

THROUGH THE LOOKING GLASS:

A COMPLIANCE PERSPECTIVE FOR BANKING CRYPTOCURRENCY EXCHANGERS



PREPARED AND PRESENTED

FOR THE

GULF COAST ANTI-MONEY LAUNDERING FORUM



By

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STRATEGIC ADVANTAGE

THROUGH REALISTIC SOLUTIONS

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WHAT WILL WE BE DISCUSSING?

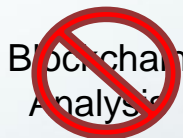
BUT IN ORDER TO HAVE IT MAKE "SENSE", YOU HAVE TO FOLLOW THE WHITE RABBIT DOWN THE RABBIT HOLE!



7 KEY CONCEPTS



CURRENCY THE BLOCKCHAIN BITCOIN REGULATORY TREATMENT OF VIRTUAL CURRENCIES
BSA/AML CONCERNS ILLICIT ACTIVITIES AND COMPLIANCE.



LIKE ALICE IN WONDERLAND, WE NEED TO BELIEVE IN THE IMPOSSIBLE:

(OR AT THE VERY LEAST, THE HIGHLY UNLIKELY!)



Sometimes
I believe in
as many as
six
impossible
things
before breakfast.
- Alice in Wonderland





KEY CONCEPT NO. 1 : CURRENCY



FinCEN's regulations define currency (also referred to as "real" currency) as "the coin and paper money of the United States or of any other country that [i] is designated as legal tender and that [ii] circulates and [iii] is customarily used and accepted as a medium of exchange in the country of issuance."

- + Types
- + Valuations
- + Distinctions





TYPES OF CURRENCY



- + Fiat Currency = “real currency” (e.g. coins and paper notes).
Issued by a government (i.e. a promissory note) and circulated within an economy.
- + Cryptocurrency = The “crypto” part refers to the fact that the currency is encrypted.
- + Digital Currency = “virtual”, “electric” or “electronic”; not “fiat” or physical, may or may not be “crypto”
- + Virtual Currency = a medium of exchange, not “fiat” or physical, may or may not be “digital” – may be “currency” in some environments – may or may not be “crypto”
- + Convertible Virtual Currency = “virtual”; may or may not be “crypto”; has an equivalent value in real currency, or acts as a substitute for real currency





THE 18TH CENTURY PHILOSOPHER, VOLTAIRE, FAMOUSLY SAID:



“Fiat currency always eventually
returns to its intrinsic value...

zero”



*The U.S. Dollar doesn't have any intrinsic value
until, as a country and an economy, we assign
value to it. The U.S. Dollar is “legal tender”.*
Money is a collective human invention



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KEY CONCEPT NO. 2 : THE BLOCKCHAIN AND BITCOIN



Why is it called "Blockchain"?

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Basic Blockchain Concepts

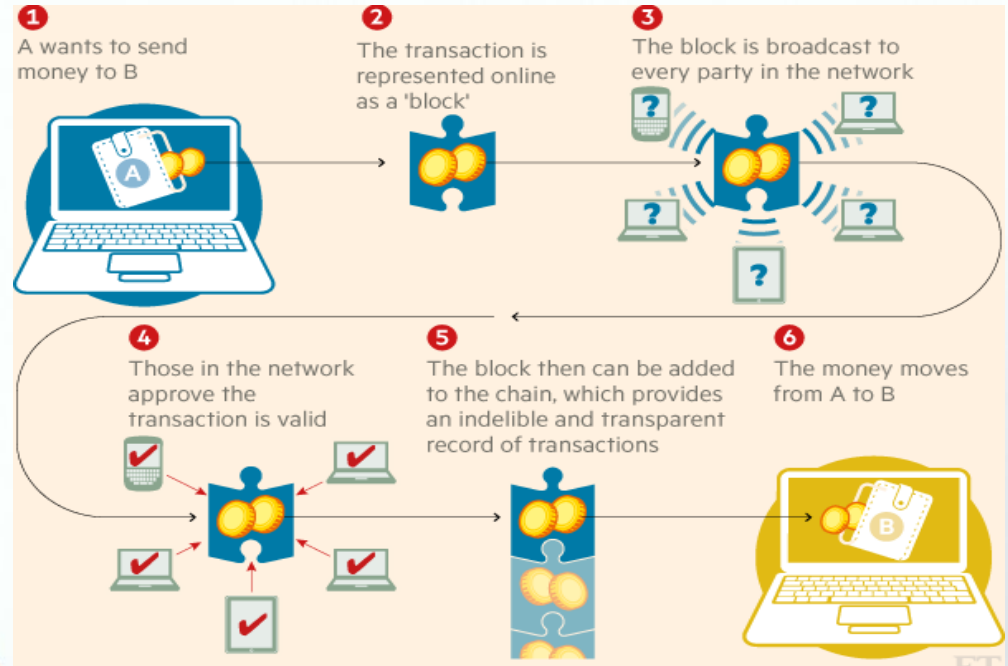
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Image: Financial Times



