



Cryptocurrencies – Hype or Future?

#PositiveImpact

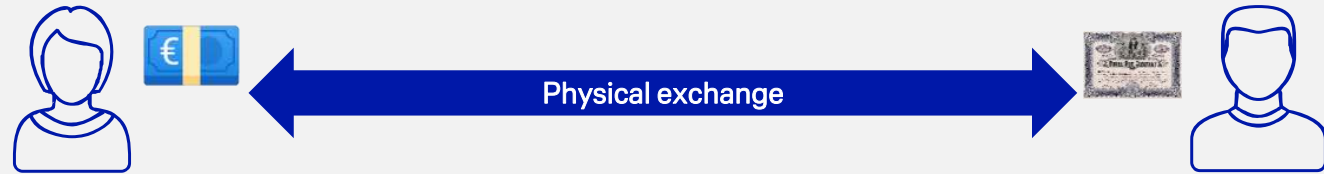
9 March 2022

From physical to digitized money and goods

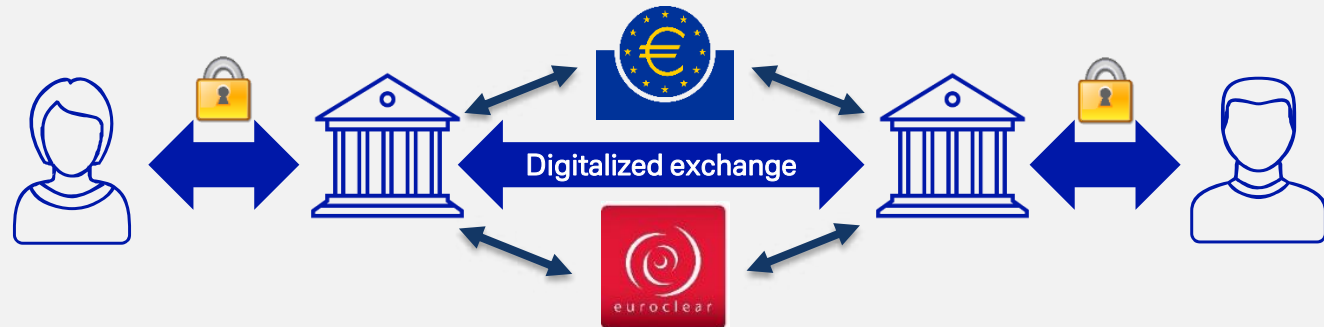
Tokenized economy enables peer-to-peer transfer of digitized money and goods



Physical exchange of value using physical tokens/objects (e.g., banknote vs stock certificate). Settled by exchanging physical tokens.



Digitalized exchange of value, relying on intermediaries (e.g., bank transfer vs security). Payment and settlement involves several intermediaries such as banks, exchanges, central counterparties, and central securities depositories.



Exchange of **digitized money and goods**, relying on blockchain technology (tokenized money and tokenized assets, e.g., digital euro vs tokenized stock). Payment and settlement conducted as atomic transaction via the blockchain.



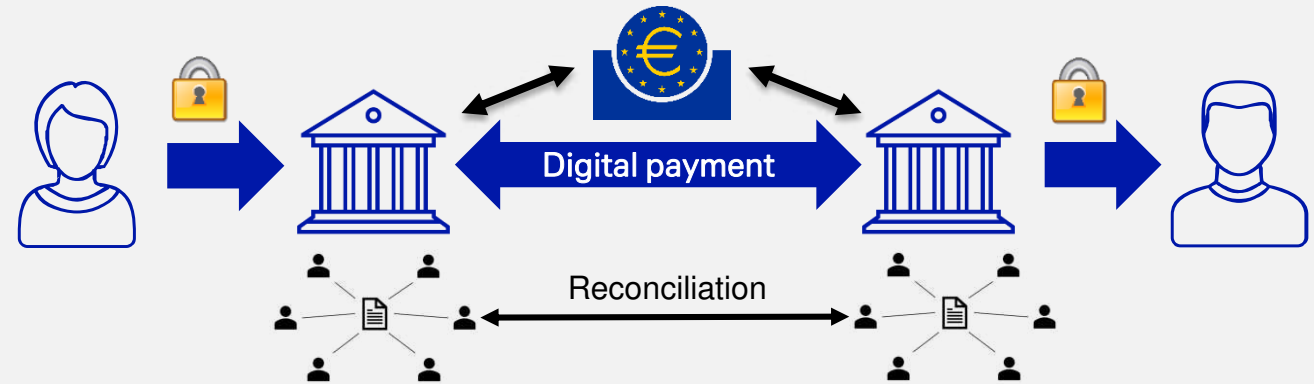
Centralized vs. decentralized databases

Centralized databases require reconciliation processes and blockchains require consensus algorithms



