BITFINEX Alpha

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EXECUTIVE SUMMARY

Fed-speak has always been an art. Following last week's FOMC meeting, which resulted in another 75 basis point hike in rates, Fed Chair Jerome Powell said that future rate increases might be smaller, but then seemingly contradicted himself by indicating that increases would continue. Markets celebrated and then cowered. Confusion reigned.

But we should not be too surprised by the Fed's stance. Incessant hiking is no good for anybody, and the Fed knows it's now 375bp increase in rates since March will be having an effect on the economy. The trick therefore is not too tighten too hard that the patient ends up strangled.

The market reaction was not so much a reflection to the latest interest rate hike, but rather how investors and businesses react to the rate hikes and how they interpret the value of assets. The Fed takes this into account, and needs to perform a fine balancing act, as they determine monetary policy.

The challenge is a stiff one. In the real economy, wage inflation is very sticky. In October, wages were up 7.7 percent year-on-year for people in jobs, while for people who changed jobs, it was up an astonishing 15.2 percent. That's down from 15.7 percent in September but still huge.

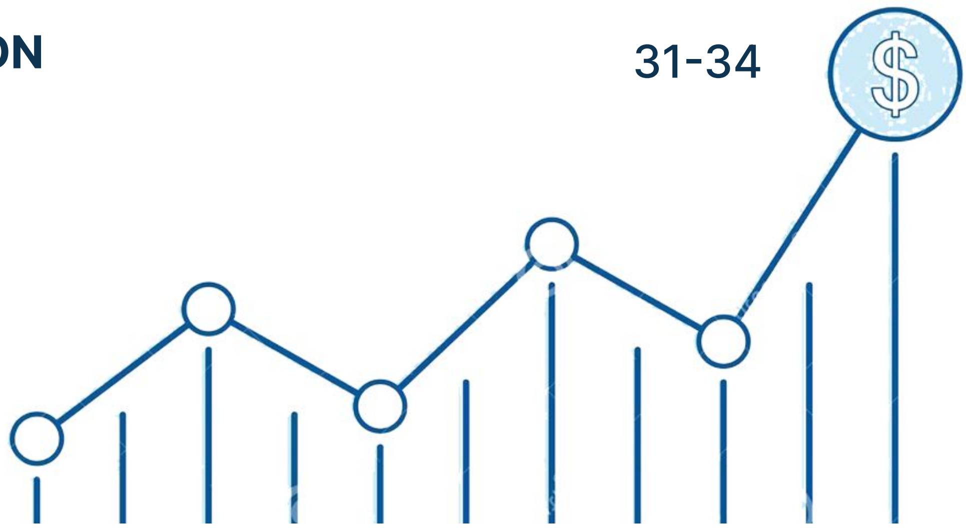
Core CPI, a key determinant for rates, rose 0.6 percent in October. For the Fed to reach its two percent inflation target, core CPI needs to be rising by a maximum 0.1-0.2 percent. There are two more CPI prints before the next FOMC on December 13-14. If we see Core CPI moderating to 0.3-0.4 percent, along with a slowdown in other indicators, then rates could rise by only 50 bps in December.

For risk assets, such as equities, this uncertainty ought to be negative, but the current equity risk premium over 10-year treasuries is only 90 basis points, which is way below the historical average of 129 basis points. We expect more volatility here. Even with a stronger jobs report, equities were still rallying last Friday. That doesn't look right to us.

As we look on-chain, we note the rapid growth that is taking place in crypto assets exposed to the games industry. BNB and Polygon have been the dominant blockchains for games developers, but Solana has been gaining ground, while WAX and Hive have also proved to be resilient due to a loyal base of fans for the games they host. It provides an interesting perspective for anyone who wants to evaluate blockchains based on their utility and activity for gaming.

Happy Trading!

INDEX



GENERAL MARKET UPDATE

Hiking Cycle Continues

It was no surprise that the Federal Reserve (Fed) raised interest rates again on Wednesday, November 2. The increase by another 75 basis points, brings the total amount of rate hikes from March to 375 basis points and the Fed funds target range to 3.75 percent to 4 percent.

Our previous issue discussed potential dovish policy shifts across central banks. (https://bit.ly/3FNsisY) The reasoning behind this was simple; economies cannot sustain indefinitely aggressive hiking cycles when inflation remains stubbornly high. It was therefore no surprise, at keast to us, that Fed Chair Jerome Powell suggested that there might be a "slow down" in the pace of future rate hikes. The statement is clearly dovish at first glance, but taken in context, contains a degree of ambiguity, as Powell stated a possible "higher" endpoint for interest rates and "anticipates that ongoing increases in the target range will be appropriate.”

Complacent investors celebrating temporary relief across risk assets, especially crypto, were reeling with increased confusion in the aftermath of these statements. In our view, the takeaway is that a “normalisation” of interest rate hikes has set in where 75 bps hike should always be expected. We can expect more rate hikes until the Fed's monetary policy is "sufficiently restrictive to return inflation to two percent over time". The dovish pause expected by most investors might be short-lived if it even occurs at all. Rest assured, the Fed will get the job done to return the US economy to the targeted inflation rate regardless of how the economy reacts, but Powell indicated he will be sensitive too; and that the Federal Open Market Committee (FOMC) “will take into account the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity, inflation, and economic and financial developments."

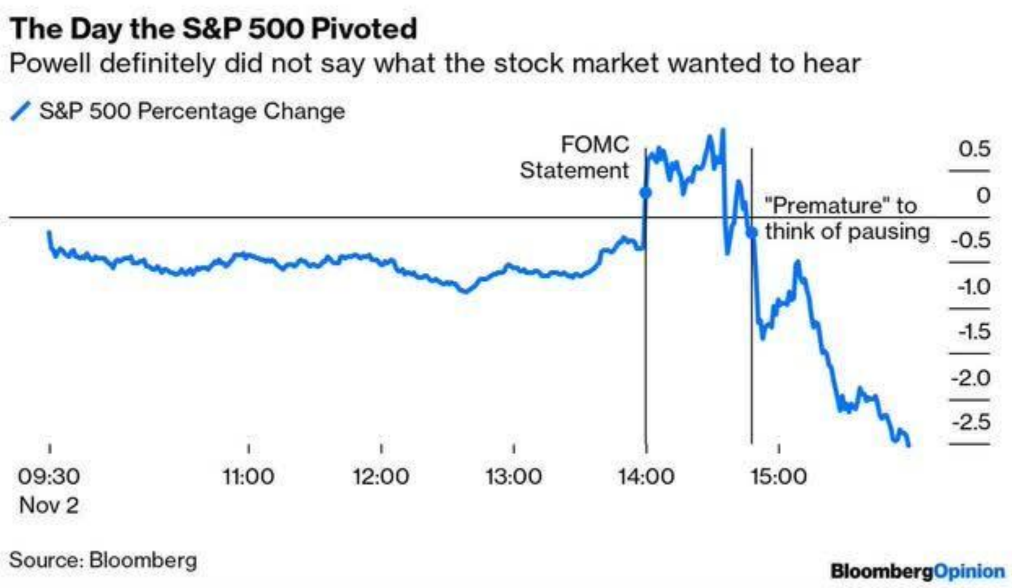


Figure 1. *Volatility in the Stock Market During the FOMC Meeting: November 2(Source: Bloomberg)*

Although this was not the so-called pivot the market desired, it did reflect an understanding that the economy needs time to adjust to the rate hikes already implemented and that smaller rate hikes are prudent as we move forward. The Fed attempts to moderate the pace of rate hikes so the economy can better digest them since continuing to raise rates aggressively risks creating a rough landing in the shape of a deep recession. The Fed Chair's statement initially sent bond yields to a decline and sent stocks soaring.

But Powell abruptly dampened the enthusiasm by stating that "the ultimate level of interest rates will be higher than previously expected." That was all it took to send stocks plunging from their highs of the day to settle and close substantially in the red. The ambiguity surrounding the Fed’s intent stems from its simultaneous decision to ease the rate hiking cycle while extending its duration, sending markets into a frenzy.

In his press conference, Powell emphasised the distinction between the pace of rate hikes and the terminal rate level. Powell said: "The question of when to moderate the pace of increases is now much less important than the question of how high to raise rates and how long to keep monetary policy restrictive."

This statement suggests that the monetary policy will be tighter for longer.

The trend in wage growth is one of the most challenging economic indicators determining the Fed's success in bringing down inflation. Wages add to the cost of every good and service, and are tough to cut once increased. Hence, wage growth tends to cement price inflation. The October ADP National Employment Report, published on November 2, reported a 7.7 percent Year-over-Year (YoY) increase in salaries for job-stayers and an astonishing 15.2 percent YoY gain in wages for job changers. Although this is less than the YoY rate of 15.7 percent in September, these pay increases contribute to persistent price inflation.

