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# *Exploration of Solutions to Regulate the Cryptocurrency Industry: A Critical Analysis of Conventional Auditing Solution*

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***Abstract:*** In the current financial market, with the rapid rise of the cryptocurrency industry, its governance and financial stability issues are becoming increasingly prominent. Amidst crises, the crypto industry faces challenges of governance and financial instability. Two major issues exist in the crypto industry are the lack-of-reserves and over-leverage problems. Addressing these, we examine the conventional auditing approach in regulating the cryptocurrency industry. This study delves into the traditional auditing methods employed to regulate cryptocurrencies, focusing on audit failures observed in prominent cases like Binance, FTX, and Tether. The study finds that due to the unclear jurisdiction of regulators, and ambiguity regarding the accounting standards for including crypto assets in financial statements. Additionally, the combination of "public blockchains" and "permissioned blockchains" in technology makes it harder to apply accounting rules. It concludes that while auditing is a fundamental regulatory tool, it alone is insufficient to effectively address the underlying problems of reserve inadequacy and over-leverage in the crypto sector.

## 1. Introduction

### 1.1 Main goals

In light of numerous crises [1] and crypto firms' lack of corporate governance and financial chaos [2] it has become clear that the crypto industry is not as decentralized and transparent as they declared. Organizations in the crypto industry, such as the Blockchain Association, are actively advocating for regulatory support to help blockchain industry thrive. Meanwhile, many institutions, such as the President's Working Group on Financial Markets have started to criticize it. They emphasize the need for coordinated oversight among regulatory agencies to reduce risks, and hold that cryptocurrency-related activities must comply with relevant provisions of federal securities laws and the Commodity Exchange Act. On the contrary, Hilary J. Allen, in his testimony before the Senate Committee on Banking, Housing, and Urban Affairs, even suggests that a ban on the industry may be an option, as he concludes that DeFi could be the Shadow Banking 2.0 and may lead to another large-scale financial crisis.

Two major issues exist in the crypto industry are the lack-of-reserves and over-leverage problems. The lack-of-reserves problem refers to cryptocurrencies not having adequate backing as claimed. On the other hand, the high leverage, created by cryptocurrency holders and the issuers, cause over-leverage problem and the eventual collapse.

### 1.2 Fixing the problem

To tackle the challenges arising from the cryptocurrency industry, we will examine the conventional auditing solution by using Binance outside audits, FTX Generally Accepted Accounting Principles (GAAP) reports, and Tether's auditing failure to illustrate how current accounting standards fail to ensure transparency and comparability in the crypto world.

## 2. Two examples of conventional audit failures in crypto world

To address the issue of lack-of-reserves, regulators and the industry have implemented various solutions. Among them is the adoption of conventional audit rules in the crypto industry. The Financial Accounting Standards Board (FASB) issues a set of accounting rules, standards, and procedures known as GAAP. Public companies in the United States are required to adhere to GAAP ruleswhen their accountants prepare their financial statements. As most crypto firms are non-public companies and are not mandated to follow GAAP rules in their financial statements. However, they choose to do so in order to convince investors of their financial standing and entice them to invest.

Before delving into the auditability of a cryptocurrency firm, we will first explore three examples where crypto firms have employed outside accounting firms to conducts audits.

***Binance Outside Audits.***To reassure its users following the collapse of FTX, in November 2022, Binance employed the auditor Mazars to conduct a report about Binance's Bitcoin reserves. The report concluded that "as of November 22 at 23:59 UTC, Binance held enough bitcoins and wrapped bitcoins to cover all users' balances on the exchange." However, this report was deemed unreliable. First, the asset balance reported by Mazars $582,486 was vastly different from the $69 billion total asset balance Binance had disclosed on its website just a week before the report was published.The Mazars report solely focused on Binance's Bitcoin assets, meaning that there was no assessment implemented for hundreds of other cryptocurrencies that users may hold. Furthermore, the Mazars report solely examined Binance's reserves at a specific point in time and did not commit to a timeline or regular reports. This raises doubts about whether there were withdrawals made immediately after the report was published. What make it even more skeptical was, Mazars retreated the report from Binance's website, and "paused its activity relating to the provision of proof of reserves reports for entities in the cryptocurrency sector due to concerns regarding the way these reports are understood by the public." This move makes the Mazars' report even less reliable.

***FTX GAAP Reports.***FTX Group hired accounting firms, Prager Metis and Armanino, to conduct audit opinions on their consolidated financial statements. However, it was only 16 months after the financial statements, FTX went into collapse. John's declaration casts doubt on the reliability of these audit opinions.The firms that provided the audit opinions for FTX are currently facing a lawsuit from FTX customers. Some firms halt their "Proof-of-reserves" work because how accounting rules should be applied to digital assets are considered to be only "half formed," and the the SEC's plans to ramp up oversight of crypto auditors.

