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Crypto H1 2020 in Review

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What's Driving Growth?

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Midway through 2020, Coinbase is paying close attention to a handful of growth vectors that accelerated digital asset adoption in the first half of the year:

- **Large cap assets'** network growth and native token appreciation (BTC/USD +27.3%; ETH/USD +73.3%)¹
- Increasing **direct institutional allocation** to digital assets
- The emergence of full service **crypto prime brokerage**, combining custody, execution, and lending
- On-chain and market **data analytics** advancements
- **Cryptodollar** ("stablecoin") usage
- **Crypto derivatives** trading
- **Mining** professionalization and the BTC inflation rate halving
- **Decentralized finance** ("DeFi") protocol usage
- **Fintechs and brokerages** adding crypto

Bitcoin

The first and largest digital asset network continued to grow in H1, and its native unit of account, BTC, appreciated 27.3%. New market participants helped fuel this rise, with total BTC wallet addresses with a positive balance up 6.5%, totaling 30 million.² Collectively, BTC wallets stored \$169 billion in value as of June 30th.³

A global market shock in March of this year tested BTC, along with equities, gold, and other assets, as investors fled for cash in a COVID-induced liquidity crunch. While BTC fell 51.4% from March 11th to March 12th, its recovery was rapid. BTC fully retraced its losses by April 29th, rising 128.0% to \$8,795 in a 48 day span before advancing higher to break the \$10,000 barrier on May 7th.⁴

The estimated average cost basis of BTC holders continued to rise in H1; Coin Metrics* [BTC realized capitalization](#) rose 6.2%, from \$101 billion to \$107 billion during the period. Notably, BTC also experienced declining turnover in the first half of 2020, with the percent of BTC that has moved wallets on a trailing 12 month basis decreasing 6.6% from 41.1% to 38.4%.⁵ This behavior is consistent with the thesis held by a growing number of our clients that BTC is an emerging store of value.

¹ Coinbase; coinbase.com

² Coin Metrics; coinmetrics.io

³ Coinbase; coinbase.com

⁴ Coinbase; coinbase.com

⁵ Coin Metrics; coinmetrics.io

* Coinbase Ventures portfolio companies are denoted with a "*" unless this is stated explicitly.

Hashrate, a measure of the computational power that miners contribute to the Bitcoin network, also climbed upward 2.1% in H1 from 113 million terahashes per second to 115 million terahashes per second,⁶ despite Bitcoin navigating its fourth halving event (more on the halving and its impact on miners below). A higher hashrate means that the market in aggregate invested more capital in running mining rigs for the opportunity to acquire a stream of new BTC. This also strengthened Bitcoin's security by increasing the cost of overtaking the network.

11 years from its inception, Bitcoin continues to lock in its network effects. Storing \$169 billion in value while weathering a macroeconomic shock, achieving a wide distribution of holders, and growing its hash rate and security via mining all reinforced its staying power in the first half of 2020.

Ethereum

Five years since its creation, and three years since its meteoric rise fueled by initial coin offerings, Ethereum re-entered the crypto developer and investor zeitgeist in H1 2020 by solidifying its status as the network of choice for powering [decentralized finance](#) ("DeFi"), a permissionless financial system built on open source protocols (more on DeFi below).

Ethereum's unit of account, ETH, appreciated 73.3% in H1 versus USD. Its network processed 1.1 million transactions per day as of June, up 138.2% from 466,526 in January.⁷

Notably, fees on the Ethereum network rose significantly in H1 as a result of explosive growth in DeFi activity (fees typically increase in response to network congestion). The average Ethereum transaction fee in June was up 776.0% to \$0.73, from \$0.08 in January of this year.⁸

Ethereum core developers advanced plans in H1 for the first phase of a protocol upgrade, scheduled to begin in the next few quarters. The upgrade, ("Serenity"), is slated to include a transition from a mining-based consensus mechanism (proof-of-work) to one that will enable holders to stake their ETH tokens instead (proof-of-stake) to capture new token issuance rewards. Serenity will also enable chain sharding, which is designed to improve scalability by partitioning the workload for a given transaction into pieces that can be processed across multiple nodes, rather than requiring each node to complete the same work in parallel.

