Does the Bottom Arrive?

Data Analysis of Bitcoin's Bottom

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Introduction

- Background Introduction

- Market Indicator(BDD)Analysis

- Market Sentiment Analysis

- Price Prediction

- Conclusion

Background Introduction

Bear Markets in 2022

- Compared to its all time high-$68530 in 2021, Bitcoin has slumped by over **70%** in 2022.

- Yet, another huge crash hit Bitcoin last month. The price dropped to the lowest point-$15682- of this year.

Bear Markets in 2022

- Compared to its all time high-$68530 in 2021, Bitcoin has slumped by over **70%** in 2022.

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Market Indicator(BDD) Analysis

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What is BDD?

- **Definition**: BDD is the abbreviation of Bitcoin Days Destroyed, a metric that measures the aggregate age of all coins moved on a given day.

- **Formula**: $BDD = \sum Quantity \times Lifespan[days]$

- **Example**: If John sends Grace a Bitcoin and Grace holds that coin for 10 days before spending it, she has destroyed 10 Bitcoin days.
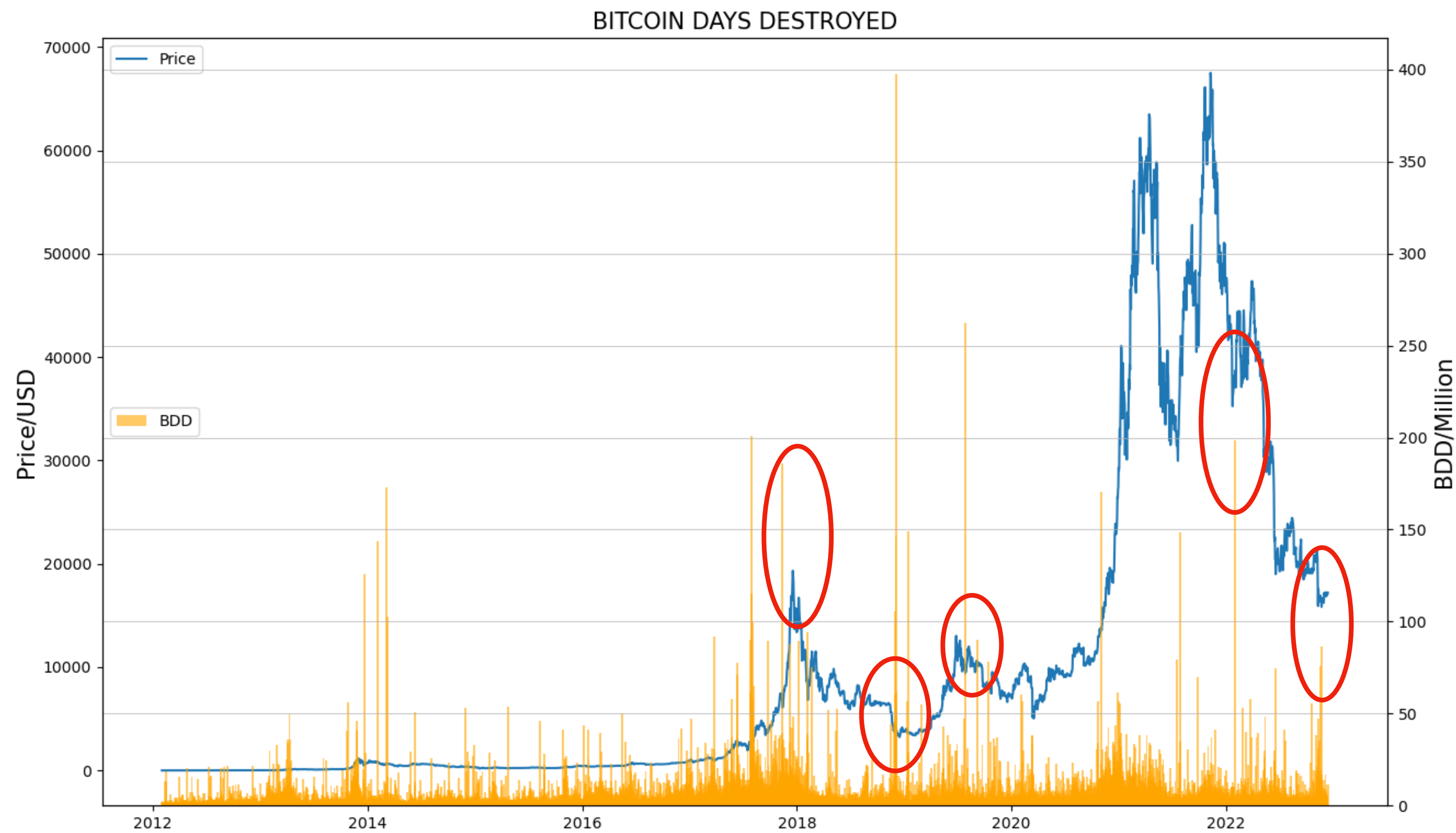
Why is BDD Important?

