The 2021 Crypto Roller Coaster Ride Mainstream Adoption, NFTs, And Solana Summer

If you have been around the blockchain industry for some time, the 2021 volatility was not all surprising. What may have been surprising was the reduced overall market volatility compared to previous years. Much of this greater stability has to do with continued mainstream adoption and inflows of venture capital investment in different market sectors.

In 2021, the fast-growing sector was NFTs or non-fungible tokens. NFTs drove the likes of Nike to acquire companies to help market NFTs of sports action pictures: all on the blockchain. The Ethereum protocol dominated the NFT sector when NFTs were first on the scene. However, consistently high gas prices on Ethereum caused many to look elsewhere. Faster transactions times and extremely low transaction fees helped propel the Solana protocol in popularity (and brought the price from $6 in early January 2021 to just below $260 in November). That meteoric rise gave birth to the phrase “Solana Summer,” increasing interest in NFTs, and helped lift the rest of the alt-coin market.

Visa, Mastercard, and PayPal either started or increased their involvement in the industry throughout the year. Corporations like Microstrategy started to add cryptocurrency to their balance sheets. It seems almost daily there is a new deal, acquisition, project, or application, and the dynamics of the marketplace can be overwhelming.

Cointelegraph Research is committed to bringing insights from some of the most important venture capital investments, project participants, funding rounds, and mergers & acquisitions. By using the most up-to-date information and industry analysis, we present these reports to the reader to provide insights into the pace and heartbeats in the industry.

Cointelegraph Research provides a general overview of the Venture Capital activities each quarter. The analysis for this report pulls from an extensive database to share with the reader some of the highlights from the previous quarter. However, the database has much more information than is shared within this report.

If you would like to dive into particular activities within the specific sectors a bit more to gain insights of your own that were not articulated in these quarterly reports, you can access the premium database at research.cointelegraph.com.

Keychain Ventures has been an active and dedicated blockchain investor since 2020, providing diversified exposure to crypto assets and blockchain technology by investing with a venture-style approach. It focuses on two investment strategies: partner with leading blockchain fund managers and selectively invest in a proprietary deal flow of direct and co-investment opportunities.

Keychain Ventures can be contacted by email at investors@keychainventures.com.
Key Takeaways — 2021 In Review

2021 Insights To The Blockchain and Crypto Space

<table>
<thead>
<tr>
<th>Deals</th>
<th>Mergers &amp; Acquisitions</th>
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<tbody>
<tr>
<td>1,349 Fundraising Rounds Around $30.5 Billion Invested</td>
<td>Activity Primarily Acquisitions Over $6 Billion Invested</td>
</tr>
<tr>
<td>Investments came from mainly dedicated Funds (66.3%), Angel Investors (20.2%), and Corporate sources (8.3%).</td>
<td>Acquisitions by Visa, Mastercard, Nike, and PayPal show mainstream adoption growth throughout 2021.</td>
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Glossary

**DeFi** — Decentralized Finance — a series of independent markets that operate 24 hours a day, 365 days a year, and brings together parties using different blockchain technologies to purchase, sell, lend, borrow, and otherwise earn yield on assets between two pseudonymous parties.

**CeFi** — Centralized Finance — bringing together the best of traditional marketplaces and DeFi, CeFi leverages the use of blockchain technology but may require regulatory compliance for KYC (Know-Your-Customer) and AML (Anti-Money Laundering).

**Web3** — refers to a wide variety of topics dealing generally with evolving access for individuals to decentralized, open source, permissionless applications rather than through middle men on the current centralized internet.

**Infrastructure** — a broad category encompassing the backbone of the industry including mining, tooling, cryptographic technology, data analysis, and development.

**NFT** — Non-Fungible Token — digital tokens that can represent items in a supply chain, identifications for people, property deeds, and the largest use in 2021, digital art.

Report Highlights

- The number of blockchain-related deals by venture capital (VC) reached **1,349 deals** in 2021. The trend has generally been growing since 2012. While 2019 saw a drop off in both aggregate investment amount and number of deals, the resurgence since then has been over 281% growth in investment activity.