Developers also advanced the EIP-1559 proposal, which would introduce dynamic block size changes in response to traffic congestion. Notably, EIP-1559 would also have an effect on the supply of ETH, as it includes a provision that would permanently destroy a portion of ETH used in every network transaction fee. This would make ETH a partly "consumable" commodity akin to wheat or oil in the physical world (currently, ETH transaction fees are transferred to miners, but not destroyed).

⁶ Coin Metrics; coinmetrics.io

⁷ Coin Metrics; coinmetrics.io

⁸ Coin Metrics; coinmetrics.io

Institutional Adoption

The digital asset investor market continues to mature from its retail and crypto-fund roots. Today, many larger and more conservative institutional investors are allocating for the first time, using Coinbase to build direct positions and backing crypto fund managers as part of their alternatives strategy. We saw a noticeable uptick in our institutional business's growth in H1 and continued to add leading university endowments, traditional multi-strategy hedge funds, VCs, and large family offices to our roster of clients buying digital assets directly.

Greater visibility of reputable investors warming up to digital assets has fueled confidence among this community. Tudor Investment Corporation [made headlines](#) this May by disclosing its BTC position. CEO Paul Tudor Jones argued that "...the best profit-maximizing strategy is to own the fastest horse...my bet is it will be Bitcoin." Jones made his case against the backdrop of what he called "The Great Monetary Inflation," highlighting central banks' record monetary expansion in 2020 as a potential catalyst for BTC.⁹

Investors are still in the early days of untangling the relationship between macroeconomic policy and crypto, but we are seeing a growing base of our institutional clients organizing around the thesis that BTC, specifically, provides exposure to an alternative monetary policy system with supply mechanics that are diametrically opposed to those of central banks in 2020: scarcity versus expansion, predictability versus uncertainty, decentralization versus centralization, software versus humans.

Prime Brokerage

From a product standpoint, institutional investors are demanding deeper capabilities to help them allocate and trade, and Coinbase is building market-leading brokerage services in response to this client demand. Our approach is to rebuild the core businesses of traditional prime brokerage that investors expect - custody, trading, and lending - but optimized from the ground up to take advantage of digital assets' unique characteristics.

- **Custody:** Since launching in July 2018, Coinbase Custody has grown rapidly and expanded its lead as the industry's largest player. Our Qualified Custodian, a limited purpose New York trust company regulated by the New York Department of Financial Services, secures digital assets in fully segregated cold storage on behalf of leading endowments, venture funds, hedge funds, private equity funds, family offices, and RIAs. Above all else, we emphasize (i) market-leading risk management (a hybrid of advanced cybersecurity, physical security, operational controls, and insurance), and (ii) the ability to support a wide range of assets and their unique protocol capabilities like staking and governance, which can help investors realize a greater return on their investments. We do not view digital asset custody as a commodity, but rather as a powerful piece of infrastructure which, if designed correctly, supports investors' fiduciary duty to protect LP assets and maximize their returns.

⁹ Bloomberg; [bloomberg.com](https://www.bloomberg.com)

- **Trading:** Today, Coinbase operates the largest regulated exchange in the world - a central pool of liquidity that combines the assets of our 35mm retail users and institutional clients. In H1 2020, the digital asset market continued its evolution towards multi-venue best execution, in which clients expect to route trades through brokerages that aggregate liquidity and offer advanced execution algorithms. With our recently announced [acquisition of Tagomi](#), we've greatly accelerated this transition; Coinbase will integrate multi-venue execution going forward. This will allow for significantly larger orders with minimal price slippage via our brokerage. Clients can also benefit from detailed transaction cost analysis ("TCA"), enabling them to better understand their cost basis and fees on every trade.
- **Lending:** Coinbase provides margin trading and delayed settlement to our institutional clients on a limited basis, and we are currently scaling our credit programs further across both fiat and digital assets in response to client demand. We will continue to develop our lending business to expand the scope of what's possible for our clients, while taking a professional approach to risk management and ensuring health across Coinbase's underlying markets.

Data

The data analytics category for public blockchain assets is unique in that it includes rich, publicly auditable on-chain (network) data in addition to financial (market) data. In H1, investors and researchers accelerated their usage of third party data models that consider both of these dimensions to understand trading behavior and how assets move from wallet to wallet on-chain.

