

Disruptive Technology Views

Web2 network effects vs. Web3 crowd effects—
the coming shift in value drivers



Overview

Network effects—a hallmark of Web2 and a core driver of enterprise value—enables the success of a broad set of platform business models. A subtle but critical difference in how network effects operate will likely occur as the Web3 ecosystem gains ground in coming years. A broader set of “crowd effects” will likely emerge and change the economic calculus of what drives enterprise value.

In this issue of *Disruptive Technology Views*, we explore the megatrend “expanding power of the crowd”; explain Web3 “tokenomic” supply; and introduce “QuantaVenture” capital, a new approach to venture capital.

- Web3 protocols thrive by keeping their resource providers and user base happy and engaged—extending the platform’s opportunities by ensuring shared rewards and ownership. Modeling these protocol and token-based dynamics and how they support or impede the achievement of crowd effects will become a new adjunct to fundamental analysis.

Sandy Kaul, Head of Digital Assets and Industry Advisory Services

- Accessing opportunities in Web3 requires an understanding of both the value of the entity offering the services—the commercial protocol—and whether the token pool they are providing accurately reflects the value of that protocol. We will continue to explore several key tokenomic demand and value-accrual factors to continue our education on the new Web3 space.

Christopher Jensen, Head of Digital Assets Research

- A new approach to venture capital is required. We have created a three-part investing model that we term “QuantaVenture” capital to optimize our investment opportunities in the Web3 domain.

Kevin Farrelly, Director of Digital Asset Management

Greg Scanlon, Vice President of Quantitative Blockchain VC

Expanding power of the crowd



Sandy Kaul
Head of Digital Assets and
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Network effects—a core driver of enterprise value—enables the success of a broad set of platform business models ranging from social media to ride-hailing to ticket sales and food deliveries. The network effect phenomenon is a hallmark of Web2—the shift in the delivery of the internet from static websites (Web1) to user-centric, dynamic web offerings and platforms. A subtle, but critical, difference in how network effects operate will likely occur as the Web3 ecosystem gains ground in coming years. A broader set of “crowd effects” will likely emerge and change the economic calculus of what drives enterprise value.

Crowd effects reflect a change in the intent and dynamics of how network effects operate. Rather than looking to create a flywheel that drives economic activity, crowd effects look to

enhance the alignment of a network and its users to retain and attract community resources. This is because Web3 delivers goods and services through peer-to-peer commercial protocols—the valuation of which is directly proportional to the robustness of its pool of participants (developers, verifiers, issuers, buyers, sellers, lenders, borrowers and users). Exhibit 1 below illustrates these differences.

Radically different value creation

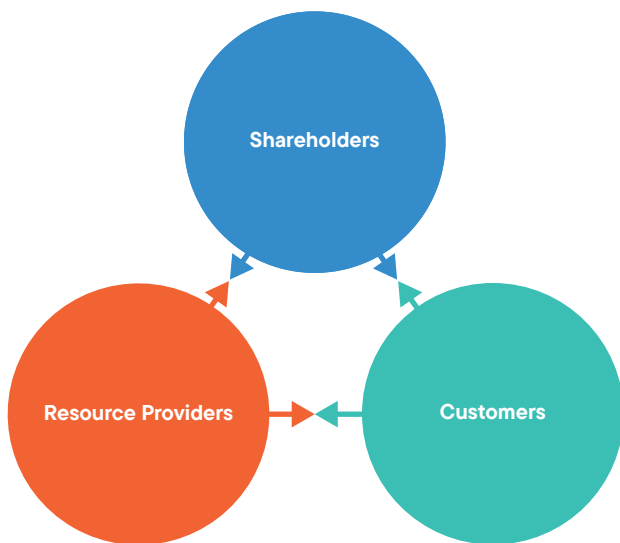
In Web2 dynamics, there is competition between the shareholders that are looking to maximize profits being driven by the platform; the resource providers looking to maximize the value of their contributions (services, goods or content); and the customers looking to maximize the utility and minimize the costs of the platform. The tensions between these constituents can create situations where the needs of one group are elevated over another group, potentially tipping the balance required to sustain the network effects.

