

# The Effect of the COVID-19 Pandemic on Cryptocurrency Prices and Currencies Traded on the Foreign Exchange Market

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## **Group 16**

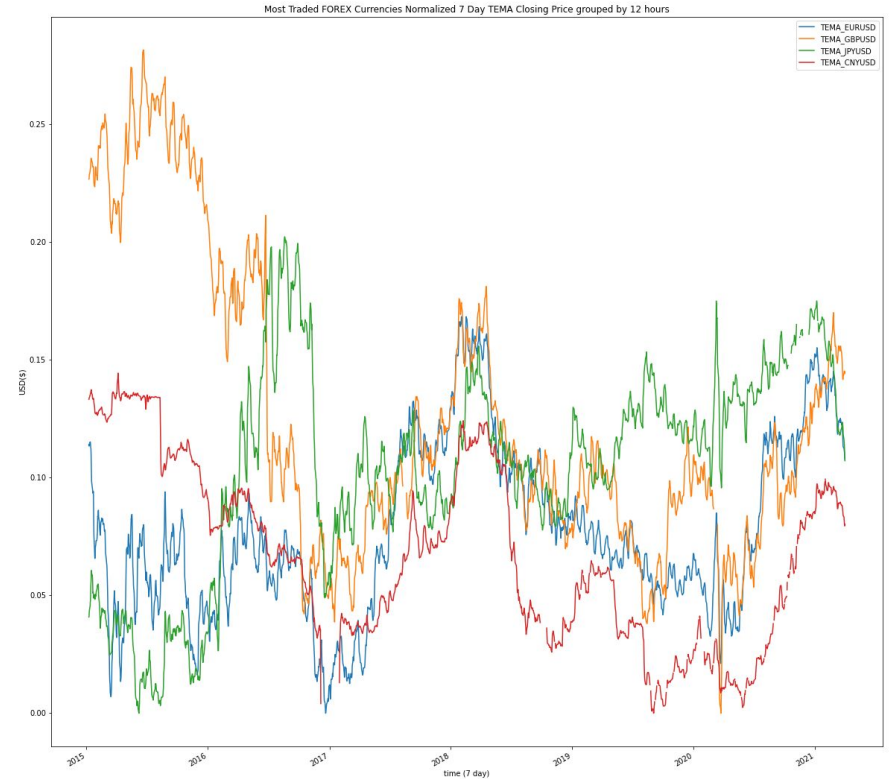
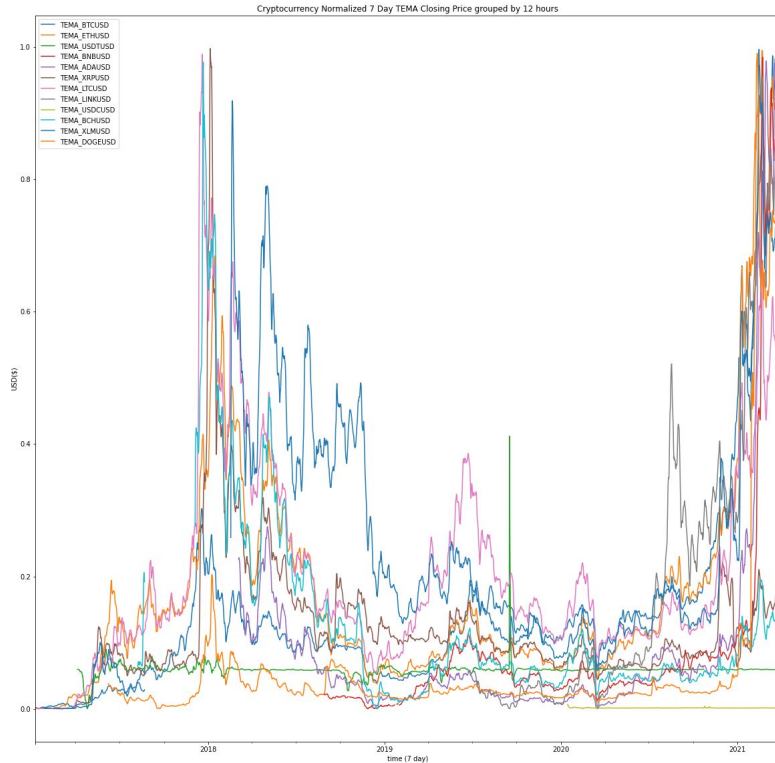
Hunter Baxter and Hannah Yoon

