BITFINEX Alpha

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EXECUTIVE SUMMARY

In a week when we saw a glimmer of hope on inflation, we also saw probably the most disruptive event ever in the short history of crypto markets with the implosion of FTX.

The ramifications of the collapse of the once third largest crypto exchange by volumes and the impact on crypto markets will be significant. But if there was ever a time to focus on fundamentals, and what really underpins the pricing of assets, it is now.

Good news is slowly emerging on the macro front. Aside from a lower than expected Consumer Price Index report, the ISM manufacturing prices index is also edging down. The aggressive monetary tightening from the Fed seems to be having an impact.

Manufacturing grew at its slowest pace in two years and the market now sees rates peaking at 4.75-5 percent.

Of course the market reaction we saw - with a 1000 point gain in the Dow at one point - was way too optimistic. Food prices are rising at a rapid pace, hurting households significantly. Shelter costs also remain rigidly high. The much desired Fed pivot is not going to happen anytime soon. Investors should remain vigilant for markets that overreact.

In the meantime, the fall of FTX will have a depressing impact on the entire crypto industry, and will keep prices subdued for some time. It has not only shaken confidence, but also likely to have emboldened the resolve of regulators to react in what could be potentially an over-reaching manner. This should keep crypto investors wary.

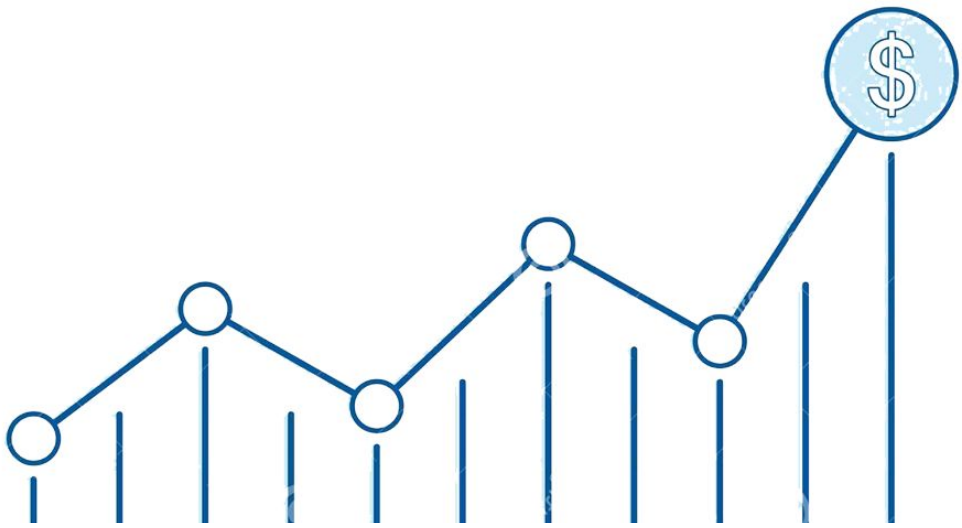
In our view however, the collapse of FTX, in which we go into in some detail in this week's Alpha, was not caused by the volatility of crypto, but in fact the failure to adequately manage risk, alongside what seems to be potentially criminal malfeasance over the use of customer assets.

We reveal how the 172 million movement of FTT, most likely to FTX trading company Alameda, was the start of the end for the company. This movement of tokens has been interpreted as the bail out that FTX provided to Alameda, most likely following unsustainable losses it incurred in the wake of the Terra Luna collapse. Following the revelations that FTT was a significant component of the Alameda balance sheet, the pressure on the token became immense and blew out Alameda's liabilities, marking the end for FTX and Alameda.

Away from the FTT fracas, in our on-chain section, we assess the circulating supply of Bitcoin and the real cost basis of coins held in wallets versus their current value. We conclude unsurprisingly that many coins are held in loss and that technically we may only be half way through the bear market, based on previous market cycles. With the exogenous impact of the FTT collapse, however it is likely that we may have an even longer downturn that the charts are currently predicting.

Trade carefully in these challenging times.

INDEX



GENERAL MARKET UPDATE

CPI Relief – Except for the Details

We are in a precarious economic environment. Amidst the market panic caused by the FTX insolvency issue (discussed later on in this issue), the Consumer Price Index report on Thursday, November 11, beat expectations for October. Though inflation is still red hot, it gave off signs that the worst is behind us, which caused investors to bet on a more dovish Fed down the road.

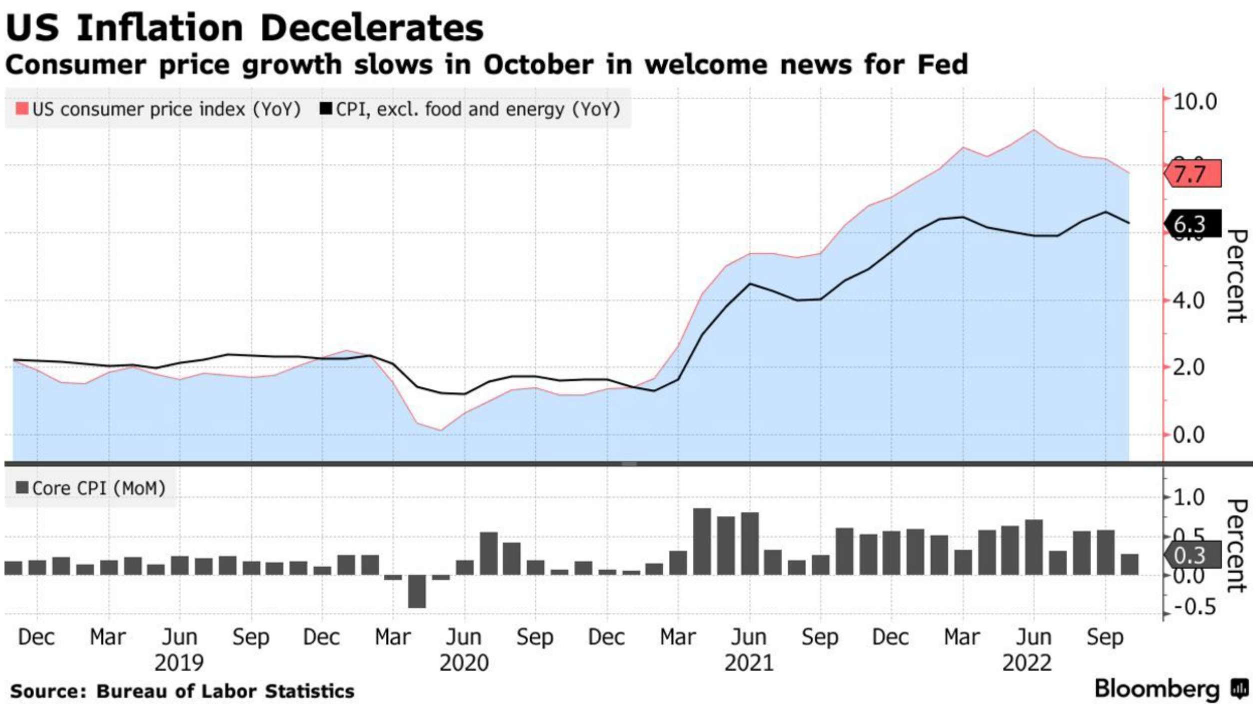


Figure 1. *CPI report: Better than Expected (Source: Bureau of Labor Statistics, Bloomberg)*

The October headline CPI came in at 7.7 percent Year-over-Year (YoY), lower than the expected 8 percent and lower than the 8.2 percent recorded for September. Core inflation (excluding food and energy) was 20 basis points lower than estimates, coming in at 6.3 percent. Month-Over-Month (MoM) core inflation was up 0.3 percent, but 20 basis points lower than expected.

The Bullish CPI report was in confluence with the ISM manufacturing prices index, indicating that prices will continue down in the coming months. US manufacturing activity grew at its slowest pace in nearly two years in October.

It appears that the market is pricing in a dovish Fed in 2023. The table below indicates a terminal fund rate of 4.75 to 5 percent. Our previous issue noted that the market expected a 5 to 5.25 percent terminal fund rate. The latest CPI print supports last week's dovish tilt expressed in the Federal Open Market Committee policy statement, hinting that the Federal Reserve will slow rate hikes as it sees previous tightening take effect in cooling down demand.

MEETING PROBABILITIES									
MEETING DATE	350-375	375-400	400-425	425-450	450-475	475-500	500-525	525-550	550-575
12/14/2022	0.0%	0.0%	0.0%	80.6%	19.4%	0.0%	0.0%		
2/1/2023	0.0%	0.0%	0.0%	0.0%	53.2%	40.2%	6.6%	0.0%	0.0%
3/22/2023	0.0%	0.0%	0.0%	0.0%	20.2%	48.3%	27.4%	4.1%	0.0%
5/3/2023	0.0%	0.0%	0.0%	0.0%	16.6%	43.3%	31.1%	8.2%	0.7%
6/14/2023	0.0%	0.0%	0.0%	0.0%	16.6%	43.2%	31.2%	8.3%	0.8%
7/26/2023	0.0%	0.0%	0.0%	5.3%	25.1%	39.3%	23.8%	5.9%	0.5%
9/20/2023	0.0%	0.0%	2.1%	13.3%	30.8%	33.1%	16.7%	3.7%	0.3%
11/1/2023	0.0%	1.2%	8.4%	23.1%	32.1%	23.9%	9.4%	1.8%	0.1%
12/13/2023	0.7%	5.6%	17.5%	28.7%	27.0%	14.9%	4.7%	0.8%	0.1%

Figure 2. *Meeting Probabilities: Terminal fund rate after the release of CPI report, Data as of 12 Nov 2022 03:42:25 CT (Source: CME group)*

Investors' current behaviour suggests they expect the Federal Reserve to reduce interest rates now that inflation appears to be under control. However, looking closely at the CPI breakdown, this isn't the case. The US Bureau of Labor Statistics (BLS) website greets us with the following chart:

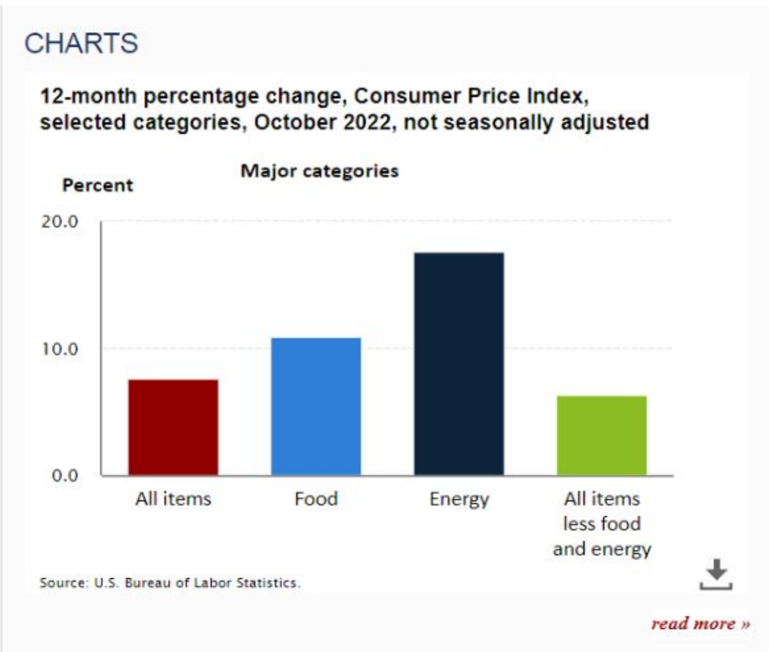


Figure 3. *12-Month percentage change, CPI, on selected categories (Source: Bureau of Labor Statistics)*

At first glance, it immediately gives you a picture of the actual situation: Food is up 10.9 percent, and energy is up 17.6 percent. This chart demonstrates that since January 2022, food prices have skyrocketed, far outpacing overall inflation. The decline in food prices is less dramatic than the decline in the overall inflation rate that the media focuses on. While declining CPI on a YoY measurement is good news, the most significant expenses for Americans, like food and energy, remain rigid.