For example, a report from the Institute for Local Self-Reliance (ILSR) “found that Amazon’s seller fees accounted for an average of 19% of sellers’ earnings in 2014,” but that the amount “almost doubled to 34% in 2021.” Simultaneously, ILSR

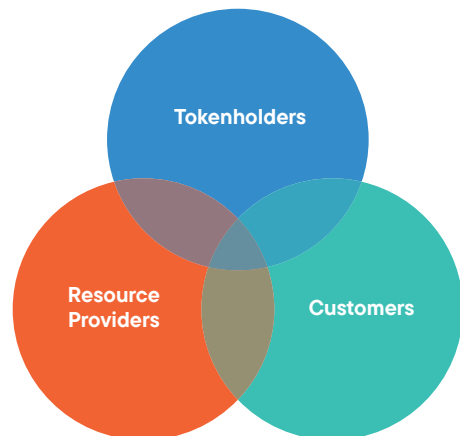
Competition vs. Alignment

Exhibit 1: Difference between Web2 and Web3 Network Effects

Competition between Constituents



Alignment of Constituents in Web3



Source: Franklin Templeton Industry Advisory Services. For illustrative purposes only.

Web3 dynamics operate differently, changing the incentives for commercial protocols by seeking to align interests among constituents. Rather than corporate entities focused on the economics of the platform, commercial protocols typically have either a founder pool or a foundation to oversee operations that can design and issue tokens.

found that seller fees accounted for “14% of Amazon’s entire revenue in 2014” but that the figure increased to “25% by 2021.” ILSR estimated that in 2021, Amazon earned “US\$121 billion from seller fees alone.”¹

Another illustration of this trend can be found on TikTok. The platform provider is under pressure after announcing it would pay a total of US\$1.0 billion in creator fees over a three-year period from its creator fund, but creators later revealed payments at a fraction of this promised money—US\$0.02–US\$0.03 per 1,000 video views versus approximately US\$1.00 per 1,000 views on YouTube. One of TikTok’s top creators, with “over 32 million fans on the platform,” made only US\$25.10 in January 2022.² In comparison, ByteDance, TikTok’s parent company, grew revenues “from US\$17 billion in 2019 to US\$34 billion in 2020.”³

In both the Amazon and TikTok examples, the needs of the shareholders were elevated above those of the resource providers. Top TikTok creator Hank Green explains, “If the [creator] fund were a percentage of revenue, rather than a static pool, that would be very bad for TikTok’s bottom line. Compared to what it is now, they would have less profit, but it would be very good for creators.”⁴

Web3 dynamics operate differently, changing the incentives for commercial protocols by seeking to align interests among constituents. Rather than corporate entities focused on the economics of the platform, commercial protocols typically have either a founder pool or a foundation to oversee operations that can design and issue tokens. Such tokens can represent an economic interest or the right to vote on concern issues or strategic direction. Tokens can be purchased by those interested in having exposure to the protocol or a voice in the protocol’s governance and are

earned through participation—whereby tokens are “dropped” into the wallets of the most active protocol users and those who contribute resources.

This approach makes resource providers and users a part of the token holder pool and elevates their status—giving them a voice and stake in how the protocol develops. As such, the decisions made by a protocol will reflect the sensibilities of its founders and developers, as well as the priorities of its most engaged participants and resource contributors.

Keeping all constituents supportive of the protocol is a foundational requirement in Web3. Protocols are code-based and open source. Unhappy developers could fork the code and create a new instance of the network—drawing resource providers and users away from the original offering. For example, in 2020, a pseudonymous developer forked a popular decentralized finance (DeFi) protocol Uniswap to create SushiSwap—a near-clone protocol that added community-oriented features like a governance token and staked rewards to Uniswap’s original code. The new protocol then mounted an attack on Uniswap to siphon off billions of dollars, resulting in Uniswap losing nearly 55% of its liquidity. In turn, this forced Uniswap to create its own governance token to re-incentivize the community’s engagement.⁵

As Exhibit 2 on the next page shows, Web3 protocols are driven by a radically different view of value creation than Web2 platforms. Exhibit 2 illustrates how the development of Web2 and Web3 networks differ.