# Data

- Worldometer Coronavirus Daily Data
  - Obtained from Kaggle as csv files
  - 218 countries
  - Daily measurements from February 15th, 2020 until April 1st, 2021
- Polygon.io
  - Cryptocurrency and Forex Data
  - Data ticks are on one minute intervals
  - 48.16 million data points total
- InfluxDB & pandas

# Query 1

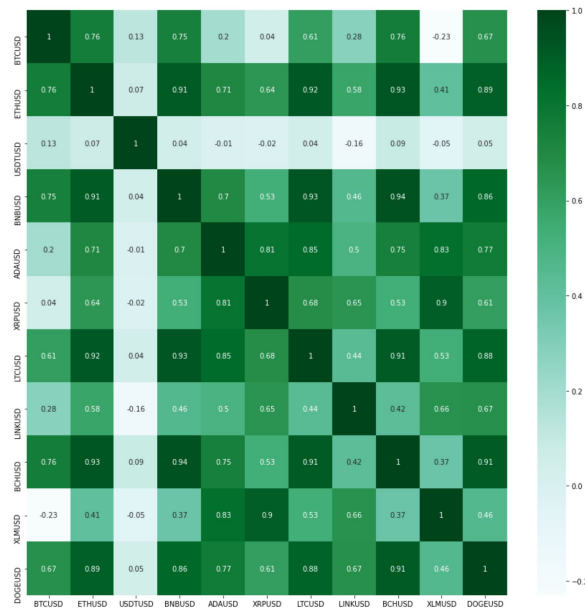
*Visualizing price changes of cryptocurrencies and currencies by continent*