- The capital investment of these deals is also rising. The top ten deals **ranged from $430 million and topped out at $1 billion in a single funding round** in 2021.

- Mergers and Acquisitions activities included several important examples of mainstream adoption in the crypto space. This includes **acquisitions by Nike, Visa, Mastercard, and PayPal**, demonstrating increased mainstream adoption.

- **Decentralized Finance (DeFi) continues to have the most VC activity.** A category that saw significant growth in 2021 was the non-fungible token (NFT) sector.

- **Capital activity was highest in the Pre-Seed and Seed rounds** in terms of the number of deals but **Series B found greater capital investment (just under $6.8 billion)**, indicating firms were concentrating on scaling and product commercialization in 2021.

- **Over $10.2 billion of capital investment activity** also was concentrated in the later stages of a firm’s development, including Strategic Partnerships, Series C through H, Debt Financing, and Treasury Diversification.

- The most **active VC was AU21 Capital, with over 140 total deals** across the Web3, NFT, Centralized Finance (CeFi), Infrastructure, and DeFi sectors. Nine of the top ten most active investors **concentrated mostly in DeFi**, followed by a split between NFTs, Infrastructure, and Web3.

- **34% of investment deals originated from the United States.** A growing trend is an investment from “decentralized” origins, largely driven by DAOs or decentralized autonomous organizations.
Dramatic Increase In Number And USD Value Of Deals 2012 To 2021

2012–2016: Nascent Technology and Investment Category*
While this period saw a steady increase in the number of deals, the technology and infrastructure was still emerging.

2014 — $310 m on Xunlei (China)

2017: From Millions to Billions
2017 marks the year that the blockchain and crypto space moved from millions of dollars per year in VC investment to billions.

Fall of the Total Number of Deals in 2018 to 2019
Falls in investment from USA and China dropped the overall number of deals in 2019 considerably.

Rise from 2019 to 2021
Over a 281% increase in activity was caused by effects of Covid-19 pandemic and Mainstream adoption by "traditional" companies.

Investment Per Year Number of Deals
- 2012: $68.94 million 18 Deals
- 2013: $197.9 million 72 Deals
- 2014: $852.84 million 180 Deals
- 2015: $815.91 million 193 Deals
- 2016: $899.7 million 221 Deals
- 2017: $2.31 billion 399 Deals
- 2018: $6.57 billion 710 Deals
- 2019: $3.63 billion 479 Deals
- 2020: $4.9 billion 838 Deals
- 2021: $30.49 billion 1349 Deals

* Number of deals and totals for 2012 through 2016 may not include ever investment made, as the blockchain space was still nascent during this time. In addition, all years aggregate totals may be higher due to undisclosed amounts of investment from private investors.
The “Picks-And-Shovels” Of The Space Continues To Expand: Top Ten Biggest VC Deals 2021

- **Revolut**: $900M
  - Founded in 2015, offers banking services such as currency exchange, virtual cards, stack grading, crypto, and interest-bearing accounts. Used the $800 million Series E raise for "neobanking" growth.

- **Moonpay**: $800M
  - A fiat to crypto on-ramp and exchange that aims to create a simple way for individuals to purchase cryptocurrencies.

- **Digital Currency Group (DCG)**: $700M
  - A venture capital company focused on investing in early-stage cryptocurrency infrastructure projects.

- **Sorare**: $725M
  - Works with NFTs in global sports, including football and fantasy sports.

- **Circle**: $680M
  - A blockchain technology company that focuses on peer-to-peer payments.

- **Genesis Digital Assets**: $525M
  - An industrial-scale Bitcoin miner out of Sweden.

- **Greyrock**: $555M
  - A solution provider in the gaming sector, raised a $725 million Series B round to expand blockchain integration through the entertainment and gaming industry.

- **Forte**: $500M
  - Currently working with over 40 game developers on developing "community economics," including play-to-earn games, which pay players for participation.

- **FTX**: $431M
  - A cryptocurrency exchange founded by Sam Bankman-Fried to create the fastest, most secure, and easy-to-use platform for centralized exchanges on the market.