The data worth paying attention to is the food prices that were already up more than a year ago. Figure 3 shows that during the COVID lockdowns, food prices increased significantly while the general inflation rate remained low in October 2020. As the BLS line charting food inflation below shows, prices fell throughout the following year but started climbing again following the spring of 2021 and have been on the rise ever since.

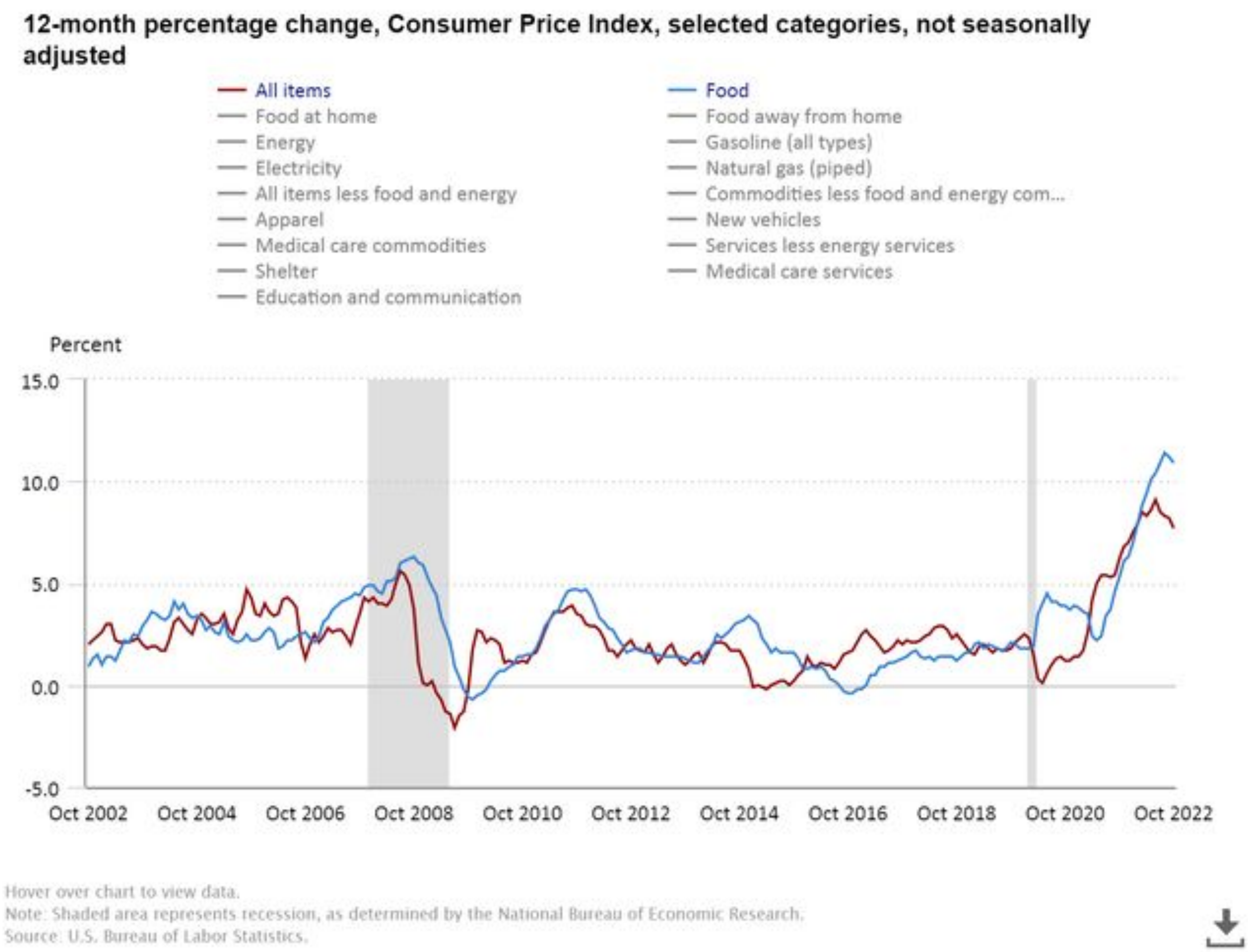


Figure 4. *12-month percentage change, CPI, selected categories (Source: Bureau of Labor Statistics)*

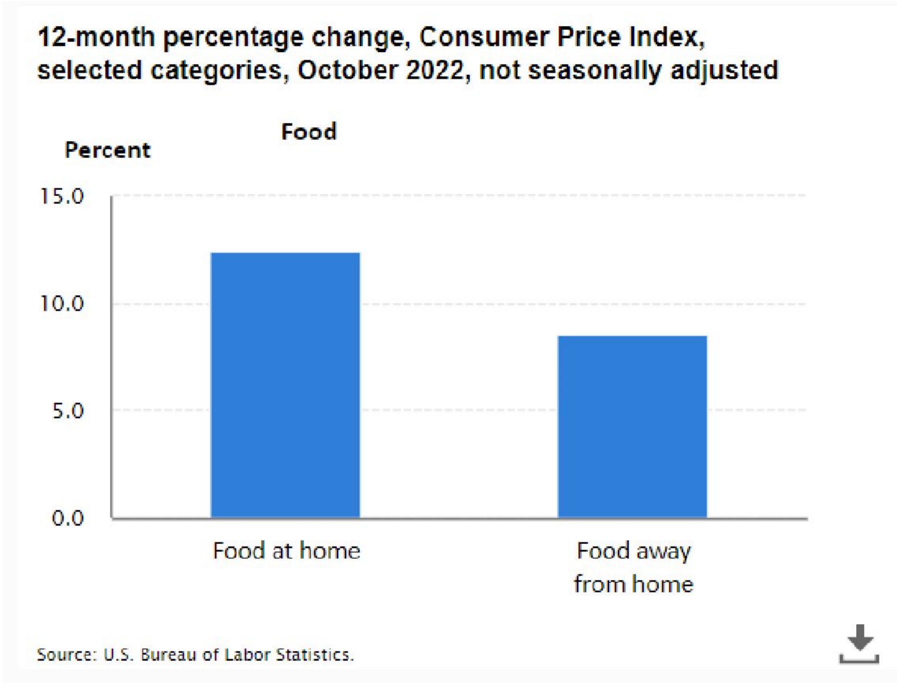


Figure 5. *CPI in the food category, 12-month percentage change (Source: Bureau of Labor Statistics)*

Another chart by the BLS gives more information as it further breaks down the inflation components within the food category: food away (cost of eating out at restaurants) and food at home (cost of grocery items for food prepared at home). Food at home is up 12.4 percent YoY. Meanwhile, the cost of eating out, which is a discretionary expense, moderated slightly, which caused the food category to come down slightly. However, food at home is an essential category because this factors in most low-income earners' spending habits. If we account for food inflation in the past two years, US households are paying 17 percent more for food.

Figure 5 breaks down the Energy sector. The chart shows energy is much more volatile than food prices, especially gasoline. Electricity prices rose 14.1 percent YoY. The last time it rose at this pace was in 2006.

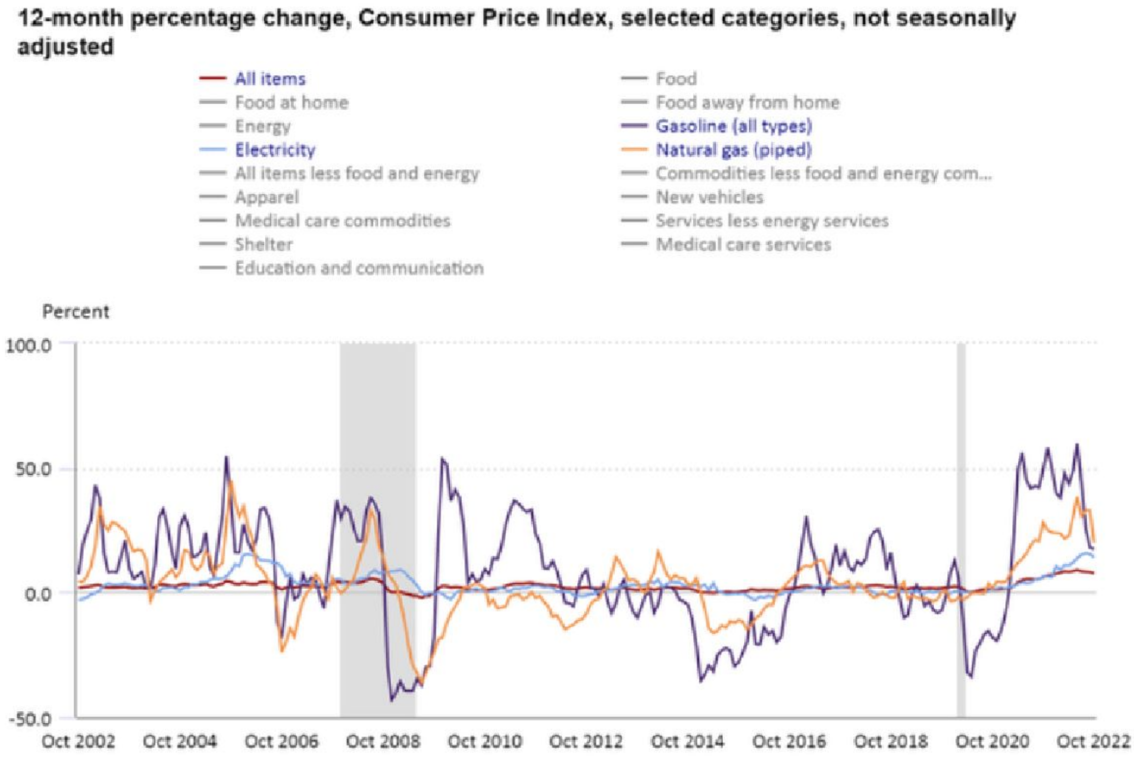


Figure 6. *12-month Percentage change in CPI, Energy category (Source: Bureau of Labor Statistics)*

The persistence of high energy prices will continue to cascade throughout the economy. High energy prices will continue to pressure prices for goods and services as it affects business costs.

