ADVANCED ANALYTICAL
CONSULTING GROUP

Session 1: CRYPTOCURRENCIES

Which One of These Is Not Like the Others? And How?

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Outline

1. What is “Money”?
2. Three Roles of Money
3. Is Currency/Money a “Security”?
4. Where Does Money Come From?
5. Who Regulates Money?
6. The Rise of Cryptocurrency

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What is "Money"?

- Money is what we use (give/relinquish) to buy things and what we accept (receive/obtain) when we sell things.

- "Money is not, properly speaking, one of the subjects of commerce;
  but only the instrument which men have agreed upon to facilitate
  the exchange of one commodity for another.
  It is none of the wheels of trade:
  It is the oil which renders the motion of the wheels more smooth and easy."

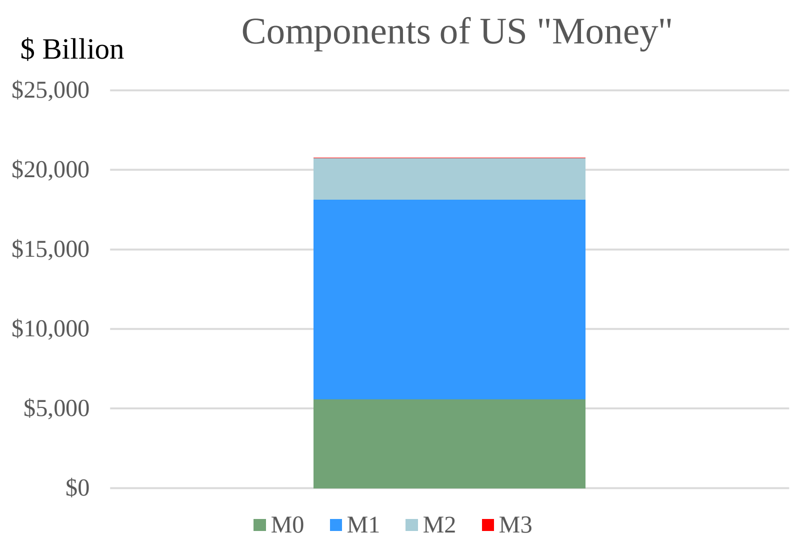
  David Hume
  Essays: Moral, Political, Literary (1777)
  Part II Essay III "Of Money"

- Circumvents the need for a "dual coincidence of wants" (barter) and facilitates trade/exchanges.

- Various types of cryptocurrencies do this.

First, . . . Currency is not the same thing as Money.

1) All currency is money, but not all money is currency.
2) Think of it like this: currency (cash) is the sum of all coins and (paper) notes. If you have a checking account (which, like money, you can use to buy things), or a debit card, or travelers checks, or other "currency substitutes," is it money?



The answer:

It depends.

M0 = currency in circulation, MB (Monetary Base) = M0 + vault cash and Fed Reserves
M1 = M0 (currency) + checking accounts (demand deposits), savings accounts, NOW accounts + travelers checks
M2 = M1 + time deposits and money market accounts
M3 = M2 + institutional money market funds, repo, large liquid assets

Source: https://fred.stlouisfed.org/series/M2NS

First, . . . Currency is not the same thing as Money. (continued)

1) There is a lot more “money” (U.S. Dollars) than “currency” (U.S. Dollars).

2) There are more U.S. Dollars outside of the U.S. than inside the U.S.
In 2025, USD 2.37 trillion in currency; USD 21.58 trillion in Dollars (M2)

3) For libertarians, government skeptics, anarchists, money launderers, . . .
cryptocurrencies (neither issued nor controlled by a country/government) are perfect!

4) On our latest United States (2024) federal income tax forms, we were asked:
“At any time during 2024, did you: (a) receive (as a reward, award, or payment for property or services); or (b) sell, exchange, or otherwise dispose of a digital asset (or a financial interest in a digital asset)?”

5) Can you pay your taxes with cryptocurrency?