Indicator Signals

- **High indicator values** may indicate long term investors are spending coins to realise profits, taking advantage of market strength, or have reduced conviction to hold the asset. This may re-activate dormant supply into liquid circulating supply if the coins are sold.

- **Low indicator values** occur when day-to-day network traffic dominates network traffic, older coins remain dormant, and conviction to hold the asset is high. Periods of reduced interest in the asset (such as bearish markets) tend to lead to less on-chain activity and thus lower indicator values.

- **Nutshell**: Historically, BDD has **spiked near the market tops**, as investors sell their long-term holdings or **near market bottoms** as investors capitulate as the final indication of supply exhaustion.
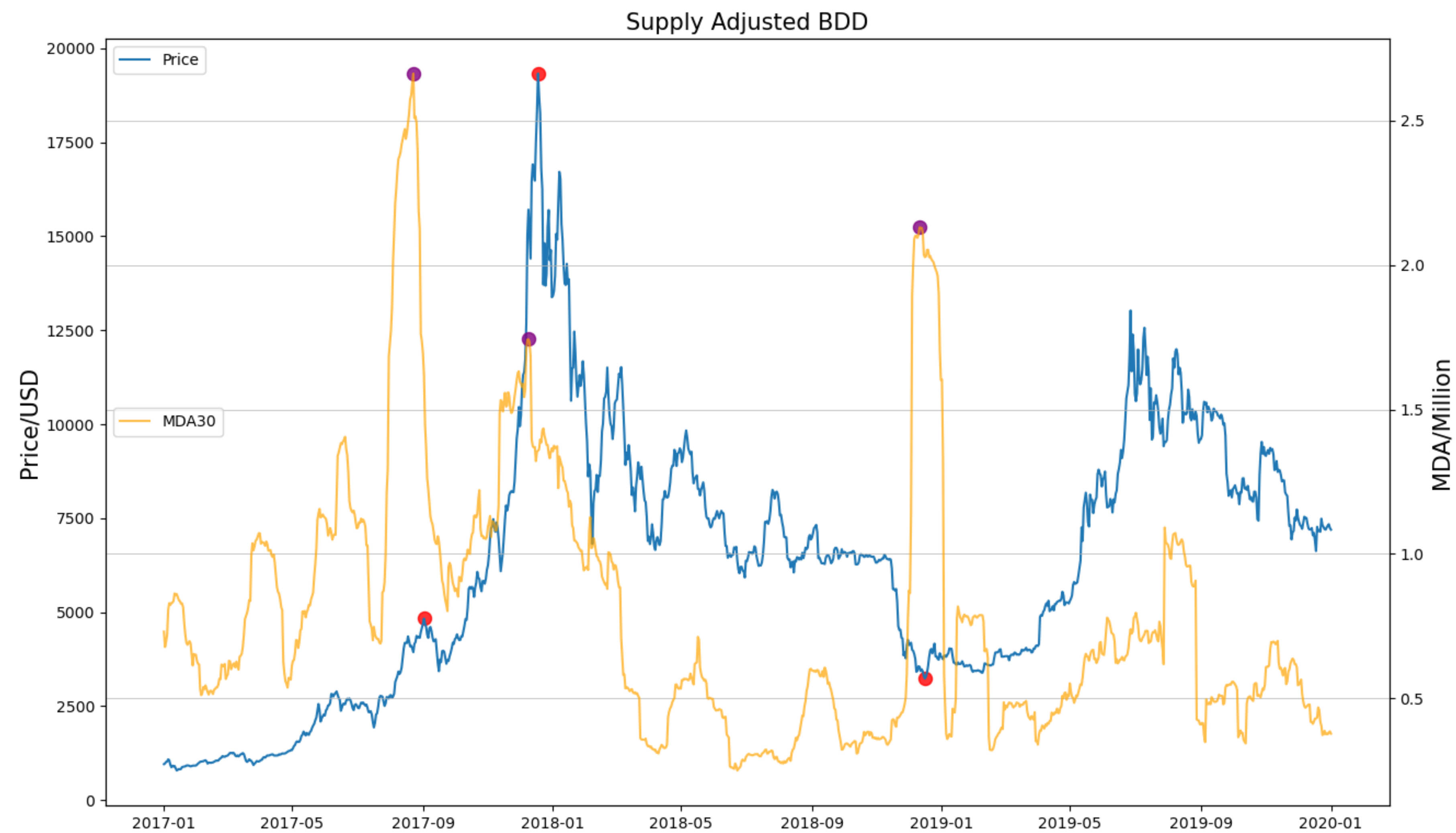
Market Indicator(BDD) Analysis