The Fed remains data-dependent and will want to see evidence that price pressures are starting to moderate before slowing down. Inflation momentum is slowing, but the level is still unacceptable. September headline Consumer Price Inflation (CPI) was at 8.2 percent YoY and Core CPI (excluding food and energy) was at 6.6 percent YoY. The core CPI continues to show prices rising by 0.6 percent Month-over-Month (MoM), whereas we need to see numbers closer to 0.1 percent to 0.2 percent MoM to get annual inflation down to two percent over time. Before the December FOMC meeting, we have two CPI releases to look forward to, the October CPI on November 10 and the November CPI report on December 13. A core CPI reading of 0.3 percent or 0.4 percent MoM, along with other indicators of a broadening slowdown, would likely give the Federal Reserve the green light to make a 50 basis points (bps) increase. This is our prediction based on the data at hand, given market expectations, and utilising the FedWatch Tool.

Markets agree and are factoring in 50 bps at the December meeting and another 50 bps at the January 31-February 1 meeting, followed by a further 25 bps increase in March. But how far will the rates go?

Powell did not reveal their target terminal rate. However, the terminal rate as predicted by Fed Fund futures is currently indicated at 5.1 percent. The CME FedWatch Tool indicates a 96.8 percent chance that interest rates will reach a peak above 4.75 percent by the June 2023 FOMC meeting.

MEETING PROBABILITIES									
MEETING DATE	375-400	400-425	425-450	450-475	475-500	500-525	525-550	550-575	575-600
12/14/2022	0.0%	0.0%	52.0%	48.0%	0.0%	0.0%			
2/1/2023	0.0%	0.0%	0.0%	18.6%	50.6%	30.9%	0.0%	0.0%	0.0%
3/22/2023	0.0%	0.0%	0.0%	3.8%	25.1%	46.6%	24.6%	0.0%	0.0%
5/3/2023	0.0%	0.0%	0.0%	2.5%	17.8%	39.2%	32.1%	8.4%	0.0%
6/14/2023	0.0%	0.0%	0.0%	2.2%	16.2%	37.0%	32.8%	10.8%	0.9%
7/26/2023	0.0%	0.0%	0.3%	4.0%	18.8%	36.5%	30.1%	9.6%	0.7%
9/20/2023	0.0%	0.0%	0.9%	6.6%	22.0%	35.4%	26.4%	8.0%	0.6%
11/1/2023	0.0%	0.0%	0.9%	6.1%	20.6%	34.2%	27.2%	9.6%	1.3%
12/13/2023	0.2%	1.9%	8.9%	23.2%	32.9%	23.9%	8.1%	1.0%	0.0%

Figure 2 *. Probabilities of FOMC Meeting Target Rates, Data as of November 4, 2022, 08:56 Central Time (Source: CME Group FedWatch Tool)*

Chairman Powell concluded his introductory remarks at the press conference by saying:

”We will stay the course until the job is done.”

The Fed has shown its unceasing commitment to lowering inflation. The takeaway from the post-FOMC comments by the Federal Reserve chairman is that the central bank is not fearful of tightening too much but is more concerned about tightening too little or easing again too soon.

Higher Rates, Unfavorable for Risk Assets and Bonds

Higher rates and further shrinkage in the Fed balance sheet increases the risk premium for investors. Thus, it's unfavourable for risky assets and long-term bonds. The risk premium is significant in times of economic uncertainty. Risk premiums are like hazard pay to an investor's assets and are the difference between the risk-free rates and earnings yield. The less confident investors are, the higher their risk premium will be. Many analysts use the 10-year Treasury bond yield as the "risk-free" rate when valuing the markets or individual securities. The current yield on 10-year Treasury bonds is 4.14 percent; these levels were last seen in 2010.

$$\textit{Equity Risk Premium} = \textit{Earnings Yield} - \textit{Risk Free Rate}$$

$$\textit{Earnings Yield} = \frac{\textit{Earnings per Share}}{\textit{Stock Price per Share}}$$

Figure 3. *Calculation For Equity Risk Premium and Earnings Yield*

The earnings yield on the S&P 500 Index is around 5 percent. This represents a risk premium of about 90 bps over US 10-year Treasury bonds.

There has been a downward trend in projected earnings for 2023, but the forecast is still strong. Earnings per share for the S&P 500 is estimated to reach $235.92, up 6.6 percent year-over-year for the first quarter of 2023. That would mean an earnings yield of 6.2 percent at current prices.

Yield	Forecast and difference vs last yield			
4 Nov 2022	Mar 2023	Jun 2023	Sep 2023	Dec 2023
4.163%	5.167%	5.867%	6.427%	6.834%
10 Years	+100.4 bp	+170.4 bp	+226.4 bp	+267.1 bp

Figure 4. *. Forecast Yield for 10-Year US Treasury Bond, last update November 4, 2022, 21:15 GMT+0 (Source: Highcharts.com)*

The current forecast of the 10-year Treasury yield is at 5.1 percent by March 2023. The resulting range for the risk premium is therefore around 1.1 percent. The average risk premium over the last 20 years is 1.29 percentage points, meaning that S&P 500 need not move much if only to keep the risk premium on-trend. This is based on the assumption that earnings predictions are accurate.

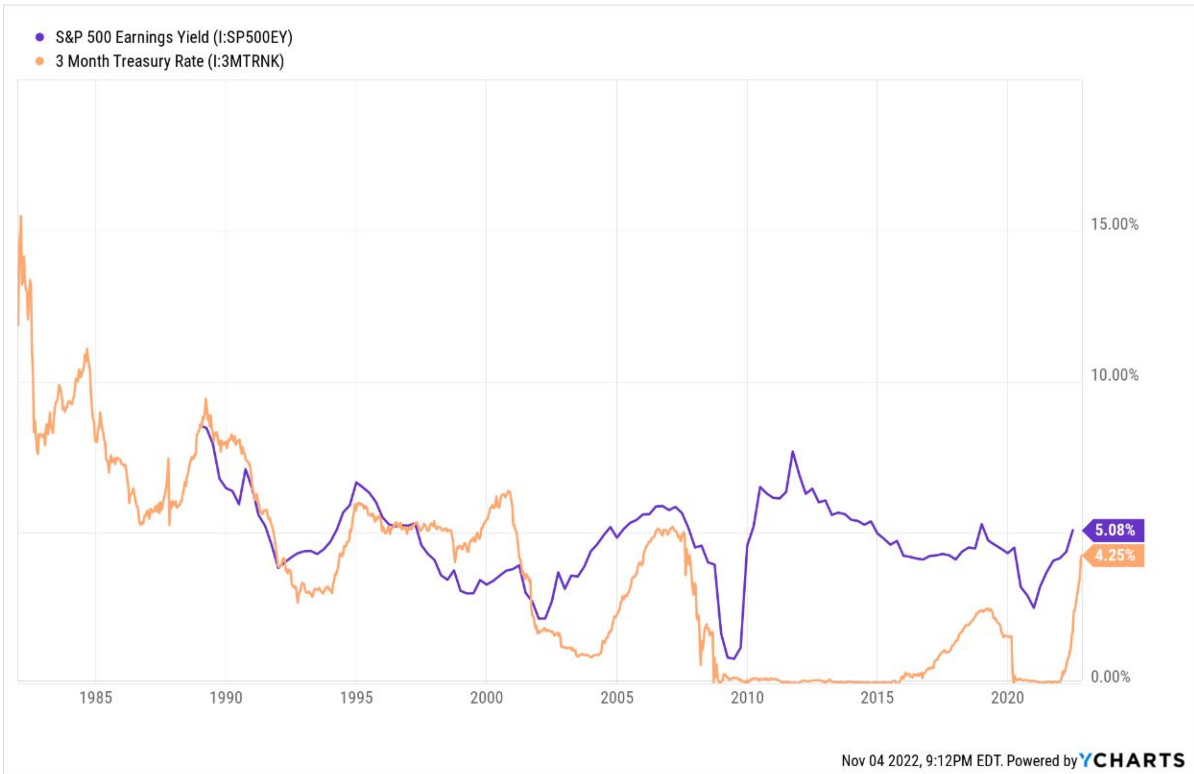


Figure 5. *S&P 500 Earnings Yield and 3-Month Treasury Rate: Interest rate hikes effect on Earnings growth (Source: YCharts)*

However, that seems unlikely given the expectations of more tightened monetary conditions, which don't support earnings growth. We know the Fed will keep its strong stance in weakening demand through rate hikes. Historically, the rise in short-term rates, which is affected directly by Fed rate hikes, is followed by a decline in earnings yield. Also, a higher risk premium is typical during increased financial and economic uncertainty. As shown in figure 6, a spike in March 2020 in the National Financial Conditions Index - which measures conditions in US financial markets and the traditional and shadow banking system - resulted in a 380bp risk premium.

Changes in the economy, inflation expectations, interest rates, and monetary policy all have an impact on the equity risk premium. When the outlook for the market is gloomy and the economic growth slows down, the equity premium is likely to increase, which was the case in the early phase of the pandemic.

