

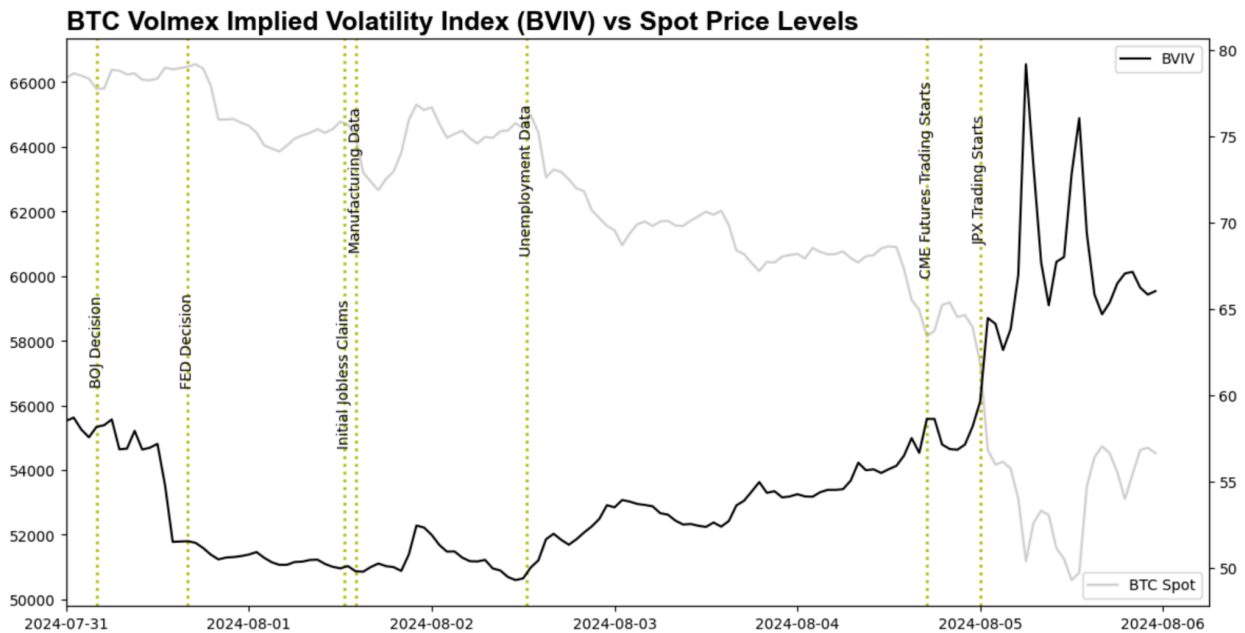
# Crash of August 5, 2024

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On August 5, 2024, global markets experienced significant declines, with the Nikkei 225 falling by 12%, the S&P 500 by 3%, the NASDAQ by 3.4%, Bitcoin (BTC) by 7.2%, and Ether (ETH) by 10.1%. The VIX (S&P 500 Implied Volatility) spiked to 65.73 from 23.39, while the BVIV (BTC Volmex Implied Volatility Index) jumped to 89.04 from 59.65 and the EVIV (ETH Volmex Implied Volatility Index) rose to 102.33 from 59.78.

