BITFINEX Alpha

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EXECUTIVE SUMMARY

In a tumultuous trading week, traditional finance (TradFi) has staged an entrancing surprise to the downside this August. *Bitfinex Alpha's* latest insights spotlight the S&P 500 and the NASDAQ 100, both of which, after an elegant ascent, have pivoted with pullbacks off their July highs. Amidst this backdrop, the S&P 500 has hinted at a potential further retreat to 4450, a refrain echoed by NASDAQ 100's pullback momentum, with the possibility of descending to a sobering 13700.

However, it's the silent whisper of the volatility across risk assets that could steal the limelight moving forward. The typically dormant VIX has stirred, showcasing an uptick reminiscent of past economic tumults. This potentially hints at a forthcoming shift in the market's rhythm, as the VIX often moves higher in the year's latter half.

In the cryptocurrency realm, Bitcoin remains a testament to unwavering faith. With an astounding 69.2 percent of its supply dormant for over a year, the cryptocurrency market stands on the brink of an impending supply crunch. Data suggest that by 2028, this could manifest as a staggering 90 percent reduction from current on-exchange levels of BTC balance, magnifying Bitcoin's allure in the eyes of investors. In an unprecedented lull, Bitcoin's 24-hour historical volatility, BVOL, has touched a record low before a minor uptick, possibly heralding a significant price movement on the horizon.

In essence, as markets oscillate and evolve, investors, whether in TradFi (especially tech-related stocks with higher correlation to digital assets) or crypto, stand at a pivotal juncture. The current financial tapestry weaves a tale of anticipation, potential upheavals, and steadfast optimism. As always, only time shall unveil the next chapter in this enthralling financial saga.

Amidst a backdrop of economic turbulence, the second quarter of 2023 unfolded with a series of noteworthy events that have left a significant impact on the United States' financial landscape.

The Federal Reserve's Senior Loan Officer Opinion Survey (SLOOS) revealed that banks have tightened credit standards and observed weaker loan demand from both businesses and consumers. This was a result of the Fed's campaign to raise interest rates, aimed at slowing down the nation's financial gears.

On a positive note, construction spending experienced a slight uptick in June, with both private companies and the government undertaking various projects across the country.

In the job market, job openings dipped by 34,000 in June, reaching the lowest level since April 2021. Despite this, the demand for workers remains strong, indicating a tight labour market with limited slack. The latest employment report suggests moderate job growth of 187,000 new jobs in July, falling short of the consensus forecast of 200,000. This raises concerns that the economy might be cooling down, potentially leading to lower inflation and deterring further increases in interest rates.

Amidst these events, American workers and companies showed resilience, with productivity rebounding at an annual pace of 3.7 percent in the second quarter. This noteworthy recovery came after a decline of 1.3 percent in the first quarter.

The recent development in the crypto-sphere underscores the industry's rapid evolution and dynamic nature.

Robinhood reported a drop in crypto trading revenue by 18 percent in Q2 due to decreased customer trades and volumes. Meanwhile, Ether futures ETF filings are generating excitement amid pending SEC approvals for spot Bitcoin funds.

Hong Kong has emerged as a frontrunner in the race to establish itself as a global hub for the crypto industry. HashKey's achievement of becoming the first licensed exchange to offer retail cryptocurrency trading after regulatory approval highlights the region's crypto-friendly approach.

Finally, we delve into the security breach on Curve Finance and its profound impact, sending shockwaves through the DeFi industry.

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WHAT'S ON-CHAIN THIS WEEK?

Bitcoin's Dormant Supply Signals Unwavering Faith Amidst Forecasted Supply Crunch

In a remarkable testament to the unwavering conviction of Bitcoin enthusiasts, recent data reveals that a staggering 69.2 percent of the total Bitcoin supply has remained untouched for over a year.

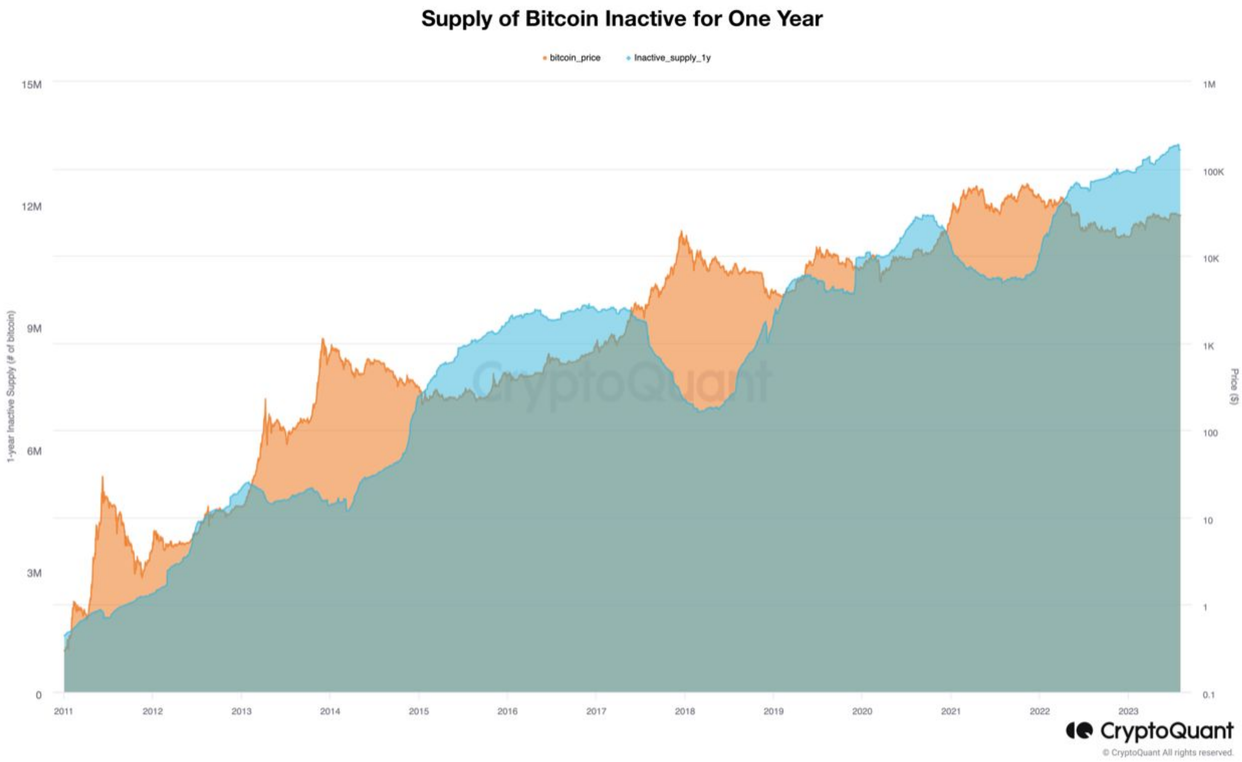


Figure 1. Bitcoin Supply Inactive For A Year Or More. (source: CryptoQuant)

This trend, indicative of the prevalent accumulation strategy prevalent amongst long-term holders, showcases a robust belief in Bitcoin's long-term value, even amidst the notorious downturns that have characterised the cryptocurrency market over the past one year.

Delving further into these figures, it emerges that 55.7 percent of the Bitcoin supply has been dormant for over two years, with 40.1 percent remaining inactive for more than three years. The commitment is even more profound among the ultimate holders, with 29.1 percent having held onto their Bitcoin for over five years. Please note that some part of this inactive supply would also be attributed to BTC that is lost.

The data shows:

1-year inactive supply: 13.33M BTC

2-year inactive supply: 10.95M BTC

3-year inactive supply: 7.82M BTC

5-year inactive supply: 5.67M BTC

7-year inactive supply: 3.98M BTC

10-year inactive supply: 2.89M BTC

The above data backs the idea that Bitcoin has been experiencing shrinking selling pressure, this has profound implications for Bitcoin's price dynamics. With a significant chunk of Bitcoin's supply remaining inactive, the available supply in the market diminishes. This inherent scarcity, juxtaposed with a burgeoning demand, has the potential to drive prices upward.

Shifting focus to the broader landscape, the upcoming Bitcoin halvings present a compelling narrative. Projections indicate a potential supply crunch, with the supply of spot BTC on exchanges poised to plummet by 90 percent within the next five years. Notably, 2024 is set to witness Bitcoin's first halving amidst a deflationary supply trend. The current downtrend, which commenced in 2020, was only confirmed post the halving that year, marking late 2020 as a pivotal juncture where demand began to eclipse production and supply. Bitcoin supply on exchanges has continued to make lower lows since the 2020 (refer to Figure 2 below) halving and the same trend is expected to continue into 2024 for the next one.

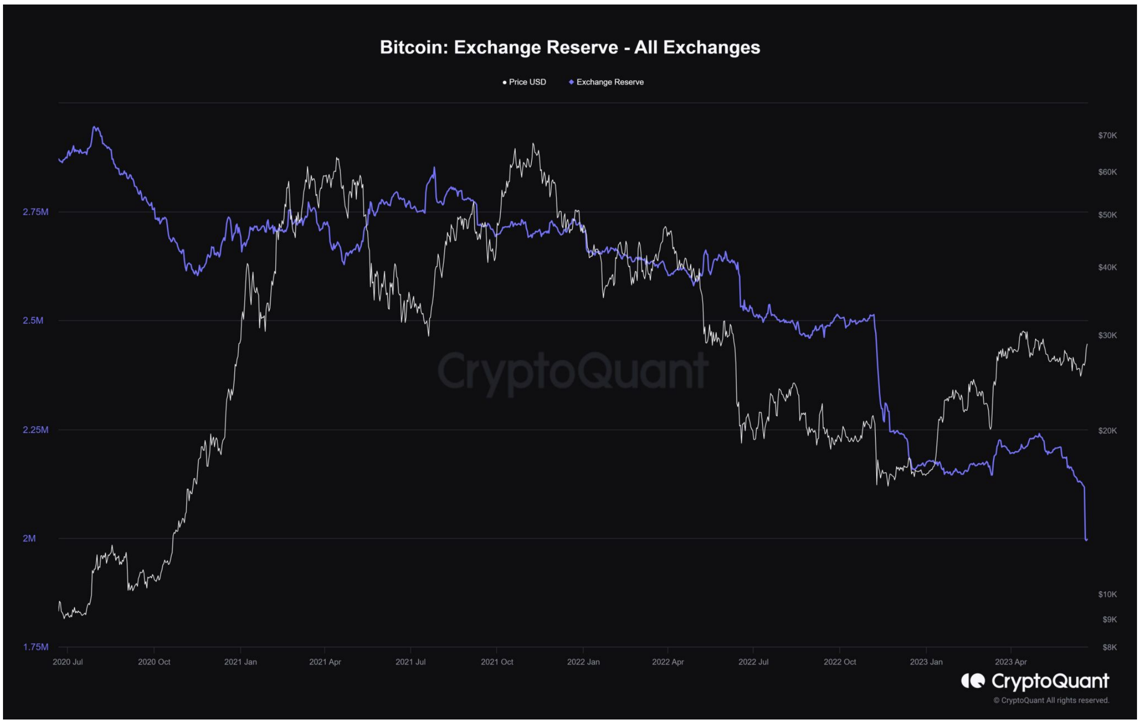


Figure 2. Bitcoin Exchange Reserve. (source: CryptoQuant)

With approximately 96 percent of the total Bitcoin supply already mined and an anticipated rise to 98 percent within the next five years, institutional demand becomes a pivotal factor. The current on-exchange Bitcoin supply stands at around 2,000,000 BTC. Under the assumption that ETFs gain approval and institutional holdings mirror those of Grayscale (approximated at 600,000 BTC), a whopping 30 percent of the remaining on-exchange supply could be syphoned off.

Furthermore, extrapolating from the supply trend since the last halving, which provides roughly three years of data, forecasts suggest a potential 60 percent drop in supply leading up to the 2028 halving. If these assumptions materialise, the Bitcoin supply on exchanges could witness a dramatic 90 percent reduction from current levels by the 2028 halving. This projection doesn't even account for the psychological ramifications of an evident supply crunch or the potential surge in retail, governmental, or institutional demand.

Even with a decrease in price recently with BTC price breaking below a month-long range, the illiquid supply continues to increase (refer to Figure 3 below).