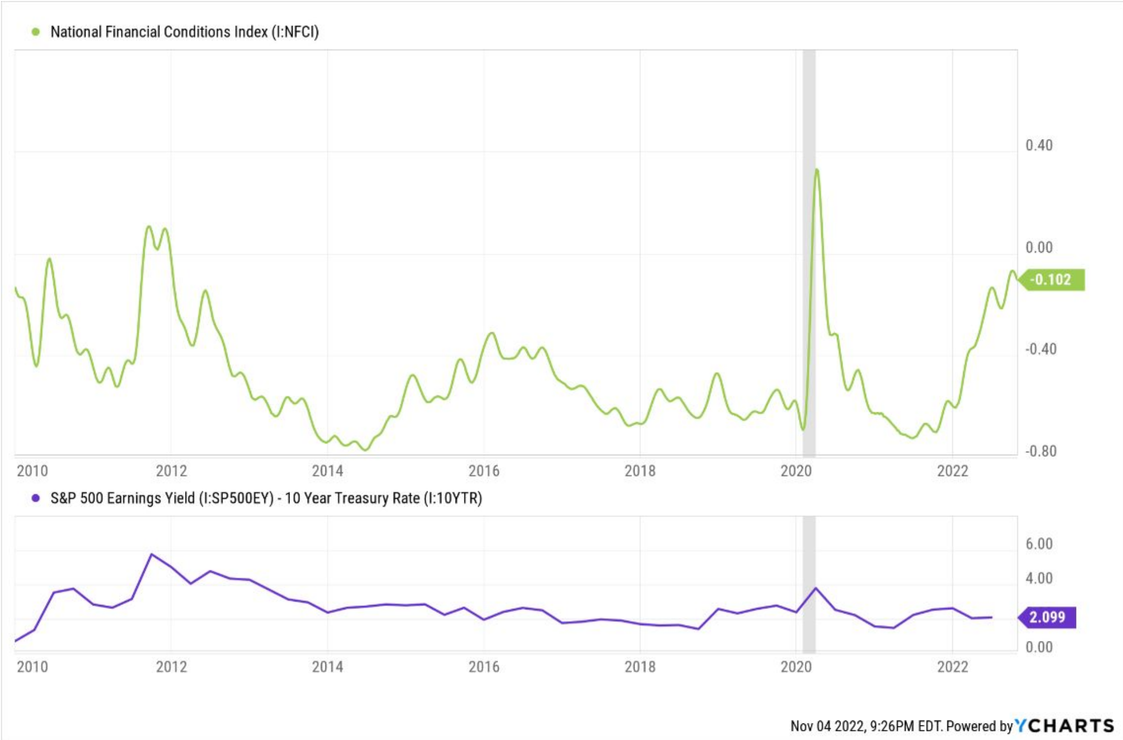


Figure 6. *S&P 500 Risk Premium (Earnings yield minus 10-Year US Treasury Yield) and National Financi Conditions Index (Source: YCharts)*

As monetary tightening continues, the stock and bond markets may expect more volatility in the coming months. The current risk premium and stock valuations are unfavourable compared to real rates. The situation may worsen as a Fed pivot is nowhere in sight, and we expect interest rates to continue to rise.

Lower earnings from weakened demand may also affect companies' stock prices.

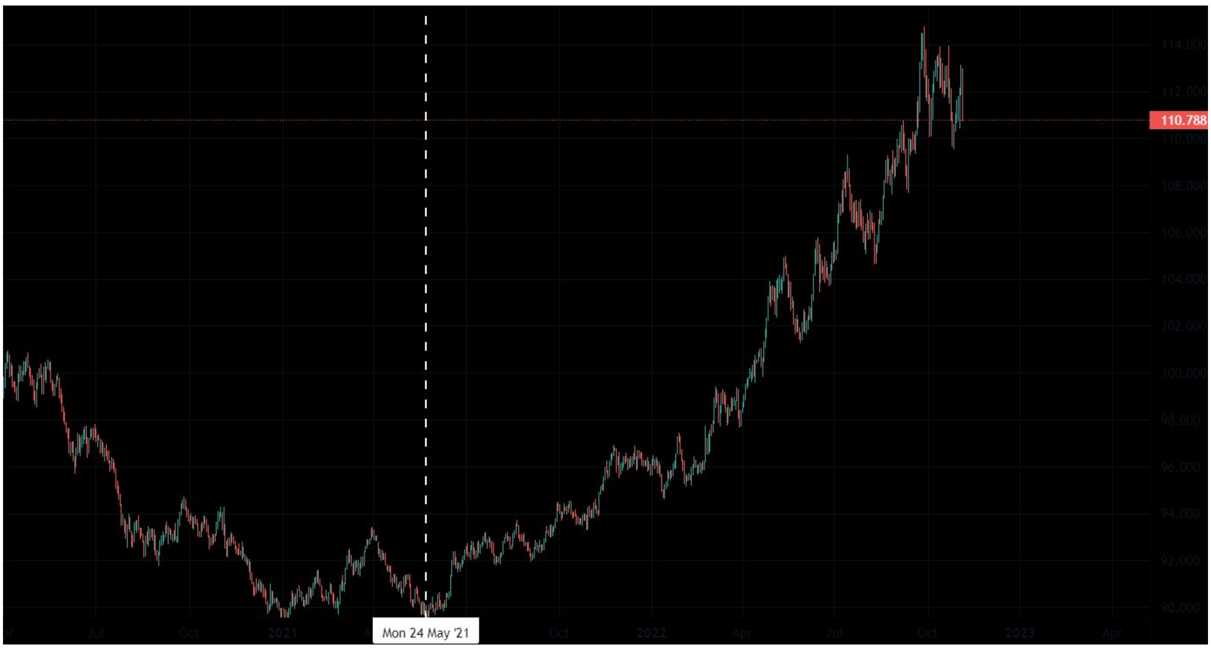


Figure 7. *DXY, or dollar Index, after bottoming in May '21, faces resistance for the first time owing to shaky*

It is also instructive to look at the state of the dollar index. By boosting supply, expansionary monetary policy helps to devalue the dollar. When the reverse happens, we typically observe a declining or even negative growth rate of USD supply as monetary policy becomes contractionary. It's hardly unexpected to see the dollar rising, given Powell's comments on how much effort is required to restore price stability. Further, he confirmed that USD supply will continue to shrink in the near future. The US dollar’s purchasing power rises when fewer dollars vie for the same amount of goods (particularly products impacted by inflation). Furthermore, higher interest rates in the US increase demand for dollars as foreign investors gain access to higher yields on US debt.

On the final day of the last trading week, the DXY Dollar Index registered a 1.9 percent tumble – the worst single-day loss since December 3rd, 2015. This is important to note as the run of the dollar is interlinked to the hiking cycle and the dollar safe haven narrative. The catalyst was probably that Non-Farm Payrolls (NFP) numbers came in better than expected (rising less sharply), thereby informing the pace and size of future rate hikes. This drop in USD signals early signs that the dollar run-up is slowing down, but that there will also be an even slower recovery for risk assets.

The story remains more hawkish when we consider how bond markets reacted; they potentially priced in “higher for longer” rates post-FOMC. The chart below shows how the bond market digested this message: the Fed was not only repriced to hike rates above 5 percent but to keep them at least around that level for six more months until the end of 2023.

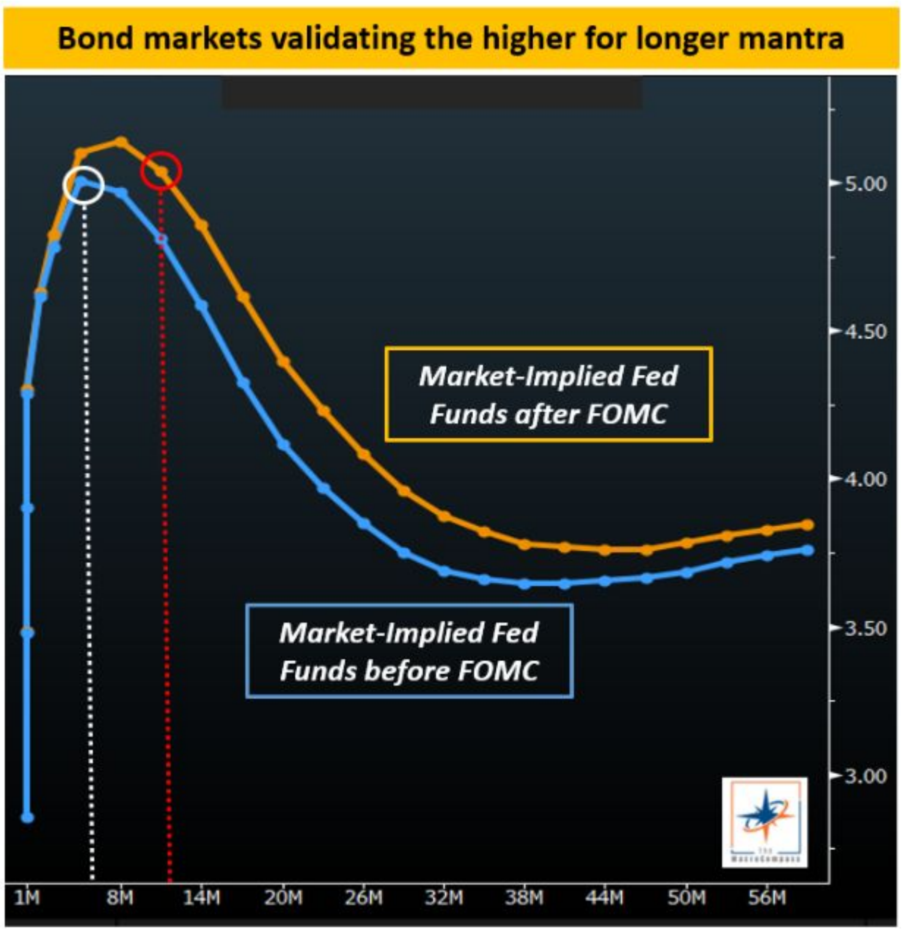


Figure 8. *Market-Implied Fed Funds Rates pre and post-FOMC. (source: MacroCompass)*