***Tether's Accounting Failure.***Initially, Tether hired accounting firm Friedman LLP to create a memorandum confirming the full reserve of Tethers at an interim date, and issued a transparency update announcing tether tokens were fully backed.However, it is worth noting that Tether had only just opened an account at Noble Bank on that same day of the interim date, and Bitfinex had transferred $382 million into Tether's account. As a result, Tether hide from its clients and the

market that their tokens were not fully backed by US dollars during this time from June 2017 to September 2017.

Additionally, Tether publicly announced that it held a portfolio cash value of approximately US $1.831 billion in a Deltec Bank account on November 2018, thereby declaring tether tokens to be fully backed by US dollars. Tether declared that they were able to maintain the backing "at any moment" by citing the Letter from Deltec Bank & Trust Limited dated November 1, 2018.[3-6] However, on the very next day, Tether transferred $475 million to Bitfinex[7-12]. By doing this, Tether concealed from the market the fact that their tether tokens were not fully backed after November 2, 2018[13-16].

## 3. Analysis of conventional audit failures

There are several challenges regarding those so-call GAAP standard accounting reports as applied in the crypto world.

**First of all, the jurisdiction of regulators is unclear.** While the Public Company Accounting Oversight Board (PCAOB) has stated that it lacks the authority to inspect accounting reports of non-public companies,some senators hold a different perspective on the matter[17-20]. In an attempt to tighten regulation on crypto audit work, Democratic senators Elizabeth Warren and Ron Wyden wrote a letter urging the PCAOB to take action.Specifically, the letter raised concerns over the PCAOB's statement that it lacks jurisdiction over the FTX and FTX US GAPP audit reports conducted by Prager Metis and Armanino [21-22], which the senators disputed. While the PCAOB argued that its jurisdiction only extends to public companies' audits, the senators pointed out that PCAOB Rule 3100 and 3200 suggest otherwise.A consensus has not yet been reached on this issue, leaving the crypto accounting unregulated [23-24].

**In addition, there is ambiguity regarding the accounting standards of crypto assets to be included in financial statements.** First, there is a scope problem. For example, a token that has been created versus one that has already circulated in the market are considered different, and there is a lack of clarity in accounting standards as to which should be accounted for on balance sheets. Rationally [25-27], only those have been circulated in the market should be counted in the balance sheet. However, some crypto firms manipulate their financial condition by using tokens as an intermediary [28-30]. They create tokens out of thin air to increase their balance sheets' asset value, as we have seen in the FTX case; or exclude user deposits from their balance sheet to make it appear as if they have less liability, as observed in the Binance case [31-33]. There is also reliability issue. Crypto firms typically offer financial disclosures in the form of "attestations" or "proof of reserves," which are not subject to the rigorous examination of audited financials. Even when audits are conducted, there is no guarantee of their reliability as evidenced by the FTX case [34-36].

Accounting rules play a crucial role in finance. The purpose of accounting rules is to promote transparency and make the financial statements from various entities comparable. Through setting accounting scopes is, we are able to set the boundaries of what financial transactions or activities should be included in financial statements [37-38], and ensure that financial statements are consistent and comparable across different entities. However, in the crypto world, the lack of clarity on how GAAP should be applied to crypto assets has resulted in audit reports that are no longer comparable [39-41].

**Furthermore, the combination of "public blockchains" and "permissioned blockchains" in technology make it harder to apply accounting rules.** The traditional payment system is governed by state and federal laws and relies on financial institutions to maintain ledgers of transactions. However, transactions can happen on either "public blockchains" or "permissioned blockchains" [42]. In the case of public blockchains, node operators record transactions on a public ledger through a consensus mechanism such as proof-of-work or proof-of-stake, which guarantees the arrangement's integrity. The ledgers they rely on are the so-called distributed ledger. Traditional

accounting practices may not easily apply due to the absence of a central ledger to maintain transaction records. Instead, transaction records are distributed to various nodes within the public blockchain [43-44]. On the other hand, “permissioned blockchains” do not rely on distributed ledgers, and the provider is more responsible for monitoring and complying with network rules, resulting in faster but less transparent and secure transactions. This trade-off is commonly referred to as the blockchain dilemma. The combination of “public blockchains” and “permissioned blockchains” in technology make it harder to apply accounting rules. Depending on the design, while the mechanism may resemble the traditional payment system, with more reliance on “permissioned blockchains,” it may be quite different from the typical blockchain payment system with greater reliance on public blockchains.

## 4. Conclusions

To sum up, these challenges highlight the inadequacy of existing accounting standards in ensuring transparency and comparability in crypto realm. There could be a long way to go before we reach a consensus on how accounting standards apply. Given the rapid growth of the crypto industry, I am skeptical that relying solely on the improvement of accounting standards will be sufficient to keep up with its fast pace and prevent lack of reserves and over-leverage issues.

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