Bitterfly Consultancy

Quarterly factsheet

Q1/2023

www.bitterfly.io
consult@bitterfly.io

Contents

About metrics

We try to make our charts as clear as possible. When comparing bitcoin to other assets, we start from a base value of 100%. We then look at how much that value has changed over the rest of the period. Correlations show the possible relationship between assets, or their relationship to the overall performance of the economy. Volatility shows the fluctuations in the price curve, its manipulability by investor behaviour, but tells us nothing about the long-term trend.

How bitcoin fared in Q1

Bitcoin seems to be rigidly following its usual **performance** according to **halving cycle**. Its **price has been falling** since the last price peak in **November 2021**. Along the way, there were several stumbles that compounded the negative price trend: crashes of **Terra**, **Three Arrows Capital**, **Celsius** and most recently **FTX**. After the latest crisis, which meant the end of the second largest crypto exchange, **bitcoin fell even below $16,000** and seemed like it could go even lower.

On the other hand, there was a **stabilization** and the price **started to rise in the first quarter of 2023**. Yet the outlook was not positive. The **most relevant market** for the price of cryptocurrencies in the long term is the **United States**. The US **regulators** have decided to **crack down** on the cryptocurrency market by **tightening rules** and also by taking **legal action** against individual companies operating with digital assets. At the same time, **higher interest** rates should mean that **less investment** will flow into **riskier investments**, including cryptocurrencies.

But the **banking crisis**, on the other hand, has made us remember that bitcoin was created after the 2008 crisis as an independent financial system to protect its users from unreliable banking. The role of **bitcoin as a reserve asset** seemed to be a thing of the past. Yet the first quarter of 2023 saw a rapid rise in price.

The **closing price** on the **first day of 2023** was **$16,625**. At the end of the quarter, **March 31**, it had **risen by 71%** to **$28,478**. There is some correlation between bitcoin's growth and declining inflation in the U.S. in the price trend.

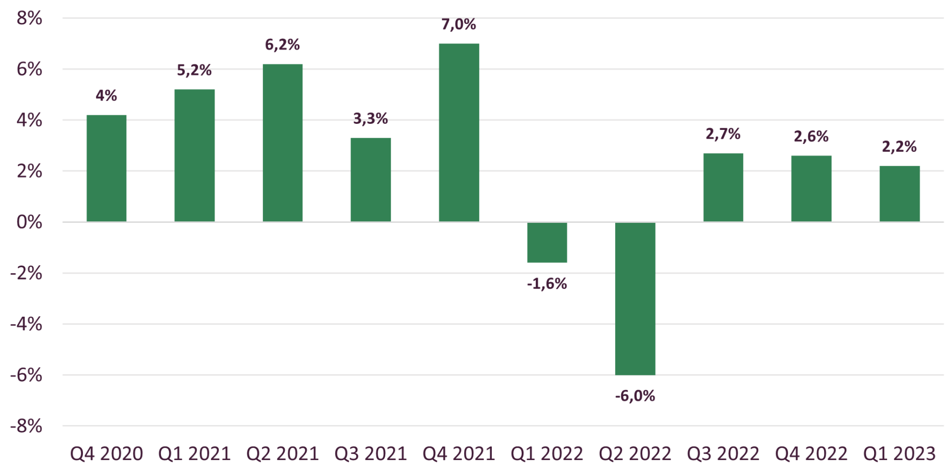
Bitcoin price: Q2, Q3, Q4 2022 and Q1 2023

Economic crisis?

When we talk about the economic crisis, we are primarily interested in the **United States**. The **US Federal Reserve** has been **raising interest rates** steadily **since March of 2022** in order to slow down the economy and **achieve the inflation target of 2%**. The latest **meeting** of their executive body, the Federal Open Market Committee (**FOMC**), saw the **9th increase in a row**.

The aim is mainly to **increase unemployment**, thereby creating **downward pressure on wages** and **reducing** the **purchasing power** of the population. The problem is that this **inflation** is **not caused on the demand side**. Yet the Fed insists that it is. In the United States, **472 000 jobs** were **created** in **January**, **248 000** in **February** and **165 000** in **March**. For unemployment to rise, this figure must be below 100 000. This indicates that there will be at least one more increase in interest rates.

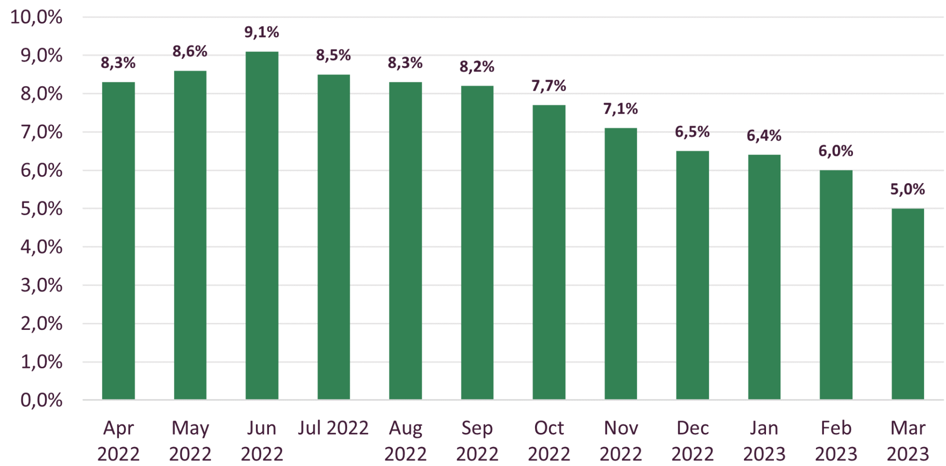
High interest rates have already started to have an **impact on the overall performance** of the economy. Despite the decline in GDP in the first 2 quarters of last year, the **economic recession has not started**. In the following 3 quarters there was a growth but **was slowing down**. In that **first quarter of 2023**, the revised US gross national product grew by **2.2%** annualy.



High interest rates also mean **less available capital to invest in cryptocurrencies** as well, creating unrealised losses on certain types of assets purchased during the boom.

Inflation

The **price of the consumer basket** (CPI) in the **United States** rose by **6.4%** year-on-year in **January 2023**. That was down only slightly from **December's 6.5%**. A bigger problem than the slow decline was the **non-fulfillment of the forecast**, which estimated January inflation at 6.2%. There was a further decline to **6%** in **February**, and then and **5%** in **March**, beating the forecast of 5.1%.



At the **end of the first quarter**, **oil** and **food prices** were the **main contributors** to the **decline in inflation**. The **main reason** for their **high values** is still **high housing prices**, which represent around one third of the consumer basket.

In **February**, year-on-year **inflation in the eurozone** was **8.5%**, therefore fell only slightly, from **8.6% in January**. A more significant drop occurred in **March**, to **6.9%**. **European central bank** don't tend to be as aggressive with taming inflation as its US counterpart because eurozone **focuses on exports** rather than imports.

Inflation in the UK has been very **resilient**. It fell from **10.5%** in **December** to **10.1%** in **January**, rose again to **10.4% in February** before returning to **10.1% in March**. The **UK**, like the US, is an **import-oriented economy.** The onset of **recession** appears **more likely** here than in the US and EU countries at present.

Interest rates

After the **FOMC meeting** on January 31 and **February 1**, there was a **0.25-point interest rate increase**, bringing them into the **4.5% to 4.75% range**. The next meeting on **March** 21 and **22** saw further increase into the **4.75% to 5% range**. Only **one more hike** was needed to reach the **target interest rate of 5.1%**. This should take place in **early May**, after which interest rates should stabilise. Once **inflation falls below 3%**, a **gradual reduction** should start to take place.

The **Bank of England** also r**aised interest rates**. They **rose to 4.25% in March** and are expected to rise further to 5%. The **European Central Bank** has raised the headline indicator to **3.5%**.

Banking crisis

The banking crisis, of which **Silicon Valley Bank** was the **most prominent victim**, is closely linked to with the cryptocurrency industry. It is striking that **among the failed banks** are 2 that were known for their **ties to digital asset services firms**: the Silvergate Bank and the Signature bank.