The higher for longer mantra is essential to the Fed's mandate because it reduces the possibility of financial conditions preemptively easing well ahead of time, potentially spurring an uptake in economic activity, which is undesirable given the Fed's willingness to bring inflation down to two percent as quickly as possible. There is no ambiguity regarding the Fed's statements regarding market rallies; we can expect a strong pushback against easing financial conditions.

October Job Reports: Stronger or Weaker than Expected?

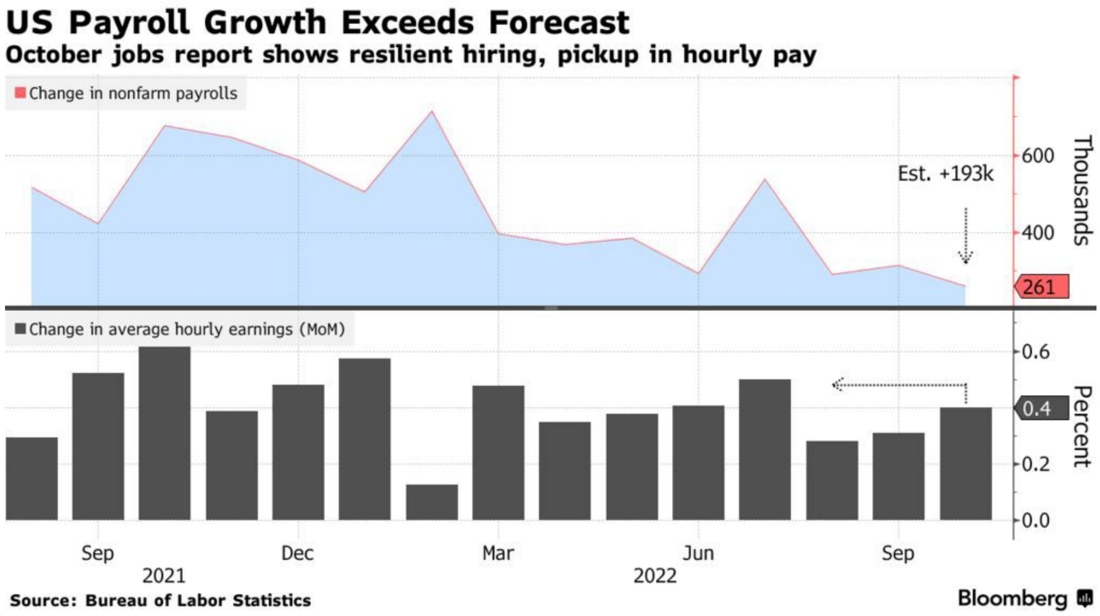


Figure 9. *Change in Non-Farm Payrolls and Average Hourly Earnings, MoM (Source: Bureau of Labor Statistics, Bloomberg)*

On Friday, November 4, the market got the latest job numbers for October, which came in stronger than market forecasts. Non-farm payrolls rose by 261,000 jobs MoM in October, compared to the Bloomberg consensus estimated rise of 193,000. Private sector payrolls advanced by 233,000, versus the forecasted rise of 200,000, after increasing by 319,000 in September. The unemployment rate fell to 3.7 percent. The labour force participation rate dropped to 62.2 percent.

Moreover, average hourly earnings were up by 0.4 percent in October, higher than 0.3 percent estimates. According to the Labor Department, the US economy now has 1.86 open jobs per unemployed worker. It's also worth noting that since March this year, most of the job gains came from part-time jobs and multiple job holders also grew - a result of elevated prices of goods and services forcing people to make ends meet.

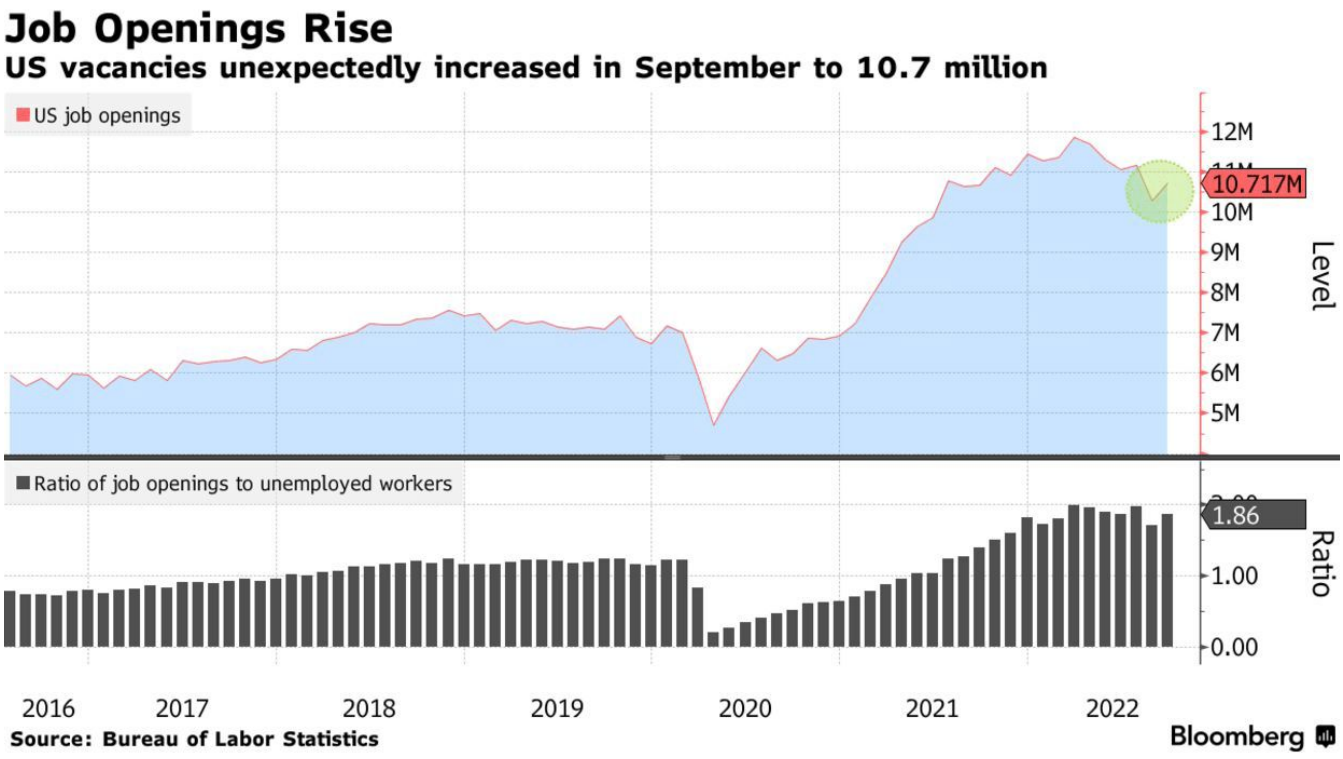


***Figure 10**. US Job Openings & Ratio of Job Openings to Unemployed Workers (Source: Bureau of Labor Statistics, Bloomberg)*

The recent job report shows that there is an insufficient amount of economic slowdown to hurt the demand for labour and thus strengthens Fed's conviction for tighter monetary policies.