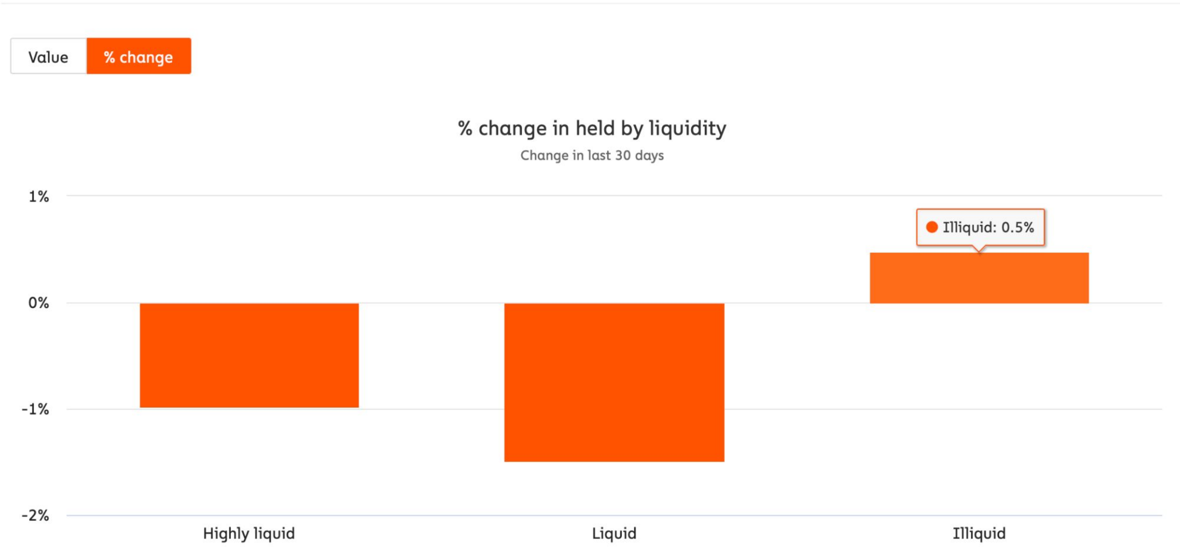


Figure 3. BTC change in the last 30 days in liquid/illiquid BTC. (source: Chainalysis)

The amount of liquid BTC decreased by 2.5 percent this week when measured as a moving metric over the past 30 days. The amount of illiquid BTC held, experienced the largest one week increase in six weeks, increasing by 45.37k BTC to 16.26M BTC. This was a 0.5 percent increase in the metric.

In conclusion, the unwavering faith in Bitcoin, as evidenced by the dormant supply, coupled with the impending supply crunch, paints a bullish picture for the cryptocurrency's future. Only time will tell how these dynamics will shape the market, but for now, the sentiment is one of steadfast optimism.

Bitcoin Historical Volatility Reaches Lowest Value Ever

In Bitcoin's documented volatility history, the metric for its 24-hour period historical volatility, known as BVOL, touched its nadir last week, registering a value of 0.32. (refer green box in Figure 4 below)

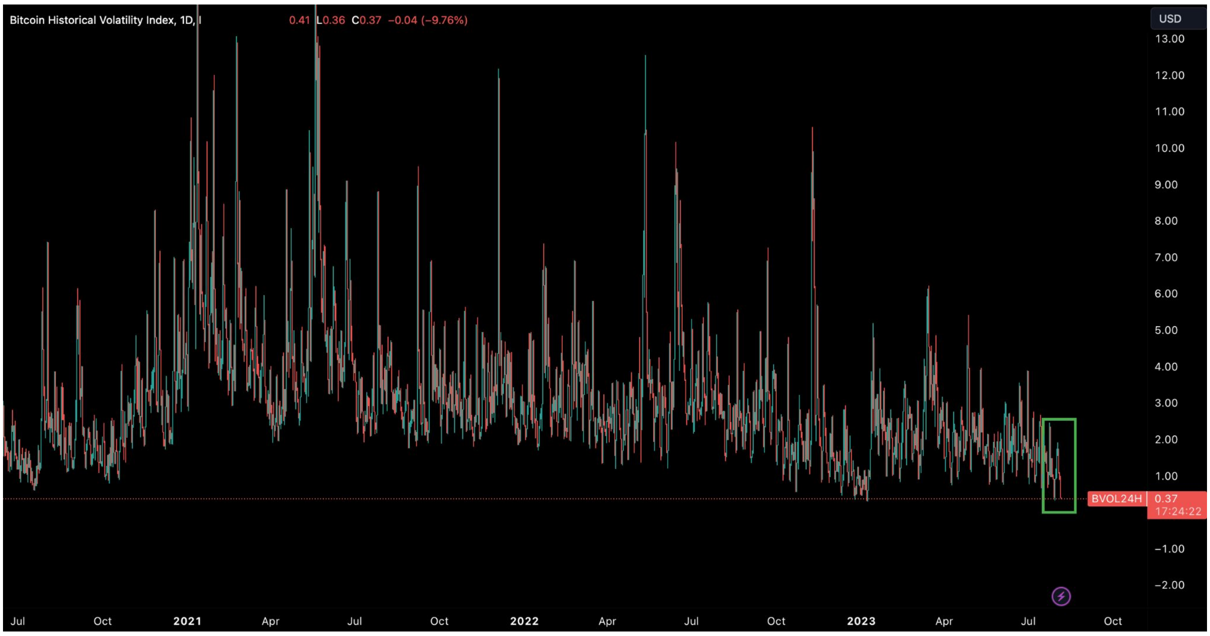


Figure 4. BVOL 24H Daily Chart.

Although there exists a variety of methods to compute volatility, often linking it with different derivative instruments — be it futures and perpetual contracts in some instances or options in others — the prevailing trend observed across these volatility metrics is strikingly consistent: they're either at their all-time lows or nearing those levels.

On extended time frames, such as the weekly chart, there's a historical precedent suggesting that when the BVOL24H metric drops to low values and begins a sideways trajectory, it often heralds a significant price movement for BTC. The accompanying graph illustrates specific instances (denoted by vertical white lines) when volatility approached its record lows for those particular periods. The slight rise we currently observe, following such a lull, might be reminiscent of previous scenarios, potentially foreshadowing a substantial and volatile shift in BTC's price trajectory.

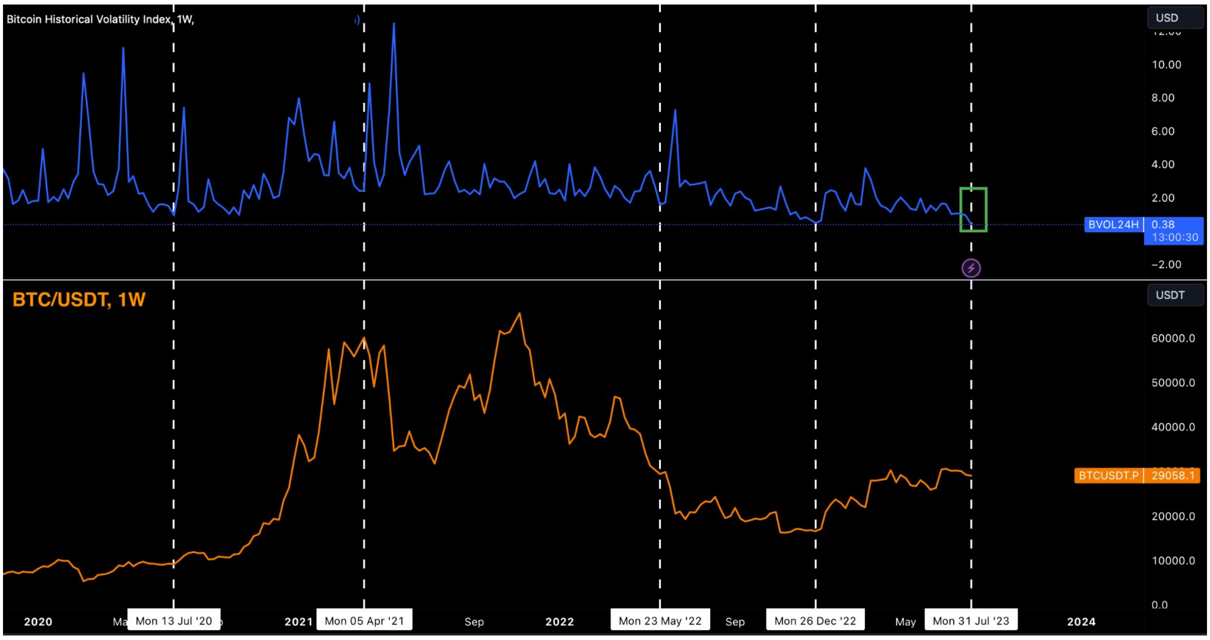


Figure 5. BTC/USDT vs BVOL. (source: Bitfinex)

CORRELATED MARKET WATCH

Pullbacks Across The Board For TradFi

In the previous editions of the *Bitfinex Alpha,* we had discussed how US stock market indices were at crucial resistance levels. The S&P 500 index closed a red weekly candle for the first time in four weeks.

The SPX ticker has pulled back sharply by nearly three percent off its July high, which was also the yearly high. (refer Figure below)

Figure 6. SPX Hourly Chart. (source: tradingview)

US equities could be enroute to their second major pullback of the year since the beginning of 2023 which has marked a substantial recovery and following rally for risk assets afterpost extremely bearish market conditions in 2022. This pullback would follow the first rate hike by the FOMC since a Fed pause in June, this is presumably the last interest rate hike of this cycle.

The index has rejected off the 4580 level and closed the weekly candle with the closing price virtually marking the low of the week which is testament of the extreme selling pressure. The next obvious levels for a pullback are 4450, if there is no immediate bounce from that level or if the pullback persists, it is entirely possible that we revisit the 4300 level and retain a higher time frame bullish sentiment. The S&P 500 has a tendency to pull back on by seven percent on average in bullish market conditions before continuing an uptrend.

A pull back to the aforementioned level would be a 6.5 percent pullback while also retesting prior resistance which capped upside for the index in February 2023 and then again in April/May 2023 before the eventual breakout about it.

The NASDAQ 100 or NDX, being a more volatile index composed of US equities, has pulled back even more than the SPX. It was rejected from our level of 15840, and ended the week in similar fashion to the SPX with the weekly close being close to the weekly lows, indicating strong bearish momentum on the lower timeframes. (refer Figure below)

Figure 7. NDX Hourly Chart (source: tradingview)

The NDX closed the week 4.17 percent below its July high. After a violent gap down on the first day of the month (August 1st), it quickly retraced to our support level of 15250 as mentioned in the last edition of the *Bitfinex Alpha.*

This is the same point from which the index experienced more than a 30 percent drawdown after the Fed's interest rate hiking cycle began in March 2022.

While the index bounced from this level, it closed the week right above it, leaving uncertainty regarding price forming a potential base around this region. In contrast to the SPX, even pullbacks as deep as 10-15 percent are common in bull market conditions for the index and if the S&P 500 continues to bleed lower, this could reach 14666 as a lower timeframe support level and 13700 as a higher time frame level. This level capped the upside of the 2022 bear market rally for the index.

It is important to note that the SPX and NDX are around 30 and 50 percent above their bear market lows, and thus, it is essential that investors exercise caution across risk assets as pullbacks after such sustained rallies are common even in bullish environments.

TradFi Volatility Potentially Making a Comeback

While US equities experienced sharp pullbacks in the first week of August, the most popular volatility indicator in the US experienced a rare uptick (refer green box in Figure below) in recent times.

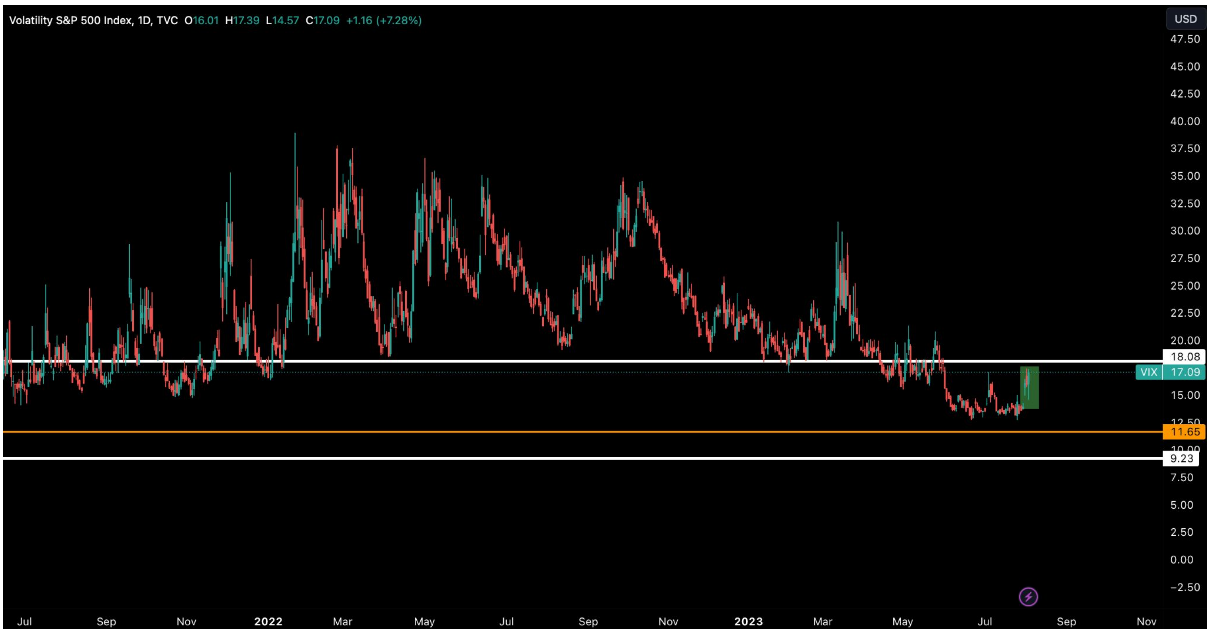


Figure 8. VIX Daily Chart. (source: TVC)

The VIX is an implied volatility metric based on the options of the S&P 500 and is considered a leading indicator for volatile market moves. It rose to an all-time high of 96.4 in October 2008, marking the wild fluctuations in equity prices during the 2008 recession. The second highest value of 85.47 was achieved by the metric was in 2020 during the Covid-19 pandemic lockdown which was another unprecedented economic downturn.

