

# CRYPTOCURRENCY 101

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2 minutes ago

but, finp2p is a great solution, I didnt think that this would happen this fast so bravo



2 minutes ago

Most importantly this is a peer-to-peer network, not centralised so fees etc will find their level based on the services that competing institutions can offer.



2 minutes ago

Many are moving now in 2021. But the financial institutions are slower. Do not wait for them



a minute ago

I think for US, a centralized system will be more accepted, but thats just my personal opinion, we all know that the US is a little slower in accepting these new technologies, but in the end will probably withstand the longest because it will be the safest



a few seconds ago

Just drop the banks from that equation!



a few seconds ago

**Just drop the banks from that equation!**

# FinP2P

- Plan to launch institutional digital securities network for private capital markets
- Case study:
  - Acme Corp wants to raise capital
  - Their investment bank, Sky's-the-Limit Bank registers Acme on their network and uploads their Know Your Asset (KYA) docs, and authorizes other network institutions to allow investments
  - Another Corp logs into the dashboard of their bank, Invest Now Bank, looking for investment opportunities and sees the listing for Acme Corp
  - Another Corp decides to invest in Acme Corp
  - Transaction is verified by Sky's-the-Limit Bank and settled immediately

# Terms

- Byzantine Fault Tolerance
  - System will function correctly if 2/3 of network reaches consensus
- Coin vs Token
  - Coins are mostly used as money
  - Tokens built on top of another blockchain to be used on a dApp
- dApp
  - Decentralized application
  - Peer-to-peer network (blockchain)
  - Secure, transparent, resistant to censorship
  - Popular uses: Trading crypto, social media (Steemit), Gaming, Entertainment (Dtube)

# Terms

- DeFi
  - Decentralized finance
  - Build decentralized financial applications with no central authority or censorship
  - Trust the code vs trust the people
- Gas
  - Computing power needed to validate a transaction on Ethereum
    - Anywhere else is called “network fees”

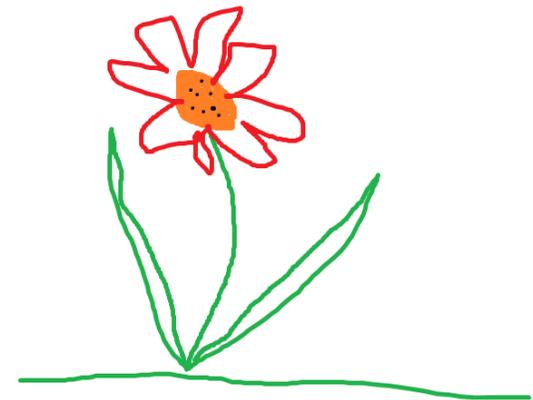
# Terms

- Proof of Stake (PoS)
  - Block validation locked in by validator
  - Ethereum 2.0
- Proof of Work (PoW)
  - Block validation via mathematical hashing
  - Bitcoin
  - Ethereum
- Wallets
  - Hot
  - Cold

1wYTeEWrht7aStCRWV1WycqniiPupAsK5

# NFT (Non-Fungible Token)

- Digital
- Unique
- Own worth
  - Opposite: All \$10 bills are worth the same
- Created on blockchain
- Buy or sell ownership to digital items
  - Most common
    - Artwork
    - GIF
    - Photo



# Cryptocurrency

- Decentralized networks
  - Immune to government interference or manipulation
- Bitcoin – first blockchain-based cryptocurrency
- August 2021
  - 10,000+ different currencies being traded publicly
  - Value \$1.9 trillion
- June 2020 – June 2021
  - 13%: Americans trading cryptocurrencies
  - 24%: Americans investing in stocks

# Bitcoin vs Ethereum

## Bitcoin

- Launched 2009
- Created as alternative to national currencies
  - No central authority
- Medium of exchange
- Store of value

## Ethereum

- Launched 2015
- Open-ended decentralized software platform
  - Immutable
  - Smart contracts
  - Decentralize application (dApp) platform
- Not intended as alternative monetary system

