

FTX Monthly Digest

April 2020



Contents

1	Who we are	3
2	FTX in April	3
3	Quant Zone	5
4	Volatility	9
4.1	MOVE Contracts	9
4.1.1	What are MOVE contracts?	9
4.2	BVOL and iBVOL	11
5	FTT	12
5.1	FTT so far	12
5.2	FTT tomorrow	13
6	Charity	14
7	Readers' Questions	14

1 Who we are

FTX is a cryptocurrency exchange built by traders, for traders. FTX offers innovative products, including industry-first derivatives. We strive to develop a platform robust enough for professional trading firms and intuitive enough for first-time users. Our goal is for FTX to grow the digital currency ecosystem, offer traders a platform that inspires their loyalty, and become the market-leading cryptocurrency exchange.

2 FTX in April

April has been a busy month for FTX. We've rolled out an assortment of products, upgrades, and new feature requests. We continue to work on feedback provided by the community and are constantly looking for innovative new ways to serve our customer base.

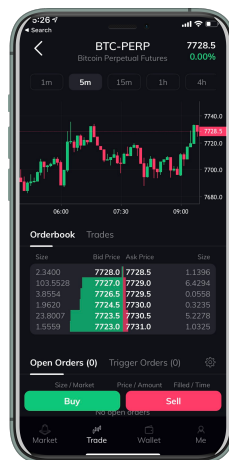
Quant Zone The Quant Zone is a place on FTX where users can build and soon will be able to share trading strategies. These strategies are built by rules which then instruct orders on your FTX account.

Oil Futures FTX has added OIL after continuous requests from our users and the unprecedented price action which made for some interesting trading. OIL contracts are futures that expire to the spot price of WTI oil. In particular, a contract expiring on day X will expire to the published Cushing, OK WTI Spot Price FOB here for day X, plus 100. We add \$100 to each contract in case the spot price goes negative. Note, however, that if the spot price of oil goes below - \$100, FTX OIL contracts can expire negative.

Mobile App You asked for it, we delivered, a new native mobile app is on the way. The native app provides an enhanced aesthetic as well as being faster, smoother and easier to navigate. The app will be released for both iOS and Android.

BVOL/iBVOL Tokens These tokens represent a broad set of long or short positions on the FTX MOVE contracts, which represent close to perfect volatility in bitcoin price. We will delve further into this below.

Half Tokens FTX recently launched HALF tokens—a version of Leveraged Tokens that use 50% leverage. In other words, ETHHALF is 50% ETH, 50% USD. Like BULL and BEAR tokens, HALF tokens rebalance at the end of each day to return to their target leverage; a static



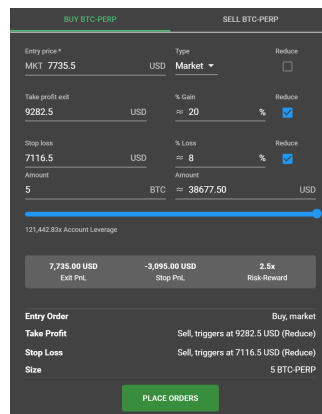
50/50 portfolio would no longer be 50/50 after a market move. But it turns out that their rebalances are the opposite of BULL and BEAR rebalances. So because of their daily rebalances, HALF tokens are essentially betting on mean-reversion—they do well if significant moves revert, and then do poorly if markets continue trending.

Custom login FTX now allows you to create custom logins. With them, you can enable other people to log into your account with configurable permissions which include: Permissions such as Read-Only, Can-Can't Withdraw, and restricted access to a certain Subaccount.

Subaccount functions It is now possible to quickly toggle between subaccounts in the trading window and view all account balances from the wallet page.

Cryptowatch We are happy to announce the integration of all FTX Spot, Futures, and President 2020 markets with CryptoWatch. Cryptowatch offers real-time price charts, order books, trade feeds, and depth charts on their terminal-inspired interface. You can also set alerts on their charts for your FTX trades.

Calculated Order Entry Form All markets now have advanced order functionality that allows users to set-up their entire trade with one entry form. The new form consolidates order placement, stop loss and take profit functions to allow the user to seamlessly manage their trades risk and reward.



