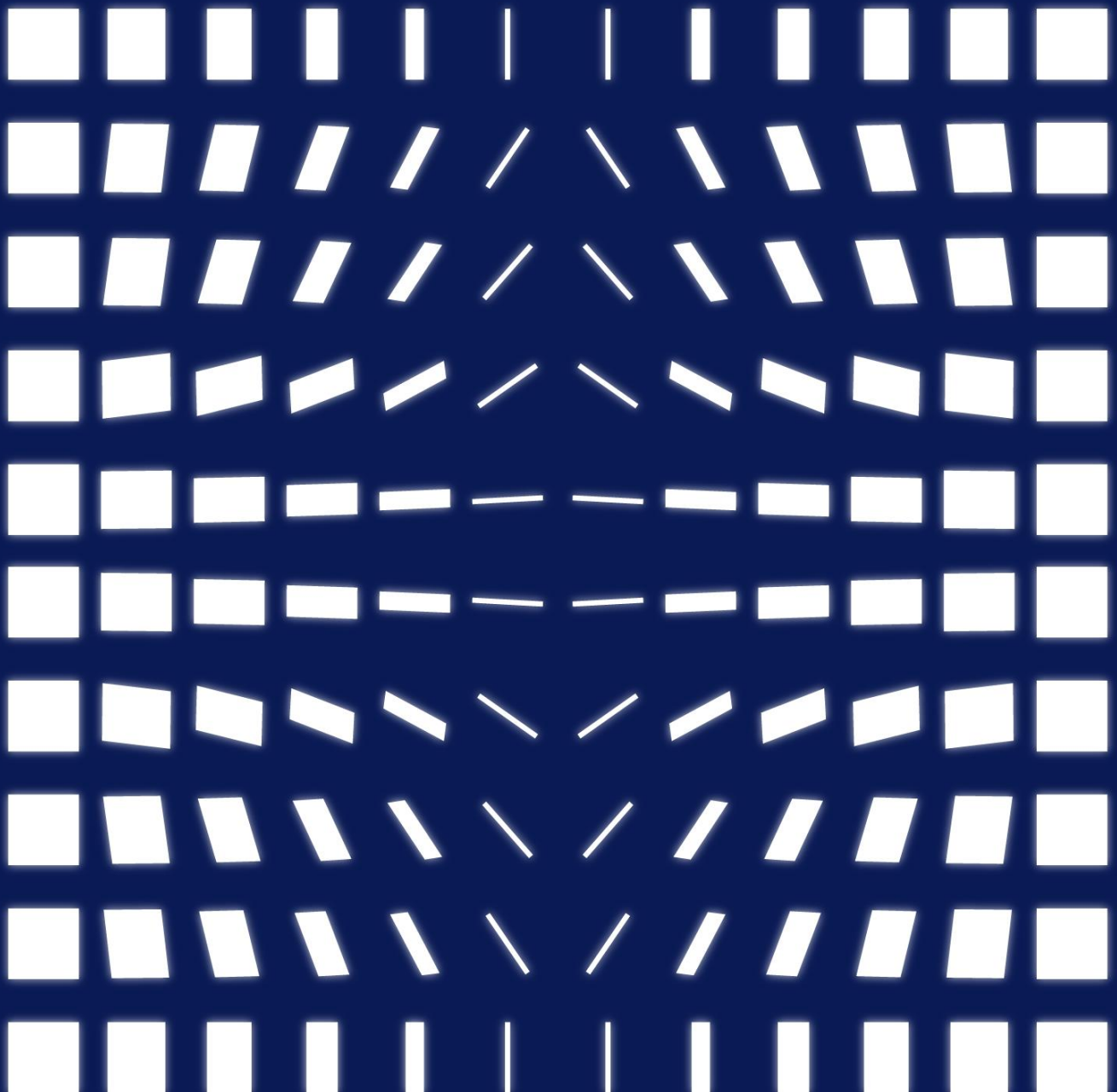


Coinbase: A Money Printing Press in the Crypto Market





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Abstract

This report takes a deep dive into the Coinbase annual report for 2021. We analyze financial statements with business data and conclude that Coinbase has made a windfall to the extent it can be called a money printing press in the crypto market. Highlights of Coinbase's revenue and expenses appear below.