KEY CONCEPT NO. 2 : THE BLOCKCHAIN AND BITCOIN



- 2** Provides transparent, traceable data
- 3** Decentralized
- 4** Operates on a Distributed Network
- 5** Immutable

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Basic Blockchain Concepts

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Image: Financial Times





THE BLOCKCHAIN

- + ... is Distributed
- + ... is Encrypted
- + ... is Inclusive
- + ... is Immutable
- + ... is Historical

Will record anything of value to humankind –

- birth and death certificates
- marriage licenses
- deeds and titles of ownership
- rights to intellectual property
- educational degrees
- financial accounts
- medical history
- insurance claims
- citizenship and voting privileges
- location of portable assets
- provenance of food and diamonds
- and
- anything else that we can express in code.





KEY CONCEPT NO. 3 : BITCOIN (WHAT IS IT?)



A method of transmitting money?



FinCEN says, "Looks like!"

Anyone in the business of exchanging Virtual Currency for real currency, funds, or other virtual currency is a money transmitter and must register as an MSB.

FIN-2013-G001 (March 18, 2013)





KEY CONCEPT NO. 3 : BITCOIN (WHAT IS IT?)



A method of transmitting money?



FinCEN says, "Looks like!"

A security or investment contract?



The SEC says, "Maybe"

SEC: "Whether a virtual currency is a security under the federal securities laws, and therefore subject to [SEC] regulation, is dependent on the particular facts and circumstances at issue."





KEY CONCEPT NO. 3 : BITCOIN (WHAT IS IT?)



A method of transmitting money?



FinCEN says, "Looks like!"

A security or investment contract?



The SEC says, "Maybe"

A commodity?



The CFTC says, "yes"

- + In its first bitcoin enforcement action (September 2015) the CFTC confirmed that, "Bitcoin and other virtual currencies" are commodities"
- + This action made it clear that derivatives on virtual currencies are subject to regulation under the Commodity Exchange Act.





WHAT IS BITCOIN? (CONTINUED)



Property?



The IRS says, "Yes!"

A payment system innovation?



The Fed says, "Yes!"

An unfair, deceptive or abusive actor practice?



The CFPB says "No!"

The CFPB has not designated virtual currencies as an "unfair, deceptive or abusive act or practice" (UDAAP).

General tax principles that apply to property transactions apply to transactions using virtual currency.

"...[T]his is a payment innovation that's taking place entirely outside the banking industry, The Federal Reserve simply does not have the authority to supervise or regulate Bitcoin in any way."





WHAT IS BITCOIN? (CONTINUED)



What do the Courts say?



"It is clear that bitcoin can be used as money. It can be used to purchase goods or services, and as Shavers stated, used to pay for individual living expenses. [...] it can also be exchanged for conventional currencies, such as the US dollar, Euro, Yen, and Yuan."

(SEC v Shavers – United States District Court, Texas, 2013)