Similar foundations, quick divergence

Web2 platforms and Web3 protocols originate their business models in similar ways. They build the network and look to drive participation to reach a critical mass of users and resource providers. The paths that the models follow diverge at this point, however.

Web2 protocols focus on the data being produced by the participants in their network. These data represent a proprietary resource that can be used to incentivize advertisers and to target the platform’s outputs—content, services or goods—to specific users based on their engagement and behaviors. The revenues obtained by leveraging these data are critical to the value proposition of these businesses. Advertising accounted for approximately 81% of Google’s revenues in 2021, with significant contributions coming from each area of the globe—46% from the United States, 31% from the Europe, Middle East and Africa region, 18% from the Asia-Pacific region and 5% from Canada and Latin America.⁶

Network Value Realization

Exhibit 2: Differing Pathways of Network Value Realization in Web2 vs. Web3

Web3 Commercial Protocols



Web2 Commercial Platforms



Time

Source: Franklin Templeton Industry Advisory Services. For illustrative purposes only.

Effectively drawing advertisers and engaging customers based on proprietary data-driven insights makes the Google platform an ever more attractive venue for other resource providers—partners, creators, affiliates and more. This allows the ecosystem to expand—in turn attracting more users to generate more data. This is the flywheel effect that defines value creation in the Web2 world. In a 2019 study, the Boston Consulting Group found that “83% of digital ecosystems involve partners from more than three industries and 53% have partners from more than five” industries. The group found that, collectively, the average digital ecosystem has 27 partners, and the most successful ones have about 40.⁷

By expanding the ecosystem, these Web2 platforms capture a growing share of a customer’s wallet—positioning the platform provider for revenue and profit growth.

In contrast, Web3 platforms focus on their participant pool and on incentivizing their most active users and resource providers through the issuance and award of tokens. Web3 commercial protocols run on a blockchain. Transactional data are shared with and transparent to both participants in the network as a verification node and, in somewhat more limited form, to the public. The Web2 model of leveraging exclusive ownership or access to the data being created by the platform’s users and resource providers is thus not viable for a Web3 network.

Instead, Web3 protocols thrive by keeping their resource providers and user base happy and engaged—extending a platform’s opportunities and ensuring shared rewards and ownership. Providing tokens as incentives helps attract the most talented developers to create new offerings, encourages resource holders to share their assets, and drives customers

to focus their buying power. Each instance incentivizes the respective participant with the prospect of earning even more tokens. Thriving protocols are more likely to pull in other developers, resource providers and users—driving up the platform’s crowd appeal and initiating a crowd effect.

Conclusion

Crowd effect is the new flywheel in Web3. Community benefits—created through shared participation and the award of tokens—align the interests of all the network constituents. The foundation and the participants associated with a protocol make decisions to increase the crowd appeal and grow the size of the protocol’s incentive pool. More of a platform’s resources—such as fees collected—can be shared. This creates the conditions to draw in even more resource providers and users, which in turn drives up the platform’s economic activity—increasing the value of tokens already awarded and increasing the protocols’ earnings, which become a new source of potential reward options.

Modeling these protocol and token-based dynamics and how they support or impede the achievement of crowd effects are foundational to identifying those protocols with the most potential value over time. It will become a new adjunct to fundamental analysis. Over time, it could even spill back over into the Web2 world as today’s network-driven businesses are forced to compete.