Since that peak, it has continued to make lower highs. In 2023, it reached sub 13 values and now we have been in one of the longest low volatility environments for the US equities market ever. However, typically the metric has showcased transitionary behaviour where it completes a cycle of first chopping at lower levels before an explosive move. Explosive moves in the VIX are correlated to sharp market moves while the sideways movements here can be ranging environments or steady trends in equities.

In the first week of August, the sharp downturn in equity indices was accompanied by a 28 percent move up in VIX.

Over the past several months, the Volatility Index (VIX) has been oscillating and establishing a solid base, hinting at a substantial move on the horizon. Leading indicators for the VIX are also supporting this notion of an impending significant shift in the equities market.

Additionally, various key data points, such as lending standards, the yield curve, and real policy rates — typically indicative of an upcoming major VIX move — seem to be signalling bottoming-out trends.(refer Figure below)

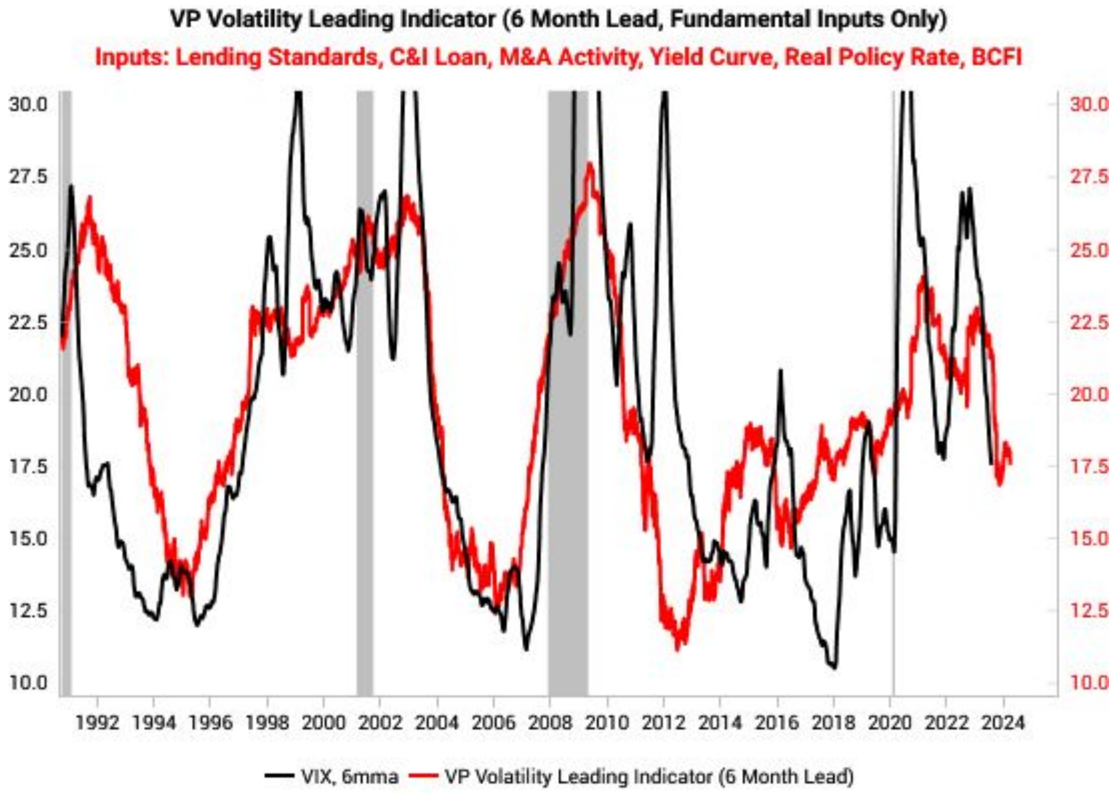


Figure 9. Volatility leading indicators. (source: Variant Perception)

This particular metric often exhibits a tendency to ascend in the latter half of the year. Considering this in conjunction with on-chain data and Bitcoin's volatility plummeting to an all-time low, the aggregate of these factors could potentially precipitate a volatile shift across all significant risk assets. This could manifest as a sharp recovery following a minor retracement or as an extended pullback. However, the prevailing data suggests that the prolonged low-volatility regime of recent months is due for a substantial shift in the near future.

GENERAL MARKET UPDATE

US Banks Tighten Credit Standards and Expect Further Contraction Amid Economic Uncertainty

According to the Federal Reserve's (The Fed) Senior Loan Officer Opinion Survey (SLOOS) released on Monday, July 31st, banks reported tighter credit standards and weaker loan demand from both businesses and consumers in the second quarter of 2023. This comes as a consequence of the Fed's interest-rate hike campaign aimed at slowing down the nation's financial gears.

The survey indicated that banks are anticipating further tightening of lending standards throughout the rest of 2023. The most cited reasons for this tightening were a less favourable economic outlook, increased uncertainty, a deterioration in collateral values, and an expected decline in credit quality for commercial real estate and other loans (refer to Figure 10)

	Not Important	Somewhat Important	Very Important
Less favourable or more uncertain economic outlook	2.2	44.4	53.3
Expected deterioration in customers collateral values	22.7	68.2	9.1
Expected deterioration in credit quality of commercial real estate loans	19	54.8	26.2

Figure 10. All Banks: Response to the survey on possible reason for tightening credit standards (Source: The Federal Reserve)

Since March 2022, the Fed has raised interest rates by 5.25 percent, and as a result, banks have been slowing their lending activities in response. The recent SLOOS report was available to Fed policymakers before their decision to deliver an 11th interest-rate hike in the July 25th FOMC meeting.

The recent degree of tightening is significant compared to historical standards, and while it does not guarantee an impending recession, it does suggest a possible economic slowdown.

The survey showed that a net 50.8 percent of banks tightened credit terms for commercial and industrial (C&I) loans for medium and large businesses, while a net 49.2 percent tightened credit terms for small firms during the last quarter. Though these figures fell short of the peak levels observed during the pandemic in 2020, they marked the largest increases since the Great Financial Crisis in 2009.

The following are other key data points from the survey:

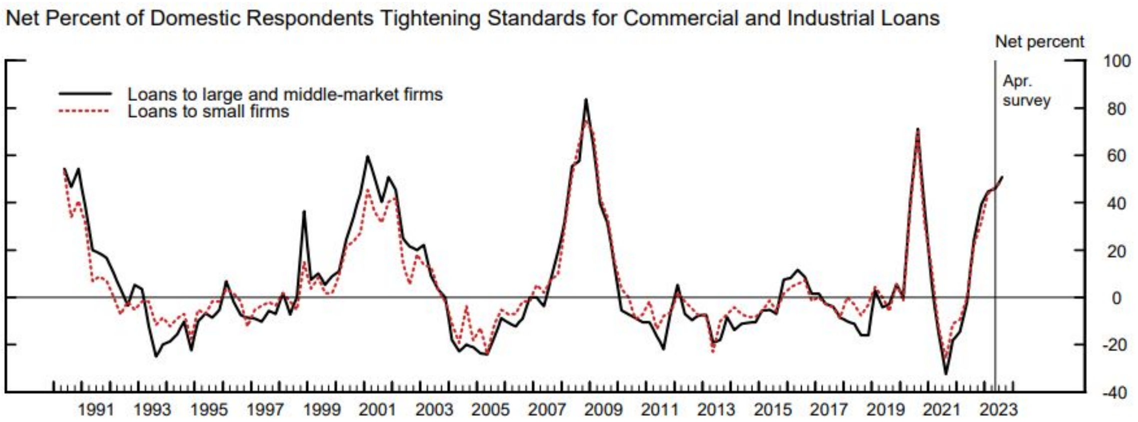


Figure 11. Net Percent of Domestic Respondents Tightening Standards for Commercial and Industrial Loans (Source: US Federal Reserve)

Loans to Business

- Banks tightened standards on commercial and industrial (C&I) loans to large and middle-market firms, and small firms during the second quarter. (refer to Figure 11)
- The tightening of C&I lending terms was widespread, with significant net shares of banks reporting stricter loan rates, risk premiums, credit line sizes, loan covenants, collateral requirements, and the use of interest rate floors.
- The main reasons for tightening standards or terms were a less favourable economic outlook, reduced risk tolerance, deteriorating liquidity positions, industry-specific problems, and concerns about legislative changes and accounting standards.
- Demand for C&I loans weakened, particularly from large and middle-market firms and small firms.
- Both domestic and foreign banks experienced decreased inquiries from potential borrowers regarding credit line availability and terms.
- Weaker demand for C&I loans was attributed to decreased customer investment in plant and equipment, reduced inventory financing needs, decreased merger and acquisition financing needs, and decreased accounts receivable financing.

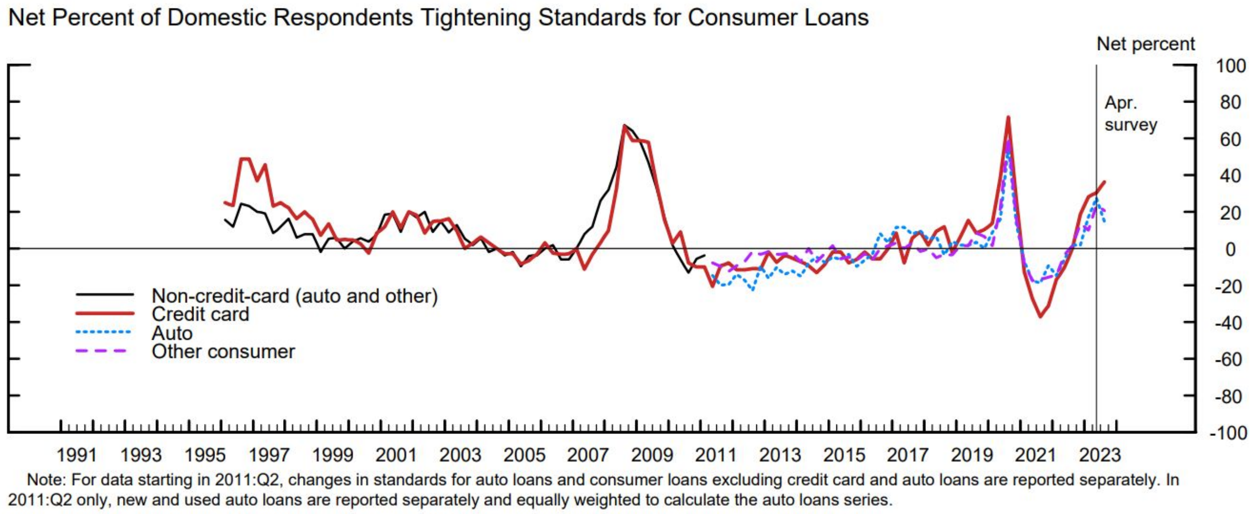


Figure 12. Net Percent of Domestic Respondents Tightening Standards for Consumer Loans (Source: US Federal Reserve)

