

Use of Blockchain in Corporate and Financial Reporting and Regulatory Implications

KATIE BAKARICH, PHD, CPA; ASSISTANT PROFESSOR, HOFSTRA UNIVERSITY

JACK CASTONGUAY, PHD, CPA; ASSISTANT PROFESSOR, HOFSTRA UNIVERSITY

Current Applications of Blockchain in Financial Reporting: Overstock.com

► Overstock.com 12/31/2020 10-K:

- Note 1: *“In late 2014, we began working on initiatives to develop and advance blockchain technology, which initiatives we refer to collectively as Medici. Our Medici business **initiatives seek to leverage the security, transparency and immutability of cryptographically protected and distributed ledgers**, such as blockchains, and are focused on **solving important problems**, including financial transaction issues, particularly in the **area of securities settlement.**”*
- Company converted some of its Series A-1 Preferred Stock into the **new Digital Voting Series A-1 Preferred Stock**, which stipulate that preferred stock can only be sold on the tZERO ATS and will not be listed on any national securities exchange or other trading market of any kind.
 - tZero is a broker dealer which operates an SEC-registered alternative trading system.
 - First **blockchain-based public digital stock.**

Current Applications of Blockchain in Financial Reporting: Overstock.com

- ▶ **Overstock.com 12/31/2020 10-K:**
- ▶ Business Risks: *“The **record of ownership of each digital wallet address will be available to the general public** and it **may be possible** for members of the public to **determine the identity** of the record holders of the Series A-1 Preferred stock based on the publicly available information in the courtesy carbon copy, as well as other publicly available information.”*
 - ▶ Publicly available information:
 - ▶ Digital wallet address of each holder of record transacting in Series A-1 Preferred stock
 - ▶ Security position information of such holder of record
 - ▶ Entire history of debits and credits to the relevant security position information of each digital wallet address,
 - ▶ Publicly available information will not include:
 - ▶ Any personal identifiable information.

Current Applications of Blockchain in Financial Reporting: Microstrategy Inc.

MICROSTRATEGY INCORPORATED CONSOLIDATED BALANCE SHEETS (in thousands, except per share data)

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	\$ 59,675	\$ 456,727
Restricted cash	1,084	1,089
Short-term investments	0	108,919
Accounts receivable, net	197,461	163,516
Prepaid expenses and other current assets	14,400	23,195
Total current assets	272,620	753,446
Digital assets	1,054,302	0
Property and equipment, net	42,975	50,154
Right-of-use assets	73,597	85,538
Deposits and other assets	15,615	8,024
Deferred tax assets, net	6,503	19,409
Total assets	\$ 1,465,612	\$ 916,571

- Approximately 70,469 bitcoins.
- \$70.7 million in impairment losses attributable to bitcoin trading price fluctuations (17.5% of operating expenses for year).
- As of Feb. 8, 2021, held approximately 71,079 bitcoins that were acquired at an aggregate purchase price of \$1.145 billion and an average purchase price of approximately \$16,109 per bitcoin, inclusive of fees and expenses.

Current Applications of Blockchain in Financial Reporting: Microstrategy Inc.

▶ Microstrategy Inc. 10-K 12/31/2020 Business Risk:

▶ “While we have implemented and maintain policies and procedures reasonably designed to promote compliance with applicable anti-money laundering and sanctions laws and regulations and take care to **only acquire our bitcoin through entities subject to anti money laundering regulation and related compliance rules** in the United States, if we are found to have **purchased any of our bitcoin from bad actors** that have used bitcoin to launder money or persons subject to sanctions, we **may be subject to regulatory proceedings** and further transactions or dealings in bitcoin may be restricted or prohibited.”

▶ “To the extent our **private key is lost, destroyed, or otherwise compromised** and **no backup of the private key is accessible**, we will be unable to access the bitcoin held in the related digital wallet. Furthermore, we **cannot provide assurance** that our digital wallets will not be compromised as a result of a **cyberattack**. As of December 31, 2020, the **insurance that covers losses** of our bitcoin holdings is only a **small fraction of the entirety of our holdings**, and there can be no guarantee that such insurance will be maintained as part of the custodial services we have or that such coverage will cover losses with respect to our bitcoin.”

Current Applications of Blockchain in Auditing

- ▶ **Microstrategy Inc. 10-K 12/31/2020 Auditor's Report Critical Audit Matters:**
- ▶ *“**Subjective auditor judgment** was involved in determining the nature and extent of evidence required to assess the existence of the digital assets and **whether the Company controls the digital assets**, as control over the digital assets is provided through private cryptographic keys stored using **third-party custodial services at multiple locations that are geographically dispersed.**”*
- ▶ *“We involved **professionals with specialized skills and knowledge in blockchain** technology, who assisted in evaluating certain internal controls over the digital assets process performed at the custodial locations, related specifically to the generation of the private cryptographic keys and the storing of these keys. We obtained **confirmation of the Company's digital assets** in custody as of December 31, 2020 and compared the total digital assets confirmed to the Company's record of digital asset holdings. We also compared the **Company's record of digital asset holdings to the records on the public blockchain using a software audit tool.**”*

Ethical Issues

- ▶ The Beeck Center for Social Impact & Innovation at Georgetown University created a Blockchain Ethical Design Framework in 2018 & identified six root issues (LaPointe and Fishbane, 2018):
 - ▶ **Governance:** establishment & maintenance of rules governing system.
 - ▶ **Identity:** defining identity & to whom identity is granted on blockchain & how protected
 - ▶ **Verification & authentication:** system for verifying inputs & authenticating transactions
 - ▶ **Access:** read/write permissions as well as ability to access system
 - ▶ **Ownership of data:** who owns the data, has control over it, where is it stored, adjustments to incorrect information
 - ▶ **Security:** loss of private keys; hacking