Understanding Web3 “tokenomic” supply



Christopher Jensen
Head of Digital Assets Research

The first iteration of the World Wide Web (Web1) involved investors accessing static, templated pages. A set of successful companies emerged as these new offerings took hold, including eBay, Amazon and Google. Early investors into the commercial enterprises pioneering this new landscape earned outsized rewards. A similar pattern occurred when the underlying technology evolved, and the second iteration of the Web emerged. Web2 allowed individuals to interact through web technologies—facilitating the access to and sharing of resources, content and feedback. Another set of successful companies—Netflix, Uber, Airbnb and Facebook (now Meta Platforms). Once again, early investors into these enterprises earned outsized rewards. We are now seeing the emergence of the third iteration of the web—Web3—and we believe the opportunity to invest early into this new space might offer investors a similar chance to potentially capture significant returns.

Web3 and the importance of tokenomics

Web3 marks a significant progression in how individuals can use web technologies. Rather than just viewing information or accessing/sharing resources and content, Web3 allows individuals to initiate and complete commercial transactions directly without relying on an intermediary or a third-party platform provider. This is possible because Web3 uses new technologies—*smart contracts* that users can set up on their own that detail and auto-execute the terms of a transaction; *consensus mechanisms* that allow a constellation of network participants to verify transactions and check each other’s work; and *blockchains* that transparently record the details of a transaction and distribute the ledger to make it nearly impossible to alter or falsify.

This Web3 ecosystem is also being built and run differently. Web1 and Web2 were both driven by commercial enterprises—companies that created, built and controlled access

to platforms that enabled user engagement, measuring their success in the scale of their network and the revenues generated. Web3 is being built around commercial protocols—open architecture software that can be accessed and run by anyone with an internet connection—where a variety of tokens are used to orchestrate activities and where success is measured by the robustness of the community of participants that contribute resources—expertise, time, assets and engagement.

In Web1 and Web2, investors obtained ownership in the top companies shaping the space through either the private or public equity companies issued. In Web3, investors cannot directly own the commercial protocols driving engagement because these protocols are simply codes run by development teams affiliated with foundations. They can, however, own the tokens that each protocol issues, which raises a fundamental issue—the value of the commercial protocol and the value of the token it issues are **not always correlated**.

There are two reasons for this lack of correlation. First, not all tokens are meant to be investing tokens; for example:

- Some tokens are meant to access a service, much like buying a ticket to ride a rollercoaster at an amusement park. The cost of accessing a service does not equate to the value of the protocol offering the service just like the ticket price for a ride does not equate to the value of the amusement park offering those rides.
- Other tokens entitle the holders to vote on proposed initiatives or changes to a protocol. The value of being able to participate in the community and vote on issues does not necessarily correlate to the value of the protocol itself.
- Some tokens are stablecoins and are specifically designed not to go up (or down) in value.
- Finally, some tokens are simply “meme coins” and have nothing more than entertainment, affiliation and speculative value.

Most investors do not differentiate between the different types of tokens and their reasons for investing in them. For our strategies, we only select tokens we consider as correlated with the value of the protocol that issued them—that is, we try and identify “investment” tokens.

Yet, even in these cases, the tokens are being issued by private entities and there are no standards or regulations that dictate how the token pools are run. This is the second reason why the value of the token and the value of the commercial protocol may not be correlated.

Yet, even in these cases, the tokens are being issued by private entities and there are no standards or regulations that dictate how the token pools are run. This is the second reason why the value of the token and the value of the commercial protocol may not be correlated. To determine the strength of this relationship, a new evaluation framework is being created to understand the token supply, demand and value-accrual mechanisms, and how all these token-related considerations might reflect the value of the protocol. This new framework is called tokenomics.

Fundamentals of tokenomics

Investors hoping to identify and evaluate the most promising new opportunities in Web3 must understand three aspects of tokenomic supply. We base our token-level research around the following three principles and hope that the nuances will become well understood in coming years.

