

Digital Currencies:

In our [1st quarter 2021 investor newsletter \(click here\)](#), we discussed COIN’s business and its opportunity. We wrote a couple pages on the subject, but felt it deserved a much larger and dedicated piece of research.

Before we dive into Coinbase, we wanted to provide our thoughts on Bitcoin and digital currencies. Over the last 5 years, we have done a significant amount of work on digital currencies, trying to understand their best usage, functionality and role in the future of payments. Are digital currencies a threat to the payment networks, processors and merchant acquirers? In order to answer these questions, one has to understand how a typical payment transaction occurs. For example, who processes, clears and settles a card transaction?

We have written dozens of articles on this subject, which can easily be viewed here. In our opinion, there are two main requirements for something to be considered a viable currency. One is that it must be a **“store of value”** and the second is that it must be an **“medium of exchange”**. To read our digital currency note, [click here](#).

What is FINTECH?

Manole Capital Management exclusively focuses on the emerging FINTECH sector. We define FINTECH as “anything utilizing technology to improve an established process.”



For us, the quintessential FINTECH business is the payment industry. As you can see in this FINTECH ecosystem slide, we bolded the Payments and Remittances space, as that is our preferred area to invest. Others can invest in FINTECH’s through Alternative Finance companies or digital banks or Insurtechs, but for us, we love the payment sector.

We are attracted to the predictable, sustainable and recurring revenues of their businesses, where they essentially earn consistent revenue per swipe.

When most investors discuss FINTECH, they rarely (if ever) discuss the exchanges. Similar to these payment and transaction-

based models, many of the exchanges also earn revenue, free cash flow and profits per transaction or trade. When it comes to trading certain assets (interest rates, equities, commodities, foreign currency, etc), there tends to be high barriers to entry or an impregnable moat around certain franchises. While many of these businesses are not recession proof, they have proven to be recession resistant.

Financials:

While Financials only represent 11.3% of the S&P 500 (as of March 2021), roughly 3/4rd's of this sector's weight is comprised of traditional financial institutions, like banks and insurance companies. These businesses are typically credit sensitive, with opaque and complex balance sheets. To simplify the banking model, the underlying asset is the US dollar and they simply look to borrow that capital at a low fee and lend it out to borrowers at a higher rate. This spread business can generate excellent returns, but it comes with a risk. Is the bank following a solid and time-tested risk model? Are borrowers credit worthy?

If an investor has exposure to the Financial sector, one should have a strong opinion on the 10-year yield. The 10-year stands at 1.7% and has significantly risen over the last several months. The Financial sector has a 5-year rolling correlation with the 10-year Treasury of 67% (per Scotiabank and Bloomberg research). We simply choose to not invest in banks and business models that don't have our [ideal characteristics \(click here\)](#).

As we stated above, we are attracted to businesses that generate steady and recurring and free cash flow. Unfortunately, most Financials are not transaction based business models.

Introduction to Coinbase (ticker COIN):



The stated goal of COIN is "to create an open financial system for the world." While this is altruistic, it seems to be fairly broad based goal. It is noble to strive to create a financial system that is transparent for all mankind. It might be more prudent to strive to provide an end-to-end infrastructure and technology platform for all types of cryptocurrencies.

From our perspective, it might be judicious for COIN to focus its attention on providing value adding services for all types of digital currencies. If COIN becomes the dominant exchange where anyone can easily and securely send and receive Bitcoin, it will thrive. If COIN can create an efficient and accessible marketplace for the emerging digital assets community, it can be a massive success. There are hundreds of platforms that want to democratize access to the crypto-economy, but COIN (as the oldest and most recognizable brand) seems to have an early lead in this race.

Coinbase:

COIN was started in 2012 and it has built a trusted platform for accessing various crypto currencies. Using blockchain technology, COIN has simplified the user experience and reduced the complexity of purchasing, selling and holding digital currencies. In its early days, COIN was primarily just used for sending and receiving cryptocurrencies. Then, it became a trusted platform for those seeking to invest in various currencies. We liken this period as COIN's realization that it needed to become an "exchange" or intermediary between buyers and sellers. It has since launched cryptocurrency payments, distribution capabilities, storage, borrowing and lending services.

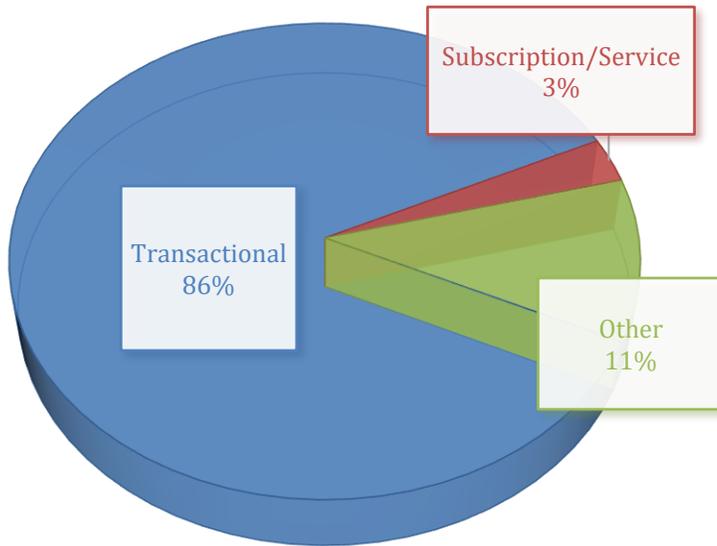
As this chart from COIN shows, there are over 45 different cryptocurrencies investors can purchase and another 90 that can be stored at COIN.

However, two primary digital currencies dominate COIN's total trading volumes. In 2020, Bitcoin represented 41% of COIN's trading volumes and 15% came from Ethereum. While this 56% is a decline from 2019 levels (72% of the total mix), we envision both will remain the primary digital currencies traded on COIN.



Revenue:

'20 REVENUE MIX



Over the last several years, COIN has materially grown its revenue. In 2019, revenue \$533 million and it impressively grew to \$1.3 billion last year. As we show in our pie chart, in 2020, COIN's \$1.28 billion of revenue grew 130% year-over-year and was a mix of 86% Transactional, 3% Subscription & Services and 11% "Other".

