#), non-fungible tokens (NFTs), decentralized finance apps, and smart contracts.



# The state of crypto today

Bitcoin now does 250,000,000,000,000,000,000 [\(250 quintillion\) computations every second.](#)

The cryptocurrency market has bounced from cents to tens of thousands of dollars per Bitcoin (and other coins), and back, over the past decade. [Crypto expert Bernd Schmid compares investing in cryptocurrencies to investing in gold](#) on the Motley Fool podcast, and asks those interested in crypto to examine the value of a coin and how well it suits your goals prior to investing. This is how he recommends the general public can avoid the wide swings of cryptocurrencies affecting their investment portfolios.

Today, businesses and individuals are bullish on crypto as a means of infrastructure, currency, intelligence, technology, and investment, along with the promise offered by Web3 and non-fungible tokens (NFTs). In a [volatile global market](#), many investors are turning to “stablecoins” like [USDC](#) (US dollar coin, a stablecoin) and [USDT](#) (Tether, another stablecoin that mirrors the US dollar).



Source: [r/Bitcoin](#)

## How are NFTs related to crypto?

Crypto has grown in tandem with the incredibly popular digital assets of non-fungible tokens (NFTs), which are also hosted on blockchain technology. NFTs can be digital art, music, collectibles, GIFs, videos, or any other unique digital item, and hold value due to their scarcity. With a unique digital token, NFT ownership is exchanged similarly to trading or selling cryptocurrencies.

## How do you obtain cryptocurrency?

To obtain cryptocurrency, you can:

- 1 Purchase or trade through an exchange like [Coinbase](#) or [Kraken](#)
- 2 Use a [CFD platform](#)
- 3 Set up a mining computer

## What is crypto mining?

The blockchain depends on a network of computing power sharing the work and keeping data anonymous and decentralized. In exchange for providing a computer or “mining rig” that can help validate anonymous blockchain transactions, [miners are rewarded with cryptocurrencies](#). An important note: mining cryptocurrency requires significant computational power. It is not recommended to use a personal computer to mine crypto.

## Top crypto exchanges

Before there were crypto exchanges and convenient crypto wallets, there were hard drives stored in an attic that years later might have held hundreds of thousands of dollars. Now, there are tons of crypto exchanges to choose from.

Here are some of the [top crypto exchanges, as chosen by Forbes](#) based on features, available cryptocurrencies, and other data points. (Note: these fluctuate, so please review [CoinMarketCap](#) for the most up-to-date rankings.)

### Top 5 Crypto Exchanges

- 1 Binance: 4.9/5 stars, 50+ cryptocurrencies
- 2 Coinbase: 4.5/5 stars, 100+ cryptocurrencies
- 3 Kraken: 4.8/5 stars, 90+ cryptocurrencies
- 4 Crypto.com: 4.7/5 stars, 170+ cryptocurrencies
- 5 Gemini: 4.5/5 stars, 40+ cryptocurrencies

# Pros & cons of cryptocurrency

## PROS

Send crypto instantly,  
anytime with no restrictions

Secure system, less risk for data breaches

Lower fees than traditional banks

Decentralized and “neutral”

Equal playing field for creators

Wide range of potential investments

Only gains from cryptocurrency are taxable

## CONS

Volatile market

Uses significant energy

Still in development

Some consumers are wary of  
non-FDIC insured payment systems

Requires more technical knowledge

Higher risk for inexperienced investors

Unregulated

# Crypto FAQs



## What is crypto?

Cryptocurrency is a digital currency exchange built on blockchain technology.

## What is a crypto exchange?

A crypto exchange is a platform where you can buy, sell, or trade cryptocurrency, and manage your cryptocurrency assets. Examples include Binance, Coinbase, and Kraken.

## Is crypto a good investment?

Whether or not crypto is a good investment for an individual or organization depends on their goals for investing and the makeup of the rest of their portfolio.

## What is crypto good for?

Cryptocurrency is an instant exchange of value, and is favored by those who prefer to work with a decentralized network rather than the constraints of traditional financial institutions.

## Can crypto be converted into cash?

Yes, crypto can be exchanged into cash by selling it on an exchange like Coinbase, or using a broker.

