

**RAISE Texas & Texas Fair Lending Alliance  
present**

# **The Promises, Realities & Risks of Cryptocurrency**

**Please note:**

- **All participants are muted, but we want to hear from you!**
- **Please submit questions via chat on your menu bar.**
- **A recording of the webinar will be posted on [RaiseTexas.org/events](https://www.RaiseTexas.org/events).**

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The views presented in this webinar are the personal opinions of each speaker and do not represent the opinion or position of their employer.

# Speakers



**Rachana Chhin, Texas Fair Lending Alliance member**

**Mark Hays, Americans for Financial Reform**

**Cruz Correa, Texas Fair Lending Alliance member**

*As you think of questions, please type them in the **Chat**.*

*Interested in getting involved in advocacy at the state level on this issue?*

*Email Ann Baddour at [abaddour@texasappleseed.org](mailto:abaddour@texasappleseed.org)*

# Crypto Webinar on Consumer Protections

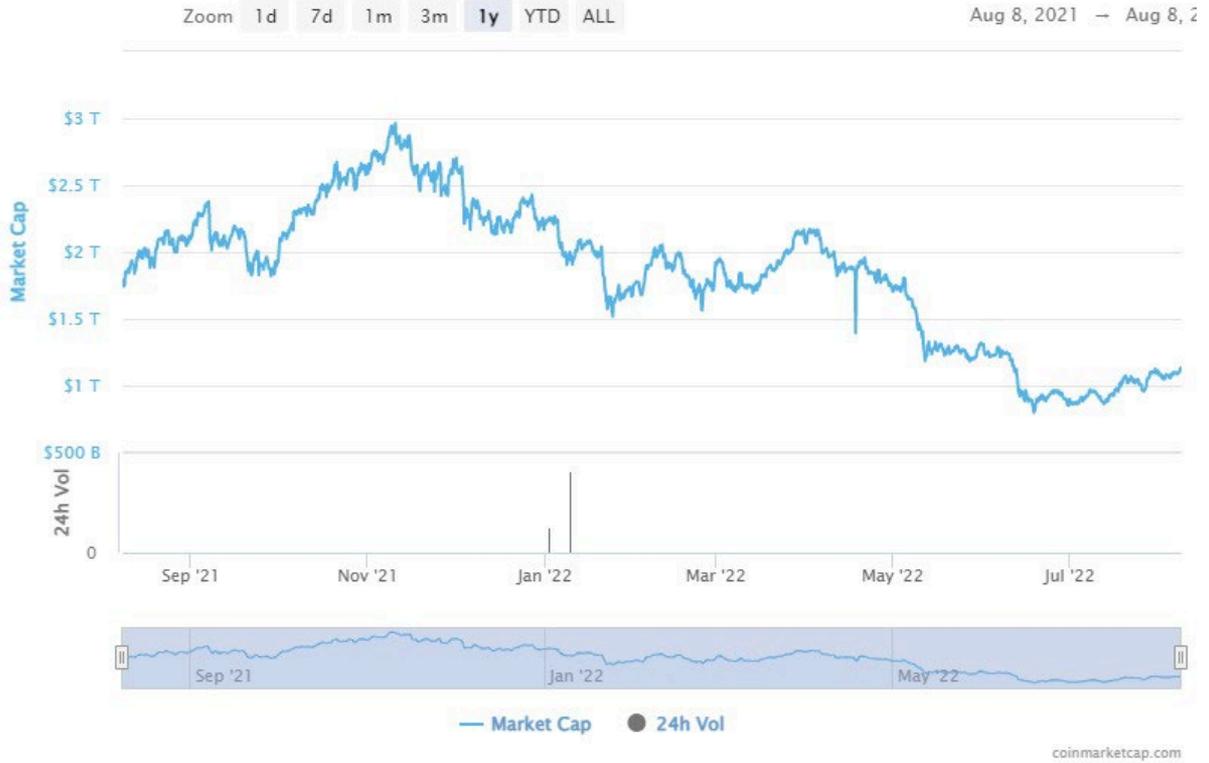
**Rachana Chhin: Coalition  
Member, Texas Fair Lending  
Alliance**

**Disclaimer:** Nothing in this webinar constitutes legal, tax or financial advice. Opinions expressed are those of the presenters and do not necessarily represent the viewpoints of our respective organizations.