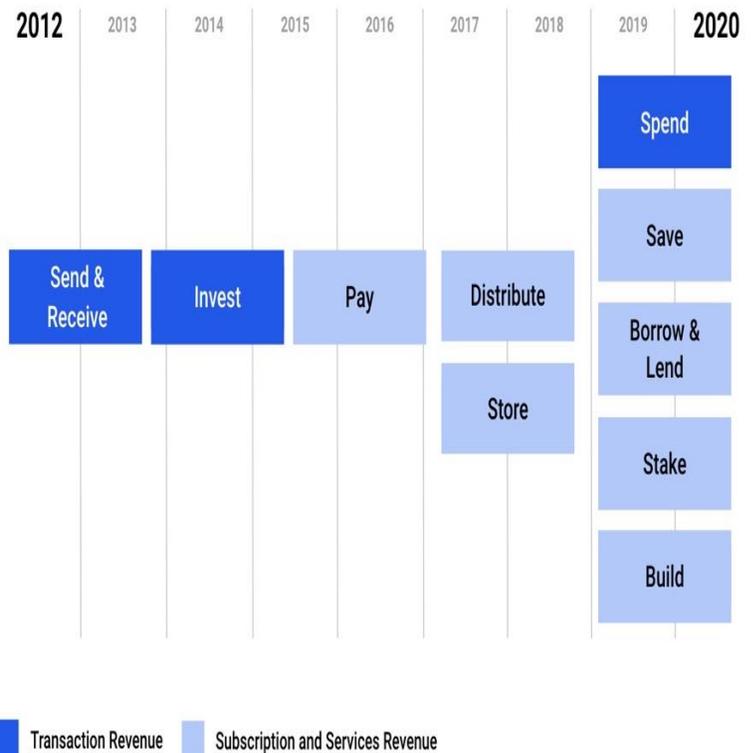
On April 6th, COIN reported 1st quarter 2021 results and the metrics were eye popping. Last quarter, COIN generated \$1.8 billion in revenue, which exceeded the prior two years combined.

In 2020, 86% of COIN's total revenue was **Transactional** in nature. This means revenue was derived from sending, receiving, investing and spending cryptocurrencies. When it comes to Transactional revenue, we like to look at the fee as a percentage of total volume traded.

COIN provided this diagram and it shows exactly what products are inside of each of its revenue classifications. The remaining 15% of total revenue came from **Subscription & Services**, which COIN classifies as paying, distributing, storage, and from borrowing and lending cryptocurrencies.

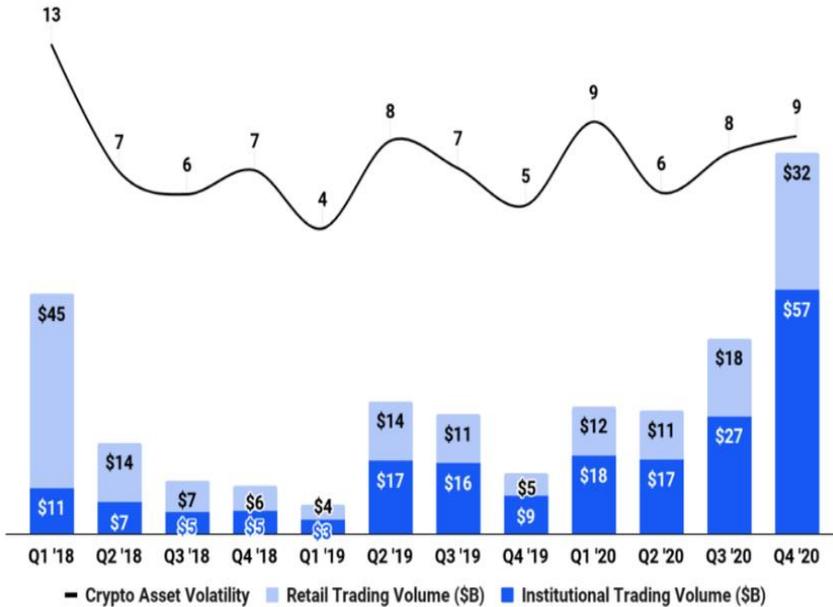
Storing earns custodial fee revenue, which we will dissect in a couple of pages. Staking revenue comes from validation on a proof-of-stake blockchain transaction. License revenue is generated from users of COIN's Analytics services. Lastly, COIN can earn campaign revenue or distribution fees when its constructs educational materials for issuers.

For cryptocurrency issuers, COIN earns revenue for helping the platform engage with its users, in the form of educational videos or tasks, when cryptocurrencies are attempting to widen their distribution, marketing and acceptance. While these ancillary services are nice, the real opportunity is trading.



Customer Type:

In its S-1 regulatory filing, COIN showed its product portfolio, separated from retail users, institutions and other ecosystem partners. One has to understand that different clients are paying different rates. Over the last 8 quarters, this revenue rate has averaged 0.61%, with a high of 0.80% in the 1st quarter of 2019 and a low of 0.50% in the 4th quarter of 2020.

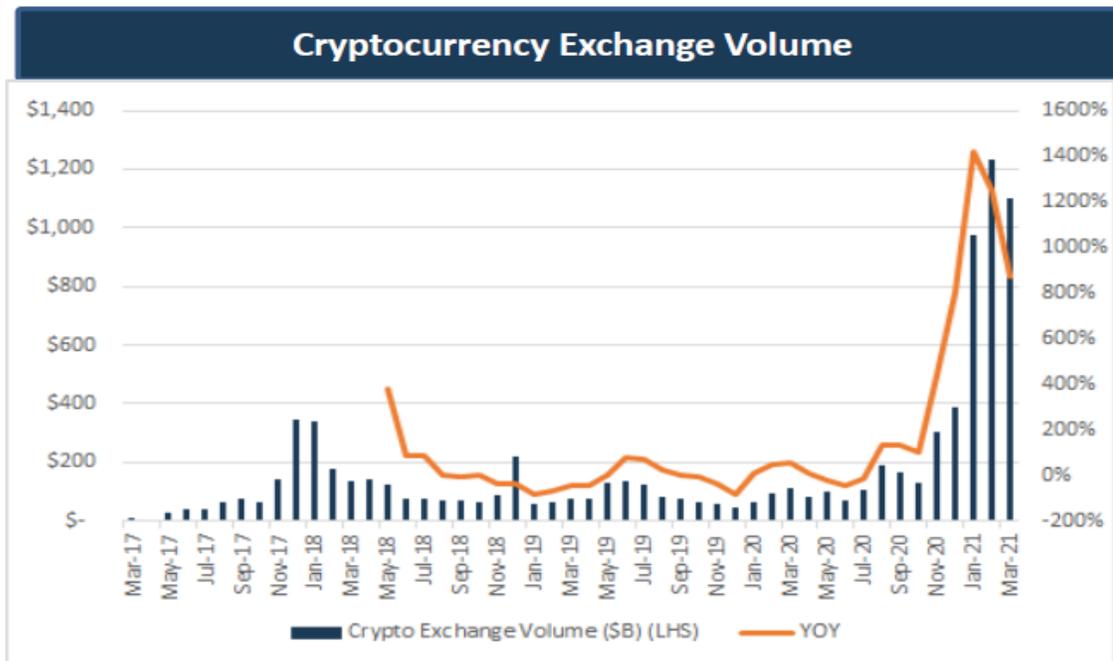


Looking at the last 8 quarters, we can clearly see that both retail and institutional trading volumes have exploded higher. It is interesting to see that Retail was bigger at \$45 billion in the 1st quarter of 2018 than it was at the end of last year at \$32 billion. Also, one can see that Institutional trading volumes have gone from \$11 billion in the 1st quarter of 2018 and now are over \$57 billion.