Ethical Issues – Ransomware Attacks

- ▶ Driven by rise and increased adoption of cryptocurrencies:
 - ▶ State, local, and municipal governments
 - ▶ Meat producer JBS
 - ▶ Colonial Pipeline
 - ▶ East Coast US gas supplier
 - ▶ TravelEx

IESBA Framework

- ▶ Fitting these ethical issues into IESBA's ethical framework:
 - ▶ Integrity: verification & authentication issues
 - ▶ Objectivity: governance issues & access issues
 - ▶ Professional competence & due care: security issues/ransomware; identity issues
 - ▶ Confidentiality: ownership of data & security issues/ransomware; identity issues
 - ▶ Professional behavior: identity issues

Specific Ethical Issues to Consider

- ▶ Does each node have the same permissions/rights?
- ▶ Are there conflicts of interest amongst those who might have access?
- ▶ How are the consensus protocols established?
 - ▶ In permissioned blockchains, the common protocol is proof-of-authority, which uses a set of nodes that “are explicitly allowed to create new blocks and secure the blockchain. The chain has to be signed off by the majority of authorities, in which case it becomes a part of the permanent record” (Ethereum).
- ▶ Financial Executives International & Deloitte study “Blockchain for Financial Leaders” discussed the issues of using a distributed ledger in financial reporting.
 - ▶ A challenge is that “users have to agree on some accounting treatments up front...need a situation where members of the network know enough accounting to be able to create consensus about that. We can't have average retail investors participating in this network because they would throw up their hands and say, ‘Well, I don't know accounting standards. I can't tell you whether this was correct.’”

Specific Ethical Issues to Consider

- ▶ Are there any impacts that may bias information if certain algorithms are used?
 - ▶ All models are wrong – some models are useful
- ▶ Who is responsible for potential breaches?
- ▶ In a wide-scale blockchain, how are users incentivized to participate? Are stakeholders incentivized to protect the system?
 - ▶ What are the implications of these incentives?
- ▶ Independence issues: The Accounting Blockchain Coalition (2019) discussed a possible threat to independence if the auditor obtains possession of the client's private key accessing the client's cryptocurrency assets during existence testing.

Specific Ethical Issues to Consider

- ▶ KYC rules: verify identity without compromising the underlying intention of the blockchain?
- ▶ Use of smart contracts:
 - ▶ Those linked with IoT devices can be executed without human intervention & bias, but raise privacy concerns.
 - ▶ The immutable nature of smart contracts could also pose a challenge in terms of privacy rights, such as GDPR.
- ▶ Risk of overhyped potential, and under-delivered results.
- ▶ Computing power & storage: without a centralized company holding the ledger, each party in the blockchain must have the capacity and space to store the information on the blockchain.
 - ▶ Sustainability: all of the “miners” of digital currency will use more power in 2021 than the whole country of Argentina (*The BBC, 2021*).

Current GAAP Accounting for Digital Assets / Cryptocurrencies

- ▶ AICPA non-binding guidance.
- ▶ Intangible assets other than goodwill
 - ▶ Carried at cost subject to impairment testing
 - ▶ Fair value disclosure in notes
 - ▶ Impaired if price falls below cost at any point during the reporting period
 - ▶ Impairment through earnings
 - ▶ No recovery of previously recognized losses
- ▶ Balance sheet presentation
 - ▶ After current assets and before other intangibles

Current IFRS Accounting for Digital Assets / Cryptocurrencies

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- ▶ Mixed model approach
 - ▶ General rule = intangible asset (IAS 38)
 - ▶ If holding for sale in the ordinary course of business = inventory (IAS 2)
- ▶ Classifications not supported
 - ▶ Cash = no "medium of exchange" presently exists
 - ▶ Financial asset = no "contractual right" nor can it be "settled in its own security"

FASB/Congressional Developments

- ▶ FASB currently not planning to address challenges until they become more pervasive.
- ▶ NYSSCPA reports that on May 12, 2021 a “bipartisan congressional group has asked the FASB to establish accounting standards for digital assets such as Bitcoin, stating the lack of concrete rules caused companies to book large balance sheet losses” and specifically cited the example of Microstrategy.
 - ▶ The letter stated that the definition “of financial instrument should be updated to include digital assets such as virtual currencies. Recognizing that companies hold digital currencies for varying purposes, we believe the FASB should take into consideration how a company intends to use its bitcoin holdings when determining the appropriate accounting method.”
- ▶ AICPA issued "Accounting for and Auditing of Digital Assets" Practice Aid.

- ▶ Former SEC Commissioner Clayton in a 2017 speech:
 - ▶ "Comparing ICOs to IPOs, noting that "a change in the structure of a securities offering does not change the fundamental point that when a security is being offered, our securities laws must be followed. Said another way, replacing a traditional corporate interest recorded in a central ledger with an enterprise interest recorded through a blockchain entry on a distributed ledger may change the form of the transaction, but it does not change the substance."
- ▶ Current SEC Commissioner Gensler recently stated that "to the extent that something is a security, the SEC has a lot of authority. And a lot of crypto tokens — I won't call them cryptocurrencies for this moment — are indeed securities."
- ▶ Canadian Securities Administrators Staff Notice 26-307:
 - ▶ "Although a new technology is involved, and what is being sold is referred to as a coin/token instead of a share, stock, or equity, a coin/token may still be a security."

Questions?

- ▶ Katie
 - ▶ Kathleen.Bakarich@hofstra.edu
- ▶ Jack
 - ▶ John.castonguay@hofstra.edu
 - ▶ Twitter: profjackc