# Promise & Appeal of Crypto

- **Promise of Crypto and Blockchain Technologies:**
  - **Decentralized:** Not owned by a single entity, but a distributed network of nodes validating the network across the world.
  - **Permissionless:** anyone can join and interact with the network.
  - **Censorship Resistant:** makes it hard for any single entity to censor transactions.
- **End Goal?** Bootstrap a new financial system that doesn't rely on centralized intermediaries, promote financial inclusion, reach the unbanked, remove friction between users and their money, & incentivize new technological use cases (e.g., NFTs, DeFi, DEXes, Smart Contract automation).

Crypto  
Sentiment w.  
Total Market  
Cap: Bear  
Market/Winter  
~1Y Aug. '21-'22



# Potential Causes and Aftereffects

Lingering COVID-19,  
Ukraine War, Supply-  
Chain Issues, Inflation,  
etc.

TerraLuna Stablecoin  
broke its peg (\$40B loss  
market cap).

Crypto-lender Celsius  
filed for Chapter 11  
Bankruptcy

Coinbase, Crypto.com  
firing or freezing hiring

BTC, ETH, and other  
major cryptocurrencies  
down from major ATHs

Crypto Firms Liquidating  
Assets (3 Arrows  
Capital, Voyager)

U.S. Federal Reserve  
Raising Interest Rates  
(1.75%)

Capitulation? Contagion  
to broader Markets?

# Two Perspectives on Consumer Protection

- **Blockchain Council:**

- “Cryptocurrency can drive financial inclusion as there is an urgent urge for monetary innovations, especially in the developing countries that will help in **decreasing the cost of processing transactions, making the world less dependent on cash, and obviously increasing the mobility of money** across the globe.”

- **American Progress:**

- “Increasing financial inclusion is a commendable goal. But the idea that crypto can significantly expand financial inclusion in the United States does not hold up to scrutiny. **There is no systematic evidence that crypto transactions are less expensive than traditional financial transactions, and crypto assets are still primarily used for speculation instead of payments.**”

# Promise vs. Consumer Protection Concerns

- **Accessibility & Risks:**
  - Self-Custody vs. Centralized Custodian vs. Centralized Crypto Custodian
  - Data & Security Protection Limitations
  - Censorship Resistance + Privacy Tradeoffs
  - Stability vs. Volatility of Crypto-assets
  - Interoperability Differences between TradFi and Cryptoasset Markets
- **Crypto Fees:**
  - Variance in Crypto Consumer Fees compared w. traditional bank fees such as:
    - Protocol Fees
    - Exchange Fees
- **Transaction Speeds:**
  - TPS Limitations compared to traditional payment platforms & L2/Scalability Solutions
- **“Tokenomics” Matter**

# Centralized custody vs. Self-Custody

- **Crypto** users not opting to store their crypto-assets in a centralized exchange must secure their own private keys.
- **Traditional Banks:** custodians are more tightly regulated (e.g., requirements in disclosure terms and conditions, FDIC insured deposits, financial privacy protections & credit reporting limitations, non-discrimination provisions, auditing/bank examinations, capitalization requirements).
- **Pros and Cons:** Technical and user onboarding experience issues. Self-custody allows for complete control over wallets, but user bears all risks if they lose access to “cold storage” device (e.g., Ledger, Trezor hardware) or password/seedphrase.

# Crypto Custodians & Associated Risks

- Emergence of new class of centralized “crypto banks” offer high yields. Nexo, Celsius, Blockfi have their own borrowing, lending, and staking services.
- Overcollateralized loans + risky secondary lending + derivatives trading.

	 Celsius network	 nexo	 BlockFi
% back to community	80% of revenue direct to user in the form of interest	30% of net profit for NEXO holders via "dividend"	0%
USD - Interest Earned <small>* on 500k Stable coin</small>	9.75%	8%	8.6%
BTC - Interest Earned <small>* on 50 BTC in the last year</small>	4.73%	0%	2.84%
ETH - Interest Earned <small>* on 500 ETH in the last year</small>	4.02%	0%	1.62%
Dollar Loan Rates <small>* for \$10,000 USD</small>	4.95%	24.90%	11.25% with 2% Fees
Who keeps platform profits	Depositors	Nexo	Blockfi & Investors

