Evaluating the Stock Market on Externalities using Machine Learning
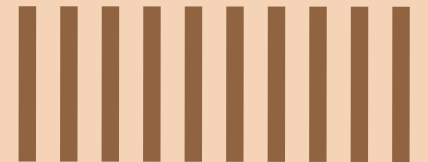
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Problem Statement & Dataset

Two primary questions:

1. Do external factors affect the stock market? If so, how much is performance affected?
2. Are stock prices an indicator of the socioeconomic landscape?

Data used:

1. Global Market Indices
2. Consumer Price Index
3. Environmental Consumer Price Index
4. Environmental Policy Stringency Index
5. Global Supply Chain Pressure Index

Challenges

- Finding long-standing, reliable measurements for the dataset
- Maintaining consistent features between every dataset
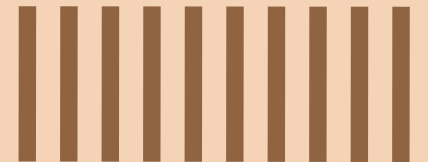- Finding which features can be used for model

Date	Country	CCPI
########	Albania	90.2
########	Austria	89
########	Belgium	91.3
########	Bulgaria	96.2
########	Belarus	96.1
########	Brazil	5522619
########	Canada	91.5
########	Switzerlan	101.3
########	Chile	87.4
########	China	84.4
########	Colombia	85
########	Costa Rica	80.2
########	Cyprus	94.8
########	Czech Rep	96.4
########	Germany	93.1
########	Denmark	91.7
########	Dominicar	72.3

Country C	IMF Count	Country	Indicator	Series Nam	197001	197002	197003	197004	197005	197006	197007	197008	197009	197010	197011	197012	197101	197102
ALB	914	Albania	Index	Official Core Consumer Price Index														
AUT	122	Austria	Index	Official Co	21.1	21.2	21.3	21.4	21.5	21.5	21.5	21.7	21.8	21.9	21.9	22	22.1	22.2
BEL	124	Belgium	Index	Official Core Consumer Price Index														
BGR	918	Bulgaria	Index	Official Core Consumer Price Index														
BLR	913	Belarus	Index	Official Core Consumer Price Index														
BRA	223	Brazil	Index	Official Core Consumer Price Index														
CAN	156	Canada	Index	Official Co	17.2	17.2	17.2	17.2	17.3	17.3	17.4	17.4	17.4	17.4	17.5	17.4	17.5	17.5
CHE	146	Switzerlan	Index	Official Co	32.7	32.7	32.8	32.9	33.2	33.3	33.4	33.4	33.6	33.7	34.1	34.3	34.4	34.5
CHL	228	Chile	Index	Official Core Consumer Price Index														
CHN	924	China	Index	Official Core Consumer Price Index														
COL	233	Colombia	Index	Official Core Consumer Price Index														
CRI	238	Costa Rica	Index	Official Core Consumer Price Index														
CYP	423	Cyprus	Index	Official Core Consumer Price Index														
CZE	935	Czech Rep	Index	Official Core Consumer Price Index														
DEU	134	Germany	Index	Official Co	30	30.1	30.2	30.4	30.4	30.4	30.4	30.4	30.5	30.6	30.7	31	31.3	31.5
DNK	128	Denmark	Index	Official Co	13.8	13.9	14	14	14.2	14.2	14.4	14.5	14.6	14.6	14.7	14.7	14.7	14.7
DOM	243	Dominicar	Index	Official Core Consumer Price Index														

Solution & Findings

- Still in-progress of
    - developing model to properly answer problem statement
    - Adjusting data to be more representative

Novelties & Drawbacks

- No research found on the problem statement
- Similar findings include:
  - Relationship between economy and stock market

Thank you!