COIN has different fees depending on whether or not the client is retail or institutional, as well as whether or not the client uses Coinbase or Coinbase Pro, which we will discuss this later on, in our pricing section.

Trading volumes:

In terms of exchanges, it all comes down to volumes. Crypto exchange volumes have soared, because of strong interest from both retail and institutional clients. This type of growth will not continue, but volatility tends to drive overall volumes.



Yearly Cryptocurrency Exchange Volume

	Average Daily Volume (\$M)	YOY	BTC Avg. Price	YOY
2018	\$261.5	26%	\$7,520	90%
2019	\$210.8	-19%	\$7,362	-2%
2020	\$514.3	144%	\$11,124	51%
2021TD	\$3,614.8	603%	\$44,239	298%

Looking at this Compass table, one can clearly see that volumes noticeably increased in 2018, following the rise of Bitcoin in December of 2017. What happened in late 2017 that helped drive future trading volumes? Well, CBOE and CME both launched Bitcoin future contracts that month.

So far in 2021, COIN has experienced 298% growth in ADV (average daily volumes). What did Bitcoin increase last year? Just over 300%. There's clearly a very high correlation between Bitcoin's recent price and COIN's future ADV.

One of our favorites aspects of investing in the exchanges is the ability to simply model the businesses in Excel. The large, publicly-traded exchanges provide wonderful transparency for investors, by posting daily volumes. We liken this to Goldman Sachs or Morgan Stanley providing real-time insights into their prop desk trading results. You shouldn't hold your breath for that level of transparency, right?

Bitcoin, Bitcoin and Bitcoin:

In the real estate business, the common phrase is that the 3 most important items are "location, location and location." For digital currency exchanges, we believe the 3 most important products are "Bitcoin, Bitcoin and more Bitcoin."

On COIN's platform, the volumes tend to be concentrated in a few different currencies. In 2019, BTC or Bitcoin was 58% of COIN's trading volumes, but that fell to 41% in 2020. ETH or Ethereum was 14% in 2019 and that grew slightly last year to 15% of COIN's total. The biggest category jump came from "other", which was 18% in 2019 and grew to 44% last year.

Having multiple products to transact in is obviously key, but COIN is cryptocurrency dependent. Yes, tokens like Dogecoin might come in and out of favor, but COIN is dependent upon higher Bitcoin and Ethereum prices.

A great aspect of owning shares in the CME, an exchange for the trading of futures and options, is their transparency. Not only does CME provide daily ADV, but they provide details on open interest. We like to follow open interest, as it is a leading indicator of future volumes. Also, CME provides details on large open interest holders (called LOIH's) or those owners of a minimum of \$7.5 million of Bitcoin futures. Over the last couple of months, CME has hit all-time highs in volumes in Bitcoin futures trading. This year, Bitcoin futures contracts on the CME have averaged 13,800 contracts per day, up 42% year-over-year.

Like CME, COIN has invested heavily in its technology to give its customers access to a deep pool of cryptocurrency liquidity. Like we just described, this liquidity can act as a virtuous cycle. Volumes beget more volumes and leading more customers onto the platform.

Pricing:

We focus on the trading volume of an exchange, but also try to model how revenues are generated from this volume. Each trade does not generate the same level of revenue, as different traders tend to pay different prices.



In derivative exchange land, we often look at commission prices as RPC or rate per contract. For example, CME charges \$0.478 a contract to trade interest rates, \$0.545 to trade equities, \$0.764 to trade foreign currency, \$1.397 to trade metals, \$1.336 to trade agricultural commodities and \$1.124 to trade energy. Within each product, prices can vary. For example, WTI crude is a different trading price versus natural gas contracts. While CME is trying to get more retail customers into trading futures and options, the vast majority of its volumes are from institutions.

Coinbase Pro Fee Structure

Pricing Tier	Taker Fee	Maker Fee
Up to \$10k	0.50%	0.50%
\$10k - \$50k	0.35%	0.35%
\$50k - \$100k	0.25%	0.15%
\$100k - \$1m	0.20%	0.10%
\$1m - \$10m	0.18%	0.08%
\$10m - \$50m	0.15%	0.05%
\$50m - \$100m	0.10%	0.00%
\$100m - \$300m	0.07%	0.00%
\$300m - \$500m	0.05%	0.00%
\$500m - \$1b	0.04%	0.00%
\$1b+	0.04%	0.00%

At COIN, there are different fees for different clients. COIN has two main fee structures, one called Coinbase Pro and the other called Coinbase Prime. Here’s a quick look at the pricing tiers, as discussed in the S1 filing, based upon whether or not a client is taking or providing liquidity (called taker fee and maker fee).

Transaction revenue, as a percentage of total volumes traded, has averaged 0.61% over the last 8 quarters. Over these 2 years, retail client transactional revenue has increased from 1.27% up to 1.47%. For institutional clients, revenues as a percentage of volumes traded has fallen from 0.07% down to 0.05%. Clearly, retail customers pay significantly more than institutional clients to trade.