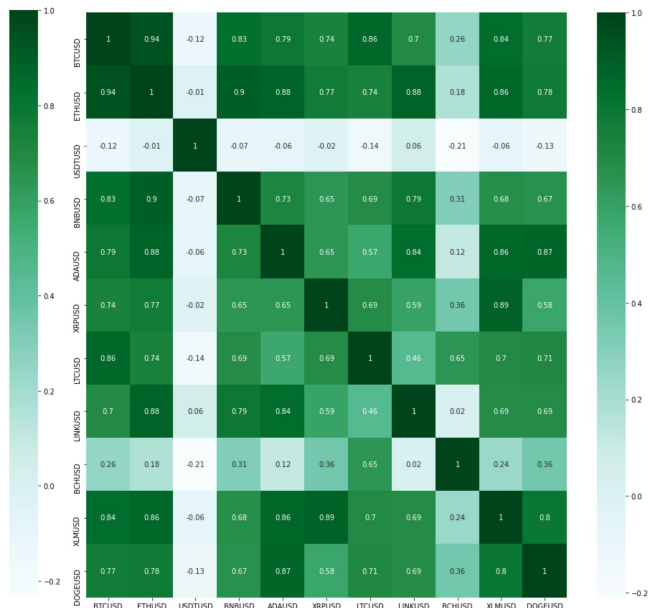
# Query 2

*Correlation between cryptocurrencies*

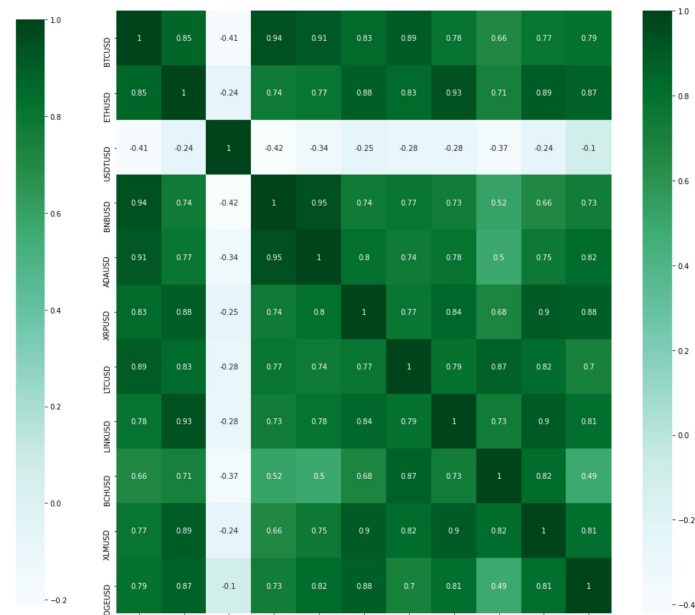
2019



2020