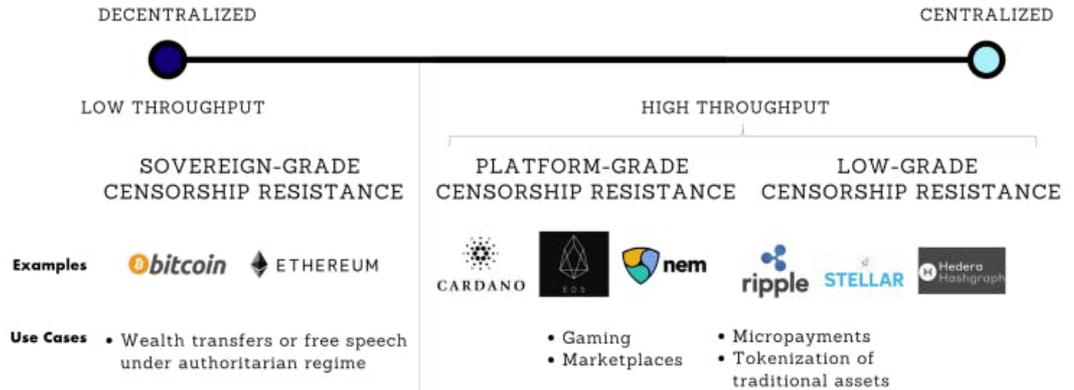
Source: [assets123 by ΛΞο](#).

# Data & Security Protection

- **Traditional financial institutions** are not technologically invulnerable but numerous security standards and consumer protection statutes and regulations govern them (e.g., Sarbanes-Oxley, Gramm-Leach-Bliley Act, and FINRA SRO) on issues such as fraudulent transactions, recordkeeping and storage, reporting requirements, data access & information sharing, and mitigating cyberthreats.
- **Immaturity of crypto space** means there are numerous “rugpulls,” scams, and hacks (e.g., doggy tokens, ICO scams).
- According to [Coin Culture](#):
  - “The crypto world is susceptible to rug pulls due to loose regulations surrounding its operations. **Unlike traditional companies with strict government control, the decentralised nature of crypto projects means the full control is left with private entities.** This makes it open for exploitation by scammers, ransomware issuers, hackers, attackers and more.”

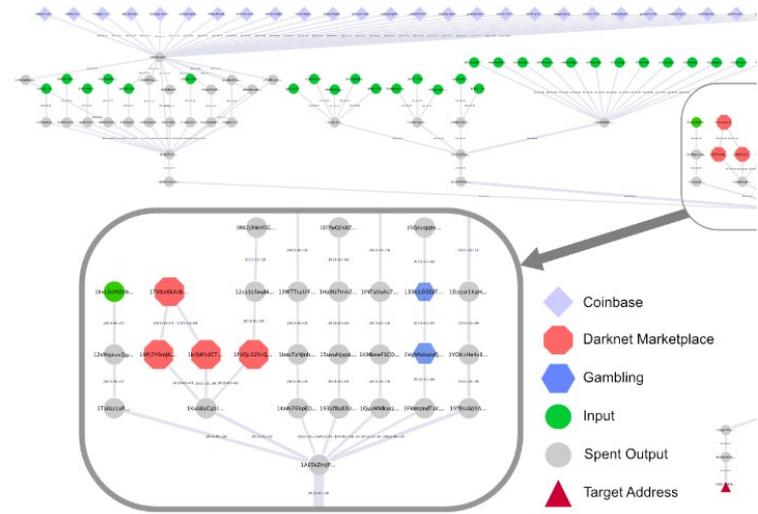
# Data & Security Protection Cont.

- Conversely, some crypto proponents argue that permissionless, decentralized, and censorship resistant protocols preserve privacy and ensure financial self-sovereignty against gov control or big tech data monopolization.
- However, decentralization is a spectrum. Not all use cases require same level of security. **Source:** [Onward Labs](#).



# Censorship resistance + Privacy: Tradeoffs.

- Blockchains have publicly verifiable addresses, but it is not immediately apparent who owns which addresses. Therefore, blockchain analytics firms are increasingly needed for forensic analysis to investigate crimes committed w. crypto (e.g., money laundering, wash trading (no rules yet)). **Source:** [PWC Switzerland](#).