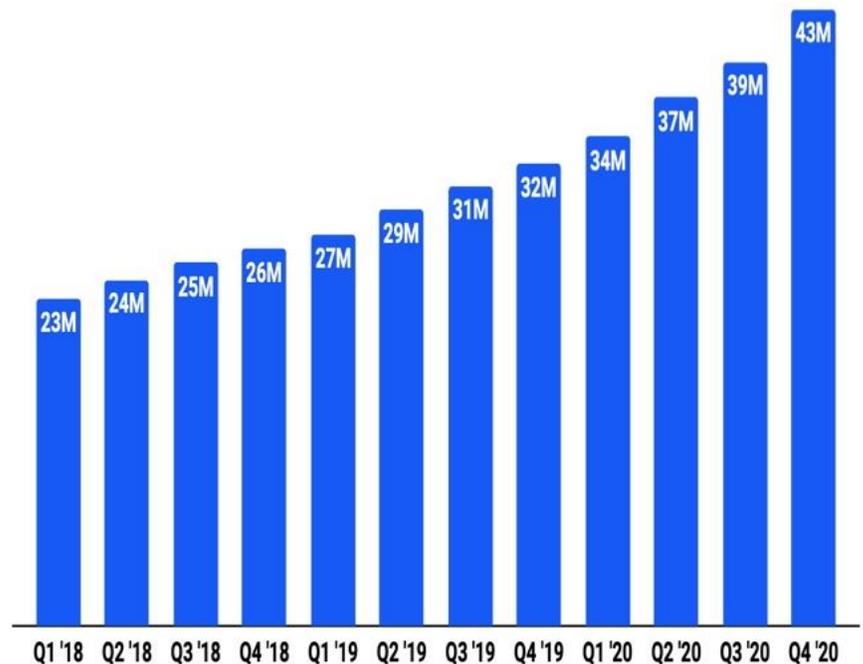
Also, unlike transacting in a stock, COIN calls its transaction based revenue “staking” revenue. This is earned from transaction validation on a proof-of-stake blockchain, when COIN’s nodes successfully creates or validates a certain block. This revenue is recognized when the rewards are available for transfer and at the point when the block creator or validation is complete. The metrics that determine the staking revenue are driven by quantity, price and rewards rate.

Customers:

The strengths of COIN’s platform seem to be its vast and extensive network of contacts. COIN is leveraging its trusted brand to attract those that want access to transact or store cryptocurrencies.

COIN’s growth strategy is based upon driving more customers onto its platform and becoming the de-facto platform for cryptocurrency. Just like the online brokers did in the 1990’s, the key to growth was adding new accounts and clients to the platform.

In this COIN chart, one can see the exceptional growth in verified users or those that have “demonstrated an interest” in COIN’s platform. In addition to these users, there are another 7,000 institutional customers, across roughly 100 countries.



These verified users have registered for an account and confirmed either their email address or a phone number. In our model, we are not terribly interested in tracking verified users as a key metric. While it is nice to know who interested in cryptocurrencies, it is much more important to understand who is willing to transact.

As you can see in this Compass Point chart, COIN has 2.8 million MTU or monthly transacting users. In order to be considered a customer needs to have logged in and transacted one time, over a 28-day rolling period.

It is interesting to see that there were 2.7 million MTU's in the 1st quarter of 2018 and 2.8 million MTU's at the end of last year. Over those 2 years, MTU's dramatically declined and then lifted. As of today, COIN has roughly 3 million MTUs, which was up +180% year-over-year, but we like to think of it as only 7% of its verified total accounts.

Verified Users vs MTUs



This reminds us of the online brokerage business, back in the 1990's and 2000's. For years, the primary goal of marketing executives at the online brokers was to generate more and more accounts. The theory was that with new accounts, clients would eventually look to consolidate their relationships with one or possibly two firms. Once an account was opened, the goal was to increase wallet share from that satisfied customer.

For online brokerages, driving customers typically comes from TV advertising. One cannot watch CNBC or Bloomberg or Fox Business without seeing advertisements for Schwab, TD Ameritrade, E*Trade, Fidelity or Interactive Brokers. Robinhood was very successful in opening up investment accounts for the emerging Gen-Z demographic, but its well-publicized issues in late January (regarding prohibiting "meme stocks" purchases) might impact its torrid account growth.

How does COIN plan on increasing its exposure and customer base? Our guess is that it will look to increase its marketing spend. The ROI or return on investment of TV marketing is somewhat opaque. We anticipate COIN learning from its foray into marketing and advertising, with some successes, as well as some failures.

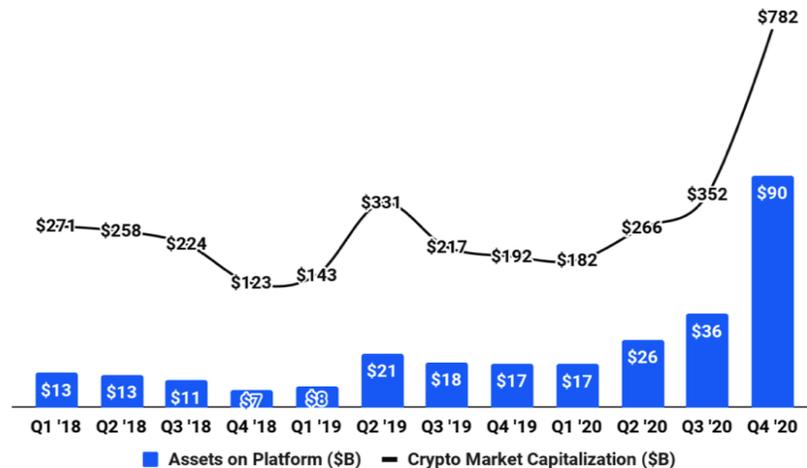
The best avenue to increase and retain accounts and customers is to offer a product that cannot be easily replicated. COIN can continue its account growth by launching new and innovative products, as well as offering access to new cryptocurrencies.

While BTC or Bitcoin is the dominant cryptocurrency today, maybe there will be a new and exciting cryptocurrency in vogue tomorrow. Over the last few months, Dogecoin has garnered significant attention and media coverage. While we shake our head and do not understand the fascination with this cryptocurrency, the goal for COIN is to attract and become the go to platform for those that wish to transact. COIN needs to expand its support of all digitally native cryptocurrencies and help to tokenize new assets.

Storage:

While the vast majority of COIN's revenue is trading based, COIN does earn subscription and service revenue when customers choose to safely store their cryptocurrencies on its platform.

COIN is one of the most trusted exchanges in the crypto space and operates as a "qualified custodian". This means that they have a separate company, called Coinbase Custody, which operates as a standalone, independently-capitalized business. Under New York State Banking Law, Coinbase Custody is considered a fiduciary. All digital assets are segregated and held in a trust. COIN has never suffered a hack that led to loss of funds and cannot afford to ever have that breached.



As you can see in this COIN asset chart shows, there has been excellent growth on the platform. At the end of 2020, COIN had \$90.3 billion in assets on its platform, which was up +432% year-over-year.

Of these assets, 70% was from Bitcoin and another 13% were Ethereum. Clearly, those two currencies represent the bulk of COIN's platform assets.