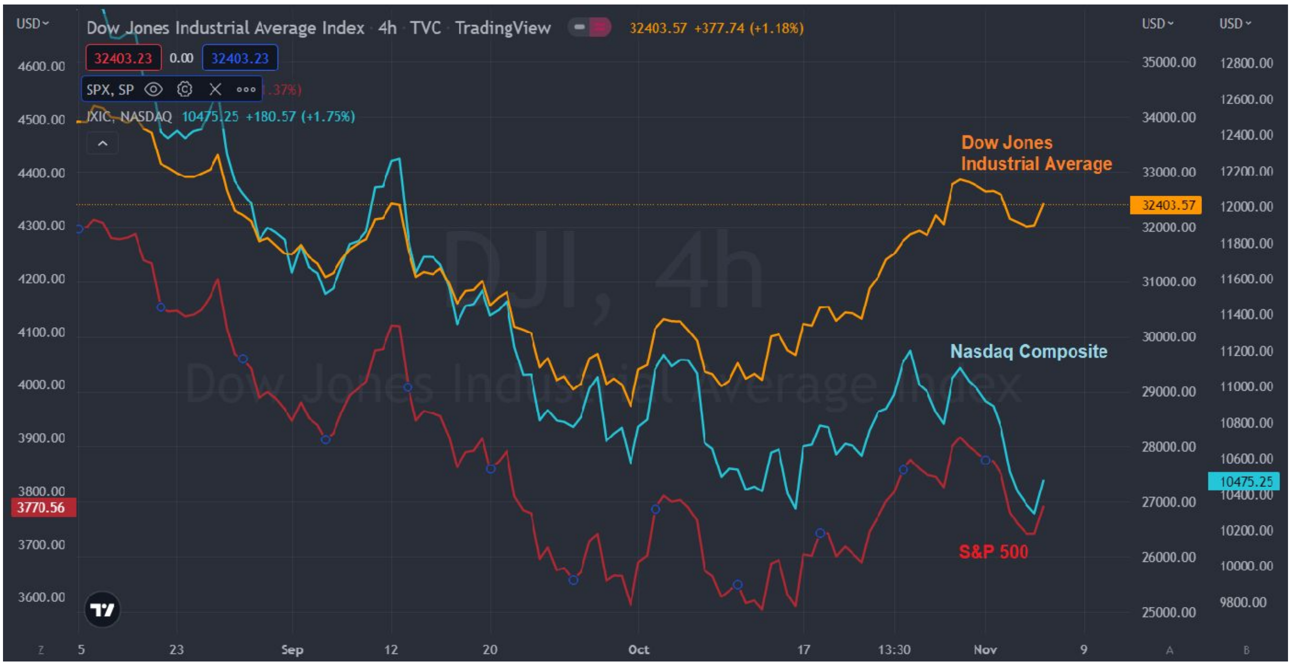


***Figure 11**. Equities Market Ended the Week at a loss despite gains on Friday, November 4 (Source: Tradingview).*

However, despite the hawkish job reports, traders and investors are front-running the upcoming job report in anticipation of economic weakness in the months ahead. On Friday, November 4, US equities ended the day higher but still posted a weekly loss. On the day, the Dow Jones Industrial Average (DJIA) rose 1.3 percent to 32,403, the S&P 500 Index increased 1.4 percent to 3,771, and the Nasdaq Composite advanced 1.3 percent to 10,475. On the week however, the DJIA declined 1.4 percent, the S&P 500 fell 3.4 percent, and the Nasdaq Composite was down by 5.7 percent.

Summary

- The Federal Reserve has raised the Federal Funds Rate by 75 basis points to a range of 3.75 percent to 4 percent.
- Fed Chair Powell's comments Wednesday suggested that even if the Fed slows the pace of its rate hikes, interest rates will have to be higher than the Fed earlier thought.
- Terminal rate targets have now increased while expectations for the duration of rate hiking have expanded.
- The upcoming CPI prints will be crucial for the Fed's next move during the last FOMC meeting this year, on December 14.
- Higher rates for longer are not supportive of long-duration assets and equities.
- Non-farm payrolls rose by 261,000 jobs MoM in October, compared to the Bloomberg consensus estimate of 193,000. Private sector payrolls advanced by 233,000, versus the forecasted rise of 200,000, after increasing by 319,000 in September. The unemployment rate fell to 3.7 percent.
- The jobs report was strong enough to keep the Fed from becoming dovish. However, buyers are front-running the future job reports with the anticipation of economic weakness to show in the coming months

WHAT'S ON-CHAIN THIS WEEK?

Alternating Crypto Narrative

common trend for the current bear market has been rotation-based plays. While Bitcoin and Ethereum emain assets that drive and influence the entire market, the switch from treating the crypto market as a ace with numerous cryptocurrencies, to a market with a multitude of crypto assets has been a major ne.

nalysing activity across emerging chains is helpful for investors to gauge the market wealth-driving arrative and pinpoint where the smart money is flowing to and building positions. In this section, we nalyse in particular, revenue generation from crypto assets in the crypto gaming category that epresent genuine businesses and companies.

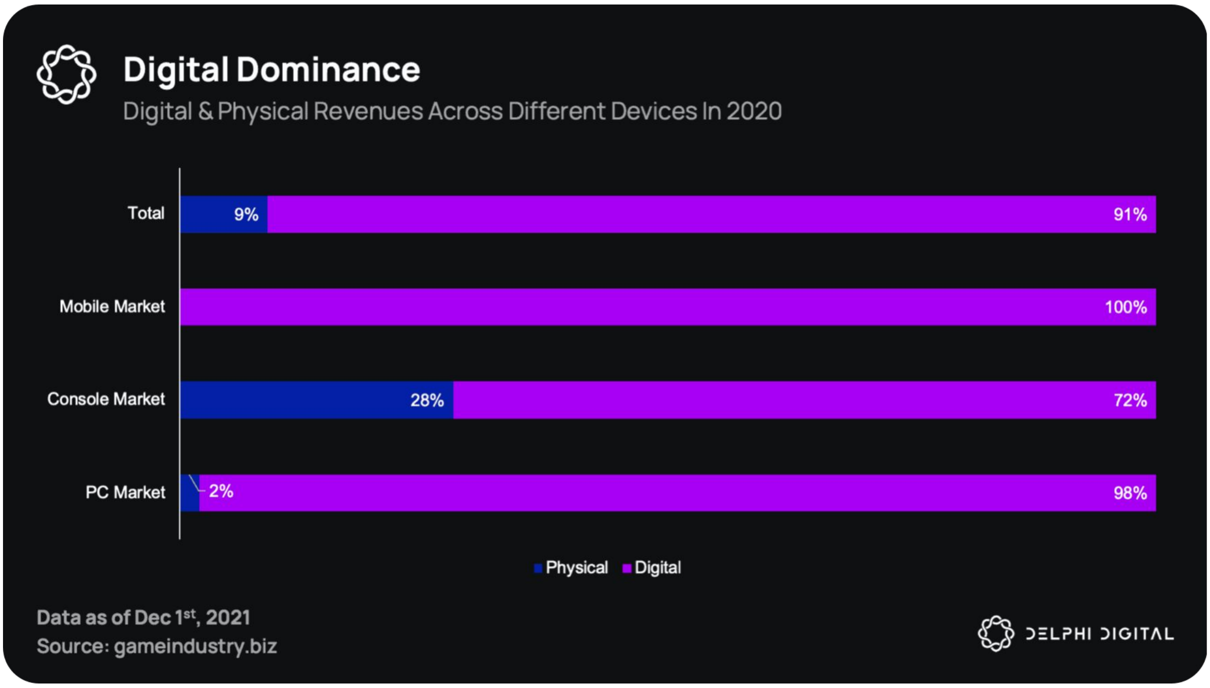


Figure 12. *Gaming Sector revenue across devices. (source: Delphi Digital)*

ypically, different sectors take turns rallying. Generally, an upward leg in crypto prices starts with an crease in the BTC price. This is typically followed by a rally in Ether, after which other altcoins begin to lly. Given that we've already seen price increases in Ether and DOGE in the last week, several market articipants also expect a rally in other altcoins. It remains to be seen if this rally has any legs or is erely generating exit liquidity before we hit new lows.

ne important takeaway is that simply holding BTC or Ether might not be the best strategy for investors the bear market. It is important to be an active investor and rotate capital as the narrative and money ows rotate.

Growth of Web 3 Gaming

One sector that is witnessing rapid growth is the gaming sector, with various models like play-to-earn and in-game currencies using blockchain technology becoming more commonplace.

- 91 percent of the $175 billion gaming industry's sales in 2020 were made online. The market for digital games is predicted to reach $560 billion by 2028, and things are only likely to get better from here.
- Digital distribution channels are essential to this expansion since they enable the recruitment of more developers and assist users in finding the finest content.
- Since 2004, several businesses have adopted the digital distribution service model, including Steam, Good Old Games (GOG.com), EA's Origin, and the Epic Games Store (EGS).
- Post-2010, the adoption of mobile gaming resulted in the meteoric rise of Apple's App Store (for iOS devices) and Google's Play Store (for Android devices). By 2020, 91 percent of the total $175B game industry revenue came from digital sales.