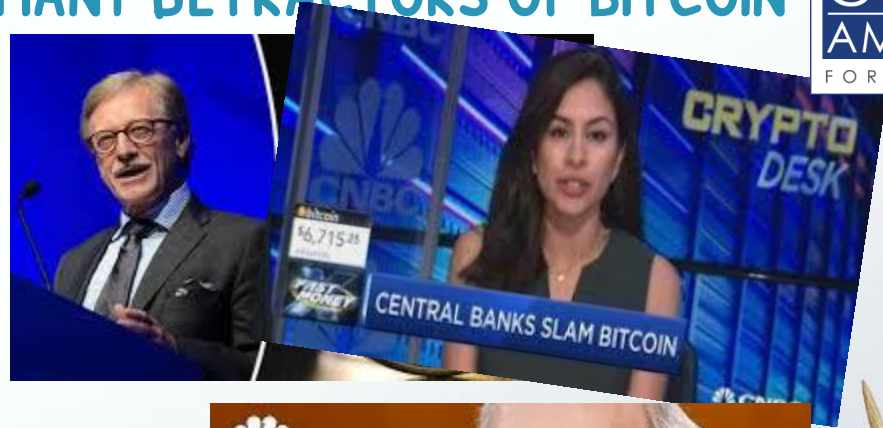
"For purposes of fraudulent transfers,... Bitcoin should be valued as an asset or 'tangible personal property'"

(In re HashFast Technologies LLC – U.S. Bankruptcy Court, N.D. Ca. 2016)





THERE HAVE BEEN MANY DETRACTORS OF BITCOIN



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Basic Detractors

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RISK: ADJUSTING TO NEW KNOWLEDGE



JPMorgan Chase (NYSE:JPM) CEO Jamie Dimon has sure come a long way on his bitcoin stance — from first calling the cryptocurrency a “fraud”, ... to saying the “blockchain is real”, to now releasing what some are calling the “Bitcoin Bible”.



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Bitcoin is Here to Stay!

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THERE HAVE ALSO BEEN MANY SUPPORTER OF BITCOIN



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CRYPTO FACTS



~\$400 billion

Market Cap of all CC

(as of February 8, 2018; Over 1,500 CCs)



~\$140 billion

Market Cap of bitcoin



3,000,000+

Cryptocurrency Users worldwide

(Study by Cambridge Centre for Alternative Finance)

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SOURCE: <https://news.bitcoin.com/bitcoin-numbers-21-statistics-reveal-growing-demand-cryptocurrency/>

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CRYPTO FACTS

*The total number of possible bitcoin addresses is 2^{160}
or 1,461,501,637,330,902,918,203,684,832,716,283,019,655,932,542,976.*

SOURCE: [Michele D'Aliessi](#) Explaining Blockchain Technology in Simple Words. June 1, 2016

The odds of winning the lottery are: 1 in 292,201,338

The odds of someone guessing your private key successfully:
1 in nearly 1.5 quindecillion Pretty much 0.

Example of a bitcoin Wallet Address:

1GVY5eZvtc5bA6EFEGnpqJeHUC5YaV5dsb





KEY CONCEPT NO. 4 : REGULATION

- + Federal Regulation
- + State Regulation
- + Texas Regulatory Regime



Image Source: <https://www.pinterest.com/ledgerwallet/bitcoin-editorial-cartoons/>



FEDERAL REGULATION OF BITCOIN



- + In 2011, FinCEN issued a final rule amending definitions and other regulations relating to money services businesses to provide that money transmission covers the acceptance and transmission of value that substitutes for currency (e.g. virtual currency).
- + Since then, FinCEN has issued several administrative rulings clarifying how this impacts different business models in the virtual currency space.





FEDERAL REGULATION OF BITCOIN



- + August 2015 Administrative Ruling on Persons Issuing Physical or Digital Negotiable Certificates of Ownership of Precious Metals.
- + January 2014 Administrative Ruling on the Definition of User in Context of Mining;
- + January 2014 Administrative Ruling on the Definition of User in Context of Software Development and Investing in Virtual Currencies;
- + April 2014 Administrative Ruling on Rental of Computer System for Mining Virtual Currency;
- + October 2014 Administrative Ruling on Virtual Currency Trading Platform; and
- + October 2014 Administrative Ruling on Virtual Currency Payment System;
- + March 2013 Guidance on the application of FinCEN's regulations to transactions in virtual currencies.





FEDERAL REGULATION OF BITCOIN



- + In its **2013** Guidance, FinCEN spoke of the application of its regulations to transactions in virtual currencies. FinCEN referred to participants in generic virtual currency arrangements, using the terms “exchanger,” “administrator,” and “user.”