## How can you use crypto on everyday purchases?

Many companies now accept cryptocurrency as payment for things like food delivery, clothing, travel, and more. Apps like [Menufy](#) support crypto food purchasing, and companies like [Eight Sleep](#) accept cryptocurrency on their ecommerce site. Many crypto exchanges also partner with ecommerce companies and allow you to use your funds to make purchases.

## How can I buy crypto?

You can buy crypto on exchanges like Coinbase or Kraken.

## How can my business use crypto?

Businesses can pay employees using cryptocurrency, accept crypto as payment, or build decentralized apps for Web3 using Ethereum technology.

## Is crypto real money?

Cryptocurrency holds value, but it doesn't have a physical form.

# Trends

## Need business inspiration? We've got you covered with Trends.

Trends is a community of 16,000+ entrepreneurs, investors, and creatives who are rooting for you and your success. Join us and meet your next investor, co-founder, or muse.

Join the community



## SECTION 02

# The Most Popular Types of Cryptocurrency + Uses for Crypto

The [cryptocurrency market](#) is constantly fluctuating, and currently has a total market cap of around \$1.2T distributed between 18,000+ cryptocurrencies. Some of the subcategories for cryptocurrencies include tokenized gold, stablecoin, tokenized stock, gambling, education, ecommerce, and privacy.

## Types of cryptocurrency

There are [five main types of cryptocurrency](#)

