

Should You Consider Crypto?

FDPL Academy August 8, 2023

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Learn the markets. Know the risks. Make a plan.



Dan Rutherford, associate director, Office of Customer Education and Outreach

- What are they?
 - Digital recordkeeping systems
- Custody and wallets
 - Custodial, non-custodial, hot/cold, & hardware
- What are the risks?
 - Operational risks, market risks, cyber security risks, fraud risks
- Fraud resources
 - Common frauds, warning signs, and more

- Volatile
- Opaque
- Unprotected
- o Novel
- Speculative



CFTC authority

	Derivatives Market	Cash or "Spot" Market	
Characteristics:	Financial market. Futures contracts, options, swaps. A standardized contract to buy or sell at some point in the future.	Physical market. Cash for the 'physical' or actual commodity. The commodity itself.	
CFTC's authority:	 Regulatory authority Supervisory authority Enforcement authority 	Enforcement authority over fraud or manipulation	
Example:	CME Bitcoin futures contract	Buying bitcoin for dollars from an online seller	



Crypto is ...

Distributed ledger "Token" or "coin" Unit being traded Blockchain SLOCK BLOCK New block hash New block hash New block hash Timestamp Timestamp Timestamp **Transactions Transactions Transactions** Previous block hash Previous block hash Previous block hash

Distributed ledger

Centralized ledger

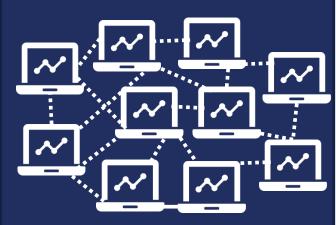


Single ledger owned and controlled by a central entity.

LEDGER

Date	From/To	Debit	Credit

Distributed ledger

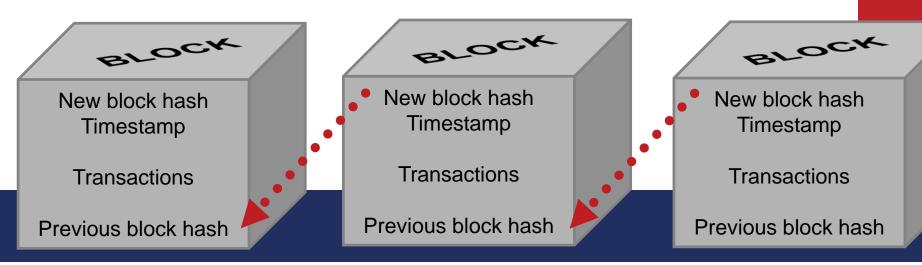


Identical copies of the same ledger shared on a network of computers.

Blockchain

An append-only, distributed recordkeeping system that uses cryptography and consensus to keep track of digital records that convey:

- 1. Value,
- 2. Ownership, or
- 3. A right or obligation



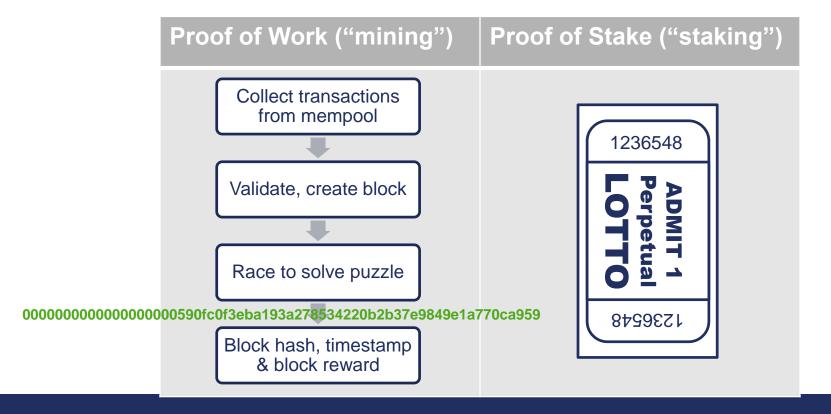
Cryptography

- SHA 256 Algorithm
 - Any amount of data can go in
 - A "hash" with a fixed number of digits comes out: 0000000000000000000590fc0f3eba193a27853422 0b2b37e9849e1a770ca959
 - Any change in underlying data changes the hash.
- Used for
 - Privacy/protection of personal information
 - Consensus
 - Secure the blockchain



Consensus mechanisms

Difficult to do but easy to validate.