- Transaction revenue dominates, while other businesses accelerate.
- BTC trading volume share declines, while other cryptocurrencies trading volume and revenue both rise.
- Institutions contribute major trading volume, retail investors contribute major revenue, and institutional turnover rate is higher than that of retail
- Token investments are concentrated in BTC, and investment income is not reflected in the income statement
- Lower operating expenses and higher net margins
- Sales and marketing fees are lower than industry average
- Expenses for each new MTU increase

Finally, we look to the future of Coinbase with its countercyclical investment strategy.

1 Introduction

At the end of February 2022, Coinbase released its first annual report since its Nasdaq direct listing in May 2021. As the only publicly available annual report of a cryptocurrency exchange, the report will offer useful insights into its business.

Last year we saw the crypto market grow by leaps and bounds, and it was the same for Coinbase which became the number one compliant exchange in the US, ranking high in trading volume globally. Below is Coinbase's key financial data.

Financial Metrics (in thousands)	2021	2020	variance	%
Net revenue	7,354,753	1,141,167	6,213,586	544%
Net income	3,624,120	322,317	3,301,803	1024%
Net asset	6,381,689	1,526,051	4,855,638	318%
Net profit margin	46%	26%	20%	—
Asset-liability ratio	70%	74%	-4%	—

Coinbase achieved net revenue of \$7.35 billion in 2021, a five-fold increase, and achieved net income of \$3.62 billion, a ten-fold increase.

With explosive performance growth in 2021 and a profit margin of 46%, Coinbase has earned so much money in this crazy bull market that it could be called a money printing press. Since the IPO, Coinbase has accumulated wealth and reputation. It has been getting more aggressive in its strategy, with plans to invest countercyclically and expand its market share in the bear market.

2 Revenue analysis

An analysis of Coinbase revenue data reveals the following characteristics.

2.1 Transaction revenue dominated, while other businesses accelerated

In 2021, Coinbase realized \$6.8 billion in transaction revenue and \$500 million in other businesses.



As you can see from the chart above, the transaction business is the core business of Coinbase, which contributes over 90% of revenue, a level difficult for other businesses to catch up at present. Blockchain protocols reward users performing various activities, such as participating in Proof of Stake (PoS). Coinbase derives blockchain rewards as it controls the staking validator address. It is the fastest-growing business, driven by crypto staking, predominantly Ethereum (ETH) 2.0 staking. It is expected that the growth rate of this business will return to normal after ETH 2.0 officially launches. In addition, the custody business is growing steadily, with Q4 growing 34% quarter over quarter.

2.2 BTC's trading volume share declines, while other cryptocurrencies trading volume and revenue both rise

TRADING VOLUME	2021	2020
Bitcoin	24%	41%
Ethereum	21%	15%
Other crypto assets	55%	44%
Total	100%	100%

The trading volume of Bitcoin (BTC) declined from 41% to 24%, while that of Ethereum and other cryptocurrencies rose from 15% and 44% to 21% and 55%, respectively. BTC's market share is being overtaken by other new crypto assets. On the other hand, Coinbase has accelerated the pace of token launches, with 95 and 21 popular trading pairs supported in 2021 and 2020 respectively, giving users more options besides BTC.

TRANSACTION REVENUE	2021	2020
Bitcoin	25%	44%
Ethereum	21%	12%
Other crypto assets	54%	44%
Total	100%	100%

Transaction revenue is consistent with trading volume. 54% of transaction revenue was contributed by other crypto assets trading during 2021. Revenue from BTC trading fell rapidly to 25%, changing in proportion to trading volume.