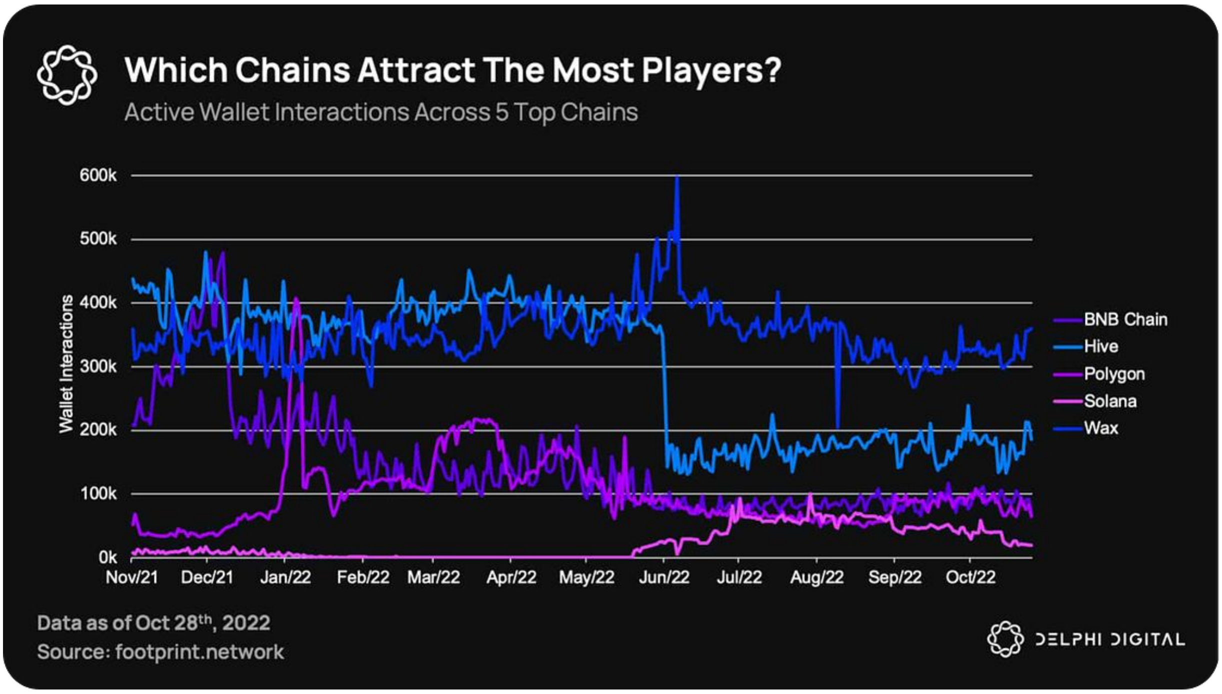


Figure 13. *Chain-wise growth analysis in crypto. (source: Delphi Digital)*

In crypto, we can observe - as indicated in the graph above - the number of active wallets engaging with gaming protocols, which may be interpreted as a rough indication of the popularity of gaming across each of the most prominent blockchains (wallet interactions do not equate to active players). While BNB has the highest number of wallet interactions, it is interesting to note the presence of Hive and WAX, which are dominated by three games—Splinterlands, Alien Worlds, and Farmers World—which significantly skews the chart.

Onchain activity has been slowing down for slower or recently deployed chains. However, as advocates for building reliable infrastructure throughout bear markets, it is encouraging to see less popular chains seeing greater developer activity as well. It is encouraging to see, for example, the "underdog" Solana gradually overtaking the more reputable gaming chains, BNB and Polygon, which both see numerous new games being released each month. While there remains some distinction in the activity in the chain, the rate of growth in activity is much higher for Solana when compared to Polygon or BNB.

When reviewing the Web3 scene, it is soon apparent that things are not as well organised as they are in the traditional digital distribution market because the sector is still in its infancy. However, its growth is unlikely to stop. Identifying the two main obstacles to the general adoption of blockchain-based games is crucial: high entry barriers and discoverability.

In order to entice more game creators to use Web3, the most well-known providers are competing to offer the most funding, the quickest and least expensive transactions, the highest level of support, and the best suite of SDKs/APIs. This is where the discussion begins relating to the ease and reliability of sustainable development across different blockchains.

Such analysis is crucial to gauge which new chain or protocol might gain transaction.

NEWS FROM THE CRYPTO-SPHERE

India Cenbank to Start Pilot of Digital Rupee on November 1

Figure 14. *The Digital Rupee pilot starts on November 1; SBI, HDFC, and seven other banks to participate in the wholesale launch*

The Reserve Bank of India (RBI) announced on Monday October 31, that from November 1, 2022, it would begin pilot launches of the Digital Rupee for specific use cases.

According to the RBI, the first pilot will be in the Wholesale segment and will begin on Tuesday November 1.

Nine banks will participate in the wholesale launch, including State Bank of India, Bank of Baroda, Union Bank of India, HDFC Bank, ICICI Bank, Kotak Mahindra Bank, Yes Bank, IDFC First Bank, and HSBC.

The Digital Rupee is a Central Bank Digital Currency (CBDC), which the RBI defines as a digital form of legal tender issued by a central bank. Simply put, it is a digital form of fiat currency, and is intended to be exchanged for fiat currency one for one.

Crypto exchange Deribit loses $28 million in a hack, halts withdrawals

Figure 15. *Deribit tweeted about the hack.*

Cryptocurrency options and futures exchange Deribit has been hacked, with $28 million drained from its hot wallet.

During an appearance on CoinDesk TV on Wednesday 2, November, Deribit's chief commercial officer, Luuk Strijers, said client assets were not affected. Still, withdrawals have been temporarily halted as the exchange makes security checks.

"Hackers have gained access to our wallet server, which enabled them to initiate withdrawals from our hot wallet," Strijers said. "We keep 99 percent of our assets in cold storage and only 1 percent in hot wallets. The hacker gained access to these hot wallets."

Strijers also revealed that the entirety of the loss would be covered by Deribit's balance sheet assets, which are separate from the company's $40 million insurance fund.

"We're still looking at the attack vectors, and we can't share beyond what we've shared at this moment, but we're looking into how access was gained," Strijers added.

Swiss regulator includes AML provisions for crypto transactions.

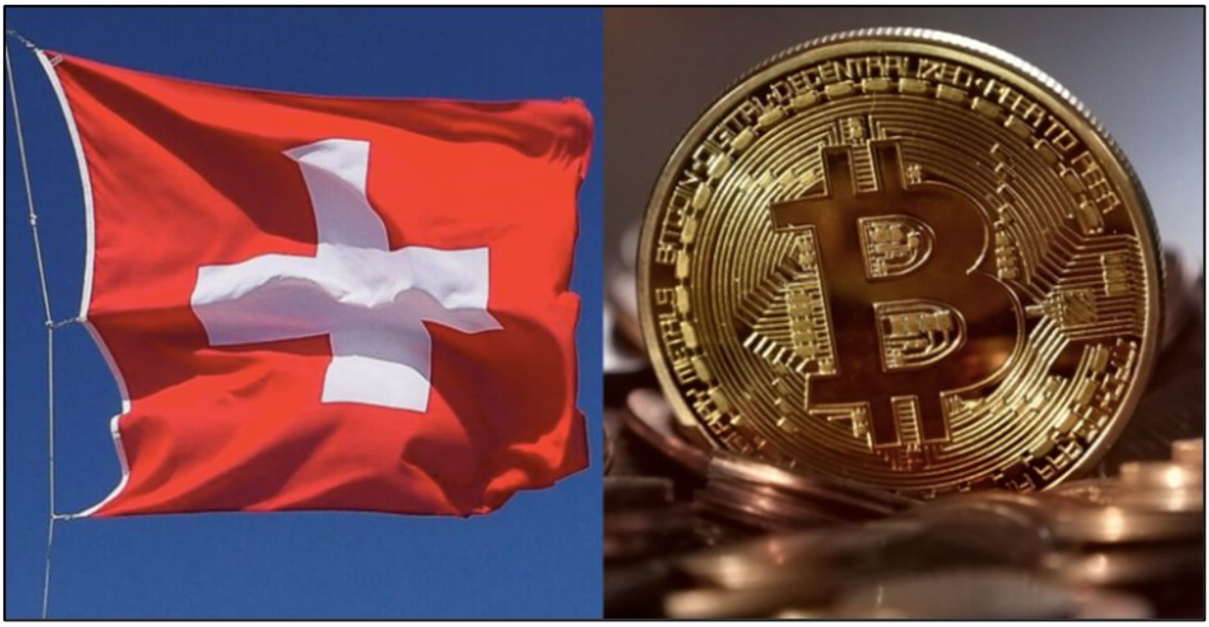


Figure 16. *Swiss citizens will be obliged to verify their identities for crypto transactions over 1000 Swiss francs from next year.*

Switzerland's financial regulator will include crypto in its anti-money laundering (AML) regulations.

From next year, Swiss citizens will need to confirm their identity when conducting crypto transfers of over 1000 Swiss francs ($1005), the Swiss Financial Market Supervisory Authority (FINMA) said in a release.

FINMA reportedly received "numerous responses concerning the specification of the threshold for transactions with virtual currencies." Despite the concerns raised in the consultation, the monetary regulator went forward with the previously established threshold of 1000 Swiss francs due to "risks and recent instances of abuse."

FINMA states these regulations will apply to linked transactions starting January 2023.