(FIN-2013-G001) (“Application of FinCEN’s Regulations to Persons Administering, Exchanging, or Using Virtual Currencies,” March 18, 2013)





FEDERAL REGULATION OF BITCOIN (CONTINUED)



- + An “exchanger” is a person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency.
- + An “administrator” is a person engaged as a business in issuing (putting into circulation) a virtual currency, and who has the authority to redeem (to withdraw from circulation) such virtual currency.
- + A “user” is a person that obtains virtual currency to purchase goods or services

NOTE: Both exchangers and administrators are considered “money transmitters” unless a limitation/exemption from the definition of money transmitter applies to that person.





STATE REGULATION OF BITCOIN



Despite the concerns of federal regulators, the U.S. Congress has not exercised its constitutional power to preempt blockchain regulation to the exclusion of states. As such, each state may develop its own rules and regulations.

And they have! States differ.

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State Crypto Regulation

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TEXAS REGULATION OF BITCOIN



- + On **April 3, 2014**, the Texas Department of Banking took the lead on protecting digital currency from stifling state-law money transmission regulations.
- + **Supervisory Memorandum 1037**, “Regulatory Treatment of Virtual Currencies Under the Texas Money Services Act,”





TEXAS REGULATION OF BITCOIN (CONTINUED)



+ Supervisory Memorandum 1037

Regulatory Treatment of Virtual Currencies Under the Texas Money Services Act

Two critical considerations:

Is cryptocurrency (1) currency exchange; and/or (2) money transmission?

TEXAS: Two findings:

1. Exchanging virtual currency for sovereign currency is not currency exchange under the Texas Finance Code. (Finance Code §151.501(b)(1))
2. [M]oney transmission licensing determinations regarding transactions with cryptocurrency turn on the single question of whether cryptocurrencies should be considered "money or monetary value" under the Money Services Act. ...
[C]ryptocurrencies as currently implemented cannot be considered money or monetary value under the Money Services Act.

<http://www.dob.texas.gov/consumer-information/virtual-currency-guidance>





TEXAS REGULATION OF BITCOIN (CONTINUED)



Supervisory Memorandum 1037 enumerated the regulatory treatment of five common types of transactions involving cryptocurrency:

1. **Sale of Goods Between Two Parties**

Exchange of cryptocurrency for sovereign currency between two parties is not money transmission.

2. **Crypto for Crypto**

Exchange of one cryptocurrency for another cryptocurrency is not money transmission. Regardless of how many parties are involved, there is no receipt of money, and therefore no money transmission occurs.





TEXAS REGULATION OF BITCOIN (CONTINUED)



3. Crypto Only

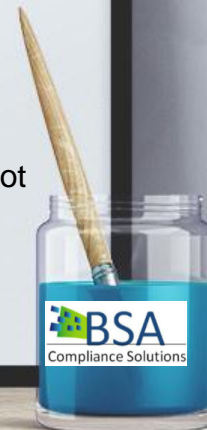
Transfer of cryptocurrency by itself is not money transmission.

4. Crypto → 3d Party Exchanger → \$

Exchange of cryptocurrency for sovereign currency through a third party exchanger is generally money transmission.

5. Crypto → ATM → \$ and \$ → ATM → Crypto

Exchange of cryptocurrency for sovereign currency through an automated machine is usually but not always money transmission.





TEXAS REGULATION OF BITCOIN (CONTINUED)



- + In December 2017/January 2018, the Texas State Securities Board (“TSSB”) entered the regulatory fray. Departing from the state’s prior “hands-off” approach, the TSSB has affirmatively opened multiple enforcement actions accusing non-Texas businesses of violating Texas securities laws.
- + Director of the TSSB’s Enforcement Division: “The tipping point is seeing investments no longer limited to hobbyists or enthusiasts, but reaching Main Street investors,”





TEXAS REGULATION OF BITCOIN (CONTINUED)



- + On January 5, 2018, Texas Banking Commission issued a Cease & Desist Order relating to a company that claimed to be a “cryptocurrency bank”
- + The Cease & Desist Order was based on the Commissioner’s finding that Texas Finance Code Chapter 31 had been violated by using the term “bank” in its name and marketing materials to imply that it is in the business of banking in Texas. The Order was not appealed.





TEXAS REGULATION OF BITCOIN (CONTINUED)



- + In February 2018, The TSSB shut down a new cryptocurrency lending scheme that refused to reveal its corporate officers or headquarters for fear or regulation.

- + Texas Securities Commissioner Travis J. Iles:

"Promoters of fraudulent securitized cryptocurrencies are using technology in a way that conceals their identity and their actions..."