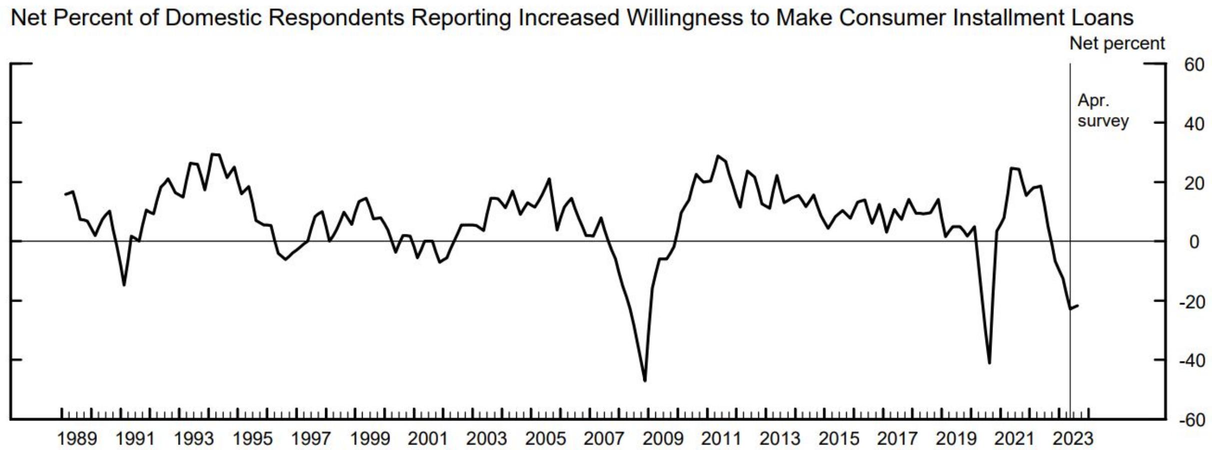


Figure 13. Net Percent of Domestic Respondents Reporting Increased Willingness to Make Consumer Instalment Loans

Loans to Households

- Banks tightened lending standards for all categories of residential real estate (RRE) loans and home equity lines of credit (HELOCs) during the second quarter. Significant net shares of banks tightened standards on non-qualified-mortgage (QM) jumbo residential loans and HELOCs, while moderate net shares tightened standards on other loan types. Only modest net shares of banks tightened standards on government sponsored enterprise(GSE)-eligible and government loans. (refer to Figure 12)
- Banks reported weaker demand for HELOCs and most types of RRE loans, except for subprime mortgage loans, which had only a modest decrease in demand.
- Special questions on banks' outlook: Banks expect further tightening for all loan categories in the second half of 2023 due to economic uncertainty, collateral value decline, and credit quality deterioration in CRE and other loans.

US banks are taking a cautious approach in response to rising interest rates, economic uncertainty, and the recent failures of regional banks. The ongoing tightening of credit standards may impact loan availability and economic growth later in the year, adding to the headwinds facing the economy. However, the extent of this impact remains uncertain, and policymakers will closely monitor the situation to ensure a balanced approach to further policy tightening.

Construction Spending in the US Rises in June, but Falls Short of Expectations

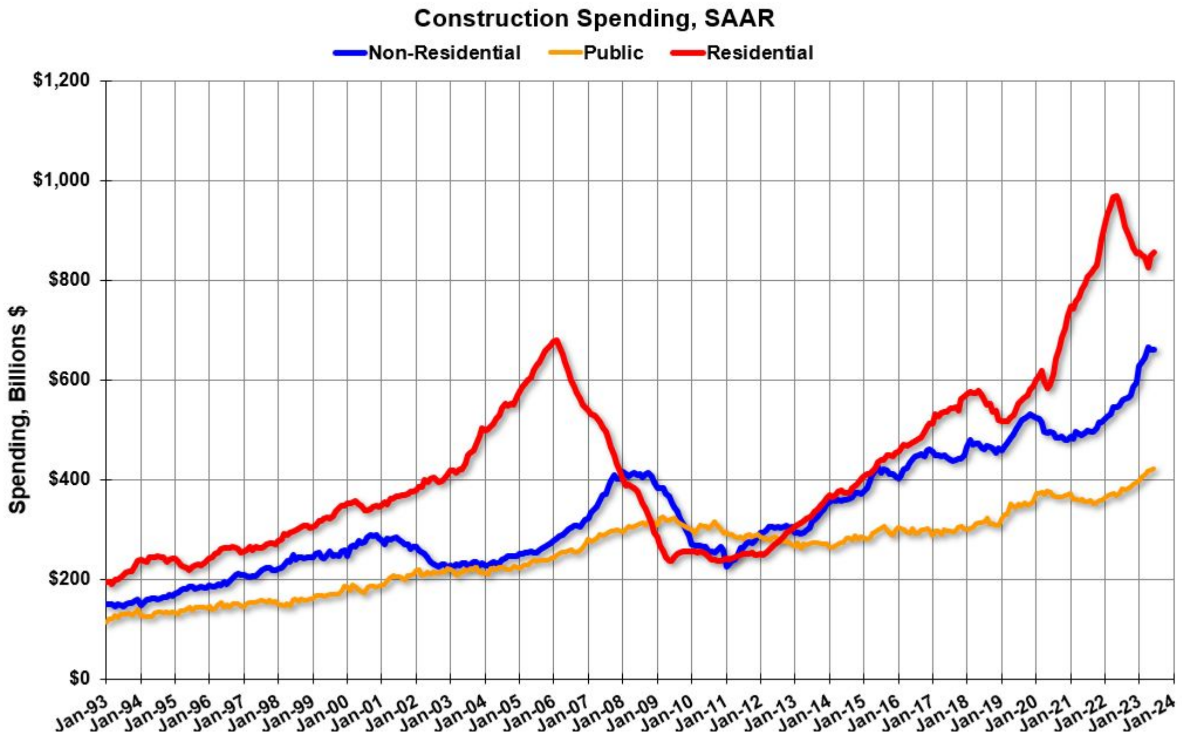


Figure 14. Construction Spending For Residential, Non-Residential and PUblic (Source: US Census Bureau)

In June, construction spending in the United States experienced a slight uptick, with both private companies and the government undertaking various projects across the nation. There was an increase of 0.5 percent in consumer spending to a total of $1.94 trillion, as reported by the US Census Bureau last Tuesday, August 1st. However, this fell below the consensus forecast of 0.7 percent. This crucial economic indicator provides insights into the level of economic activity in the country as construction projects span from residential housing to major infrastructure developments.

Construction spending plays a pivotal role in gauging the overall health of the economy. By understanding the amount that government and private companies invest in construction projects, one can gauge the level of economic activity taking place. While the 0.5 percent increase in June may not have met expectations, the year-on-year (YoY) growth of 3.5 percent indicates steady progress in the sector.

Looking closer at the residential real estate sector, private residential construction rose 0.5 percent in June, from the previous month. This growth was largely driven by a surge in single-family construction, which increased by 2.1 percent during the same period. Multifamily construction also experienced modest growth, rising by 1.5 percent.

On the public construction front, spending rose by 0.3 percent in June, following a 0.7 percent increase in May. State and local government spending contributed to this growth, rising by 0.3 percent, while outlays on federal government projects recorded a more significant increase of 0.8 percent.

Despite these positive developments, some concerns linger regarding the future of multifamily housing projects. While construction spending in this area increased by 1.5 percent in June, rising apartment vacancy rates and a record high stock of multifamily housing currently under construction could potentially limit further growth in this segment.

As the economy navigates through these continued challenges, it remains to be seen how construction spending will evolve in the coming months and its impact on overall economic activity.

US Labor Market Shows Signs of Cooling as Job Openings Decline

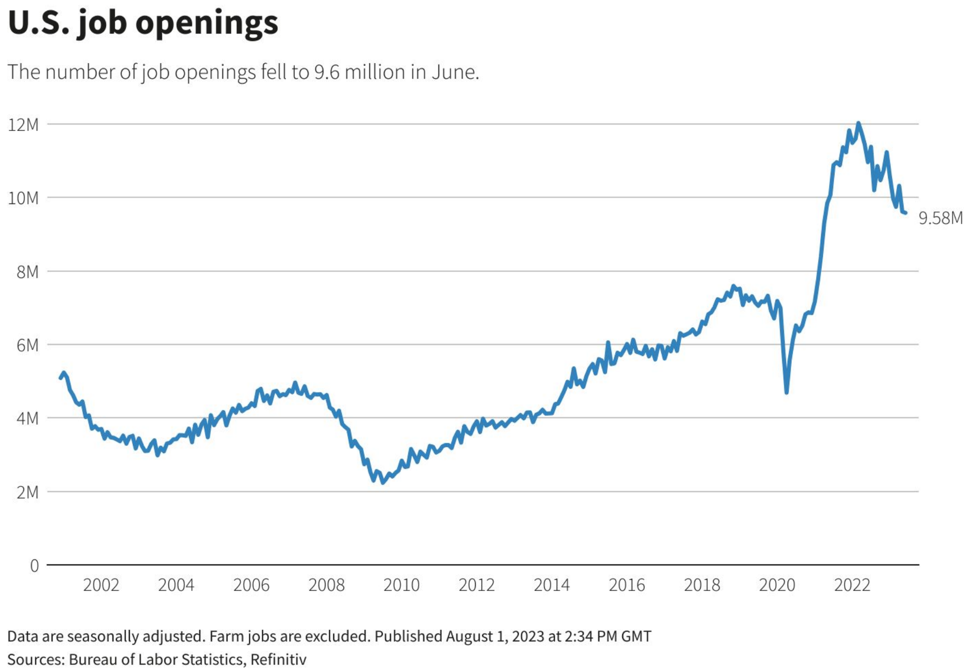


Figure 15. US Job Openings (Source: US Bureau of Labor Statistics, Refinitiv)

In June, the US experienced a dip in job openings, with the number falling by 34,000 bringing the total to 9.582 million, according to the US Bureau of Labor Statistics report, released last Tuesday, August 1st. This is the lowest level in job openings since April 2021. However, the demand for workers remains strong, suggesting a tight labour market with little slack.

The Fed has been closely monitoring job openings as part of its efforts to manage inflation. A cooling labour market is seen as a positive sign for the Fed, which is trying to ease inflationary pressures. However, job openings in June, though somewhat reduced from their peak of 12 million last year, are still relatively high.

There were 1.61 job openings for every unemployed person in June, up from 1.58 in May. The report reveals that although the total number of job openings had decreased compared to the previous month, there are more job openings available per unemployed person. This indicates a relatively better job market for the unemployed in the current month, even though there are fewer job opportunities overall.

One notable trend is the decline in the number of people quitting their jobs, dropping to 3.8 million in June from four million in May. Workers tend to quit more frequently when they believe they can find alternative employment easily. A decline in quits also indicates that the current job market is competitive and favourable for employers. This decrease in job changes could contribute to slower wage growth, ultimately impacting overall inflation. This trend is likely to be viewed by Fed officials as an indication of continued strength in the labour market, potentially influencing their policy decisions.

The Labor Department's report also provides key insights into specific sectors. Job openings rose the most in health care and social assistance, indicating potential growth in those industries. Additionally, there was an increase in state and local government positions. However, job listings declined in the transportation and warehousing sectors likely due to improvements in supply chain bottlenecks.

While labour market conditions remain challenging, the manufacturing sector shows indication of stabilising despite being affected by higher borrowing costs.

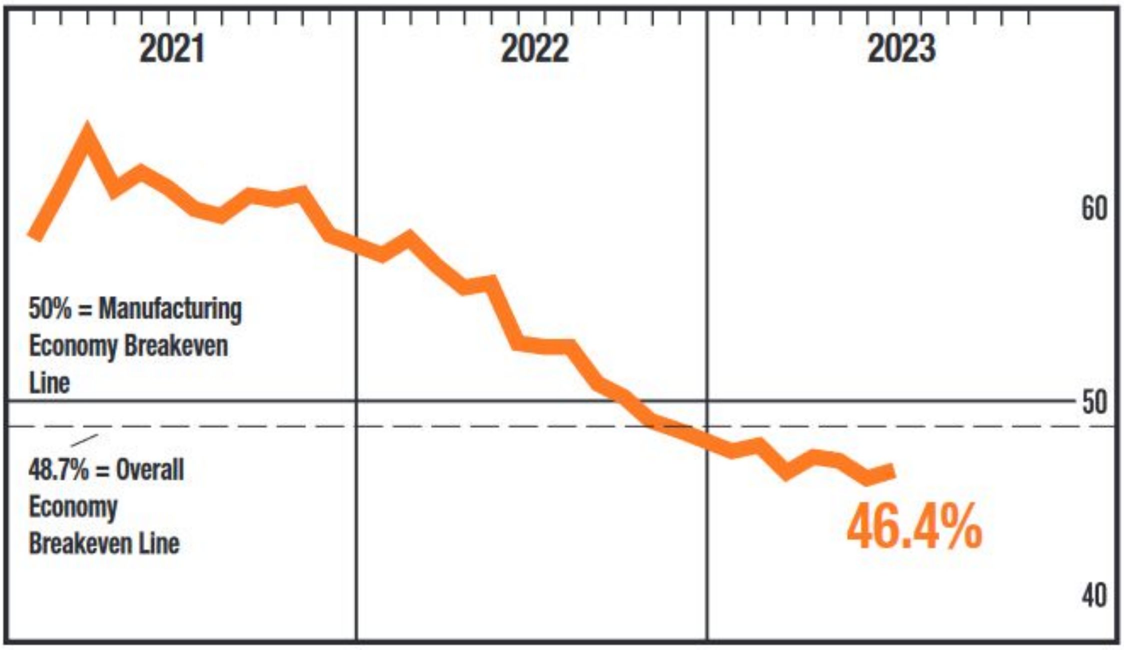


Figure 16. ISM Manufacturing Purchasing Managers Index (Source: Institute for Supply Management ,ISM)

According to a separate report from the Institute for Supply Management (ISM) last Tuesday, August 1st, the manufacturing Purchasing Managers' Index (PMI) rose slightly to 46.4 in the previous month, up from 46.0 in June (refer to Figure 16). However, the PMI has remained below the critical 50 threshold, signalling a contraction in the manufacturing sector. This nine-month stretch below 50 is the longest such period since the 2007-2009 Great Recession. The consensus forecast was a slight increase to 46.8 for the PMI.

