

# The NASDAQ Composite, S&P 500 and the Dow in 2020

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A dark blue diagonal graphic that starts from the bottom left corner and extends towards the top right corner, covering the lower half of the slide.

# Procedure

Step 1: Data Understanding & Preparation

Step 2: Data Analysis

Step 3: Evaluation

# Data Understanding & Preparation

- Data source: MarketWatch
- Historical quotes from 01/01/20  
- 12/31/20
- Explore & clean data:
  - Check data relevance, accuracy, and completeness
  - Convert date column to datetime
  - Convert price columns to float64 (omit comma in price)
  - Look for supplementary data if necessary

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^IXIC  
Days: 253  
Weeks: 53

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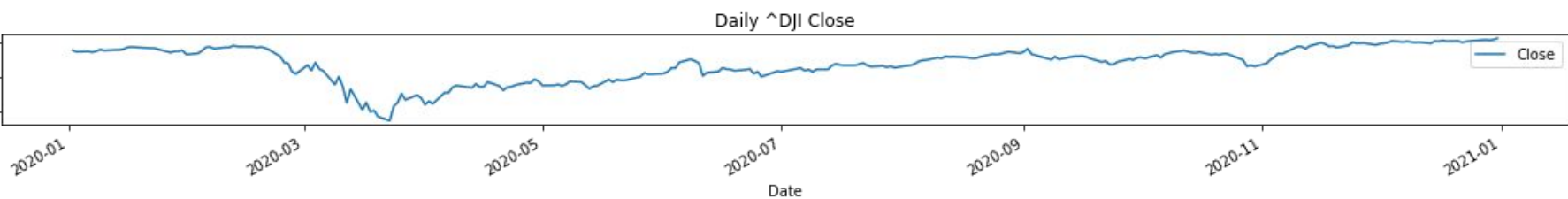
^GSPC  
Days: 253  
Weeks: 53

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^DJI  
Days: 254  
Weeks: 53

Date	Open	High	Low	Close
02/17/2020	29,398.08	29,398.08	29,398.08	29,398.08

# Data Analysis



# Stock Returns in 2020

NASDAQ Composite (^IXIC) grows by 42.58 percent.

- Mean Difference between Open and Close of NASDAQ Composite (^IXIC): \$5.82

S&P 500 (^GSPC) grows by 15.76 percent.

- Mean Difference between Open and Close of S&P 500 (^GSPC): \$0.11

Dow Jones Industrial Average (^DJI) grows by 6.87 percent.

- Mean Difference between Open and Close of Dow Jones Industrial Average (^DJI): \$-3.43