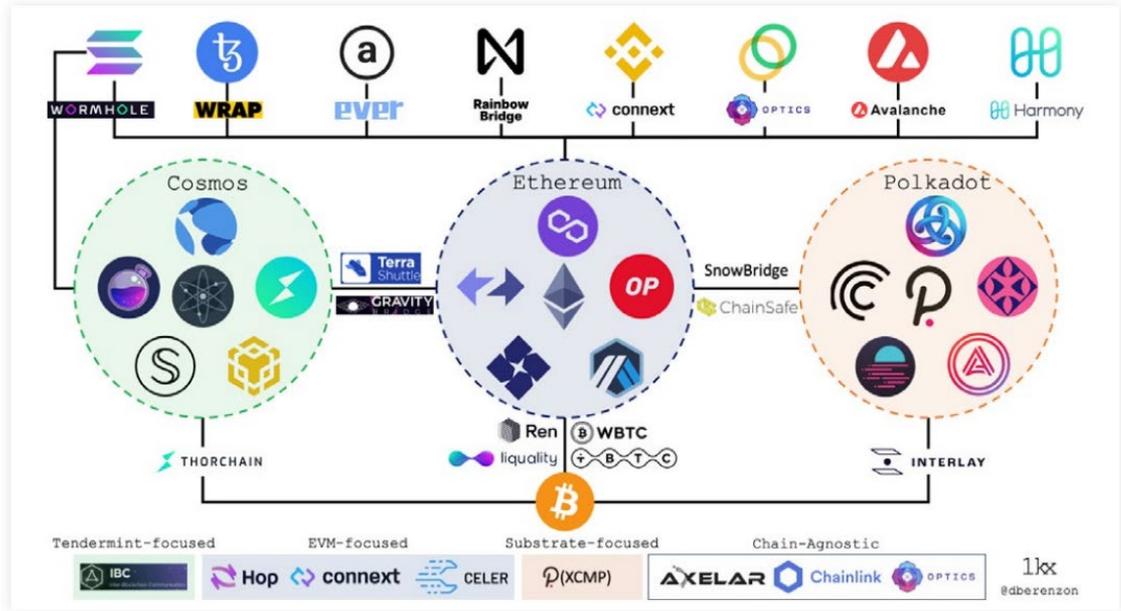
# Stability vs. Volatility

- Market volatility refers the frequency and magnitude of price movements, up or down. In traditional asset portfolios, bonds are seen as safe havens (i.e., less volatile) vs. equities (more volatile). In theory, investors trade volatility ↑ for growth potential or ↓ for capital preservation.
- Taking into account the lower purchasing power of the US dollar after recent 9%+ inflation, crypto-assets pose different consumer risks compared to traditional assets if it's too large of an allocation in a portfolio:
  - “[Volatility] is exaggerated in crypto markets as they have less liquidity than traditional financial markets — a result of crypto markets lacking a robust ecosystem of institutional investors and large trading firms. Heightened volatility and a lack of liquidity can create a dangerous combination because both feed off of each other.” Source: [Gemini](#).

# “Interoperability” in TradFi Markets

- Traditional banking systems rely on financial market utilities (FMUs) that are multilateral systems that provide the infrastructure for transferring, clearing, and settling payments, securities, and other financial institutions or between financial institutions and the system. **Source:** [Federal Reserve Board - Designated Financial Market Utilities](#).
- Common bank/money transfers can be processed via different networks such as ACH (Automated Clearing House) or SWIFT (Society of Worldwide Interbank Financial Telecommunication).
- But imagine if Bank of America could not communicate with or send or receive transactions from Wells Fargo, or vice versa.

Limited Interoperability in Crypto Space.



(Source: [Dmitriy Berenzon](#))

# Interoperability required before wide adoption

By their nature, blockchains operate as siloed networks. Validators, consensus mechanisms, data, and value stored on one blockchain is not easily transferrable to another blockchain. According to [Blockchain Council](#):

- **“Blockchain must bring interoperability on its platform and adoption in various segments that do not currently exist on its platform.** In addition to this, the need for interoperability through crossing technology is not just limited to the safe transaction of tokens but also requires the safe and secure transfer of confidential data.”



Research into development of “bridging” solutions, but currently come with security tradeoffs.

Source: [Coin Desk](#).

# Banking Fees vs. Crypto Fees: Not generalizable but can include exchange + protocol/network fees.

- **Traditional banking fees:**

- Monthly maintenance/service fees,
- out-of-network ATM fees,
- excessive transaction fees,
- overdraft fees,
- insufficient funds fee,
- wire transfer fee,
- early account closing fee, etc.

- Average bank customer pays about \$150 in fees per year. **SOURCE:** [MoneyRates.com](https://www.moneyrates.com).