A significant factor that got the banks into trouble was the **rise in interest rates**, which **devalued** some of their **assets**. It is important to remember that the period of **low interest rates lasted 15 years**. Since **March of 2022**, however, interest rates have **risen from 0.25% to 4.5%**. **Government bonds** with a long maturity (bonds, 20 to 30 years) with a yield of 1.6% **suddenly had a one-third yield compared** to **new bonds** with a **medium maturity** (notes, 2 to 10 years).

Failed banks also had a relatively **high proportion** of **uninsured deposits**, i.e., those that **exceeded the $250,000 per person** insurance limit. At **Silicon Valley Bank**, the figure was as high as **94%**. Among **banks with assets over $50 billion**, this was the **second highest proportion**, with Signature Bank in fourth place.

Silvergate Bank

Silvergate was a **local bank** that **gained prominence** after it decided that it would, as one of the few to **provide its services** to companies in the **cryptocurrency industry**. Its offerings included the **SEN network**, which allowed them to **exchange fiat currencies and crypto** 7 days a week, 24 hours a day.

Silvergate bank seemed to be **in trouble ever since the FTX** exchange **crash** in **November 2022**. FTX **deposits** accounted for around **10%** of all deposits in the bank. A **run on the bank** followed, which meant a **withdrawal of $8.1 billion**, or **70% of deposits**. It had a **net loss of $1.05 billion** in the fourth quarter.

On Wednesday, **March 1**, Silvergate Bank announced that it would **delay its annual 10K filing** with regulators. In justifying the postponement, the bank admitted that it is **undercapitalized** and said it is **assessing** for itself **whether it is viable** and whether the concept of crypto banking is viable. Following Moody's announcement, **prominent crypto firms** such as Circle, Blockchain.com, Galaxy Digital, Wintermute, GSR, Coinbase and Paxos have **terminated their relationships with Silvergate**.

On **March 8**, it announced it would **cease operations and liquidate $11 billion in assets** under management. They have also submitted an asset liquidation plan that promises that all deposits will be fully recovered.

Bitcoin fell below $22,000 in response.

Silicon Valley Bank

On Wednesday, **March 8**, Silicon Valley Bank announced that it needed to **issue and sell $2.25 billion of its own stock**, causing an unprecedented sell-off. The resulted into **drop from $267 per share to $106** in 2 days.

By Friday, **March 10**, the California state financial **regulator** had already **closed the bank**. At the time, it was the **second largest bank failure in American history**. It still held $212 billion in assets at the end of 2022.

The cause of the bank's difficulties was **unrealised losses** incurred by **buying government bonds** at a time of **low interest rates**. By the time withdrawals began to occur, the **bank had to sell $21 billion of mortgage bonds**, leaving it with a **loss of $1.8 billion**. Interest rates were also responsible for tightening of investments in technology companies.

The **issuer** of the second most important **stablecoin**, **USDC Circle**, had **reserves of $3.3 billion** in the bank. USDC's **total reserves** at the time of the bank's collapse were **$41 billion**. The bank also had **$227 million in the ban**k of the failed crypto lender **BlockFi**.

Signature Bank

Signature bank **was shut down by New York state regulators** on the night of Sunday, March 12 to Monday, **March 13**, making it the **third largest bank in U.S. history to ever fail**.

Singature provided the **Signet** service, a network **similar to the SEN of Silvergate** bank. Its closure created a problem for crypto firms as there was **no other similar product in the US market**.

Barney Frank, one of the architects of the legislation to prevent the post-2008 bank collapse, was a board member of Signature Bank. He issued a statement that the bank did not need to be closed.

Regulators in New York, they just wanted to **send a message** that **crypto is a toxic industry**.

Credit Suisse

The **Swiss National Bank** first **offered Credit Suisse a loan of $54 billion**. But its **shares continued to fall**. So local regulators reached a deal with UBS, the largest bank in Switzerland, that **Credit Suisse would be taken over by it** for **$3.25 billion**. That's about **60% less than its market price**.

There have been question marks over Credit Suisse's **solvency** for several years. It has itself highlighted its weaknesses in its financial statements. **High interest rates** and a **series of defaults** and **problems with compliance** in previous years played role in bank's demise.

Impacts

The **US government** has **guaranteed** returen of the customer **deposits** of **Silicon Valley Bank** and **Signature Bank** in full to prevent systemic risk. The shareholders of the failed banks had the worst part of the deal, as the share values went to zero at the moment of the collapse.

The current phase of the banking crisis **could still bring down First Republic** or some **smaller banks**. There is also talk of **problems at Deutsche Bank**.

The next series of **bank failures** should occur when **property prices fall**. There are **more than $60 billion** of **fixed-rate loans in the United States** that will soon require **refinancing** at **higher interest rates**. Commercial **mortgage-backed securities** with adjustable rates are **worth $140 billion**. They should **mature in the next 2 years**. Up to **80% of the mortgages** associated with **commercial real** estate were originated by **smaller banks**. This indicates that the banks that fail are more likely to be the smaller ones.

Bitcoin, like **US stock indices**, has been **falling** amid the **uncertainty surrounding Silicon Valley Bank**. But at the **moment of its collapse**, it **skyrocketed to $28,000**. There has also been a **reduction in bitcoin's correlation with the stock markets**, which is positive news in the face of a still looming economic recession.

Regulation in the USA

Unlike, for example, the European Union, **US regulators do not** appear willing to **provide crypto firms with clear boundaries** within which they can operate anytime soon. That is why they are doing so through **lawsuits**. **Regulatory uncertainty** is forcing more and more **US crypto firms** to look at **moving their headquarters abroad**.

A **subcommittee on digital assets** was created within the **House of Representatives** Financial Services Committee. Its new chairman, **French Hil**l, said he will work with the Agriculture Committee to create a **regulatory framework for cryptocurrencies**. But **no concrete steps** have been taken yet.

The **Agriculture Committee** is supervised by the commodities regulator **CFTC**, the **Financial Services Committee** by the securities regulator **SEC**.

Debanking of crypto companies

It is important to note that the **greater availability of connections to regulated financial institutions** has been one of the **most important trends** that **enabled cryptocurrency price growth in 2017 and 2021**. **Signature Bank** and **Silvergate Bank** allowed for **easy transfers** between cryptocurrencies and fiat currencies. Their demise means that **startups operating with digital assets** in particular will have a **difficult time finding banking partners**.

The strategy of regulators **punishing an industry** that is in their crosshairs by making it **harder for to get bank accounts** access is not new. They are trying to do so in response to the FTX crash in November.

The **problems of the crypto industry**, according to them, are fraud, market volatility, regulatory uncertainty, poor risk management and corporate governance in the industry.

Earlier this year, federal bank regulator the Office of The Comptroller of The Currency (**OCC**), the Federal Deposit Insurance Corporation (**FDIC**) and the U.S. Federal Reserve (**Fed**) jointly **warned banks** about the **risks associated with providing services to cryptocurrency-related businesses**. According to them, holding crypto is contrary to good safe banking practices. In response to this recommendation, **Metropolitan Commercial Bank left the industry**.

They also **warned about stablecoin issuers** and the risks associated with bulk withdrawals. They are not so much worried about not having reserves, but that a **run on stablecoin issuers** could cause a **sudden drop in deposit volumes at traditional banks**.

Cryptocurrencies as securities

The U.S. securities regulator, the **Securities and Exchange Commission**, has decided to **regulate the crypto industry through lawsuits** and **changes to its own regulations**. In order to do so, it must **claim** that **cryptocurrencies and tokens are securities**. SEC Chairman **Gary Gensler** has again stated that all cryptocurrencies except bitcoin indeed are securities.

Qualified custodians

The SEC has voted to **require registered investment advisers** to **hold cryptocurrencies only with qualified custodians** such as banks. According to the SEC, crypto **exchanges** do **not** currently **meet the requirements** to become such custodians.

BUSD - Paxos

The **BUSD stablecoin** was successful in **increasing its market share** in the dollar stablecoin market. In **November 2022**, it reached **over 20%**.