BUY BTC-PERP		SELL BTC-PERP	
Entry price*	MKT 7735.5 USD	Type	Market
Take profit	9282.5 USD	% Gain	20 %
Stop loss	7116.5 USD	% Loss	8 %
Amount	5 BTC	Amount	38677.50 USD
121,442.83x Account Leverage			
7,735.00 USD	-3,095.00 USD	2.5x	Risk Reward
Entry Order	Buy, market		
Take Profit	Sell, triggers at 9282.5 USD (Reduce)		
Stop Loss	Sell, triggers at 7116.5 USD (Reduce)		
Size	5 BTC-PERP		
PLACE ORDERS			

Spot market additions Following user base desire, we have added multiple spot markets over the last month and will be adding others shortly.

- USDT Markets: FTX now has USDT pairs for over 75% of spot markets.
- Chainlink: FTX now offers Chainlink spot, perpetual futures, and quarterly futures markets.
- TRX: FTX now offers Tron spot, perpetual futures, and quarterly futures markets.

Finally we are proud to share that our spot volume has increased by over 10x this month.

Fiat currencies We are always working to improve our fiat offerings and wanted to highlight some of our existing offerings and those coming soon. Having ease of access to funds is not only essential for the success of cryptocurrency markets but is also essential for ease of use and customer satisfaction, it is for this reason that we are continuing to expand our fiat offerings in a number of jurisdictions across the world.

Currency	Deposit	Withdrawal	Stablecoins	Instant interbank
USD	Yes	Yes	Many	Many
EUR	Yes	Yes		SEPA deposits
GBP	Yes	Yes		
AUD	Yes	Yes		
HKD	Yes	Yes		
SGD	Yes	Yes		
TRY	Soon	Soon	Yes	
ZAR	Yes	Yes		
CAD	Yes	Yes		
CHF	Yes	Yes		
BRL	Yes	Yes	Yes	Yes

Table 1: Fiat supported on FTX

Volume Expansion FTX has seen healthy volume expansion in our principal market BTC-PERP, as well as our BTC spot markets. We believe this is a reflection of a keen interest in both spot and derivative markets.

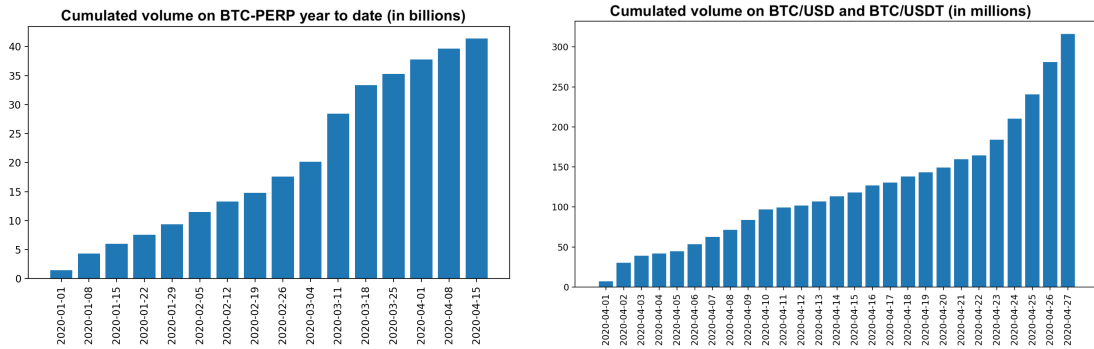


Figure 1: Accumulated Volume on BTC markets

3 Quant Zone

Since the inception of trading until now, the vast majority of trading has been a manual activity. Venetian moneylenders would sit on their Bancas, selling and buying debt issuances. Amsterdam brokers would sell promissory notes of all those East India Companies, and stockbrokers would gather on the trading

floor of exchanges such as the New York Stock Exchange flinging hand signals across the room.

It wasn't until 600 years later from the times of those Bancas when the world's first electronic stock market began. In 1971 the NASDAQ opened automated trading; at the beginning, it was purely an electronic quotation system that updated the tickers faster than the previous ticker boys could change the tabs – there was still no automatic execution of trades. Entering the 1990s, electronic trading has become ubiquitous, as the internet rose, and people bought their personal computers they could now for the first time in history purchase equity from the comfort of their home. This progression of electronic trading went hand in hand with the development of algorithmic trading. Today an estimated 85% of all stock transactions are automated¹. The cryptocurrency market is no different; if anything, there are more inefficiencies for these algorithms to take advantage of. Traders and investors hear of the success of these quant firms and deep in their hearts wish they could code to build such systems of their own. Except they no longer need to know how to code.