Wallets:

The leather wallet in your pocket holds a combination of cash and credit/debit cards. However, cryptocurrencies and tokens need to be kept in a crypto wallet. "Hot Wallets" are connected to the internet and are considered much less secure, while "Cold Wallets" are kept offline.

Most cryptocurrency custodians employ "cold" storage to safely hold a client's digital assets. Acting as a cold cryptocurrency custodian (say that 3x fast), COIN derives fee revenue based on a percentage of the daily value of customer accounts. The assets under custody are a function of quantity, price and type of cryptocurrency asset.

Custody:

In addition to hot versus cold wallets, there are two primary ways to store your Bitcoin. The first is called self-custody. This is when an individual or entity has complete control of their Bitcoin. This entails maintaining and controlling your own private key. When it comes to Bitcoin storage, there is a popular self-custody mantra that says, "not your keys, not your coins". This implies that if you do not control the private key for your Bitcoin, it is not truly your Bitcoin.

The second way to store your Bitcoin is to outsource it to a trusted custodian, like Kraken, Coinbase, Anchorage or others. In this case, the custodian stores your Bitcoin for you and they have control over its private key. Kraken is security focused and has an time-tested private key management practice. In its 10-years of existence, it has never been hacked.

Whether one decides to self-custody or use an outsourced custody provider for storing your Bitcoin, two critical issues must be discussed. The first is trust. Do you trust the custodial firm that holds your Bitcoin? If one self-custodies, they bear the risk of lost private keys, break-ins or natural disasters. On the other hand, self-custody ensures you control your own Bitcoin. The obvious downside of self-custody is that one can lose all of your Bitcoin, if it is not stored properly.

Do you trust the bank that holds your checking account or brokerage firm that holds your stocks? US financial institutions are some of the most highly regulated companies in the world and most have proven themselves to be good custodians of our assets. Maybe we can exclude Lehman Brothers and AIG from that statement, but it is fair statement for the other 10,000+ financial institutions in the US.

Does trusting a firm called Kraken, with millions of dollars' worth of Bitcoin, sound like a sound idea? Some might prefer to custody with a firm like Bank of New York, which announced in March of 2021, that it intends to enter the Bitcoin custody business. However, does Bank of New York have the technological expertise and security protocols of newer entrants like Kraken? With a random name like Manole Capital, we clearly don't place too much emphasis on one's name. We do however appreciate 3rd party, independent industry rankings. Kraken has been voted the #1 most secure cryptocurrency exchange by ICO Ratings.

The second key issue to consider is protection and safety. Cryptocurrency custodians and exchanges are a prime target for hackers. There are hundreds and potentially thousands of thieves looking to steal your Bitcoin private key. PayPal and Robinhood recently sent warnings instructing their clients to install two factor authentication onto their digital wallets / account. Also, governments can force companies to freeze funds, if they perceive illegal activity or fraudulent behavior.

Trusting someone else to store and manage your Bitcoin is a challenging decision. There have been a few custody firms to have disastrous results (i.e. Mt. Gox), but there are also extremely competent businesses that can be trusted to hold your cryptocurrencies. For us, we prefer an expert store our assets, as opposed to keeping it under the proverbial mattress.

Characteristics:

As we mentioned earlier, there are certain [ideal characteristics](#) we look for in our investments. COIN has a strong brand name and dominates its cryptocurrency niche. Its platform is scalable and by leveraging certain blockchain advancements, COIN can provide a safe and secure environment for its customers.

We often look for our companies to have dominant market shares, high barriers to entry and what Warren Buffett calls a "moat around the franchise". Regardless of industry, we always focus on an investment's market share. In terms of COIN's cryptocurrency market share, it has risen from 4.5% in 2018 to 8.3% in 2019 up to 11.0% in 2020.

For exchanges, there is typically 1 or 2 firms that dominate the trading of a specific asset. These exchanges have the best liquidity and the tightest bid/ask spreads. For example, the CME (ticker CME) dominates US interest rate trading, as well as WTI crude trading. Intercontinental Exchange dominates the Brent crude marketplace. Once an exchange begins to control trading for a certain asset, it is very difficult for a competitor to steal market share. Some try to lower trading pricing and commissions, but this usually is only temporary. Investors are always seeking best execution and will usually return to the marketplace with the most liquidity and tightest bid/ask spreads. From an exchange standpoint, this is definition of dominant market share, competitive advantage or possessing a moat around your franchise.

Ideally, COIN is looking to become the one-stop shop for those wishing to buy, sell and/or store cryptocurrency. COIN has many of the desirable characteristics we look for in an investment, but it does have risks.

Risk #1: Bitcoin

For a business like COIN, there are literally dozens of risks. For starters, cryptocurrencies are volatile and we anticipate COIN's stock will be highly correlated to the price of BTC, Bitcoin and other important cryptocurrencies.

As we have mentioned, the underlying price of these cryptocurrencies helps to determine COIN's revenue and profits. Possibly the biggest risk for owning COIN stock will be its reliance and dependency on rising Bitcoin and Ethereum prices.

Risk #2: Competition

On the retail front, COIN has numerous competitors. For example, both Square's Cash App (36 million users) and PayPal (375 million accounts) are offering mobile-based wallets, primarily to retail clients. Customers can purchase various cryptocurrencies on both Square and PayPal and store them for free.

Over time, we expect both of these firms to begin to allow wallet holders to transact in whatever currency he/she wishes. For example, a customer can use their Square Cash App wallet to transact at over 3 million Square merchant acquiring locations. This mobile wallet will permit credit or debit transactions, but might also permit the user to utilize their Bitcoin balance. There are numerous issues that still need to be resolved on this front, but this is what we have been calling "closing-the-loop".

Risk #3: Regulations

Exchanges are highly regulated entities and they must learn to engage with their regulators for the benefit of all market participants. COIN is subject to a regulated environment, but the rules and landscape are dynamic. Unlike US financials, with a known regulator, the laws and rules cryptocurrencies are subject to are constantly changing. As COIN moves more of its business to international markets, it will have additional governmental issues to deal with.

The new SEC Chairman is Gary Gensler. Gensler was the head of the CFTC from May 2009 to January 2014 and was the primary regulator for the derivative exchanges. In his tenure at the CFTC, Gensler attempted to write rules and regulations for the swap markets, as suggested in the Dodd Frank Act of 2010 (following the Financial Crisis). Now that Gensler is at the SEC, one of his first challenges is what to do about regulating and providing oversight on Bitcoin and other digital currencies. He is not new to digital currencies, as he was a professor at MIT's Sloan School of Management after his stint at the CFTC. He primarily taught about blockchain technology and cryptocurrencies.