## Performance - Daily Cumulative Returns in 2020



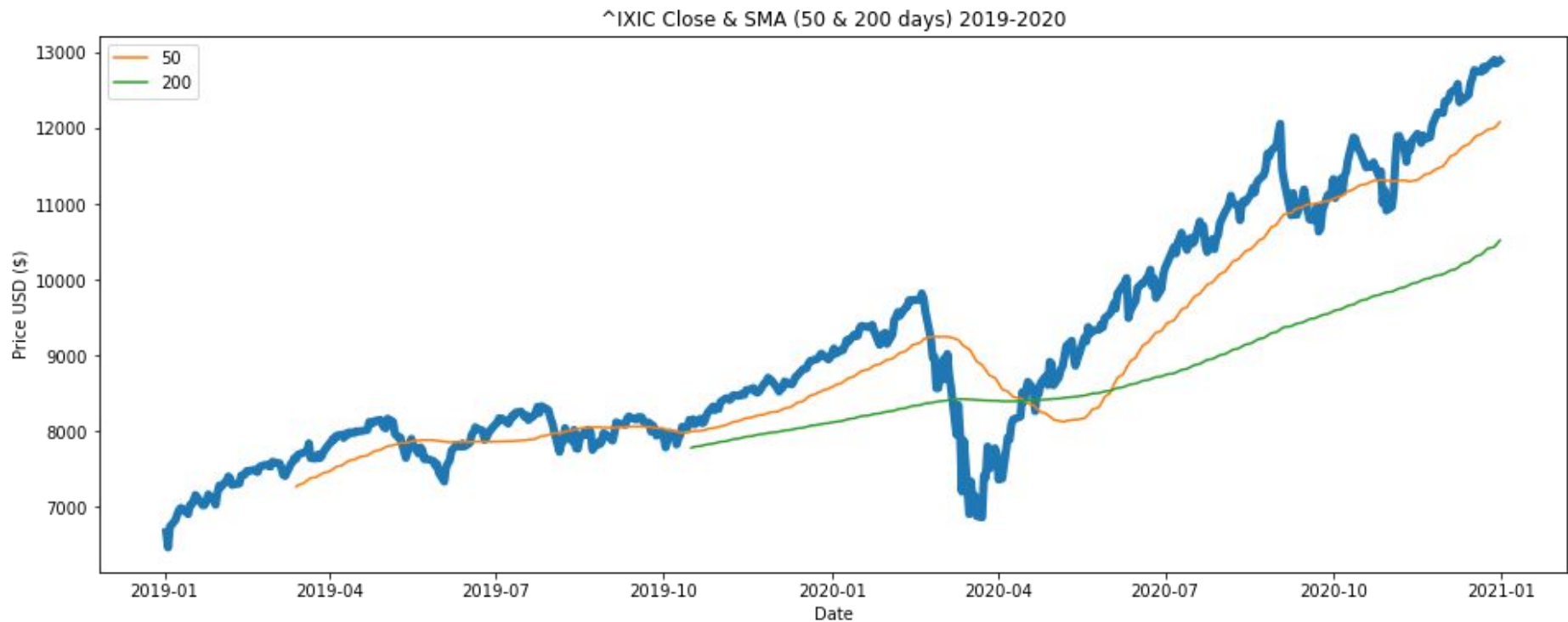


	<b>Date</b>	<b>Open</b>	<b>High</b>	<b>Low</b>	<b>Close</b>	<b>Diff</b>
<b>55</b>	2020-03-23	6847.28	6984.94	6631.42	6860.67	13.39