### Payment

Bitcoin, Litecoin

### Service

Chainlink, Filecoin

### Infrastructure

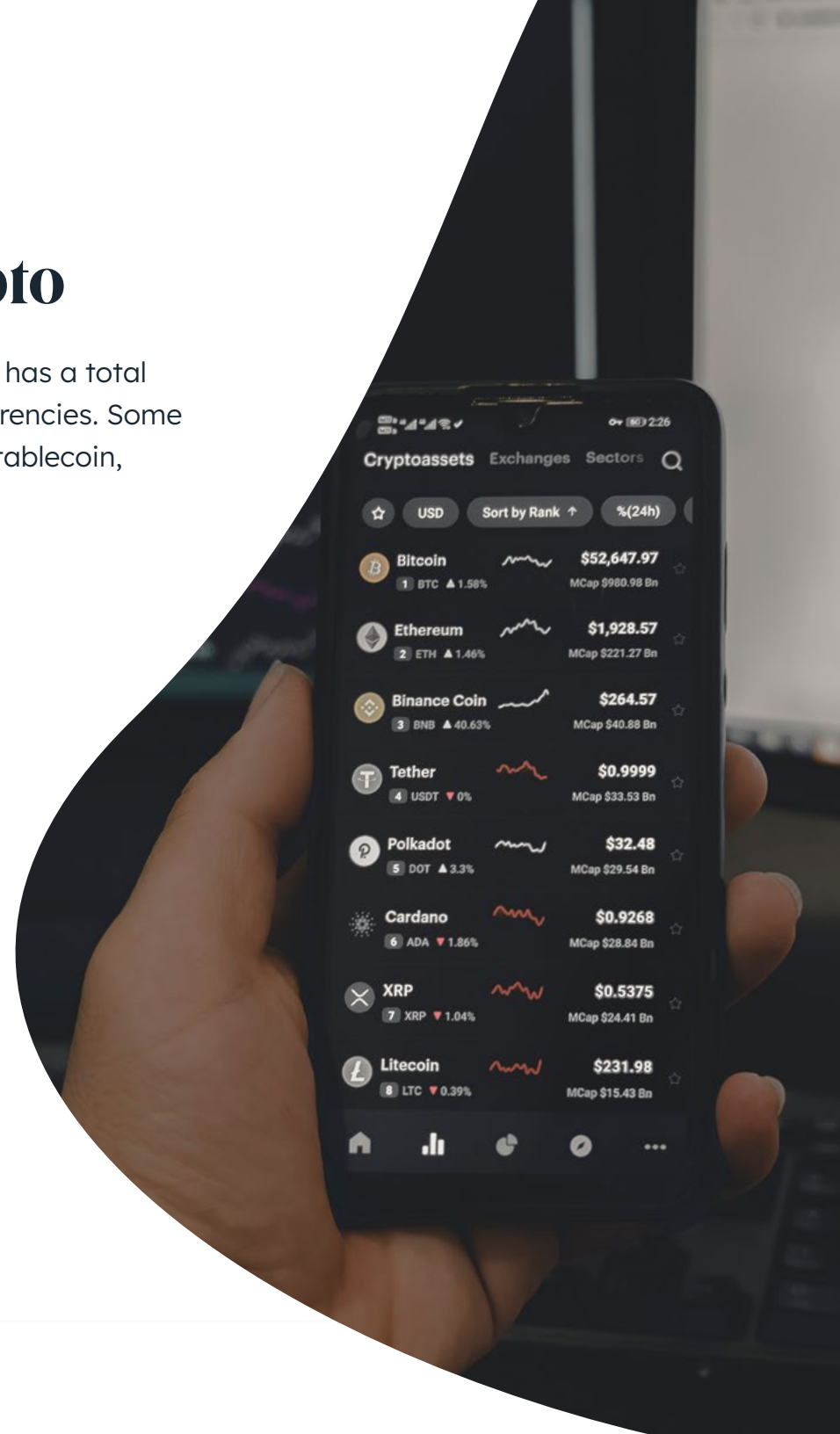
Ethereum, Algorand

### Media & Entertainment

Basic Attention Token

### Financial

Augur, Kava



# Most popular cryptocurrencies by market cap

According to CoinMarketCap, these are the top cryptocurrencies as of Q2 2022, including individual price and market cap. Take note, crypto markets change rapidly and these figures may not be accurate as you read this. Refer to [CoinMarketCap](#) for the most up-to-date information.

- 1 Bitcoin (BTC): A payment coin**  
Price: \$29,000  
Market cap: \$550B+
- 2 Ethereum (ETH):  
An infrastructure coin**  
Price: \$2,000  
Market cap: \$230B+
- 3 Tether (USDT): A stablecoin**  
Price: \$1  
Market cap: \$80B+
- 4 USD Coin (USDC): A stablecoin**  
Price: \$1  
Market cap: \$49B
- 5 Binance Coin (BNB): A payment coin**  
Price: \$280  
Market cap: \$40B+
- 6 XRP (XRP): A payment coin**  
Price: \$0.40  
Market cap: \$18B
- 7 Binance USD (BUSD): A stablecoin**  
Price: \$1  
Market cap: \$16B+
- 8 Cardano (ADA): A payment coin that uses smart contracts, made by the co-founder of Ethereum**  
Price: \$0.50  
Market cap: \$16B
- 9 Solana (SOL): A transactional coin**  
Price: \$47  
Market cap: \$15B
- 10 Dogecoin (DOGE): A meme-based currency coin**  
Price: \$0.08  
Market cap: \$10B

# How companies and individuals are using crypto

For individuals, crypto is an investment opportunity that's caused quite a bit of "FOMO" (fear of missing out) over the years. A coin going from cents to thousands of dollars is a feeling that's hard to beat. But with increasing fluctuation in the market, more and more investors are turning to stablecoins, or using exchanges like [Blockfi, who are incentivizing users to choose them by giving them 5% APR on the Ethereum](#) they keep in their account.

Companies are exploring ways to incorporate crypto into their perks and benefits, to build products themselves, institutional investments, commerce, and more. [Governmental organizations, and companies in a wide range of industries are leveraging crypto in unique ways](#), including supply chain improvement, reducing energy use, new "disruptive finance business models" based on decentralized blockchain technology, commercializing data and preparing for Web3, improving privacy and security, and staking to earn influence in the future of secure blockchain protocols.

## Personal uses for crypto

- Invest/buy
- Sell
- Create + collect NFTs
- Earn
- Spend
- Payroll
- Trusts/savings accounts

## Business uses for crypto

- Institutional investments
- Payroll
- Brokerage
- Commerce
- Exchange
- List assets for sale
- Institutional-grade storage
- Intelligence
- Venture capital





## Blockchain, crypto, and video

[Video is the #1 media](#) format for marketers and consumers. [Blockchain technology is predicted to disrupt video with completely decentralized streaming video](#), giving any creator the ability to share video streams and get paid in crypto, with no bottleneck of a third-party service provider. This means that large companies who can pay for more bandwidth wouldn't have any advantage over individual streamers.