We are still in the early stages of digital asset data usage by investors; the primary buyers of market and network analytics to date have been crypto-native funds. However, growth is accelerating; traditional hedge funds looking to trade in size are eager to better understand crypto market structure and identify inefficiencies that can be arbitrated. They are seeking out structured third party data to do so.

Data analytics can also play a key role in highlighting the strength (or weakness) of various trading venues via their liquidity depth and how they perform during market shocks. Coinbase is exploring ways to provide our clients with a deeper understanding of liquidity depth on our own books and across other venues.

We believe that data analytics will be a key driver of digital asset adoption as it improves investor understanding, drives confidence, and encourages investment in the asset class. Coinbase will continue to support this category through our core product roadmap and by investing in leading data analytics businesses through Coinbase Ventures (current Coinbase Ventures data analytics investments include [Coin Metrics](#), [Messari](#), [Etherscan](#), [Nomics](#), and [Flipside Crypto](#)).

Cryptodollars (Stablecoins)

Cryptodollars, or stablecoins, grew 104.6% in H1, from \$5.7 billion to \$11.8 billion in market capitalization. Tether and USDC were the largest gainers in dollar terms, with Tether increasing by 114.6% to \$10.3 billion and USDC increasing by 78.1% to \$926 million.¹⁰

The majority of cryptodollars, including Tether and USDC, are collateralized 1:1 by USD and represented on blockchains in a tokenized format. This allows them to bring fiat currencies' stability into the crypto economy, where traders and investors use them to move in and out of digital asset positions and to transfer funds between exchanges and wallets on-chain. Cryptodollars' lower transaction costs and ease of movement inside of the crypto economy are primary examples of the benefits of digital asset infrastructure over the traditional financial system. Coinbase continues to see that when clients are given the choice, many prefer to keep their assets - including their fiat currency - on "crypto rails."

In addition to lower transaction costs and ease of on-chain movement, cryptodollars' compatibility with DeFi has been another significant growth driver in H1. Tokenized fiat like USDC can seamlessly move between exchanges like Coinbase and DeFi smart contracts, meaning that cryptodollar holders at Coinbase can instantly access new lending, trading, asset management, and derivatives capabilities offered by DeFi protocols (examples include Compound,* Uniswap, Curve Finance,* Balancer, UMA,* and Synthetix). DeFi significantly increases the use cases for cryptodollars, which can be deployed to a smart contract as stable collateral or as part of a trading pair or asset management strategy.

Through Coinbase Ventures, we saw a growing number of startups in H1 focused on bridging the traditional financial system with the crypto economy. We expect this trend to continue and for cryptodollars to play a key part. In the future, more fintechs and financial services providers aiming to provide lower transaction costs, ease of fund movement, and greater breadth of product capabilities to their clients may incorporate cryptodollars into their core product offerings. Coinbase is driving this vision forward via the Coinbase [retail app](#), where today users can instantly convert USD to USDC at no cost, then use USDC for payments, sending and receiving on chain, and accessing third party DeFi services.

Derivatives

Crypto derivatives gathered more steam in H1 as traders, investors, and miners sought ways to express their views on digital assets beyond the spot market. Futures and options are the most popular derivative contracts currently, and BTC remains the dominant asset traded.

¹⁰ Messari; stablecoinindex.com

Daily open interest in BTC futures rose 30.0% in H1, from \$2.6 billion on January 1st to \$3.5 billion on June 30th. (Open interest is the aggregate value of unsettled contracts at a given point in time). Daily futures volumes were down 12.9% for the period, averaging \$12.7 billion in January and \$11.1 billion in June.¹¹

BTC options saw steeper gains, with open interest rising 236.0% in H1 from \$305 million on January 1st to \$1.0 billion on June 30th. Daily options volumes, meanwhile, rose 90.1%, averaging \$56 million in January and \$106 million in June. The CME Group's [launch of BTC options](#) in January was a strong catalyst for the options market, and their share grew from 0% to 15% by the end of the period.¹²

Notably, the majority of crypto derivatives volume today is supported by unregulated trading venues based in Asia and Europe. While these venues have proven initial demand for crypto derivatives among their primarily retail customer bases, we expect that regulated venues will play an increasingly significant role in this market in the coming years. As has been the case in the spot market, large institutions and professional traders looking to use derivatives are likely to seek out trusted, compliant environments that give confidence to their investors.