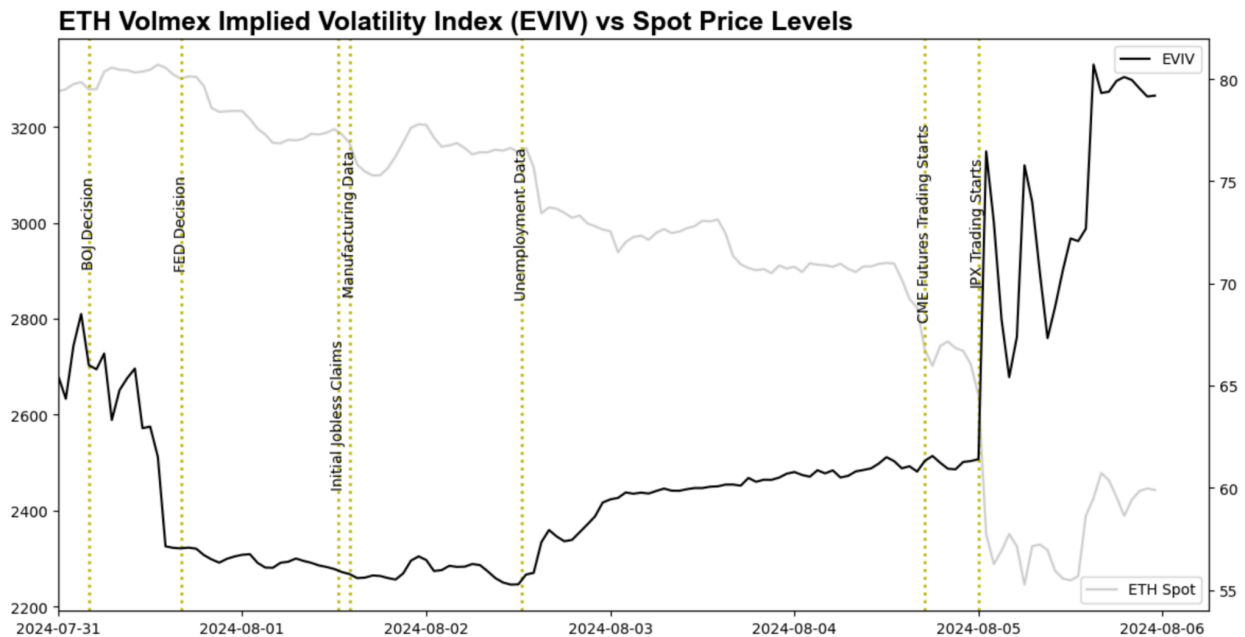


Source: Volmex Finance; BTC Volmex Implied Volatility Index (BVIV)

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Many initially attributed these unprecedented moves to the Bank of Japan's (BOJ) interest rate hike to a historic high of 0.25%, announced on July 31. However, the market reaction following the BOJ's decision was relatively muted, with no immediate adverse effects observed.

The events leading up to the crash suggest that factors beyond the BOJ's rate hike were at play. After the Federal Reserve opted to keep interest rates unchanged, economic data released on August 1 and August 2, 2024 painted a grim picture: a contraction in the manufacturing sector and rising unemployment claims. Additionally, corporate earnings reports began to reveal underlying weaknesses, further unsettling investors.



Source: Volmex Finance; ETH Volmex Implied Volatility Index (EVIV)

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Japan, with its markets opening earliest after the weekend, became a focal point as Japanese investors, particularly those with leveraged positions, began to unwind in response to a confluence of factors: higher domestic interest rates post-BOJ decision and signs of a weakening U.S. economy. This early sell-off in Japanese markets set the stage for a cascade of market declines worldwide, as fears of a global economic slowdown intensified.

Thus, **the primary catalyst for the widespread market crashes on August 5 was not solely the BOJ's rate hike but rather the growing concerns about weakening U.S. economy.** The synchronized response across global markets underscores the interconnectedness of financial systems and the significant impact of U.S. economic health on global investor sentiment.

## What Happened?

On July 31, 2024, the Bank of Japan raised its key interest rate to approximately 0.25%, up from a previous range of zero to 0.1%. This was the BOJ's second rate hike in 17 years, a move aimed at addressing the yen's depreciation and rising import costs. The market reacted positively to this cautious shift away from Japan's long-standing near-zero interest rate policy, with the Nikkei 225 index climbing 1.5%.

In contrast, the US Federal Reserve held its short-term interest rates steady at 5.25%-5.5% on the same day, the highest level in 23 years. Although inflation is nearing the Fed's 2% target, Chair Jerome Powell indicated that a rate cut could be possible if supportive inflation data emerges by the September meeting. The Fed's cautious optimism and balanced outlook were well-received by financial markets. However, the cryptocurrency market saw declines, with BTC and ETH falling by 2.4% and 1.3%, respectively. Additionally, the BVIV and EVIV (ETH Volmex Implied

Volatility Index) dropped significantly by 13.1% and 10.5%, respectively, as the uncertainty around the Fed's decisions dissipated.

Economic data released on August 1st and 2nd presented a worrisome picture, indicating a contraction in the manufacturing sector and weaker-than-expected job growth. This news led to sharp declines in cryptocurrency markets and major U.S. stock indices, raising concerns about a potential recession and fueling uncertainty about the Federal Reserve's future policy stance.

The situation worsened on August 5, as Japan's stock market experienced a dramatic decline. The Nikkei 225 plummeted 12%, marking the largest drop since 1987. This severe downturn, driven by global recession fears, prompted a surge in the yen as investors sought safe-haven assets. The turmoil extended to U.S. markets, resulting in significant losses across major indices, reflecting heightened global economic anxiety and its impact on financial stability.

Cryptocurrency markets reacted swiftly, with BTC and ETH experiencing unprecedented moves. BTC fell by 7.2%, while ETH dropped by 10.1% by the end of the day. The volatility was further reflected in the BVIV and EVIV, which surged by 11% and 33%, respectively.