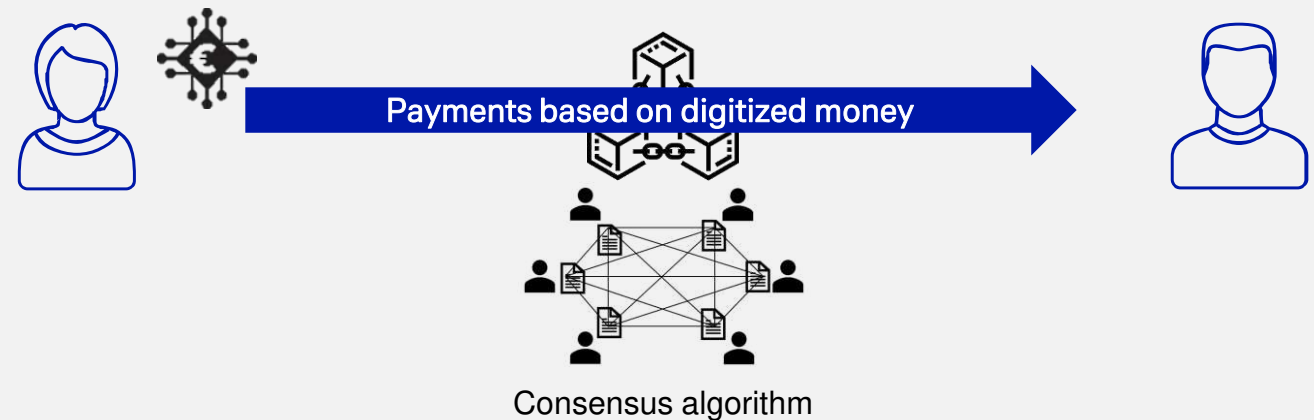
Centralized database

- Each intermediary owns and manages its **own database**
- Individual admins have **full control** over the database (reading, writing, correcting)
- Value transfers necessitate **reconciliation** across independent databases



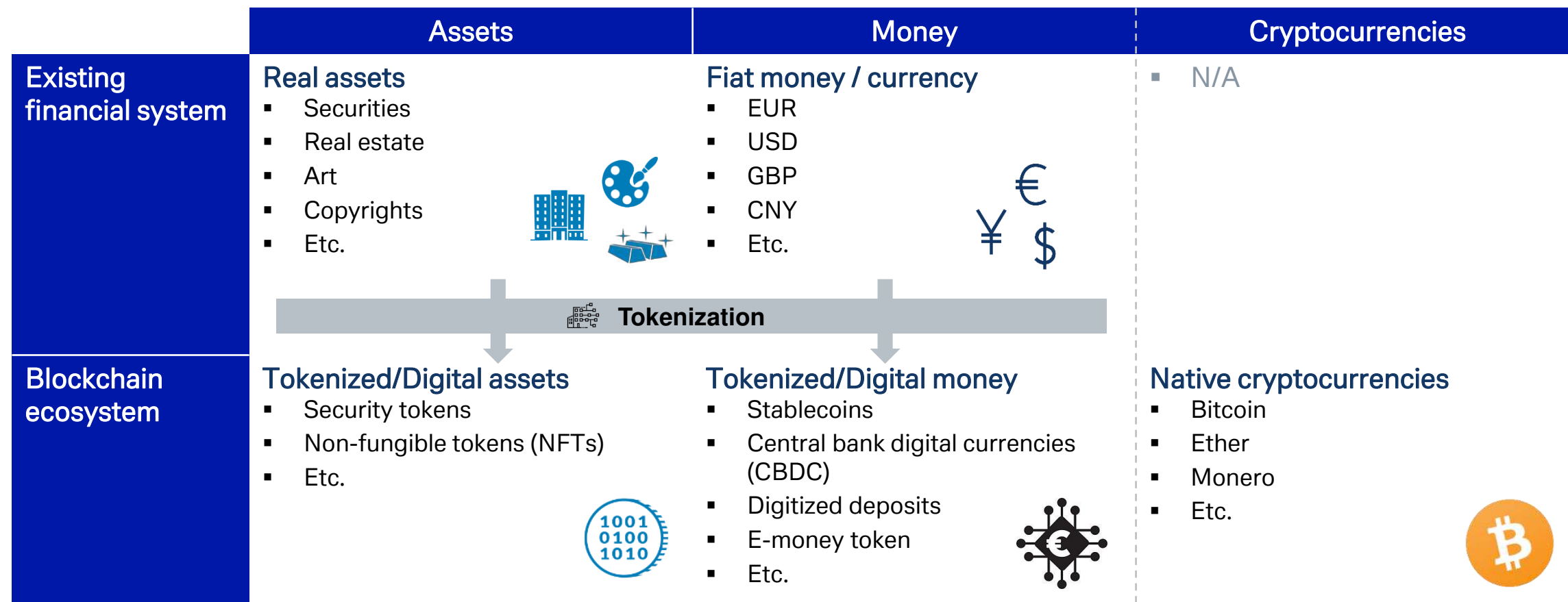
Blockchain/ Distributed ledger technology