The industrial side of the economy is unlikely to recover until the Fed stops raising interest rates or when the risk of recession diminishes. The Fed remains cautious about controlling inflation, and a tight labour market with an abundance of jobs and a shortage of workers makes this task more challenging.

While the slight drop in job openings for June may not provide significant comfort to the Fed, the overall decline in listings since last year indicates a gradual cooling of the labour market. While it may provide some relief to the Fed in its inflation-fighting efforts, it will continue to closely monitor the data to ensure economic stability in the months ahead.

US Worker Productivity Rebounds in Q2, Easing Inflation Concerns

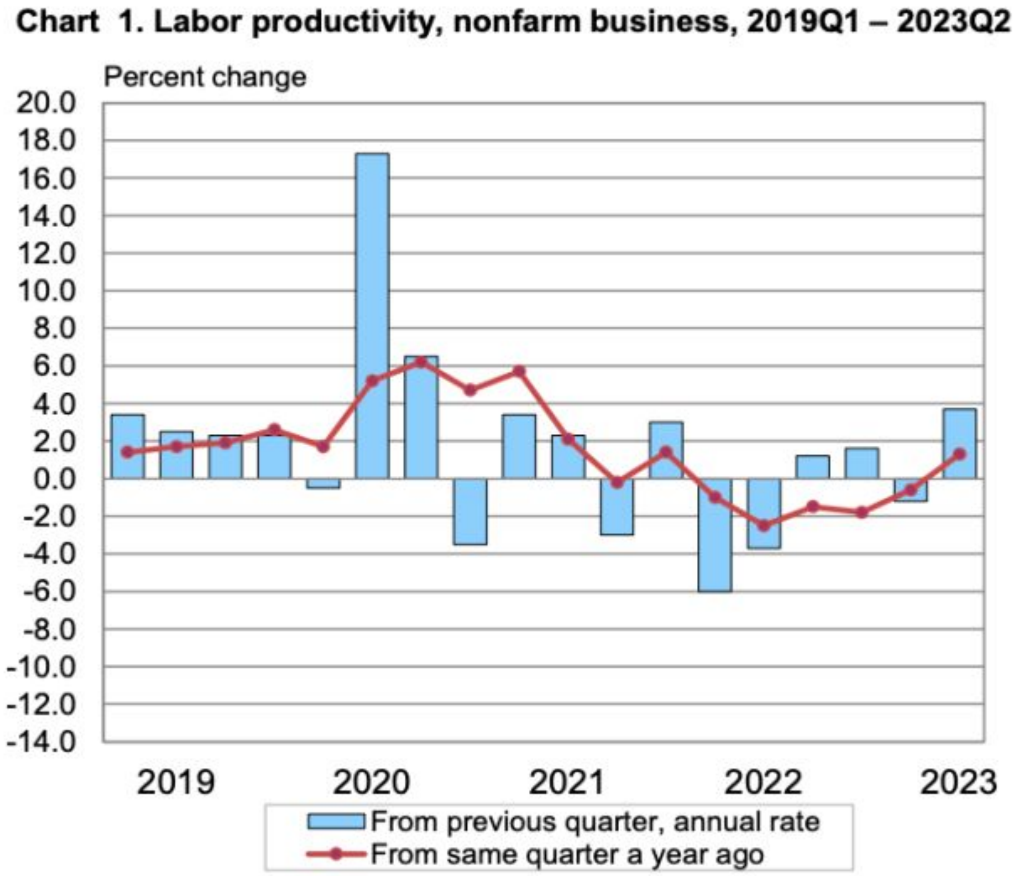


Figure 17. Labour Productivity, Nonfarm Business (Source: US Bureau of Labor Statistics)

The productivity of American workers and companies showed a significant rebound in the second quarter, growing at an annual pace of 3.7 percent, according to the Labor Department's report last Thursday, August 3rd. In comparison to the first quarter, where productivity declined by 1.3 percent, the second quarter's recovery is noteworthy. US worker productivity exceeded the consensus forecast of 2.3 percent.

US productivity refers to the measure of the efficiency and output per hour of American workers and companies. Productivity is a critical measure of a country's economic performance and competitiveness. Higher productivity levels generally indicate that workers and companies are producing more output with the same or fewer resources, which can lead to increased economic growth, higher standards of living, and improved profitability for businesses.

Table A1. Labor productivity growth and related measures – preliminary second-quarter 2023
(percent change from previous quarter at annual rate and from same quarter a year ago)

Sector	Percent change from:	Labor productivity	Output	Hours worked	Hourly compensation	Real hourly compensation	Unit labor costs
Nonfarm business	Previous quarter	3.7	2.4	-1.3	5.5	2.7	1.6
	A year ago	1.3	2.6	1.2	3.7	-0.3	2.4
Business	Previous quarter	3.7	2.5	-1.1	5.1	2.3	1.3
	A year ago	1.4	2.7	1.2	3.7	-0.3	2.2
Manufacturing	Previous quarter	4.0	1.9	-2.0	7.8	4.9	3.6
	A Year ago	-1.0	-0.4	0.6	3.9	-0.1	4.9
Durable manufacturing	Previous quarter	5.2	4.1	-1.1	7.4	4.5	2.0
	A year ago	-1.3	0.4	1.7	3.0	-1.0	4.4
Nondurable manufacturing	Previous quarter	3.4	-0.1	-3.4	8.3	5.4	4.7
	A year ago	0.0	-1.2	-1.3	5.3	1.2	5.3

Figure 18. Labour Productivity Growth and Related Measures (Source: US Bureau of Labour Statistics)

US productivity refers to the measure of the efficiency and output per hour of American workers and companies. Productivity is a critical measure of a country's economic performance and competitiveness. Higher productivity levels generally indicate that workers and companies are producing more output with the same or fewer resources, which can lead to increased economic growth, higher standards of living, and improved profitability for businesses.

However, the recent positive development comes with a caveat, as the improvement is partly attributed to a decline in the number of hours worked, indicating potential slack in the economy. The hours worked fell at a 1.3 percent annual rate, largely due to cutbacks at manufacturers who scaled back production of goods in response to weaker demand for big-ticket items.

The report also revealed encouraging signs of easing inflation in the US economy, as the cost of production slowed down. The amount of goods and services produced, known as output, increased by 2.4 percent in the second quarter of 2023, compared to a 1.4 percent increase in the first quarter. When the supply of goods and services increases, it can lead to a decrease in prices as businesses may have to compete more aggressively to attract customers.

Unit-labour costs, which reflect how much businesses pay employees to produce specific goods and services, rose at a mild 1.6 percent in the second quarter, compared to 3.3 percent in the first quarter. This can be interpreted that businesses are gaining better control over material and labour costs.

On the worker compensation front, hourly compensation, which includes wages and benefits paid to employees, climbed at a 2.7 percent annual rate after adjusting for inflation. This has improved to the first quarter's decline of 1.6 percent. This indicates that worker pay has recently begun to rise faster than inflation.

Looking ahead, the focus remains on whether productivity growth can be sustained, as well as how businesses and the labour market will respond to changing economic conditions.

US Job Growth Slows in July, But Economy Remains Resilient

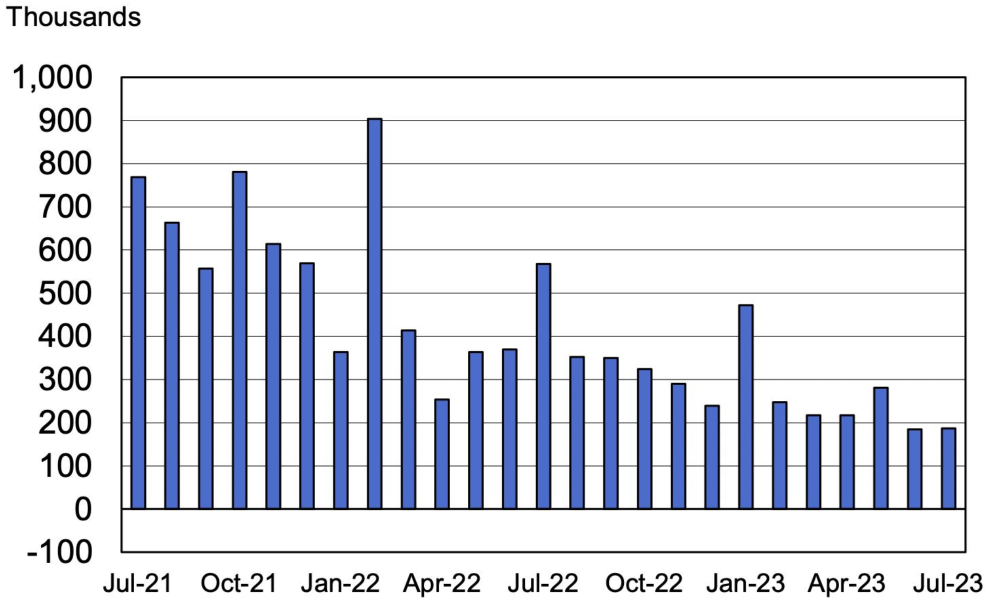


Figure 19. Non Farm payroll employment , Seasonally adjusted, July 2021-July 2023(Source: Bureau of Labor Statistics)

The latest employment report indicates a moderate growth of 187,000 new jobs in July, raising suggestions that the economy might be cooling down, according to the Bureau of Labor Statistics last Friday, August 4th. This figure is lower than the consensus forecast which was a job growth of 200,000. This development could potentially lead to lower inflation and may even deter further increases in interest rates.

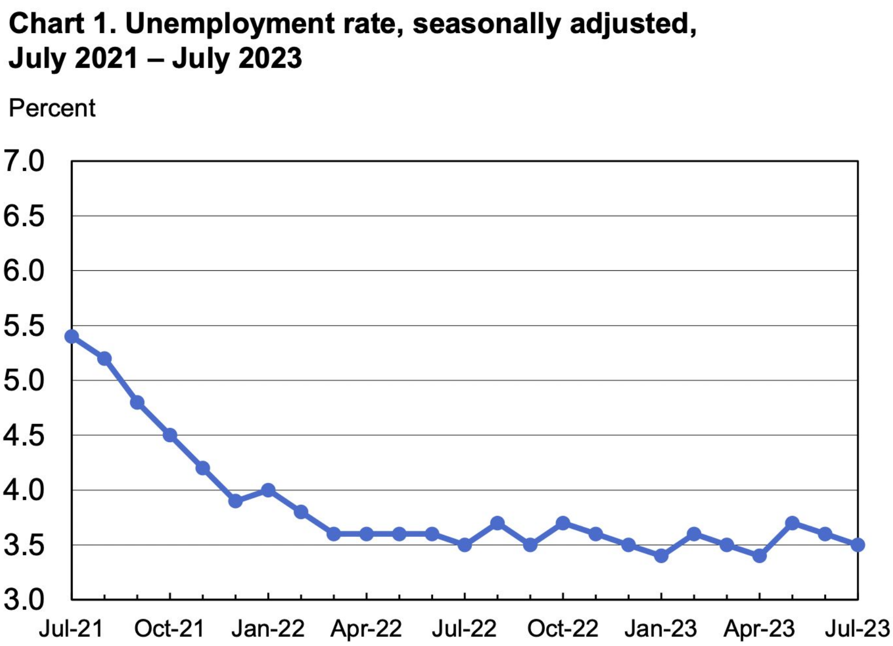


FIgure 20. Unemployment Rate in the US (Source: Bureau of Labor Statistics)

For the first time since the onset of the pandemic in 2020, employment growth has dipped below 200,000 jobs for two consecutive months. The unemployment rate saw a slight decline from 3.6 percent to 3.5 percent.

In July, wages rose by 0.4 percent, and the year-on-year (YoY) increase remained steady at 4.4 percent. The Federal Reserve's desired goal is to see annual wage growth return to pre-pandemic levels of three percent or lower.