"Ultimately, investors are investing in nothing more than a promise made through a website maintained by an anonymous group."





KEY CONCEPT NO. 5 : BSA/AML CONCERNS



- + Anonymity v. Pseudonymity
- + Privacy v. Transparency
- + Immutability & Untraceability
- + Decentralized & Distributed

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Why Should I be Worried?

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PSUEDONONYMOUS V. ANONYMOUS



- + Payments are recorded in a digitized, decentralized, public ledger of all cryptocurrency transactions (i.e. the “blockchain”) using its own unit of account (Bitcoin “BTC”).
- + Bitcoin transactions require:
 1. A digital wallet; 2. A private key; and, 3. A public key





PSUEDONONYMOUS V. ANONYMOUS

FRANÇOIS-MARIE AROUET

WHAT DO **VOLTAIRE**,

CHARLES LUTWIDGE DODGSON

LEWIS CAROL

SAMUEL LANGHORNE CLEMENS

AND

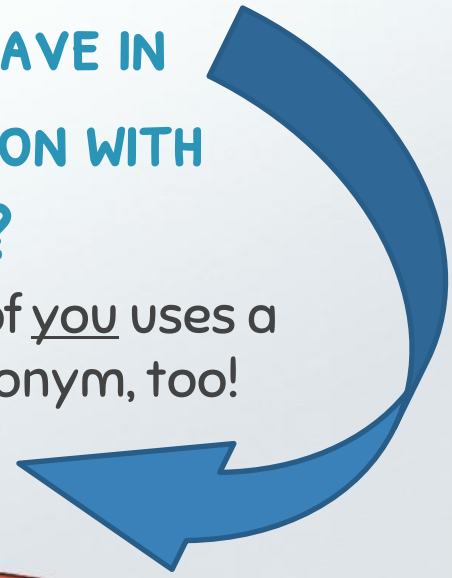
MARK TWAIN

ALL HAVE IN COMMON?

They all used pseudonyms

WHAT DO EACH OF YOU HAVE IN COMMON WITH THEM?

Each of you uses a pseudonym, too!



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Peek-A-Boo!
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PSUEDONONYMOUS V. ANONYMOUS



REMEMBER – bitcoin transactions require:
1. A digital wallet; 2. A private key; and, 3. A public key

Bitcoin has been reported as being an “anonymous” currency – this is incorrect.

Every BTC transaction that takes place is recorded on the blockchain

Once linked to a bitcoin address, everything you do is tracked.