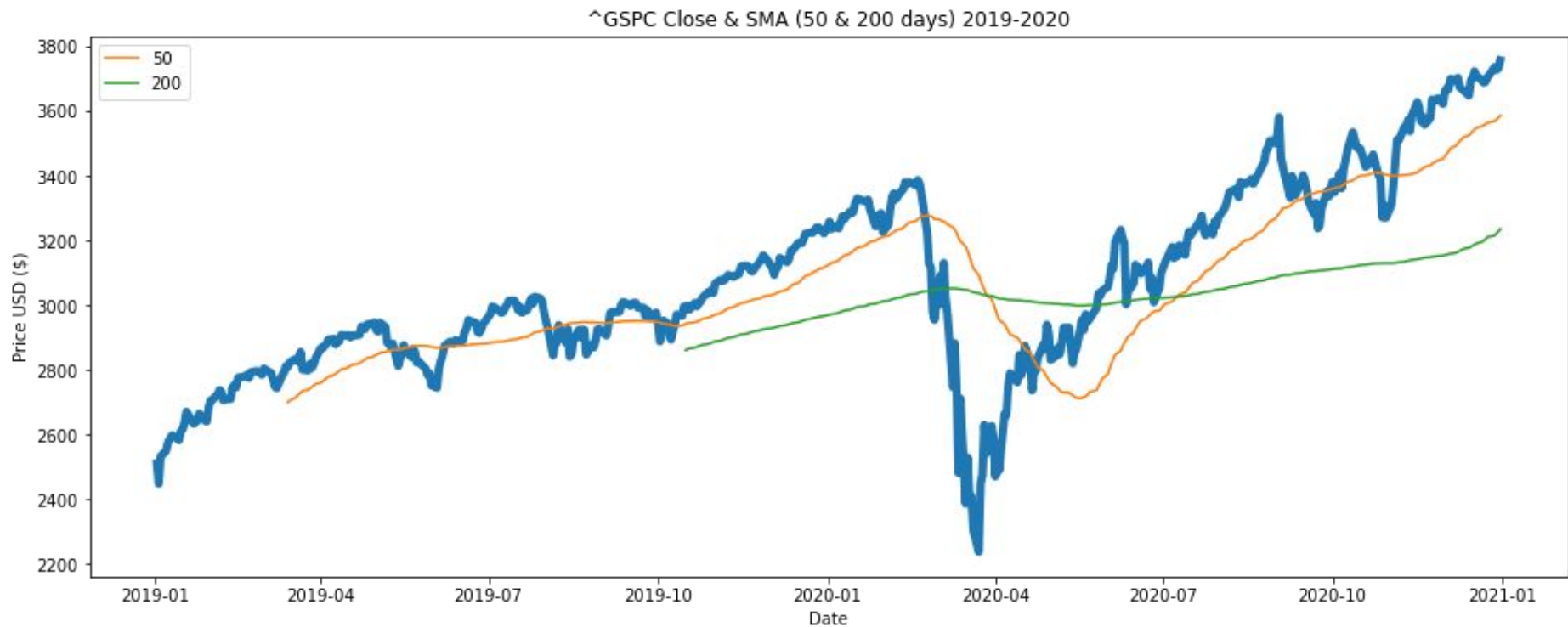
	<b>Date</b>	<b>Open</b>	<b>High</b>	<b>Low</b>	<b>Close</b>	<b>Diff</b>
<b>55</b>	2020-03-23	2290.71	2300.73	2191.86	2237.4	-53.31

	<b>Date</b>	<b>Open</b>	<b>High</b>	<b>Low</b>	<b>Close</b>	<b>Diff</b>
<b>55</b>	2020-03-23	19028.36	19121.01	18213.65	18591.93	-436.43

