# BITFINEX



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# EXECUTIVE SUMMARY

There is just no teaching the markets. After a better than expected July CPI report on Friday, there was again another rally in risk assets.

We should not be so easily fooled. Strip out falling energy costs, and CPI is still close to the 40-year highs reported for June.

But is this the peak for inflation? Or could we go higher?

In this week's issue of Bitfinex Alpha, we analyse some of the key components of CPI, including the housing market, the job market and consumer debt. All three factors have a substantial impact on inflation, and, unfortunately, all are still pointing one way - up.

We also cover the reaction of the stock market to the CPI report and quantify the recent rally of the S&P 500. On a historical basis, it still has more to run.

One route the US government is taking to try to calm inflation is through the Inflation Reduction Act. We deep dive into this wide ranging new piece of legislation and conclude that it will not solve the immediate inflation problem but will have a gradual impact on prices.

Bear markets are for building, and unfortunately also for bad news. We got less of the former than the latter this week, including the US Treasury imposing sanctions on Tornado Cash; yet another DeFi hack with Curve Finance (the 5th largest DeFi project) being compromised; and finally Hotbit joining the list of exchanges to halt trading and withdrawals during this crypto winter.

In our regular on-chain section, we focus on the "flippening" and the continued market attention on the Merge. Ethereum options open interest continues to overshadow Bitcoin and is at an all-time high of \$8bn, with Daily Active Addresses also touching ATHs.

We also look at the wallets of the Bitcoin whales and confirm that while they have a rough time generating profits, since as far back as May, the last seven days has indicated some respite, with the Spend Output Profit Ratio rising above 1, indicating more profitable trades than loss-making ones across the market.

It all sets us up for a fascinating week to come. Enjoy Bitfinex Alpha.

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# GENERAL MARKET UPDATE

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# **Inflation Growth Eases**

The July Consumer price index (CPI) report provided a pleasant surprise for investors and traders. At a reported 8.5% YoY (year-on-year) gain and a 0% MoM (month-on-month) print, it marked a deceleration from the June 40-year high of 9.1% YoY growth and was lower than the 8.7% YoY and 0.2% MoM forecast for July. This ease in consumer sentiment was however also followed by the University of Michigan consumer sentiment index reporting a rise to 55.1 from 51.5 in July. The CPI data may give breathing room for the Fed, but the possibility of a sustained inflation downtrend in the coming months remains uncertain at best.

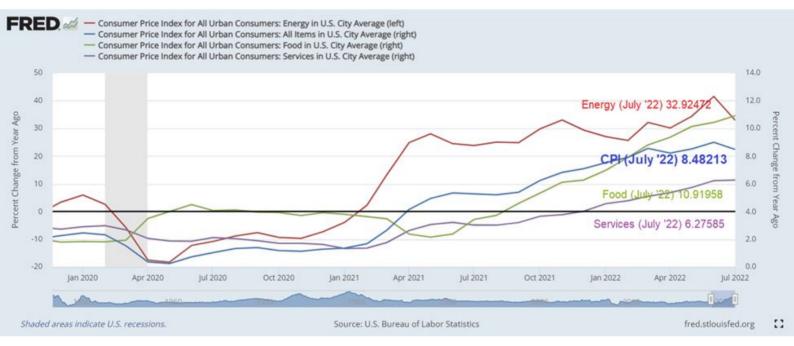


Figure 1. Consumer Price Index in Food, Energy and Services (source: FRED)

Gasoline Prices fell by 7.7% in July this year, the steepest decline since April 2020; this comes after an 11.2% rise in June this year. The collapse in energy prices probably brought the CPI print down by 0.42%. It is worth noting that without the significant drop in energy prices, year-on-year inflation would have been close to the 9.1% print reported for June. Energy prices are still up by 32.92% year-on-year, despite the fall in prices recently.

European countries continue to remain worse off. Natural gas and electricity prices have exploded higher and are up 12-15x since 2015 in most European countries. Whether it is <u>Russia cutting off Nord</u> <u>Stream supplies</u>, <u>London nearly blacking out</u>, internal conflicts about gas rationing in the EU, extremely low water levels in the Rhine, or France's nuclear electricity production running 30-40% below its 10-year average, the list of problems seems to be drastically long. One thing is certain, this will have an impact on European growth during the upcoming winter and European inflation is expected to peak in Q4 for this very reason.

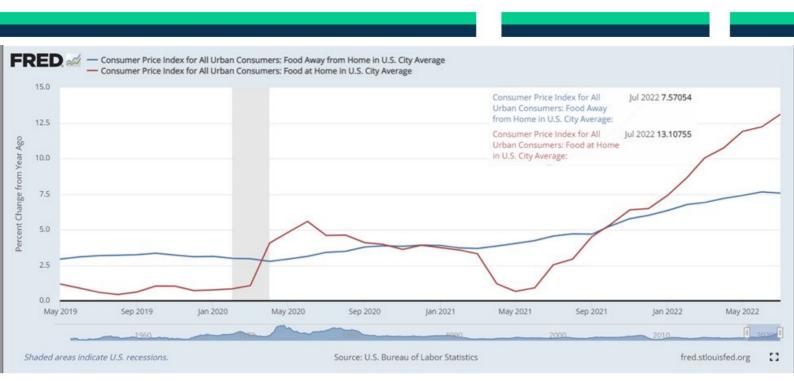


Figure 2. Consumer Price Index for Food

Food price rises usually offset the fall in gasoline prices, which climbed by 10.9% YoY and climbed by 1.1% MoM. The monthly increase in July was driven by dairy prices (up 1.7%) and beverages (up 2.3%). Food is one of the commodities within the inflation index that hits consumers in the lower income spectrum the hardest because they are forced to spend a larger portion of their wages on food. The CPI for "food at home" or food bought from stores and supermarkets increased by 1.3% from June to July this year and by 13.1% from last year. This is the steepest spike seen since 1979. For "Food away from home", which includes food bought from cafeterias, coffee shops, restaurants, and vending machines, this has increased by 0.7% from June to July and by 7.6% from last year. The year-on-year increase in "Food away from home" last June, which was 7.7%, was the worst since 1981.