BUSD was **issued on Ethereum by Paxos**, a company **regulated** in the US **state of New York**. The **BUSD on other blockchains** were issued by **Binance**, where the aforementioned **BUSD on Ethereum was to serve as a reserve**. However, it turned out that **BUSD on Binance** was **not always fully backed**. This disparity at severeal occassions reached up to **$1 billion**.

This has attracted the **attention of the SEC**. Although Paxos distanced itself from the BUSD issued by Binance, the **SEC sued** it for **issuing unregistered securities**, making it liable for Binance's activities.

In response, the New York State financial regulator (**NYDFS**) **ordered Paxos to stop issuing BUSD**. Stablecoin **will be kept running until at least February 2024**. It will be possible to **make withdrawals** and **exchange it for US dollars**. However, the **market capitalization of BUSD** will necessarily kepp **decreasing with time**.

That this move may be counterproductive. Money allocated in **regulated stablecoin** has **moved** mainly **to USDT** issued by Tether, which is **out of reach of US authorities**.

Kraken staking

The Kraken exchange **was forced by the SEC** to **discontinue its cryptocurrency staking product** to US citizens because it sees it as an **ungeristered investment contract**. Kraken used cryptocurrencies purchased by clients to validate Proof of Stake blockchains and **paid them a portion of the reward**. This allowed even retail investors to earn this type of revenue. For **Ethereum**, for example, the **minimum threshold for staking is 32 ether**.

In addition, the exchange **will pay a fine of $ 30 million**. There is concern that the **SEC could ban crypto staking for retail investors** across the board. In the last quarter of 2022, the **value of staked assets** was **$42 billion**.

Coinbase

Coinbase, the **largest crypto exchange in the United States**, has received a wells notice from the **SEC** for offering **unregistered securities**. Coinbase, like Kraken, **offers a staking product** called Coinbase Earn.

Coinbase has responded by **suing the SEC** for clarification of the rules regarding digital assets.

Cryptocurrencies as commodities

The US Commodity Futures Trading Commission (**CFTC**) has filed a **lawsuit against Binance** regarding the **offering** of **unregistered commodities**. In order to do so these commodities would have to be **offered to US citizens** who did not officially have access to the exchange.

The **most serious allegation** is likely to relate to the deliberate **circumvention of US laws**, specifically **anti-money laundering** and anti-terrorist financing laws. These require **US citizens to trade only with registered intermediaries**, have their **identities verified**, and for exhanges to **report transactions over $3,000** to the authorities. The CFTC says that for most of its existence, the exchange did not require customer identity verification, which allowed US citizens to trade there. **Binance's** own **documents from August 2020** show that **16% of customers trading derivatives** were **physically in the US** (this does not necessarily mean they were US citizens).

The **exchange** allegedly **knew** that **American citizens were trading there** and **actively facilitated it**. It allegedly **advised** some so-called VIP clients **how to use VPNs** to trade and circumvent the law. Others were advised how to **set up businesses in locations** such as Jersey, the British Virgin Islands and the Netherlands to **avoid the reach of US regulators**.

In the lawsuit, **bitcoin (BTC), ether (ETH), litecoin (LTC), tether (USDT) and Binance USD (BUSD) are identified as commodities**. This is yet another case of regulators **using lawsuits** to try to **classify existing digital assets** and then using the court's decision as precedent to argue that these assets fall under their jurisdiction.

There were also accusations of **market manipulation**. Binance and related entities had around **300 accounts on the exchange**. Among them are those belonging to **Merit Peak and Sigma Chain**. Two accounts also **belonged directly to CEO Changpeng Zhao**. Binance admitted that the firms in question supplied liquidity to the exchange. However, it **denied** that they were **taking advantage of their position** and **trading against their own clients**. If this accusation turns out to be true, Binance would lose the trust of the crypto community, which could be even more fundamental than losing a lawsuit.

The lawsuit could **spell the end of Binance**, as deliberately circumventing US laws is a serious offence. If Binance and Binance.US could be proven to have coordinated their actions, it would mean the **end for the US branch** as well. **Binance International** would **lose access to US banks**. Banks from partner countries such as the EU, the UK, Canada, Australia, South Korea and Japan would probably join them. A big blow could potentially be a sentence to **return of all money ever spent here by US citizens**, which could run into **billions of dollars**. Beyond that, the exchange could be fined.

In addition to the exchange, **CEO Changpeng Zhao** and former compliance officer Samuel Lim were also **charged**.

Regulation by enforcement in New York

In addition to securities and commodities regulators, the New York Department of Financial Service (**NYDFS**), the New York State financial regulator, and local Attorney General Letitia James are also **active in lawsuits against crypto firms**.

Coinbase submitted to NYDFS to **pay a fine of $50 million** for **failing** to **adequately expand its compliance program** between 2020 and 2021 at a time of rapid growth in its client base. An **additional $50 million** mandatory investment must be made a to **expand their compliance program**.

The state **attorney general sued exchanges CoinEx** and **KuCoin** for **failing to register** with the state and former crypto lender **Celsius CEO Alex Mashinsky for fraud**.

Moving abroad

An **unclear regulatory framework**, accompanied by **punitive actions** by US regulators, is **creating fears** about the **future for US crypto firms**.

Even if the **departure of crypto firms** is a goal of regulators, it is **likely to have the opposite effect** than they intend. They have much **less control over foreign firms**. Then there are situations like the **ban on BUSD** issued by the regulated firm Paxos, which **benefits the Tether** issuer of **USDT**, a firm with a **questionable corporate structure** far **beyond the reach of U.S. regulators**.

Even some of the **failed firms** were based abroad, yet their c**ollapse affected the U.S. market**. The bankrupt **FTX exchange** was **based in the Bahamas**, **LUNA** issuer **Terraform Labs** in **South Korea**, and **hedge fund Three Arrows Capital** in **Singapore**.

Former **CFTC Commissioner Brian Quintenz**, who is currently head of crypto asset strategy at investment giant Andreessen Horowitz, pointed out that the **share of US crypto developers** has been **steadily declining since 2017**. In 2017, it was 42%, and by 2022, it's only 28%.

Some **jurisdictions**, on the other hand, **attract crypto firms** simply by setting **clear rules for their registration** and trading in digital assets. Recently, **Hong Kong, Dubai and France** have done so.

The **EU** is ahead of **the US** thanks to the already **approved MiCA regulatory framework**. **Singapore** has long been clear about the requirements under which **companies can operate** in the country. Rules are gradually becoming **clearer in Japan**. **New regulation in Hong Kong** indicates that **China** is also **relaxing the rules**.

Therefore, the **main regions expected to benefit** from the **next bull market** are **Southeast Asia and Europe**.

Echoes of the Bear market

FTX bankrupcy

Trial of the former CEO

Former FTX CEO **Sam Bankman-Fried** was first accused of **stealing customer funds**, **laundering money** through FTX accounts and violating laws regarding **political campaigns**.

Charges of **bank fraud** were then brought. Sam Bankman-Fried **opened a bank account** for the firm **under the false pretense** that the account would be used for **trading proprietary assets** and **market making**. It was in fact used for client money deposists. When a **bank refused** to **open an account** for him, he formed a firm called **North Dimension** with a vague business purpose that succeeded.

There were also allegations of **conspiracy to make illegal political donations**. Before the 2022 election, another of his firms, **Alameda Research**, reported in internal documents that it had **donated over $100 million** to politicians, even though the **Federal Election Commission did not record any donations** from the firm to those politicians. In order to **get around the cap on maximum donations** to a candidate or PAC, **fake donors** were used to donate money,

FTX also allegedly **facilitated money transfers** without an adequate license.

The other allegations are that **Sam Bankman-Fried offered a bribe** of at least **$40 million** to at least one **Chinese government official**. Some **accounts** belonging to Alameda Research **in China were frozen** by Chinese police in **November 2021**. These accounts **held around $1 billion** in cryptocurrency.

The **bribes** were supposed to be an **incentive to unfreeze them**. And it was a successful bribe. The money recovered was used for activities that were later identified as fraud perpetrated on clients and investors.

Sam Bankman-Fried maintains his **innocence** on **all counts** of the indictment. His **lawyer** wants to **challenge some of the charges** because under the **extradition treaty between the US and the Bahamas**, extradited persons can only be charged with the **crimes for which they were extradited**.