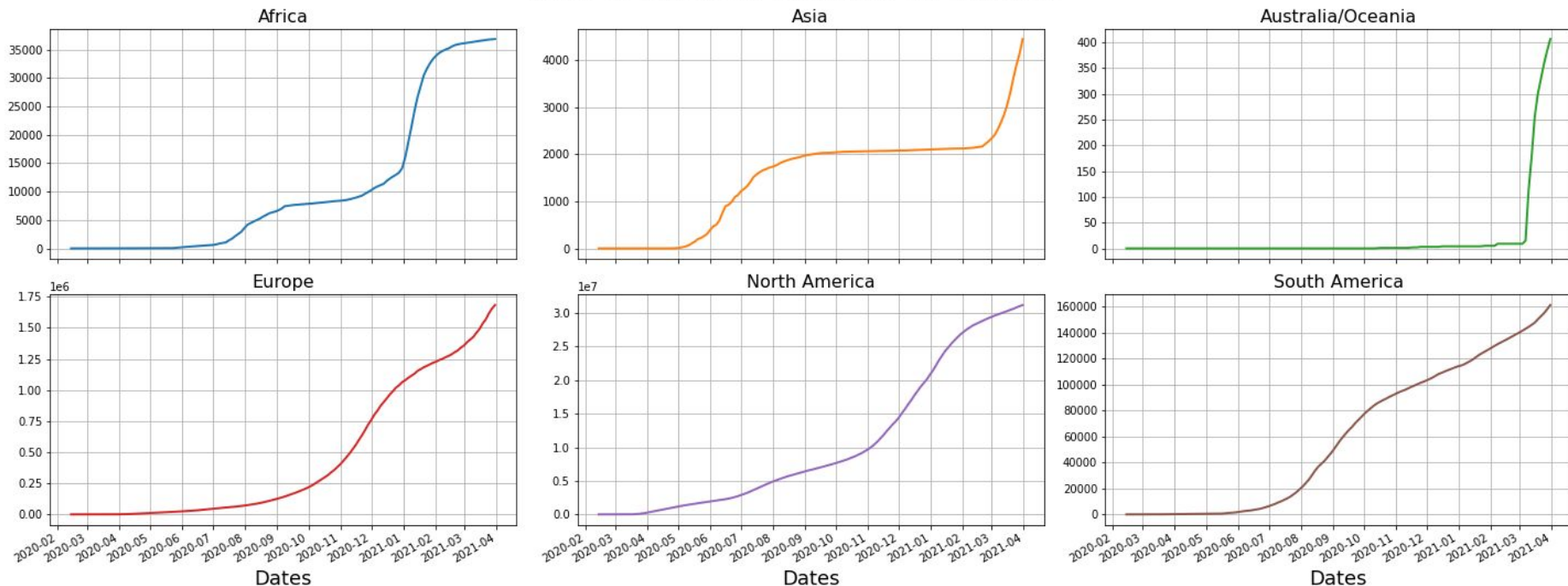
2021



# Query 3

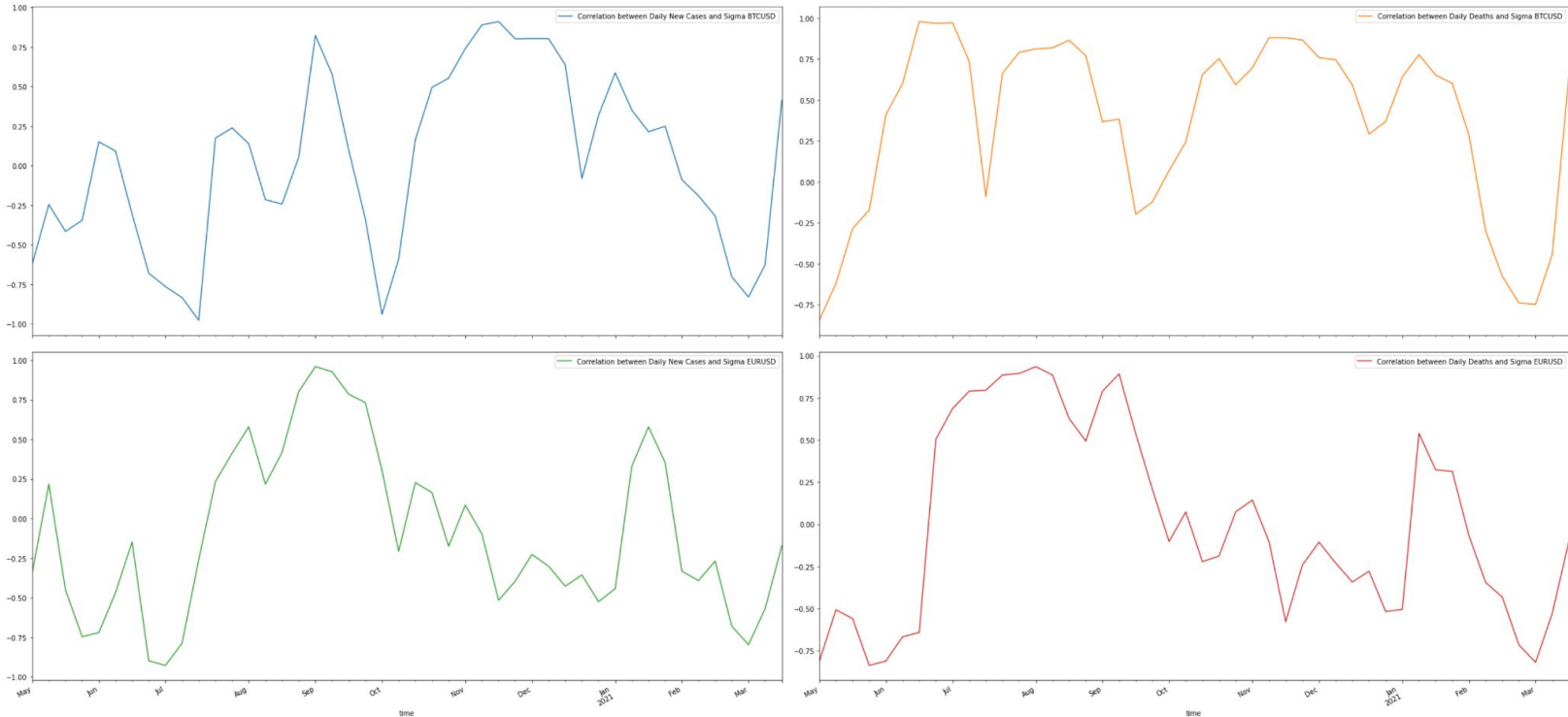
*Plot COVID-19 cumulative total cases using monthly averages of each continent*