- KYC
- Due Diligence
- Monitoring
- Record keeping
- Reporting

- Public
- Inalterable

- Traceable
- Forever

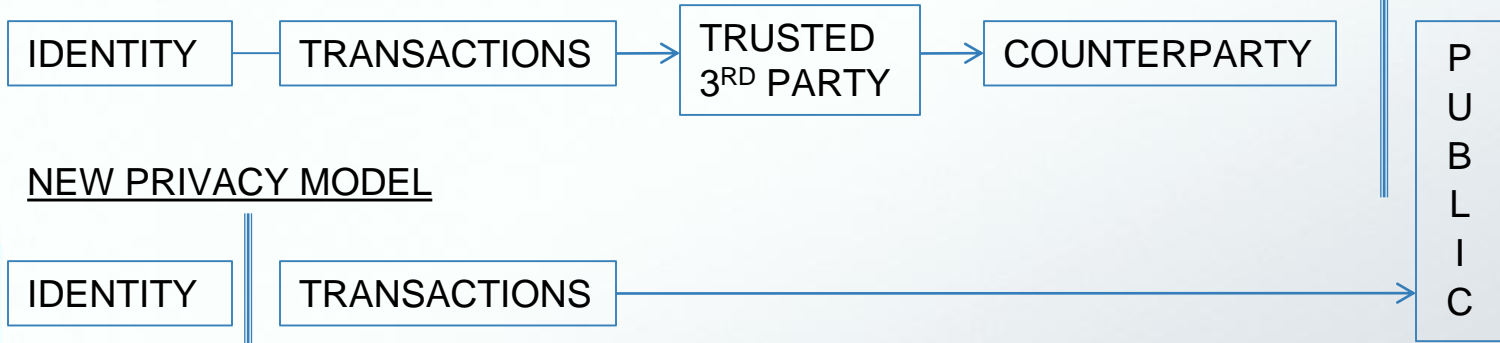




PRIVACY V. TRANSPARENCY



TRADITIONAL PRIVACY MODEL



NEW PRIVACY MODEL



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Privacy v. Transparency

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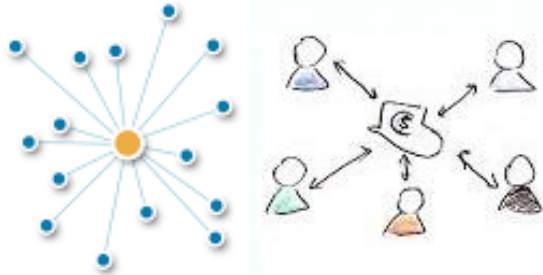


CENTRALIZED

v.

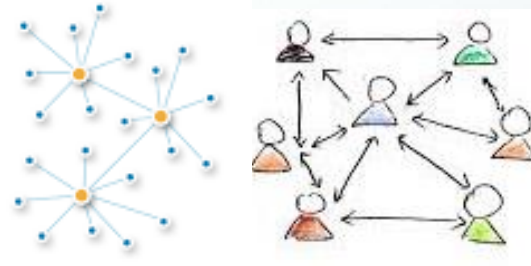
DECENTRALIZED

Centralized



“Centralization” is the concentration of control of an activity under a single authority.

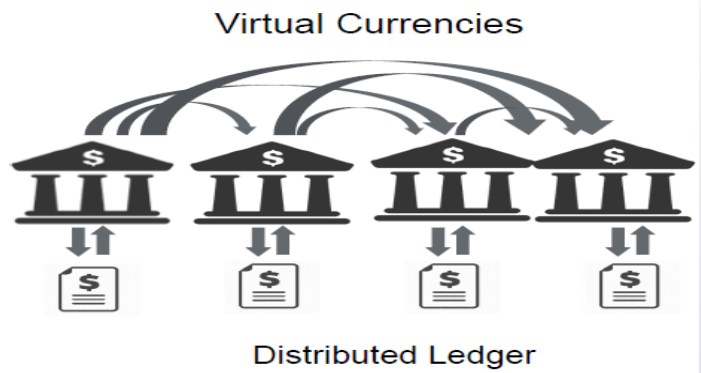
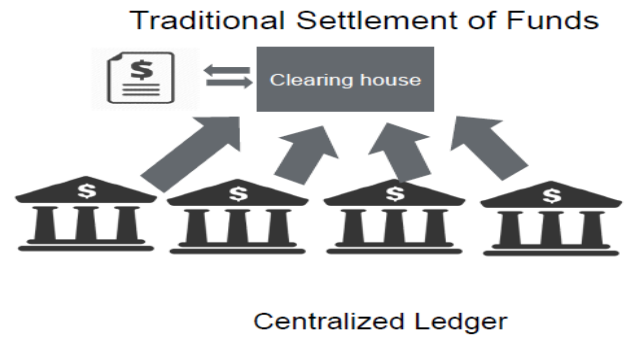
Decentralized



“Decentralization” means that no single entity has exclusive control over data or processes, or maintains information on users or reports suspicious activity to government authorities.

CENTRALIZED LEDGER

v. DISTRIBUTED LEDGER



Collects information (e.g. KYC), monitors transactions and distributes funds. Information on users is maintained and required reports (e.g. CTRs & SARs) are filed with government authorities.

No single entity has exclusive control over data or processes, or maintains information on users or reports suspicious activity to government authorities.

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Centralized v. Distributed
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DEALING WITH OUR BSA/AML CONCERNS

ISSUE	RESPONSE
ANONIMITY	Bitcoin is NOT anonymous, it's pseudonymous
TAMPERING	The Blockchain is immutable; no duplication
IRREVOCABILITY	Good for the merchant, but bad for the consumer?
DECENTRALIZATION	No intermediaries. Fast, efficient, trusted.

