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Newsletter
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Fair Valuations for Digital Assets

The Fair Accounting Standards Board (FASB) have expressed support for digital assets, such as Bitcoin and Ethereum, to be included under the scope of fair value principles when calculating their worth on company balance sheets. This welcome change would allow companies to record profit and losses immediately, the same way traditional financial assets are treated. "Fair market value" refers to the valuation of assets based on their worth in the current market. These principles are used by companies to accurately report the valuation of financial assets on their balance sheet.

Digital assets are currently defined as "intangible indefinite" assets, which is problematic for a few reasons, principally this means only negative volatility is recognised. Under the current framework, valuations for digital assets are taken from the lowest trade price during the time of ownership. Not only this, but if this price is lower than the purchase price, the difference is reported as a loss. As digital assets are extremely volatile, these principles do not account for the current possible sale price, so available liquidity could present inaccuracies in a company's financial position on the balance sheet.

For example, if one bitcoin was purchased for $50k and during holding its price decreased to $10k but then rose again to $60k, companies would be required to report a $40k impairment loss on their balance sheet under the current framework. With greater volumes of digital assets on the books, this could lead to misleading interpretations of a company's financial health.

The new framework would allow companies to use a fair value figure to report on their digital asset holdings, allowing for a clearer representation of their worth. Using the above example, a company could show a $10k profit on their balance sheet — a much more positive and (most importantly) accurate reflection than the current framework presents.

This small change could be the catalyst for the worldwide institutional adoption of digital assets and help pave the way for more robust regulatory frameworks. Michael Saylor, chairman of MicroStrategy, expressed his support of the ruling, tweeting that the news "is a major milestone on the road to institutional #bitcoin adoption."

Currently, only a small number of publicly traded companies, such as Tesla and MicroStrategy, have digital assets listed on their balance sheets. Following this breakthrough, we could see this drastically change when we emerge from the current bear market.

Sources:

WSJ CoinDesk

Code is Law — For now?

At around 10pm UTC on 11/10, Mango Markets experienced a large-scale exploit that drained the protocol of over $116m — almost all of its liquidity. A DeFi borrowing and lending protocol built on Solana, Mango Markets was highly regarded and seen as a pioneer within the Solana DeFi space. Initially reported as a hack, blockchain analysts soon identified it as a sophisticated exploit of the protocol's design.

The situation developed dramatically over the following week. The alleged exploiter, Avraham Eisenberg, wrote a Twitter thread where he identified himself as part of the team behind the exploit and outlined his defence for carrying it out: "I believe all of our actions were legal open market actions, even if the development team did not fully anticipate all the consequences of setting the parameters the way they are".

How did it happen?
The exploiters opened two large leveraged long position on the perpetual futures market for $MNGO token, which caused the price oracle — a smart contract that feeds data to a blockchain — to report a highly inflated price for $MNGO. Due to the protocol's design, this allowed the exploiters to take loans out against the unrealised profit of the leveraged position. The funds received were then withdrawn from the protocol, leaving millions in bad debt (debts that cannot be recovered) when $MNGO's price fell by around 43%.

The aftermath
Just a few hours after the exploit, a proposal to the Mango DAO (decentralised autonomous organisation) offered to repay around half the funds. The bad debt would then have been covered by liquidating the Mango DAO treasury, while the alleged exploiters would walk away with around $70m. This proposal was subsequently rejected by the DAO (Mango holders vote on DAO proposals using their governance tokens).

The Mango team then submitted a counter proposal, offering the exploiter $47m as a "bug bounty". The proposal also aimed to make Mango Market depositors whole; protocol withdrawals were frozen immediately after the exploit due to the resulting drain of liquidity, leading to many Mango holders holding greatly reduced assets.

The new proposal was then passed by the DAO, with 96.6% voting in its favour.

The proposal also stated that no legal action would be pursued if the exploiter agreed to the terms and returned the funds.