- **New York Digital Investment Group (NYDIG)**: $440M
  - Offers Bitcoin products to different industries, including banking, insurance, and institutions.

- **New York Digital Investment Group (NYDIG)**: $1B
  - A growth equity fund round, led by the growth equity firm WestCap, will expand NYDIG’s ability to “institutionalize” Bitcoin to banks, public firms, and private funds.
There was constant M&A activity throughout 2021. There are five important acquisitions that are highlighted. Four of these demonstrate the growth and interest of blockchain technology across different players in the “traditional” business world.

**PayPal acquired Curv**
Curv is an institutional provider of cloud-based digital asset security infrastructure. PayPal’s acquisition is to help bolster its offerings of cryptocurrencies on its platform, reaching a wider audience to further technological adoption.

**Galaxy Digital acquired BitGo**
BitGo is an infrastructure provider in digital assets, transforming Galaxy Digital into a full-service platform for institutions looking for exposure to digital offerings.

**Visa acquired Tink**
Tink is a Swedish open banking platform that connects over 3,400 banks and institutions to financial data pools so that more personalized tools can be created. This includes interactions with crypto firms and gateways such as exchanges.

**Mastercard acquired CipherTrace**
CipherTrace is a crypto data and intelligence company that allows Mastercard to provide enhanced security in fraud detection not only in cryptocurrency but in the NFT sector as well.

**Nike acquired RTFKT Studios**
RTFKT utilized blockchain technology in gaming and the NFT space. Nike’s acquisition opens up exposure to NFT marketplaces, including digital wearable items, collectibles, and other offerings.
DeFi continues to be the largest sector for VC. In 2020, there were 123 deals focused on the DeFi sector. There were 431, or more than 3.5 times as many deals in the DeFi sector in 2021. The focus on this sector should not be surprising, as the wide adoption of cryptocurrency is in part due to the yield and returns available through the digital asset space, as opposed to “TradFi” or traditional finance.

Infrastructure is the second most invested crypto sector, with 276 deals in 2021, increasing from just 89 in 2020. As more firms are creating the roads and highways for the next leg of the “blockchain revolution,” this sector is likely to continue to grow in the future.

Last year saw a dramatic increase in the growing investments in the NFT sector. From 2017 through 2020, there were only 12 deals focused on the NFT sector. In 2021, there were 265 NFT focused deals, an increase of over 22 times from the four previous years combined.

You can find an in-depth NFT report by clicking the Cointelegraph Research NFT report.
Majority Of Venture Capital Activity Revolves Around Start-Ups, While Capital Investment Concentrates On Scaling Activities

Expansion, mostly making up later stages of a firm’s development, consists of investments including M&A, strategic plays, debt financing for expansion, and treasury diversification. The Expansion rounds had over $10.27 billion in capital inflow, making it the heaviest concentration of capital for investors in 2021.

Series B may have had the fewest individual rounds in the areas of scaling, product commercialization, marketing, and cultivating consumer interest, garnered the most amount of investment capital at over $6.8 billion in 2021.

While companies are transitioning to some later stages of firm development, the trends indicate that right on these firms’ heels are newer firms looking to compete in the marketplace. These firms have the second mover advantage and could be looking for investors moving into Series A rounds, laying the groundwork for going to market in the later quarters of 2022.

Startups in all different sectors of the blockchain space attracted the most amount of activity in 2021 and but the least amount of capital, pulling in almost $2.65 billion of investment.

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The Most Active Investors Are Still Backing DeFi In 2021

65% of all individual VC deal activity comprised the top ten most active investors in 2021. Nine of the top ten most active investors concentrated on the DeFi space. Only Animoca Brands deviated, choosing the back mostly NFT plays. NFTs were the second choice for investment for half of this list, while the rest was divided amongst Infrastructure and Web3. Interestingly, CeFi was the least invested sector, mostly favored by Coinbase Ventures and Alameda Research — two companies highly involved in crypto exchanges. Web3, due to its expansive nature and depending on the definition used, could overlap with several of the other categories, which could explain why it looks like investors are not heavily involved in capital investment, but this could be somewhat misleading.