However, with the recently reported uptick in job openings (1.6 job openings for every unemployed person in June), the moderation in hiring may be a result of companies failing to find workers.

WThe wage growth, while higher than the Fed's two percent inflation target, might not necessarily prompt another rate hike this year. The Fed's policy rate has already increased by 525 basis points since March 2022. Productivity rebounded in the second quarter, helping to control labour costs, and financial markets expect the Fed to maintain steady rates for the remainder of the year.

The job report indicated a slowdown in hiring but the still-tight labour market and the rising wages provided support for a continued economic growth. The labour market offers optimism about the economy’s trajectory but caution is necessary as various factors such as inflation trends and the labour market dynamics have to be considered.

News from the Crypto-Sphere

Robinhood Faces 18 Percent Drop in Crypto Trading Revenue Amidst Regulatory Challenges

Figure 21. Robinhood Faces 18 Percent Drop in Crypto Trading Revenue Amidst Regulatory Challenges

- **Robinhood's crypto trading revenue dropped by 18 percent in Q2 due to decreased customer trades and notional volumes per trader.**

Robinhood, the California-based brokerage firm, reported an 18 percent decline in transaction-based revenue from cryptocurrencies during the second quarter, according to its latest earnings report released last Wednesday, August 2nd. The revenue related to crypto activities fell to $31 million, a drop from the previous quarter's $38 million, attributed in part to reduced trading activity by customers. The number of customers placing trades decreased by six percent, and notional volumes per trader declined by 15 percent.

Despite the challenges faced by the crypto ecosystem, Robinhood remains committed to building its presence in the industry. The company announced plans to introduce a non-custodial wallet later this year, which will grant customers greater control over their crypto assets.

Figure 22. Robinhood's reported Trading Volume for 2nd Quarter of 2023 (Source: Robinhood)

The firm reported a net income of $25 million for the quarter and expressed optimism about its ability to innovate, grow assets, gain market share, and drive positive change within the industry.

However, this decline in crypto trading revenue marked the second consecutive quarter of revenue setbacks in the company's crypto business, primarily driven by its trading fee revenue model. Despite this, overall assets under custody, including cryptocurrencies and equities, increased by 13 percent to $89 billion. Nevertheless, the number of monthly active users dropped by one million, bringing the total to 10.8 million.

Recently, the US Securities and Exchange Commission (SEC) filed lawsuits against major crypto exchanges Coinbase and Binance, which prompted Robinhood to take action. The company delisted Cardano (ADA), Ppolygon (MATIC), and Solana (SOL) after the three cryptocurrencies were listed as unregistered securities in the SEC's legal actions. This move aimed to address regulatory concerns and maintain compliance with industry standards.

Robinhood executives had previously expressed the need for additional regulatory clarity, acknowledging their respect for US regulatory efforts. The company continues to monitor the evolving regulatory landscape while staying committed to its goal of expanding its market share and providing a secure environment for crypto traders.

Surge in Applications for Ethereum Futures ETFs Spurs the Latest ETF Frenzy

***Figure 23.** Surge in Applications for Ethereum Futures ETFs Spurs the Latest ETF Frenzy*

- **Firms have filed for Ether futures exchange-traded funds (ETFs), creating excitement in the industry amid pending requests for spot Bitcoin funds' approval by the SEC.**
- **Regulatory concerns and the recent rise of leveraged Bitcoin futures ETFs may be driving the demand for ether futures ETFs, while Ether's price movements and comparison with Bitcoin add to the market's complexity.**

The Securities and Exchange Commission (SEC) is currently reviewing applications for Ether futures exchange-traded funds (ETFs) from at least six firms, a move that has stirred excitement in the cryptocurrency industry. While the SEC has approved ETFs based on Bitcoin futures in the past, it is yet to greenlight spot Bitcoin funds. The recent surge in applications for Ether futures ETFs signals the potential for these products to materialise before spot Bitcoin ETFs.

The recent applications for Ether future funds were Ether Strategy ETF, Bitwise Ethereum Strategy ETF, Roundhill Ether Strategy ETF, Ethereum Strategy ETF, Proshares Ether Strategy ETF and Grayscale Ethereum Futures ETF. Direxion Bitcoin Ether Strategy ETF, the most recent one, is reported to give investors exposure to both Bitcoin and Ether futures contracts traded on the Chicago Mercantile Exchange.

The surge in filings for Ether futures ETFs has drawn attention, with market observers speculating about potential reasons behind the trend. Recent events, such as the launch of the first leveraged Bitcoin futures ETF, the Volatility Shares 2x Bitcoin Strategy ETF (BITX), might have influenced firms' interest in Ether futures ETFs. Additionally, the consistent rise of Bitcoin's price amid numerous applications for spot Bitcoin ETFs has spurred further interest in the cryptocurrency space.

SEC Chair Gary Gensler has expressed concerns about fraud and manipulation within the cryptocurrency market, particularly on trading platforms where noncompliance is prevalent. These concerns have led to cautious scrutiny of pending applications for spot Bitcoin ETFs. In light of these regulatory challenges, firms are exploring alternatives, such as Ether futures ETFs, as a potential way to offer investors exposure to the cryptocurrency market.

While Ether's price experienced a 6.3 percent decline over the past month, the cryptocurrency has seen an overall 11.9 percent increase over the past year. In comparison, Bitcoin's value has surged by 26.4 percent during the same period. These price movements may play a role in investors' decisions to explore diverse investment options, including ETFs based on both Bitcoin and Ether futures.

The cryptocurrency market continues to evolve rapidly, with firms seeking to tap into its potential through various investment vehicles. As the SEC reviews applications for Ether futures ETFs, the industry is keeping a close watch on the regulatory developments and potential implications for spot Bitcoin ETFs. The outcome of these reviews could pave the way for broader investment opportunities and further shape the landscape of the digital asset market.

Hong Kong Grants Regulatory Approval for Retail Crypto Trading, HashKey Becomes First Licensed Exchange

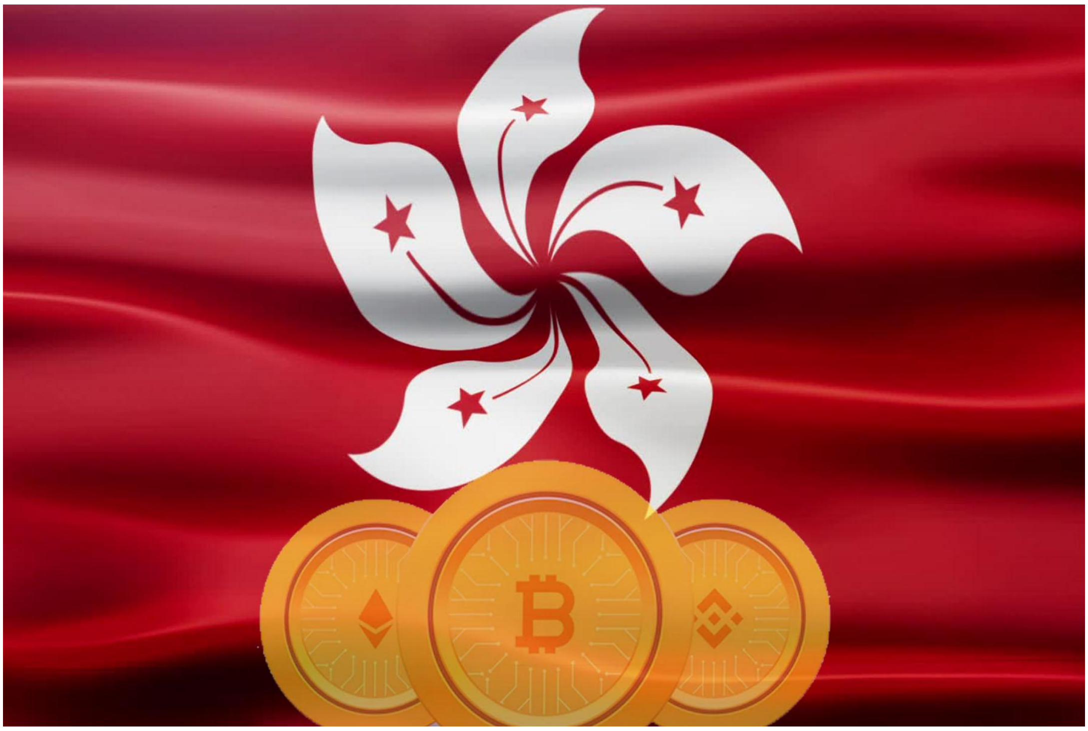


Figure 24. Hong Kong Grants Regulatory Approval for Retail Crypto Trading, HashKey Becomes First Licensed Exchange

- **Hong Kong's HashKey becomes the first licensed exchange to offer retail cryptocurrency trading after obtaining regulatory approval and upgrading its licences.**
- **Hong Kong's crypto-friendly approach aims to position itself as a global hub for the crypto industry, encouraging banks to collaborate with cryptocurrency firms while enforcing a licensing regime for virtual asset service providers.**

Hong Kong has taken a significant step towards expanding cryptocurrency trading accessibility to individual investors, as HashKey, a local digital asset firm, becomes the first exchange to receive regulatory approval to offer retail crypto services.

Figure 25. Tweet Announcement from HashKey Exchange (Source: https://twitter.com/HashKeyExchange)

Previously serving only professional investors, HashKey has now secured all necessary licences to extend its services to retail users. This milestone was made possible through the upgrade of two major licences issued by Hong Kong's Securities and Futures Commission (SFC).

The first licence, known as Type 1, permits HashKey to operate a virtual asset trading platform under Hong Kong's securities laws. The second licence, Type 7, authorises the firm to provide automated trading services to both institutional and retail users.

HashKey's achievement marks the establishment of one of the earliest licensed exchanges offering retail crypto trading in Hong Kong. Additionally, the firm has officially launched its crypto over-the-counter (OTC) trading service, HashKey Brokerage, which complies with local securities laws, following the SFC's new crypto regulatory framework.

The approval of HashKey's licence comes shortly after Hang Seng Bank's executive argued that crypto companies in Hong Kong can only open bank accounts after obtaining the approval-in-principle (AIP) licence from the Hong Kong SFC. As of the latest information, HashKey and OSL are reportedly the only two exchanges that have received such approval.

Hong Kong's progressive approach to the crypto industry sets it apart from its neighbour China, which continues to enforce a mainland ban on crypto transactions. Hong Kong aims to become a global hub for the crypto industry and has been encouraging banks to collaborate with cryptocurrency firms.

In an effort to strengthen its position as a global financial centre, Hong Kong released a series of policy statements about cryptocurrencies in October, followed by the Legislative Council passing an amendment introducing a full licensing regime for virtual asset service providers in December.

A recent government study from June highlighted growing concerns over Hong Kong's lag behind its East Asian and Gulf peers in Web3 development. With the new licensing regime in place, crypto trading platforms in Hong Kong must obtain licences to cater to retail investors, opening doors to increased participation in the digital asset market for individual traders.

Overall, the move towards regulatory clarity and increased accessibility in the crypto sector is expected to propel Hong Kong's status as a prominent player in the global cryptocurrency landscape.

Curve Finance: The DeFi Security Breach and its Aftermath

Figure 26. Curve Finance: The DeFI Security Breach and its Aftermath

The decentralised finance (DeFi) landscape faced a difficult period recently due to a major security breach in Curve Finance's stablecoin liquidity pools, resulting in the theft of more than $61 million (as of August 4th 2023). Curve Finance, an Ethereum-based DeFi protocol, is well-known for prioritising stablecoin liquidity pools, offering users the ability to swap stablecoins with minimal slippage.

This incident raised concerns about potential risks spreading to other protocols within the ecosystem. The attack exposed vulnerabilities in various DeFi projects, prompting efforts to retrieve the stolen funds in the days that followed.

Figure 27. Curve Finance's announcement on exploit of stablepools (Source: https://twitter.com/CurveFinance)

Here is there series of events that took place:

July 30: Curve Finance Pools were exploited

Curve Finance, the second-largest decentralised exchange for stable swaps on Ethereum, experienced a hack on Sunday, July 30th, Sunday. The exploit was enabled by a vulnerability in the Vyper programming language, impacting at least four of Curve Finance's pools.