CPI for services has been rising since the third quarter of 2021. It has climbed by 0.37% from June to July this year and has a year-on-year increase of 6.27%, the highest in the last four decades. CPI for services gives an insightful guide to the implicit pressure from commodity prices because it is not readily impacted by the changes in energy and raw materials. The Fed keeps an eye on service inflation because it is less volatile than merchandise and hence tougher to control.

Considering all the key components mentioned above, we notice that several have breached All-Time Highs (ATH) levels. The question that arises, therefore: has inflation finally peaked - or does it have more to run?



*Figure 3. US inflation growth YoY vs NFIB price plans (source: Stenos signals)* 

In our previous issues, we used the National Federation of Independent Business (NFIB) survey to draw firm data-backed conclusions about growth and inflation. Historically, NFIB price plans have shed light on the direction of inflation and the chart in Figure 3 shows some promise that inflation may be peaking.

The Eurodollar market has been early in indicating peak inflation, and the markets do currently expect Federal Reserve chairman Jerome Powell to take his foot off the pedal of interest rate hikes by the end of the year.

This is apparent from the relief seen in equity markets over the past month and the rally that followed the July CPI report. The key takeaway is that while there is a difference between peak inflation and a Fed pivot, there also appears to be a short-term window of opportunity for equities to continue to rally.

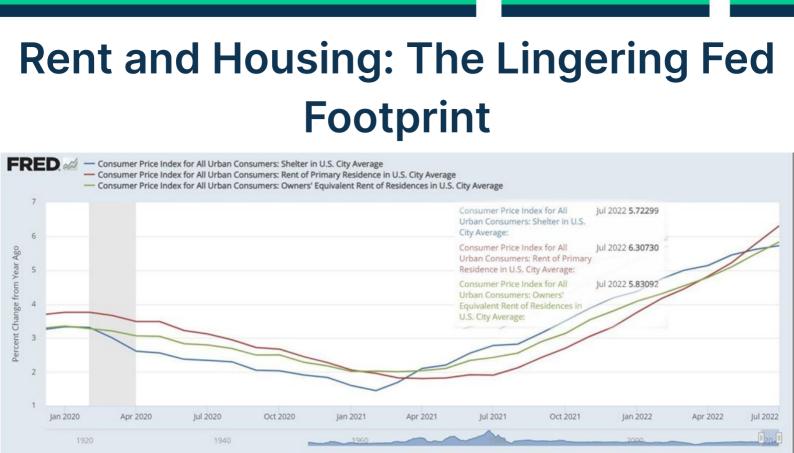


Figure 4. Consumer Price Index for Shelter Costs (source: FRED)

Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

Shelter costs make up about one-third of the overall CPI index. It climbed by 0.52% from June and 5.7% year on year – the highest climb in 30 years. The CPI for rent is included in the services CPI which consists of 31.7% of the total CPI. It has two components: the rent of a primary residence and the owner's equivalent rent of a residence.

The rent of a primary residence, which is 7.2% of total CPI, is based on actual rent payments over time. This has climbed by 0.7% from June to July and 6.3% year-on-year. The owner's equivalent rent of residences, which accounts for 23.5% of total CPI, measures home ownership as a service and is the amount homeowners would say they would rent their home for. This has increased by 0.6% MoM and 5.8% YoY.

Though both measures are still below overall CPI, a gradual increase in shelter costs will put upward pressure on inflation, considering its weight in the index.

While rents are rising, potential home buyers are delaying their plans due to higher house prices and mortgage rates. The real estate market has been on a roller coaster ride for the past two years. The Case-Schiller index reported an increase in house prices from March 2020 to December 2021, fuelled by a policy of concerted Fed intervention, which may leave its footprint for years.

In the second quarter of 2020, the Fed used its 2008 playbook to stimulate a weakening economy caused by the pandemic. It cut rates to zero and started buying long-term government bonds and mortgage-backed securities. It increased its holdings of mortgaged-backed securities by \$1.3 trillion between 2020 and 2022. Currently, the Fed holds nearly half of all mortgage-backed securities.

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fred.stlouisfed.org

Mortgage rates fell, as the Fed kept buying, resulting in a substantial increase in demand for homes. The chart below shows a spike in the risk premium at the beginning of the pandemic. It immediately fell after the Fed stepped in. It rose again when the Fed stopped buying, bringing the spread currently higher than it was pre-pandemic.

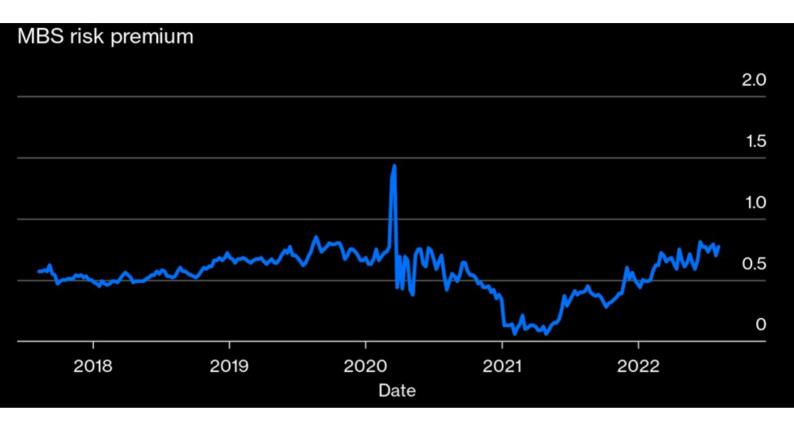


Figure 5. Risk Premium For Mortgage-Backed Securities

Now the Fed wants to shrink the size of its mortgage-backed securities portfolio by not reinvesting as mortgages are paid off. However, now that the rates are higher, fewer people will want to refinance or move, so the portfolio will not shrink as fast as the Fed would want it. The housing market will likely be slower and less liquid. The Fed's footprint on what has become a peculiar housing market will be felt for decades.