COVID-19 Cumulative Total Cases per Continent



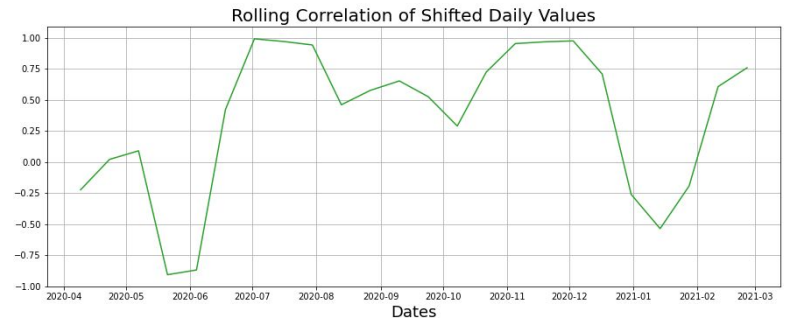
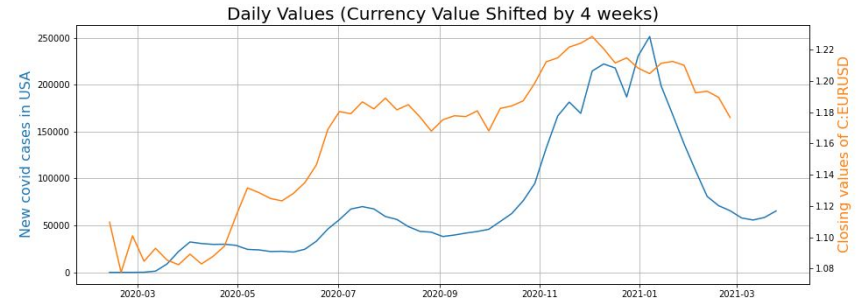
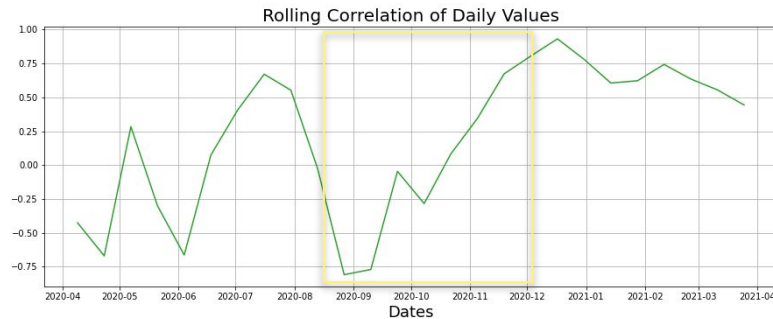
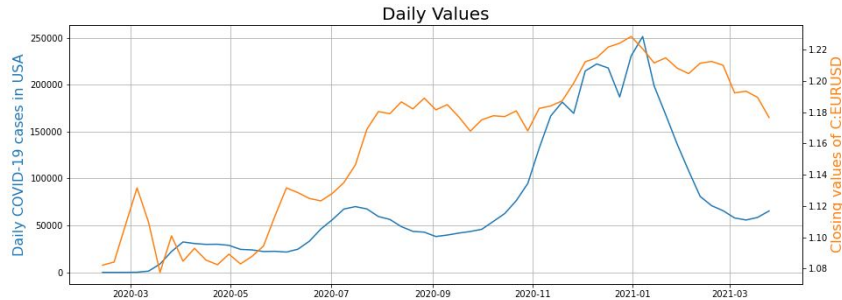
# Query 4

*Correlation between daily deaths/cases and the volatility of a currency?*



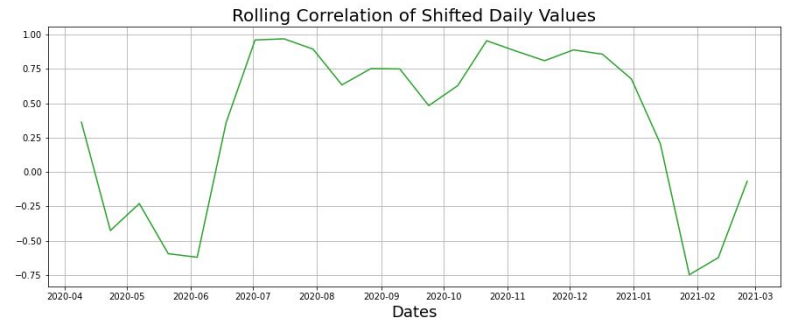
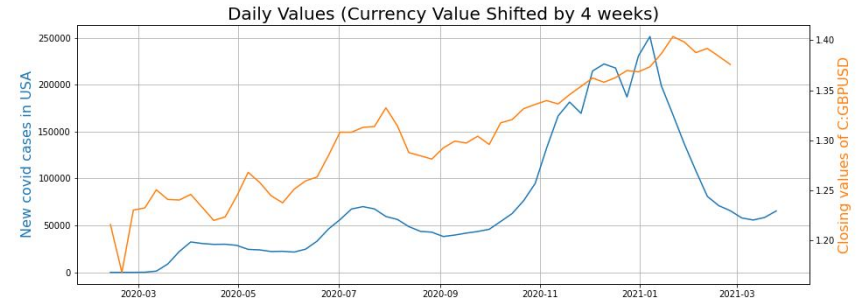
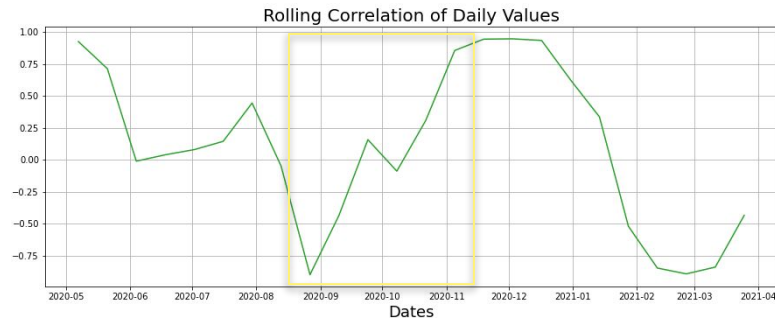
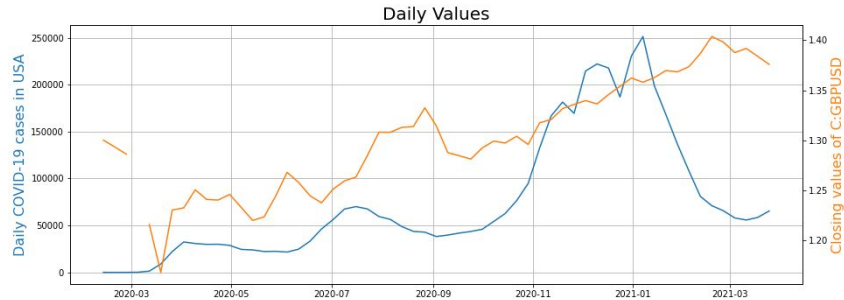
# Query 5