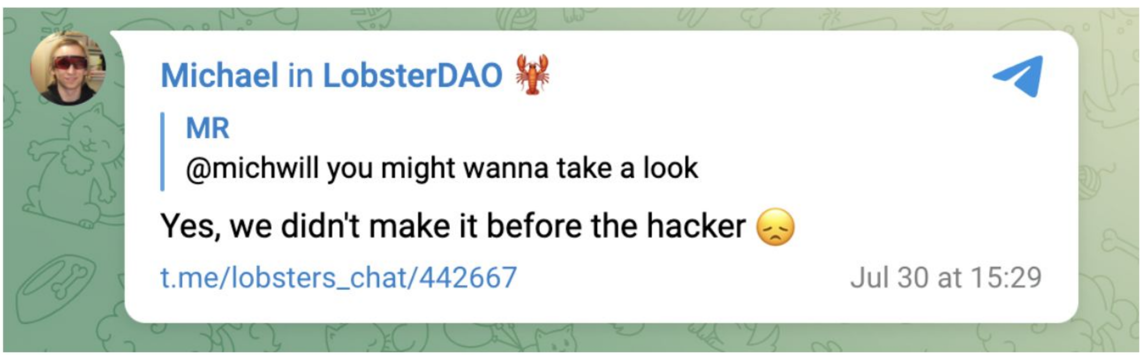


Figure 28. Curve CEO confirmed hack (Source: Telegram/LobsterDAO)

At that given moment, Michael Egorov, CEO of Curve Finance, verified through Telegram communication that a staggering 32 million Curve DAO (CRV) tokens, valued at upwards of $22 million, were extracted from the swap pool.

Figure 29. Ellipsis Announcement on Twitter

Similarly, the Binance Smart Chain (BSC) fell victim to imitation attacks arising from an identical vulnerability, culminating in the theft of an estimated $73,000 in various cryptocurrencies. The attack was thus, obviously, less devastating to the ecosystem than Curve Finance.

These security breaches were specifically aimed at BSC and resulted in the depletion of funds over the course of three separate incidents.

Cruve Exploitation Incident Attack Transaction List

Sender	Victim	Attack Hash	Loss
0xdce5d6b41c32f578f875efffc0d422c57a75d7d8	0xc4c319e2d4d66cca4464c0c2b32c9bd23ebe784e alETH+ETH-f	https://explorer.phalcon.xyz/tx/eth/0xb676d789bb8b66a08105c844a49c2bc	**$13,663,900**
0x6Ec21d1868743a44318c3C259a6d4953F9978538 Frontrunner (JPEGd_69 Exploit)	0x9848482da3ee3076165ce6497eda906e66bb85c5 pETH-ETH-f	https://explorer.phalcon.xyz/tx/eth/0xa84aa065ce61dbb1eb50ab6ae67fc31a	**$11,461,200**
0xC0ffeEBABE5D496B2DDE509f9fa189C25cF29671 c0ffeebabe.eth	0xc897b98272aa23714464ea2a0bd5180f1b8c0025 msETH-ETH-f	https://explorer.phalcon.xyz/tx/eth/0xc93eb238ff42632525e990119d3edc77	**$1,625,950**
0xc9db0f29d6325f9b00fc3c1e88d66988d44ee6b1	0x8605dc0C339a2e7e85EEA043bD29d42DA2c6D784 eUSD3CRV-f	https://explorer.phalcon.xyz/tx/eth/0x7ada78906bedcbecef59d7e7fc7f68e1	**$1,495,180**
		Total Loss on Ethereum	**$28,246,230**

Copycat Attack On BSC

Sender	Victim	Attack Hash	Loss
0x0000000000002088951336D7972746a135F2956417	0x51d5b7a71f807c950a45dd8b1400e83826fc49f3	https://explorer.phalcon.xyz/tx/bsc/0x58ebe3bc31014e711624fd61b1aa26c6	**$68,769**
0x0000000000002088951336D7972746a135F2956417	0x646ace1a7470cae4c55ad48bc82cd757a2c968ca	https://explorer.phalcon.xyz/tx/bsc/0xf7b3d0f2853ae06374b68efe2ed13f0b6	**$3,645**
0x0000000000002088951336D7972746a135F2956417	0xa844b2ffeb34ab5878e3b520e87b50f125da7919	https://explorer.phalcon.xyz/tx/bsc/0xe190c4eddf67b262be137329c8cbc889	**$1,404**
		Total Loss on BSC	**$73,818**

Figure 30. BlockSec showing smart contracts compiled using Vyper versions 0.2.15, 0.2.16, and 0.3.0 are vulnerable (Source: https://twitter.com/BlockSecTeam)

Attackers manipulated the price of tokens in several liquidity pools, where one token can be exchanged for another. According to estimates by the blockchain security firm PeckShield, approximately $52 million was lost on July 30th, due to this scheme. However, the attackers weren't able to make off with the entire amount.

PeckShieldAlert
@PeckShieldAlert

Update #PeckShieldAlert There are ~$52M exploited so far from @AlchemixFi, @JPEGd_69, @MetronomeDAO,@DebridgeFinance, @Ellipsisfi and #Curve CRV-ETH

Address	Project	Amount	Assets
5d6b41c32f578f875efffc0d422c57a75d7d8	@AlchemixFi	7,258.70	ETH
1d1868743a44318c3c259a6d4953f9978538	@Jpegd	6,106.75	WETH
f6fdefeb079e435f22c918a919540f4721e60	@Jpegd	0	-
eebabe5d496b2dde509f9fa189c25cf29671	@MetronomeDAO	866.55	ETH
0000002088951336d7972746a135f2956417	@DebridgeFinance	13.13	ETH
0000002088951336d7972746a135f2956417	@Ellipsisfi	283.02	WBNB
eF3a1fDEd45d6c4b9F4A8F18E645b41b324	Curve CRV-ETH (crvCRVETH)	7,680.40	WETH
		7,193,401.78	CRV
EBABE5D496B2DDE509f9fa189C25cF29671	Curve CRV-ETH (crvCRVETH)	2,879.64	ETH

PeckShieldAlert @PeckShieldAlert · Jul 30
#PeckShieldAlert There are $26.76M exploited so far from @AlchemixFi, @JPEGd_69, @MetronomeDAO, @DebridgeFinance and @Ellipsisfi

Hacker	Address	Project	Amount	Assets	Value ($
	0xdce5d6b41c32f578f875efffc0d422c57a75d7d8	@AlchemixFi	7,258.70	ETH	13,636,03
Frontrun	0x6ec21d1868743a44318c3c259a6d4953f9978538	@Jpegd	6,106.75	WETH	11,472,997
Original	0x172f6fdefeb079e435f22c918a919540f4721e60	@Jpegd	0	-	0.00
ffeebabe.eth	0xc0ffeebabe5d496b2dde509f9fa189c25cf29671	@MetronomeDAO	866.55	ETH	1,628,080.
	0x0000000000002088951336d7972746a135f2956417	@DebridgeFinance	13.13	ETH	24,590
	0x0000000000002088951336d7972746a135f2956417	@Ellipsisfi	283.02	WBNB	68,581.3
Total					26,761,6

4:26 PM · Jul 30, 2023 · **60.7K** Views

Figure 31. Hack Update from PeackShieldAlert (Source: https://twitter.com/PeckShieldAlert)

Based on the initial investigation, certain versions of the Vyper compiler have been found to have a flawed implementation of the reentrancy guard. This guard is responsible for preventing the execution of multiple functions simultaneously by locking a contract. As a consequence, reentrancy attacks become possible, which could lead to the complete depletion of funds from a contract.

Vyper is a contract-oriented programming language designed to be pythonic, and it specifically targets the Ethereum Virtual Machine (EVM). Due to its resemblance to Python, Vyper serves as an accessible choice for Python developers venturing into Web3 development.

The security incident subjected DeFi protocols to a stress test in the subsequent days, sparking concerns about its impact on the crypto ecosystem. This was particularly worrying because the vulnerability could potentially put all Wrapped Ether (WETH) pools at risk of being attacked.

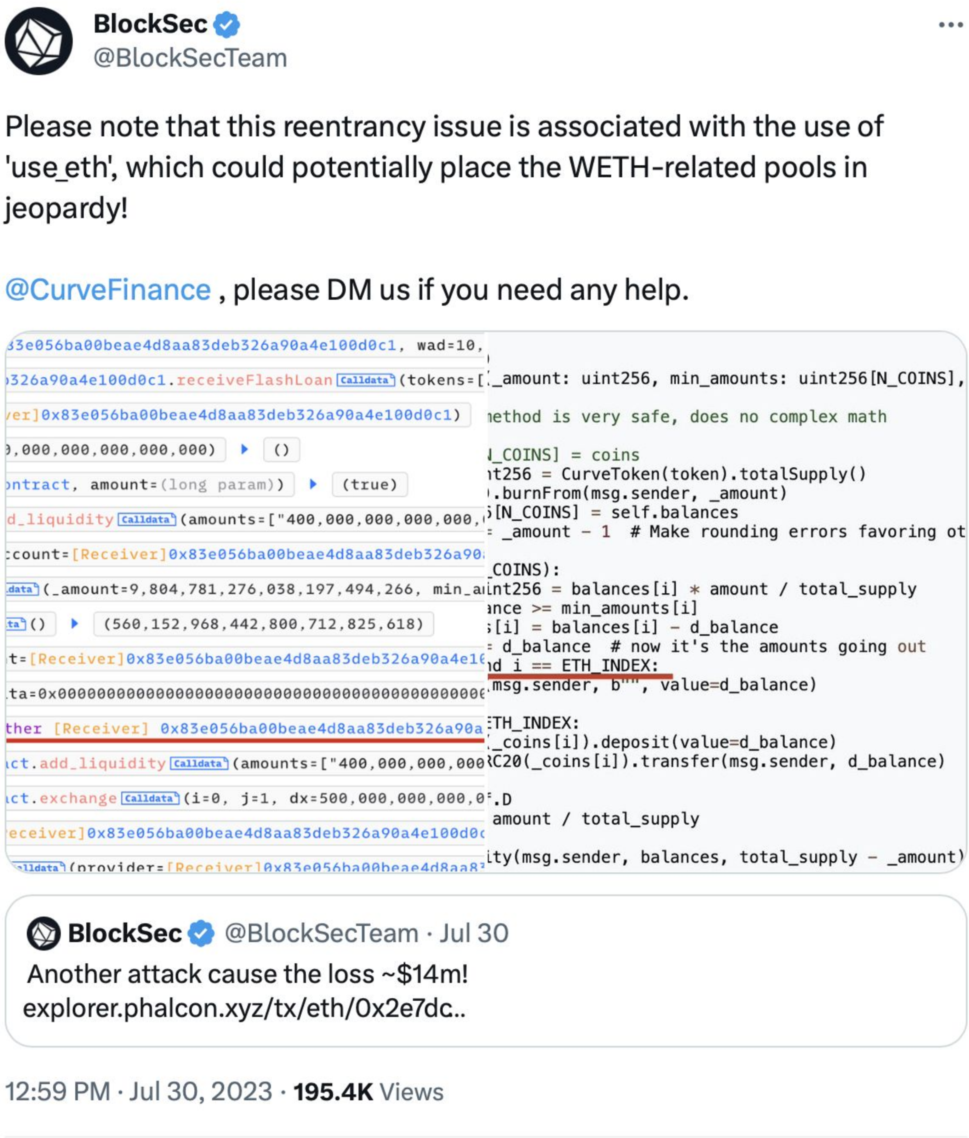


Figure 32. BlockSec Team Post on reentrancy issue which is associated with the use of 'use_eth' (Source: BlockSec Team)

BPI, whose members include banking giants such as Bank of America, Citibank, and Capital One, acknowledges the necessity of integrating digital assets into the existing AML and Bank Secrecy Act framework. In a statement, BPI expressed its commitment to safeguarding the nation's financial system against illicit finance in all its forms.

The proposed legislation targets various participants in the crypto market, including digital asset wallet providers, miners, and validators. These entities would be required to maintain customer identity records to enhance transaction transparency and combat money laundering and terrorism financing effectively.

Moreover, the bill aims to prohibit financial institutions from using digital asset mixers, like Tornado Cash, which can obscure blockchain data, potentially facilitating illegal activities.

Apart from BPI, the Massachusetts Bankers Association, the National Consumer Law Center, and the National Consumers League are among other supporters of the bill.

Senator Warren's vocal stance on stricter crypto regulations has been persistent since she initially introduced the bill to the U.S. Senate in December 2022. During a Senate Banking Committee hearing, she advocated for crypto to be held to the same AML standards as traditional banks, criticising attempts to create loopholes for decentralised entities that could enable money laundering by illegal actors.

As the debate over crypto regulation continues, stakeholders from both the banking and crypto industries will be closely monitoring the development of this legislation and its potential impact on the evolving financial landscape.

Vyper holds the reputation of being one of the most widely utilised Web3 programming languages. Hence, the presence of the bug in three of its versions could pose a threat to numerous other protocols.

Furthermore, the exploit resulted in one of the largest-ever maximal extractable value (MEV) reward blocks, totaling 584.05 Ether. As explained by Ethereum core developer "eric.eth," the bot detected an incoming hack in the mempool, replicated the transaction, and front-ran it. This process involves paying the block producer a significant amount of ETH to be prioritised in the queue. MEV bots can observe pending liquidation transactions and preemptively buy the liquidated assets at a discounted price.