2.3 Institutions contribute major trading volume, retail contributes major revenue, and institutional turnover rate above retail's

Trading volume (in billions)	2021Q1	2021Q2	2021Q3	2021Q4	2020	2021
—Retail	120	145	93	177	73	535
—Institutional	215	317	234	371	120	1,136
Total	335	462	327	548	193	1,671
Transaction revenue (in millions)						
—Retail	1,455	1,828	1,022	2,186	1,040	6,491
—Institutional	85	102	68	91	56	346
Total	1,541	1,930	1,090	2,277	1,096	6,837

By the end of 2021, institutional trading volume reached \$1,136 billion, accounting for 68% of total trading volume, twice as much as retail trading volume. Retail traders contributed \$6.49 billion in transaction revenue, accounting for 95% of total transaction revenue. It can be deduced that the trading fee rate for retail is much higher than that of institutions. In fact, the fee rate is linked inversely with trading volume and stands at up to 0.6% for retail in a single side. Coinbase attracts institutional market makers with a low-rate fee, providing more than half of total liquidity, and earns profit from retail trading.

Assets on platform (in billions)	2021Q1	2021Q2	2021Q3	2021Q4	2020	2021
—Retail	101	88	116	141	45	141
—Institutional	122	92	139	137	45	137
Total	223	180	255	278	90	278
Turnover rate						
<i>(trading volume/assets on platform)</i>						
—Retail	1.19	1.65	0.80	1.26	1.62	3.79
—Institutional	1.76	3.45	1.68	2.71	2.67	8.29

Coinbase has also indicated the turnover rate of institutions and retail investors with the trading volume and assets on its platform. As assets on Coinbase's platform are measured at a point of time, not an average level during a period, the calculated turnover is not exactly accurate. However, it can still give us a reference. As you can see, the difference between assets on Coinbase's platform is limited to institutional and retail investors, while the turnover rate of institutional investors is about twice that of retail investors. Across quarters, Coinbase has a higher turnover rate in Q2 and Q4, which is positively correlated with the cryptocurrency market.

2.4 Token investments are concentrated in BTC, and investment income is not reflected in the income statement

Crypto assets held as investments (in millions)	2021		2020	
	Cost	Fair value	Cost	Fair value
Bitcoin	88	266	13	101
Ethereum	46	167	4	22
Other crypto assets	75	263	8	25
Total	209	696	24	148

In Coinbase's 2021 financial statements, token investments cost \$209M, with BTC accounting for 42% and ETH 22%. Compared with 2020, the proportion of BTC decreased, but still accounted for about half of investments.

Coinbase's accounting policy follows US GAAP, where cryptocurrencies are recognized as intangible assets and are measured by the cost method initially and subsequently. There is an allowance for impairment when the fair value is less than cost and the allowance cannot be reversed. Therefore, the carrying value in the balance sheet is just the cost of the crypto assets

and cannot reflect the fair value of the assets. In fact, since the crypto bull market in 2021, Coinbase has realized a substantial investment income. The fair value of crypto assets held as investments reached \$696 million, compared with the carrying value of \$209 million. \$487 million in investment income was not reflected in the income statement, accounting for 13% of net income for the whole year.

3 Operating expenses analysis

Coinbase's annual report discloses very limited information, with only the amount and approximate purpose of operating expenses by accounts, and there is no way for users to understand the nature and breakdown of expenses. We will do our best to restore the original picture of operating expenses in conjunction with business information.