1. Understand definitions of supply and its impact on market capitalization

When considering tokens for investment purposes, most investors focus only on a token's current price without evaluating the supply dynamics around the token pool. Because tokens are driven by code, there's typically a schedule around how the supply will change over time, and this schedule can be evaluated and modeled. There are three key supply measures to consider:

- **Circulating Supply:** the current supply of tokens issued and in circulation.
- **Total Supply:** the total amount of tokens minted to date—regardless of whether those tokens are in circulation or locked up—less any tokens burned.
- **Maximum Supply:** This represents the maximum number of tokens that can ever be generated. Knowing this figure provides a guideline to how the token value may evolve

over time. Some projects have opted to not set a maximum, which can create uncertainty about how to evaluate the supply of that token and the relationship it has to its governing protocol.

Furthermore, because market capitalization is a metric calculated by multiplying token price by token supply, there can be vastly different market capitalization figures for the same token based on which supply metric is used. The following analysis of Ripple (XRP) illustrates these points.

- From a price perspective, XRP may appear cheap at only US\$0.50 as of November 4, 2022, especially when compared to the token's all-time price high of US\$3.10 on January 6, 2018. The stated market capitalization for Ripple on November 4, 2022, was US\$25 billion, which by convention, uses circulating supply. Yet, a closer examination of Ripple's token supply shows that only half of its 99.9 billion total token supply is in circulation, even though Ripple was first introduced in 2012 and is the fifth-oldest cryptocurrency.^{8,9}
- Ripple's market capitalization looks quite different when calculated on a fully diluted basis—multiplying Ripple's token price by the maximum supply rather than the circulating supply. In fact, its fully diluted market capitalization is two times greater (US\$49 billion vs. US\$25 billion) than its circulating market capitalization. This means that XRP would need to double its value by the time the remaining tokens are unlocked simply to justify its current token price. This severe supply overhang adversely impacts the correlation of the commercial protocol and its underlying token.

The takeaway is that—all else being equal—investors should be more cautious about projects where a material number of tokens is not yet in circulation. Investors should also look at and consider fully diluted market capitalization in addition to circulating market capitalization. Moreover, when comparing relative value metrics involving market capitalization across tokens (e.g., price-to-sales or price-to-earnings),¹⁰ it is crucial to ensure the same definitions and calculations of market capitalization are used.

2. Factor in token supply emission and lock-up schedule

There is a programmatic element to how, when and to whom tokens are released. The journey of how today's token supply becomes the future supply is encapsulated within the token's emission schedule. There are three types of risks that need to be understood to analyze this emission schedule: 1) the duration of time tokens are issued and the amount of supply

When tokens are issued to early token holders, there is typically a vesting period—also known as a lock-up period—during which time recipients are unable to sell their assets. The vesting period for tokens is much shorter than in traditional security issuances. Every project determines its own distribution schedule and there are (yet) no legal or regulatory requirements nor standard terms. If early recipients have an advantageous cost basis on these tokens, they may choose to sell those tokens and take profits when the lock-up expires.

scheduled to be released at each milestone; 2) whether there is a pre-programmed release schedule for the supply; and 3) the amount of new token supply earmarked for concentrated accounts. Each of these risks can impact the correlation between the protocol's value and the underlying token's value and offer important signals for assessing upcoming selling pressure on a token.

For example, gaming company Axie Infinity published its emission schedule showing specific step-ups in the token AXS supply on specific dates. On October 25, 2022, 21.5 million tokens were scheduled to enter the circulating supply—a figure that would be equivalent to 27% of the circulating supply. Anticipation of this large increase in the upcoming circulating supply resulted in a material selloff of the token going into the unlock date. On October 17, 2022, the price of AXS was US\$11.20. By October 24, 2022, just before the unlock date, the price had fallen to US\$8.37. By October 30, 2022, AXS rose to \$9.24, regaining 31% of the lost value in just six days.¹¹

For other protocols, there may be a daily token release schedule. Since this schedule is encoded into the contract that governs the token supply, these releases are made daily regardless of whether there is enough trading volume to absorb the new supply. Understanding which coins are subject to these pressures and watching the relationship of daily trading volume to daily issuance provides an important signal about whether that token can effectively reflect the value of the underlying protocol over time.