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Three Roles of Money

- Medium of Exchange (Used for Market Transactions)
  - Currency, Money, and some Crypto serve this role.
- Unit of Account (Numerical Financial Measuring Stick)
  - Currency (U.S. Dollars) used for this; Crypto – not yet.
- Store of Value
  - U.S. Dollar serves this role (if inflation is low).
  - Some Crypto is thought to serve this role.
  - Some Currency clearly does not (e.g., Turkish Lira, Venezuelan Bolivar).
    - Investment Vehicle

Demand for Money: Transactional
Precautionary
Asset
Speculative

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Properties of Money

- Desirable Properties of Money:

  Acceptability

  Accessibility

  Divisibility

  Durability

  Security

  Faith and Trust

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Is Money a Security?

- Stocks (Equities) and Bonds are Securities.
- What about Foreign Exchange?
- Most financial market participants would not consider money (including foreign exchange) to be a “security”, . . . but with Cryptocurrencies, the (regulatory) verdict is not yet in.
- And there are many different types of Cryptocurrency assets.
- The answer to this question is critical to the enforcement actions.
- More on Crypto products and regulatory issues in the next webinar.

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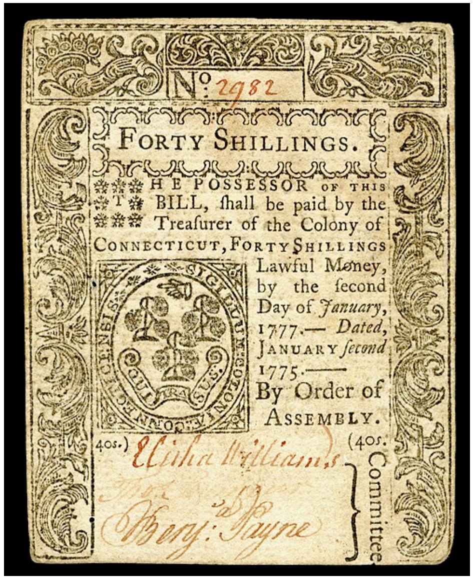
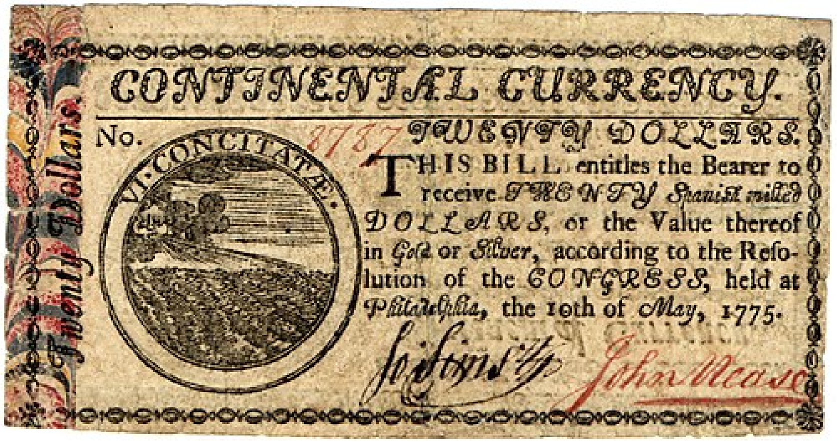
Where Does Money Come From?

- Brief History of Money
  (precious metals, gold/silver standards, fiat paper currency, CBDC)
- After the Revolutionary War, specie (precious metal coins – mainly Spanish, some paper money [pounds] – issued by colonies/states, and commodity money).





Continental Congress issued Continental currency
(“not worth a continental”).

- Coinage Act of 1792 (made the U.S. Dollar the “official” currency)

Where Does Money Come From?

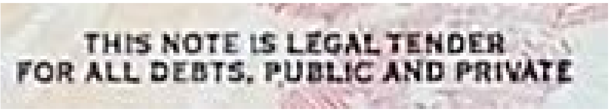
- Robert Morris/Bank of North America issued bullion-backed paper notes.
- First and Second Bank of the United States (both “terminated”) followed in 1913 by the Federal Reserve Act (our central bank is only just over 110 years old):
  - U.S. currency (silver and gold certificates) was backed by silver/gold.

  - Monetary gold (gold coins, notes, bullion) confiscated by FDR (1933)
  - Ceased convertibility of Silver Certificates (1964-1968)
  - Gold Standard (Convertibility of Dollars for Gold) ended by Nixon (1971)

  - Federal Reserve Notes (“In God We Trust”) not backed by precious metal.