1. Compliance with regulations, KYC, ID verification, CDD, EDD internal controls and proper monitoring mitigates the “ANONIMITY” Factor by making transactions transparent.
2. Immutable, distributed transactions, combined with a strong compliance component and transaction monitoring, mitigates the “TAMPERING” Factor.
3. Lack of fraud argues strongly in favor of the “IRREVOCABILITY” Factor. The exchange (i.e. the bank's customer) must have and implement procedures and adequate controls to address this.
4. Meeting regulatory filing requirements, proper record-keeping, KYC, CDD and EDD mitigates the “DECENTRALIZATION” Factor



KEY CONCEPT NO. 6 : ILLICIT ACTIVITIES



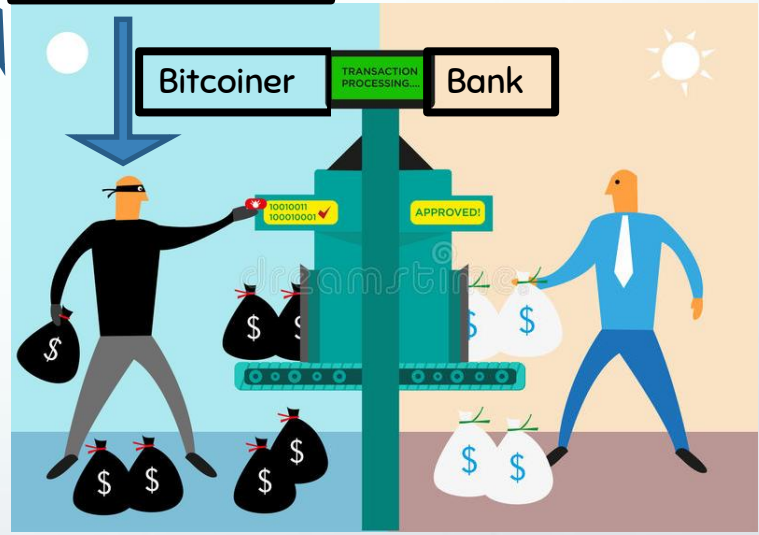
- + “Tumblers”, “Mixers”, “Blenders”
- + Private Coins
- + Evading Law Enforcement and Illicit Activities (Generally)



RISK: "MIXING", "TUMBLING" & "BLENDING"



Bitcoin Exchange ✓



+ Mixing/Tumbling/Blending =
Exchanging bitcoins for different ones which are not related to the real owner.

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Be Very Aware!!!
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PRIVATE COINS

“Privacy, *shmivacy*– I’ve got nothing hide.”



ANONYMOUS

Cryptocurrencies can be used in anonymous (or psuedononymous) transactions, but never private transactions, since each transaction is logged on the blockchain.

Private Coins can be used for Anonymous & Private Transactions

PRIVATE

Fiat currencies can be used in private transactions, but not usually in anonymous or psuedononymous transactions.



RISK: THE MUELLER INVESTIGATION

Robert Mueller's indictment of the 12 Russian military intelligence officers who were accused of using bitcoin to fund their hacking efforts during the 2016 presidential elections accused the Russian officers of conspiring to launder \$95,000+ through cryptocurrency transactions to avoid detection.

What's become exceedingly apparent in the wake of these indictments is the misunderstanding that a large portion of the population has about cryptocurrencies and the realities of the underlying technology.



Bitcoin transactions are not nearly as private as a lot of people think -- transactions are verified using distributed ledger technology and result in all transactions being permanently recorded on a public ledger.





RISK: EVADING LAW ENFORCEMENT AND ILLICIT USES

- + FinCEN now receives over 1500 SARs each month involving virtual currency
- + Criminals – quick adopters of new technologies – sensed that bitcoin had distinctive properties that might serve their interest in evading law enforcement.

However,... what analysts know about Bitcoin's illicit applications is mainly based on anecdotal evidence, usually without supporting data, and regional in context, or is not supported by trends over time.





RISK: ILLICIT FLOWS INTO DIGITAL CURRENCIES

- + In January 2018, the Center of Sanctions and Illicit Finance, of the Foundation for Defense of Democracies, combined efforts with Elliptic (a blockchain analytics company), to do a first-of-its-kind study on illicit flows into digital currency.





RISK: ILLICIT FLOWS INTO DIGITAL CURRENCIES



- + Specifically, the study tracked the circulations of illicit funds within the bitcoin economy between 2013 and 2016.
- + Study indicates that while most types of conversion services have received some bitcoins from illicit activity, the vast majority of the funds they receive do not appear to be illicit. Two interesting, and perhaps surprising findings were:
 - The research concludes that the share of funds of illicit origin comprises less than 1% of all bitcoin flows.
 - The share of funds of illicit origin has exponentially declined as bitcoin has gained increasing adoption and popularity.