In addition to scheduled token releases, unexpected releases may also occur due to the expiration of a lock-up. When tokens are issued to early token holders, there is typically a vesting period—also known as a lock-up period—during which time recipients are unable to sell their assets. The vesting period for tokens is much shorter than in traditional security issuances. Every project determines its own

distribution schedule and there are (yet) no legal or regulatory requirements nor standard terms. If early recipients have an advantageous cost basis on these tokens, they may choose to sell those tokens and take profits when the lock-up expires. Tracking the concentration of holdings in the ownership pool and when those owners are no longer constrained to hold tokens is an important consideration and might signal a period when the value of the token and its underlying protocol may diverge.

The takeaway is that not only is knowing the total supply important (and how much of that total supply is not yet in circulation), but it is also critical to understand how much of that supply is unlocked and when new supply is coming to market.

3. Identify if structural supply factors exist

The final tokenomic supply factor to monitor is the structural allocation of the token supply. Initial token distribution typically takes place in two rounds—first a private sale to raise capital and then a public sale (or air drop) when a project is ready to launch. Tokens are created and distributed to the initial ownership pool. This typically includes founders and insiders, the foundation's treasury, early investors, set-asides earmarked for the community, and a sleeve of tokens reserved for the public. Ideally, the token allocations are relatively balanced across these different constituents.

During the private sale, insiders and investors may often receive tokens at a significant discount to the eventual public issuance price and thus have an extremely low-cost basis. Knowing how much of the envisioned token pool is going to these recipients is an important consideration. An overly large allocation to investors may result in more significant pressure when the lock-up ends. Conversely, an overrepresentation of insiders in a token sale creates higher risks for potential manipulation—like a sudden dump or an unnatural pump in supply.

The recently released tokenomics for the newly launched Layer 1 blockchain Aptos (APT) has drawn a lot of scrutiny for its initial token distribution. The following table from the Aptos Foundation illustrates the concern.

Tokenomics for New Aptos (APT) Draw Scrutiny

Exhibit 3: Initial Supply for APT

Category	% of Initial Token Distribution	Initial Tokens
Community	51.02%	510,217,359.77
Core Contributors	19.00%	190,000,000.00
Foundation	16.50%	165,000,000.00
Investors	13.48%	134,782,640.23

Source: "Aptos Tokenomics Overview." Aptos Foundation. October 17, 2022.

Initially, breakdown seems diversified. Early investors receive 13.5%, core contributors (insiders) 19%, the Foundation receives 16.5% and the balance—51%—goes to the Aptos community. Further scrutiny of that breakdown, however, shows that the "Community" allocation is initially awarding 41% of the total initial tokens to the Foundation and 10% to Aptos Labs.¹² In other words, insiders and investors own the entire token pool. This makes the token a higher risk for "structural" supply pressure and less likely to reflect the actual value of the underlying protocol. When it comes to digital assets, the two most common structural sellers are miners and insiders—investors and their affiliates.

The takeaway is that it is important to understand how a protocol's tokens are initially distributed as well as the project's plan for increasing distribution going forward. Investors should consider which stakeholders are structural sellers and, if possible, they should perform a deeper analysis of token distribution that would drill down into the specific wallet addresses of the largest holders and set up monitors to watch the movement of coins from those accounts.

Conclusion

Significant opportunities may be forthcoming in the digital asset space as Web3 dynamics take hold, and new protocols might offer potentially the same outsized returns that leading companies in the Web1 and Web2 periods provided. Unlike earlier periods, however, accessing these opportunities in Web3 requires an understanding of both the value of the entity offering the services—the commercial protocol—and whether the token pool it provides accurately reflects the value of that protocol. Even in cases where the correlation is high, understanding the measures and factors that impact the token supply is a requirement to accurately assess both the near-term and longer-term pressures that may affect the relationship between the token and the underlying protocol—and to accurately assess the investment opportunity.