Figure 33. Eric.eth Post on Twitter on Largest MEV reward blocks in Ethereum's History (Source:twitter.com/econoar)

July 31: Ethical Hacker Tries to Recover Funds

Amid the crisis, the DeFi community showed support for Curve Finance. On July 31st, a white hat hacker successfully recovered approximately 2,879 Ether, equivalent to about $5.4 million, from an exploiter and promptly returned the ETH to Curve Finance. Shortly after, another ethical hacker intervened and retrieved nearly 3,000 ETH, returning it to Curve's deployer address.

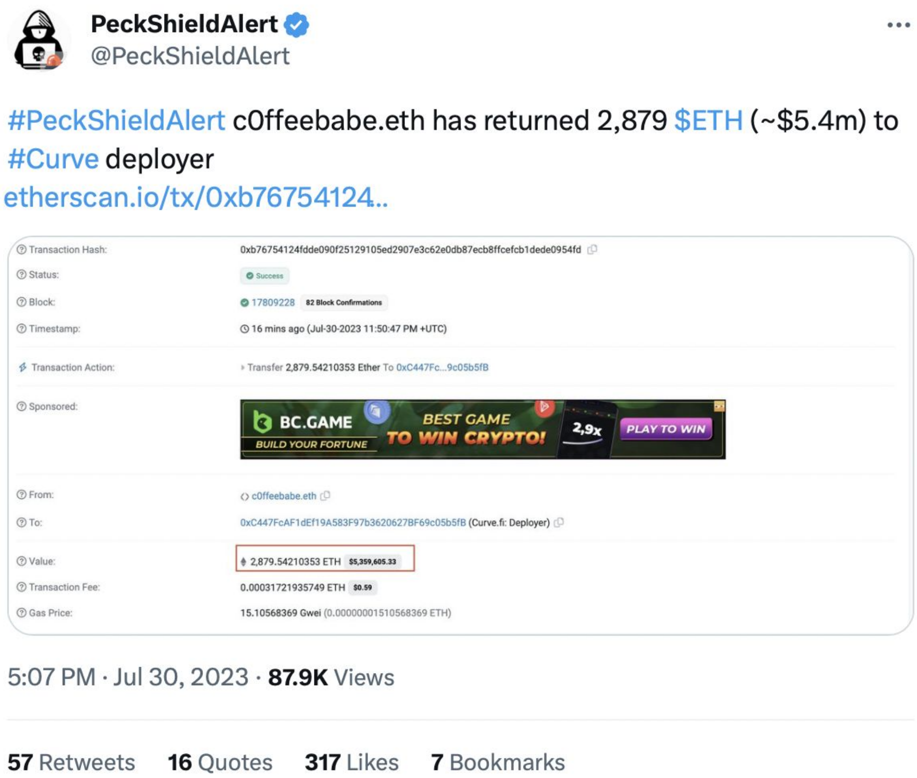


Figure 34. Post by PeckShieldAlert on ethical hacker returning 2879 $ETH (Source: PeckShieldAlert)

August 1: Curve CEO Rushes to Settle Collateralized Loans

According to Lookonchain data, on August 1st, Michael Egorov sold 39.25 million CRV tokens to prominent decentralised finance investors, including Justin Sun, Machi Big Brother, and DWF Labs. The total transaction amounted to $15.8 million and was conducted in exchange for stablecoins.

The buyers acquired CRV at a discounted price of $0.40 per token, representing a 25 percent discount from the prevailing market price at that time. Additionally, Egorov used a portion of the proceeds to make partial payments on two loans from Aave and Frax Finance.

On the same day, Huobi's Jun Du acquired 10 million CRV tokens to support Curve. Du expressed his plan to purchase 10 million CRV tokens at the existing market rate of $0.40, which was determined through over-the-counter transactions involving Egorov and other crypto community members. Du verified the completion of the purchase via direct message on Twitter. Subsequently, he chose to lock up the tokens as veCRV, thereby granting him voting rights on the platform.

August 3: For a Short Period, Curve's Native Stablecoin, crvUSD, Temporarily Lost Its Peg

The CRV token witnessed a significant drop in price on the DeFi market due to substantial liquidity withdrawals from various pools. Nevertheless, it was eventually rescued from complete collapse by the centralised exchange (CEX) price feed. On decentralised exchanges (DEXs), the CRV token price plummeted to $0.086, whereas on CEXs, it traded at $0.60, preventing the token from reaching a value of zero.

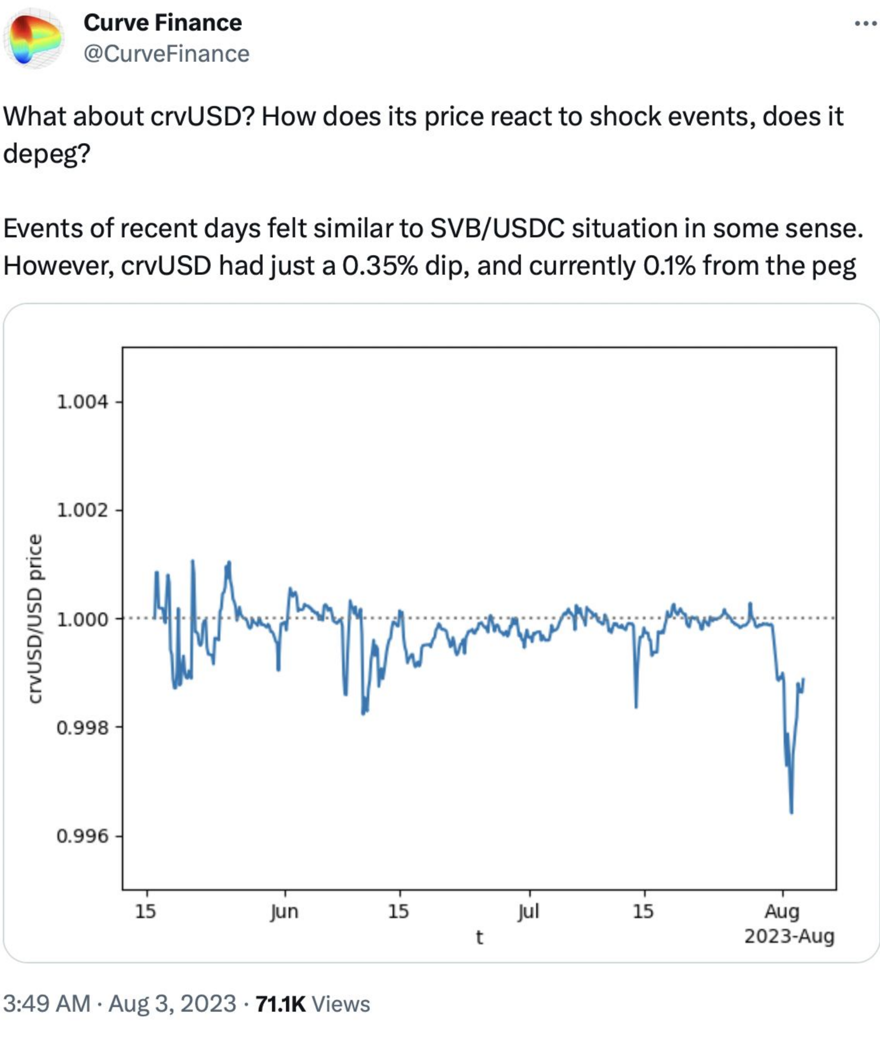


Figure 35. Curve's Stablecoin Briefly Depegged (Source: https://twitter.com/CurveFinance)

In response to the uncertain market conditions, Curve's native stablecoin, crvUSD, experienced a brief period of deviation from its peg on August 3rd. The algorithmic stablecoin's value dropped by as much as 0.35 percent before returning to its peg against the United States dollar.

Recently launched, crvUSD utilises a mechanism called the PegKeeper algorithm, which ensures that the stablecoin's value remains properly backed by collateral while maintaining a balance between supply and demand.

August 3: Curve, Metronome and Alchemix joined initiative to recover stolen funds

Curve, Metronome, and Alchemix have collaboratively announced an initiative to recover funds that were stolen during the exploits of Curve's pools. As part of this effort, the protocols have offered a 10 percent reward from the seized funds as an incentive. They are encouraging the responsible party behind the exploit to come forward and voluntarily return the remaining 90 percent of the funds, which would increase the total reward to nearly $7 million.

To assure the party involved, the protocols have guaranteed that no further legal actions or involvement of law enforcement will be pursued. They expressed their desire to handle the situation in a peaceful and civilised manner in their communication with the hacker.

August 4: The attacker accepted the bounty

In an unexpected turn of events, within less than 24 hours on August 4, the original attacker, responsible for the multimillion-dollar exploit, seemingly accepted the bounty offer and began returning the stolen funds. The hacker sent back 4,820.55 Alchemix ETH (alETH), amounting to approximately $8,889,118, to the Alchemix Finance team. Additionally, they returned one ETH, roughly valued at $1,844, to the Curve Finance team.

Along with the fund return, the attacker left a message, seemingly directed at the Alchemix and Curve teams, stating that they chose to return the funds not because they were caught, but rather to avoid harming the projects involved.

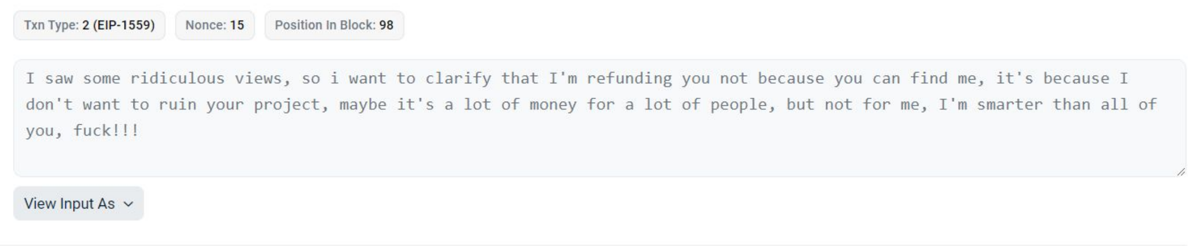
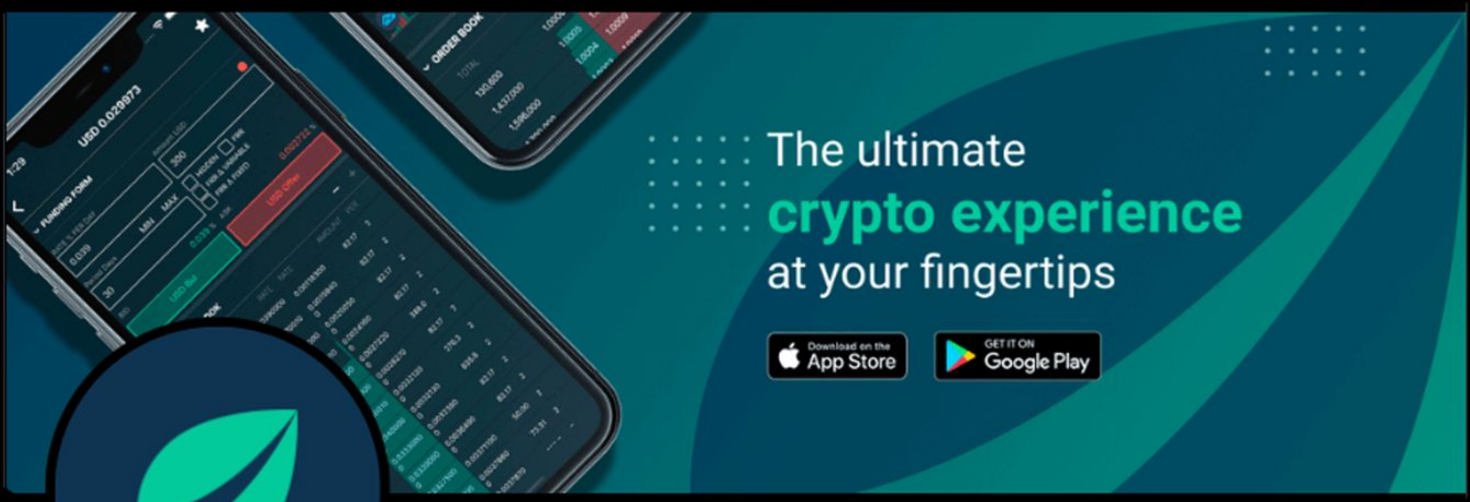


Figure 36. Message left by the attacker after returning funds

Shortly after, JPEG'd verified that the Curve Finance hacker has returned 5,495 Ether, which is approximately valued at $10 million based on current prices. As an incentive for returning the stolen funds, the hacker was rewarded with a bounty of 610.6 ETH, equivalent to $1.1 million.



https://t.me/bitfinex

BITFINEX Alpha