## Summary

Global markets experienced sharp declines on August 5, 2024, largely due to growing concerns about the weakening U.S. economy. Despite the Bank of Japan's interest rate hike on July 31, it was the subsequent release of disappointing U.S. manufacturing and unemployment data, along with signs of weakening corporate earnings, that rattled investors.

As fears of a slowdown in the U.S. economy mounted, markets worldwide reacted, leading to significant losses, including a 12% drop in Japan's Nikkei 225, a 3% fall in the S&P 500, and substantial declines in major cryptocurrencies like Bitcoin and Ether. This global sell-off underscores the critical influence of U.S. economic health on financial markets around the world.

# Appendix A: Timeline

**Wednesday (July 31, 2024)** BOJ raised its key interest rate to about 0.25% from a range of zero to about 0.1%

**Wednesday (July 31, 2024)** Fed raised kept the target interest rate range same at 5.25%-5.5%

**Thursday (August 1, 2024)** Initial Jobless claims increased to one-year high of 249K from 235K while ISM manufacturing index dropped to 8-month low

**Friday (August 2, 2024)** The Labor Department reported only 114,000 new jobs, below expectations, and a rise in the unemployment rate to 4.3%

**Monday (August 5, 2024)** Global market crash. Nikkei 225 fell 12%, S&P 500 3%

# Appendix B: Details

## Bank of Japan's Interest Rate Decision

On July 31, 2024, the Bank of Japan (BOJ) raised its key interest rate to approximately 0.25%, from a previous range of zero to about 0.1%, to counteract the yen's depreciation and rising import costs. This move, only the second rate increase in 17 years, reflects a cautious shift from Japan's long-standing near-zero interest rate policy. The market responded positively, with the Nikkei 225 index rising by 1.5% on the day of decision, indicating investor confidence in the BOJ's approach to stabilizing the economy and managing inflationary pressures.

## Federal Reserve's Interest Rate Decision

On July 31, 2024, the Federal Reserve decided to keep short-term interest rates unchanged, maintaining the target range at 5.25%-5.5%, the highest level in 23 years. While acknowledging that inflation has eased and is approaching the 2% target, Fed officials emphasized that more progress is needed before considering rate cuts. Chair Jerome Powell noted that a reduction could be possible as soon as the September meeting if data supports further easing in inflation. The Fed's statement reflected cautious optimism, upgrading language from previous meetings and highlighting a more balanced outlook on achieving employment and inflation goals. The U.S. economy has demonstrated resilience with strong GDP growth, though there are signs of a softening labor market. Markets reacted positively to the potential for future rate cuts, rallying on Powell's comments.

## Weak Economic Data

On August 1, 2024, markets reacted sharply to reports showing that the manufacturing sector had contracted, signaling a further slowdown in economic activity. This data contributed to a broader market sell-off, with the S&P 500 falling 1.4%, the Nasdaq 100 dropping 2.4%, and the Russell 2000 tumbling 3%. The contraction in manufacturing, along with rising unemployment claims, intensified concerns about the Federal Reserve's policy response. As a result, bond yields fell, with investors anticipating multiple rate cuts by the Fed, while equities faced heightened volatility amid uncertainty about the future economic outlook.

On August 2, 2024, stocks plunged sharply again, after a disappointing jobs report for July raised concerns about a potential recession. The S&P 500 fell 1.84% to 5,346.56, the Nasdaq Composite dropped 2.43% to 16,776.16—entering correction territory with a 10% decline from its peak—and the Dow Jones Industrial Average decreased 1.51% to 39,737.26. The Labor Department reported only 114,000 new jobs, below expectations, and a rise in the unemployment rate to 4.3%. This weak economic data led to a rush into bonds, pushing the 10-year Treasury yield to its lowest since December, and caused significant losses in tech stocks like Amazon and Intel, while banks also faced heavy selling. The market's reaction underscored growing doubts about the Federal Reserve's decision to keep rates unchanged earlier in the week.

## Global Market Crash

Japan's stock market has faced a dramatic downturn, with the Nikkei 225 index falling 12% on August 5, 2024, its worst drop since 1987, driven by global fears of an American recession. This decline has pushed the Topix nearly 25% below its recent peak. Concurrently, the yen has surged 13% from its recent lows, indicating a shift towards safe-haven currencies amidst market turbulence. These sharp movements not only reflect severe domestic financial challenges but also have the potential to amplify global market volatility due to Japan's significant economic influence.

In response, U.S. markets also suffered: the Dow Jones Industrial Average fell by 2.6%, the S&P 500 dropped 3.0%, and the Nasdaq Composite lost 3.4%. The broad sell-off highlights increased global economic anxiety and its impact on financial markets.