As of today, there are only a few crypto funds available to investors. Grayscale has over \$38 billion in assets and is the sponsor of the Grayscale Bitcoin Trust (called GBT), which provides Bitcoin exposure for qualified investors. GBT investors have a \$25,000 minimum investment and currently pay a 2.5% management fee. Many firms (Skybridge Capital, Valkyrie Digital, Fidelity Investments, VanEck, WisdomTree, etc) have announced their intention to offer Bitcoin ETF's. attempted to get the SEC to approve Bitcoin ETF's. As of now, the SEC has not approved any of these filings, but it will ultimately have to make a decision on the subject. Earlier SEC rejections were based upon problems with volatility, transparency, market surveillance, in addition to market and price manipulation.

In addition to SEC regulation, we anticipate the Federal Reserve to explore the subject too. Chairman Jay Powell, in official Congressional testimony, has officially stated that the Fed is looking into the idea of a "fully digital dollar". This type of "Fed coin" would likely need Congressional and White House approval and it is very much in the early innings of its examination. Chairman Powell is still dealing with the ramifications of a global pandemic and a soft US economy, so a CBDC might not be his first or even second priority right now.

Risk #4: Security

As with any exchange, security and safety is paramount. We anticipate that COIN will be subject to thousands of cybersecurity attacks. Hackers, criminals and even foreign countries might find it worthwhile to breach COIN's platform. COIN's valuation is dependent upon it keeping its first-mover advantage and its reputation as a dominant cryptocurrency custodian. Security, for customers and partners, cannot be underestimated and COIN will have a very large target on its back.

Scale & EBITDA Margins:

For us, we always like to model in operating or EBITDA margins, as well as free cash flow for our exchanges. In 2020, EBITDA margins for the largest exchanges were impressive. Here is a table of the dominant four exchanges and their EBITDA margins last year, as compared to COIN. Looking at the 2020 EBITDA margins of its publicly-traded exchange peers, provides interesting insights. Last year, CBOE posted 68% EBITDA margins and CME and ICE each posted margins in the 62% to 63% range. Despite trailing their competitors, Nasdaq had impressive EBITDA margins of 55%, that would be the envy of most companies. One key takeaway is that all of the exchanges are generating impressive margins with excellent leverage and scale opportunities.

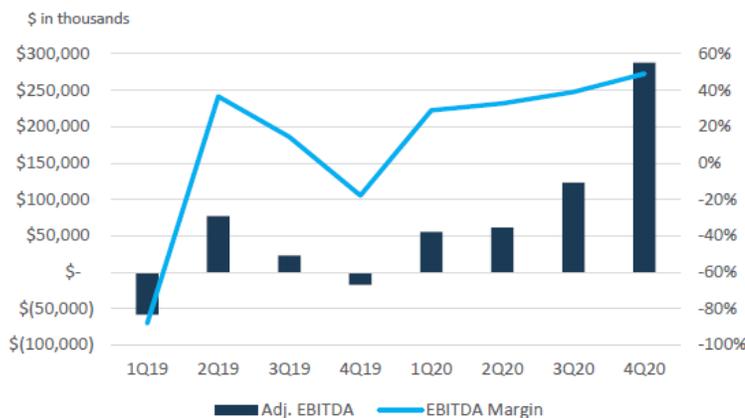
Exchanges:	CBOE	CME	ICE	NDAQ	vs COIN
2020 EBITDA Margins	68%	62%	63%	55%	41%

These exchanges have spent billions of dollars building out a scalable platform, that has enormous operating leverage. Each and every transaction that occurs is extremely high incremental margins. Most do not provide guidance on future or forward revenue, but they do have decent insight into expenses. The CME typically will provide forward expense guidance in the 2% to 5% range each year. Expenses don't dramatically increase each and every year, but do modestly rise.

How does COIN compare? Well, COIN is still constructing its exchange and heavily investing in its infrastructure. Last year, technology and development expenses were \$271.7 million or 21% of COIN's total revenue. In 2019, this expense line item was 35% of revenue.

In 2020, COIN's expenses grew 50% year-over-year to \$868.5 million. At this early stage of its lifecycle, we are pleasantly surprised to see that COIN is generating positive operating leverage (expense growth less than revenue growth).

Adj. EBITDA and EBITDA Margin



As you can see in this Compass Point chart, over the last 8 quarters, COIN's Adjusted EBITDA margins have steadily improved. Are they peaking or at an all-time high? No, but the best part about COIN's current margin trajectory is where we see it going.

In its S-1, Brian Armstrong (COIN's CEO) stated a focus on operating profits, as it tries to manage its expense growth. He said, "We may earn a profit when revenues are high, and we may lose money when revenues are low." He then went on to state that "our goal is to roughly operate the company at break even, smoothed out over time."

This has proven to be true, when one considers that COIN generated \$533 million in revenue in 2019, but lost \$30m of profit that year. Then, in 2020, COIN produced \$527 million of EBITDA on \$1.2 billion of revenue. Clearly, the

exchanges can generate very impressive profit margins, at scale.

The real benefit for the exchanges comes when volatility spikes and volumes soar. As this happens, assuming the exchanges properly manages this rising volatility, profitability climbs. As more and more volumes transact on a platform, free cash flow (and margins) are very attractive. Operating margins at its other publicly-traded exchanges have been high for years and do not fluctuate significantly from year-to-year. As revenues surprise to the upside, because volatility spikes, these exchanges typically reward their shareholders with buybacks and special dividends. As much more mature businesses, these exchanges tend to allow this leverage upside to fall to the bottom line. We anticipate that COIN will choose to re-invest any revenue upside towards marketing, growing its customer base, improving its platform, and building up its infrastructure.

Valuation:

In their 1st quarter 2021 release, management provided a low-to-mid-to-high range for a number of key metrics. In terms of MTU's, COIN management provided low guidance of 4.0 million and high guidance of 7.0 million. In 2019, the net revenue per MTU was \$37 and it increased to \$49 last year. Over the last 8 quarters, the net revenue per MTU range has grown from \$26 in the 1st quarter of 2019 up to \$59 in the last quarter of 2020.

In our modeling and analysis, we will stick with management guidance, which ranges from \$35 million to \$45 million in net revenue per MTU. This implies revenue for the final three quarters of the year could be in the \$3.48 billion on the low side and up to \$4.64 billion on the high side. If we simply average these low and high ranges, 2021 revenue would be \$4.1 billion. Considering COIN did \$1.8 billion in revenue in the 1st quarter alone, it is probably safe to assume that 2021 revenue will approach \$4 billion this year. Our model is fairly detailed, but for this exercise, we will use a nice round \$4.0 billion in 2021 revenue. Then, for 2022, we will assume 15% growth, to \$4.6 billion. This does not seem like we are being aggressive. In fact, we wouldn't be surprised if COIN generates this level of revenue a full year earlier.