Strong Correlation between the Price of BTC and BDD

BITCOIN DAYS DESTROYED

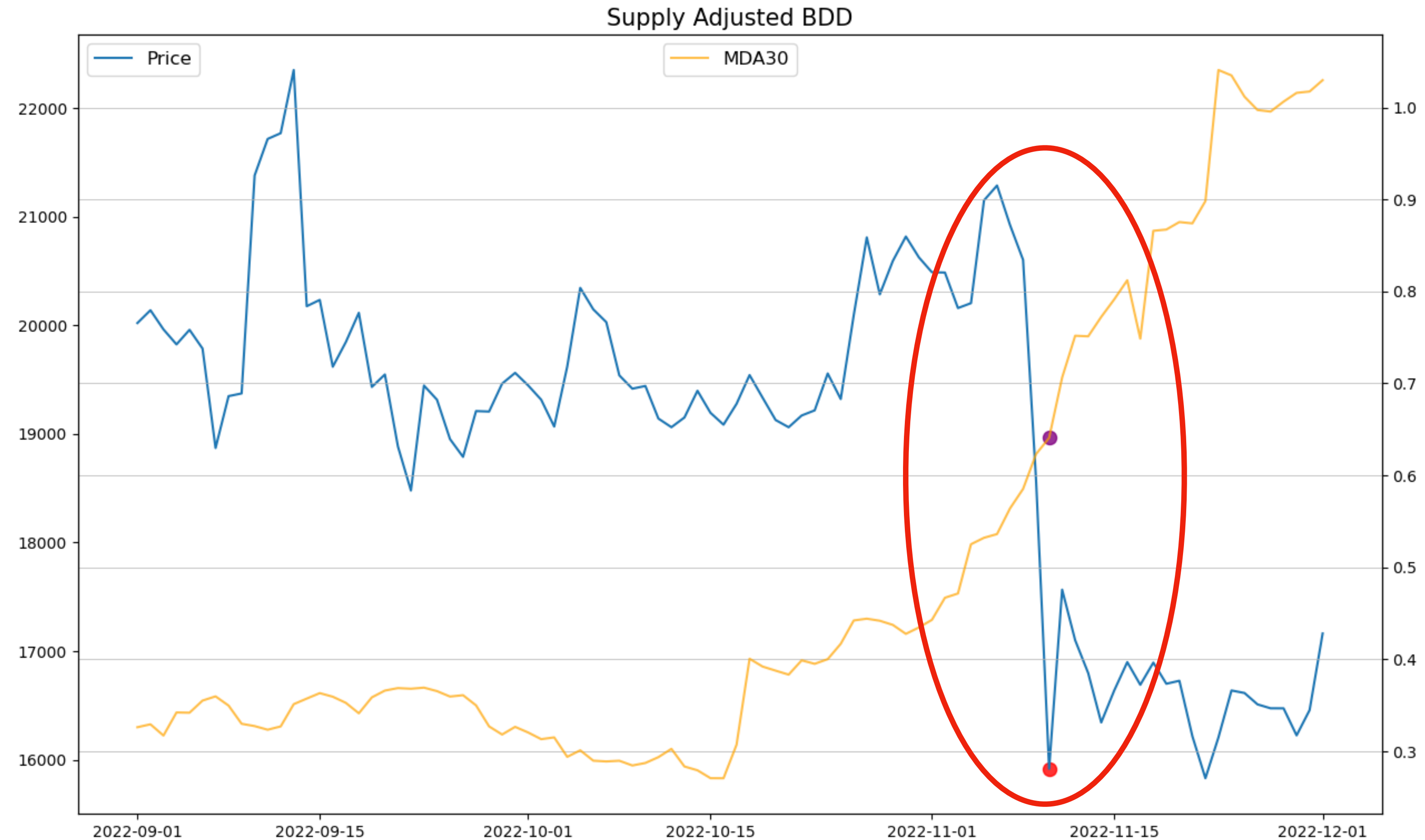# Market Indicator(BDD) Analysis

