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Cryptocurrency

A **cryptocurrency**, **crypto-currency**, or colloquially, **crypto**, is a digital currency designed to work through a computer network that is not reliant on any central authority, such as a government or bank, to uphold or maintain it.^[2]

Individual coin ownership records are stored in a digital ledger or blockchain, which is a computerized database that uses a consensus mechanism to secure transaction records, control the creation of additional coins, and verify the transfer of coin ownership.^{[3][4][5]} The two most common consensus mechanisms are proof of work and proof of stake.^[6] Despite the name, which has come to describe many of the fungible blockchain tokens that have been created, cryptocurrencies are not considered to be currencies in the traditional sense, and varying legal treatments have been applied to them in various jurisdictions, including classification as commodities, securities, and currencies. Cryptocurrencies are generally viewed as a distinct asset class in practice.^{[7][8][9]}

first released as open-source software in 2009. As of June 2023, there were more than 25,000 other cryptocurrencies in the marketplace, of which more than 40 had a market capitalization exceeding \$1 billion.^[10]

History

In 1983, American cryptographer David Chaum conceived of a type of cryptographic electronic money called ecash.^{[11][12]} Later, in 1995, he implemented it through Digicash,^[13] an early form of cryptographic electronic payments. Digicash required user software in order to withdraw notes from a bank and designate specific encrypted keys before they could be sent to a recipient. This allowed the digital currency to be untraceable by a third party.

In 1996, the National Security Agency published a paper entitled *How to Make a Mint: The Cryptography of Anonymous Electronic Cash*, describing a cryptocurrency system. The paper was first published in an MIT mailing list (October 1996) and later (April 1997) in *The American Law*



decentralized cryptocurrency

Bitcoin Genesis Block

Raw Hex Version

```
00000000 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
00000010 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
00000020 00 00 00 00 3B A3 ED FD 7A 7B 12 B2 7A C7 2C 3E .....;Eiyzt(2zC>
00000030 67 76 8F 61 7F C8 18 C3 88 8A 51 32 3A 9F B8 AA gv.a.Ė.Å~$Q2;V,*
00000040 4B 1E 5E 4A 29 AB 5F 49 FF FF 00 1D 1D AC 2B 7C K.ΛJ)«Iyy...~+|
00000050 01 01 00 00 00 01 00 00 00 00 00 00 00 00 00 00 .....
00000060 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
00000070 00 00 00 00 00 00 FF FF FF FF 4D 04 FF FF 00 1D .....yyÿÿM.yÿ..
00000080 01 04 45 54 68 65 20 54 69 6D 65 73 20 30 33 2F ..EThe Times 03/
00000090 4A 61 6E 2F 32 30 30 39 20 43 68 61 6E 63 65 6C Jan/2009 Chancel
000000A0 6C 6F 72 20 6F 6E 20 62 72 69 6E 6B 20 6F 66 20 lor on brink of
000000B0 73 65 63 6F 6E 64 20 62 61 69 6C 6F 75 74 20 66 second bailout f
000000C0 6F 72 20 62 61 6E 6B 73 FF FF FF FF 01 00 F2 05 or banksÿÿÿÿ...ò.
000000D0 2A 01 00 00 00 43 41 04 67 8A FD B0 FE 55 48 27 *....CA.g$ÿ"bUH'
000000E0 19 67 F1 A6 71 30 B7 10 5C D6 A8 28 E0 39 09 A6 .gñ;q0·\0'(à9.¡
000000F0 79 62 E0 EA 1F 61 DE B6 49 F6 BC 3F 4C EF 38 C4 ybâè.abMl0%?Li8Ä
00000100 F3 55 04 E5 1E C1 12 DE 5C 38 4D F7 BA 0B 8D 57 óU.ä.Ä.p\8M+°.W
00000110 8A 4C 70 2B 6B F1 1D 5F AC 00 00 00 00 5Łp+kñ._~....
```