Without making an assumption on future volume growth, we need to estimate profit margins for COIN. Over the next decade, we would expect COIN to post EBITDA margins into the mid-50's%. Over the next one to two years, we would like COIN to annually increase margins by 200 basis points. This should be do-able, even with COIN making significant investments in their operational technology and platform.

Stock Trading vs Fundamentals:

It can be challenging to sometimes separate the volatility of a stock from its underlying fundamentals. For example, the primary exchange to trade interest rates is the CME. When it comes to trading Brent crude, most traders prefer ICE (although WTI is primarily traded on CME). While both of these exchanges trade hundreds of other products and assets, those two products (interest rates and Brent crude) tend to materially impact the exchange stock price.

When it comes to COIN, we anticipate the stock will trade very closely to the price of Bitcoin and Ethereum. If both digital currencies continue to rise, COIN's stock will be a solid success. If Bitcoin falls by (80%), like it did in 2019, COIN's stock will dramatically fall. In a world with massive Bitcoin volatility, COIN's underlying fundamentals should be good. In theory, COIN's stock should correlate and reflect the volatility of Bitcoin and Ethereum, not just their upward trajectory. However, we fully anticipate COIN's stock to trade in-line with the success or failure of Bitcoin.

Today's reality is that certain market participants are not long-term investors. Many unfortunately consider stocks as pieces of paper, as short-term trading instruments. If Bitcoin were to struggle and decline in value, that volatility and environment would be excellent for COIN. In fact, that might be a great time to "dip one's toe" into a position. However, the Reddit and Wall Street Bets community is more likely to consider short-term trading momentum than bottoms up, underlying fundamentals.

As we discussed earlier, COIN generated an impressive 2020 operating margin of 32%, compared to a (9%) in 2019. While some companies can post steady and smooth operating margins, COIN's will be much lumpier, at least until Bitcoin becomes less volatile. Also, COIN has \$188 million of cryptocurrencies on its balance sheet, comprised mainly of \$130 million of Bitcoin and \$24 million of Ether. There will be opportunities to purchase COIN, when short-term investors sell. This will likely occur as COIN ramps up its expenses or when Bitcoin falls.

Price Target:

Over the last month or so, we have seen various sell-side analysts publish targets and notes on COIN. As of today, there are 14 sell-side analysts covering COIN with 9 at "buys", 4 at "holds" and 1 at a "sell". In terms of targets, the high price target is \$650 per share (166% of upside), the low price target is \$225 per share (no upside) and a simple average target price is \$367 per share (upside of roughly 50%).

Unfortunately, most analysts continue to use revenue multiples to determine their price targets. Manole Capital only owns companies that generate earnings and free cash flow, so we are loathe to utilize revenue multiples for price targets. We find that companies that use revenue multiples to justify a valuation are often incapable of generating important free cash flow. We are fine with companies investing in their future to ensure growth, but we cannot invest in companies that aren't concerned with free cash flow. For us, using the crutch of a revenue multiples isn't something we are comfortable doing.

Fortunately, for this analysis of COIN, the company generates plenty of profit and free cash flow. We conservatively model COIN's revenue next year at \$4.6 billion. Also, we believe it can add a point or two to EBITDA margins, into the mid-40% range. That would be 2021 EBITDA of \$2.1 billion or \$11.89 per share. We don't want to sound like a "wise old sage", but in the "olden days", investors could utilize reasonable EV (enterprise value) to EBITDA multiples in the 10x to 15x range. Maybe, if a company was experiencing fantastic growth and was getting acquired, you might see an EBITDA multiple approach 20x. Nasdaq, ICE and CBOE all have trailing EV to EBITDA multiples in the mid-to-high teens. In order to be remotely close to where COIN will trade this week, we would have to use a MarketAxess (MKTX) or TradeWeb (TW) lofty TTM EV to EBITDA multiples of roughly 45x. We just don't believe EV to EBITDA is the proper valuation metric to currently use. Should we use another cryptocurrency company like Silvergate (SI) and estimate a valuation using their EV to EBITDA multiple? At 108x trailing EBITDA, that would be a waste of time.

To arrive at a realistic COIN price target, let's just model earnings and use a premium forward P/E multiple. If we apply a tax rate of 25% (not assuming any tax loss carryovers), we can estimate an EPS in 2021 of \$8.50. Using that \$8.50 per share in EPS, we then want to apply an exchange-like multiple, adding in a premium for COIN due to its exceptional growth. The average publicly-traded exchange trades at a forward P/E multiple of 20x. The table below provides some different targets, based upon the premium P/E one believes COIN deserves.

Forward P/E Multiple	25x	30x	40x	45x	50x
Premium to Peers	20%	50%	100%		
COIN Target	\$213	\$255	\$340	\$381	\$426

We believe the current price is closer to COIN's low-end valuation and it does not reflect the wide-open digital currency exchange opportunity.

Conclusion:

In a typical IPO, companies raise capital and provide exclusive, early access to large institutions. With wire houses placing shares into large institutions and asset managers first, retail investors often get shut out. Retail platforms like Schwab, Ameritrade, Robinhood, Fidelity typically cannot access IPO's for their customers.

Since COIN has over \$1 billion of cash on its balance sheet and does not need capital, it decided to do a direct listing. The advantage of a direct listing is that it will enable retail investors to purchase COIN at the same time as larger institutions. Is the lofty valuation we just laid out a fair starting point? The various target prices we provide above is intentionally wide, and we know a Mack truck could drive through a range on the low side of \$213 and on the high side at \$426. Is this a realistic scenario? Are our forecasts too conservative? Should you be an aggressive buyer?

The market now gets to determine the real value of COIN and it says it is worth roughly \$250 per share or a market capitalization of \$52 billion. We think our estimates are fair and conservative, but there should be some uncertainty with how COIN reacts with earnings. They've really only announced one quarter so far and the estimates are very wide on the Street.

COIN's public listing almost and Elon Musk's Saturday Night Live appearance almost marked the top of Bitcoin. After COIN began to trade, it immediately shot up into the low \$400's per share only to drift lower since. It is trading at a mid-20s current year P/E, which isn't egregiously overvalued.