Evolution towards Cryptocurrency…

- What is "legal tender"? Does this mean that people have to accept it? No.
  "This note is legal tender for all debts public and private."



- Some don't trust government, their currency, or their monetary policies. Nevertheless, it does not mean that currency/money will be abandoned. Money clearly provides a significant and unquestionable value to society.
- But, said the other way, some sovereign currencies do not hold their value [due to the propensity of government to print it – causing (hyper-)inflation] which is BAD for those holding it!
- Inflation is a tax on those who hold money (or monetary-denominated assets).
- **What is the alternative?**
  Foreign currency, gold, and, maybe better, **Cryptocurrency!**

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Where Does Money Come From?

- U.S. Dollars ultimately come from the U.S. Government (U.S. Treasury, Bureau of Engraving and Printing, Federal Reserve)
- That said, the U.S. Banking System itself "creates" money (Dollars).
- Fractional Reserve Banking System

  If somebody deposits $100 in their bank, the bank can lend out $90.
  If that $90 is then deposited in another bank, that bank can lend $81.
  . . . An initial deposit of $100 can generate $1,000 in new money.
  (This example is based on a reserve requirement/ratio of 10%.)

- Since the Covid pandemic, the reserve ratio has been set at 0%.
- When most people hear, "Gold is trading at $3,350." Gold is UP! As an economist, I understand this to mean the Dollar is DOWN.
- Where do Cryptocurrencies come from? Who can "make" them?

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Who Regulates Money?

- Currently, **The Federal Reserve** (The Central Bank of the U.S.) believes (like most central banks) that it is their role **to ensure an adequate supply of money and to protect and maintain confidence in our currency**.
- The Fed conducts **monetary policy**, regulates banks, is tasked with ensuring the stability of the financial system, promoting the health of the U.S. economy, generating maximum employment, providing for stable prices, fostering payment and settlement systems, engaging in consumer protection, community development, environmental concerns, diversity, unicorns, . . .

The Fed once targeted (tried to “set” or “fix”) the money supply.

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Who Regulates Money?

- The Federal Reserve gave up trying to use the **quantity of money** (however that may be defined) as an instrument of monetary policy. (What they basically realized, as money substitutes were created, was that they could no longer control the quantity of money.)
- So, . . . instead, the Fed decided to try to control the **price of money** (**interest rates**) . . . which is essentially what they do to this day (i.e., by raising or lowering its target "**fed funds rate**" which is the overnight interest rate relevant for member banks– often referred to as the "interest on (bank) reserve balances" and the "**discount rate**").
- If the market doesn't "get in line", the FOMC will engage in actual government (Treasury) securities transactions – known as "Open Market Operations" – to force interest rates/yields up or down.
- Do you get "interest" on your cryptocurrency (like you do at the bank)?

And Fed Policy Actions Can Be Topical Too . . .

June 26, 2025

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REGULATORY ROUNDUP

Fed votes in favor of bank leverage ratio changes

The US Federal Reserve has voted to propose lowering the enhanced supplementary leverage ratio, potentially freeing up over $200 billion in capital at large banks. The rule change would reduce required capital levels at both holding companies and subsidiaries, with a 60-day public comment period now underway. **Full Story:** CNBC (6/25), Reuters (6/25), The Wall Street Journal (6/25)

Who Regulates Money?

- Where does it come from? What is it backed by? What is its value?
- All Federal Reserve Notes are issued by the Fed Board of Governors.
- Regulated by:
  - **Federal Reserve** (sets monetary policy, targets interest rates)
  - **Office of the Comptroller of the Currency** (regulates other banks)
  - **FDIC** (insures bank deposits)
  - **FinCEN** (anti-money laundering under the U.S. Treasury)
- Historically, the Fed/Treasury had a legal monopoly on U.S. money.

  With Cryptocurrencies, the genie is out of the bottle.

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Outline: The Rise of Cryptocurrency and Drivers of Crypto Litigation

1. The Evolution of Cryptocurrency

2. Key Differences Between Crypto and Traditional Currency

3. Crypto vs. Traditional Currency-Driven Litigation

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Why was Cryptocurrency Introduced?