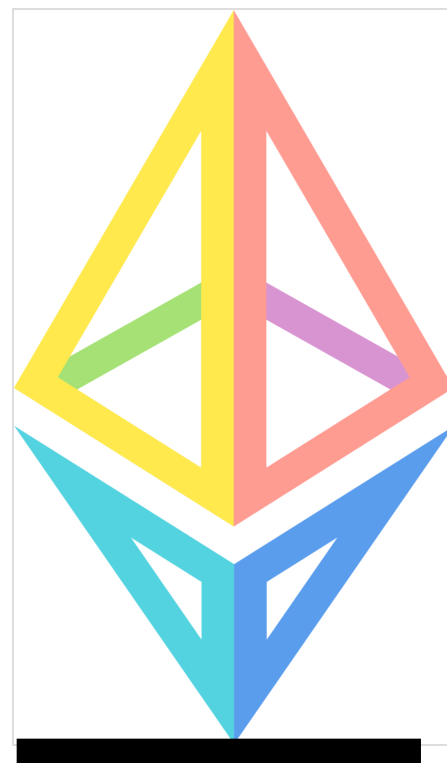
containing The Times newspaper headline. This note has been interpreted as a comment on the instability caused by fractional-reserve banking.^{[1]:18}

Stablecoins are cryptocurrencies designed to maintain a stable level of purchasing power.^[49] Notably, these designs are not foolproof, as a number of stablecoins have crashed or lost their value from \$1 to 26 cents.^{[50][51]}

^[52] In September 2022, South Korean prosecutors requested the issuance of an Interpol Red Notice against the ^[53] In Hong Kong, the expected regulatory framework for stablecoins in 2023/24 is being shaped and includes a few considerations.^[54]

Memecoins

Memecoins are a category of cryptocurrencies that originated from memecoin featuring the Shiba Inu dog from the Doge meme.^[55] Memecoins are known for extreme volatility: for example, the price plunged to 13 cents by mid-2024.^[55] Scams are prolific among memecoins.^[55]



largest cryptocurrency

Physical crypto

Physical cryptocurrency coins have been made as promotional items and some have become collectibles.^[56] Some of these have a private key embedded in them to access crypto worth a few hundred dollars.^[57]

Those who have purchased from crypto exchanges put their crypto holdings in a specialised bank called a "custodian".^[58]

These physical representations of cryptocurrency do not hold any value by themselves; these are only utilized for collectable purposes.

Architecture

Cryptocurrency is produced by an entire cryptocurrency system collectively, at a rate that is defined when the system is created and that is publicly stated. In centralized banking and economic systems such as the US Federal Reserve System, corporate boards or governments control the supply of currency. In the case of cryptocurrency, companies or governments cannot produce new units and have not so far provided backing for other firms, banks, or corporate entities that hold asset value measured in it. The underlying technical system upon which cryptocurrencies are based was created by Satoshi Nakamoto.^[59]

on 9 March 2022, Biden issued an executive order.^[160] Followed this, on 16 September 2022, the Comprehensive Framework for Responsible Development of Digital Assets document was released^[161] to support development of cryptocurrencies and restrict their illegal use. The executive order included all digital assets, but cryptocurrencies posed both the greatest security risks and potential economic benefits. Though this might not address all of the challenges in crypto industry, it was a significant milestone in the US cryptocurrency regulation history.^[162]

In February 2023, the SEC ruled that cryptocurrency exchange Kraken's estimated \$42 billion in staked assets globally operated as an illegal securities seller. The company agreed to a \$30 million settlement with the SEC and to cease selling its staking service in the US. The case would impact other major crypto exchanges operating staking programs.^[163]

On 23 March 2023, the SEC issued an alert to investors stating that firms offering crypto asset securities might not be complying with US laws. The SEC argued that unregistered offerings of crypto asset securities might not include important information.^[164]