- Shared and distributed database in a **peer-to-peer** network without centralized communication control and data storage
- Append-only database
- Every participant in the network (**node**) can read and write into the database
- Network nodes jointly decide on updating data through a **consensus algorithm** such as **proof of work** or **proof of stake**



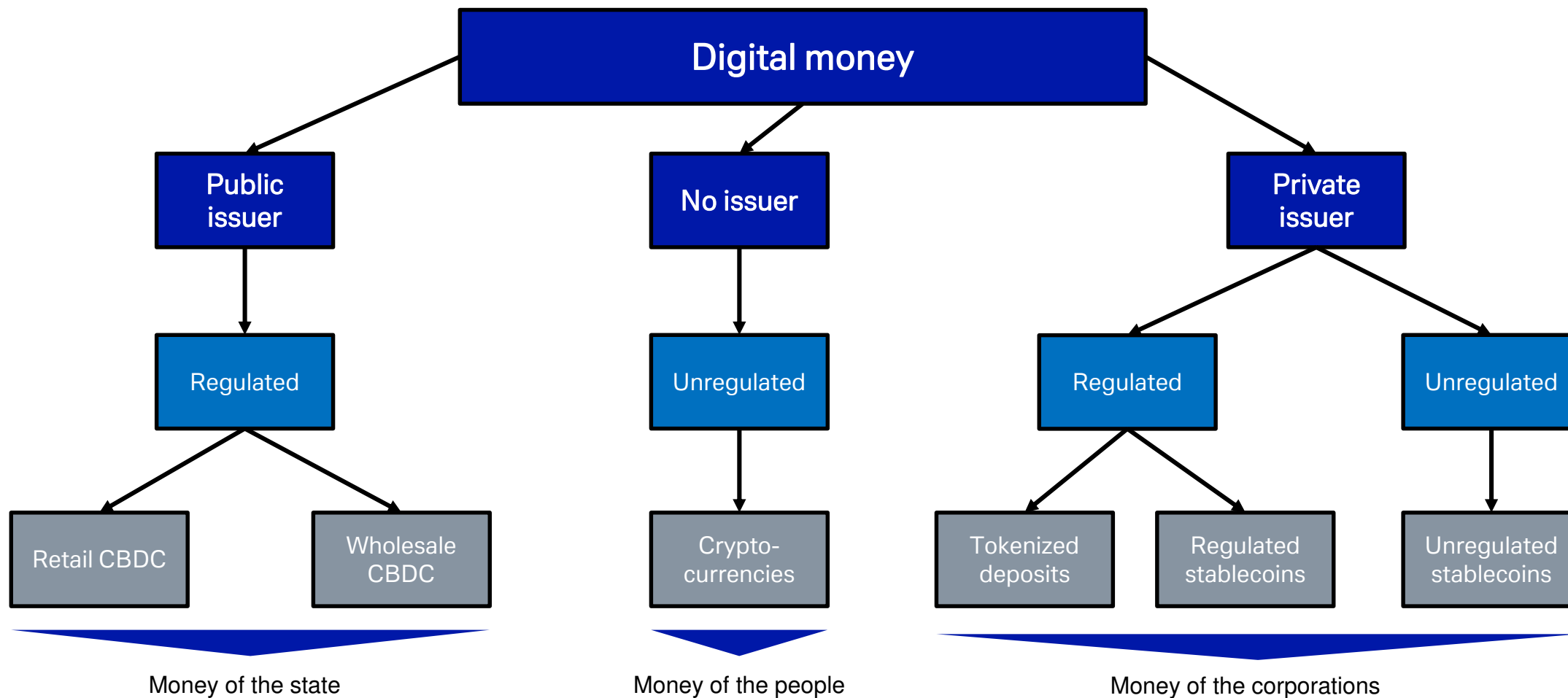
Existing financial system vs. blockchain ecosystem