*Correlation of COVID-19 daily cases and cryptocurrency, foreign exchange currency price change (EURUSD)*



# Query 5

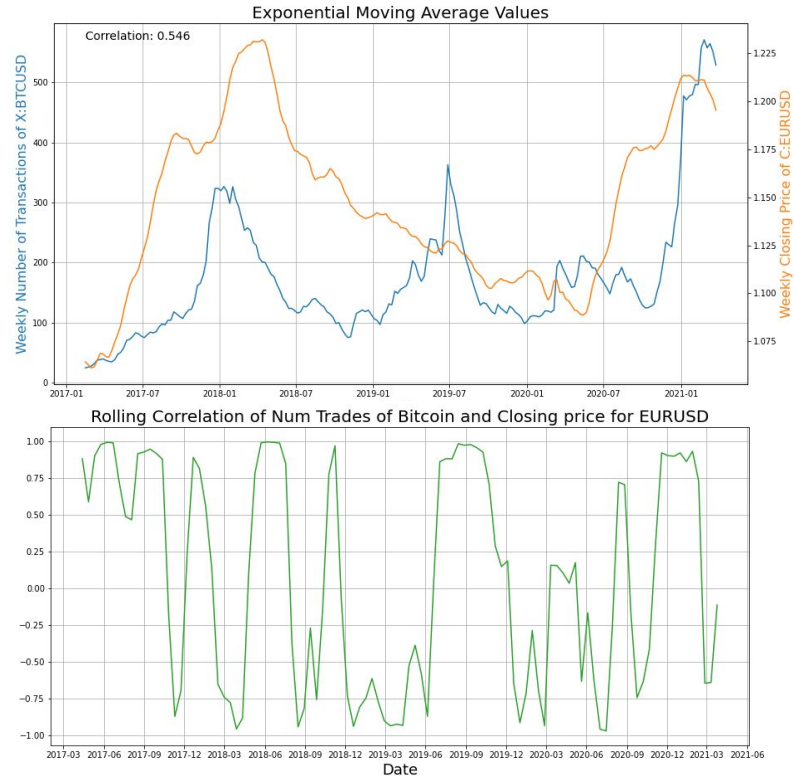
*Correlation of COVID-19 daily cases and cryptocurrency, foreign exchange currency price change (GBPUSD)*





# Query 6

## *Correlation of Cryptocurrency (Bitcoin) and Foreign Exchange Currency (EURUSD)*



# What we learned

- It takes more time to prepare data than to query data
- Graphing is a time intensive process
- It is difficult to reach meaningful conclusions without making many assumptions, particularly with time series data
- If we had more time, we would have wanted to use spark to create custom technical analyses instead of using the built in influxDB ones