The Federal Reserve has made it clear that they will look at more than a month's worth of data when considering when to tighten or ease their policies. They certainly look at a lot more than the headline CPI numbers. The CPI breakdown gives a clear picture that a Fed pivot is not happening anytime soon. The Fed is serious about its plan to curb inflation at any cost.

The key takeaway is that, as always, the devil is in the detail. While headline CPI numbers might cheer up investors, the problem still needs to be solved. Interest rate hikes begin to slow only when food and energy prices stop surging.

US Housing

House prices around the world are taking a hit from rising interest rates. Australia, Canada and New Zealand are showing signs of a sharper decline after being one of the biggest gainers in the industry at the end of the year 2021. Furthermore, some governments, such as South Korea, have already intervened to help hard-pressed consumers to manage their increasing repayments.

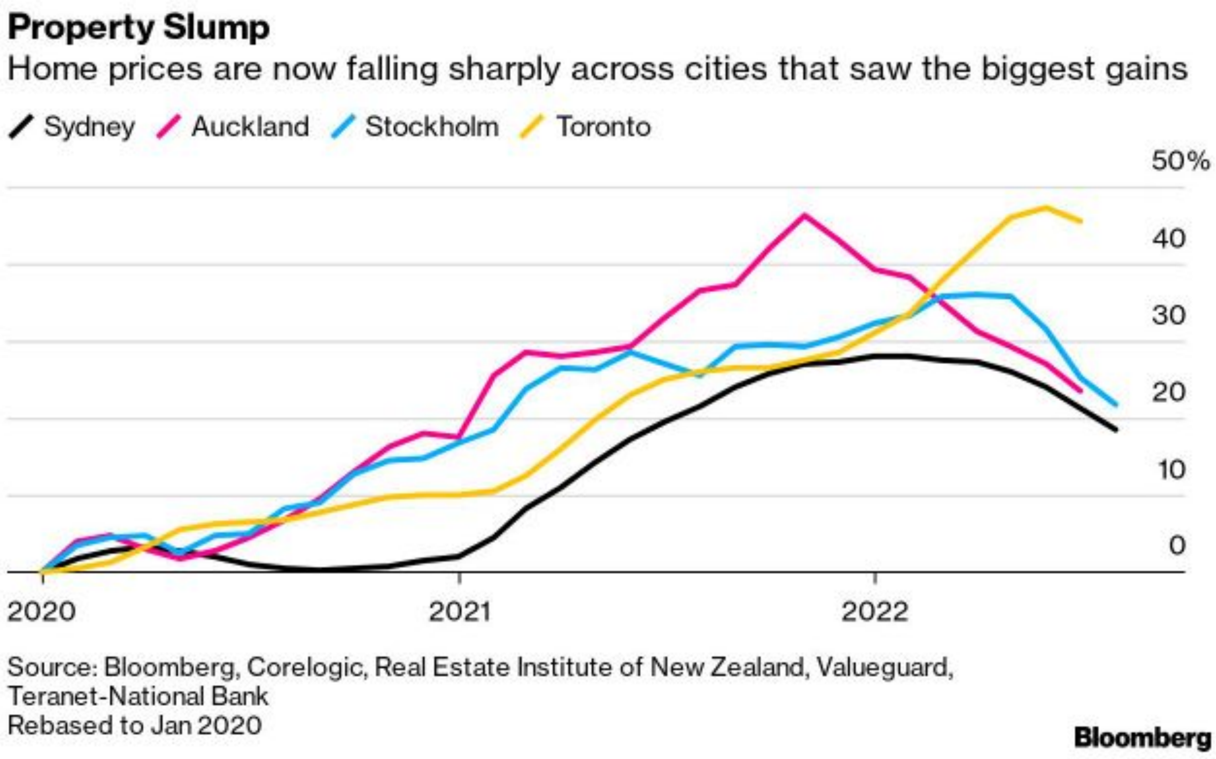


Figure 7. *Home Prices Falling Sharply (Source: Bloomberg)*

Higher real-estate financing costs hit economies in multiple ways. Households with loans tighten their belts while rising mortgage payments discourage potential buyers from entering the market, dragging on property prices and development.

It is crucial to also dissect shelter costs in the US.

Figure 8: *Consumer Price Index for All Urban Consumers: Shelter in US City Average (Source: FRED)*

The shelter component of CPI does not measure the market prices for housing. Instead, it measures the cost of housing, such as rent. The figure above shows the CPI shelter component index, which correlates with sheltering costs. In October, shelter rose by 0.75 percent, putting the MoM change for housing costs at its highest since the August 1990 0.7 percent reading.

Although rent is typically fairly inflexible, it is understandable that landlords would pass along increased capital costs to their renters at times when mortgage rates are rising significantly.

It makes logical that fewer Americans are interested in purchasing homes, and the cost of owning or renting a home is increasing, given that the average 30-year fixed mortgage rate in the US is close to 7 percent.

In addition, if the tenant's lease covers utilities, they are included in the CPI's shelter component. Overall, the state of global housing markets suggests that there is more depreciation in prices to come as there is no catalyst for buying interest.

Equities and Bonds

US equities increased the most in a trading session since 2020 on the back of a softer-than-expected CPI report. The S&P 500 gained 5.5 percent. All the eleven sectors of the S&P 500 rose, with the information technology, real estate, and consumer discretionary sectors leading the charge higher. Semiconductor names also surged, with Marvel Technology ($MRVL) up 16.1 percent, Nvidia ($NVDA) up 14.3 percent, and Advanced Micro Devices ($AMD) up 14.3 percent. Amazon ($AMZN) surged 12 percent, Meta ($META) gained 10.3 percent, and Apple ($AAPL) climbed 8.9 percent.

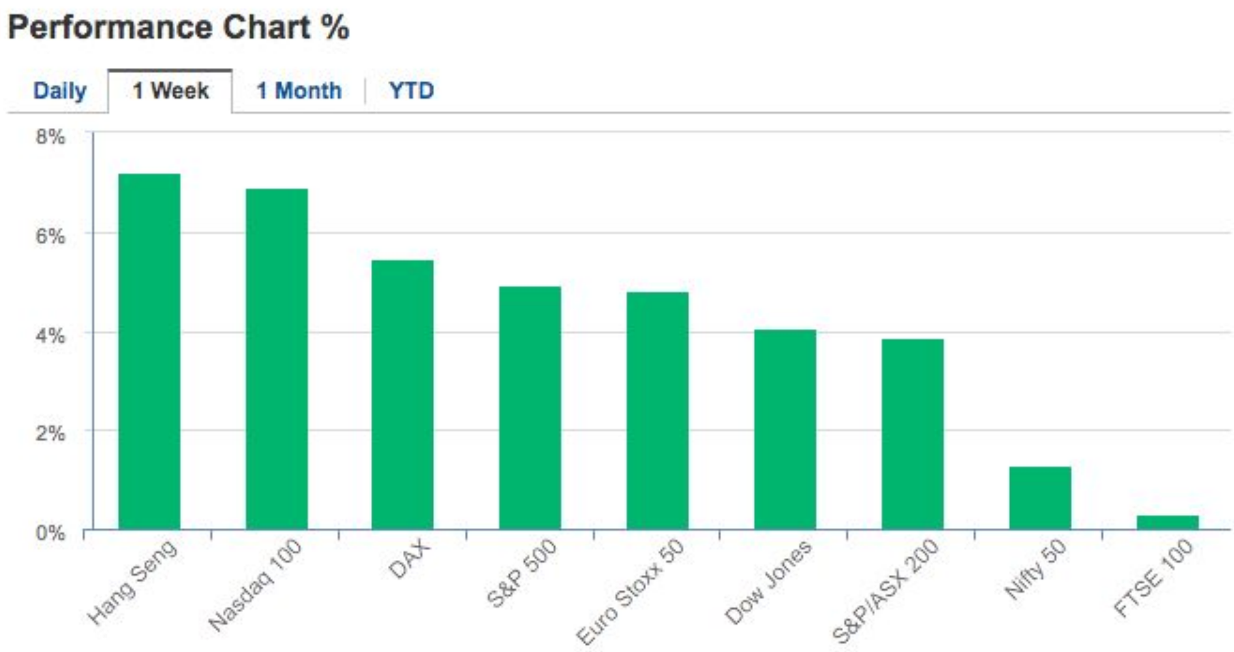


Figure 9. *Stocks 1 Week Performance Chart*

When it comes to commodities, prices have seen some more minor changes since last week. Crude oil (WTI) increased by $0.64 to $86.47 per barrel. Elsewhere, the gold spot price rose $44.00 to $1,757.70 per ounce, and the Dollar Index plummeted 2.5 percent to 108.04.

Figure 10*. US Job Openings & Ratio of Job Openings to Unemployed Workers (Source: Bureau of Labor Statistics, Bloomberg)*

Treasuries jumped in price, and yields plunged almost instantly after CPI data was released. Large buying first concentrated on the 2-year and the 5-year notes. The yield curve initially steepened in a bullish direction, with the 2-10 year spread narrowing by 8bps to negative 41bps at one point.

At the close, 2-year yields fell 25bps to 4.33 percent and 10-year yields fell 28bps to 3.81 percent

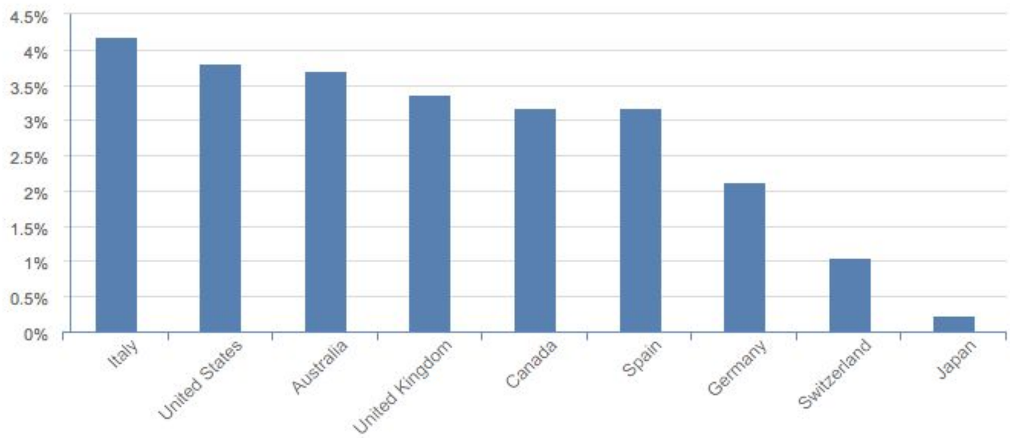


Figure 11*. 10-Year Bond Yield Chart*

Cleveland Fed President Loretta J. Mester said, “services inflation, which tends to be sticky, has not yet shown signs of slowing", and she views “the larger risks as coming from tightening too little". San Francisco Fed President Mary Daly remarked, “it was indeed good news that inflation moderated its grip a bit", but “one month of data does not make a victory”.