FTX Quant Zone is one of the most underrated aspects of FTX. Algorithmic trading brought down to the level of Lego building blocks. It is an opportunity for those not versed in the languages of C++, C, Python, Java, and R to learn how to build trading strategies from simply explained modular rules and for pros to build systems that will execute faster than any API connected strategies. Yet, this is only the first step of Quant Zone's progression. Soon users shall be able to allow subscribers access to their algorithms built within Quant Zone and be paid in FTT, as well as the ability for professionals traders to trade for their subscribers while earning an FTT commission. Let's dive into a couple examples, shall we?

Lets say we've realised that our ideal BTC-PERP position size is 2x leveraged. We're constantly frustrated with having to adjust the position size to return to 2x leverage. If the price moves in our favor the position becomes less leveraged and vice versa if the price goes against us our leverage increases. There's an easy way to use the FTX Quant Zone to avoid this headache and maintain our position leverage at 2x; rebalancing every 4 hours:

¹<https://www.wsj.com/articles/behind-the-market-swoon-the-herdlike-behavior-of-computerized-trading-11545785641>

Step 1 We go to the Quant Zone <http://ftx.com/quant-zone>

Step 2 Create a new rule

Step 3

- **Rule 1: *2x Leverage Buy***
 - **Trigger:** leverage < 2 and time%4==0 and minute==0
 - **Action:** Open position. Buy; BTC-PERP
- **Rule 2: *2x Leverage Sell***
 - **Trigger:** leverage > 2 and time%4==0 and minute==0
 - **Action:** Close Position. Sell; BTC-PERP; Reduce position leverage: 2.

The total setup time for a strategy of this simplicity is around 5 minutes; the above rule example shows how this product can be used by anyone with the desire to learn. These simple building blocks allow you to calculate EMA, SMA, RSI, daily open price, TWAP, and various other indicators. All of which can be added as variables to interact with your rule sets. Throughout the next updates, we will add indicators as building blocks themselves so that they won't have to be made and will be simple to add as one-click functions.

The screenshot displays the FTX Quant Zone interface with two rule configuration panels side-by-side.

Left Panel: 2x_Leverage_Buy

- Rule Name:** 2x_Leverage_Buy
- Trigger:** Condition: `leverage < 2 and time%4==0 and minute==0`. Current value: false.
- Actions:**
 - Type: Open Position
 - Side: Buy
 - Future: BTC-PERP
 - Leverage: 2
 - Limit Price (Optional): [Empty field]
 - Stop Loss: ☐ Take Profit: ☐
- Buttons: ADD ACTION, SAVE DRAFT, SAVE AND RUN

Right Panel: 2x_Leverage_Sell

- Rule Name:** 2x_Leverage_Sell
- Trigger:** Condition: `leverage > 2 and time%4==0 and minute==0`. Current value: false.
- Actions:**
 - Type: Close Position
 - Side: Sell (close long position)
 - Future: BTC-PERP
 - Target leverage: 2
 - Limit Price (Optional): [Empty field]
- Buttons: ADD ACTION, SAVE DRAFT, SAVE AND RUN

Figure 2: Rules *2x Leverage Buy* and *2x Leverage Sell*

Let's dive in-depth with the next example. We're going to use the strategy built by 8baller² which won our FTX Quant Zone Rule Building Competition:

We're a sophisticated programmer who has experience coding algorithms, manipulating data-sets, and trading cryptocurrency markets. Effectively, we want to buy as many BTC as possible, at the best price possible. So we now have our strategy. We know that we want to buy BTC when the current price difference is $x\%$ away from the Moving average. However, How do we know what x should be? And how do we know how much of our bank we should use for each buy order? There are several different ways we could figure this out, but the simplest is for us to simply try ALL possible combinations. Imagine that if we were to plot each combination of Size of Stake and Offset against the profit that strategy generated. We would produce a plot similar to the below;

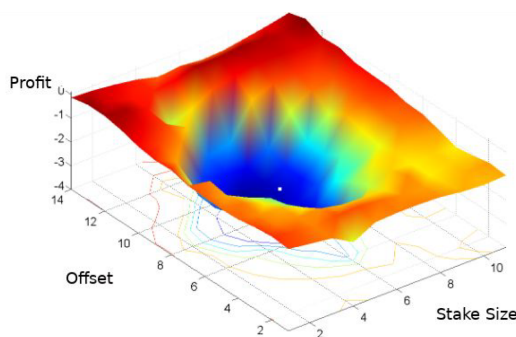


Figure 3: Optimization surface plot by 8baller

We are seeking to find the lowest possible point in this graph which represents the stake size and offset, which represents the maxim profit. This is where our parameter generator comes into play. This generator will allow us to define our search space. The parameter generator will generate all of the possible combinations in the form (Market, Offset, Stake Size). We can also constrain our search space if, for example, we do not want to put all of our capital at risk in a single trade. I have set the maximum stake as 49% of the total holdings, and we can then test them all to find our optimal strategy.