The **trial** is **expected to begin in October**. In order for the former FTX CEO to remain free until then, a **bail of $250 million** has been set. However, this is a so-called bail bond, so **only part of this amount is required**. The bail bond was provided by his parents, who pledged their $4 million house as collateral. Two other professors from Stanford University, where his parents also teach, have also vouched for him.

The **FBI seized $697 million** worth **of his personal property**.

FTX, Alameda Research executives cooperate with the police

Earlier, **former Alameda Research CEO Caroline Ellison** and **FTX co-founder Garry Wang** had decided to cooperate with police and **testify against Sam Bankman-Fried**.

The latest to join them is former **Chief Engineer Nishad Singh**, who is also seeking a **reduced sentence**. He has been **accused** by the **SEC** of being **actively involved in misleading investors**. He has also been accused of **fraud by the CFTC**. He is also known to have been involved in **giving suspicious donations to politicians**. It was allegedly Singh who **wrote the code** that **allowed the transfers of funds from FTX to Alameda Research**. Historically, he has also **falsified some transactions**. He also **received a loan of $543 million** from Alameda Research. He also withdrew $6 million from the exchange for your personal use.

Singh pleaded guilty in **6 instances** of fraud, money laundering and illegal donations to politicians. Crucially, Singh admitted that he **knew about illegal transfers of funds** from FTX to Alameda in **mid-2022**. Investigators must prove that these activities were intentional.

New documents filed with the court show **how much** was **earned** by whom in the company. **Sam Bankman-Fried** transferred **$2.2 billion into his personal account**, chief engineer **Nishad Singh $587 million**, co-founder **Garry Wang $246 million** and **Ryan Salame $78 million**, Alameda CEO **Caroline Ellison** earned the least, **$6 million. $**.

Liquidation of the exchange

The amount of **liquid assets** owned by **FTX** in cash, cryptocurrencies and liquid securities has been **increased from $5 billion to $5.5 billion**. An additional $425 million in cash was added. $450 million in cryptocurrencies held by the Bahamas Securities Commission.

Additional funds will be **raised through the sale of subsidiaries, shares and assets**. FTX and Alameda Research spent a **total of $5.3 billion on 473 investments**. Most of the sales will be at a loss. Alameda Research has agreed with the **Abu Dhabi sovereign wealth fund** to sell its **stake in Sequoia Capital for $45 million. $**.

Lawyers representing **FTX's creditors** selected four subsidiaries for preferential sale: **LedgerX, Embed, FTX Japan** and **FTX Europe**. These were firms that operated largely independently of the parent FTX. A total of 117 companies applied for their takeover.

Alameda Research is also seeking to **recover funds through lawsuits**. It is seeking **$445 million** from bankrupt **Voyager Digital**, which was the **repayment of loans** made to Voyager after it declared bankruptcy.

FTX is **suing Grayscale** and its parent company, **Digital Currency Group**. Grayscale allegedly **charged excessive management fees**, well beyond the scope of their agreements.

FTX bankruptcy estate to **recover $460 million** from **Modulo Capital**. Of that, $404 million is in cash. Alameda Research last year provided the upstart Bahamian hedge fund with $475 million. At the same time, **Modulo** will **relinquish its claim to $56 million in assets** that it held in FTX and FTX.US.

Investors

The **securities regulator SEC** is investigating how **firms that invested in FTX vetted its financial health** and **business practices.** The investment rounds involved investment giants such as Tiger Global, Insight Partners, **Sequoia Capital**, SoftBank, Lightspeed Venture Partners, Temasek Holdings, **BlackRock** and the conservative Ontario Teachers' Union Pension Fund, despite many warning signs. Yet closer examination would show **red flags** such as the **absence of a board of directors**, a **non-existent accounting department**, headquarters in the **Bahamas** and **high debt levels**.

The **herd mentality of VC firms** was probably to blame, as it happened in the dotcom bubble. The SEC now wants to make **it easier for investors to sue investment funds**. Until now, this could only be done in case of gross negligence. This could extend to mere negligence. Greater liability should lead their custodians to be more vigilant.

Crypto lender Genesis declares bankruptcy

Crypto lender Genesis stopped withdrawals on November 16. Since then, the question of bankruptcy has been up in the air. Its problems began with the **collapse of hedge fund 3AC**, whose **biggest creditor** was Genesis with debt ammounting to **$1.2 billion**. The next blow was a **$175 million** loss the company's derivatives trading division has **stuck on FTX**.

After months of problems, Genesis **declared bankruptcy** in **January 2023**. In documents filed with the court, it was revealed that it owns **$3.6 billion** to the **50 largest creditors of**.

To offset the loss, its **parent company Digital Curency Group** intends to **sell** some of its **assets**. DCG's subsidiaries include, for example, asset manager **Grayscale**, which has started **selling stakes in its funds** at a significant **discount**. There is also increasing talk of **selling the Coindesk** news portal.

It has been in a **dispute with its biggest creditor**, the crypto exchange **Gemini**, whose clients are **owed** around **$900 million**. Gemini president Cameron Winklevoss even accused them of **committing fraud** on 340,000 of their clients. The problem is that **Digital Currency Group** allegedly **hid the true state of Genesis' finances**.

As a result of the case, **Gemini** has notified clients that it is **ending its Earn program**. In connection with this, it is also terminating its loan agreements with Genesis Global Capital on behalf of its customers.

Unlike other companies in the crypto sector, the fact that Genesis has the strong Digital Currency Group behind it should also result in a **quick bankruptcy settlement**. Under the so-called **prepackaged bankruptcy**, Genesis reached o**ut-of-court settlements** with its largest creditors, including Gemini. The creditors should get their money faster as a result, although not in full. **Gemini**, for example, **will contribute $100 million** to pay its customers from its own resources. **Creditors** will also **receive a stake in DCG** instead of a portion of the cash payout.

Celsius

The court in the case of the **failed crypto lender Celsius** requested a **report** that was intended to **expose its business practices**. It showed that Celsius' business model **differed** significantly from how they **presented themselves to the public**.

Customers were assured that their **investments were low risk and fully backed**. But by **June 2021**, **one-third of Celsius' institutional loan portfolio** was already fully **unsecured** and more than half was under-secured. According to the report, they had **lent as much as $2 billion** to **Tether**, well above their credit limit. Tether denies it has ever borrowed money from Celsius. Loans to now-bankrupt crypto firms **Alameda Research** and **3AC** were also **above the credit limit**.

The firm also reported **losses of $800 million in 2021** from its **investments** in Grayscale, KeyFi, Stakehound and Equities First Holdings. It did **not report these losses** to its customers at the time they were incurred.

Also problematic are the **manipulations of their proprietary token CEL**, which it purchased with, among other things, for its customers' Bitcoins and Ethers. It currently holds **95% of CEL in existence**.

The report also points out that **former CEO Alex Mashinsky** sold the **CEL token for $68.7 million**. The **price** was at its **highest point**, when he **claimed to the public** that he was **holding** or buying it. To avoid too much of a drop, **Celsius** as a company subsequently **bought CEL**. They also **used the money raised by selling shares** in the company **to increase CEL's price**. In total, they **bought** their **own token** for **$558 million.**

Another section points out that Celsius **used some clients' tokens** to **cover obligations** to **other customers**. That's a clear indication that this was a **Ponzi scheme**.

Mashinsky explicitly told investors that there would be a **full recovery of their cryptocurrencies** even if Celsius went bankrupt, which it did not. **Clients** who had crypto in custody at Celsius **will get 72.5% back** if they agree to the **new settlement proposal**.

Comparison of bitcoin with stock indices

About the metric

The indices are measured as a weighted average of the prices of the stocks in the index. Each index gives different weights to different aspects.

The Dow Jones Industrial Average (^DJI) gives more weight to companies with a higher price per share.

The S&P 500 (^GSPC) gives more weight to companies whose shares are available on the market. For example, if a large proportion of a company's shares have been owned and held by the founder or his descendants for many generations, the company will not carry much weight in the S&P.

For the **NASDAQ Composite (^IXIC)**, the most important criterion is the market capitalisation of the stocks traded on NASDAQ. This is then multiplied by the closing price of the day.