The Bigger Picture: The Fed's Role on FTX's Demise

The fall of one of the largest crypto exchanges, FTX, is perhaps the most shocking development among the series of insolvencies of crypto companies this year. In May 2022, Terra Luna shook the crypto-sphere as its UST stablecoin depegged from the US dollar and entered a death spiral which eventually caused the whole Terra LUNA ecosystem to collapse. It was then followed by the demise of Celsius, Three Arrows Capital. The fall of the third largest exchange and its sister company, Alameda however, potentially dwarfs the collapse of these companies.

FTX was founded in 2019 by Sam Bankman-Fried. It was quick to gain a prominent reputation in the crypto industry. FTX made many contributions towards the goal of bringing crypto into the mainstream media's attention by splashing millions of dollars in high-profile media campaigns. This included buying the stadium naming rights of the NBA team Miami Heat, calling it the FTX arena.

But how can a company like FTX rise so quickly and then collapse so quickly into insolvency?

Figure 12. *Bitcoin - USD Price (Source: Bitfinex)*

Well, certainly the Fed played a role. The Bitcoin chart paints a good picture of how the crypto industry had benefited, just like all financial markets, from the Fed's money printing frenzy which saw trillions of dollars poured into the US financial system to stimulate economic sluggishness amid the spread of Covid-19. Massive liquidity was pumped into the US economy, spreading throughout financial institutions and financial markets. Bitcoin and other digital assets surged in price. Bitcoin reached its all-time high of $67500 on November 9 2021. FTX rode the wave and was able to grow as a company in a lightning-fast manner as money poured in from investors: SoftBank, Tiger Global, BlackRock, Ontario Teachers' Pension Plan and many others backed the company. Earlier this year, the company was valued at $32 billion.

In March 2022, the Fed started its tightening regime and since then, it has been hiking rates at an unprecedented pace. This has caused the price of most assets to plummet as liquidity has been sucked out of the system.

The impact has left the crypto industry on a slippery footing. All the time that assets were rising, crypto firms were exposed to an extremely volatile asset class. Now that fear and uncertainty dominate and liquidity is exiting the market, the fragility of the crypto industry has been exposed. Not only have crypto prices plummeted in value, but firms have shown to be poor managers of risk. In our view, the actual fault lies not with the volatile nature of the underlying assets but with the failure to assess the risk associated with the volatility and collateralisation of these assets. This seems to be what afflicted FTX, alongside potentially criminal acts of trading with customer funds without consent.

WHAT’S ON-CHAIN THIS WEEK?

FTX insolvency by the numbers

The crypto sector is experiencing its fourth $10B+ collapse this year as the FTX/Alameda empire falls apart. The FTX saga has major repercussions for the entire space, in the same way as the collapses of Terra, Celsius, and Three Arrows Capital had. This week's on-chain section delves into FTX's apparent behind-the-scenes activity, the immediate effects of their collapse, and potential spillover effects.

Sam Bankman-Fried's trading firm Alameda Research is where the tale of FTX's collapse begins. Years of assertions that Alameda and FTX were entirely independent entities have been disproved by recent developments.

It is widely reported that Alameda suffered multi-billion dollar losses in June following the collapse of Terra and the bear market price depreciation across protocols and tokens.

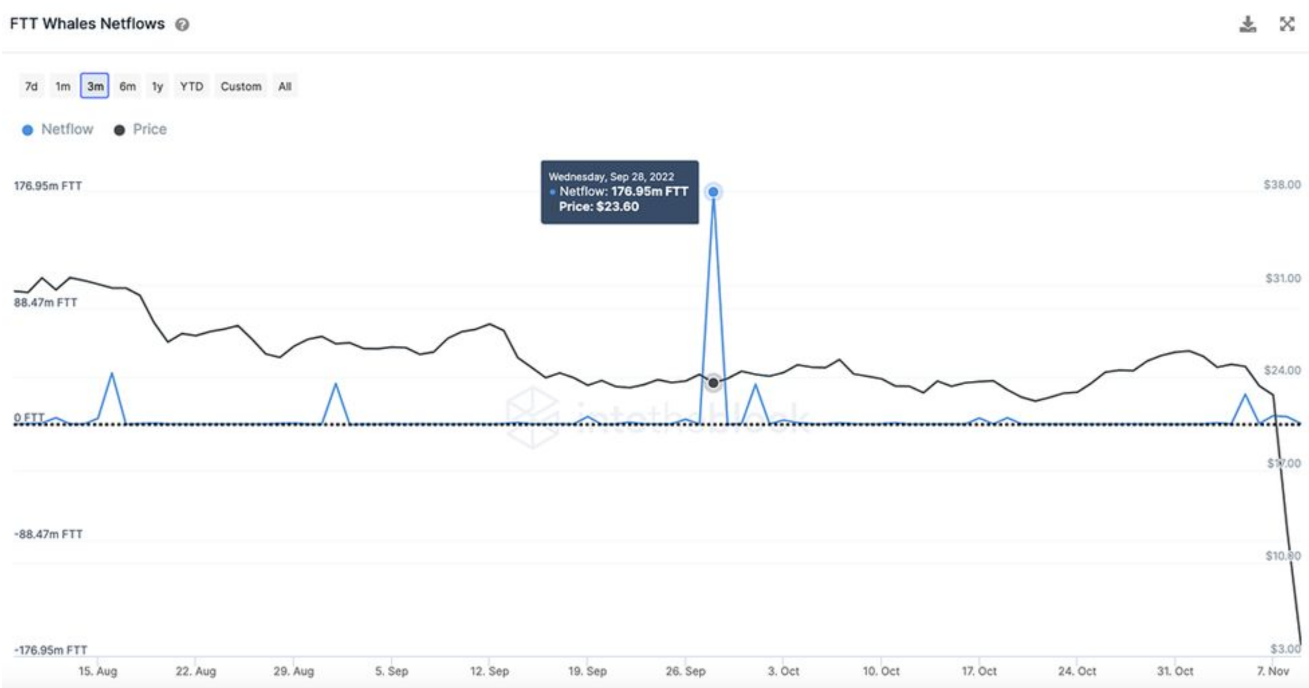


Figure 13. *FTT Large Netflows since July have been the highest across all exchange tokens. (source: IntoTheBlock)*

The Beginning of the End

There is evidence on-chain that Alameda received upwards of $4B worth of FTT.

Figure 14. *On-Chain Data shows 173 million FTT tokens worth $4 billion became active on Chain in September (Source: LucasNuzzi)*

An address labelled under Alameda vested $170M worth of FTT and immediately sent it to FTX on September 28. This transaction is believed to be Alameda repaying FTX for (at least part of) the bailout it received months earlier. In order to prevent customers and the entire space from panicking on that day, SBF tweeted the following in figure 15 below.


SBF
@SBF_FTX

Heads up: rotating a few FTX wallets today (mostly non-circulating); we do this periodically. Might be a few more coming, won't have any effect.

6:47 PM · Sep 28, 2022 · Twitter for iPhone

Figure 15. *SBF tweet from September 28*

Balance Sheet Leak

The tipping point for FTX took place when *Coindesk* ran a piece on Alameda's balance sheet.

Given the ties of the two firms have always been considered close, Alameda's balance sheet was perceived as crucial to FTX's operations. The *Coindesk* report showed that Alameda had ~$15bn of assets. $5.8bn of which was the FTT token (FTX's exchange token), $1.2bn was the SOL token (in which FTX is a major investor), $3.3bn of unidentified crypto and $2bn in equity securities.

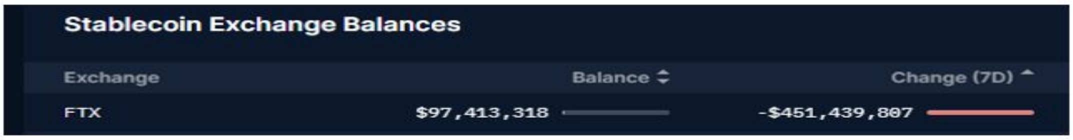
Consolidated Balance Sheet 2022 Q2

USD $	Consolidated
ASSETS	
Current Assets	
CASH and cash equivalents	134,029,230
Crypto held	3,368,393,634
Unlocked FTT	3,657,491,596
Unlocked SRM	182,791,791
Unlocked SOL	292,041,137
Unlocked MAPS	160,669,049
Unlocked OXY	37,542,707
Total Current Assets	7,832,959,144
Long Term Assets	
Locked SRM	300,808,201
Locked SOL	863,334,532
Locked MAPS	347,437,673
Locked OXY	38,010,351
Locked FIDA	19,709,059
Investment in Equity Securities	1,996,687,691
Total Long Term Assets	3,565,987,507
Other Assets	
FTT collateral	2,164,912,242
SRM collateral	318,535,528
SOL collateral	41,283,148
Oher collateral	707,612,377
Investment in Subs	180,000
Investment in debt Securities	2,000,000
Total Other	3,234,523,295
Total Assets:	**14,633,469,946**

Figure 16. *Alameda Balance Sheet as of June 30, 2022. (source: BoredInsider)*

The FTT token had extremely low liquidity in October, with daily real volume trades of $10–20 mm. Therefore, it is clear that Alameda could never sell its FTT share in these markets without quickly driving the price to zero. The already illiquid balance sheet of Alameda also showed that $2.2bn of its FTT assets were collateralised by debt. So any rapid decline in the price of FTT meant margin calls to Alameda.

The reports resulted in FTX users withdrawing up to $6bn from FTX, learning from the Voyager, LUNA and other experiences this year in which customer losses have been incurred.



Stablecoin Exchange Balances

Exchange	Balance	Change (7D)
FTX	$97,413,318	-$451,439,807

Figure 17. *Stablecoin outflows from FTX were in excess of $450M last week*

The FTT token price plummeted shortly after these revelations to $2. To add to that, the non-binding rescue agreement with Binance fell through. On 10 November, FTX suspends withdrawals, solidifying that things are likely over for the exchange. Paired with Alameda’s debt position and $6bn of customer outflows in total, the exchange is, unsurprisingly insolvent. The funding gap is reported to be ~$9bn. Shortly after, a market opens up for FTX accounts, where people can sell their accounts for 5-20c on the dollar.

Contagion Ensues

The FTT token fell to its lowest levels since March 2020, with an 85% crash. It is currently predicted that 92% of holders are losing money on their FTT. Only 121 addresses (0.55% of holders) are likely still in profit.

Figure 18. FTT Financial indicators on-chain

FTX sought an estimated $9.4 billion in rescue funds, with SBF stating that the main priority was to compensate for users' lost holdings, but it did not stop renowned VC firm, Sequoia reducing its $150 million investment to zero.

