Private Crypto Assets & Central Bank Digital Currencies

International Monetary Fund
Law & Financial Stability Seminar

September 2018

Agenda

AML vulnerabilities inherent in blockchain technology

Cybersecurity risk considerations and limitations

Market manipulation, market integrity

Financial Connectors (“Gateways”)

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The Fundamentals

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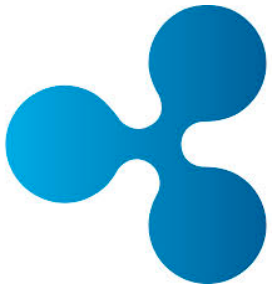
- Digital wallets relatively easy to establish

Digital Wallets



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- Hardware crypto wallets

Examples of Blockchain-based Activity

01 **LAYERING**

funds through multiple gateways, rapidly moving funds on/off the Blockchain

02 **STRUCTURING**

transactions to avoid known U.S. reporting thresholds

03 **REPORTS**

of hacking and cyber thefts from digital wallets

04 **FUNNELING**

Many-to-one, one-to-many transactions through digital wallets

05 **PHISHING**

Fraudulent emails
And/or websites designed to compromise digital wallets

06 **PYRAMID SCHEMES**

Third-party sales of crypto through illegal marketing schemes

Cybersecurity

Cybersecurity Challenges

- ‘Private Key’ controls access to the funds

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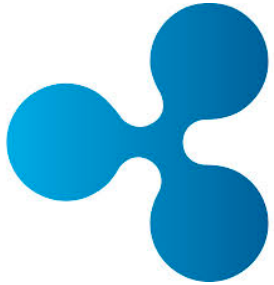

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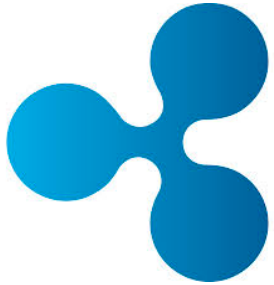
Private Keys



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- Effectiveness of cybersecurity regulation

Example

NYDFS 23 NYCRR Part 500, Section 500.01(d)

"A Cybersecurity Event means any act or attempt, successful or unsuccessful, to gain unauthorized access to, disrupt ***or misuse an Information System or information stored on such Information System"***

"Information System means a discrete set of electronic information resources organized for the collection, ***processing,*** *maintenance,* ***use, sharing, dissemination or disposition of electronic information…. "***

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- Custody solutions
- Effectiveness of cybersecurity regulation
- Cyber attacks on a global scale

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- Shilling

Closing Thoughts

- Systematic, global approach to cryptocurrency regulation
- New protocols for governance of blockchain tech
  - national variability but not tied to any specific geography
  - rooted in a multi-stakeholder model
  - emphasizing ethics and security as core values
- Collaborative cross-border regulatory and law enforcement partnerships
- Information sharing (trends, typologies, etc.) between industry and agencies
- More education
  - regulators
  - lawyers
  - bankers

Questions?

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