- Oct. 2008: Satoshi Nakamoto published paper "Bitcoin: A Peer-to-Peer Electronic Cash System" outlining the **solutions cryptocurrency would provide as an antidote to centralized banking**:
  - "Commerce on the internet has come to rely almost exclusively on financial institutions serving as trusted third parties to process electronic payments. **While the system works well enough for most transactions, it still suffers from the inherent weaknesses of the [banking-]trust-based model**."
  - "Completely non-reversible transactions are not really possible, since financial institutions cannot avoid mediating disputes. The cost of mediation increases transaction costs…With the possibility of reversal, the need for trust spreads. **Merchants must be wary of their customers, hassling them for more information than they would otherwise need..."**
  - "What is needed is an electronic payment system **based on cryptographic proof instead of trust**, **allowing any two willing parties to transact directly with each other without the need for a trusted third party**…Transactions that are computationally impractical to reverse would protect sellers from fraud…**"**

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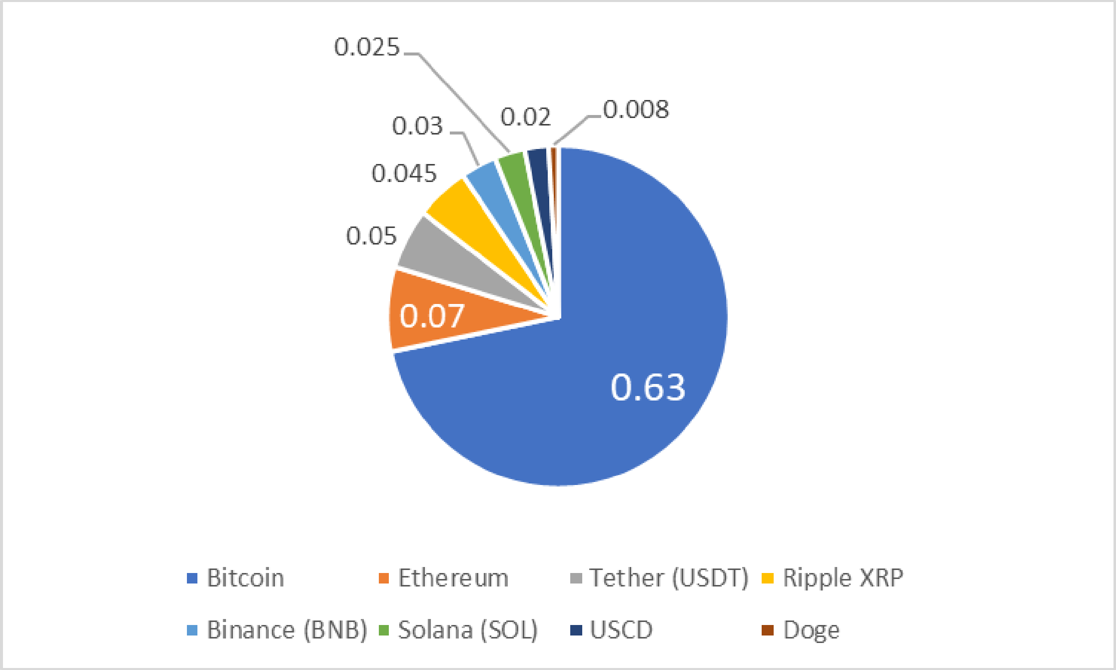
Cryptocurrency – Some Basic Facts

1) **A digital currency involving payments using an encryption algorithm where transactions are carried out, verified and recorded by a decentralized system (rather than a centralized authority – like a government-based central bank).**
2) The first crypto: **“bitcoin” (first released as opensource software 2009**). Supply capped at 21 mm.
3) Currently (2025), **there are over 25,000 different cryptocurrencies** (and many “cryptocurrency derivatives” – from ETFs, futures, options, swaps, . . .).
4) **Over 40 of those cryptos have market capitalizations (value in USD) exceeding $1 billion.**



5) For U.S. Federal Income Tax purposes, cryptocurrencies are defined to be **property, not currency.**

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Growth of Global Crypto Market: ~ $3 Trillion