Strong Correlation between the Price of BTC and BDD
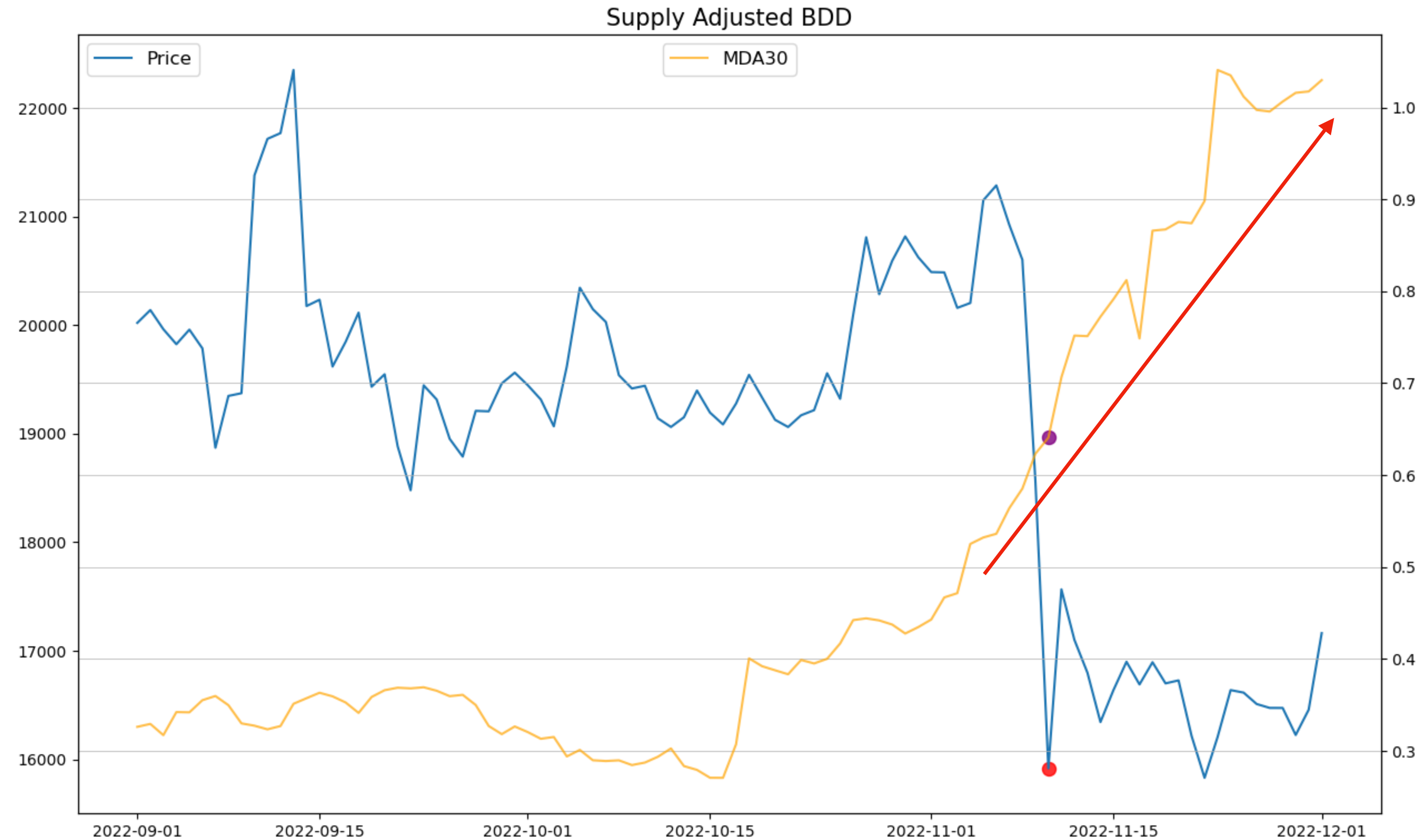
Market Indicator(BDD) Analysis

Application of BDD

- BDD soared after the crash on 6th Nov.