“QuantaVenture” capital for the Web3 world: A new approach for a new set of opportunities



Kevin Farrelly
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The emerging Web3 space—spanning digital assets, blockchain-based ecosystems, the metaverse and a nascent set of real-asset tokenized businesses—marks a step-change in the design, delivery and mechanics of user engagement. Rather than following the Web2 formula of elevating powerful platform providers able to leverage their connectivity, access to data and network effects to build a proprietary business edge, successful Web3 offerings must generate and deliver crowd benefits. This is because the token-based economics that fuel Web3 engagement incentivize and reward the most active users of a platform or network, positioning them to also become the owners/operators of these protocols—changing both the profit motive and success drivers.

As such, legacy venture capital (VC) models may offer only limited efficacy in trying to identify and foster potential winners in the emerging Web3 domain. A new approach to venture capital is required. We created a three-part investing model that we term “QuantaVenture” capital to optimize our investment opportunities in the Web3 domain.

QuantaVenture investment process

The first part of our investment process leverages a series of proprietary quantitative screens we developed to identify potential investment targets. Just as today’s powerful algorithms work to deliver content and engage users through personalized experiences, in the QuantaVenture investment process we mine these same datasets to identify investment signals—projects that are most likely to attract and foster

sustainable crowd behaviors and demonstrate the key characteristics and founder attributes most likely to build successful Web3 businesses.

We use advanced data science and engineering to develop our screening algorithms and to filter through hundreds of potential investments each day. We’re looking for those ventures that seem poised to deliver a commercial experience that anchors on one or more crowd factors. Specifically, can the business build allegiance and drive returns by delivering or leveraging crowd value-drivers—prestige, exclusivity, reward, influence or access? For businesses that appear to meet these criteria, we then assess whether the associated founders display the right set of experiential characteristics that would allow them to activate their social networks to ensure the venture’s success.

These screens help us identify a highly specific signal that we’re looking for—the moment when entrepreneurial ambition will likely turn to entrepreneurial action. Our goal is to identify a potential target, capture a seed investment and join the venture’s capital table as near to that round’s close as possible. This process maximizes the investment team’s time and focus, allowing us to initiate the second phase of our investing process—a three-part fundamental and technical assessment of the business proposition.

- Do your own research (DYOR): First, we perform a deep dive into the founders’ overall vision, their commercial model, and the proposed mechanics of how the enterprise will operate. A willingness to explore potential weak spots in their value proposition and an openness to accept the advice of their VC partner are key attributes that we look for as these behaviors translate well to a model that generates and relies on crowd effects. One of the benefits of having a successful founder-operator on the portfolio investment team is our ability to approach these conversations as someone who can be “on the same side of the table” as the venture’s team. We can help the founders probe their readiness to handle the “known” challenges of launching a successful enterprise and advise them on potential “unknown” challenges that might arise. The collaborative nature of ownership in a Web3 model requires exceptional alignment and a willingness to take in, consider and respond to outside suggestions. Seeing how founders respond to this type of engagement

during the stressful period approaching the closing of their round gives us a good read on how the partnership may continue to evolve under less intense circumstances.

- **Tokenomics matter:** Second, the tokenomics of the proposed enterprise must be modeled and understood. Tokenomics refers to the schedule by which tokens representing ownership or participation in the venture are minted, distributed and burned. Unlike traditional VC investing, a significant portion of the economic value derived from these investments is realized through the token pool awarded to the VC rather than through a public offering. Being able to analyze the tokenomics associated with a proposed target is necessary to fully understand the upside potential of an investment. Moreover, the VC firm must have the right infrastructure to take delivery of such tokens and the necessary expertise to manage the tokens over time to maximize its financial upside—which creates a different route to monetization that requires native Web3 understanding.
- **Build together:** Third, we dive into the code of the actual protocol. Decentralized business models face a significantly higher burden on having an effective, bug-free, well-designed code than traditional businesses. This is because the smart contracts that house the business logic of these protocols are self-executing. Once a commercial protocol is deployed, it runs automatically, and the contracts self-administer the covenants housed in the smart contracts. There are no intermediaries to intervene and stop transactions in case of an error—creating a high bar for the VC team to review and have the in-house expertise to assess and understand the intent and delivery of the code itself.