The token economy will be comprised of cryptocurrencies, tokenized representations of today's assets as well as new assets



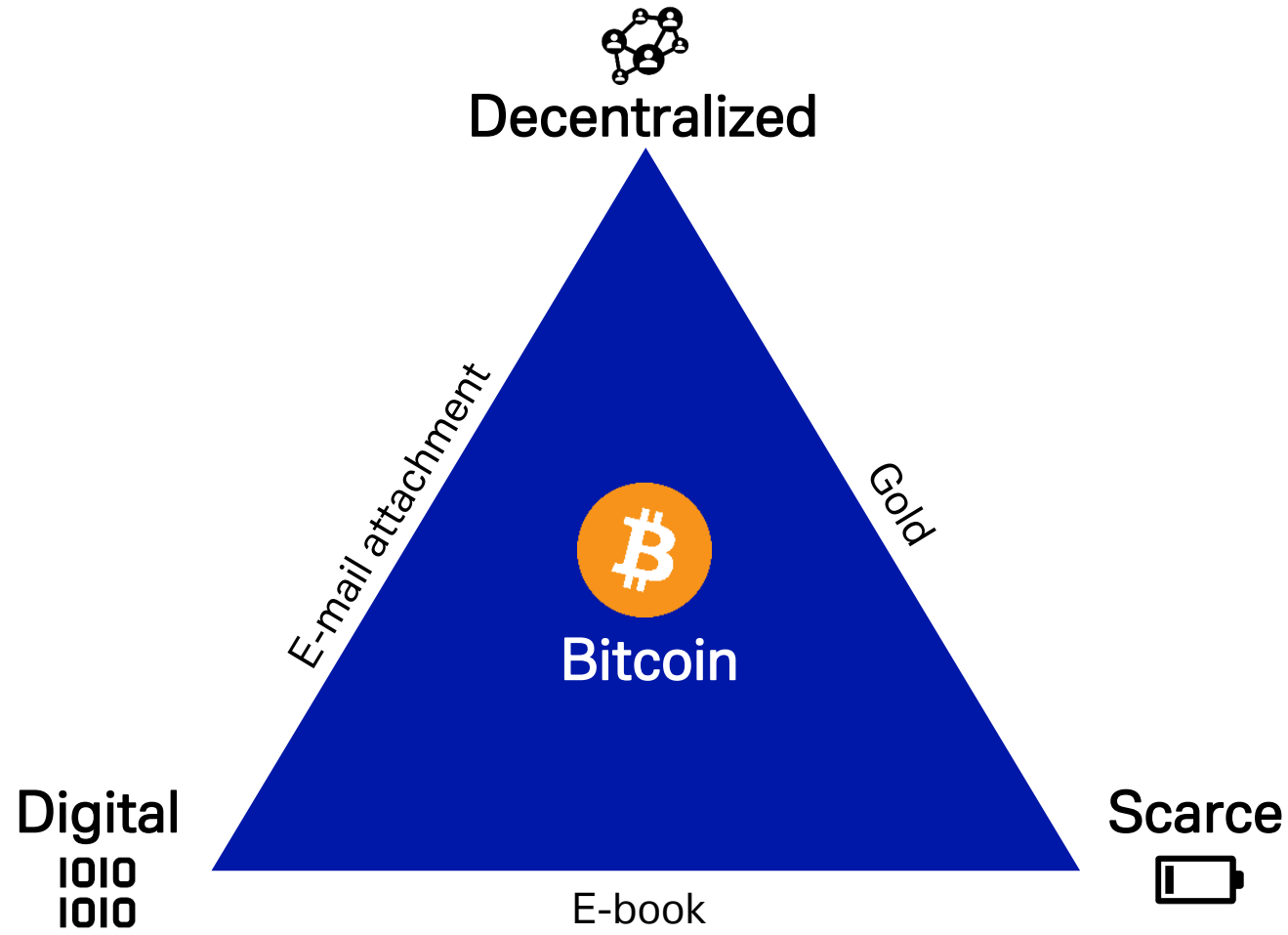
Money of the state, people, and corporations

Different forms of digital money can be distinguished along their issuers



What makes Bitcoin special?