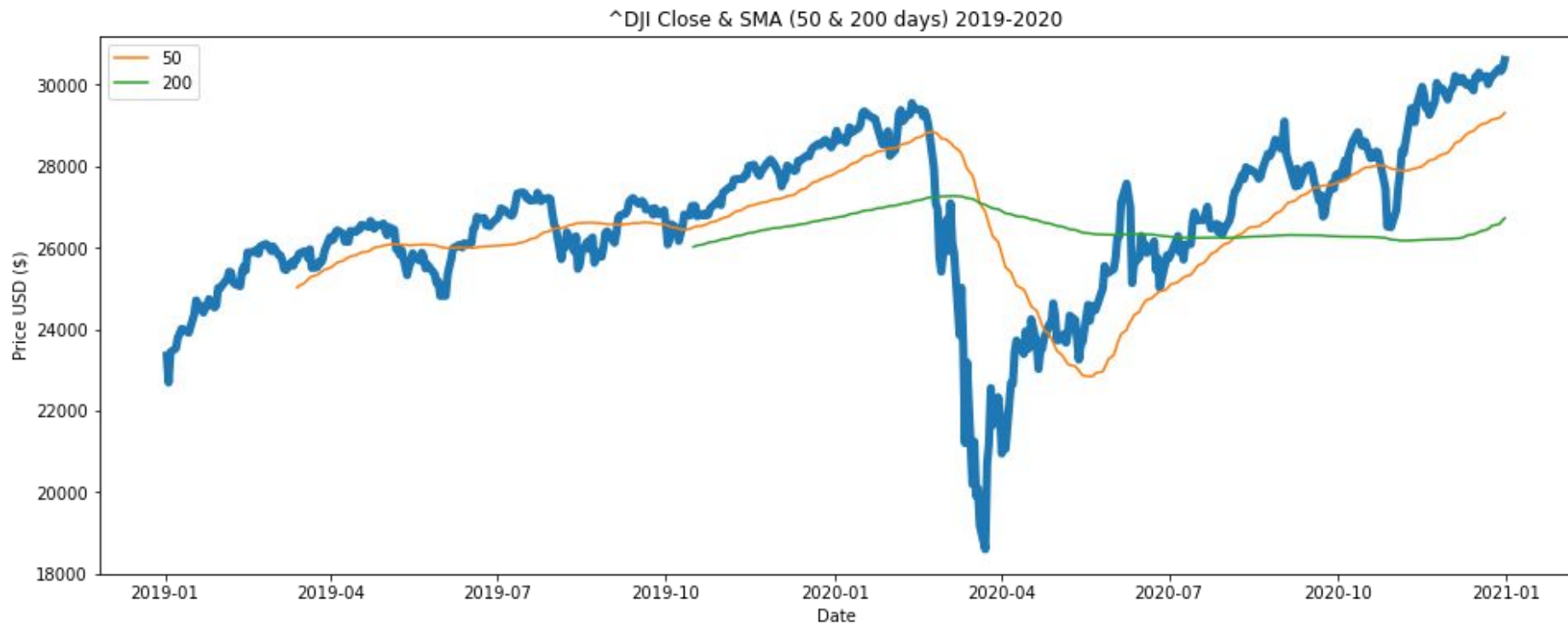
Lowest Closing Price in 2020



Simple Moving Average (^IXIC)