The **NYSE Composite (^NYA)** includes all common stocks listed on the New York Stock Exchange. It contains more than 2,000 stocks.

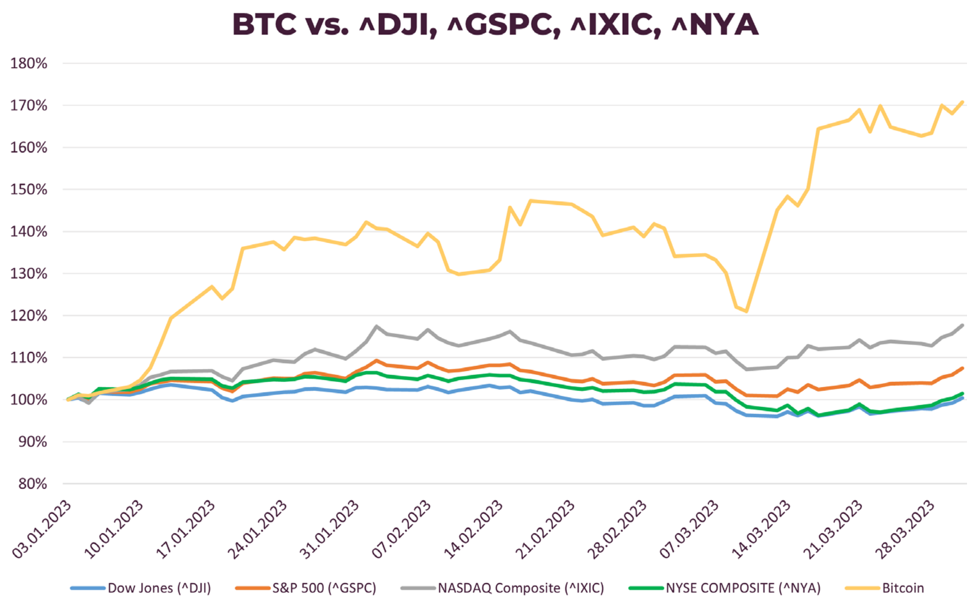
The **DAX (^GDAXI)** is an index of the Frankfurt Stock Exchange that tracks the 40 most important German companies. It ranks them according to market capitalisation and trading volume.

The **Financial Times Stock Exchange 100 Index (^FTSE)** reflects the 100 companies listed on the London Stock Exchange. The only criterion for the weighting of individual stocks is market capitalisation.

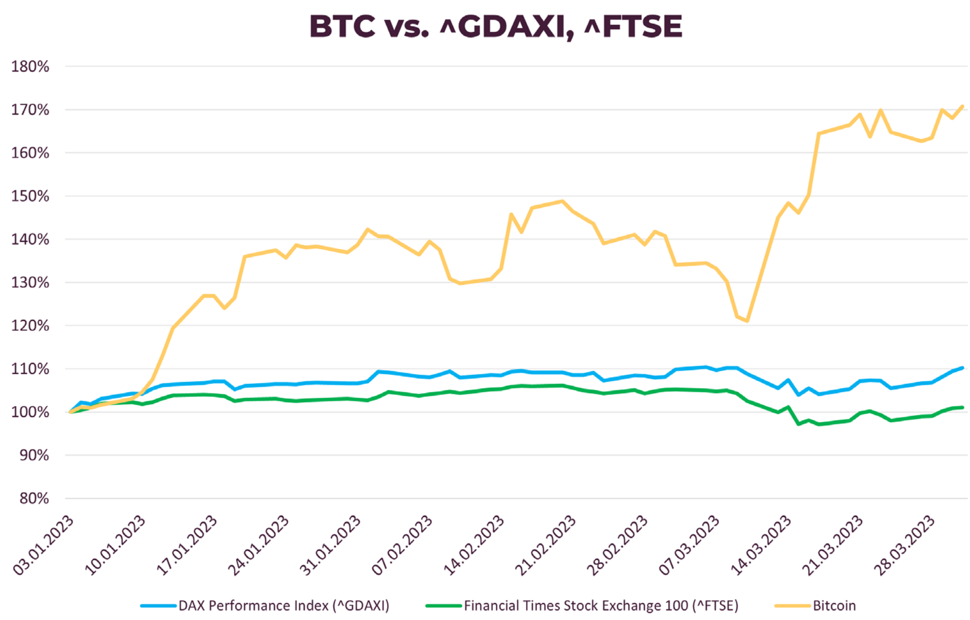
Performance in Q1 2023

The **price of bitcoin rose 71%** in the **first quarter of 2023**. US **bank failures** had a negative impact on **local stock indices**. Due to the **significant correlation the with performance the US economy**, in particular the Nasdaq Composite, it could be expected that these events would also damage bitcoin. This **correlation began to decline** in **March**, and **bitcoin** is **regaining** its **position** as a **reserve asset**.

The **Nasdaq Composite Index performed the best** of all the indices monitored. However, with a **gain of 18%**, it lagged far behind Bitcoin. This was helped in large part by technology stocks, which gained 19% in the first quarter. The **S&P 500** Index **gained 7%**, while the **NYSE Composite Index** gained only **1%**. The **Dow Jones** was the **worst performer among the US indices**, remained unchanged. Because it has only 30 stocks in its portfolio, it was more susceptible to stock declines in conjunction with the banking crisis. It has financial companies such as Goldman Sachs, JPMorgan Chase, American Express and Visa in its portfolio.



The **German DAX** index is **up 10%** and continues the positive trend set by the in the previous quarter. It was significantly helped by the **steep fall in inflation between February and March**. The **UK's FTSE 100 rose** by only **1%**. The adverse economic situation in the country is reflected in persistent inflation and the **ever-present threat of an economic crisis**.



Comparison of bitcoin with the bond market

About the metric

For comparison, we have used the **S&P US Treasury Bond Index**. This index attempts to replicate the **overall state of the US bond market**. The value of its constituents reflects their overall performance.

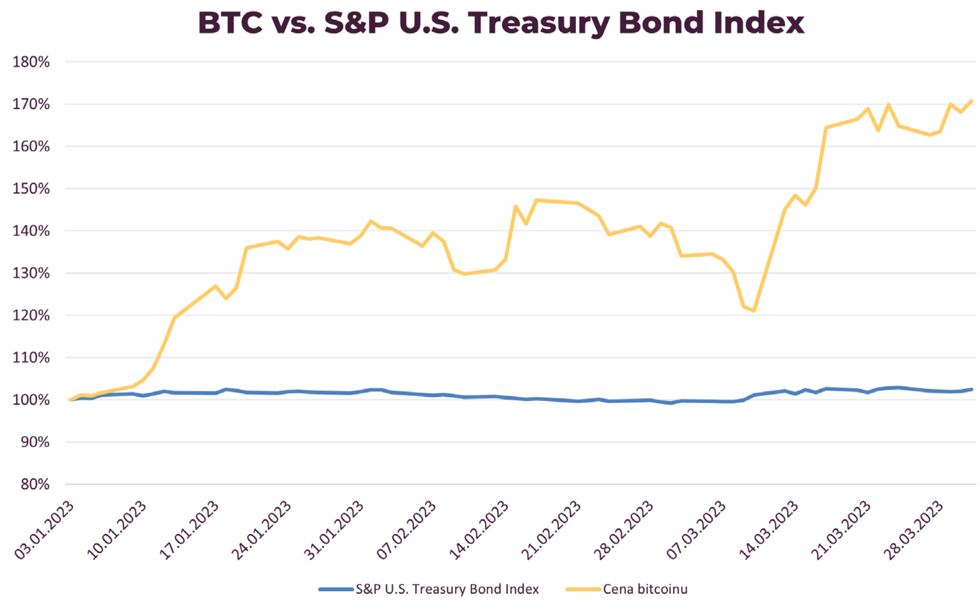
We measure the performance of US Treasuries, which are US government bonds. They are divided into 3 types according to their maturity and the way they pay interest:

- **US Treasury Bills** - 4, 8, 13, 26 and 52 weeks,
- **US Treasury Note -** 2, 3, 5, 7, 10 years, interest paid semiannually,
- **US Treasury Bond -** 30 years, interest paid semi-annually.