**Experts predict that blockchain will impact video streaming by:**

- Providing the ability to use smart contracts to directly pay streamers for content
- Offering a decentralized platform for video content distribution
- More accurately tracking ownership of digital video content
- Improving advertising analytics and marketing targeting capabilities
- Enabling micropayments
- Creating the infrastructure for better content licensing and monetization
- Reducing the costs of high-quality video streaming

[Decentralized video networks built on cryptocurrency](#) like Ethereum, like [Livepeer](#), present the opportunity for miners to earn money by using their video-encoding GPU to support streaming, and have the potential to bring about more cost-efficient streaming platforms.

## SECTION 03

# The ROI of Crypto

Cryptocurrency is volatile, and investing can be a challenge, which is why many crypto experts advise using crypto as part of a diverse portfolio. Crypto experts advise newbies to think first about what their goal is for investing in crypto, then about what problem the crypto solves.

A common example of why people should be thoughtful about cryptocurrency is Dogecoin. Dogecoin was based on a meme, and doesn't solve any real-world problems or serve a function. But [when Elon Musk tweeted about the coin](#), the value surged. Now, [Dogecoin has seen significant losses](#), and for having started as a joke, it shows how quickly people can lose real money without the right crypto education and advisors.

## Calculating your crypto return on investment (ROI)

To understand the return on your crypto investments, you can use a standard ROI formula, along with some other considerations.

$$\text{ROI} = \frac{\text{Final investment value} - \text{Initial investment value}}{\text{Initial investment value}} \times 100\%$$

So, for example, if you invest \$500 in Bitcoin in January, and you sell it for \$2,000 in August, your return on investment is 300%. Other considerations to factor in are any fees associated with your purchase or sale of your investment, and the overall risk involved with a volatile market. When you consider your entire investment portfolio, or business strategies that are based on crypto, they need to be able to sustain wide fluctuations.

Rather than projecting that every time you invest \$500 in Bitcoin, you'll see a 300% ROI in seven months, analyze annualized returns, or review your entire portfolio in context, rather than one individual cryptocurrency alone over a short span of time. Consider whether having access to liquid assets is important, and in what time frame. Additionally, include any cost-savings associated with the use of crypto technology, like reduced energy or utility fees, less manual work, or recovered lost opportunities.

Explore [HubSpot's guide to measuring ROI for more](#).



## SECTION 04

# The Environmental Impact of Crypto

Cryptocurrency is built on blockchain, a decentralized system that shares the energy needed for it to operate between many machines and servers around the world. There's no single point of control, and therefore crypto uses a [significant amount of energy](#). However, it's important to note that traditional banks and financial institutions consume considerable amounts of energy to operate and support staff as well.

## So, just how much energy does crypto use?

The [Cambridge Center for Alternative Finance reports that Bitcoin uses 110 Terawatt Hours \(TWh\) per year](#), which amounts to about 0.55% of the global electricity production. In comparison, a [traditional bank with 600,000+ locations uses about 139 TWh annually](#) between operating servers, ATMs, and branches.

The carbon emissions associated with crypto mining and operations, however, are harder to measure. Individuals and large corporations support mining and blockchain verification, and everyone involved in crypto has their own setup.

Some are incredibly energy efficient, like hydro-powered systems in China and Scandinavia, and completely carbon neutral. Others are less efficient. A 2019 report estimated that around [76% of Bitcoin miners use renewable energy sources](#), and 73% of Bitcoin-related operations are carbon neutral.

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# 76%

of Bitcoin mining uses  
renewable energy

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Other [concerns around the environmental impact of crypto](#) relate to how energy is generated in areas not focused on clean energy, the climate considerations for burning fossil fuels, and electronic waste associated with crypto mining.

## The future of greener crypto mining

The crypto industry is making major efforts to be more sustainable and renewable, as are many industries that use significant amounts of energy to operate. The Crypto Climate Accord, which now has over 200 supporting organizations, was founded to help “decarbonize the global crypto industry by prioritizing climate stewardship and supporting the entire crypto industry’s transition to net-zero greenhouse gas emissions by 2040.” This group provides open-source solutions to help crypto companies and individuals to be more responsible in their crypto investments.

The future of crypto is in alternative energy sources like solar and hydro power and can help to offset carbon emissions related to the financial industry as a whole.



## SECTION 05

# Risks + Safety Concerns About Crypto



Here are some of the most important risks and safety concerns about crypto.

### Volatility

The [crypto market](#) can fluctuate rapidly. In May 2022, the crypto market dropped by \$600B, and Bitcoin fell to \$28,000 per coin. The all-time high price of Bitcoin was almost \$70,000 each in November 2021.