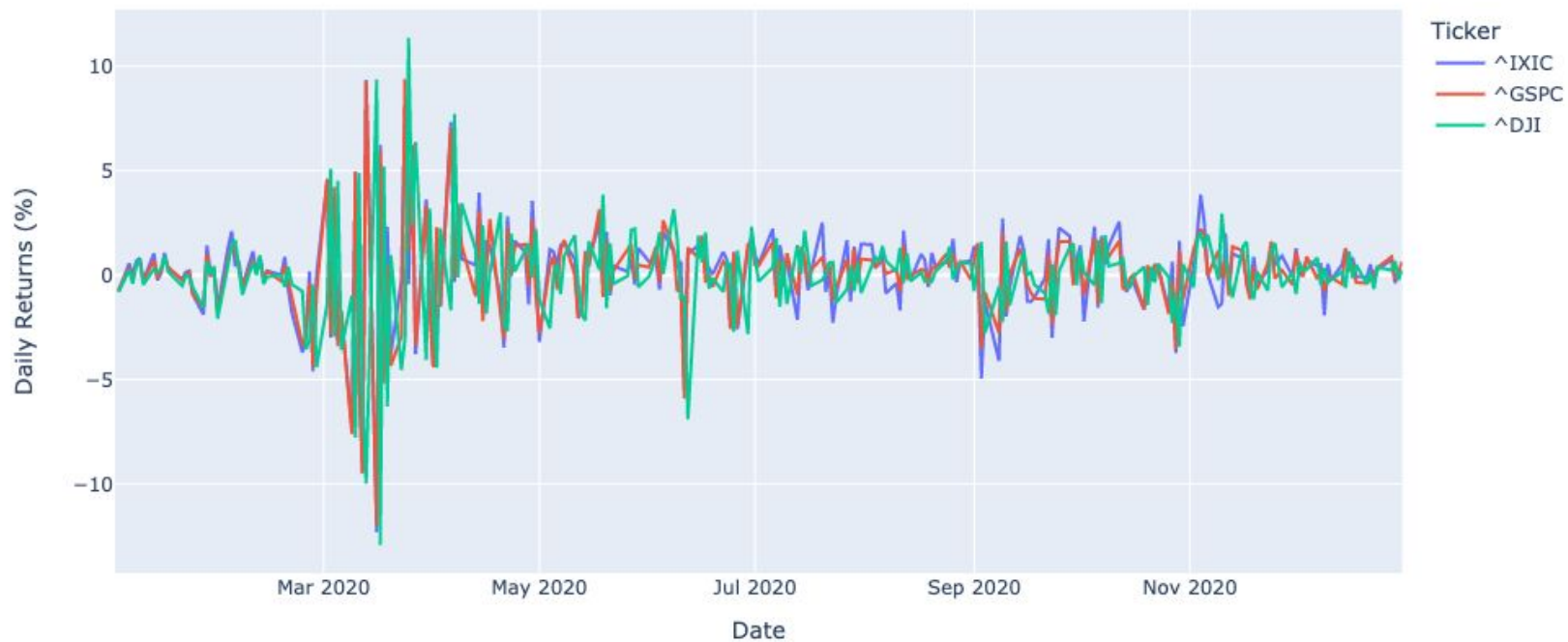


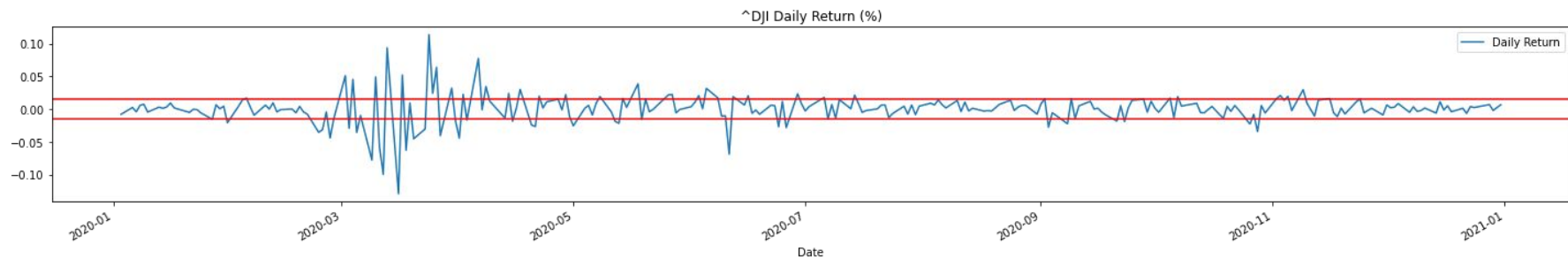