# Job Market



### Figure 6. Initial and Continued Jobless Claims

Weekly jobless claims hit 262,000 in the first week of August. This is below estimates of 265,000, though higher than the 248,000 reported for the last week of July. Continuing claims for the week that ended on July 30th have increased by 8,000 to 1,428,000. Based on data since 2020, the overall number of claims suggests that the labour market remains strong, and moreover, all jobs lost during the pandemic have now been recovered. Regardless, the job market is showing some signs of weakening.

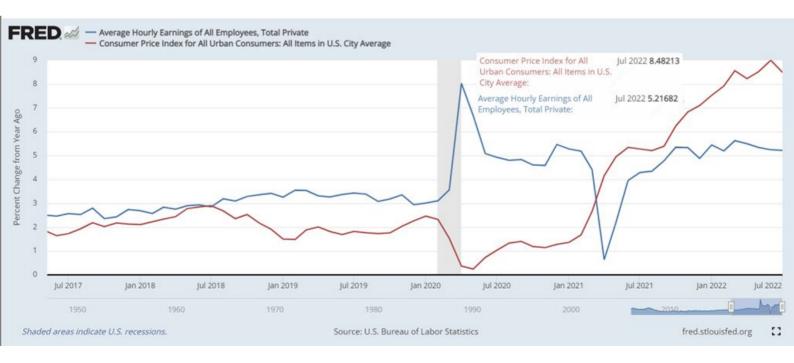


Figure 7. Consumer Price Index and Average Hourly Earnings (Year-over-year change)

According to the Bureau of Labor Statistics, average hourly earnings increased by 15 cents in July after rising 14 cents in June of this year. While many anticipate the wage increase will decelerate in line with current economic conditions, it has not happened yet. Year-on-year wage increases for private employees was 5.2% for both June and July. With current inflation rates, workers saw a 0.5% monthly increase in real wages, though private-sector wages and salaries on a real basis are still 3% down from a year ago.

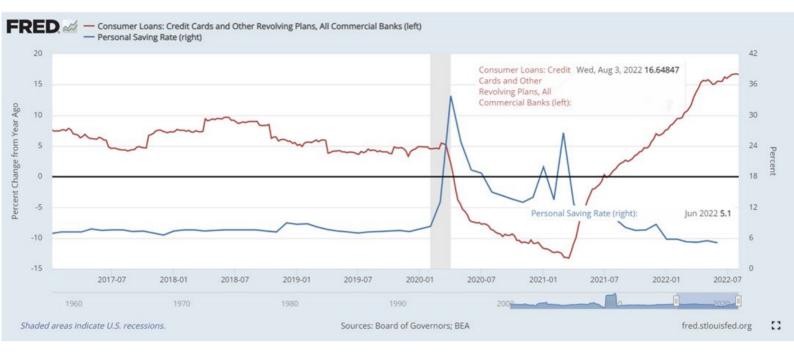
This data is backed by the Household Survey data, which was weaker in comparison to the Bureau of Labor Statistics (BLS) job report. As discussed in our previous issue (link:<u>https://bit.ly/3do6wjr</u>), the household survey correctly accounts for multiple jobholders (not counting jobholders based on the number of jobs), and it shows how since March, there have been fewer full-time and part-time workers while the number of multiple jobholders continues to increase.

| HOUSEHOLD DATA<br>Table A-9. Selected employment indicators<br>Numbers in thousands] |              |                         |              |              |              |                     |             |              |              |
|--|--------------|-------------------------|--------------|--------------|--------------|---------------------|-------------|--------------|--------------|
|  | Not se       | Not seasonally adjusted |              |              |              | Seasonally adjusted |             |              |              |
| Characteristic   | July<br>2021 | June<br>2022            | July<br>2022 | July<br>2021 | Mar.<br>2022 | Apr.<br>2022        | May<br>2022 | June<br>2022 | July<br>2022 |
| FULL- OR PART-TIME STATUS  |              |                         |              |              |              |                     |             |              |              |
| Full-time workers <sup>(3)</sup>   | 128,863      | 133,626                 | 133,844      | 127,473      | 132,718      | 132,067             | 132,800     | 132,648      | 132,577      |
| Part-time workers <sup>(1)</sup>   | 24,732       | 25,052                  | 25,223       | 25,310       | 25,902       | 26,091              | 25,766      | 25,440       | 25,824       |
| MULTIPLE JOBHOLDERS  |              |                         |              |              |              |                     |             |              |              |
| Total multiple jobholders  | 7,013        | 7,432                   | 7,572        | 7,084        | 7,370        | 7,539               | 7,302       | 7,541        | 7,63         |

### Figure 8. Household employment data monthly (source: MacroCompass)

The BLS survey reported an estimated +309k net new business openings in July - a very large number that contributed to the positive July Non-Farm Payrolls report, though was likely the result of new statistical methodology rather than underlying business openings. In a nutshell, the job market might not be as strong as it appears.

## **Ballooning Debt & Depleted Savings**



#### Figure 9. Personal Savings Rate and Year-over-year change in Consumer Credit

As rent, fuel and grocery costs rise, more people are turning to debt to cover their costs. Consumer loans for credit cards and other revolving plans have been steeply going up since April 2021 and are currently up by 16.65% from a year earlier, marking the largest increase in more than 10 years.

The personal savings rate, or the ratio between savings and disposable income, fell to levels lower than before the pandemic. This is the lowest personal savings rate seen in more than a decade. As of June 2022, the US personal savings rate is at 5.1% of the disposable income.