- It's reasonable to assume that **we arrived a local bottom around 6th Nov.**

Supply Adjusted BDD

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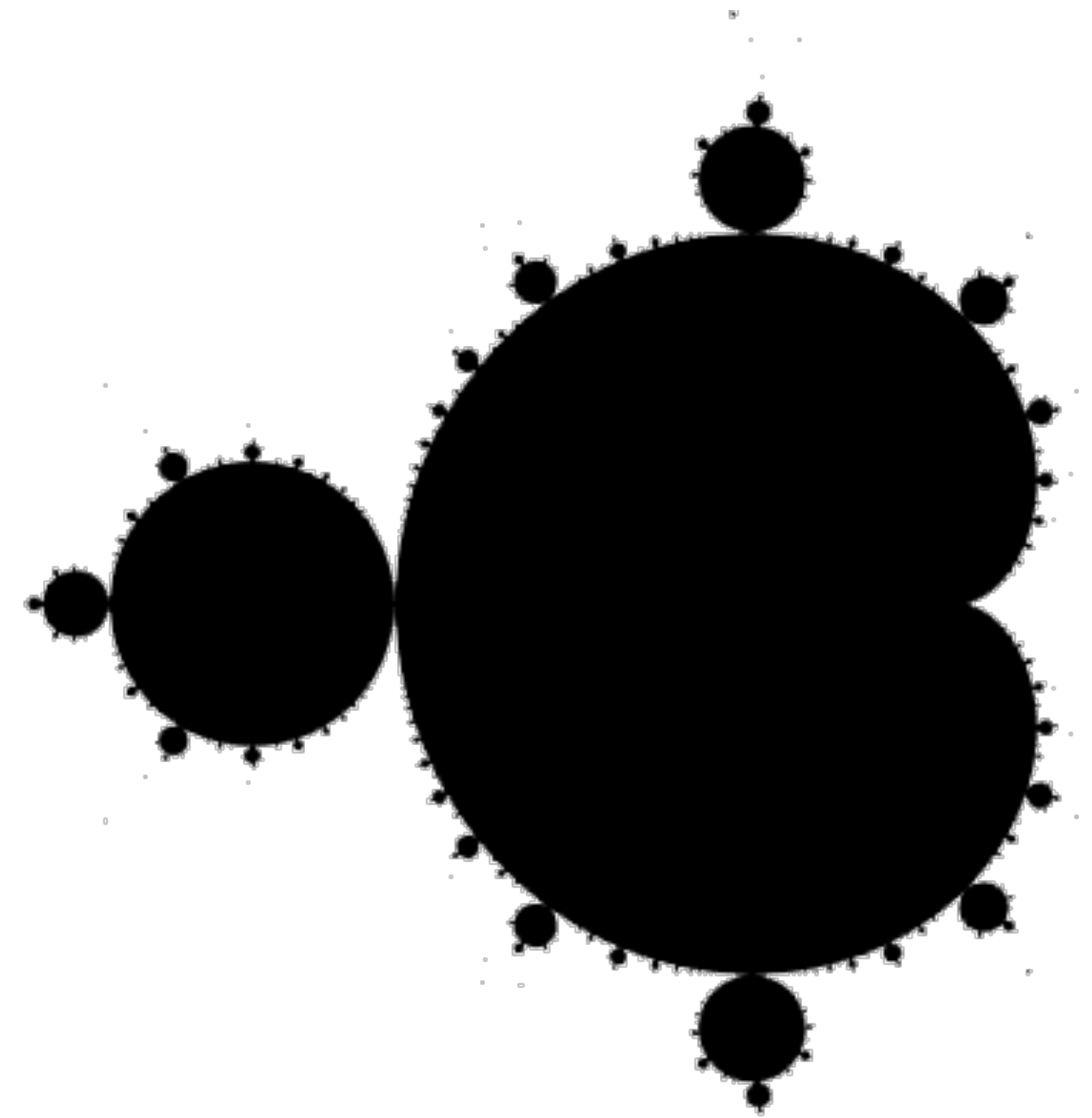

Supply Adjusted BDD

Market Sentiment Analysis

NLP Model

- We scrape tweets about #Bitcoin during this slump from Twitter.

- *TextBlob* is a Python library for processing textual data. It provides a simple API for diving into common natural language processing (NLP) tasks such as part-of-speech tagging, noun phrase extraction, sentiment analysis, classification, translation, and more.