Bitcoin: The first

- Created in 2008 as a peer-to-peer online payment system.
 - Creator unknown ("Satoshi Nakamoto").
 - Designed to take banks and other intermediaries out of the equation.
- The first successful cryptocurrency and most popular by market capitalization.*
- Considered property by the IRS.**

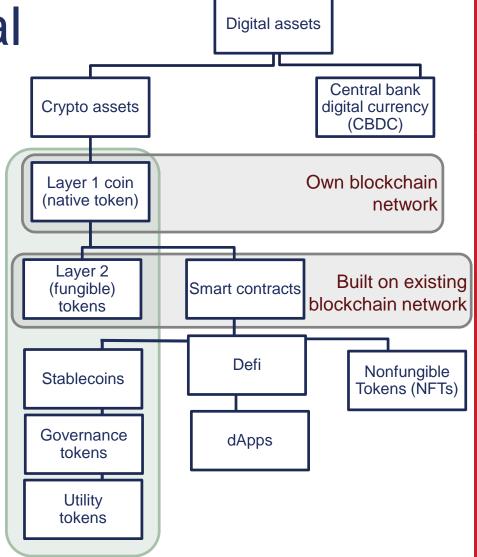
^{* \$566} billion as of Aug. 7, 2023. Reached a high of \$1.27 trillion in Nov. 2021. By comparison, META's market cap is approximately \$814 billion and AAPL is \$2.8 trillion.

^{**} For tax information, visit https://www.irs.gov/businesses/small-businesses-self-employed/digital-assets

What are digital assets?

A lot of terminology, but no official taxonomy.

> Broadly called "cryptocurrency"



NFTs

- Unique, one-of-a-kind tokens that are
 - A description of ownership, use rights, certification, identity
 - Linked to an off-chain asset (digital or physical)
 - Tradeable
 - Fractionable
 - Not interchangeable
 - Not copyright or transfer of intellectual property
- Use cases: Representations of
 - collectible items
 - digital goods (video games, virtual worlds)
 - Identification/credentials
 - access keys
 - property deeds or titles
 - tickets for travel or events
- Legal rights are unclear and have been subject to litigation.
- IRS: Property or collectible? Determination pending.
- Wash trading, fraud, plagiarism, hacks

RECEIPT

Collectible record \$10

Tax\$0.70

Total.....\$10.70



Where do crypto assets get their value?

- Most crypto assets are not backed or supported by "real" assets or governments.
 - Some stablecoins claim to have 1:1 currency reserves. Do they?
- Network value.
- Supply, demand.
- Opinions, FOMO.
- "Tokenomics."
- · Speculation.

This also contributes to volatility, runs, freezes





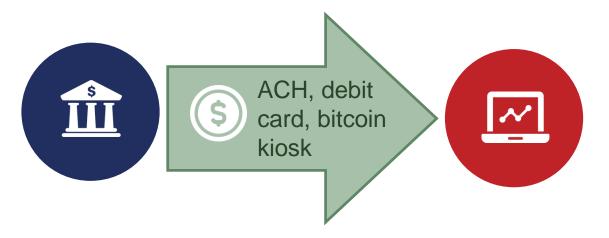
How to talk about crypto

CUSTODY & WALLETS



The on-ramps: Centralized "exchanges"

- Transfer money from bank to cash market trading platform.
 - NOT supervised or regulated like traditional exchanges.
 - NO FDIC or SIPC insurance.
- Bank fees, platform fees, network fees.



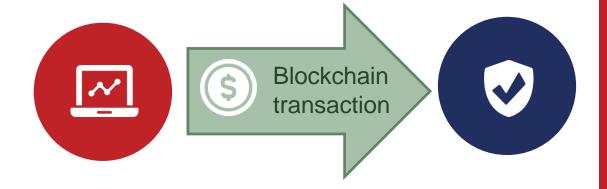
Custodial wallets

- Centralized
- "Off-chain"
- Co-mingled with other customer or company assets?
- Does the platform have adequate reserves?
- Subject to freezes
- May belong to platform



Self-custody

- Transfer money from cash market trading platform to a noncustodial wallet.
- Software, mobile app, or hardware.
- Creates and manages your private and public keys.
- "Whoever holds the keys holds the crypto."
- "On-chain"
- Fully on your own – theft, hacks, etc.



Non-custodial wallets

- Non-custodial = self custody
- "Hot" wallets = software, mobile app; connect to internet.



"Cold" wallets = Hardware with software;
 not connected to the internet.



Only keep funds you plan to spend or trade in "hot" or exchange wallets. Other funds should be moved to "cold" or offline wallets.