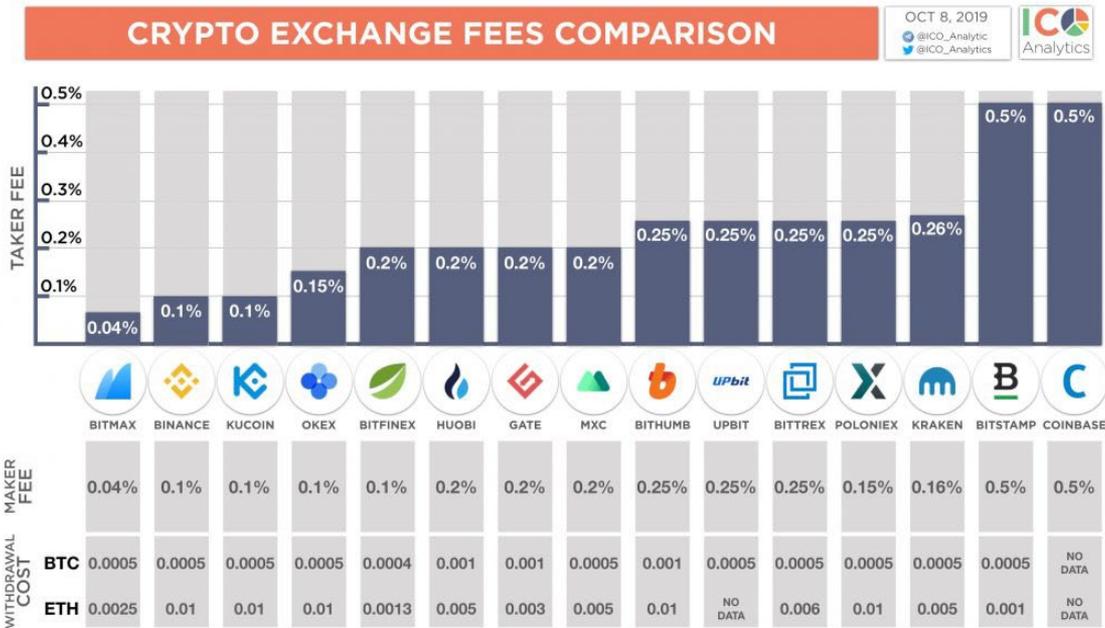
- Banking fees cost Americans \$11.6B during pandemic. **SOURCE:** [Stilt](https://www.stilt.com).

# Network Fee (Distributed to miners/network validators or the protocol):

- BTC: \$1.31 USD/tx (as of 8-8-2022).
- ETH: A “gas” fee is something all users must pay in order to perform any function on the Ethereum blockchain. Gas fees incentivize proof of work miners to verify transactions on the blockchain.
- Source: [ycharts.com](https://ycharts.com). [Coindesk](https://coindesk.com), [Crypto.com](https://crypto.com) (as of 7-25-2022).

Swap		Fee	Avg Gas Used (Gwei)	Gas Fee (ETH/USD)
Protocol		🔗	🔗	🔗
☆  Crypto.com DeFi Swap		0.3%	179,699	0.005391 \$9.51
1  Curve		0.04%	112,845	0.003385 \$5.97
2  Mooniswap		0.3%	149,767	0.004493 \$7.93
3  SushiSwap		0.3%	151,050	0.004531 \$8.00
4  DODO		0%	157,185	0.004716 \$8.32
5  Uniswap V2		0.3%	163,109	0.004893 \$8.63
6  Balancer		Variable	206,765	0.006203 \$10.94

# Exchange Fee Examples



# Lower Transactions fees on ETH Layer 2s

- Current “Gold” Standard in terms of fees.
- Uses sidechains, parallel chains to increase throughput.
- However, higher user learning curve and requires more technical knowledge to utilize L2 platforms.
- As of July 21, 2022.
- Source: [L2fees.info](https://l2fees.info).