BTC is the first asset that is decentralized, digital, and scarce



Top 10 cryptocurrencies

Two stablecoins among the Top 5



#	Name	Price	24h %	7d %	Market Cap	Volume(24h)	Circulating Supply	Last 7 Days
1	Bitcoin BTC Buy	\$38,862.57	▼ 0.78%	▼ 0.77%	\$735,613,926,562	\$19,410,936,058 500,723 BTC	18,975,856 BTC	
2	Ethereum ETH Buy	\$2,627.94	▼ 0.56%	▼ 5.95%	\$314,250,910,819	\$7,953,584,877 3,033,332 ETH	119,848,786 ETH	
3	Tether USDT	\$1.00	▼ 0.00%	▼ 0.01%	\$79,733,876,432	\$42,539,700,147 42,528,592,247 USDT	79,713,056,448 USDT	
4	BNB BNB Buy	\$379.19	▼ 0.23%	▲ 1.29%	\$62,403,200,933	\$1,259,829,805 3,333,467 BNB	165,116,761 BNB	
5	USD Coin USDC	\$1	▼ 0.02%	▲ 0.01%	\$52,907,663,365	\$2,794,273,595 2,795,765,938 USDC	52,935,919,860 USDC	
6	XRP XRP	\$0.7364	▼ 2.95%	▼ 1.81%	\$35,240,558,105	\$1,997,078,318 2,717,280,170 XRP	47,949,281,138 XRP	
7	Terra LUNA Buy	\$84.60	▲ 0.95%	▲ 10.64%	\$30,974,033,152	\$2,517,605,890 29,951,808 LUNA	368,496,242 LUNA	
8	Cardano ADA	\$0.8398	▼ 2.36%	▼ 6.29%	\$28,179,507,050	\$647,238,686 773,449,772 ADA	33,674,491,029 ADA	
9	Solana SOL Buy	\$87.15	▼ 2.17%	▼ 4.12%	\$27,608,395,477	\$1,289,673,097 14,827,834 SOL	317,423,616 SOL	
10	Avalanche AVAX Buy	\$75.03	▼ 2.05%	▼ 6.28%	\$19,843,747,083	\$861,207,927 11,526,010 AVAX	265,579,571 AVAX	

Crypto market capitalization





















2021 saw strong growth in the crypto market capitalization up to almost USD 3 trillion



Bitcoin is among the top 10 largest assets globally

The market capitalization of gold is more than 15 times bigger than the one of Bitcoin





















Rank	Name	Market Cap	Price	Today	Price (30 days)	Country
1	 Gold GOLD	\$12.544 T	\$1,975	2.01%		
2	 Apple AAPL	\$2.668 T	\$163.17	-1.84%		USA
3	 Saudi Aramco 2222.SR	\$2.359 T	\$11.81	2.90%		S. Arabia
4	 Microsoft MSFT	\$2.204 T	\$289.86	-2.05%		USA
5	 Alphabet (Google) GOOG	\$1.751 T	\$2,642	-1.63%		USA
6	 Amazon AMZN	\$1.482 T	\$2,913	-1.53%		USA
7	 Silver SILVER	\$1.457 T	\$25.89	2.67%		
8	 Tesla TSLA	\$908.28 B	\$838.29	-0.12%		USA
9	 Bitcoin BTC	\$738.32 B	\$38,869	-0.84%		
10	 Berkshire Hathaway BRK-A	\$711.45 B	\$487,440	-0.77%		USA

Types of cryptocurrencies (coins and tokens)

Payments is only one potential use case of cryptocurrencies



Use case	Description	Examples			
Payments	Digital monies used to pay for goods, services and bills. Decentralized, anonymous/pseudonymous, public, internet-based, irreversible, fungible.	 BTC	 XRP	 LTC	 XMR
Infrastructure	Allow creation of digital assets (tokens) and decentralized applications (Dapps) on. Programmable ecosystem.	 ETH	 SOL	 ADA	 DOT
Utility / Platform	Used for a blockchain-based product or service. Often linked to a platform. Could be used to give users access to particular services or voting rights.	 BAT	 FIL	 CRO	 BNB
Memes	Inspired by memes and usually created as a joke. Despite mainly humorous characteristics, some meme coins reach high market capitalizations.	 DOGE	 SHIB		
Others	Governance tokens, security tokens, stablecoins, DeFi tokens, Metaverse, NFTs, etc.	 COMP	 MANA	 AAVE	 USDP