As the impact began to reverberate across markets, Bitcoin set a new yearly low of $15,500, making a 77% drop from its top a year ago. Alameda's second-largest holding, SOL, is trading at $14.48, down from its bull market peak of $250.

Bitcoin Holders Profit and Loss supply analysis

Bitcoin's price is the lowest it has been in two years. We revisit the circulating supply on the largest crypto asset to assess where we stand in the cycle.

As a general principle, throughout the Bitcoin market cycles, the circulating supply is a combination of two divisions;

Supply in Loss: All coins that have a cost basis lower than the current spot price

Supply in Profit: All coins that have a cost basis higher than the current spot price

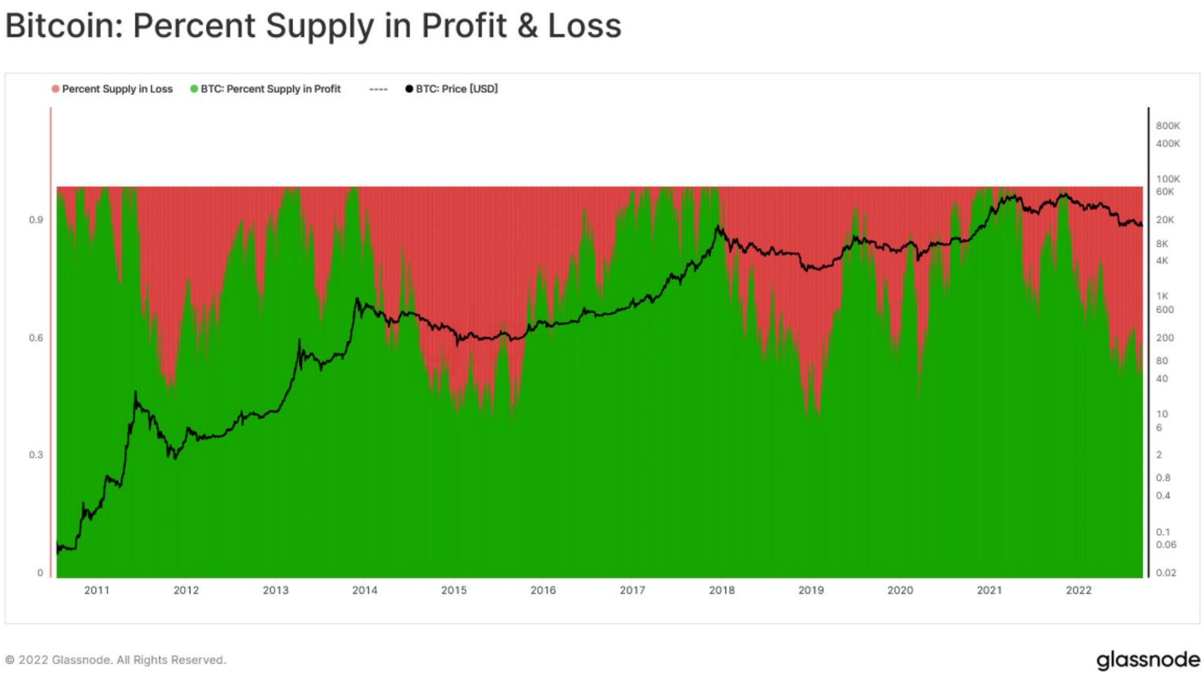


Figure 19. *Percent Supply in profit and loss for BTC. (source: glassnode)*

Considering the previous market cycles, there are three distinguishing states in each cycle:

Bottom Discovery (Loss-Dominance)🟥: At the very last stages of the bear market, when an extended period of price depreciation causes the share of supply in loss to be dominant (Percent of Supply in Profit < 55%)

Euphoria (Profit-Dominance)🟩: When a parabolic price uptrend is in play during the bull market, the share of supply in profit becomes dominant (Percent of Supply in Profit > 95%)

Bull/Bear Transition (Profit-Loss Equilibrium)🟧: The transition periods between the other two described conditions, where supply profitability remains close to equilibrium. (55% < Percent of Supply in Profit < 95%.)

The cost basis of a specific cluster of market investors is equal to the aggregated unrealised USD value divided by the volume of coins owned by this cluster. The following chart demonstrates the Relative Unrealized Profit or total profit in USD of all coins in existence whose price at realisation time was lower than the current price normalised by the market cap.

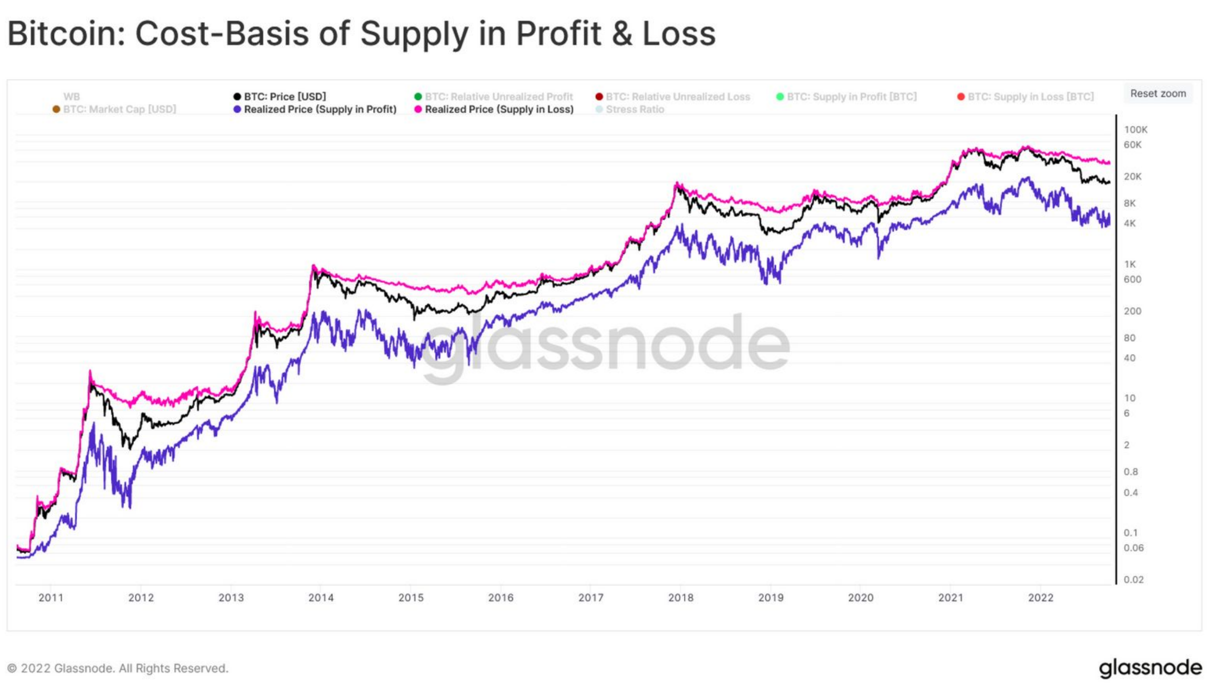


Figure 20.*Bitcoin - USD Price (Source: Bitfinex)*

The shrinking profitability is apparent in the figure. Bear markets usually consist of periods of stress testing shrinking profitability, while bull markets stress test expansion of profitability.

With the attached data, it is apparent from previous cycles that we are halfway into a bear market. The supply in loss is at a similar distance from the median supply as the latter stages of previous bear markets. The supply in profit is always rigid and a laggard, it remains to be seen if this black swan event can mark that sharp fall in supply in profit for BTC, and we can witness a bottom formation with price consolidation at these levels.

NEWS FROM THE CRYPTO-SPHERE

The FTX-Alameda Implosion

Figure 21. Implosion of Crypto Giants

FTX, once one of the world's largest cryptocurrency exchange platforms, has quietly been in a significant financial crisis for some time.

It is clear that management was aware that it had a significant asset-liability mismatch, caused by what appears to be mixs use of balance sheet assets that also saw the acquisition of a range of illiquid holdings including Voyager Digital and BlockFi.

When rival cryptocurrency exchange Binance backed out of a non-binding agreement to acquire FTX, after customers withdrew almost $6 billion, it set off a cascade of events that led to the company filing for bankruptcy, entering into chapter 11 proceedings on Thursday, November 11.

FTX CEO Sam Bankman-Fried, popularly known as SBF, resigned on Friday, November 12. His estimated net worth plummeted by billions nearly overnight in what Bloomberg called "one of history's greatest-ever destructions of wealth.". A week prior to its demise, SBF's fortune was worth more than $15 billion according to Bloomberg's Billionaire index.

At the heart of the issue is FTX's native token, FTT, and FTX's operations with its sister company, Alameda Research.

We have constructed a timeline to explain the confluence of events that led to this point.

A Timeline that Lead to the Implosion:

November 2017 – SBF started Alameda Research

SBF started the quantitative cryptocurrency trading firm Alameda Research in October 2017. Aside from day-to-day trading, Alameda invested heavily in decentralised finance (DeFi) projects. According to Crunchbase, the firm invested in more than 185 companies.

May 2019 – SBF started FTX

According to SBF, he made the money to start FTX from an arbitrage opportunity in 2018 when Bitcoin cost more in Japan than it did in the US. Alameda could trade on FTX as the exchange's market maker. This wouldn't be allowed in regulated markets because of the apparent conflict of interest and the ability to trade against FTX's own customers. However, because of crypto's lack of regulation, this operation was allowed to take place for years.

December 2019 – Binance announced a strategic partnership with FTX

Binance made a strategic investment in FTX in December 2019. According to SBF, "the investment will help accelerate the growth of FTX with support and strategic advisory from Binance while FTX maintains its independent operations."

2021 - Binance Sold its FTX Equity In Exchange for FTT tokens and USD

In 2021, Binance exchanged $2.1 billion in FTT and USD for a portion of its ownership (in FTX).

A closer look at 2020 – 2022 - The Rise Of FTX

Over the years, FTX and Alameda worked closely together, complementing one another and helped fuel both companies' rapid ascent. FTX's growth was also helped by the quantitative easing policies of the Fed (see our General Market Update), which supercharged the 2021 crypto bull run and brought Bitcoin to a peak of over $69000 in November 2021.

At FTX's peak, SBF marketed FTX and himself heavily to increase its recognition and its brand value. FTX had multiple sports sponsorships including the Miami Heat FTX Arena, Mercedes-AMG Petronas Formula 1 racing team, MLB's umpire uniform patch partnership, and athlete sponsorships like Tom Brady and Stephen Curry. For sports fans, FTX was suddenly everywhere.

SBF also successfully painted himself as a philanthropist and billionaire public thinker.

Figure 22. *Sam Bankman-Fried posed for front-cover of Forbes Magazine (Source: Forbes)*

FTX and SBF's reputation was of great assistance in pushing the value of FTX's native token, FTT. This was vital to Alameda's operations given the amount of FTT on its balance sheet. The aggressive media promotion distracted people from what was happening inside FTX.