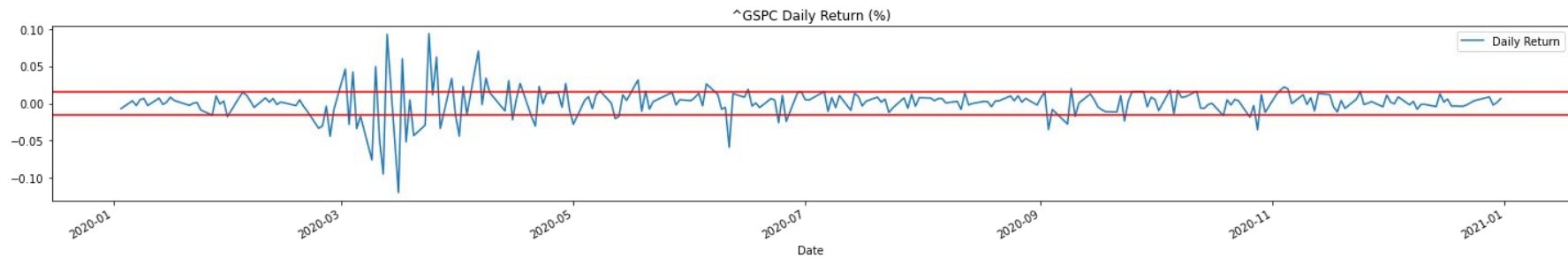
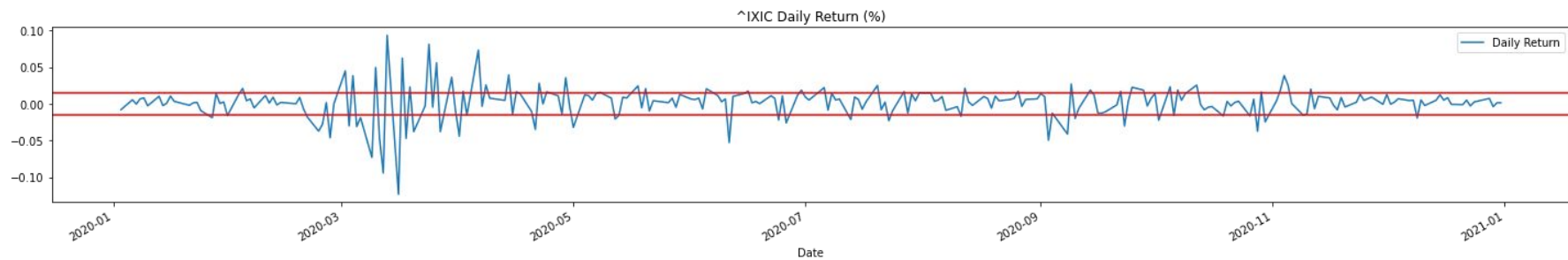
Simple Moving Average (^GSPC)

