



# BLOCKCHAIN

## WHAT IS IT AND WHY SHOULD YOU CARE?

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Webinar

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# Blockchain: What Is It?

- Blockchain Technology is based on a “White Paper” Circulated on the Internet in October 2008 by “Satoshi Nakamoto”
- A Blockchain is:
  - A Distributed Open Source Secure Ledger
  - It is immutable and unchangeable

# Solution to What Problem?

- How do you establish trust among a network of inherently untrustworthy participants?
- Solved mathematically the Byzantine Generals' Problem

# Consensus

- Open Source – Anyone can work on development
- A Blockchain Hides in Plain Sight and Exists on Consensus
- Each block is added to the previous block forming a chain...a blockchain
- Thoroughbreds



# Have you invested in Bitcoin, alt-coins, tokens or used blockchain technology in any form?

- Yes I currently invest in cryptocurrencies
- No I do not invest in cryptocurrencies but our company does use blockchain
- No I do not invest in cryptocurrencies or use any blockchain technology but plan to in the future
- I do not plan to invest in cryptocurrencies or use any blockchain technology

# BITCOIN: THE FIRST APPLICATION

## What is Money?



- First transfers of goods and services were barter
- However, barter did not provide the transferability and divisibility necessary for growth of a sophisticated economy



# Gold and Silver

- Earliest forms of money, that is a medium of exchange, were gold and silver
- **Why?** : Not because they were shiny!
- Gold and silver were practical means of exchanging value:
  - ❖ They were scarce – but not too scarce – and more could always be “mined”
  - ❖ They do not rust, oxidize or corrode
  - ❖ They were indestructible
  - ❖ They were easy to melt, therefore they were easily divisible
- Coins become standard units of measure (not necessarily value)





# Modern Era for Money

- Gold and silver universally recognized as a medium of exchange until recent times
- Knights Templar / The First ATM / Paper Money
- Growth of population and economy made gold and silver coins impracticable
- First paper money bills were merely warehouse receipts for bullion (Fort Knox)
- Old one dollar bills said “payable in silver on demand”

# Fiat Currency

- What we use today is called fiat currency – it is currency, money, because the government says it is – there is no inherent value
- Dollar is not tied to anything, but it is “legal tender”
- Various forms of “money”:
  - M1. Physical currency, demand deposits
  - M2. M1 + time related deposits, money-market funds
  - M3. M1 + M2 + long term time deposits, institutional money-market funds
- Everything but hard currency (bills) is “virtual”

# How is Money Created?

- Printing press – but very insignificant
- Fed Reserve buys U.S. Government Bonds and pays for them by “wire transfer”
- Wire Transfer of what? Dollars.... out of thin air!



# Do you believe blockchain has any value in fintech or any other business applications?

- Yes
- No
- Maybe/ Not sure
- What is blockchain exactly?

# BLOCKCHAIN UTILITY BEYOND BITCOIN

- A blockchain is a data storage file cabinet or ledger...anything can be in the cabinet (or ledger)
- What is in any drawer of the file cabinet can be transferred to another drawer....that item that can be transferred can be Bitcoin, or it can be a “token” or “coin” (sometimes called an alt-coin)
- A token or coin can represent anything..it is just a placeholder
- While there is no limit to the amount of tokens or coins that can exist or be transferred on a given blockchain, limits may be established

# WHAT IS AN ICO?

- Initial Coin Offering---
- The sale of a unit of “something” placed on a blockchain
- That “something” can be called a Token, and just exchanged on the blockchain
- It can have characteristics of a “security”  
Right to revenue or profits, right to vote on corporate matters
- Or it could have some “utility” such as the right to play games online, to purchase goods and services in a given online market

# Regulatory Issues

- Securities and Exchange Commission (“SEC”) July 25, 2017 Release : Security..... or Not. SEC presumes a security.
- IRS : Bitcoin is Property, Not Currency
- FinCen : Money Transmitter License
- State Regulation : NY BitLicense
- AML/KYC in an anonymous ecosystem
- SEC has solicited comments of Bitcoin ETF
- SEC issuing cease and desist orders
- Approach of certain foreign regulators
- Commodities?

# Do you back up your computer data on tapes overnight?

- Yes
- No
- Maybe/ Not sure
- Do people actually do still this?



# Blockchain: A Structured Finance Solution?

In February 2017 The Chamber of Digital Commerce, the world's largest trade association representing the blockchain industry, and the Structured Finance Industry Group announced the formation of a strategic partnership focused on advancing the use of blockchain technology in securitization markets.

- Blockchain technology offers transparency, efficiency and real time transfer.
- In addition, a blockchain record cannot be hacked, lost, stolen or changed.
- All transactions ever recorded on the blockchain are secure and stored permanently.
- No requirement for back up tapes or redundancies.

# Deloitte White Paper on Blockchain Use in Secured Transactions

Deloitte Noted:

- **Single, Consistent source of information** – Blockchain enables a single, consistent source of information for all participants in the network.
- **Complete, immutable audit trail** – From loan origination to primary issuance, servicing, and changes in ownership in the secondary market, blockchain can create a chronological and immutable audit trail of all transactions.
- **Better valuation and price discovery** – The transparency facilitated by blockchain technology could reduce the information asymmetry and network disadvantages that some entities, especially smaller ones, currently face in the securitization industry.
- **Speed and certainty** – Blockchain technology, through its disintermediation and simultaneous recording of information across the system, can virtually eliminate time lags in information and payment flows throughout the securitization process, including in the secondary market.
- **Security** – Blockchain's capacity to increase the security of transactions and data, and mitigate fraud could be appealing to the securitization industry, where integrity of data is paramount.

# Would you feel comfortable putting all your secure data on the cloud or blockchain?

- Yes, I have no security concerns around Cloud or Blockchain
- I'm okay with Cloud but not sure about blockchain yet
- I'm not sold on the security around Cloud or Blockchain yet
- No way under any circumstance

# RECENT DELAWARE ACTION

- In July 2017 Delaware Governor John Carney signed into law amendments to the Delaware General Corporation Law specifically addressing blockchain technology.
- These amendments permit the use of Blockchain Technology for the Creation and Administration of Corporate Records.
- They also permit the use of Blockchain Technology for the Electronic Transmission of Stockholders' Communications.

# THE FUTURE

“This [telephone] has too many shortcomings to be seriously considered as a means of communication.”

- Western Union internal memorandum, 1876

“The horse is here to stay but the automobile is only a novelty – a fad.”

- The president of the Michigan Savings Bank, 1903

“Who the hell wants to hear actors talk?”

- H. M. Warner, Warner Brothers, 1927

“There’s no chance that the iPhone is going to get any significant market share.”

- Steve Ballmer, former Microsoft CEO, 2007