Let's make the assumption that the answer was $x = 0.8\%$, and we want to continue to use 49% of our USD balance. Let's see how simple it is to use this strategy on FTX Quant Zone:

- **Rule 1:** *Optimized buy side*

- **Trigger:** $(\text{price}(\text{"BTC-PERP"}) * (1 + 0.008)) < ((\text{price}(\text{"BTC-PERP"}, 60) + \text{price}(\text{"BTC-PERP"}, 45) + \text{price}(\text{"BTC-PERP"}, 30) + \text{price}(\text{"BTC-PERP"}, 15) + \text{price}(\text{"BTC-PERP"})) / 5)$

²<https://medium.com/coinmonks/back-testing-and-deploying-a-automated-trading-strategy-to-ftx-f84073ee1ad6>

– **Order Size:** `balance.free("USD") * 0.49 / price("BTC/USD")`

• **Rule 2:** *Optimized sell side*

- **Trigger:** `(price("BTC-PERP") * (1 - 0.008)) > ((price("BTC-PERP",60) + price("BTC-PERP",45) + price("BTC-PERP",30) + price("BTC-PERP",15) + price("BTC-PERP")) / 5)`
- **Order Size:** `balance.free("USD") * 0.49 / price("BTC/USD")`

Where `(price("BTC-PERP",60) + price("BTC-PERP",45) + price("BTC-PERP",30) + price("BTC-PERP",15) + price("BTC-PERP")) / 5` is the *moving average* of Bitcoin over the last hour.

Save and the rule is complete! Every 15 seconds, the conditions will be checked and the orders will be made when the time is optimal. As you can see, it is incredibly quick and easy to get a strategy up and running on FTX.

4 Volatility

4.1 MOVE Contracts

With the introduction of MOVE contracts traders now have even more ways to trade bitcoin volatility or the lack thereof. A BTC MOVE contract is a future that expires to the amount of dollars that BTC moves in one day in the UTC timezone. Move contracts have daily, weekly and even quarterly expirations!

4.1.1 What are MOVE contracts?

MOVE contracts are futures contracts that allow you to speculate on Bitcoin's volatility. There are 3 types of MOVE contracts: daily MOVE, weekly MOVE and quarterly MOVE.

MOVE contracts represent the absolute value of the amount a product moves in a period of time. So if BTC starts the day at \$8,000 and ends the day at \$8,500, the daily MOVE contract will expire at \$500, but if BTC had ended the day at \$7,500, it would have also expired at \$500. Because it is the absolute value of the amount BTC moves, it does not matter whether BTC goes up or down. Going long on a MOVE contract means that you expect BTC to be volatile and *move* in this period of time. On the contrary, shorting a MOVE contract means that you expect BTC not to *move* in this period of time.

For people more familiar with options, MOVE contracts are straddles with a strike price equal to the *TWAP* of the first hour of their expiration period and underlying expiration price equal to the *TWAP* of the last hour of their expiration period.

Historical data of MOVE contracts can be retrieved through the API, we compiled some interesting data about expired MOVE contracts to provide you with a better insight on these markets.