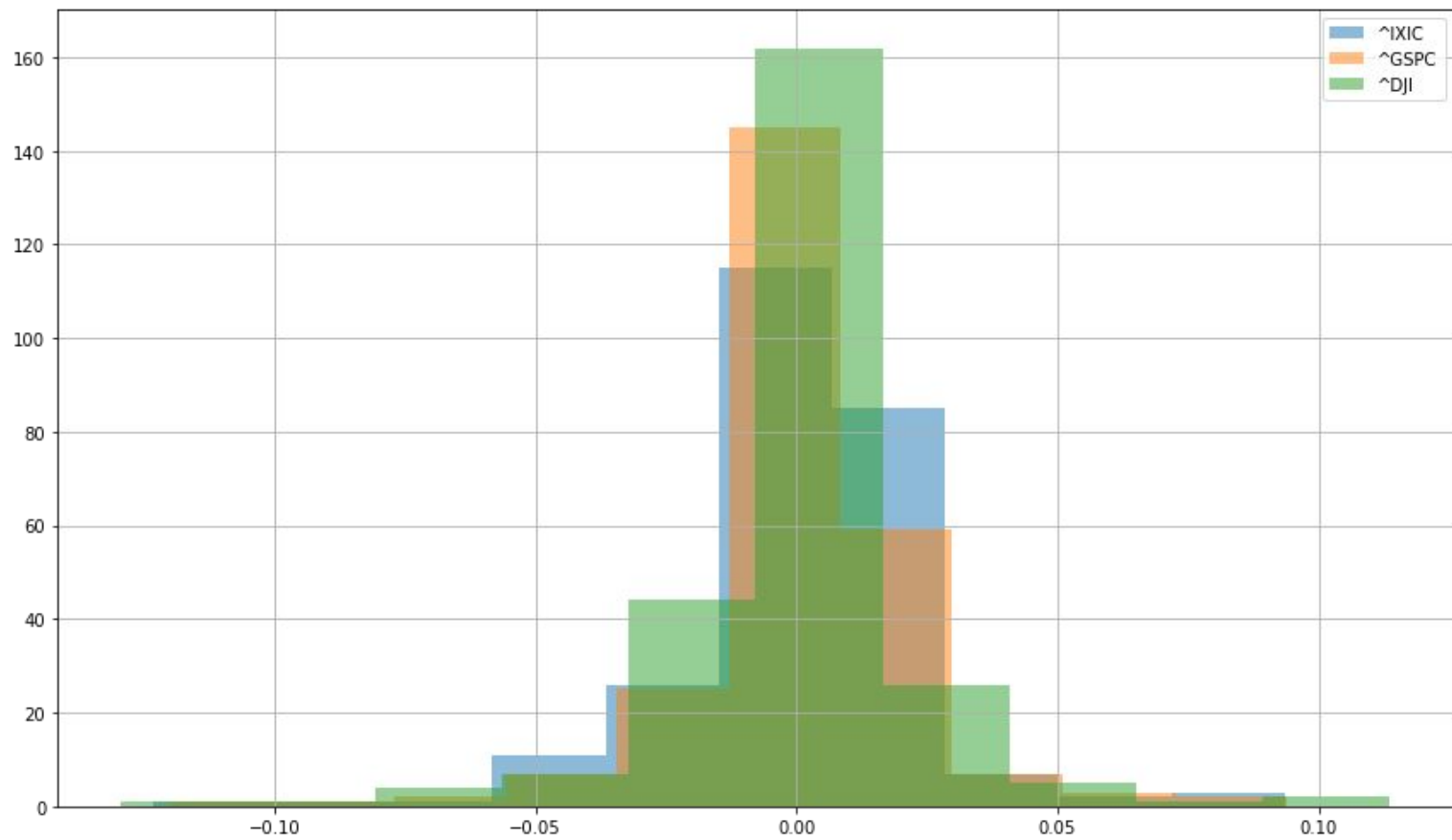


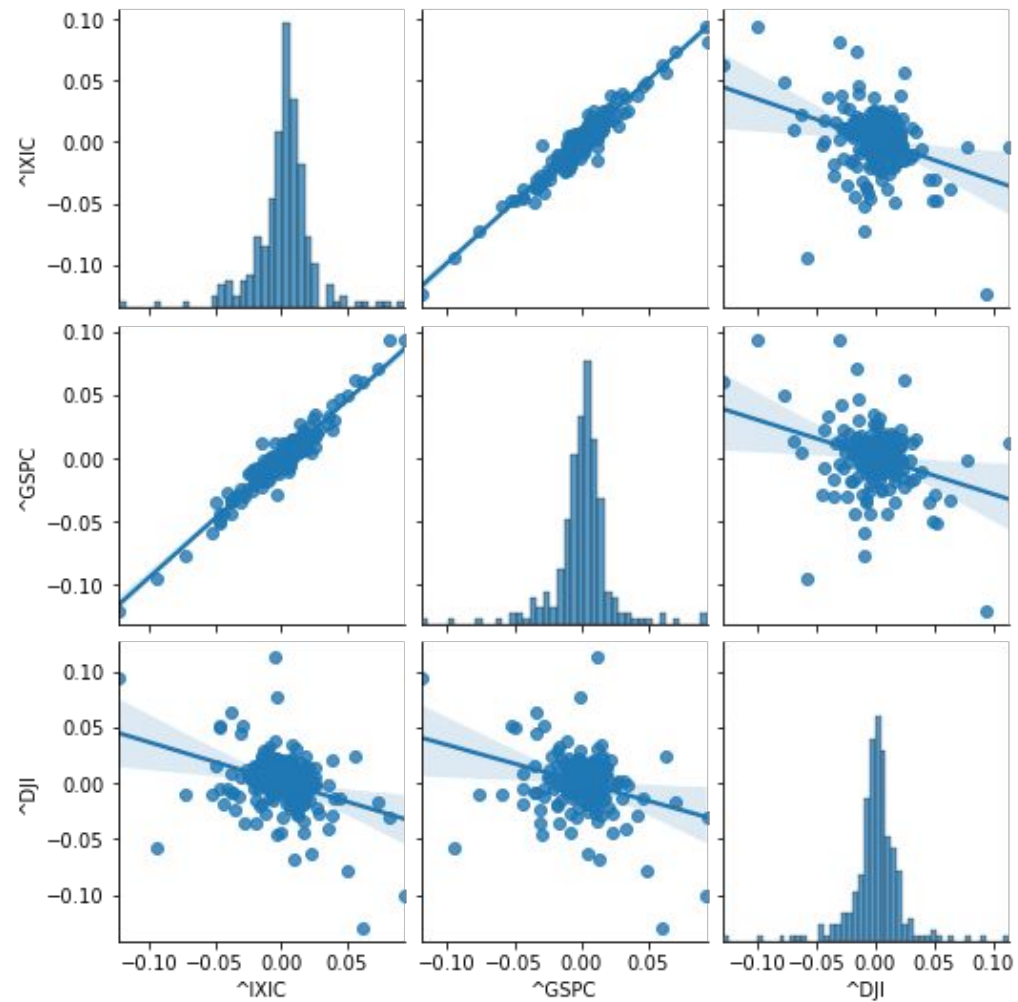
Simple Moving Average (^DJI)