November 2, 2022- Cracks In The Foundations of FTX Exposed

On November 2, *Coindesk* broke an incriminating story after it claimed to have obtained Alameda Research's balance sheet. The report showed that the foundation of Alameda was principally its holdings of FTT. According to *Coindesk*, Alameda Research held as much as $5.8 billion in FTT.

As of June 30, the company's assets amounted to $14.6 billion, with its single largest asset: $3.66 billion of "unlocked FTT" and the third-largest asset a $2.15 billion pile of "FTT collateral". Moreover, there were also FTT among its $8 billion worth of liabilities, $292 million of which are "locked FTT". Therefore, much of its net equity (total assets less the total liabilities) was in its sister company's centrally controlled token, FTT.

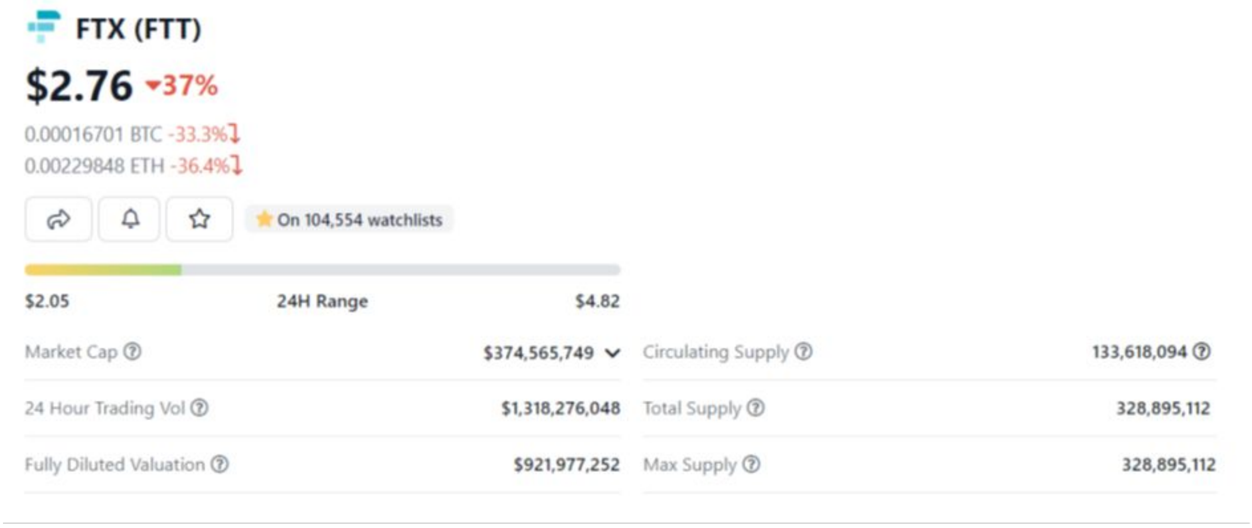


Figure 23. *FTT token fell significantly following the Coindesk article*

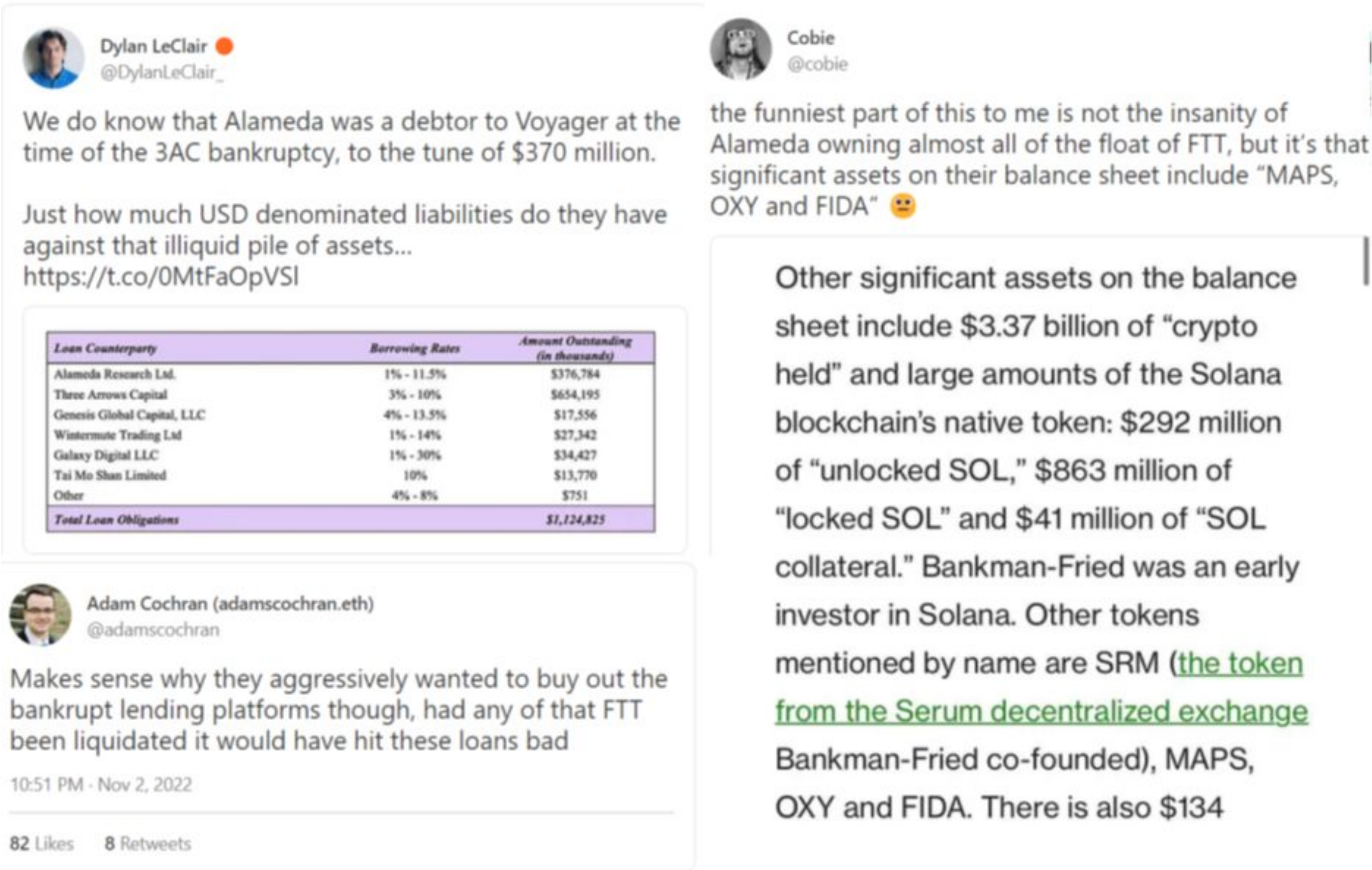
The *Coindesk* report also reveals that FTX and Alameda were cooperating for the entirety of their existence and that Alameda has played a vital role in its operation:

1. FTX creates FTT

2. Alameda buys FTT at discounted price

3. FTX pumps FTT price by incentivising its exchange users to hold the tokens (offering trading discounts and voting rights for token listings, airdrops, etc.). FTX also pumps FTT through token buyback and token burning (1/3 of FTX's trading revenue was used to purchase and burn FTT supply)

4. Alameda uses FTT as collateral for FTX, borrowing “real” assets taken out of FTX customers' deposits. This took FTX's assets out of their custody and tied them up mainly in loans Alameda can't repay against actual customer liabilities.



Dylan LeClair
@DylanLeClair_

We do know that Alameda was a debtor to Voyager at the time of the 3AC bankruptcy, to the tune of $370 million.

Just how much USD denominated liabilities do they have against that illiquid pile of assets...
https://t.co/0MtFaOpVSl

Loan Counterparty	Borrowing Rates	Amount Outstanding (in thousands)
Alameda Research Ltd.	1% - 11.5%	$376,784
Three Arrows Capital	3% - 10%	$654,195
Genesis Global Capital, LLC	4% - 13.5%	$17,556
Wintermute Trading Ltd	1% - 14%	$27,342
Galaxy Digital LLC	1% - 30%	$34,427
Tai Mo Shan Limited	10%	$13,770
Other	4% - 8%	$751
Total Loan Obligations		$1,124,825

Adam Cochran (adamscochran.eth)
@adamscochran

Makes sense why they aggressively wanted to buy out the bankrupt lending platforms though, had any of that FTT been liquidated it would have hit these loans bad

10:51 PM · Nov 2, 2022

82 Likes 8 Retweets

Cobie
@cobie

the funniest part of this to me is not the insanity of Alameda owning almost all of the float of FTT, but it's that significant assets on their balance sheet include "MAPS, OXY and FIDA" 🙁

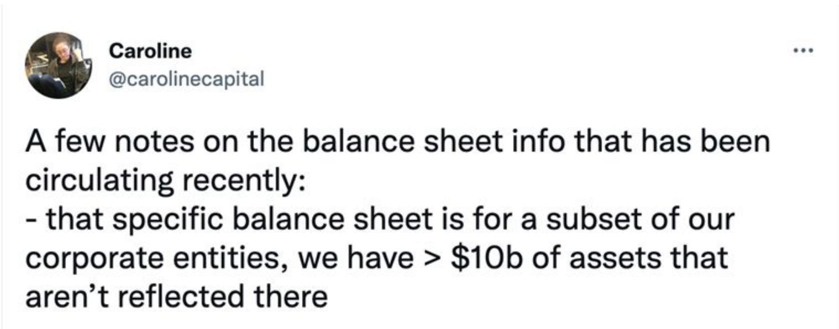
Other significant assets on the balance sheet include $3.37 billion of "crypto held" and large amounts of the Solana blockchain's native token: $292 million of "unlocked SOL," $863 million of "locked SOL" and $41 million of "SOL collateral." Bankman-Fried was an early investor in Solana. Other tokens mentioned by name are SRM (the token from the Serum decentralized exchange Bankman-Fried co-founded), MAPS, OXY and FIDA. There is also $134

Figure 24. *The FTX-Alameda Issue quickly spread like wildfire on Twitter and has been discussed by influential Twitter Accounts: @DylanLeClaire_ , @cobie, @adamscochran.eth*

November 4, 2022 - Crypto investors and traders start to speculate

Fear and speculation began to stir up predominantly on Twitter. Alameda's balance sheet raised concerns about FTX and the possibility of systemic risk.