### Environmental/climate concerns

As explained in the previous chapter, some crypto mining practices are detrimental to the environment. Green crypto mining is becoming more popular, and those who mine or operate crypto machines are turning to renewable energy sources to save costs and benefit the environment.

### Complexity

Understanding and accepting cryptocurrency requires an understanding of blockchain technology, the ability to access and operate a wallet and key, and a more macro knowledge of the market as a whole.

### Stability

Certain cryptocurrencies, like stablecoins, are more stable and dependable than others. Review past activity of a certain coin or type of coin before major major decisions.

### Security

Some individuals have concerns about the finite nature of crypto — once a transaction is complete, there's no turning back. It's not insured or backed by an institution, which is both a pro and a con, depending on your preferences. Crypto is considered to be safer than traditional banking to some, but others prefer the security of an FDIC-insured institution that guarantees funds even if the source that's holding them, like a bank, goes bankrupt or closes.

### Compliance

For companies to work with cryptocurrency, which is unregulated and decentralized, they may run into compliance issues. Companies should work with financial and legal advisors when using cryptocurrency as a form of employee payment, a benefit, or as a part of a new product.

### International considerations

There are [tax considerations for cryptocurrency](#), and [some countries have banned virtual currencies](#).

## SECTION 06

# 3 Ways to Invest in Crypto

### Want to hop on the crypto train? (Or the crypto chain?)

There are a few ways to obtain cryptocurrency or use crypto-supported technology.

#### 1. Buy or trade crypto through an exchange or CFD platform.

Popular exchanges include [Coinbase](#), [Kraken](#), [BlockFi](#), [Binance](#), [Crypto.com](#), and [Gemini](#). Crypto exchanges offer the ability to buy or sell crypto and NFTs, to accept Bitcoin payments, to list a new cryptocurrency, and more. Or, you can use a [“contracts for difference” \(CFD\) platform](#), which buys and sells crypto based on price changes.

#### 2. Mine crypto.

To [mine crypto](#), you need to set up a “mining rig” which is the hardware that supports crypto mining that consists of a graphics processing unit (GPU) or application-specific integrated circuit (ASIC). Mining is the process of validating new transactions that join the blockchain, which looks like your computer guessing a 64-digit hexadecimal number. When it’s validated correctly, miners are rewarded with coins in exchange for their computing power.

#### 3. Accept cryptocurrency as payment.

Crypto is becoming an integral part of ecommerce. On crypto exchanges like [Coinbase](#), businesses can set up an account that allows them to accept crypto as payment for goods and services. This enables global payments, easy conversions to USD coin or cash, and integrated billing and invoicing.



## SECTION 07

# Resources to Keep up with Crypto Trends

## Podcasts

[Planet Money Summer School Podcast Episode: Crypto & Commencement](#)

[Planet Money Podcast Episode: Bitcoin](#)

[Motley Fool Money Podcast Episode: Diving Into Crypto](#)

[Marketing Against the Grain Podcast with Kipp Bodnar and Kieran Flanagan](#)

[Kraken podcast](#)

## Communities

[Bitcoin forums, meetings, and social communities](#)

[r/CryptoCurrency](#)

[r/bitcoin](#)

[Crypto Telegram Channels](#)

[Crypto Discord Servers](#)

## Publications

[CoinDesk](#)

An information platform for the emerging crypto economy with media, events, and data.

[Cointelegraph Magazine](#)

Going “beyond the daily news and delving into the stories, trends, and personalities that inspire cryptocurrency and blockchain conversations around the world”.

[Bitcoin Magazine](#)

One of the original crypto publications, founded in 2012, and providing “analysis, research, education, and thought leadership at the intersection of finance and technology”.



# Conclusion

Cryptocurrency is a promising, albeit slightly controversial new technology that has the potential to change business operations, the customer experience, and the global economy — for good.

Individuals are beginning to incorporate cryptocurrencies into their investment portfolios, exchanging cryptocurrency for goods and services, and building their own crypto mining machines at home.

Businesses are beginning to offer cryptocurrency like they would stock options, as part of an employment package, or accepting crypto as a method of customer payment.

Beyond individual gains (and losses) as global markets fluctuate, the future of crypto is in sustainable mining practices, more decentralized infrastructure apps with smart contract protocols, and Web3.



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