Legality

The legal status of cryptocurrencies varies substantially from country to country and is still undefined or changing in many of them. At least one study has shown that broad generalizations about the use of

fighting and intelligence gathering tool.^[165] While some countries have explicitly allowed their use and trade,^[166] others have banned or restricted it. According to the Library of Congress in 2021, an "absolute ban" on trading or using cryptocurrencies applies in 9 countries: Algeria, Bangladesh, Bolivia, China, Egypt, Iraq, Morocco, Nepal, and the United Arab Emirates. An "implicit ban" applies in another 39 countries or regions, which include: Bahrain, Benin, Burkina Faso, Burundi, Cameroon, Chad, Cote d'Ivoire, the Dominican Republic, Ecuador, Gabon, Georgia, Guyana, Indonesia, Iran, Jordan, Kazakhstan, Kuwait, Lebanon, Lesotho, Macau, Maldives, Mali, Moldova, Namibia, Niger, Nigeria, Oman, Pakistan, Palau, Republic of Congo, Saudi Arabia, Senegal, Tajikistan, Tanzania, Togo, Turkey, Turkmenistan, Qatar and Vietnam.^[167] In the United States and Canada, state and provincial securities regulators, coordinated through the North American Securities Administrators Association,^[168]

In Russia, though owning cryptocurrency is legal, its residents are only allowed to purchase goods from other residents using the Russian ruble while nonresidents are allowed to use foreign currency.^[169] systems.^[170]

In August 2018, the Bank of Thailand announced its plans to create its own cryptocurrency, the Central Bank Digital Currency (CBDC).^[171]

Various studies have found that crypto-trading is rife with wash trading. Wash trading is a process, illegal in some jurisdictions, involving buyers and sellers being the same person or group, and may be used to manipulate the price of a cryptocurrency or inflate volume artificially. Exchanges with higher volumes can demand higher premiums from token issuers.^[219] A study from 2019 concluded that up to 80% of trades on unregulated cryptocurrency exchanges could be wash trades.^[219] A 2019 report by

CoinMarketCap had been artificially generated, and of 81 exchanges studied, only 10 provided legitimate volume figures.^[220]

As a tool to evade sanctions


In 2022, cryptocurrencies attracted attention when Western nations imposed severe economic sanctions on Russia in the aftermath of its invasion of Ukraine in February. However, American sources warned in March that some crypto-transactions could potentially be used to evade economic sanctions against Russia and Belarus.^[221]

In April 2022, the computer programmer Virgil Griffith received a five-year prison sentence in the US for attending a Pyongyang cryptocurrency conference, where he gave a presentation on blockchains which might be used for sanctions evasion.^[222]

Impacts and analysis

The Bank for International Settlements summarized several criticisms of cryptocurrencies in Chapter V of their 2018 annual report. The criticisms include the lack of stability in their price, the high energy consumption, high and variable transactions costs, the poor security and fraud at cryptocurrency exchanges, vulnerability to debasement (from forking), and the influence of miners.^{[223][224][225]}

External videos

 Cryptocurrencies: looking beyond the hype (<https://www.youtube.com/watch?v=vo6s1mUjxQQ>), Hyun Song Shin, Bank for International Settlements, 2:48^[223]

Speculation, fraud, and adoption

Cryptocurrencies have been compared to Ponzi schemes, pyramid schemes^[226] and economic bubbles,^[227] such as housing market bubbles.^[228] Howard Marks of Oaktree Capital Management stated in 2017 that digital currencies were "nothing but an unfounded fad (or perhaps even a pyramid scheme), based on a willingness to ascribe value to something that has little or none beyond what people will pay for it", and compared them to the tulip mania (1637), South Sea Bubble (1720), and dot-com bubble (1999), which all experienced profound price booms and busts.^[229]

Regulators in several countries have warned against cryptocurrency and some have taken measures to dissuade users.^[230] However, research in 2021 by the UK's financial regulator suggests such warnings either went unheard, or were ignored. Fewer than one in 10 potential cryptocurrency buyers were aware of consumer warnings on the FCA website, and 12% of crypto users were not aware that their holdings were not protected by statutory compensation.^{[231][232]} Of 1,000 respondents between the ages of eighteen and forty, almost 70% wrongly assumed cryptocurrencies were regulated, 75% of

mberg.com/news/articles/2018-01-15/these-digital-coins-soar-or-fall-with-bitcoin-quicktake-q-a). *Bloomberg*. Archived (<https://web.archive.org/web/20201028204826/https://www.bloomberg.com/news/articles/2018-01-15/these-digital-coins-soar-or-fall-with-bitcoin-quicktake-q-a>) from the original on 28 October 2020. Retrieved 25 October 2020.