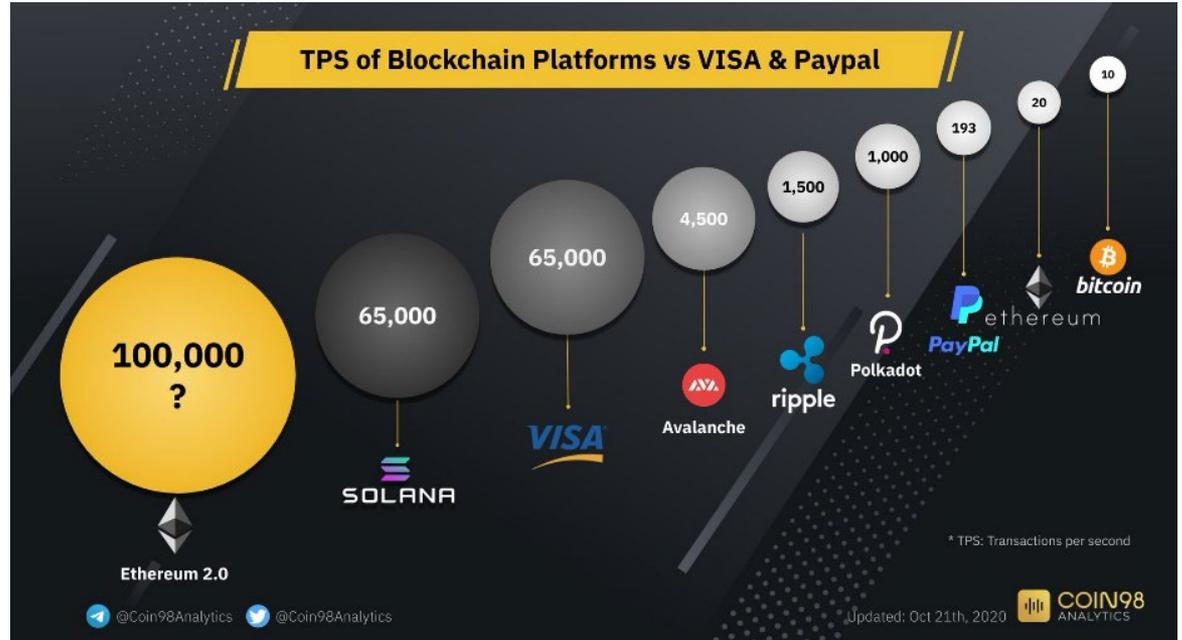
Ethereum Layer-1 is expensive.  
How much does it cost to use Layer-2?

[CryptoFees.info](https://CryptoFees.info) + [L2Beat.com](https://L2Beat.com) = ❤️

All L2s Full Rollups

Name	Send ETH	Swap tokens
 Metis Network 	\$0.02	\$0.13 ▾
 Loopring	\$0.03	\$0.44 ▾
 ZKSync	\$0.05	\$0.12 ▾
 Arbitrum One 	\$0.12	\$0.19 ▾
 Optimism 	\$0.13	\$0.19 ▾
 Boba Network 	\$0.16	\$0.33 ▾
 Polygon Hermez	\$0.25	- ▾
 Aztec Network	\$0.40	- ▾
 Ethereum	\$0.76	\$3.80 ▾

Scalability Issues:  
TPS limitations of  
current technology  
for worldwide  
adoption.



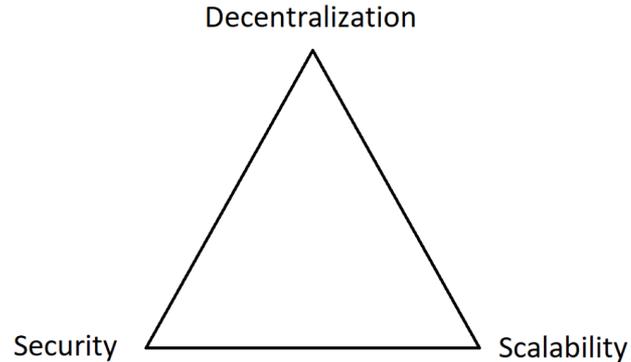
# Average Block Confirmation (Transaction settlement) Times

- When a transaction is broadcasted to the blockchain, it is presented to be included in a block by the miners. When it appears in a block, the transaction has received 1 confirmation.
- **Source:** [CoinSmart](#).
- Block confirmation times vary.
- P2P circumvention of TradFi intermediaries, but many of the most popular cryptocurrencies are inefficient to function as primary mediums of exchange for goods + services.