Having completed the fundamental and technical review of the potential investment, it is then time for the VC team to initiate the third phase of the investment process and convince the founders about why our strategy and organization would be a meaningful addition to their capital table. Looking to make seed investments from a traditional asset manager into a digital native firm operating on blockchain can at first seem counterintuitive, but our experience shows this type of partnership has significant benefits.

Unlike the resource-constrained enterprises we target as potential investments, a traditional asset manager typically builds out a broad variety of support functions that contain myriad sets of expertise. It has teams that engage with regulators around the globe to interpret and reconcile inconsistencies across differing regulatory regimes;

Over time, we see equities, bonds and private funds trading on the blockchain—in part to deliver operational efficiencies and in part to facilitate greater transactional ease. This development will allow tokens to be held side-by-side in investment portfolios with more traditional instruments.

compliance teams that design controls and checks that help ensure safeguards in a highly transactional environment; and marketing and corporate communication teams that shape and build a brand message through interviews, conferences, content and events. A VC with traditional asset manager ties can bring much needed expertise and exposure to the table for the venture firm.

Over time, we see equities, bonds and private funds trading on the blockchain—in part to deliver operational efficiencies and in part to facilitate greater transactional ease. This development will allow tokens to be held side-by-side in investment portfolios with more traditional instruments. This will also free up a traditional asset manager's broad set of portfolio managers to evaluate and invest into Web3 ventures alongside other companies and enterprises in the same sectors. Furthermore, this potentially creates a new type of exit from the VC portfolio as the funds and the founders' token pools may be absorbed over time into broader portfolios where ownership can be spread across even larger sets of participants—the heart of the Web3 ethos.

Conclusion

Understanding the significant differences between VC investing in the traditional economy versus the Web3 digital economy is a key requirement in selecting the right partner to explore this new investment landscape. Our QuantaVenture approach—which combines a comprehensive mining and filtering process with a deep fundamental and technical assessment of potential opportunities—is purposely built to home in on those differences and exploit them to the benefit of our investors. We believe it combines the best of data science and engineering with human insight and practical founder experience both to select the most promising opportunities and to allow those nascent ventures to flourish and grow.

About Disruptive Technology Views

In Disruptive Technology Views, Franklin Templeton Institute explores trends of the digital age with particular attention to investing and applications for the asset management industry. The mission of the Institute is to deliver research-driven insights, expert views, and industry-leading events for clients and investors globally through the diverse expertise of our autonomous investment groups, select academic partners and our unique global footprint.

Endnotes

1. Source: Morrison, Sara. "Amazon's strategy to squeeze marketplace sellers and maximize its own profits is evolving." Vox.com. December 1, 2021.
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6. Source: "Google's Revenue (2002 - 2021)." GlobalData.
7. Source: Jacobides, Michael; Lang, Nikolaus; and Von Szczepanski, Konrad. "What Does a Successful Digital Ecosystem Look Like?" BCG. June 26, 2019.
8. Sources: Ripple (XRP) price today, XRP to USD live, marketcap and chart. CoinMarketCap. As of November 4, 2022;
9. Source: "9 Oldest Cryptocurrencies Ever Released." Oldest.org.
10. Crypto P/E ratio equals market capitalization (fully diluted) divided by total earnings (protocol revenue annualized). Fully diluted market capitalization equals the maximum supply of tokens multiplied by the price per token. Protocol revenue annualized is calculated by the total revenue the protocol generates in transaction fees from users of the blockchain.
11. Source: Axie Infinity (ACS) price today, AXS to USD live, marketcap and chart. CoinMarketCap. As of October 30, 2022.
12. Source: "Aptos Tokenomics Overview." Aptos Foundation. October 17, 2022.

Notes

Lined area for taking notes, consisting of multiple horizontal lines.

WHAT ARE THE RISKS?

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