3.1 Lower operating expenses and higher net margins

Operating expenses (in thousands)	2021	2020	variance	%
Transaction expense	1,267,924	135,514	1,132,410	836%
Technology and development	1,291,561	271,732	1,019,829	375%
Sales and marketing	663,689	56,782	606,907	1069%
General and administrative	909,392	279,880	629,512	225%
Other operating expense, net	630,308	124,622	505,686	406%
Total operating expenses	4,762,874	868,530	3,894,344	448%
Total revenue	7,839,444	1,277,481	6,561,963	514%
% of total revenue	61%	68%	-7%	—

Coinbase's 2021 operating expenses account for 61% of total revenue, a decrease of 7 percentage points from 2020, mainly due to a decrease in the proportion of technology and development expenses and general and administrative expenses. The increase in amount is predominantly due to an increase in personnel-related expenses, with headcount growth and stock-based compensation expenses.

As revenue grows, the scale effect becomes more pronounced. Expenses are not increasing as fast as revenue, especially for the expenses of exchange infrastructure and management.

3.2 Sales and marketing fees lower than industry average

Sales and marketing analysis	2021	2020
Sales and marketing (in thousands)	663,689	56,782
Net revenue	7,354,753	1,141,167
% of total revenue	9%	5%
Trading volume (in billions)	535	73
Transaction revenue -retail (in millions)	6491	1040.2
Monthly Transacting Users (in millions)		
<i>the annual average for the year</i>	8.4	1.9
Average monthly transaction volume per user	5,308	3,202
Average monthly transaction revenue per user	64	46

Sales and marketing expenses account for 9% of total revenue, which is lower than the industry average. It is mainly due to the higher monthly transaction revenue per user.

Calculated using total trading volume and monthly transacting users (MTUs), average transaction volume per active user reached \$5,300 per month, generating \$64 revenue per user for Coinbase. Coinbase users are concentrated in the U.S. and hold more assets per capita than in other regions, so the per capita trading volume is higher than industry average. In addition, Coinbase, as a compliant exchange, has a higher retail fee rate than FTX, Binance and other exchanges, resulting in higher revenue generation per user.

The majority of Coinbase's sales and marketing expenses is attributed to digital advertisements. Due to the lack of information such as conversion rates, we are unable to analyze the relationship between sales and marketing expenses and channel efficiency.

3.3 Expense for each new MTU increased

Monthly transacting users analysis	2021	2020	2019
MTUs in Q4 (in millions)	11.4	2.8	1
Increased MTUs	8.6	1.8	—
Sales and marketing (in thousands)	663,689	56,782	—
Expense per new MTU	77	32	—

As seen in the table above, Coinbase's cost for customer acquisition rose from \$32 per MTU in 2020 to \$77 in 2021. It plans to increase its sales expenses to 12-15% of revenue in 2022. Although Coinbase has 11.4 million active users, it has a very low coverage of U.S. residents and therefore has a huge growth potential.

The U.S. market is highly competitive, with exchanges such as FTX, Binance and even Robinhood. We expect the cost of customer acquisition will continue to grow in the future.

4 Strategy outlook

Even though the crypto market has been on a down trend in 2022, Coinbase's expansion strategy has not been affected.

Coinbase raised \$3.28 billion in the 2021 cryptocurrency bull market through senior notes, short-term borrowing and other means, and held \$7.1 billion in cash and cash equivalent at the end of 2021, with enough reserve for the following bear market. It plans to recruit over 2,000 employees to develop its new business, to add to its current 3,700 employees. Specific strategies are as follows.

- Increase Coinbase's active users through user education, marketing, community development and developer conferences, and expanding the institutional sales team. In addition to the trading business, develop other businesses such as staking, wallet and NFT marketplace to provide more asset options for users to participate in the crypto market.
- Help build out the primary crypto accounts and provide financial services to more people. Attract more traditional financial system participants to use cryptocurrencies through business innovation and mergers and acquisitions, etc., and expand the use scenarios of

cryptocurrencies in daily life, such as crypto transfer and crypto payment.

- Develop Coinbase as an application platform and become a portal to Web 3.0, not just a cryptocurrency exchange. Soon to launch a series of applications such as NFT Marketplace. Over the longer term, Coinbase is building tools to help other builders create decentralized applications themselves.

Disclaimer

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