- By using **TextBlob,** we're able to sentiment analysis on tweets about Bitcoin

TextBlob

CZ ◆ Binance ✓
@cz_binance

As part of Binance's exit from FTX equity last year, Binance received roughly $2.1 billion USD equivalent in cash (BUSD and FTT). Due to recent revelations that have came to light, we have decided to liquidate any remaining FTT on our books. 1/4

翻译推文

⚡Rick⚡
@RMessitt

Fuck the #Bitcoin₿ bear market

Today we go to the fish market 🐟

Mags
@thescalpingpro

#Bitcoin₿ x Inverted Chart 👀

Its over guys! Bears were right! BIG DUMP INCOMING!!

#crypto #btc₿

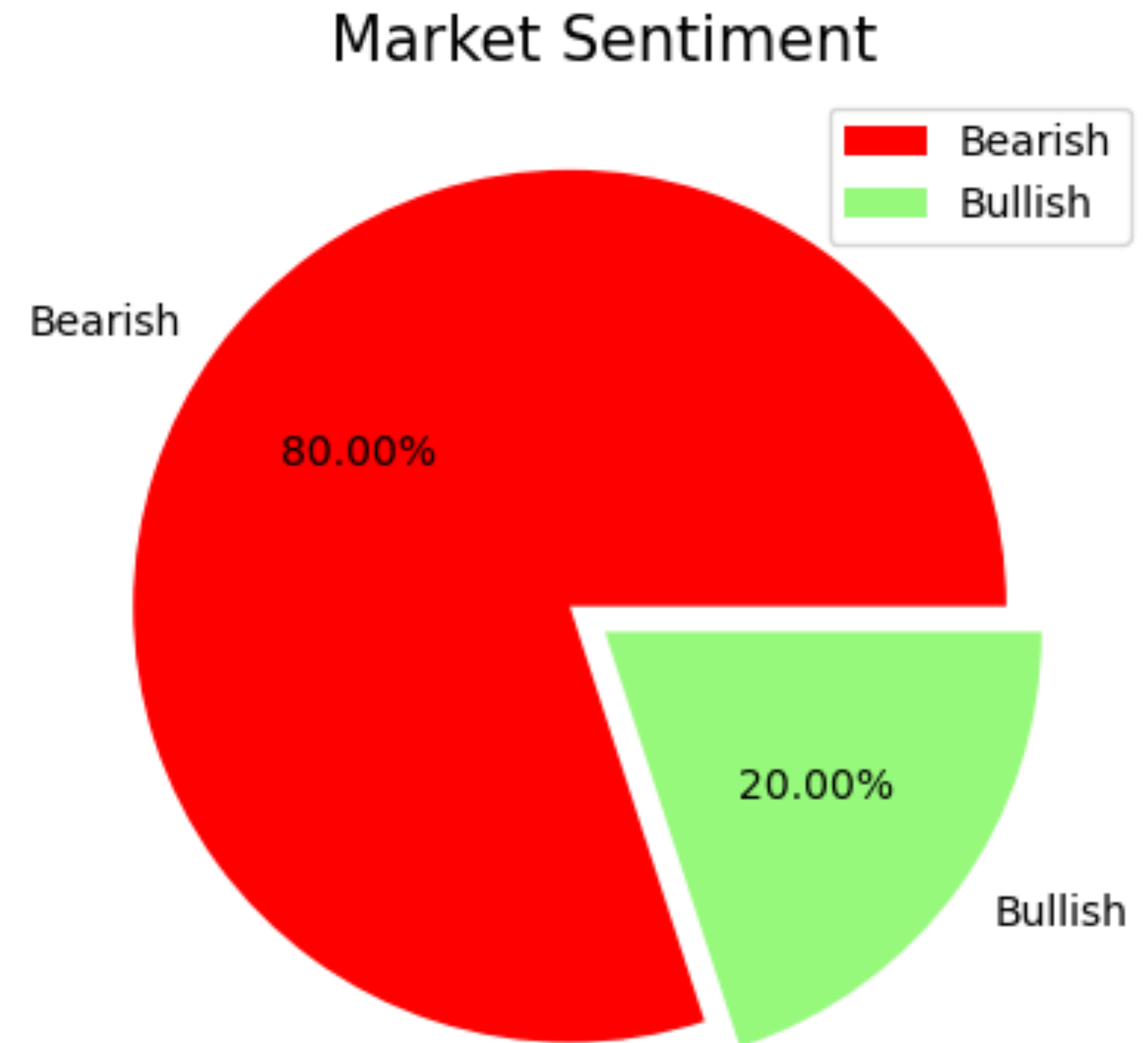**Kevin Svenson** ✓
@KevinSvenson_

Back below $17K???