$67m of assets have now been returned to the wallet address provided by the Mango team, and there are currently multiple proposals ongoing regarding the mechanics of reimbursing depositors.

"Bug Bounty"
With a bug bounty of $47m, the exploiter has earned a bounty that far exceeds the industry-maximum average of around 10%. A bug bounty is a reward for the identification of critical flaws in code design. Many are reacting negatively to this, especially with the alleged exploiter revealing their identity.

Code is Law
There is a belief in some DeFi circles that exploits made possible through flaws in the design of smart contracts are fair game. That said, a similar sequence of events in the traditional finance space would likely have unfolded completely differently — due to the laws and regulations in place against market manipulation and foul play. The balance between decentralisation and accountability is something the DeFi space hasn't managed to solve, but for mainstream adoption of digital assets these critical security vulnerabilities will need a regulatory recourse to be put in place.

Big Brother Ethereum and L2s

Layer 2 Networks (L2s) are a collective term used to describe a specific set of scaling solutions for Layer 1 (L1) blockchains, such as Bitcoin and Ethereum. An L2 is an entirely separate blockchain that extends the transactional capabilities of a L1 while inheriting its security guarantees. Examples of L2 projects include "roll ups" for Ethereum and the Lightning Network for Bitcoin — where activity can be abstracted to this layer and ultimately settle back to the base layer.

Why do we need Layer 2s?
Blockchains are designed with three properties in mind: decentralisation, security, and scalability. The Blockchain Trilemma, as defined by Ethereum Co-Founder Vitalik Buterin, states that a blockchain can only fully achieve two out of the three and that developers must settle on a trade-off between speed (scalability) and decentralisation. Ethereum has sacrificed scalability for decentralisation, having reached a network capacity of just over 1 million transactions per day. Scaling solutions, such as L2s, are therefore needed to increase Ethereum's capacity to improve transaction speeds (faster finality) and transaction throughput (higher transactions per second) without sacrificing decentralisation.

Ethereum can be thought of as the main trunk of the blockchain tree for L2s, which rely on ETH's security as a settlement layer. An L2 blockchain regularly settles transactions on Ethereum (by submitting bundles of transactions) to ensure it has similar security and decentralisation guarantees.

It should be noted that L2s do not fundamentally change how Ethereum operates as an L1 protocol. Ethereum handles security, data availability, and decentralisation, while L2s (such as Optimism and Arbitrum) handle scaling.

There are three properties of an L2 rollup:

1. Transactions are executed outside of the L1 (reduces gas fees)
2. Data and proof of transaction processes are handled on the L1 (maintains security)
3. A rollup smart contract (found on the L1) uses L1 transaction data to enable secure transaction executions on L2s

There are two kinds of rollups with different security measures:

Optimistic rollups
Assume transactions are valid by default, only running computation, via a fraud proof, in the event of a challenge

1

Zero-knowledge rollups
Runs computation off-chain and submits a validity proof to the L1

2

So, why are we writing about L2s? We have been focusing on understanding what works within the digital assets space and how DeFi works. It could be the case that L2s carry too much risk and have too many unknown factors, especially considering recent events, such as the Mango Markets exploit and the BNB Bridge hack.

If Ethereum DeFi protocols are to handle more capital, new entrants to the market and new financial primitives, Ethereum has no choice but to scale in one form or another. Until sharding is implemented on the base layer, L2s are solutions gaining traction to address these challenges.

Recently, L2 solutions Arbitrum and Optimism, have surpassed the TVL (total value locked) of Solana. Even during this bear market, DeFi is continuing to grow, with increasing numbers of working applications being deployed on those chains daily. Additionally, the combined TVL of both is around $2 billion, which puts them at 4th place to beat Polygon and Avalanche. If Ethereum works and L2 solutions for scaling capacity are starting to show promise, will liquidity, applications, developers, and the market follow?

Sources:

Ethereum.org

DeFi Llama

L2 Fees.info

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