Mining Professionalization and the Bitcoin Halving

The first half of 2020 was eventful for Bitcoin miners, who navigated the network's third scheduled "halving" in May at the 630,000th block. This event reduced the BTC mining reward per block from 12.5 BTC to 6.25 BTC, increasing the relative competitiveness among miners of earning a reward. The halving forced a hardware upgrade cycle towards more efficient application-specific integrated circuit ("ASIC") rigs, and the post-halving environment now favors professional miners who have the capital and scale to keep pace.

Prior halving events have triggered short term hash rate drops as inefficient miners were unable to mine profitably and shuttered their operations, later replaced by efficient miners who drove the hash rate higher. Notably, this cycle's initial drop was brief, amounting to a 40.0% hash rate move between May 10th and May 17th, then recovering to near all time highs in just two weeks.¹³ This signal suggests high confidence in BTC prices among miners, who preemptively invested capital in upgrading their infrastructure to remain competitive enough to continue mining new rewards after the halving.

BTC selling pressure from miners has also reduced post-halving, as has been widely documented by BTC analysts. (As miners incur CAPEX, OPEX, and tax obligations in fiat, they must constantly sell a portion of their BTC rewards to stay in business. A 50% reward issuance reduction naturally decreases this selling pressure in aggregate.)

¹¹ Skew; [skew.com](#)

¹² Skew; [skew.com](#)

¹³ Coin Metrics; [coinmetrics.io](#)

As the mining industry professionalizes, we see larger miners taking advantage of more sophisticated financing options. Hedge funds and private equity firms are increasingly looking to mining businesses for equity-based exposure to a future stream of BTC that they could acquire below spot prices. The professional debt markets are also playing a role in mining growth; in H1, we saw miners seeking out new lenders and exploring various collateralization methods, including pledging their own hardware. Finally, we saw an uptick in miners using the emerging crypto and hashpower derivatives markets to manage their risk; while miners by definition take aggressive long exposure to BTC, some are beginning to smooth out their risk with derivatives.

DeFi

[DeFi](#) exploded onto the scene in H1, with a handful of anticipated project launches garnering attention from crypto users and investors. [Compound](#), an autonomous lending protocol, led this group by capturing \$631 million in crypto collateral between the April launch of its governance token ("COMP") and the end of June, making it the industry's largest DeFi project by collateral value.¹⁴

We can measure DeFi growth many ways, but two of the most commonly accepted metrics are crypto collateral value (crypto value locked in DeFi smart contracts) and transaction volume across major decentralized exchanges ("DEXes"). By both measures, DeFi had a breakout start to the year. Total crypto collateral in DeFi grew 130.3% from \$697 million to \$1.6 billion, while monthly transaction volume on decentralized exchanges grew 3,966.0% from \$38 million in January to \$1.5 billion in June.¹⁵

The protocols supporting DeFi are still in the early stages of their adoption cycle, and thus are not well understood by the majority of market participants. Coinbase investor Andreessen Horowitz describes DeFi, which is a [thematic focus of its fund](#), as follows:

"DeFi is a new stack of financial services -- think lending, derivatives, insurance, trading, crowdfunding, and more -- built on top of blockchains that embraces the core values of the open internet, including 1) open access to anyone in the world; 2) commitment to open source code; 3) permissionless extensibility by third-party developers; 4) minimal-to-no fees; and 5) encryption-backed security and privacy."

¹⁴ DeFi Pulse; defipulse.com

¹⁵ DeFi Pulse; defipulse.com

In short, DeFi turns financial services into open source, trustless software protocols that anyone can develop on and use. While Coinbase believes this new paradigm will be extremely powerful long-term, it is also clear that the DeFi market is still in its infancy. Developers will continue investing in these protocols' risk management systems and smart contract security, while battle-testing them over longer periods of time, to better equip them to support the mass market.

We saw positive early signs of validation for some of DeFi's core tenets in H1, most notably, functioning incentive systems that rewarded usage of new protocols by distributing their native tokens to users, and active participation in governance - or the practice of voting on-chain to steer the development of a protocol. Returning to the Compound example: borrowers and lenders using the Compound protocol in H1 received their first payments of COMP (Compound's governance token) in exchange for their usage, while holders of COMP tokens voted on-chain (many directly through Coinbase Custody) to make changes to Compound's development.