The bear market is back 😭

Market Sentiment Analysis

Conclusion

- The market sentiment was pessimistic.

- Although we may arrive a local bottom according to market indicator analysis, **the over-bearish sentiment is likely to cause another drop in the future.**
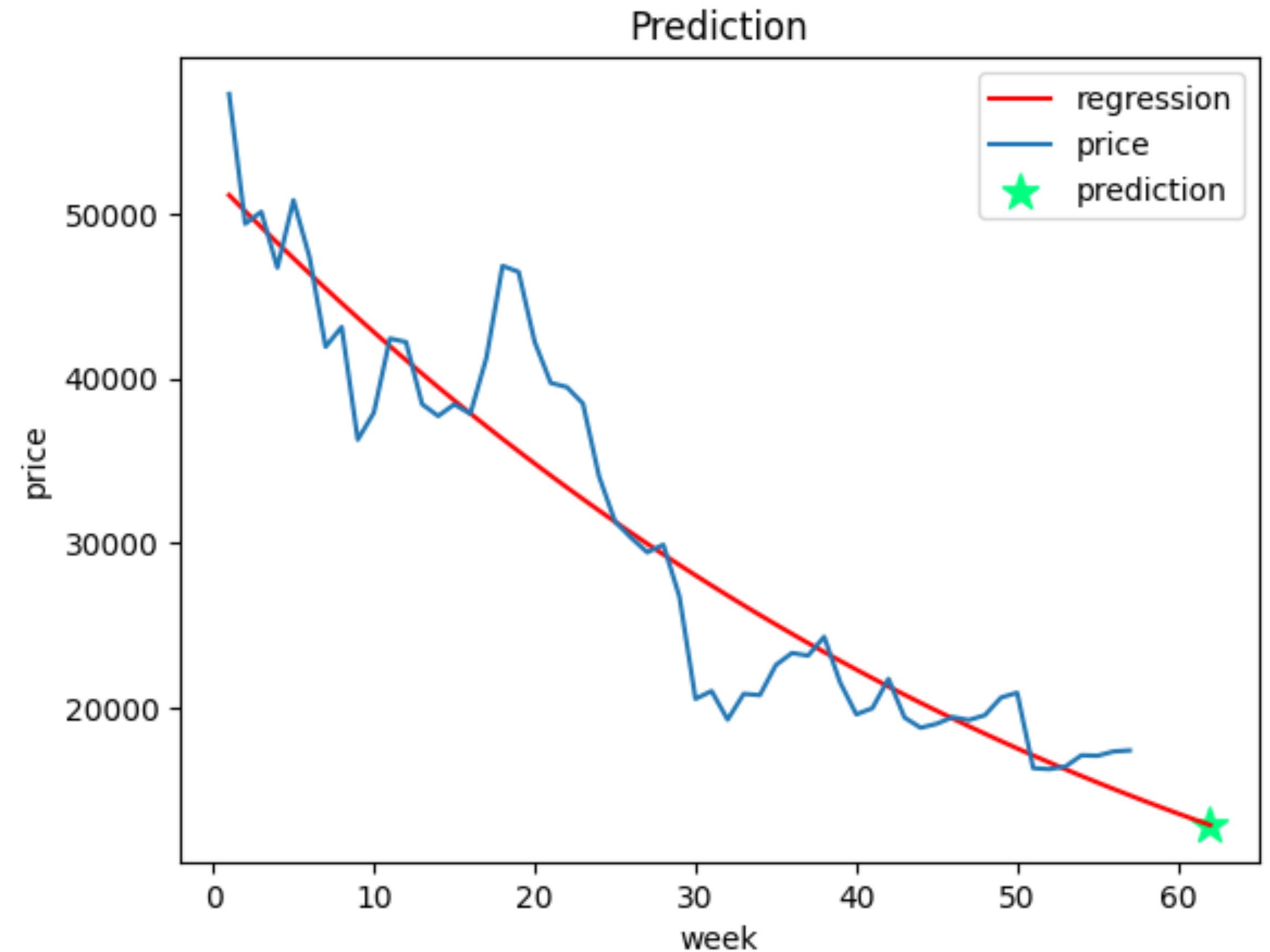
Price Prediction