DeFi is at the heart of much of the digital asset revolution, allowing institutions to earn a yield on assets that TradFi simply cannot match. The decentralized applications (DApps) for DeFi have grown exponentially over the past few years and it likely to continue moving forward.

### Percentage of Individual Investments Per Active Investor

<table>
<thead>
<tr>
<th>NFTs</th>
<th>CeFi</th>
<th>Web3</th>
<th>DeFi</th>
<th>Infrastructure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morningstar Ventures</td>
<td>35%</td>
<td>0%</td>
<td>8%</td>
<td>40%</td>
<td>17%</td>
</tr>
<tr>
<td>Genblock Capital</td>
<td>17%</td>
<td>3%</td>
<td>14%</td>
<td>50%</td>
<td>16%</td>
</tr>
<tr>
<td>Animoca Brands</td>
<td>42%</td>
<td>0%</td>
<td>36%</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>Alameda Research</td>
<td>10%</td>
<td>14%</td>
<td>13%</td>
<td>47%</td>
<td>16%</td>
</tr>
<tr>
<td>CMS Holdings</td>
<td>7%</td>
<td>5%</td>
<td>12%</td>
<td>61%</td>
<td>15%</td>
</tr>
<tr>
<td>NGC Ventures</td>
<td>18%</td>
<td>2%</td>
<td>14%</td>
<td>53%</td>
<td>13%</td>
</tr>
<tr>
<td>X21 Digital</td>
<td>33%</td>
<td>2%</td>
<td>14%</td>
<td>40%</td>
<td>11%</td>
</tr>
<tr>
<td>Coinbase Ventures</td>
<td>10%</td>
<td>18%</td>
<td>13%</td>
<td>32%</td>
<td>27%</td>
</tr>
<tr>
<td>LD Capital</td>
<td>20%</td>
<td>1%</td>
<td>20%</td>
<td>44%</td>
<td>16%</td>
</tr>
<tr>
<td>AU21 Capital</td>
<td>26%</td>
<td>2%</td>
<td>12%</td>
<td>48%</td>
<td>11%</td>
</tr>
</tbody>
</table>

141 Individual Deals

102 LD Capital
96 Coinbase Ventures
94 X21 Digital
85 NGC Ventures
82 CMS Holdings
76 Alameda Research
64 Genblock Capital
63 Morningstar Ventures
141 Individual Deals
Funds Were The Most Active In 2021, And The USA Lead The VC Charge

The origin of investment in the blockchain space continues to be from the United States, and Funds continue to be the largest investor type to participate in VC activities. Corporations, particularly public and mainstream traditional companies, continue to increase investments in this space. Sixth on the origin of the investment list is a category known as “decentralized.” This refers in large part to DAOs, as they are growing in prominence in the VC space both as an opportunity for investment as well as a source of capital. DAOs provide an alternative framework for a firm. However, the physical location is unlike the traditional corporate structure, making it impossible to use traditional geographical queues for location.

Funds, which multiple parties can back to increase exposure to different investment products, made up nearly two-thirds of all the different types of investors, followed by Angel Investors at a little over 20%. The remaining categories demonstrate specific interests by organizations such as decentralized autonomous organizations (DAOs) and traditional corporations to participate in or utilize blockchain technologies.
Michael Tabone
Economist at Cointelegraph

Michael Tabone is an economist at Cointelegraph Research. He holds a B.Sc. in Economics and Finance from Southern New Hampshire University, an MBA from Western Governors University, and a Postgrad in Innovation and Design Thinking from Emeritus Institute of Management (a collaboration of MIT, Columbia, and Dartmouth). Currently a Ph.D. in Business candidate at the University of the Cumberlands, his research is focused on decentralized autonomous organizations and blockchain applications in the real world.

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Head of Research at Cointelegraph

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While 2021 was certainly an interesting year in the blockchain and crypto industry, it looks like things are just getting started.

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