JPMorgan Executes Its First DeFi Trade Using Public Blockchain

Figure 17. *Banking giant uses Polygon and modified Aave for live trade*

Multinational banking firm JP Morgan has successfully executed its first-ever cross-border transaction using decentralised finance (DeFi) on a public blockchain.
The trade was facilitated by the Monetary Authority of Singapore's (MAS) Project Guardian on November 2, which was established as part of a pilot program to "explore potential decentralised finance (DeFi) applications in wholesale funding markets."

Singapore's largest bank, DBS Bank; Tokyo-based banking firm SBI Digital Asset Holdings; and business leadership platform Oliver Wyman Forum also participated in the pilot program.
The trade was executed on Ethereum layer-2 network Polygon, using a modified version of the Aave protocol's smart contract code.

A statement from MAS said a live cross-currency trade with real-world assets was conducted as an isolated exercise under a bilateral commercial arrangement to recognise zero profit and loss based on mutually agreed transactions terms involving tokenised JPY and SGD deposits. In addition, a simulated exercise was performed involving the buying and selling of tokenised government bonds. The MAS chief fintech officer said the successful test was "a big step towards enabling more efficient and integrated global financial networks."

MoneyGram Adds Bitcoin, Ethereum, and Litecoin Crypto Investment Tools to its Mobile App

Figure 18. *The trading of Bitcoin, Ethereum, and Litecoin is now possible via MoneyGram*

MoneyGram, a publicly traded peer-to-pay payments company, has added crypto investment tools to its mobile app as fellow fintech firms support offerings in the sector. Available in the majority of US states today, users are now able to buy, sell and hold Bitcoin (BTC), Ethereum (ETH), and Litecoin (LTC), the company said in a statement.

MoneyGram partnered with Stellar to enable payment settlements and local currency pay-outs using USDC. It also holds a minority stake in crypto cash exchange and crypto infrastructure provider Coinme, which provides crypto trading tools.

MoneyGram said it wants to expand its tradable coins selection where regulation allows. "From dollars to euros to yen and so on, MoneyGram enables instant access to over 120 currencies around the globe, and we see crypto and digital currencies as another input and output option." CEO Alex Holmes said.

401(k) Plans Now Promote Crypto Adoption

Figure 19. *Though employers and regulators remain cautious, some plans are beginning to offer the option.*

A small group of workers is finding something new in their 401(k) plan: the option to invest in cryptocurrency.

Momentum has been building to allow workers to invest retirement savings in Bitcoin, Ethereum and other cryptocurrencies, despite crypto's sharp dives and warnings from regulators.

Retirement-plan providers have moved ahead, and some of the 24,500 401(k) plans that Fidelity Investments administers began offering Bitcoin in their investment menus this Autumn.

ForUsAll Inc., a San Francisco-based 401(k) provider with $1.4 billion in retirement-plan assets, says 50 of its 550 clients began allowing workers to invest some of their retirement savings in cryptocurrency, including Bitcoin and Ethereum, about eight weeks ago.

Santander Bank blocks UK transfers to crypto exchanges in 2023

Figure 20. *Santander UK had already stopped payments sent to crypto exchanges following the UK Financial Conduct Authority (FCA) warning about the risks of investing in crypto assets.*

British bank Santander UK has announced that it will begin limiting the amounts its customers can send to cryptocurrency exchanges. This is after they made an earlier statement noting that it can be risky to invest in cryptocurrency.

The restrictions will begin November 15 and will be applied to payments that the bank identifies as going to crypto exchanges using mobile and online banking, Santander UK said in a notice to customers posted on its website.

When sending money to crypto exchanges, customers will be restricted to a limit of 1,000 pounds ($1,118) per transaction and a total limit of 3,000 pounds ($3,355) in any rolling 30-day period. Customers can still receive payments from crypto exchanges in their accounts.

“We want to do everything we can to protect our customers, and we feel that limiting payments to cryptocurrency exchanges is the best way to make sure your money stays safe,” the bank told its customers in the notice.

Fintech Uala Launches Cryptocurrency Trading in Argentina

Figure 21. *Uala launched the new service for Argentina on Friday*

Uala, an Argentina-based fintech company, has enabled Bitcoin (BTC) and Ethereum (ETH) trading for its customers in that country.

At first, the new service will be available to a few thousand users, Andres Rodriguez Ledermann, vice president of Wealth Management at Uala, told CoinDesk. Still, it will be rolled out to all of the company's 4.5 million Argentine customers in the coming weeks.

The platform only allows for purchases and sales of the cryptos; withdrawals are not available. The minimum transaction size is 250 pesos ($0.83).

Uala is the first financial player to launch crypto trading in Argentina since the local central bank banned two banks from allowing its customers access to cryptocurrencies in May.

In order to comply with current regulations in Argentina, Uala created a separate company called Uanex to provide its crypto services, which is based in the UK and has the Latin American crypto company Bitso as its crypto liquidity provider, said Andres Rodriguez Ledermann.

LEARNING SECTION

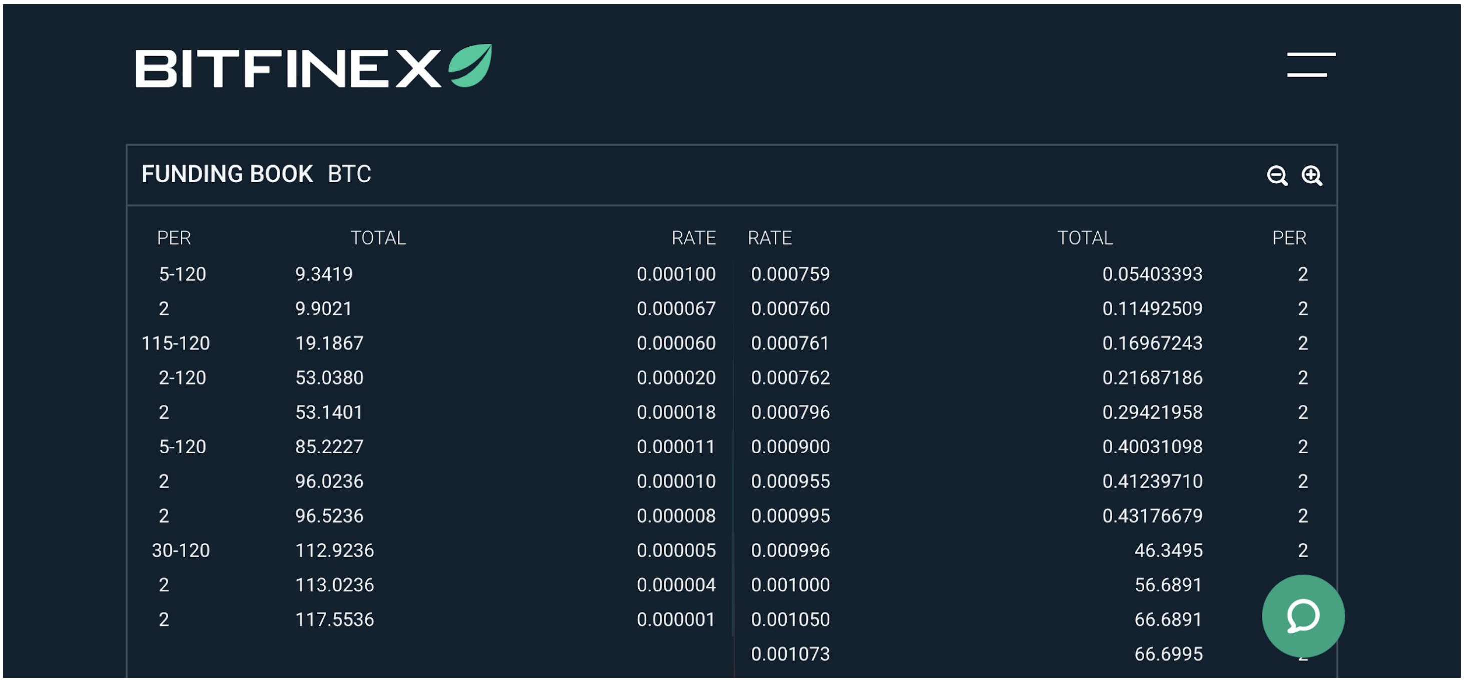
Funding rates 101

What Is the Funding Rate?

Since perpetual futures contracts don't expire, exchanges need a mechanism to ensure that futures and index prices converge regularly. This mechanism is also known as Funding Rates.

Funding Fates are periodic payments to traders that hold either long or short positions based on the difference between perpetual contract markets and spot prices. Therefore, traders will either pay or receive funding depending on open positions.

Example: Funding Rates (highlighted in yellow)



PER	TOTAL	RATE	RATE	TOTAL	PER
5-120	9.3419	0.000100	0.000759	0.05403393	2
2	9.9021	0.000067	0.000760	0.11492509	2
115-120	19.1867	0.000060	0.000761	0.16967243	2
2-120	53.0380	0.000020	0.000762	0.21687186	2
2	53.1401	0.000018	0.000796	0.29421958	2
5-120	85.2227	0.000011	0.000900	0.40031098	2
2	96.0236	0.000010	0.000955	0.41239710	2
2	96.5236	0.000008	0.000995	0.43176679	2
30-120	112.9236	0.000005	0.000996	46.3495	2
2	113.0236	0.000004	0.001000	56.6891	
2	117.5536	0.000001	0.001050	66.6891	
			0.001073	66.6995	

Figure 22. *Funding Rates On The Bitfinex BTC Funding book*

What Determines the Funding Rate?