Embrace" (<https://news.bloomberglaw.com/banking-law/bitcoin-on-the-brink-of-fresh-2020-high-foll-owing-paypal-embrace>). *Bloomberg Law*. Archived (<https://web.archive.org/web/20201029001015/https://news.bloomberglaw.com/banking-law/bitcoin-on-the-brink-of-fresh-2020-high-following-paypal-embrace>) from the original on 29 October 2020. Retrieved 25 October 2020.

atures/beyond-bitcoin-the-wild-world-of-altcoin-cryptocurrency-trading/). *CNET*. Archived (<https://web.archive.org/web/20211122110234/https://www.cnet.com/features/beyond-bitcoin-the-wild-world-of-altcoin-cryptocurrency-trading/>) from the original on 22 November 2021. Retrieved 22 November 2021.

wsj.com/articles/which-digital-currency-will-be-the-next-bitcoin-1513679400). *The Wall Street Journal*. Archived (<https://web.archive.org/web/20180612140843/https://www.wsj.com/articles/which-digital-currency-will-be-the-next-bitcoin-1513679400>) from the original on 12 June 2018. Retrieved 25 October 2020.

(Published 2017)" (<https://www.nytimes.com/2017/10/01/technology/what-is-ethereum.html>). *The New York Times*. Archived (<https://web.archive.org/web/20210210094910/https://www.nytimes.com/2017/10/01/technology/what-is-ethereum.html>) from the original on 10 February 2021. Retrieved 28 November 2020.

m/news/articles/2020-11-25/ethereum-upgrade-adds-to-crypto-mania-sparked-by-bitcoin-s-surge). *Bloomberg.com*. 25 November 2020. Archived (<https://web.archive.org/web/20201128213844/https://www.bloomberg.com/news/articles/2020-11-25/ethereum-upgrade-adds-to-crypto-mania-sparked-by-bitcoin-s-surge>) from the original on 28 November 2020. Retrieved 28 November 2020.

ncy-enables-transactions-that-rival-bitcoins.html). *The New York Times*. Archived (<https://web.archive.org/web/20160724214904/http://www.nytimes.com/2016/03/28/business/dealbook/ethereum-a-virtual-currency-enables-transactions-that-rival-bitcoins.html>) from the original on 24 July 2016. Retrieved 25 October 2020.

(<https://www.bloomberg.com/news/articles/2019-08-28/technicals-show-alt-coin-season-is-near-a-mid-bitcoin-mega-gains>). *Bloomberg*. Archived (<https://web.archive.org/web/20201031143140/https://www.bloomberg.com/news/articles/2019-08-28/technicals-show-alt-coin-season-is-near-a-mid-bitcoin-mega-gains>) from the original on 31 October 2020. Retrieved 25 October 2020.

[tps://www.bloomberg.com/news/articles/2020-07-08/tiktok-takes-on-crypto-with-dogecoin-soaring-40-in-24-hours](https://www.bloomberg.com/news/articles/2020-07-08/tiktok-takes-on-crypto-with-dogecoin-soaring-40-in-24-hours)). *Bloomberg*. Archived (<https://web.archive.org/web/20201028214959/https://www.bloomberg.com/news/articles/2020-07-08/tiktok-takes-on-crypto-with-dogecoin-soaring-40-in-24-hours>) from the original on 28 October 2020. Retrieved 25 October 2020.

49. "Stablecoin" (<https://www.investopedia.com/terms/s/stablecoin.asp>). *Investopedia*. Archived (<https://web.archive.org/web/20210925151328/https://www.investopedia.com/terms/s/stablecoin.asp>) from the original on 25 September 2021. Retrieved 4 October 2021.