Source: Coingecko

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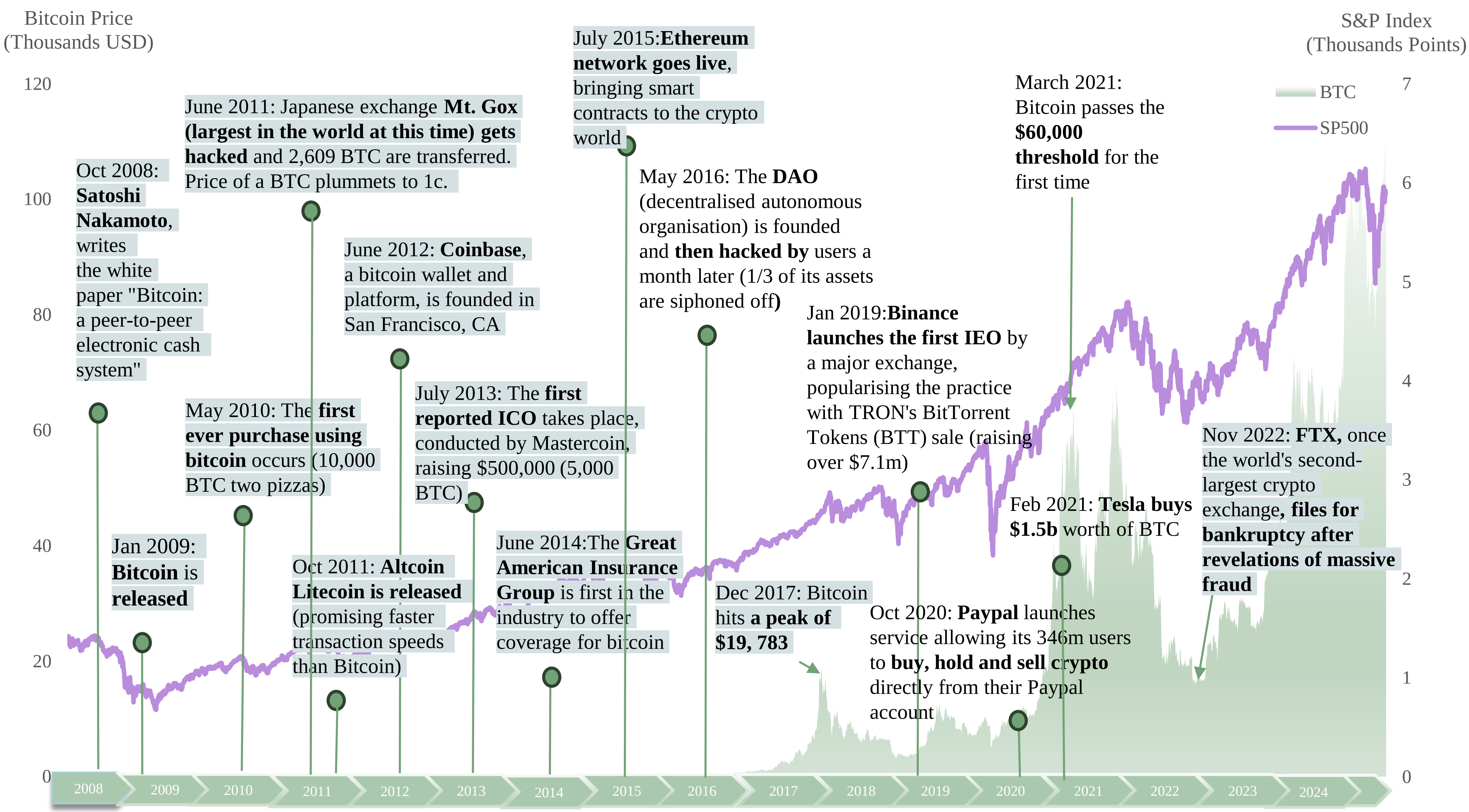
How does Cryptocurrency work? Decentralized, peer-to-peer network

1. User **initiates a transaction**
2. The transaction is mathematically encoded and forms a data structure called a "**block**"
3. Block includes a **reference (hash)** to the previous block, forming a continuous and immutable chain — the blockchain.
4. The transaction is sent out to a decentralized peer-to-peer network for **validation**
5. Miners or validators **verify the transaction** using a consensus mechanism like **Proof of Work (PoW)** or **Proof of Stake (PoS)**
6. Block is added to the **blockchain**
7. Recipient **receives** the cryptocurrency
8. Transaction history remains **publicly auditable**, ensuring transparency, accountability, and resistance to fraud.