Government **bond yield**s are the **result of interest rates** set by the US Federal Reserve on the one hand and inflation, which erodes their value, on the other.

Performance in Q1 2023

The **S&P U.S. Treasury Bond Index** shows that the **yield on U.S. Treasury bonds** rose by an **average of 2.4%**. High yields on government bonds will decline as inflation falls. At the same time, the attractiveness of these bonds as an investment asset will decline.



Comparison of bitcoin with the largest mutual funds

About the metric

Mutual funds are **actively managed** compared to index funds and ETFs (Exchange Traded Funds) and therefore **have higher operating costs**. In addition to management fees, the **client must pay fees** when buying and selling assets. However, precisely because their portfolios are actively managed, **mutual funds should outperform both market indices** and their corresponding index funds. Despite the higher costs, the client should have higher returns.

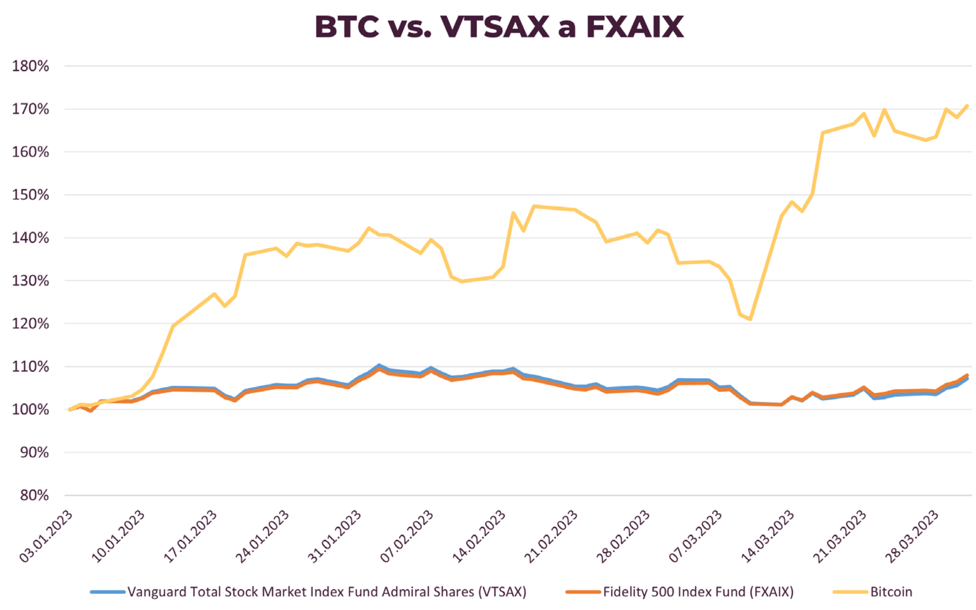
We chose the **Vanguard Total Stock Market Index Fund Admiral Shares (VTSAX)** and the **Fidelity 500 Index Fund (FXAIX)** because they are the **largest**. Vanguard and Fidelity are the companies that dominate mutual funds. All of the 5 largest mutual funds are managed by them.

Performance in Q2 2023

Vanguard Total Stock Market Index Fund Admiral Shares (VTSAX) had **$1.3 trillion** in assets under management (**AUM**) as of March 31, 2022. This value is spread across **3,895 different stock titles**. The stocks with the largest market capitalization are technology companies: Apple, Microsoft, Amazon NVDIA, and Alphabet. The aforementioned strong performance of technology stocks has also helped mutual funds.

The Fidelity 500 Index Fund (FXAIX) has a net trading assets of around **$389 billion**. Similar to VTSAX, the largest share of its portfolio is held by the largest US technology companies, and even in the same order.

Over the period under review, the value of the holdings in **VTSAX and FXAIX increased by 7% and 8%** respectively. As these are **actively managed funds**, they should perform better than index funds. And because they are US mutual funds, we compare them to **US equity indices**. They have done **better than the Dow Jones and the NYSE Composite**, **similar** to the **S&P 500**, and significantly **worse** than the **Nasdaq Composite**, with technology stocks representing around half of its weight.



Comparison of bitcoin with gold

About the metric

Bitcoin has been called **digital gold**, and indeed there are many **parallels between it and physical gold**. When we compare bitcoin to gold, we are treating it as a **commodity**.

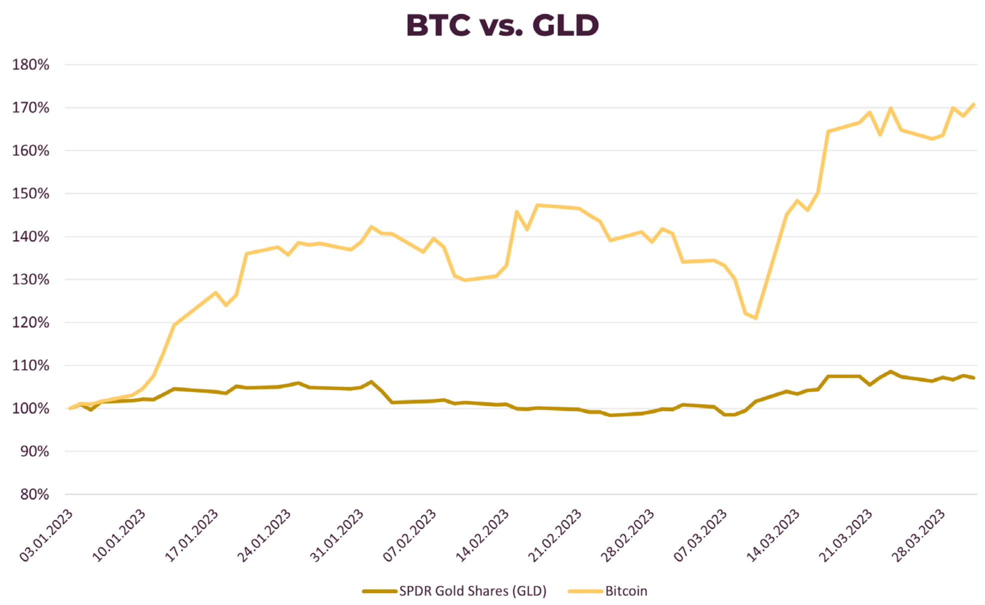
Gold has historically been seen as a **store of value** and a **safe haven investment**, a type of asset that should **protect investors from market fluctuations**.Gold tends to have an **inverse relationship** with the **broader market**. Bitcoin, as seen in the correlation chapter, will lost its reserve in the beginning of 2022, when it started to be closely linked to US equity markets. This correlation became looser once again in 2023.

Bitcoin and gold are both in **limited supply** and **increasingly expensive to mine**, which should lead to greater scarcity and higher prices.

The **SPDR Gold Shares ETF (GLD)** is the world's **largest exchange traded fund (ETF) backed by physical gold**. It allows clients to invest in gold without owning it. Unlike mutual funds, the ETF is passively managed, simply following the price of the asset to which it is linked without intervention.

Performance in Q1 2023

The **ETF tracking the price of gold, GLD, gained 7%**, the same as in the previous quarter. An **uptrend** is evident in gold **since November 2022**. As **interest rates rise** and a **availability of investment capital decreases** which threatens stock prices, attention is turning to **reserve assets like gold**. When an economic crisis actually occurs, its price will continue to rise.



Correlation with selected investment vehicles

About the metric

The **60-day correlation** shows the correlation between **2 variables over the last 2 months** before the date on which the value is reported. It tells us whether a **change in the value of one is related to a change in the value of the other**. A high correlation does not necessarily mean that the variables are related, just that they are rising or falling for the same external reasons.