Coinbase will continue to support the growth of DeFi protocols through our own products and investments. [Coinbase Wallet](#) (our non-custodial wallet offering) enables users to connect directly to DeFi services, while Coinbase Custody clients can take advantage of in-app voting for COMP and other governance tokens. Our [retail app](#) users, of course, can also send supported crypto assets to DeFi wallet addresses, or instantly convert their USD to USDC, which can be used as collateral in DeFi smart contracts and is featured in many trading pairs by DEXes. We'll also invest further in DeFi projects that we believe advance our mission to create an open financial system for the world. (Current Coinbase Ventures DeFi investments include [Compound](#), [Curve Finance](#), [Instadapp](#), [Dharma](#), [UMA](#), [Celo](#), [Fleek](#) (FKA Terminal), [Torus](#), and [DerivaDEX](#)).

Fintechs and Brokerages Adding Crypto

In the early days of digital assets, Coinbase and other crypto specialists were the only companies to provide the ability to buy crypto with fiat currency. As the industry has grown and more people around the world have demanded access to crypto, other scaled, fiat-native fintech businesses have begun to offer basic crypto brokerage capabilities as part of their product suite. For instance, [Square](#) (Cash App), [Robinhood](#), [Revolut](#), [SoFi](#), [Tradestation](#), [Swissquote](#), [eToro](#), [Paysafe](#), and [Zeux](#) have all entered the market recently, providing some form of crypto brokerage (buy / sell) or crypto payment services to their users.

Coinbase welcomes these new on-ramps to crypto and is well positioned to support them; fintechs and brokerages looking to provide their users with crypto require trade execution and custody services, and Coinbase supplies them with market-leading capabilities in these areas. We'll continue to grow our own retail business, providing the simplest user experience, broadest range of assets, and deepest set of crypto capabilities to our users, but in parallel, we'll also power other entrants in the industry with the underlying liquidity and custodial tools they need to meet their users' demands and fuel growth for their business.

Coinbase saw heightened interest among fintechs and brokerages in adding crypto capabilities to their product suite in H1, and we expect this trend to accelerate in the coming years. The participation of a public company in this market, Square, has enabled other fintech players to understand the rapid growth that digital assets can drive: According to their Q1 2020 filing, Square's gross BTC sales reached \$306 million in Q1, up 367.1% year over year from \$66 million in Q1 2019. This represents the fastest growing revenue line item in Square's quarterly report by a significant margin (Square's second fastest growing line item, subscription and services-based revenue, gained 35% year over year).¹⁶

We anticipate that the combination of Coinbase's rapidly advancing crypto-as-a-service capabilities, which make adding crypto easier for fiat-native businesses, as well as visible success stories from public companies that have embraced digital assets, will continue to drive new entrants from the fintech, brokerage, and banking sectors. We believe that eventually, all modern financial services businesses will want to provide their clients with digital assets as the asset class continues to grow and use cases broaden with advancements in crypto borrowing, lending, payments, staking, governance, remittances, derivatives, insurance, asset management, and more.



[Brian Foster](#) is a member of our Institutional Coverage team and Coinbase Ventures. Previously, Brian held strategy and product roles at Curv, a digital asset security company, and was a VC at Founder Collective and Innovation Endeavors (FKA Marker LLC), where he focused primarily on digital assets, cybersecurity, and enterprise software. He began his career in marketing and sales at BuysideFX, an FX trading software startup. Brian holds an MBA from Harvard Business School and a BA from Middlebury College.*

Coinbase's institutional business provides market-leading [custody](#) and [trading](#) solutions to financial institutions, including endowments, hedge funds, venture capital and private equity firms, corporations, market makers, fintechs, brokerages, RIAs, and family offices. To schedule time with Brian or another member of our Institutional Coverage team about allocating to digital assets, please contact sales@coinbase.com.

[Coinbase Ventures](#) makes minority investments in early stage startups building the future of the crypto economy. Our 70+ portfolio companies span trading infrastructure, institutional tooling, protocols, data analytics, custody and security, DeFi, and more.

¹⁶ Square Investor Relations; squareup.com

* Coinbase Ventures portfolio companies are denoted with a "*" unless this is stated explicitly.

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