LEARN THE MARKETS, KNOW THE RISKS, HAVE A PLAN

Learn the Markets. Know the Risks. Make a Plan

- Learn
 - How markets and products operate
 - How product makes/loses money
 - Tech, tokenomics, business case, competition
- > Know
 - Operational risks
 - Cybersecurity risks
 - Market risks
 - Fraud risks

- > Plan
 - Risk management
 - "Risk capital:" How much can you afford to lose?
 - Overall financial plan
 - Living expenses
 - Short-term savings needs
 - Long-term savings needs
 - Speculate?
 - Investment Strategy
 - Hodl
 - Speculate
 - Exit points?
 - Education/information



Operational risks

- 1. Unsupervised trading.
 - Conflicts of interest
 - Price manipulation
 - Oracle manipulation (DeFi)
- Inconsistent customer protections.
 - Missing safeguards
 - Reserves, segregation
- 3. Commingled customer assets.
 - Mixed with other customer funds or used for company operations.
 - Hacks, runs, bankruptcy

- 4. Most DeFi projects fail. Research and understand:
 - The project
 - Use-case
 - Demand/competing projects
 - Governance/tokenomics
 - The developers
 - How your money will be used, and when or if you can get it back.
 - The technology
 - Was the code audited and security tested?
 - White papers and other documents.



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Cybersecurity risks

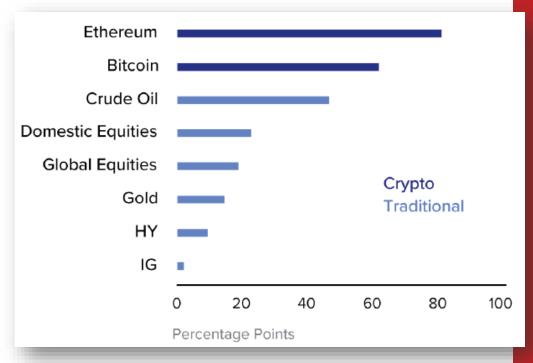
- Hacks
 - Targets = most money + least resistance
 - Defi: Bridges, liquidity pools, dApps
 - Platforms: Steal from customer accounts
 - Wallets: Private key theft, fraudulent smart contracts
- Most hacks stem from phishing and other socialengineering attacks.
 - Account verifications; transactions; new products/upgrades; urgent customer support.
 - Links/QR codes to imposter websites, wallet apps
- Lost or stolen private keys or seed phrases.
 - Your digital signature. If lost or stolen you will no longer have access to your assets.
 - Never give your private key or seed phrase to anyone.



Market risks

- Volatility
- New and novel
- Liquidity
 - Manipulation
 - Run risk
- Counterparty risk
 - Stablecoins
 - dApps
 - Staking
 - Bridges
 - ICOs

Annualized real volatility of crypto-assets and traditional assets



Note: Data from 2018 through July 2022. FSOC Report on Digital Asset Financial Stability Risks and Regulation, 2022.



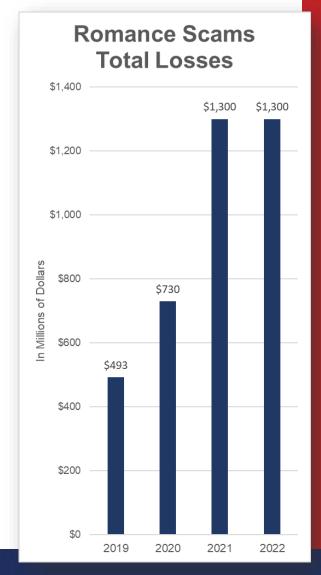
Fraud risks

- Most popular medium for fraudsters
 - Electronically transferrable
 - Obscures real-world identities
 - All transactions are final
 - Easily convertible
- In an online environment, anything can be faked
 - People
 - Brands
 - Platforms
 - Data, balances, performance



Crypto frauds on social media

- Romance or friendship scams
- 2. Fraudulent platforms
- 3. DeFi hacks & rug pulls
- 4. Pump-and-dumps
- 5. Giveaway scams



Data: FTC Consumer Sentinel Database



Digital asset romance scams

Victims:

- All genders and sexual orientations.
- All ages, but tend to skew younger because of interest in crypto.
- Introduced via social media, dating apps, messaging apps.



Criminals:

 May use extensive social media personas to support their stories.