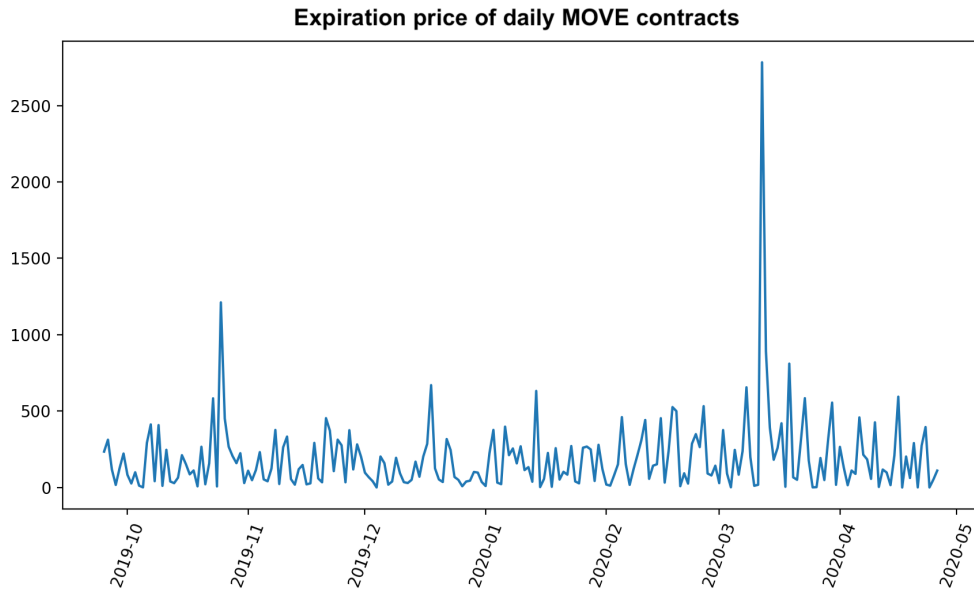


Figure 4: Expiration price of daily MOVE contracts

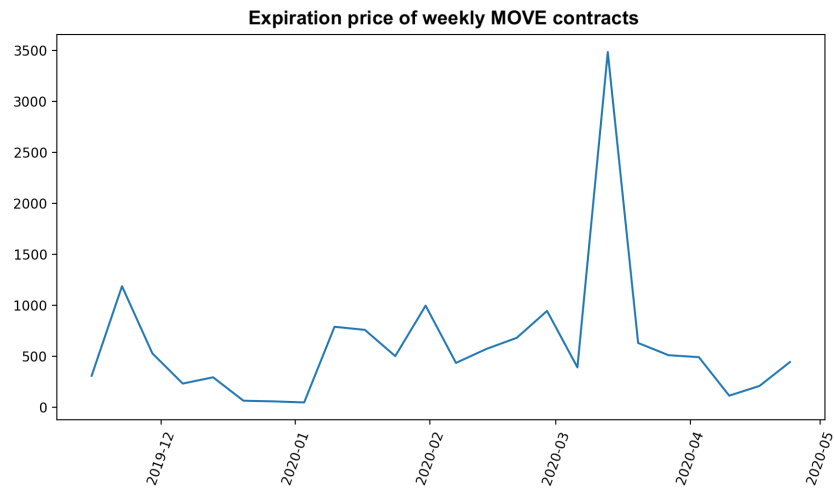


Figure 5: Expiration price of Weekly MOVE contracts

For people who do not want to manage their margin and liquidation risk but still want to get some exposure to Bitcoin's volatility, we tokenized MOVE contracts to make: BVOL and iBVOL tokens.

4.2 BVOL and iBVOL

BVOL tokens are tokens that track the implied volatility of crypto markets. Like leveraged tokens they are ERC20 tokens and buyers do not need to manage collateral, margin or liquidation prices.

BVOL tokens get their exposure to implied crypto volatility using FTX MOVE contracts. There are two BVOL tokens: BVOL and iBVOL. BVOL tracks the daily returns of being 1x long the implied volatility of BTC; iBVOL tracks the daily returns of being 1x short the implied volatility of BTC. BVOL and iBVOL tokens respectively hold $\frac{1}{6}$ th and $\frac{-1}{6}$ of each of the following MOVE contracts:

- Tomorrow’s MOVE contract
- Next weeks’ MOVE contract, and the two weeks after that
- Next Quarter’s MOVE contract, and the quarter after that

	Mean	Standard Deviation	Minimum	Maximum	Q_1	Q_2	Q_3
Daily Move Contracts	192.31	253.76	0.81	2782.60	41.11	120.82	266.91
Weekly Move Contracts	610.59	683.36	46.16	3485.50	277.46	495.63	699.55

Table 2: Statistics about daily and weekly MOVE contracts

5 FTT

5.1 FTT so far

Each week FTX buys and burns the amount of FTT equal to:

- 33% of all fees generated on FTX markets
- 10% of net additions to the insurance fund ('Socialized Gains')
- 5% of fees earned from other uses of the FTX platform

So far we have burned a total of 3,858,881 FTT which is worth around \$12.2 million using the FTT price at the end of April 2020, Figure 6 shows the accumulated volume of FTT burned each week since August 2019.