The Evolution of the Crypto Economy



Cryptocurrency and insurance - Oxbow Partners

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Categorization of Top Cryptocurrencies

Meme Coins

Doge, SHIB

Community-driven tokens, gain value via hype

NFTs

CryptoKitties, Axie Infinity

Utility Tokens

FIL, SC, CVC, BAT

Provide access to a product or service

Stablecoins

Crypto-Collateralized

DAI, sUSD, RAI

Fiat-Collateralized

UST, SBD, USDT, USDC, WBTC

Smart Contract Platforms

ETH, ADA, SOL, TRON

Blockchains enabling automated apps

Store of Value

BTC

Used to preserve wealth, hedge against inflation

Digital Currency

LTC, BCH, XLM, XMR

Used for cross-border transfers, low-fee payments

Security Tokens

tZERO, INX

Tradable assets expected to generate profit, regulated like securities

Equity Tokens

Securitize

Security tokens giving ownership rights, similar to stocks

Exchange Tokens

BNB, UNI, HT, CRO

Issued by exchanges, provide trading benefits or governance rights

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Key Differences Between Cryptocurrency and Traditional Money

Crypto	Traditional Money
Decentralized	Centralized
Blockchain Technology	Established banking systems
Unregulated/Backer and Rules may be unclear or unknown	Heavily regulated/Dollars backed by U.S. government
Highly volatile	More stable
Limited acceptance	Widely accepted
Faster and relatively low fees	Slower cross-border, higher fees
Prone to hacking, irreversible	More secure, reversible

Drivers of Differences in Crypto vs. Traditional Currency Litigation

- **Decentralized Nature:** Makes crypto attractive to criminals for fraudulent activities.
  - Lack of Central Authority
  - Difficulty identifying parties and jurisdictions (complex technology)
  - Challenges in enforcement
  - Vulnerability to economic shocks/lack of dollar reserve backing
  - Greater volatility and potential for investor losses
- **Regulatory Uncertainty:** Evolving crypto regulations creates ambiguity.
  - Lack of unified framework
  - Securities classification uncertainty
  - Faster innovation than regulation
  - Difficulties classifying assets and determining applicable legal frameworks
- **Challenges to following funds, especially across borders**
- **Irrevocable transactions that move quickly and pseudo-anonymously**
  - Lack of consumer protections
  - Criminals can facilitate large scale, instantaneous transactions without protection of traditional financial intermediaries

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Litigation Arising from Crypto vs. Traditional Currency

Types of Litigation	Traditional Currency	Cryptocurrency
Overall Comparison	Contract disputes, fraud, theft, money laundering, tax evasion and regulatory violations, **usually involving financial institutions, businesses and individuals**	**Stems from novel, decentralized, less regulated nature of crypto, including securities violations, hacking, scams and lack of consumer protection**

Some familiar types of litigation, and some new ones generated by unique nature of crypto…

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Litigation Arising from Crypto vs. Traditional Currency

Traditional Currency	Cryptocurrency
Breach of Contract	
Fraud (counterfeit currency)	**Scams and Fraud** (Ponzi schemes, "rug pulls", pump and dump and other fraudulent investment schemes)
Theft (embezzlement)	**Hacking and Theft** (disputes arising from unauthorized access to crypto wallets, theft of digital assets, and failures of crypto exchanges to protect user funds)
Money Laundering	**Money Laundering**
	Securities violations (unregistered crypto offerings, securities fraud/price drop suits, market manipulation)
	Lack of Consumer Protection (legal action due to irreversible nature of crypto transactions, inadequate protections in decentralized system)

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Questions?

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Today: Money, Currency, Cryptocurrency

Session 2: Who's Watching the Crypto Bank and What About the Crypto Derivatives?

Products, Exchanges, Regulators, Pending Government Legislation and Enforcement Trends

Session 3: So Many Crypto Crimes, So Little Time: Previous and Likely Future Crypto Litigation

Cryptocurrency litigation trends from fraud/misrepresentation, money laundering, theft, market manipulation and more

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