### Will this slow down the Fed?

While the latest inflation report was lower than expected, the question is, will it continue to come down, such that the Fed may not stop considering sizable hikes in the upcoming FOMC meetings? Based on Fed futures markets, the latest CPI print has reduced the probability from 68% to 42.5% of another 75-basis point hike in September and a 50-basis point hike has the highest probability now at 57.5%.

However, one month is too short to form a trend that would give us an estimate of when the Fed will pivot. Shelter and wages, as discussed, are the sticky elements of inflation. Moreover, while gas prices have started to come down, other components of headline inflation, like food prices, are still increasing, which puts upward pressure on inflation.



### Figure 10. Target Rate Probabilities for September 2022 FOMC Meeting (source: US Federal Reserve)

A continued strong labour market and rising wages will ensure that inflation persists. We are still far from the target 2% inflation rate. Hence the job market and shelter costs are the areas in the economy that we should keep monitoring in anticipation of a dovish Fed.

# **Stock Market Update**

While the August 5th jobs report hushed the market's debate about a recession, the recent CPI supported the narrative of "peak inflation." Stocks have gained momentum over the last few weeks and continued to rally after the latest CPI report. Nasdaq has now climbed 20% from its recent lows over the past quarter, and the S&P 500 rose above its June high on Wednesday, August 10.

A bearish perspective is built around the fact that inflation is still high at 8.5% and does not seem to have a significant effect on the economy – as shown in demand data and consumer sentiment indices. However, the market tends to react based on the rate of change rather than the absolute numbers in economic data. Even if S&P 500 closes above 4232, which is a 50% retrace, it will have further room to the upside in the following weeks.



Figure 11. S&P 500 index on Tradingview (chart to be changed)

According to the American Association of Individual Investors (AAII), sentiment returns to normal as equities indices trek higher. Its latest survey shows that 32.2% of investors are bullish on the S&P 500, which is now sitting 5% below the historical average. Bearish sentiment has come down to 36.7%, from 38.9 % since March this year.

The AAII Sentiment Survey has since 1987 offered insight into the opinions of individual investors by asking them their thoughts on where the market is heading in the next six months. Although both bullish and bearish sentiment is closing in on one another, bears continue to outnumber bulls. We are yet to see how the sentiment changes if the current price action continues.

| Week Ending Sentiment Votes Bullish Neutral Bearish |       |            |                       |  |  |  |  |  |  |
|---|-------|------------|-----------------------|--|--|--|--|--|--|
| 8/10/2022   | 32.2% | 31.2%      | 36.7%                 |  |  |  |  |  |  |
| 8/3/2022  | 30.6% | 30.6%      | 38.9%                 |  |  |  |  |  |  |
| 7/27/2022   | 27.7% | 32.2%      | 40.1%                 |  |  |  |  |  |  |
| 7/20/2022   | 29.6% | 28.2%      | 42.2%                 |  |  |  |  |  |  |
| Historical View                                     |       |            |                       |  |  |  |  |  |  |
| Historical Averages                                 | 38.0% | 31.5%      | 30.5%                 |  |  |  |  |  |  |
| 1-Year Bullish High:                                | 48.0% | Week       | Ending 11/10/2021     |  |  |  |  |  |  |
| 1-Year Neutral High                                 | 40.6% | Week Endir | ng 3/30/2022          |  |  |  |  |  |  |
| 1-Year Bearish High                                 | 59.4% |            | Week Ending 4/27/2022 |  |  |  |  |  |  |

Figure 12. American Association of Individual Investor (All) Market Sentiment Survey

# **Inflation Reduction Bill**

While the Fed is making the most of the tools at its disposal to tame inflation, the Senate is brewing a massive climate, health care and tax bill, named the Inflation Reduction Act. The Bill passed the Senate on August 7 and was voted on by the House on August 12.

#### What is the Bill all about, and how will it "reduce inflation"?

Senator Chuck Schumer and Joe Manchin unveiled the Inflation Reduction Act on July 27, 2022. The 755-page Bill is a roughly \$700 billion package that addresses inflation by lowering energy costs, health care costs, and the federal deficit. The proposal includes a \$433 billion budget catering to energy, climate, and health care programs that aims to reduce carbon emissions by 40% by 2030. The authors also project a reduction in the deficit by over \$300 billion over the ten years through relief in inflation.

Here is a more detailed list of provisions for the proposed legislation:

#### **Provisions for Energy and Environment**

- Extend investment tax credit and production tax credit for projects that begin construction before 2025.
- Extend carbon capture tax credits to projects that begin construction before 2033 and lowers carbon capture thresholds to qualify for the tax credit
- Establish grant programs to reduce carbon emissions in a wide range of sectors.
- Establish a \$3 billion neighbourhood access and equity grant program for Federal Highway Administration to improve walkability, safety, and environmental impacts in disadvantaged communities.
- Up to 30% tax credit for commercial clean vehicle's sales prices
- A requirement for the Department of Interior to hold on-shore oil and gas lease sales within four months of issuing new on-shore wind and solar rights of way. DOI would also be required to have an offshore oil and gas lease sale of at least 60 million acres before the issuance of offshore wind leases

#### **Provisions for Finance and Taxes**

- The legislation projects a deficit reduction by over \$300 billion over next ten years through relief in inflation pressures
- The Internal Revenue Service will get additional funding to improve tax enforcement and compliance
- 15% minimum tax for corporations with profits of more than \$1 billion

#### **Provisions for Healthcare**

- Cap out-of-pocket cost of prescription drugs for Medicare beneficiaries at \$2,0000
- Provide free vaccines for Medicare beneficiaries, including COVID 19 vaccines, shingles, and other
- Extend Affordable Care Act (ACA) premium subsidies to 2025, which assist low-income individuals with obtaining health insurance on the ACA marketplace, by capping how much an individual pays out of pocket for insurance based on their income level.