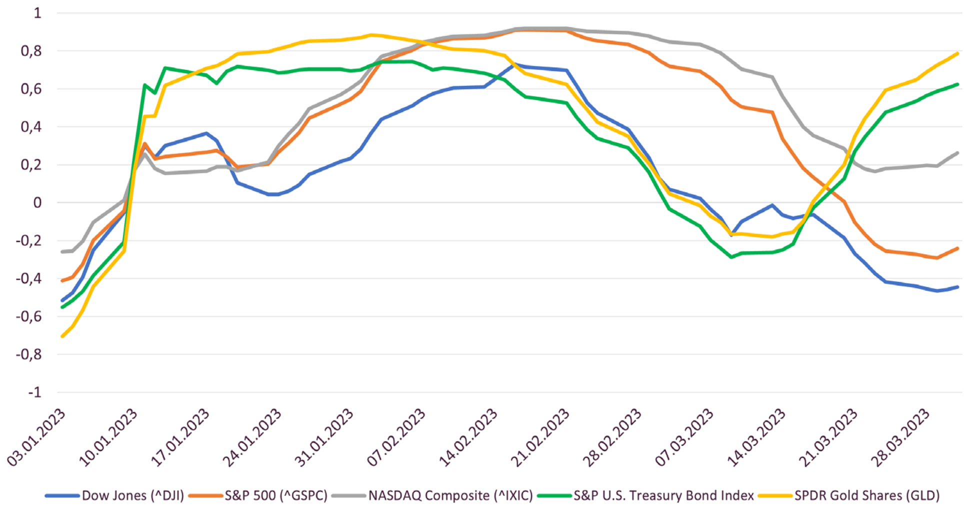
Correlation in Q1 2023

The chart shows 2 groups of assets divided by how bitcoin correlates with them. The first is gold and government bonds, which have done well in moments of negative sentiment in the US market. The second is stock indices, which in turn rose at moments when there was reason to be optimistic about the future.

At the moment, bitcoin is better correlated to gold, which should do well in a recession. If this is the case, it means that bitcoin is returning to its position as a reserve asset and its price will rise even if stock indices are in trouble. The impetus for the increase in this correlation and the decrease in the one with stock indices was the banking crisis in mid-March.

Gold was also the investment instrument with the most volatile correlation with Bitcoin. Its variance reached 1.59 and went from an initial strong negative correlation to a strong positive correlation at the end of the quarter.

60-day BTC correlation with selected investment products



Bitcoin volatility compared to gold volatility

About the metric

As Warren Buffett said, "Volatility does not measure risk". **Volatility measures the price fluctuations** of the asset being tracked. So it tells us nothing about whether the trend is up or down. But it does tell us how complicated the journey has become from point A to point B. We look at **volatility over the last 30 days**.

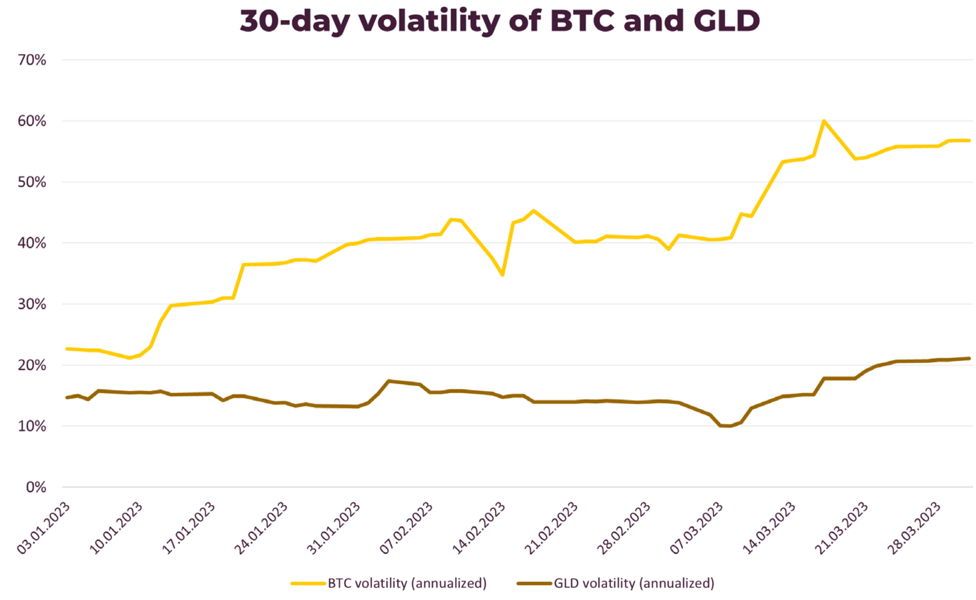
This metric is particularly **important for traders**, and even more so for those who create **market neutral strategies**, i.e. combining **long and short positions** on the same asset.

Volatility in Q1 2023

High sensitivity to **events in the US economy** peaked in the last quarter of last year, when **30-day volatility was between 20% and 30%**, which was only briefly **disrupted by the FTX crash**. The tendency of bitcoin to become independent again was reflected in the **rise in volatility**, which again hit the **60% mark**.

Even if **bitcoin becomes a reserve asset again,** it will still be **volatility that will differentiate it from gold**. For traditional investors, this is more of a deterrent, for traders

With cryptocurrency derivatives, on the other hand, a market opportunity.



What happened in Q1

Cryptocurrencies as a method of payment

Stablecoins

Tether, the issuer of the most **prominent USDT stablecoin**, seems to be getting its **reserves in order** to be ready for possible **stablecoin regulation in the United States**. The r**eserves attestation for Q1 2023** showed that the company's **profits increased to $1.5 billion** from $700 million in the previous quarter.

Total excess reserves were $2.44 billion, with assets of $81.8 billion and liabilities reflecting USDT's market capitalization of $79.4 billion. **Cash and cash equivalents represent nearly $70 billion**, or **85%**. Of this, **$53 billion** is comprised of **U.S. Treasury bonds** and **$7.5 billion** is comprised of **money market funds**, both types of assets that should be **recognized as reserve assets in a regulated environment**. New categories in reserves are **precious metals** representing **4% of reserves** ($3.3 billion) and **bitcoin** representing **2%** ($1.5 billion).

The **collapse of Silicon Valley Bank damaged USDC**, the second most important stablecoin by market capitalization. Its issuer, Circle, had $3.3 billion of USDC reserves stored there. This led to **withdrawals of $10 billion**, bringing the **total market capitalization** to **under $33 billion**. At the same time, **USDT's market capitalization increased by $8 billion to $80 billion**. USDT has now gained **60% market share** and is increasing its market dominance.

A new version of the **stablecoin GHO** issued by the **Aave** decentralized finance protocol has been created. **GHO** will thus be **tradable on Ethereum**. It is intended to be a stablecoin whose **reserve will be a bundle of cryptocurrencies** with a higher value than the GHOs in circulation.

Immersive has teamed up with **Mastercard** to **enable cryptocurrency payments** in **Australia and New Zealand**. Immersive will allow the **payment card** to be **linked** to a **private crypto wallet**. All transactions will be executed in **USDC**, which will then be **converted into fiat currency**.

CBDCs

The **Bank for International Settlements**, together with the central banks of **Israel, Norway and Sweden**, has completed the **Icebreaker project** for **international retail payments in CBDCs**. As a result, the findings suggest that an international system of CBDCs should lead to **faster and safer international payments**.

The **Bank of England** has launched the **Digital Pound Project**. A **consultation paper** identified the Bank of England as the **sole issuer of the CBDC** in the **UK**. **Citizens and businesses will have a digital wallet** and will be able to **pay** with **credit cards and smart phones**. It's also possible that **CBDC** will just be a **complement to private stablecoins**.

Blockchain ecosystems

Coinbase, the **largest exchange in the US** market, has launched a **second-layer blockchain** called **Base**, the **underlying layer** of which is **Ethereum**. The network is expected to have **low fees**: but it **won't have its own token**, a precaution against possible reprisals from the market regulator with securities.

Base is an essential building block for **Coinbase's new strategy** to allow them to **capitalize on infrastructure** and app development. The exchange is looking for **new sources of revenue** in a period of low trading volumes.

Second-layer networks are an important technology to **increase the number of transactions** that blockchains are able to process. This means that some transactions are recorded on the side blockchain and written to the main blockchain in larger packages.

There are **2 basic technologies** used to wrap transactions in these packages: **optimistic rollups and zero-knowledge rollups**. The **first** category had the advantage of **easier implementation**. However, **zero-knowledge** is nearing the stage of development where it can be used en masse. Eventually, they **should become a dominant technology**, as Ethereum founder Vitalik Buterin believes.