November 6, 9:32 AM, EST – Caroline Ellison, CEO of Alameda, confirms the Coindesk report



Caroline
@carolinecapital

A few notes on the balance sheet info that has been circulating recently:
- that specific balance sheet is for a subset of our corporate entities, we have > $10b of assets that aren't reflected there

Figure. Caroline Ellison, CEO of Alameda confirms Coindesk report

Ellison Tweeted: “A few notes on the balance sheet info that has been circulating recently: - that specific balance sheet is for a subset of our corporate entities, we have > $10b of assets that aren’t reflected there”

November 6, 10:47 am, EST – The First Domino Fell: CZ’s announcement

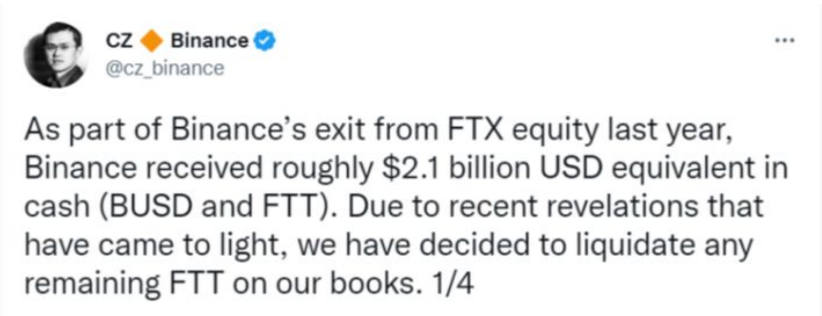


Figure 25. *CZ’s announcement of exit from FTT*

Changpeng Zhao, commonly known as "CZ", CEO and co-founder of Binance, [announced the decision to liquidate FTT] on his books as part of their risk management.

The market for FTT spiralled into panic and sold off significantly as a result. Additionally, investors pulled their money out of FTX because of insolvency rumours.

November 6, 11:03 AM, EST – The tweet that served as a final catalyst

At that time, when FTT was trading at $22, [Caroline responded] to CZ’s tweet:

Figure 26. *Caroline’s Response to CZ’s Announcement*

November 7 – FTX is running low on Reserves

It soon became apparent on-chain that FTX is running low on reserves. Investors started to panic, and the mass exodus from FTX began. FTT selling pressure increased further.

November 7, 1:00 PM, EST – SBF reassures users, then deletes tweets

SBF comes out to say that they are processing billions of dollars of monetary flows and will continue doing so. SBF attempted to reassure users that FTX has enough funds to cover all client holdings. A tweet that was later deleted.

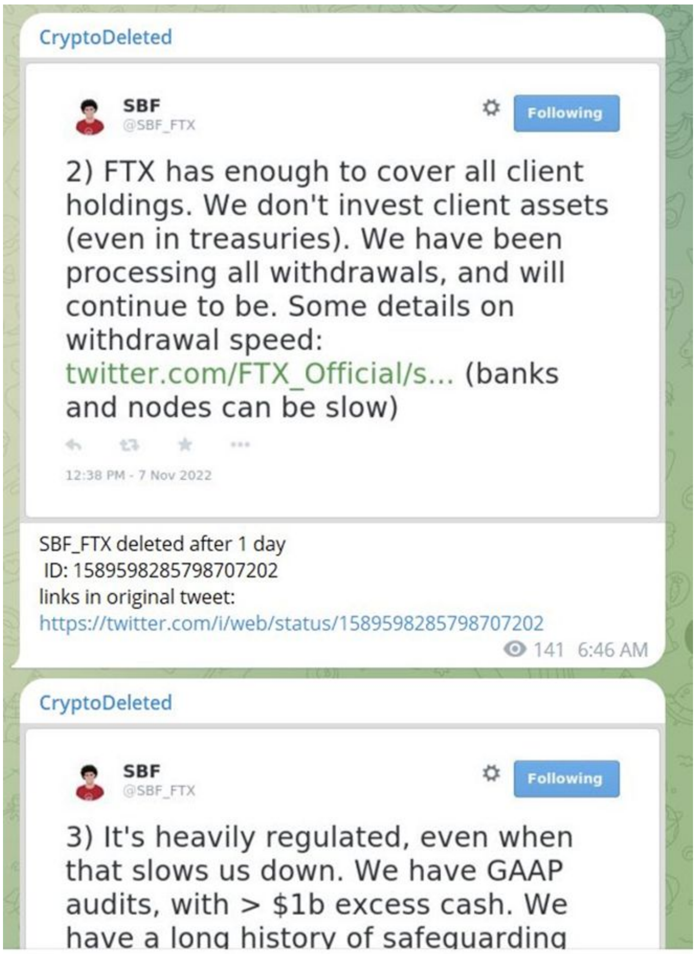


Figure 27. *Sam Bankman-Fried's deleted tweet*

November 8, 8:53 AM, EST – FTX Withdrawals stopped

FTX halted withdrawals first slowly for select regions, then suddenly, altogether.

November 9 – FTX Non-Binding Agreement with Binance

CZ announced a non-binding agreement with Binance:

Figure 28. *CZ's announcement of plan to acquire FTX*

November 9 2022 – Binance walked away as quickly as it arrived

CZ walked away from his bailout for FTX as promptly as he offered help. Binance said that reports of "mishandled customer funds and alleged US agency investigations" had swayed its decision.

Binance explained in another statement on Twitter that the issues faced by FTX were beyond their control or ability to help.

"Every time a major player in an industry fails, retail consumers will suffer. Over the last several years, we have seen that the crypto ecosystem is becoming more resilient. We believe in time that outliers that misuse user funds will be weeded out by the free market", the statement read.

The exchange added that "as regulatory frameworks are developed, and as the industry continues to evolve toward greater decentralisation, the ecosystem will grow stronger".

November 9 – More Information Unravelled

Alameda, FTX ventures, and FTX websites were down, and most of FTX's legal and Compliance teams quit. Furthermore, the SEC is investigating FTX for the use of customer assets to fund its operations with Alameda. It had become apparent that FTX was insolvent, alongside founder SBF, who had previously thrown lifelines to falling crypto platforms with dwindling options.

Just as the contagion from the Luna death spiral contagion rippled across the crypto sphere earlier this year, the FTX implosion quickly spread across the community from retail traders to large institutions.

It appears that FTX’s downfall was sown months earlier. FTX must have provided a bailout for Alameda in the second quarter, when 173 million FTT tokens worth 4 billion USD became active on-chain.

Data-backed evidence suggests that Alameda received an infusion of FTT, and would likely have sunk alongside Three Arrows, were it not for that infusion. Several months later, the 172 million FTT guaranteed to vest appeared to be used as collateral again when Alameda bailed out Voyager on the news of its exposure to Three Arrows Capital. The bailout solidified FTX's reputation as a solvent institution which increased FTT's price. The bailout likely put a dent in FTX's balance sheet, threatening its solvency.

The list of FTX backers and investors who will be impacted in one way or another is extensive. FTX acquired funding from the following investors: BlackRock, Ontario Pension Fund, Sequoia, Paradigm, Tiger Global, SoftBank, Circle, Ribbit, Alan Howard, Multicoin, VanEck, and Temasek.

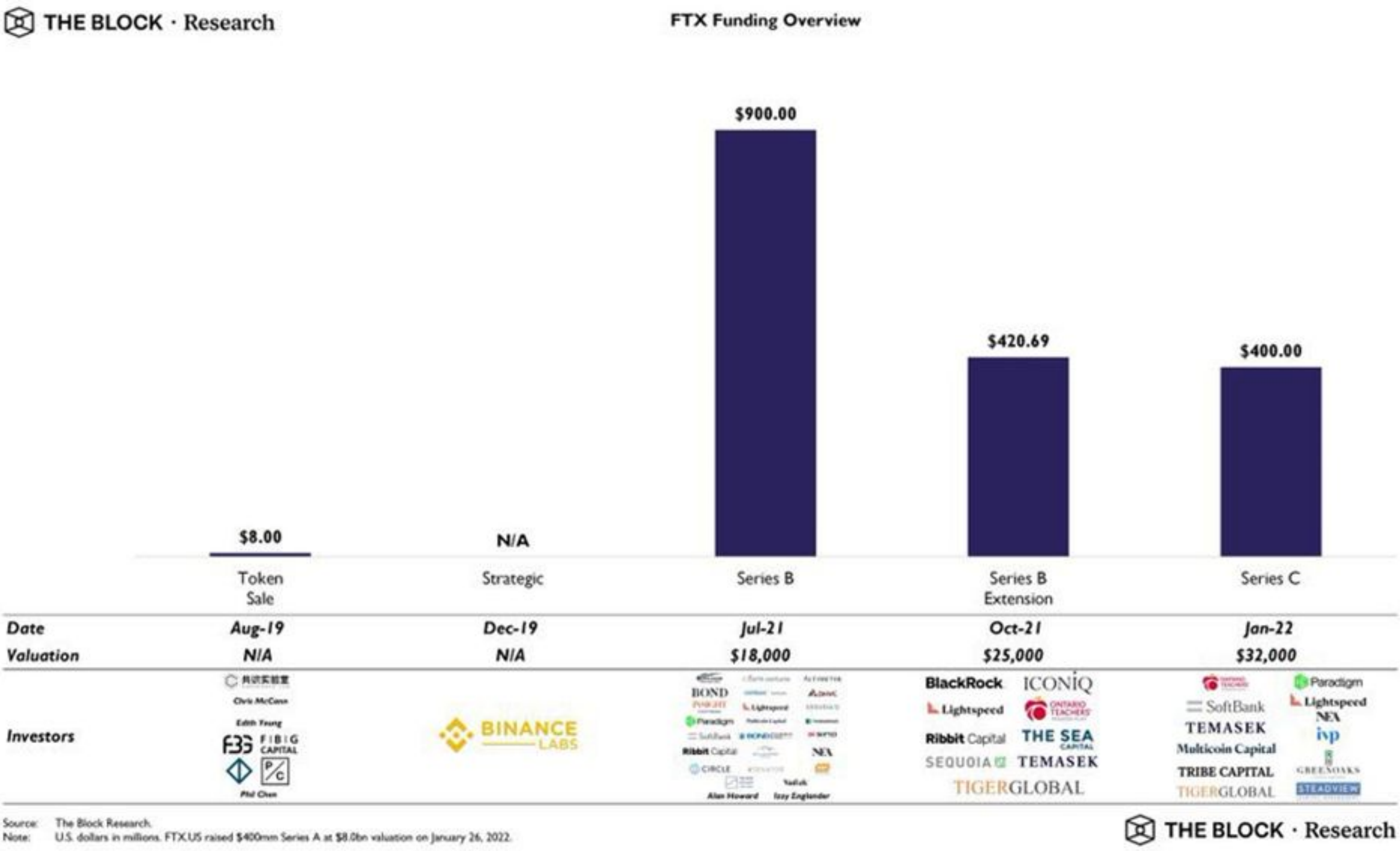


Figure 29. *FTX funding Overview (source: TheBlock)*

The following are (or will be) also affected by FTX insolvency:

1. Galaxy Digital's $77 million exposure to FTX.

2. Investment Firm Multicoin Capital's 10% AUM (Assets under management) exposure to FTX.

3. DeFi capital Market, TrueFI's $12m exposure to Alameda.

4. Centralised exchange, Bybit's 100 M $BIT tokens.

5. FTX & Alameda's (previously) more than $2b SOL exposure.

6. Alameda's exposure to liquidity transport protocol, Stargate Finance tokens, STG.

7. Jump Capital's strong ties with FTX & Alameda.

8. Alameda's investments in Aptos Network and Sui Network.

9. BlockFI, which FTX bailed out.

10. Ambergroup, which has significant holdings in FTX.

11. Genesis Trading, which lost $7 million after it hedged and sold collateral in anticipation of market volatility.

November 11, 9:14 AM EST - FTX Files for Bankruptcy

FTX Group Companies Commence Voluntary Chapter 11 Proceedings in the United States
Begin Orderly Process to Review and Monetize Assets for Benefit of Global Stakeholders
John J. Ray III Appointed Chief Executive Officer; Sam Bankman-Fried Resigns

FTX Trading Ltd. (d.b.a. FTX.com), announced today that it, West Realm Shires Services Inc. (d.b.a. FTX US), Alameda Research Ltd. and approximately 130 additional affiliated companies (together, the "FTX Group"), have commenced voluntary proceedings under Chapter 11 of the United States Bankruptcy Code in the District of Delaware in order to begin an orderly process to review and monetize assets for the benefit of all global stakeholders.