The provisions above will not cause an instant relief in inflation but instead modestly slow down the growth of prices. This Bill could help the Federal reserve by reducing the federal deficit, or the difference between the government's revenues and spending.

Deficit reduction lessens the money floating in the economy and thus reduces demand and price hikes. Though it is worth noting that as the Bill also has several provisions that encourage spending, a positive net impact in taming inflation is still in question.

The Bill will also encourage the generation of renewable energy, which solves the current supply crisis in power while addressing the climate change issue. Lastly, the most direct and obvious provision of curbing price hikes is limiting consumers' max spending on prescription drugs. However, health care is just one aspect of consumer expenses, and the Bill does not cover other drivers of inflation like food and shelter costs.

Consumers will not experience a direct impact on taxes as the Bill only focuses on giant corporations. However, employees may feel the tax burden indirectly as corporations tend to pass this additional tax burden to their operations and labour spending.





# **NEWS SECTION**

### U.S. Treasury Imposes Sanctions On Cryptocurrency Mixer Tornado Cash



Figure 13. TORN token has lost more than 50% of its value following the news.

The U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) announced on 8<sup>th</sup> August that it has sanctioned crypto mixer Tornado Cash (TORN). Any citizen or entity originating in the United States is prohibited from using the decentralised protocol for private transactions on Ethereum.

After the U.S. Treasury issued its sanctions and Github took the Tornado Cash website offline by removing its repository from the site, the TORN token price began to slide.

Launched in 2019, Tornado Cash is a blockchain protocol for sending and receiving anonymous transactions by mixing Ethereum tokens with a pool of other tokens, anonymising the user. The U.S. sanctions against Tornado Cash came after the crypto mixer service was allegedly used to launder billions of virtual currency since its inception.

The figures include over \$455 million stolen by the Lazarus Group, a North Korean-sponsored hacking group sanctioned by the U.S. in 2019 and is believed to be the largest known virtual currency heist to date. (source: <u>https://home.treasury.gov/</u>)

According to the Treasury, Tornado Cash was subsequently used to launder over \$96 million of malicious cyber actors' funds derived from the Harmony bridge hack on June 24, 2022, and at least \$7.8 million from the Nomad bridge hack on August 2, 2022.

"Tornado Cash has repeatedly failed to impose effective controls designed to stop it from laundering funds for malicious cyber actors regularly and without basic measures to address its risks. Treasury will continue to aggressively pursue actions against mixers that launder virtual currency for criminals and those who assist them," said Brian E. Nelson, Under Secretary to the Treasury for Terrorism and Financial Intelligence.

The decision taken by OFAC is said to have followed the applicable legal provisions. OFAC previously agreed on May 6, 2022, to sanction Blender.io, another crypto mixer service, for allegedly being used to process more than \$20.5 million of illicit proceeds.

In the Netherlands, the Fiscal Information and Investigation Service (FIOD) is said to have begun its investigation to expose components of the virtual currency ecosystem, such as Tornado Cash and Blender.io, that cybercriminals use to obfuscate the proceeds from the illicit cyber activity and other crimes.

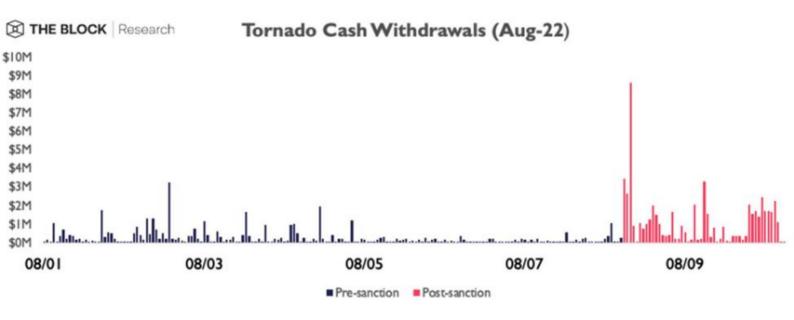


Figure 14. Tornado Cash Withdrawals in \$M (source: The Block)

As of August 12th, \$62 million had been withdrawn post-sanctions, corresponding to around 15% of the value locked in Tornado Cash. This is an interesting turn of events as the Tornado Cash DAO has also voted to take partial control of treasury funds.

While most virtual currency activity is lawful, the U.S. Treasury sees it can also be used for illicit activities, including sanction evasion through several crypto mixer services, peer-to-peer exchanges, darknet markets, and exchanges. This includes the facilitation of heists, ransomware schemes, fraud, and other cybercrimes.

The U.S. Treasury said it would continue to use its powers to combat malicious cyber actors along with other U.S. departments and agencies, as well as foreign partners, to expose, disrupt, and hold accountable perpetrators and persons that enable criminals to profit from cybercrime and other illicit activity.

A 29-year-old developer, Alexey Pertsev, suspected of being involved in the Tornado Cash protocol, was arrested in Amsterdam on 12<sup>th</sup> August. Dutch prosecutors are investigating the matter on suspicions of fraud, environmental crime and asset confiscation. A FIOD spokesperson told *CoinDesk* that the suspect will now spend 14 days in custody after being seen by an examining judge in the Den Bosch court.

### DeFi Platform Curve Finance Hacked and Over \$570,000 Stolen.

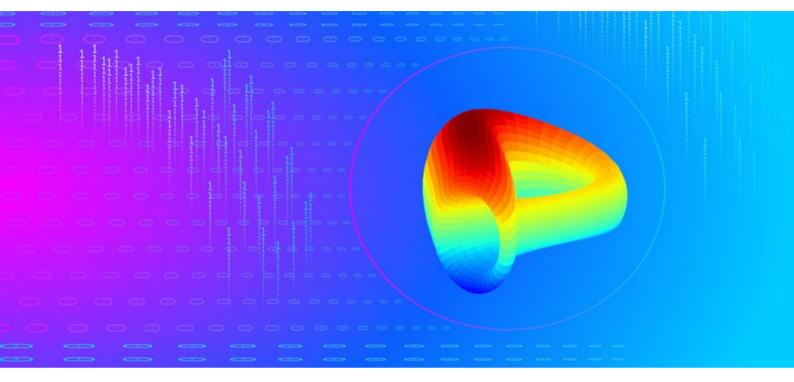


Figure 15. The hacker used a fake DNS attack to gain approval to transfer funds to private addresses.