# Smart Contracts

- Run on the Ethereum Virtual Machine
- Computer programs that execute an action based on terms and conditions
- Recorded in a computer language instead of legal language, so not necessarily legally binding
- Each step can only be implemented after the execution of the immediate former step
- Once executed, the information is stored on a blockchain which cannot be altered
- Act as a foundation to build decentralized applications (DApps)

# Think of an Onion

- 3 types of transactions
  - Multiple parties come together and use blockchain to record an announcement of the exchange of monetary value
    - Buy / sell cryptocurrency
  - Multiple parties use blockchain to record an important announcement
    - Doctor and patient agree to add to a prescription to patient's medical record
  - Single party announcing an important or significant event
    - Managing a supply chain
    - Grower of organic produce commits a record to blockchain that says they've planted a certain crop
    - Organic pesticide company come to treat that organic crop
    - Grower adds information about pesticide treatment to blockchain
    - Creates traceability for the end consumer

# Smart Contract Features

- Accuracy
  - Replacing human intermediaries with executable code ensures the process will always be performed the same
- Cost savings
  - Replacing intermediaries often provides significant cost reduction
- Backup
  - Blockchain and smart contract deployed to it can provide a permanent record, allowing for auditing, insight, and traceability
- Autonomy
  - Can be developed by anyone, no need for intermediaries such as lawyers, brokers, or auditors

# Volatility

- No inherent worth
- No central regulation
- Group psychology, up or down
- Media influence
  - Doge to the moon!
- Low liquidity (fewer participants)
  - Single large order can significantly impact prices

# Stablecoin

- Tied to reserve assets
  - Fiat currency
  - Oil, precious metals, gold, silver
  - Cryptocurrencies (over-collateralized)
- Fills gap between fiat currencies and cryptocurrencies
  - Tether
  - TrueUSD

# Platform Issue Digital Currency

- Example: Diem (previously Libra)
- Build loyalty
- Harvesting transaction data
- Seigniorage revenue
  - Difference between cost production and currency sales income
  - Traditionally reserved for sovereign nations
- Will issuer be able to influence monetary policy?

# Central Bank Digital Currency (CBDC)

- Centralized
- Digital fiat currency
- Potential to bring unbanked into the financial system
- May erode privacy
- Many central banks have launched pilot programs or research
- 81 countries are pursuing development (as of July 2021)

# CBDC Around the World

G7

Working on a common set of principles for central banks to issue currency

European countries choosing not to launch CBDC could be left out of cross-border payments loop

- CBDC potential adoption

- China – Digital Currency Electronic Payment (DCEP)

Beta testing

- Nigeria – by EOY21
- Bahamas – Sand Dollar
- Russia – CryptoRuble
- Sweden – e-krona

- Bitcoin as legal tender adoption

- El Salvador – 9/7/2021
- Paraguay
- Panama
- Mexico
- Venezuela (Petro has stalled)
- Brazil
- Argentina

# CBDC Concerns

- Could cannibalize commercial financial systems
  - Exodus of as much as 30% commercial banks' funding base
  - Heavy caps
    - \$2500 limit
  - Hypothetical conflict between central banks and commercial banks for consumer deposits could pose a risk in the development of CBDCs
    - Would hinder commercial banks' ability to offer loans and mortgages if consumers place all their funds in an account with the central bank

# Regulations (US)

- FinCEN does not consider crypto legal tender
  - Exchanges are considered money transmitters
- IRS considers crypto taxable property
- Security and Exchange Commission (SEC) considers crypto securities
- Varies by state and federal authorities

# FinCEN Guidance

Currency Participant	FinCEN Definition	MSB Registration Status
Users	User	Not Required
Miners	User	Not Required
Wallet Providers	N/A	Not Required
Exchanges	Exchanger	Required
ATM Manufacturers	N/A	Not Required
ATM Operators	Exchanger	Required
Payment Processors	Exchanger	Required