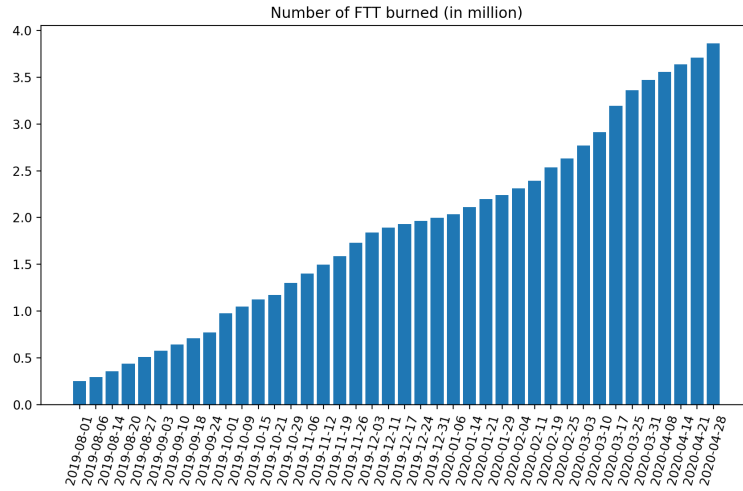


Figure 6: Number of FTT burned (in million)

FTT holding (USD)	Discount on FTX fees	Discount on FTX OTC	Other privilege
\$100	3%	N/A	N/A
\$1,000	5%	N/A	N/A
\$5,000	10%	0.0025%	N/A
\$50,000	20%	0.0050%	N/A
\$100,000	25%	0.0075%	N/A
\$200,000	30%	0.01%	N/A
\$500,000	35%	0.0125%	N/A
\$1,000,000	40%	0.015%	Automatically become tier 4
\$2,500,000	50%	0.02%	Automatically become VIP
\$5,000,000	60%	0.02%	Automatically become VIP2

Table 3: FTT discounts

5.2 FTT tomorrow

FTX has burned over 3.5% of the circulating supply of FTT and increased the insurance fund to 5.25 million FTT (\$16.64mm), almost 5% of the circulating supply. Removing these FTT from the ecosystem has been achieved in under a year. When looking at the graph below, comparing fees between exchanges, it is a noteworthy accomplishment.

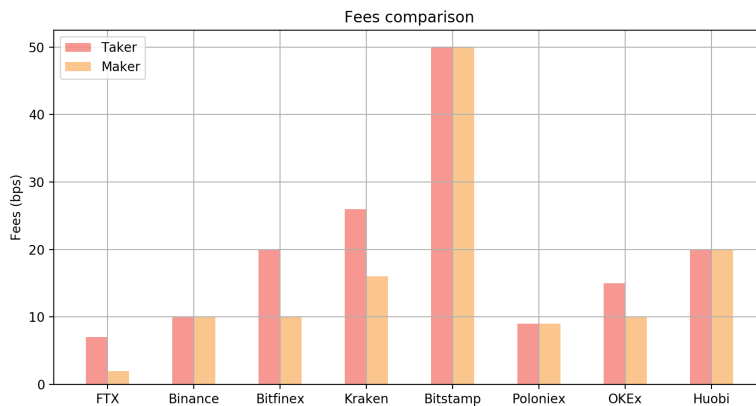


Figure 7: Fee comparison between exchanges

As of today, April 30th FTT is at its all-time high of \$3.17; this is only the beginning of the roadmap for FTT. We have already launched FTX Quant Zone 1; in Quant Zone 2 we shall begin to see further use cases for FTT:

Quant Zone 2 Please note these are prototype ideas and subject to change at the discretion of FTX.

- People can pay with FTT to use sets of Rules
 - A part of the payment goes to the person you're buying tokens from.
 - A part of the payment will be burned.
 - The person designing the rule gets to choose how much this costs.
- People can pledge their collateral to others subaccounts
 - The sub owner can decide how much to charge
 - * It could be a daily % fee
 - * It could be a % of profits
 - Those fees face the same distribution as above
- People can tokenize a subaccount
 - Weekly buy/burn on the token
 - Can specify things like capital mins in the subaccount

These are our first steps towards making FTT the foundation of a blockchain ecosystem. You can see the FTT transparency report [here](#) and the FTT Whitepaper [here](#).

6 Charity

We believe it is worth stating how pivotal charity is in the FTX roadmap. Sam Bankman-Fried founded FTX with the goal of donating to the world's most effective charities. With a focus on saving lives in the most quantifiable way, improving the conditions of farm animals, and developing technology to improve humanity's conditions. FTX, its affiliates, and its employees have donated over \$10m to help save lives, prevent suffering, and ensure a brighter future.

7 Readers' Questions

e-mail : research@ftx.com with questions you would like answered about the cryptocurrency and blockchain ecosystem. We shall select certain questions and dedicate a section to them in next months digest.