DeFi protocol Curve Finance (CRV) reported an exploit on 9<sup>th</sup> August on its frontend site. The attacker created a fake Domain Name System (DNS) to duplicate the site.

Due to the fake DNS, users who accessed the Curve Finance frontend became potential victims of hacking. The mechanism worked with the attacker who has spoofed the Curve DNS address, asked for approval of specific contracts to transfer funds.

A Paradigm researcher who goes by the Twitter handle @samczsun, discovered this incident. In his Twitter post, he revealed that Curve's frontend was being compromised and warned Curve users not to use the protocol until further notice.

Meanwhile, the on-chain investigative account @zachxbt, revealed that hackers successfully looted about \$570,000+ and then tried to move the stolen funds using FixedFloat.

Curve Finance later appeared to confirm the ongoing exploit on Twitter, writing in response to Samczsun, "Don't use the frontend yet. Investigating!".

During its investigation, Curve found evidence that the name server, *curve.fi* had been compromised. However, no signs of hacking were found on the *curve.exchange* page. Despite this, the company cautioned all its users.

In a Twitter post, Curve Finance said the root of the problem had been found and asked that users who had approved any contracts on Curve Finance in the past few hours revoke them immediately.

"The contract that needs to be revoked is: 0×9eb5f8e83359bb5013f3d8eee60bdce5654e8881," Curve tweeted.



Curve Finance @CurveFinance

•••

The contract that needs to be revoked is: 0x9eb5f8e83359bb5013f3d8eee60bdce5654e8881 If you have approved it please revoke it immediately on revoke.cash

Curve Finance @CurveFinance · Aug 10

The issue has been found and reverted. If you have approved any contracts on Curve in the past few hours, please revoke immediately. Please use curve.exchange for now until the propagation for curve.fi reverts to normal

2:58 AM · Aug 10, 2022 · Twitter Web App

Figure 16. Curve Finance updated the exact contract that caused the issue.

Curve is a substantial DeFi application with a *total locked value* (TVL) of \$5.98 billion. Its ecosystem was ranked 5th for TVL according to Defi Llama.

### Novogratz's Galaxy Digital Reports Losses of Over Half A Billion Dollars In Q2 2022



# Figure 17. The net comprehensive loss was \$554.7 million, compared to a \$182.9 million loss in the prior year.

Crypto investment firm Galaxy Digital (GLXY) announced on 8<sup>th</sup> August a loss of over \$500 million due to unrealised losses on their digital assets.

Unrealised loss refers to the loss of money through an asset whose price has fallen but has not yet been sold. The loss in the second quarter of 2022 reached \$554.7 million, which was partly due to the decline in digital asset prices.

The recorded loss in the first quarter of 2022 reached \$111.2 million. That means Galaxy Digital's losses for the second quarter of 2022 increased by more than 350% compared to the first quarter of 2022.

Mike Novogratz, founder and CEO of Galaxy Digital, said he supports the company's latest results. "I am proud of Galaxy's outperformance during a challenging market and macroeconomic environment. Prudent risk management and our commitment to exacting credit standards allowed us to maintain over \$1.5 billion in liquidity, including over \$1.0 billion in cash," said Michael Novogratz.

Meanwhile, the company's net digital asset position was \$474.3 million, of which \$256.2 million was held in non-algorithmic stablecoins. Galaxy net digital assets however are still substantially lower than the first quarter of 2022, with reported net digital assets of \$910.5 million.

The decline was mainly driven by the sale of certain liquid positions to increase Galaxy Digital's cash position, as well as the decline in overall digital asset prices, it said.

"We remain in a strong position to weather prolonged volatility and to take advantage of strategic opportunities to grow Galaxy in a sustainable manner," said Novogratz.

Meanwhile, Galaxy Digital Partners' capital reached \$1.8 billion at the end of the second quarter of 2022, an increase of 23% from \$1.5 billion at the end of 2021. However, capital is still down 27% in comparison to \$2.5 billion in the first quarter of 2022.

Galaxy Digital said this is due to the losses reported in the second quarter and to a total reduction in cryptocurrency market capitalisation of around 56% during the quarter.

In addition, Galaxy *total value locked* (TVL) in the decentralised finance (DeFi) sector has decreased approximately 51% quarter-over-quarter to \$39 billion during the second quarter of 2022.

Galaxy Digital is known to be one of the parties hit by the destruction of the Terra project in the second week of May 2022. The company had invested in the Terra ecosystem since the 4th quarter of 2020, before the digital asset entered the Top 10 crypto projects.

Novogratz emphasised that Galaxy Digital will be able to survive the collapse due to the diversity of its portfolio, its ability to take profit using its risk management framework, and understanding that its investments will be affected by macro events.

### Hotbit Suspends Trading Services Due To Suspected Criminal Cases.



# Figure 18. The crypto exchange joins an array of centralised service providers suspending withdrawals and trading.

Hotbit, a Hong Kong-based crypto exchange, announced on 10<sup>th</sup> August, that it had temporarily suspended its website service. The company suspended withdrawal, trading, and funding functions indefinitely.

The company was forced to take this action because there were allegations against a former employee who was involved in a separate project, while at Hotbit.

"Hotbit and...its management are not involved in the project and have no knowledge of the illegal information involved in the project," the company's statement read.

Although they did not specify which project they were referring to, Hotbit's management explained that the reason for the suspension of commercial services was because the relevant legal authorities had frozen part of the company's funds. As a result, the company's operations had to be halted as its funds could no longer be accessed.