Linear Regression

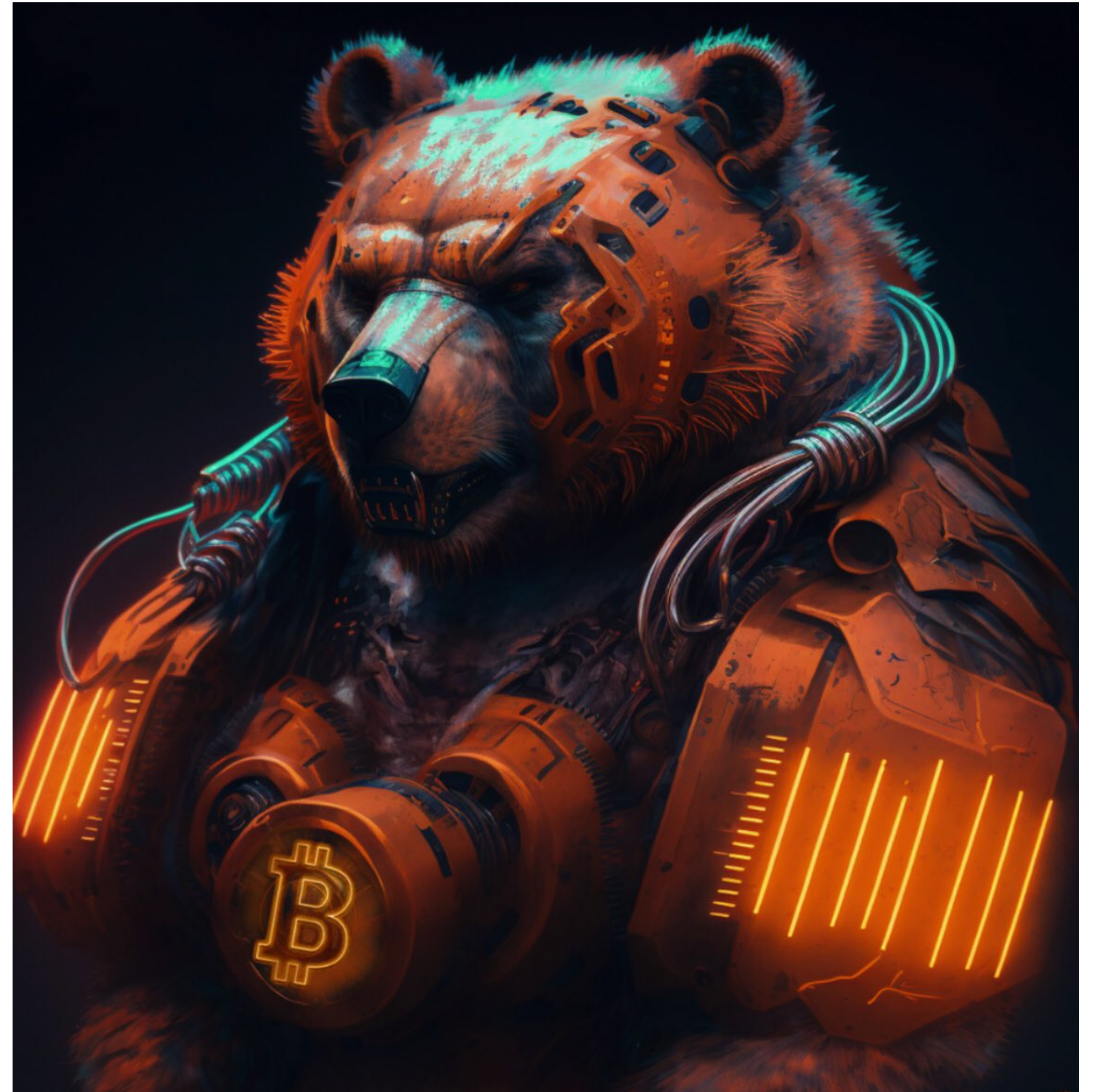- We use data between 22nd Nov. 2021 and 13th Dec. 2022 to build a linear model, which fits the price curve.

- R = 0.89 > 0.75

- Our prediction: Bitcoin could hit new lows in early 2023, ranging from $12000 to $14000.

Conclusion

Conclusion

- Back to our question: **Does the Bottom Arrive?**

- **Answer: Yes, we've arrived a local bottom of the market. But it's likely to drop to a new low ranging from $12000 ~ $14000**

- **Defects: Our linear regression model only use single variable to predict price, which is insufficient to give a precise prediction.**

- **Defects：Causal analysis**

Thanks