If you don't want to pay that kind of forward multiple for COIN, there are other alternative. Maybe you should consider an investment in some of the other (and less expensive) exchanges, like Nasdaq or CBOE? These companies do not have the same growth prospects as COIN, but they do come with a much smaller price tag. We believe that COIN is a safe, trusted and easy-to-use platform for trading digital currencies. Some investors believe that they have "missed out" on the meteoric rise of Bitcoin, so they might chase a position in COIN. Others will look at COIN as a long-term opportunity to own the dominant digital currency exchange.

Will digital currencies replace traditional payment systems? We do not believe it will, but continued adoption and traction in digital currencies is noticeable. Is Bitcoin poised to climb higher, or will it crash? We simply don't know. What we do know is that we prefer to own the medium where these "assets" trade. We would compare this to the Gold Rush of the mid-1800's. Back in 1849, Levi Strauss made a fortune selling picks, pans and shovels to '49ers looking for gold. Back then, some would say, "There's gold in those mountains."

Nowadays, there's a huge opportunity in the collection of data and information. We truly have no idea what the price of Bitcoin will do, except we know that it will be very volatile. As we know, volatility leads to trading, which should equate to profits for the exchanges. In our opinion, owners should be willing to pay a premium for COIN shares, but they should also be prepared for significant volatility and competition. Only you know your specific risk/reward tolerances. Only time will tell the answers to some of these questions, but at least the public markets have a "pure play" on the explosive growth and opportunities in digital currencies.

Terminology / Definitions / Glossary:

- **Address:** An alphanumeric reference to where crypto assets can be sent or stored.
- **Bitcoin:** The first system of global, decentralized, scarce, digital money as initially introduced in a white paper titled Bitcoin: A Peer-to-Peer Electronic Cash System by Satoshi Nakamoto.
- **Block:** Synonymous with digital pages in a ledger. Blocks are added to an existing blockchain as transactions occur on the network. Miners are rewarded for “mining” a new block.
- **Blockchain:** A cryptographically secure digital ledger that maintains a record of all transactions that occur on the network and follows a consensus protocol for confirming new blocks to be added to the blockchain.
- **Cold storage:** The storage of private keys in any fashion that is disconnected from the internet. Common cold storage examples include offline computers, USB drives, or paper records.
- **Crypto:** A broad term for any cryptography-based market, system, application, or decentralized network.
- **Crypto asset (or ‘token’):** Any digital asset built using blockchain technology, including cryptocurrencies, stablecoins, and security tokens.
- **Crypto Asset Volatility:** Represents our internal measure of crypto volatility in the market relative to prior periods. The volatility of crypto assets is measured on an hourly basis (using 10 minute price intervals within each hour) for each crypto asset supported for trading on Coinbase, averaged over the applicable time period (quarterly), then weighted by each crypto asset’s share of total trading volume during the same time period across a select set of trading platforms, in addition to the Coinbase platform, that operate in similar markets including itBit, Bitfinex, Bitstamp, bitFlyer, Binance.US, Binance, Kraken, Gemini, Bittrex, and Poloniex.
- **Cryptocurrency:** Bitcoin and alternative coins, or ‘altcoins’, launched after the success of Bitcoin. This category of crypto asset is designed to work as a medium of exchange, store of value, or to power applications and excludes security tokens.
- **Cryptoeconomy:** A new open financial system built upon crypto.
- **Customer:** A retail user, institution, or ecosystem partner on our platform.
- **DeFi:** Short for Decentralized Finance. Peer-to-peer software-based network of protocols that can be used to facilitate traditional financial services like borrowing, lending, trading derivatives, insurance, and more through smart contracts.
- **Ecosystem partners:** Developers, creators, merchants, asset issuers, organizations and financial institutions, and other groups building decentralized protocols, applications, products, or other services for the cryptoeconomy.
- **Ethereum:** A decentralized global computing platform that supports smart contract transactions and peer-to-peer applications, or “Ether,” the native crypto assets on the Ethereum network.
- **Fork:** A fundamental change to the software underlying a blockchain which results in two different blockchains, the original, and the new version. In some instances, the fork results in the creation of a new token.
- **Hodl:** A term used in the crypto community for holding a crypto asset through ups and downs, rather than selling it.
- **Hot wallet:** A wallet that is connected to the internet, enabling it to broadcast transactions.
- **Institutions:** Businesses that include hedge funds, small to large financial institutions, and corporations.
- **Miner:** Individuals or entities who operate a computer or group of computers that add new transactions to blocks, and verify blocks created by other miners. Miners collect transaction fees and are rewarded with new tokens for their services.
- **Mining:** The process by which new blocks are created, and thus new transactions are added to the blockchain.
- **Network:** The collection of all miners that use computing power to maintain the ledger and add new blocks to the blockchain. Most networks are decentralized, reducing the risk of a single point of failure.
- **Protocol:** A type of algorithm or software that governs how a blockchain operates.
- **Public key or private key:** Each public address has a corresponding public key and private key that are cryptographically generated. A private key allows the recipient to access any funds belonging to the address, similar to a bank account password. A public key helps validate transactions that are broadcasted to and from the address. Addresses are shortened versions of public keys, which are derived from private keys.

- **Retail users:** Individual users with an account on our platform.
- **Security token:** A crypto asset that is a security. This includes digital forms of traditional equity or fixed income securities, or may be assets deemed to be a security based on their characterization as an investment contract or note.
- **Smart contract:** Software that digitally facilitates or enforces a rules-based agreement or terms between transacting parties.
- **Stablecoin:** Crypto assets designed to minimize price volatility. A stablecoin is designed to track the price of an underlying asset such as fiat money or an exchange-traded commodity (such as precious metals or industrial metals). Stablecoins can be backed by fiat money or other crypto assets.
- **Staking:** An energy efficient equivalent of mining. Stakers use pools of tokens as collateral to validate transactions and create blocks. In exchange for this service, stakers earn a reward.
- **Supported crypto assets:** The crypto assets we support for trading and/or custody on our platform, which included over 90 crypto assets as of December 31, 2020.
- **USD Coin or USDC:** A stablecoin issued through the Centre Consortium (co-founded by Coinbase and Circle Internet Financial Limited, or Circle), backed by fully reserved assets, held by the issuer, and able to be purchased and sold on a 1:1 basis for U.S. dollars.
- **Wallet:** A place to store public and private keys for crypto assets. Wallets are typically software, hardware, or paper-based.
- **Wallet user:** A retail user who has established an account with a username on our non-custodial software-based product. Coinbase Wallet is an application that allows the user to connect to DeFi applications and self-custody crypto assets. While they operate separately from our main platform, wallet users are included in the following key business metrics: Verified Users and Monthly Transacting Users.

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