Funding Rates consist of two main components: the interest rate and the premium.

Usually, the interest rate is fixed at 0.03 percent daily (0.01 percent per 8-hour funding interval), except for some contracts where the interest rate is zero percent. Meanwhile, the premium varies according to the price difference between the perpetual contract and the mark price.

During periods of high volatility, the price between the perpetual contract and the mark price may vary widely. In such scenarios, the premium may increase or decrease accordingly.

These are funding rate indicators. A large spread ensures a high premium, and a low premium is indicative of a narrow spread between the two prices.

When the funding rate is positive, the price of the perpetual contract is higher than the marked price. As a result, traders who are long pay for short positions. In contrast, a negative funding rate indicates that perpetual prices are below the marked price, which means that short positions pay for longs.

What effect does the funding rate have on traders?

Now that we have explained the meaning of funding rates let's move on to how it impacts traders. Funding calculations consider the amount of leverage used, and funding rates may significantly impact one's profits and losses.

A trader that pays for funding may incur losses with high leverage and get liquidated even in low-volatility markets. Funding rates are essentially designed to encourage traders to take positions that might not be popular and ensure perpetual contract prices are in line with spot markets.

Correlation With Market Sentiment:

Historically, crypto Funding Rates correlate with the underlying asset's general trend. The correlation does not indicate that Funding Rates dictate spot markets; instead, the reverse is true. The chart below shows the correlation between Funding Rates and spot BTC prices in a 30-day period:

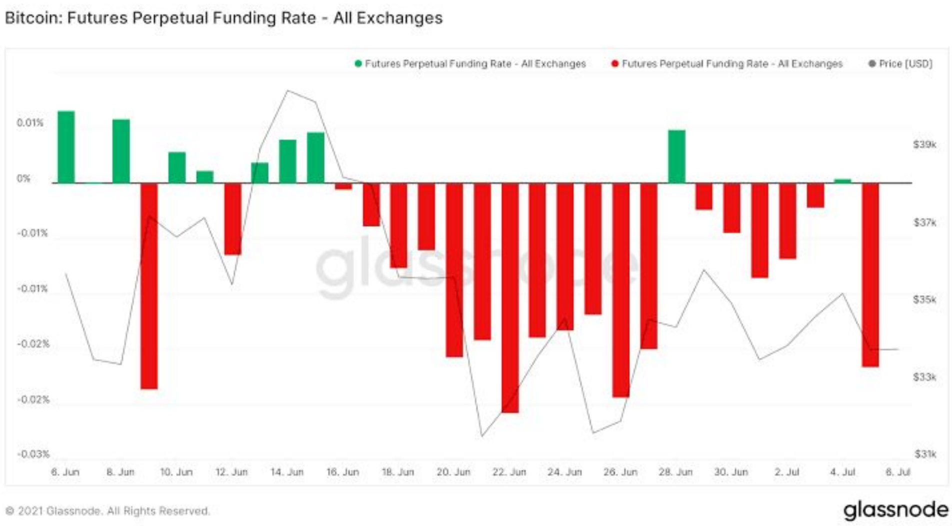


Figure 23. *Futures Perpetual Funding Rate across exchanges - glassnode*

As shown in figure 23, Funding Rates dropped as BTC prices retraced since the end of 2021. The elevated Funding Rates represented a sign of confidence in the market about further upside potential. Still, many traders became aware of the rising funding fees, helping futures prices line up with spot prices.

Comparison of Historical Funding Rates Across Crypto-Derivatives Platforms:

Presently, nine major exchanges offer perpetual contracts. In general, traders prefer platforms that provide the lowest Funding Rate as it can significantly impact profits and losses. Here is a quick comparison of Bitcoin futures Funding Rates across major exchanges:

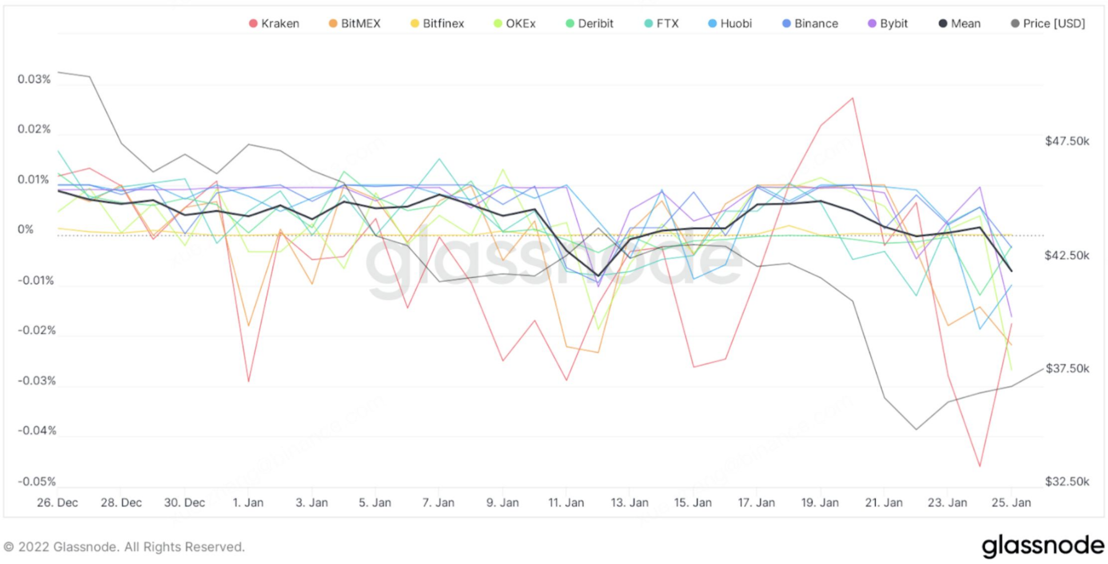
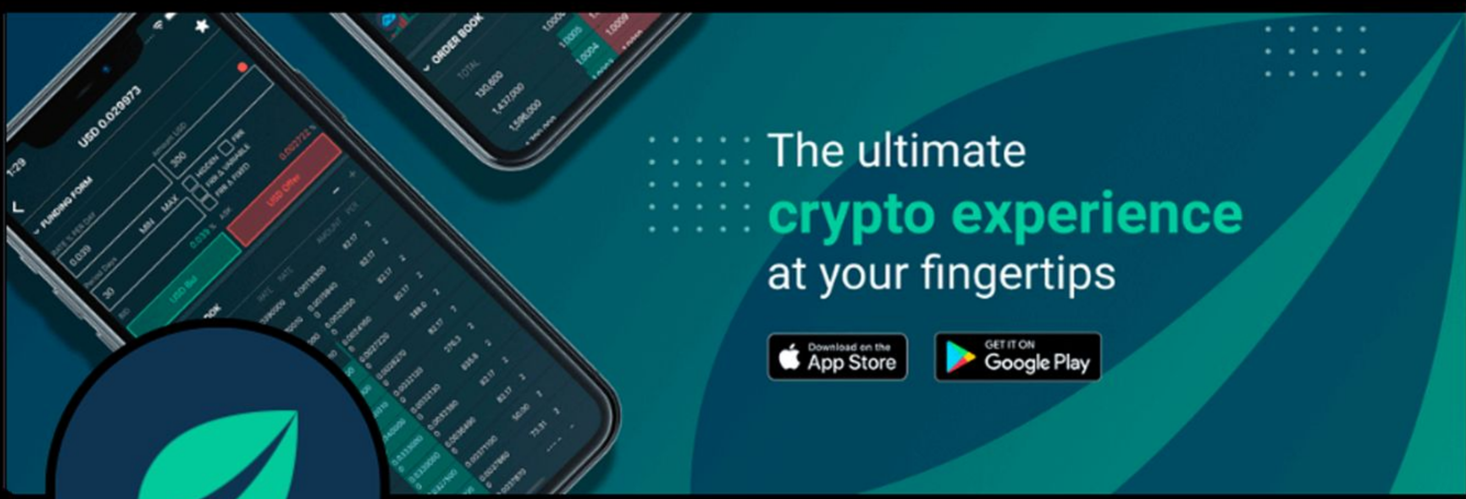


Figure 24. *Comparison of Historical Funding Rates Across Crypto-Derivatives Platforms*

Funding Rates generally averaged at -0.007 percent across significant exchanges. As mentioned, these rates vary based on changes in the price of its underlying asset.

Conclusion:

Crypto Funding Rates are vital in the perpetual futures market. Most crypto-derivatives exchanges employ a Funding Rate mechanism to keep contract prices in line with the index at all times. These rates vary as asset prices turn bullish or bearish and are determined by market forces.



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BITFINEX Alpha