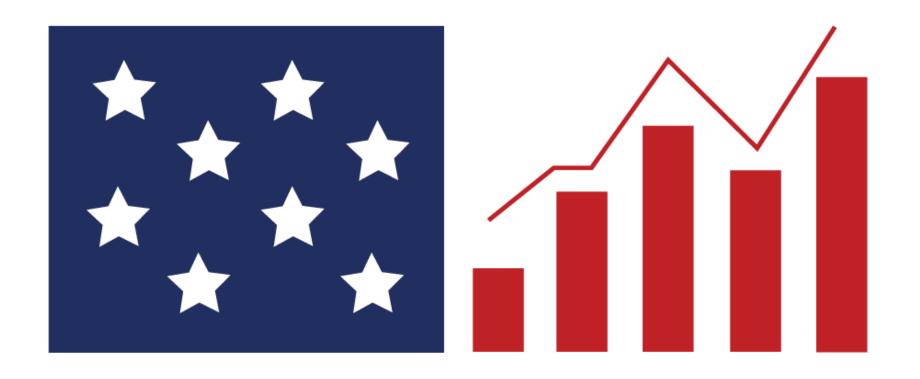
- Pose as wealthy business owners or executives who travel frequently.
- Texts multiple times per day.
- Never meets in person.
- Making lots of money in crypto, while the rest of the market is going nowhere.

The scam:

- Soon after introduction, wants to move conversation to messaging app.
- Grooming can last several weeks or months.
- Starts talking about future together.
- Offers to teach you to trade.

- Victims are commonly encouraged to start small.
- Urgent opportunity!
- Can't make withdrawals.
- Nonresponsive websites, angry love interests, even blackmail and threats.





RESOURCES

Signs of a Fraudulent Site

- Centralized trading platform but no physical address
 - Offshore address
 - Fake address
 - Do a street-level map search
- No phone line for customer service
 - App phone numbers, live chat, email, "contact us" form
- Website's age doesn't match its claims
 - Look up domain registrations at <u>lookup.icann.org</u>
- Won tons of awards you've never heard of
- On-site testimonials
 - Search for third-party reviews: Site's domain name + "scam," "fraud," or "reviews"
 - check scam detection websites
- Broken links, poor spelling and grammar

10 Signs of a Scam Crypto or Forex Trading Website https://www.cftc.gov/LearnAndProtect/Publication/index.htm



Red Flags: Avoid ...

- Guaranteed, oversized returns.
- The more money you commit, the more you are guaranteed in return.
- Loan offers, excessive margin, or matching funds.
- Won't connect to your bank. Have to convert to digital assets on another platform.
- Invitations to trade or invest by someone you've met online.
- The company or adviser is not registered.
- Unable to withdraw your money.

Curious About Crypto? Watch Out for Red Flags

https://www.cftc.gov/sites/default/files/2022-10/DigitalAssetRedFlags.pdf



Verify claims and check registrations, but...

Registered ≠ safe

- Be sure the people or firms you trade with are registered with federal or state authorities.
 - most scams involve unregistered entities, people, and products.
- Relying on registration alone won't protect you from fraud.
 - Follow "know-your-customer" and anti-money-laundering paperwork requirements, and has U.S. location
- Learn more, visit <u>cftc.gov/check</u>.
 - For virtual currency, see if the platform is registered as a money service business with the Financial Crimes Enforcement Network (<u>fincen.gov/msb-registrant-search</u>) or with your state using the Nationwide Multistate Licensing System (<u>csbs.org/nationwide-multistate-licensing-system</u>).
 - For securities, broker/dealers, investment advisors, check brokercheck.finra.org and your state securities regulator.

Federal Government Resources

- CFTC Digital Asset resources: https://www.cftc.gov/digitalassets/index.htm
- 14 Digital Asset Risks to Remember https://www.cftc.gov/sites/default/files/2022-09/DigitalAssetRisks.pdf
- Curious About Crypto? Watch Out for Red Flags
 https://www.cftc.gov/sites/default/files/2022-09/DigitalAssetRedFlags.pdf
- 10 Digital Asset Terms You Should Know <u>https://www.cftc.gov/sites/default/files/2022-09/KeyTerms.pdf</u>
- MyMoney.gov Dept. of Treasury
 https://www.mymoney.gov/flec-crypto-asset-recourses
- Investor.gov SEC, Crypto Assets https://www.investor.gov/additional-resources/spotlight/crypto-assets
- FTC, What To Know About Cryptocurrency and Scams https://consumer.ftc.gov/articles/what-know-about-cryptocurrency-and-scams
- IRS Digital Asset Resources
 https://www.irs.gov/businesses/small-businesses-self-employed/digital-assets



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Additional questions, comments, connections...

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Thank you