John J. Ray III has been appointed Chief Executive Officer of the FTX Group. Sam Bankman-Fried has resigned his role as Chief Executive Officer and will remain to assist in an orderly transition. Many employees of the FTX Group in various countries are expected to continue with the FTX Group and assist Mr. Ray and independent professionals in its operations during the Chapter 11 proceedings.

"The immediate relief of Chapter 11 is appropriate to provide the FTX Group the opportunity to assess its situation and develop a process to maximize recoveries for stakeholders," said Mr. Ray. "The FTX Group has valuable assets that can only be effectively administered in an organized, joint process. I want to ensure every employee, customer, creditor, contract party, stockholder, investor, governmental authority and other stakeholder that we are going to conduct this effort with diligence, thoroughness and transparency. Stakeholders should understand that events have been fast-moving and the new team is engaged only recently. Stakeholders should review the materials filed on the docket of the proceedings over the coming days for more information."

Excluded Subsidiaries

The following subsidiaries are not included in the Chapter 11 proceedings: LedgerX LLC, FTX Digital Markets Ltd., FTX Australia Pty Ltd. and FTX Express Pay Ltd..

Figure 30. FTX official Release Posted on Twitter

November 11 – Contagion Continues, and Panic Spreads like wildfire

In a tweet on November 11, 1 am EST, SBF, tweeted that he is sorry about his lack of communication and reassured his users that his #1 priority is "doing right by users". SBF further said in a tweet that he will be doing everything he can to raise liquidity but can't promise anything - "I'm going to try. And give anything I have to it that will make it work".

As of Sunday (November 13), the price of Solana (SOL), a layer-one protocol that has received significant support from SBF and Alameda, has dropped 58% from a Saturday (November 5) high of $38.80 to a current price of $14.31. Serum (SRM), a decentralised cryptocurrency exchange based on Solana, has also taken a beating, with its price dropping 39% in the last 24 hours to $0.41.

About $1 billion in Ether, $950 million in USDC Coin (USDC), $400 million in Tether (USDT), and $195 million in Binance USD (BUSD) have been removed from crypto exchanges on Thursday, November 11, as reported by blockchain analytics platform *Nansen*.

The price of major coins plummeted, and Bitcoin dropped to its lowest level (15.6k on Thursday, November 10) in almost two years.

November 11, 11:08 PM – FTX got Hacked

On November 12, more than $600 million in cryptocurrency was moved off FTX by blackhats. Shortly after that, FTX announced on its official Telegram channel that it had been hacked and urged users not to install any new upgrades and delete FTX apps.

"FTX has been hacked. FTX apps are malware. Delete them. Chat is open. Don't go on the FTX site as it might download Trojans," wrote an account administrator in the FTX Support Telegram chat. FTX General Counsel Ryne Miller pinned the message.

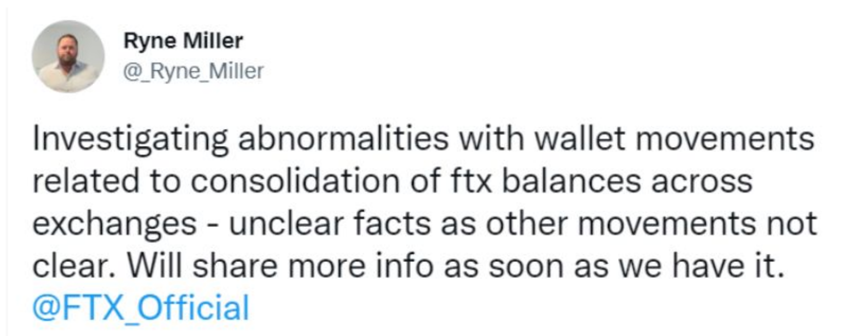


Figure 31. *FTX confirmed the abnormal wallet movements*

November 13 Update

BlockFi, the crypto lender bailed out by FTX earlier this year, has blocked withdrawals only two days after assuring users that it was fully operational.

Late Thursday, BlockFi announced that it could not function normally because of the instability at FTX.com, FTX US, and Alameda Research. This came after company co-founder Flori Marquez had tweeted that BlockFi remained an independent entity despite its bailout deal with FTX, suggesting that it was largely unaffected by the exchange's implosion.

In July, as competing lenders Celsius and Voyager declared bankruptcy, FTX stepped in to save BlockFi by agreeing to support them with a $400 million credit facility. Bankman-Fried stepped in as the crypto world's saviour when BlockFi could not secure desperately needed cash elsewhere. BlockFi's cracks are directly linked to this lifeline.

The ripple effect of FTX's demise has yet to be seen because of the industry's intricate web of interdependencies.

Commitment to proof-of-reserves

Figure 32. *Bitfinex starts Proof-of-Reserve (PoR) audits.*

This year, the need for crypto exchanges and businesses to be transparent about their reserve holdings was brought into sharp focus after numerous insolvencies and FTX's demise. Bitfinex has lead by example, and has shared a GitHub link, listing a total of 135 cold and hot wallet addresses. Bitfinex holds:

- 204338.17967717 BTC (among top Bitcoin holders)
- 2018.5 L-BTC (Liquid)
- 1000 BTC on LN
- 1225600 ETH (among top Ethereum holders)

Bitfinex also released an open-source library in June 2018 called Antani to facilitate trust on the blockchain by demonstrating solvency, custody, and delegated proof of vote.

Ardoino affirmed Bitfinex's intent to bring back the technology that privately verifies customer balances.

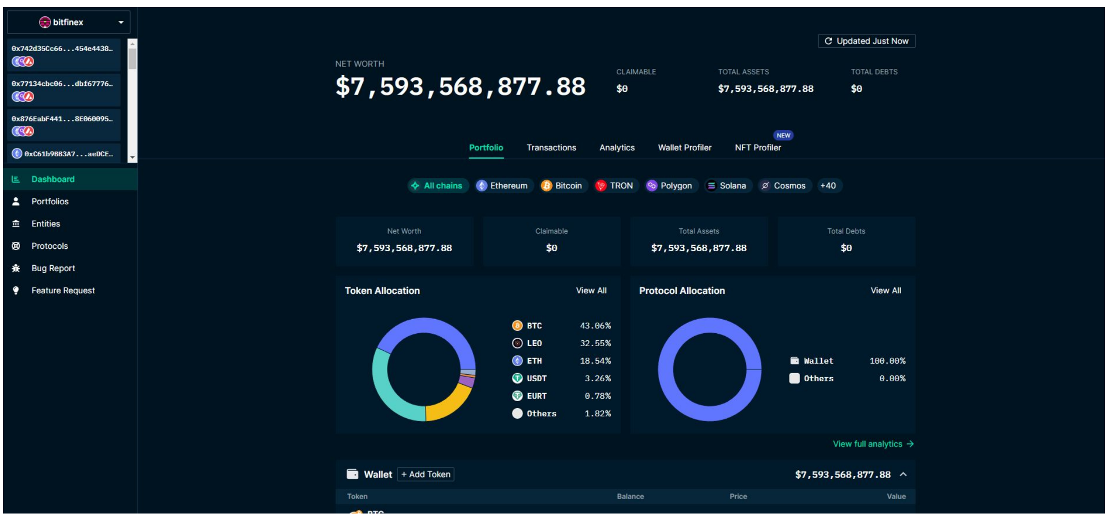
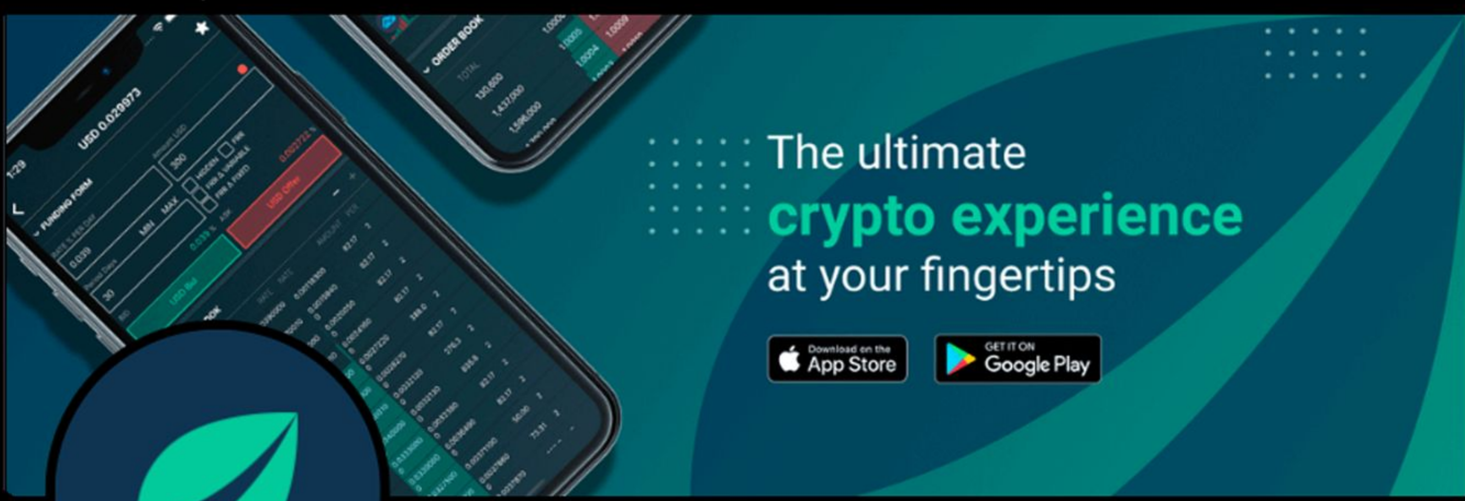


Figure 33. *Bitfinex current holdings: $7.6 Billion (Source: Nansen)*



https://t.me/bitfinex

BITFINEX Alpha