<b>Cryptocurrency</b>	<b>Confirmations Required</b>	<b>Estimated Time*</b>
Bitcoin (BTC)	3	30 minutes
Ethereum (ETH)	15	3 minutes
Bitcoin Cash (BCH)	6	60 minutes
Ripple (XRP)	N/A	Almost Instant
Dash (DASH)	6	15 minutes
Monero (XMR)	10	20 minutes
Litecoin (LTC)	6	15 minutes
NEO (NEO)	N/A	Almost Instant
EOS (EOS)	N/A	Almost Instant
Stellar (XLM)	N/A	Almost Instant

# Tradeoffs Need to be Addressed Before Wide Adoption

- **BTC “Lightning Network”**: Uses smart contracts to establish off-blockchain payment channels between pairs of users. Funds can be transferred between channels almost instantly. Source: [Coinbase](#).
- **ETH “Altcoins”** (e.g., EOS, SOL, AVAX): But they also face tradeoffs in security, decentralization, or scalability “trilemma” coined by ETH creator Vitalik Buterin.



# “Tokenomics” Matter

- Traditional equity and bond market participants have required certain disclosures and reporting requirements. In contrast, wide variance of opacity terms of protocol design (white paper), token distribution and emission schedules, VC control, vesting schedules, etc.
  - “In the crypto and DeFi space, during the pre-sale period of an initial coin offering (ICO) or other crowdfunding events, a percentage of a project’s token supply is often put aside in a cold wallet and held for a specific period of time. The process of holding, locking, and releasing those tokens is referred to as vesting. **Vested tokens, which often take up a fairly substantial chunk of a cryptocurrency’s total supply (20-25%), are earmarked for the project’s development team, its partners, advisors, and other assorted contributors.**” Source: [CoinSpeaker](#).

# Sample Distribution

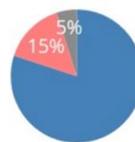
## MESSARI

### Initial Token Allocations for Public Blockchains

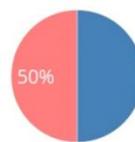
Concentrated insider ownership may permanently impair blockchains' ability to become credibly neutral public infrastructure

- **Public Sale**  
 Includes all pre-launch sale or "lock drop" allocations that were open to public participation
- **Community Allocations**  
 Ecosystem funds or airdrops that will eventually go to the community
- **Insiders**  
 Includes all team, company, and VC purchased tokens
- **Foundations & More**  
 Tokens allocated to foundations, community-governed grant pools, or other incentives like testnet participation rewards

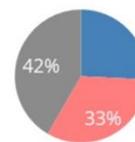
**Ethereum**



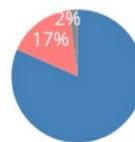
**Binance**



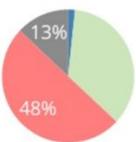
**Polkadot**



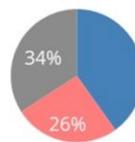
**Cardano**



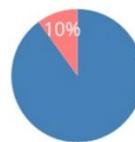
**Solana**



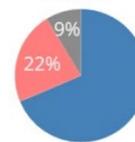
**Tron**



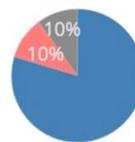
**EOS**



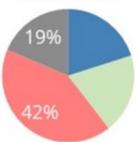
**Cosmos**



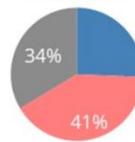
**Tezos**



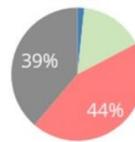
**Avalanche**



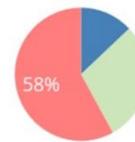
**Blockstack**



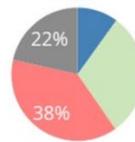
**Celo**



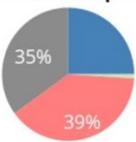
**Flow**



**Near**



**Internet Computer**



Data as of: May, 9, 2021  
 Source: Messari, CoinList, Various Blogs

# Parting Thoughts

- Immature technology but growing and dynamic space.
- Much is happening on the technical and developmental side.
- Consumer protection issues need to be addressed before widespread user adoption.
- Regulatory frameworks can guide innovation: Consumer advocates can learn or at least apply/adapt some lessons from traditional financial markets.
- Next webinar? Can review federal and state agency responses, (proposed) regulatory frameworks, filed legislation, etc.

# Ask Me a Question



**Rachana Chhin**, Texas Fair Lending Alliance member

**Mark Hays**, Americans for Financial Reform

**Cruz Correa**, Texas Fair Lending Alliance member

**Ann Baddour**, Texas Fair Lending Alliance member

*Interested in getting involved in advocacy on this issue at the Texas Legislature?*

*Email Ann Baddour at [abaddour@texasappleseed.org](mailto:abaddour@texasappleseed.org)*



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