Last quarter, **Polygon** launched a **second-layer blockchain** using **zero-knowledge rollup**s. **ConsenSys** also launched a **testnet** built on zk-rollups.

The development firm **Protocol Labs** has created a **Filecoin virtual machine** so that it is now possible to write **smart contracts** on it and **build decentralized applications** as a result. The big opportunity is with **NTFs**. Their underlying files could be **stored** on **IPFS**, the storage in their ecosystem.

A new category that should be popular in the next bull market is **AI-related tokens**. A large number of these have **emerged** following the launch of **chatbot Chat GTP** and **image generation software Dall-E**. Both programs were developed by **OpenAI**. Some tokens in this category such as **ALI, FET** nd **AGIX** have already seen significant price increases. The connection with AI has also helped **legacy big data projects** such as **BDP** and **MDT**.

TradFi

Although **crypto firms in the US** are finding it **harder to access traditional banks**, they are increasingly integrating them into their **neobank** and **investment app** offerings. For example, **Revolut** is offering new clients in the **European Economic Area** and the **UK staking cryptocurrencies**. For starters, this includes **DOT, XTZ, ADA and ETH**. **Yields** range **between 2.99% and 11.65%** per annum.

Investment app **Robinhood** has created a **crypto wallet** for its customers that supports the **Ethereum** and **Polygon** blockchains. It supports **COMP, ETH, MATIC, SHIB, SOL, UNI and USDC tokens**. Users can also store NFTs created on Ethereum and Polygon here.

Technology firms increasingly see an **opportunity** in **managing blockchain nodes**. **Microsoft** has teamed up with **web3 infrastructure firm Ankr** for this purpose. Their offering will allow easy **access to data from various blockchains**. Ankr has also signed a **memorandum of understanding with Chinese giant Tencent** to develop a suite of API services for it.

Google Cloud will become a validator on the Tezos blockchain. Google Cloud corporate clients will now be able to develop web3 applications in this ecosystem.

CryptoFi

Binance put itself at further **risk of potential investigation** when it admitted that its **cold wallet** "accidentally" **mixed its own reserves with client funds**, which is against its own rules. These were **so-called B-token reserves**. B-tokens are tokens issued on blockchain A wrapped in another token so that they can be **traded on blockchain B**. When **reserves are commingled with client deposits**, it is **difficult** to **determine whether the B-tokens are actually covered**. The surfacing of this case is proof that crypto exchanges have been under greater scrutiny since the FTX crash.

Binance International has been **forced to stop deposits via bank transfers in US dollars**. Binance.US was not affected and therefore **US citizens were not affected**. This is because their banking partner **Signature Bank** raised the **transaction minimum** for dollar transfers to **$100,000** in late January. It has declatred bakrupcy short after.

In **March**, **Binance** also **ended deposits and withdrawals in the British pound**. The reason for this is the loss of support from partner company Paysafe, which handled the transfers.

Nine months after their introduction, **Binance removed all pairs with zero transaction fees**. The move helped them **increase their market share from 50% to 72%** last July, while **zero-fee pairs accounted for 60%** of the exchange's **trading volume**. Now their market dominance should start to decline.

The **only zero-free pair** that remains is **TUSD-BTC**. **TUSD (trueUSD)** has been selected by the exchange as the **new preferred stablecoin**, after **BUSD** was forced to be **phased out** by US regulators. Since the regulators' crackdown on BUSD, the market capitalization of TUSD has doubled.

Mining

Miners are **back in the black** after a **difficult end to 2022**. The 71% rise in bitcoin prices has completely **offset** the continued **increase in mining intensity**. In addition, they are being helped by the **falling price of energy**, particularly natural gas, which has fallen by as much as 75% since August. **Natural gas** represents **32% of energy consumption** in the **United States**.

January's price increase helped **cover costs at Marathon Digital**, which is significantly **increasing its mining capacity** this year. From the current 11 EH/s (4% of global mining capacity), it should **increase to 23 EH/s** by mid-year.

CleanSpark increased **bitcoin production by 50%** to **697 BTC** in January. 624 BTC were sold during January to cover losses incurred during the crypto winter. Even the **Argo blockchain** produced **14% more BTC in January** than in December.

Regulation

The **BIS study** shows that the **LUNA and FTX crashes** led to an **increase in retail investor activity**, but that retail investors **lost out on these deals**. On the other hand, **wallets trading large volumes** of cryptocurrencies have **gained**. This, according to the BIS, is **evidence of the need for greater protection** for retail investors. **Banning** certain **crypto activities** or **separation** from the world of **traditional finance** may be a solution.

The **International Monetary Fund** has called on Member States to take **coordinated global action** against digital currency ecosystems. It fears that **decentralised blockchain networks** can **reduce the effectiveness of international policies**, bypass official channels for capital flows and generally increase financial risks. But they do **not recommend a blanket ban**. However, they say that issues of market integrity, legal risks, consumer protection and clear rules on taxation need to be addressed.

EU

The **final vote** on the adoption of the **pan-European MiCA regulation** will take place in **April**. The **delay** was caused by **problems with the translation** of the legislation into all **24 languages**. Along with MiCA, the vote on the related T**ransfer of Funds Regulation (TFR)**, which **mandates the application of KYC** procedures in crypto transactions, has also been delayed.

A **European Parliament** committee has voted to subject **banks that want to hold crypto** to **higher capital requirements**. At the last minute, a requirement for banks to hold **1,250% weighted reserves** made it into the proposal. These are the **highest reserves for any of the Basel III asset classes**.

The **European Parliament** has adopted a **new law to prevent money laundering**. It will now be the subject of a trialogue. The most significant news for digital assets is that **DAOs, NFTs and DeFi platforms** will now **be subject to the AML laws** and have the same obligations as any other type of financial institution. The EU will also see the **creation of a new regulatory body**, the **Anti Money Laundering Authority**, aimed specifically at combating money laundering.

Hong Kong

Hong Kong will allow **trading of digital assets** by **retail investors**. However, this will only apply to **selected tokens and cryptocurrencies** with the **largest market capitalisation**.

A relaxation of the bans was already being considered last year as **investors were using foreign exchanges** despite the ban. Either way, it is a sign that **China's** relationship with **cryptocurrencies** is not as negative as it has been.

All crypto trading platforms will have to **get approval from the securities regulator by June 2024**. The Huobi exchange already announced intention to apply for it.

UAE

While the United States is plagued by regulatory uncertainty, some jurisdictions are taking a more **constructive approach to digital assets**. A new **regulatory framework** was most recently **unveiled in Dubai**. It defines how **crypto firms can obtain** licenses for particular services such as an **exchange, custodian, lender** or **payment service provider**.

Firms will face a **four-step registration process**. **Binance**, for example, received a **provisional license** last September, meaning it can only offer its services to **institutional or qualified investors**. Until they go through the entire process, they cannot offer their services to retail investors.

Due to **registration fees** and subsequent **periodic regulatory oversight fees**, Dubai is not suitable for startups but rather for **larger companies**.

NFTs

The popularity of NFTs on the **Bitcoin blockchain,** called **Ordinals**, attracted a lot of attention earlier this year. The **BitMEX** exchange identified that there are over **13,000** of them on the blockchain. All were minted between December 14 and March 7.

JPEGs and other **media files** take up **526 Mb** on the blockchain and **cost their creators 6.77 BTC** to create. Unlike Ethereum, **NFTs are stored directly on blockchain** and do not use external servers.

The **popularity of Ordinals** has significantly **increased activity on Bitcoin**. The 7-day average number of transactions exceeded 345,000. This level was last reached in Q2 2021 before miners had to leave China. For how much space they take up on the block, however, they **represent a relatively small amount of transactions**. **Opponents of Ordinals** refer to **Satoshi Nakamoto**, who has **denied** that the **blockchain** should be **used for anything other than financial purposes**.

In February, **NFT marketplace Blur** managed to **become the number one NFT marketplace** on the **Ethereum** blockchain in terms of **volume** of NFTs traded. It thus **unseated long-time leader OpenSea** from the top spot. The biggest attraction that **Blur** offers is **zero transaction fees**.

Bitterfly s.r.o., 2023

www.bitterfly.io
consult@bitterfly.io