RISK: ILLICIT FLOWS INTO DIGITAL CURRENCIES



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- + Study indicates that while most types of conversion services have received some bitcoins from illicit activity, the vast majority of the funds they receive do not appear to be illicit. Two interesting, and perhaps surprising findings were:

“The amount of observed Bitcoin laundering [is] small and darknet marketplaces such as Silk Road and, later, AlphaBay are [generally] the source of almost all of the illicit Bitcoins laundered through conversion services.”





RISK: ILLICIT FLOWS INTO DIGITAL CURRENCIES

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The report suggests that the best way to combat such illicit activity is through more stringent anti-money laundering (AML) measures. The report states that the only way to manage the illicit transaction is for “Financial authorities in all jurisdictions [to] increase AML enforcement.”





KEY CONCEPT NO. 7 : COMPLIANCE

(TO BANK, OR NOT TO BANK?)



- + Q. Should a bank open an account for a crypto business (e.g. an exchange)?
- + No bank customer, individual or business, established, innovative or new, is absent of risk.
- + If a bank commits the required resources to assure compliance (i.e. assure that KYC, monitoring, prevention, detection, and reporting is adequate to meet or exceeds regulatory and bank expectations), then, aside from the reputational risk aspect, there is no reason not to open accounts for cryptocurrency businesses.





COMPLIANCE (TO BANK, OR NOT TO BANK?) (CONTINUED)



From a financial crimes perspective an effective crypto compliance program should include:

- Following regulatory guidance that applies to MSBs, including the basic elements of KYC, monitoring, prevention, detection, and reporting

A bitcoin compliance program will usually include:

- Limits or prohibitions on amounts of purchase within a specific time frame (velocity or speed of fund use).
- Controls on the amount of bitcoins purchased by one individual/entity.
- Maximum dollar thresholds on bitcoin ATMs and on the number of transactions within a specific time frame (velocity or speed of fund use).
- Limits or prohibitions on certain usage (e.g., merchant type) and on geographic usage, such as outside the United States.
- All the other, usual bells and whistles associated with a money transmitter.

- Know the identity & location of all third parties involved in the bitcoin program, including any subagents.
- Obtain corporate documentation, licenses, references (including independent reporting services), and, as appropriate, documentation on principal owners.
- Understand the nature of the third-parties' businesses and the markets and customer bases served.
- Collect information to identify and verify customer identity (KYC)
- Understand the type, purpose, and anticipated use of bitcoins
- Obtain info to fully understand the nature & duration of the relationship w/ third parties



COMPLIANCE (TO BANK, OR NOT TO BANK?) (CONTINUED)



From a financial crimes perspective an effective crypto compliance program should include:

- Following regulatory guidance that applies to MSBs, including the basic elements of KYC, monitoring, prevention, detection, and reporting
- A system of review that validates customer behavior in conjunction with information gained through a robust customer due diligence processes
- Consistent blockchain monitoring to detect potentially illicit transactions through connector tracking and plain text (keyword) analysis, as well as digital wallet connections
- Setting practical thresholds and calibrating transaction alert thresholds to account for the current volatility of cryptocurrency values





LET'S REVIEW



Currency

Bitcoins only have value to the extent that people choose to assign them...
Just like fiat currency.



The Blockchain

An awesome technological tool that “allows a group of connected computers to maintain a single updated and secure ledger.”



Bitcoin

Bitcoin was conceived as a payment system with transactions that are computationally impractical to reverse.



Regulation

There is (and it appears, there will be) overlapping jurisdictions among multiple regulators.



Risk: Illicit Activities

The amount of observed bitcoin laundering is small and the source of almost all of the illicit Bitcoins laundered through conversion services has been neutralized.



Concerns

Bitcoins are not anonymous, are traceable, are immutable, but still have a way to go.



Compliance

The best way to manage illicit transactions and combat illicit activity is through efficient, targeted and stringent AML measures.



Thank You
for *“following the white rabbit down
the rabbit hole”* with me!

Any Questions?



Strategic Advantage, Through Realistic Solutions

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