In addition, several senior Hotbit managers said they were also actively involved in assisting law enforcement in the context of investigations. The company said it guarantees that consumer assets and data are entirely secure. They also continuing to seek the release of assets that have been frozen by authorities.

"The assets of all users are safe on Hotbit. Hotbit will resume normal service as soon as the assets are unfrozen," the company's statement read. The company also added that any *open orders* that have been placed but not filled would be cancelled before Hotbit's service is restored, to prevent losses due to market fluctuations.

In addition, all user's leveraged ETF positions will be forcibly liquidated according to the relevant net values. Hotbit will also distribute income from investment products as usual.

The company also intends to compensate users for the sudden cessation of trading. However, Hotbit did not explain in detail what form of compensation they would provide and how this might work.

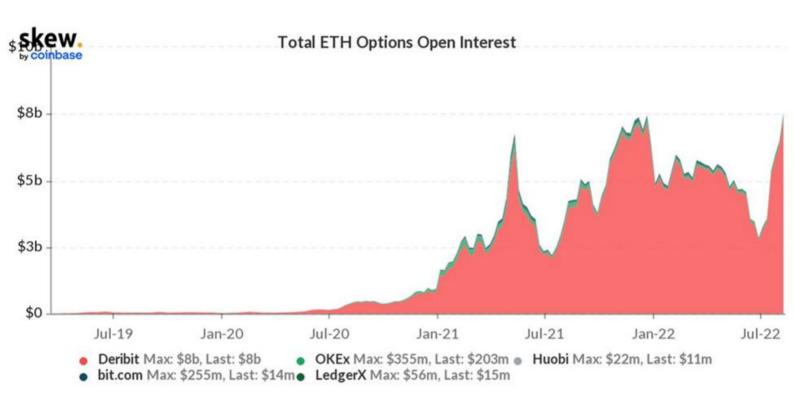




# WHAT'S ON-CHAIN THIS WEEK?

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# Ethereum Options Open Interest – The Flippening



### *Figure 19. Ethereum Options Open Interest across significant exchanges. (source: skew)*

Ethereum Options Open Interest hit \$8 billion, an All-Time High (ATH) for the metric. In sharp contrast, Bitcoin open interest remains well below the peak at just 35% of the ATH. Ethereum options open interest (OI) recently flipped BTC options OI for the first time, as discussed in our previous issue.

This appears to result from traders taking call options with the Merge scheduled for mid-September. Whales may also utilise the options market to hedge against a heavy bid in the spot market.

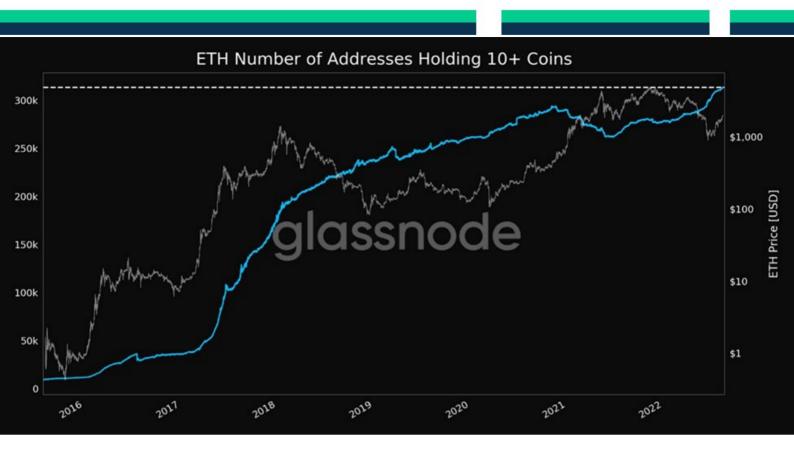


Figure 20. Number of addresses holding 10+ \$ETH. (source: glassnode)

Reflecting the activity in the ETH spot market, the number of addresses with more than 10 \$ETH tokens breached its [SB1] All-Time High on 12<sup>th</sup> August, with total addresses at 313,353.

# **Bitcoin Large Entities Update**

A dichotomy to watch is the relationship between participants with large pools of capital versus participants with small pools of capital. Historically, looking at whale holdings, being defined as on-chain entities with more than 1,000 \$BTC, has been a good indicator of momentum. As the most significant market participants, whales naturally drive large movements in Bitcoin prices. We usually contrast the on-chain behaviour between Bitcoin whales and retail size addresses to gauge market trends.



Figure 21. Bitcoin SOPR value for Whale style addresses. (source: Whalemaps)

The Spent Output Profit Ratio (SOPR) is a tool that allows us to track the overall state of profit/loss of the market as a whole. The ratio is produced by dividing the price at which coins are sold by the price paid for those coins. When SOPR > 1, it means that market participants are booking profits. When SOPR < 1, it means market participants have realised losses.

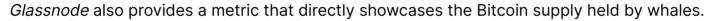
In figure 21 above, whales have had a rough time since May locking in any profits. It is only in the last seven days that the whale SOPR metric has spent more than seven days consecutively above 1 - the longest run since April this year. As downward pressure on the Bitcoin price eased a little following the job markets report and more recently the CPI numbers, whale-sized addresses were reducing spot exposure.

This is somewhat complemented by the wallet inflows metric.



Figure 22. Large (Whale) wallet inflows on Bitcoin. (source: glassnode)

It is important to note that wallet inflows do not necessarily represent buying; it could be that a large entity is just moving coins from one wallet to another and exchanges are moving coins internally. This effect is primarily attributable to the smaller bubbles (blue circles in the chart) because they do not match whale heatmaps from the past. Primary accumulation took place in the 17.5-18.5k region with the most prominent heat signals.