# Money Services Business

- Exchanges
  - Allows transfer of fiat currency into crypto
  - Act as brokers attempting to match two offsetting transactions (buy and sell order)
  - Do not hold an inventory of crypto
- ATM operators
  - Own and operate ATMs as a business
  - Unlike an exchange, an ATM operator trades crypto for fiat currency
  - Must maintain an inventory of crypto (Bitcoin) and fiat currency
- Payment Processors
  - Enable businesses to accept crypto as payment for goods and services
  - Can pass crypto or fiat currency through to the business

# State Requirements

- Almost all states require money transmitters obtain a license
- Operating within a state does not necessarily mean that a business needs to have a physical presence in that state
- Most state regulatory bodies require any money transmitter that services or solicits a state's citizens obtain a money transmitter license
  - State requirements are not uniform
  - MSB with a physical presence in one state but with customers in other states will be required to obtain a license in every state that has licensing requirements

# Business Account Opening

- Before opening an account with a crypto-related business, you should confirm whether the business is properly registered as an MSB
  - With FinCEN
  - With any states in which it operates
- Be aware of the unique KYC and CIP challenges crypto-related businesses may face
  - Exchanges and wallet providers typically operate in an electronic-only environment and do not offer any brick-and-mortar locations
  - ATM operators generally use the actual ATM to manage their KYC program and CIP
  - KYC procedures for crypto processors should include an underwriting process for any merchant account

# Consumer Transactions

- Does your customer intend to engage in crypto-related transactions?
  - If the answer is no...move on, BUT if you happen to identify crypto-related transactions during ongoing account monitoring, you may want to follow-up about the activity
  - If the answer is yes, then you may want to determine which type of activity they are engaged in
    - Are they investing?
    - Are they mining or part of a mining group?

# Taking the Plunge

- Onboard a crypto related MSB
  - Provide crypto custody services
  - Help start-up ventures raise capital via ICO rather than traditional capital markets
  - Help customers invest in blockchain-based investments
  - Provide crypto-enabled digital payments or transactions
- Offer Bitcoin rewards checking (Quontic Bank)
    - Debit card purchases pay 1.5% reward in bitcoin
    - Managed by third-party
    - U.S. dollars are FDIC insured
    - 2% fee to redeem back into U.S. dollars

# Certificate of Completion

This certifies that

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Print Name Above

has successfully completed the

**Cryptocurrency 101 worth 1.5 APRP CREDITS**

This program was conducted by the experts at ePayResources.

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A handwritten signature in black ink that reads "Wanda J. Downs".

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Wanda Downs, AAP, APRP, NCP

# Connect With Me



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- Announcements
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The screenshot shows the ePay CONNECTIONS COMMUNITY website. At the top, there is a navigation bar with links for Home, Communities, Network, Events, Browse, Participate, and Help, along with a search box. Below the navigation bar is a banner for WEBINARS featuring the ePayU logo and a list of dates and topics: June 15 - Elder Abuse Awareness, June 16 - Mobile Remote Deposit: Risks, Rewards, and Deposits, June 17 - Disaster Preparedness: Understanding Excused Delay, and June 22 - Preparing for a Payments Audit. The main content area is divided into three sections: Latest Discussions, Announcements, and Upcoming Events. The Latest Discussions section contains four entries, each with a user profile picture, a subject line (e.g., RE: Franklin Madison), the author's name, the time since posted, and the community name. The Announcements section features a 'Member Survey on Podcasts' announcement by Michael Morrell, dated 16 days ago, with a description of the survey and a 'View Archive' button. The Upcoming Events section lists two events: 'Elder Abuse Awareness' on June 15, 9:00 AM - 10:00 AM (ET) and 'Fraud Reduction Meeting - Orlando & Tampa VIRTUAL' on June 15, 12:00 PM - 1:30 PM (ET).

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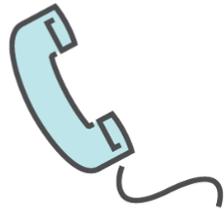
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