## Appendix C: Data

### S&P 500

Date	Open	High	Low	Close
Aug 5, 2024	5,151.14	5,250.89	5,119.26	5,186.33
Aug 2, 2024	5,376.63	5,383.89	5,302.03	5,346.56
Aug 1, 2024	5,537.84	5,566.16	5,410.42	5,446.68
Jul 31, 2024	5,505.59	5,551.51	5,493.75	5,522.30

## Nikkei 225

Date	Open	High	Low	Close
Aug 5, 2024	35,249.36	35,301.18	31,156.12	31,458.42
Aug 2, 2024	37,444.17	37,471.52	35,880.15	35,909.70
Aug 1, 2024	38,781.56	38,781.56	37,737.88	38,126.33
Jul 31, 2024	38,140.77	39,188.37	37,954.38	39,101.82

## VIX

Date	Open	High	Low	Close
Aug 5, 2024	23.39	65.73	23.39	38.57
Aug 2, 2024	20.52	29.66	20.01	23.39
Aug 1, 2024	16.2	19.48	15.95	18.59
Jul 31, 2024	16.66	16.77	15.71	16.36

## BTC

Date	Open	High	Low	Close
Aug 5, 2024	58,141.65	58,224.18	49,687.50	53,977.56
Aug 4, 2024	60,660.21	61,046.91	57,404.44	58,121.62
Aug 3, 2024	61,425.16	62,138.20	59,924.58	60,669.33
Aug 2, 2024	65,322.11	65,507.91	61,248.64	61,420.32
Aug 1, 2024	64,632.69	65,533.64	62,298.53	65,324.88
Jul 31, 2024	66,178.36	66,799.62	64,527.55	64,619.53

## BVIV

Date	Open	High	Low	Close
Aug 5, 2024	59.65	89.04	58.50	66.20
Aug 4, 2024	54.16	59.90	53.82	59.68
Aug 3, 2024	53.71	55.36	52.17	54.20
Aug 2, 2024	52.16	53.78	49.03	53.72
Aug 1, 2024	50.63	52.78	49.28	52.15
Jul 31, 2024	58.25	59.78	50.33	50.63

## ETH

Date	Open	High	Low	Close
Aug 5, 2024	2,688.92	2,693.09	2,185.95	2,417.03
Aug 4, 2024	2,900.86	2,930.17	2,660.94	2,686.32
Aug 3, 2024	2,984.17	3,014.07	2,863.89	2,901.58

Aug 2, 2024	3,202.18	3,213.94	2,969.23	2,986.54
Aug 1, 2024	3,232.28	3,240.99	3,080.80	3,202.49
Jul 31, 2024	3,278.32	3,347.48	3,217.21	3,230.94

## EVIV

Date	Open	High	Low	Close
Aug 5, 2024	59.78	102.33	59.78	79.53
Aug 4, 2024	60.66	62.03	59.41	59.48
Aug 3, 2024	59.41	61.38	59.17	60.64
Aug 2, 2024	56.63	59.38	55.16	59.38
Aug 1, 2024	56.68	56.86	55.38	56.64
Jul 31, 2024	63.34	69.59	56.27	56.69

## More on Volmex:

**Overview:** [Volmex](#) is the creator of the Volmex Implied Volatility Indices, the BVIV Index (Bitcoin Volmex Implied Volatility) and the EVIV Index (Ethereum Volmex Implied Volatility) - the first and leading crypto volatility indices. Volmex Implied Volatility Indices measure the constant, forward-looking 30-day expected volatility of BTC and ETH, respectively, which are available on TradingView, CoinMarketCap, and more. Volmex builds and partners on tradable products to make the index tradable for hedging, speculation, and more, notably the Bitfinex BVIV and EVIV Index perpetual futures contracts and Volmex perpetual futures DEX on the Volmex Base L3 rollup. Volmex has notably facilitated the [first BTC and ETH volatility index perpetual futures contracts](#) and the [first BTC volatility index bilateral OTC option trade](#). The Volmex Labs team is composed of world-class talent from various crypto and traditional financial industry companies including MSCI, IMC Trading, Staked (acq. by Kraken), and more.

## Volmex resources:

- Volmex website: <https://volmex.finance>
- Volmex charts: <https://charts.volmex.finance>
- Volmex light overview: <https://docsend.com/view/7r92yb8i5eeimhpu>
- Volmex methodology white paper: <https://volmex.finance/Volmex-IV-paper.pdf>
- BVIV Index on TradingView: <https://www.tradingview.com/symbols/BVIV>
- EVIV Index on TradingView: <https://www.tradingview.com/symbols/EVIV>
- BVIV-PERP live on Bitfinex: <https://trading.bitfinex.com/t/BVIVF0:USTF0>
- X Account: <https://twitter.com/volmexfinance>