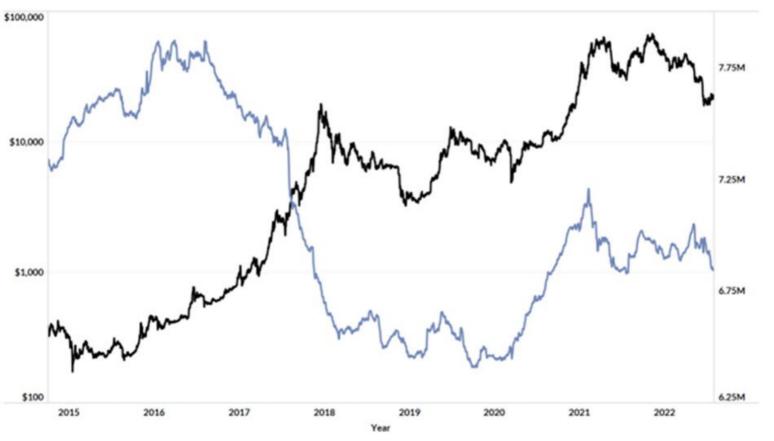


Figure 23. Bitcoin supply held by whales (blue) vs the price (source: glassnode)

Similar to the long and short-term holder dynamic, whales buy into weakness, create the market momentum, and distribute into strength. We can clearly see how whale holdings witnessed a small downtick recently. Reiterating, this is not a majority of their positions, but whales do appear to be reducing spot exposure at or slightly below their cost basis.

Conversely, holdings of small on-chain entities (retail) only go up over time. The behaviour that separates them from whales is that their holdings increase at a more rapid pace during periods of price appreciation. The chart below visualises the 90-day change in retail's BTC holdings. You'll notice the ramp up in the second half of 2017, but we have seen retail buy during the 2020 COVID crash, the summer consolidation of 2021, and most recently, in 2022, as Bitcoin is down 70%. So, seeing whales buying and retail selling is generally bullish and whales selling, but retail buying is typically bearish. However, recent trends showcase that retail can make better decisions with market maturity.



Figure 24. Blue – BTC supply held by entities with 0.1-1 \$BTC, Purple – 90-day change (source: Blockware Intelligence)

# **Bitcoin Miner Update**

Bitcoin mining behaviour acts as the most accurate gauge of the cyclical nature of the asset.

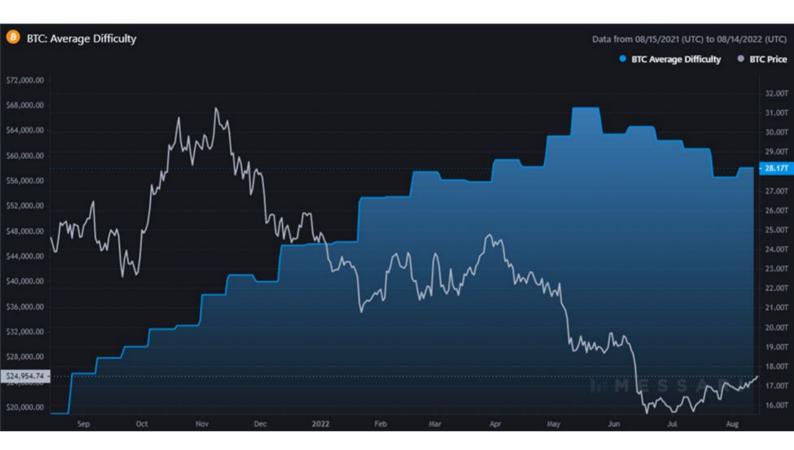
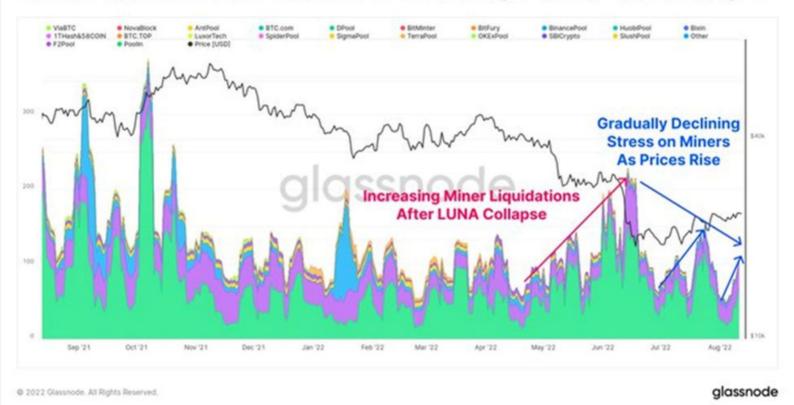


Figure 25. Bitcoin average mining difficulty vs price. (source: Messari)

Mining difficulty is a measure of how difficult it is to mine a Bitcoin block, or in more technical terms, to find a hash below a given target. A high network difficulty means it will take more computing power to mine the same number of blocks, making the network more secure against attacks.

Mining difficulty has reduced recently since peaking in May-June 2022. During the same period, miner stress had also peaked.

Bitcoin: Transfer Volume from Miners to Exchanges [BTC] - All Exchanges



### Figure 26. BTC Transfer Volume from miners to major exchanges. (source: glassnode)

Miner stress peaked in June as \$BTC prices fell below \$20k. However, there has been a notable decrease in miner distribution to exchanges in recent weeks. This suggests that whilst stress remains in the industry; the worst may well be behind us.

As pressure on miners decreases, alongside whales, miners also appear to be taking profits. They are basically forced into selling to cover costs from the additional mining rigs onboarded with their infrastructure as collateral. We covered this effect in further detail in this issue: <u>https://bit.ly/3C6nvRl</u>.

The essential point to note currently is the decline in aggregate miner balance.





### Figure 27. Aggregate miner BTC balance. (source: glassnode)

Over the last 2-weeks, the aggregate miner balance has declined by approximately 4.7k \$BTC.



# BITFINEX Alpha

