OneRiver Digital
ASSET MANAGEMENT

coinbase

Please note that One River Digital, a subsidiary of One River Asset Management, was acquired by Coinbase as of March 3, 2023. Read more here.

market notes: Unlocking Market Maturation

Are digital asset markets efficient? Price volatility isn't the only clue. The economic design of tokens matters for asset prices, even when the details are known. It's a sign of where we are in the maturation phase. Inefficiencies are alpha opportunities.

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Shaun Martinak,
Coinbase Asset Management

One River Digital Asset Management has been acquired by Coinbase and is now Coinbase Asset Management. Additional details on the transaction may be found on the **Coinbase blog**. References to One River Asset Management and One River Digital Asset Management may be contained herein during the transition period but are subject to change.

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4/21/23 - Shaun Martinak, Portfolio Manager

1. Over 23,000 tokens are at investor fingertips, more than 4-times the number of US-listed equities. Our index process takes that universe down to eight core assets today. How? The reduction is largely based on fundamental considerations. Incentive alignment – described by "tokenomics" – is at the heart of the digital ecosystem and our index construction. After last year, incentive alignment is no longer a secondary thought.
2. Of course, adjusting investor rights and obligations to define incentives is not a new concept. A legal contract can capture anything imagination puts into words. The challenge is executing legal creativity at a reasonable cost, and later, enforcing it. This is where smart contracts shine. Their logic is flexible; enforced by unchangeable code, run by unstoppable computers. They are digital obligations. And they are unambiguous. A practical legal process is less important – it's all in the code -- in theory.
3. Ownership distribution is a case study for comparing traditional and blockchain incentives. Private sales and initial public offerings are common in equity markets, as is the registration of new issue equity "on the shelf" under SEC rule 415. This rule allows companies to pre-register shares that can be quickly distributed at management's discretion. The regulatory requirements on shareowners limit liquidity, not the distribution process. New issuance is calibrated to demand and the market price.
4. The tools are different in the digital ecosystem. The properties of programmable digital assets dictate who does what and when, instead of navigating a share register. These tools fall into two categories – tokens that control when owners can transfer them or smart contracts that hold tokens and carry out dissemination duties according to an algorithm.
5. Public disclosure is the norm for token vesting schedules, eliminating the element of surprise sales. This improves transparency but limits optionality. The founding team of a protocol, who often control keys that allow upgrades and emergency interventions, have no discretion on token-based fundraising by design. In cases where the protocol retains decision rights on issuance, they are typically delegated to a DAO whose decision process is also public.
6. Is there a cost to transparency? Web-based analysts have produced dashboards and detailed reports analyzing the price implications of token unlocks. Figure 1 shows some evidence that downward price pressure is strongest approximately 30 days before unlocking events. Market anticipation. But conclusions vary over extreme bull

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and bear market conditions. Tokens are immature as tradeable assets – event-driven conclusions are inadequate.

7. dYdX is a good example of a reactive market. The decentralized perpetual futures exchange was set to release 150 million tokens on Feb 3rd, 2023. That was a major change – 15% of fixed token supply and over 100% of current circulating supply. dYdX decided to push back vesting of the tokens by 10 months to Dec 1st, 2023. In traditional asset markets, this change would have little impact on valuation, yet dYdX's token price rose materially in response. Young digital asset markets are not yet a bastion of efficiency.

8. The class of token holder being unlocked matters, too. Founding teams and early investors may be sitting on impactful gains, even considering bear market pricing of digital assets. Entry points were very low. They are likely to exit to diversify exposure, publish realized gains, or recycle capital. With full transparency on the timing and holders of these unlocks, the market quickly anticipates this selling pressure on low-liquidity assets.

9. What about direct user incentives? Many protocols stream newly unlocked tokens in compensation for participation. But these opportunities are often dominated by a narrow set of users. Circular trading on NFT platforms has been used by traders to amplify participation metrics and dominate incentive capture. It generates short-lived volume and increased attention for the platform, but little else. It also draws the ire of the broader NFT community. Similar behavior has been common on borrow-lend protocols. Deposit/borrow incentives paid in protocol tokens can be harvested, then liquidated, by levered players with little interest in protocol growth.

10. But a large token un-lock also changes market capitalization, a surprisingly important metric in the digital asset league tables as fully diluted value is the norm in traditional markets. If token distribution causes a protocol to jump into an important tier of ordinal ranking, such as "top ten", then the additional liquidity can drive capital inflows. As index products and other portfolio tools increase the importance of size-based metrics, these capital inflows could accelerate.

11. Uneventful token unlocks will be a sign of maturity for the ecosystem. One of many efficiencies that will gradually form as the market digests the nuances of token economic design. Investors will eventually focus on valuation to fully diluted supply. While these assets are still maturing, issuance, and other features of "tokenomics," will remain important to our index asset selection process.

12. It is already evident in assets like bitcoin, where the stakes are highest. Nobody builds a model for mining revenue without incorporating the halving of rewards -- a slowing of token "unlock". Efficient markets are like the horizon, a destination you never reach. But efficiency improves and skills are sharpened along the way.

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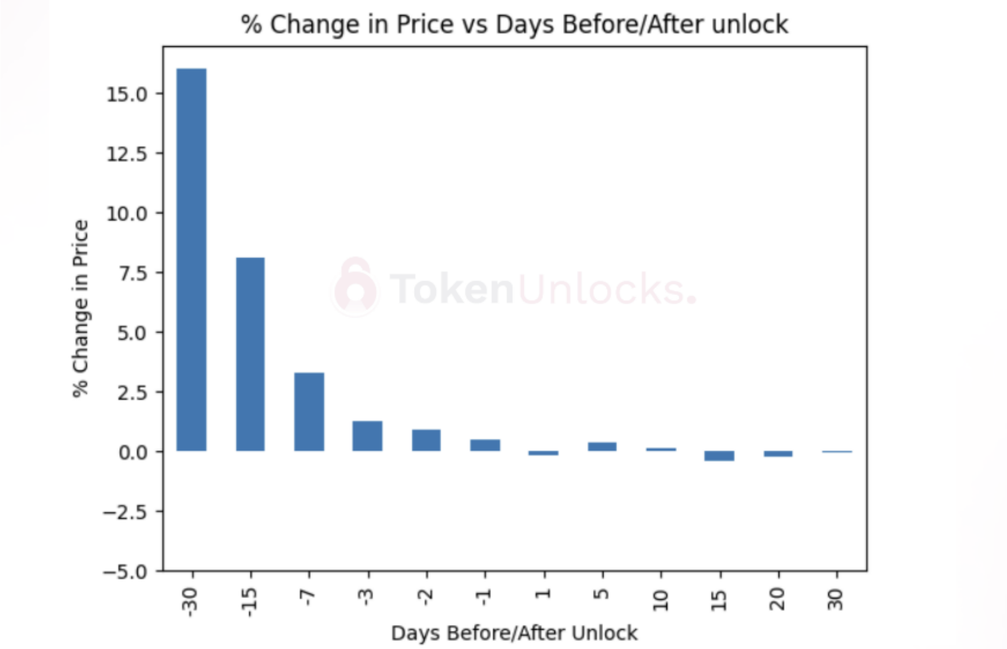
Figure 1: Price Impact by Days Before Token Unlock



Source: [Token Unlocks 2022 Annual Report]

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