## Performance - Daily Returns in 2020

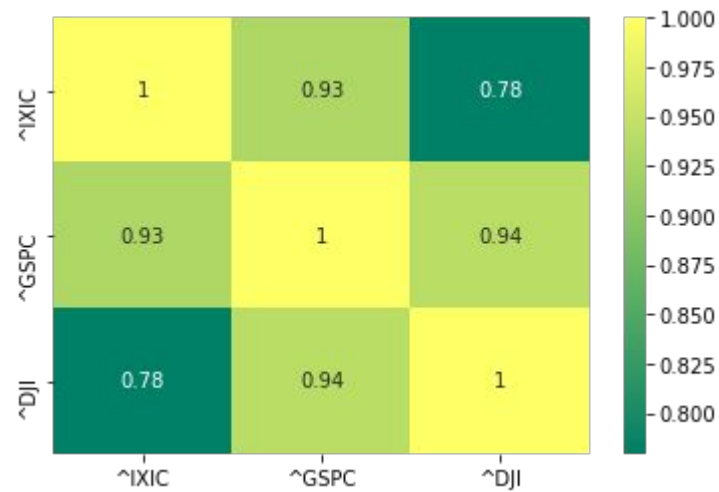
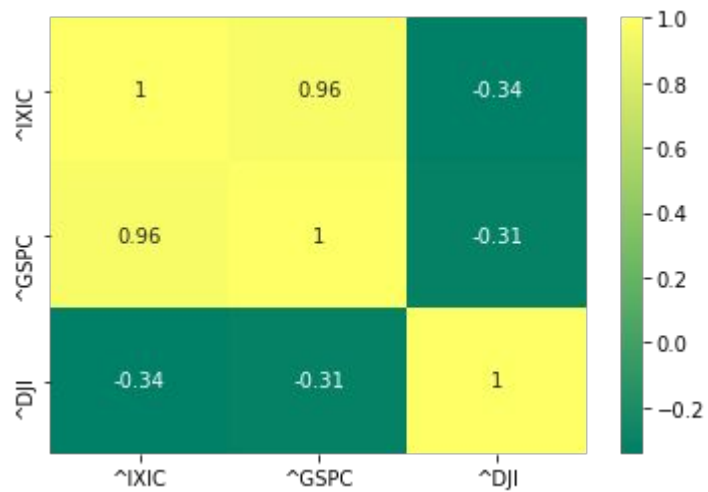












Daily Returns ----- Closing Price

# Evaluation

# Analyst Recommendations

Total return including dividends

- Nasdaq Composite: 45%
- The S&P 500 index: 18.4%
- The Dow Jones Industrial Average: 9.7%

# Checking current stock quotes as of 07/16/2021

Ticker	Open	High	Low	Close	Close 12/31/20	<b>Growth %</b>
^IXIC	14,597.51	14,623.02	14,413.32	14,427.24	12,888.28	<b>11.94</b>
^GSPC	4,367.43	4,375.09	4,322.53	4,327.16	3,756.07	<b>15.20</b>
^DJI	35,007.94	35,090.01	34,647.82	34,687.85	30,606.48	<b>13.33</b>

The End!