Week 6 Granger Causality and VAR models

Time Series Analysis

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In [74]:
```
from scipy import stats
import numpy as np
import matplotlib.pyplot as plt
import statsmodels.api as sm
import pandas as pd
import seaborn as sns
sns.set()

from sklearn.preprocessing import StandardScaler

from statsmodels.graphics.tsaplots import plot_acf
from statsmodels.graphics.tsaplots import plot_pacf

from sktime.forecasting.all import ForecastingHorizon
from sktime.forecasting.all import ExponentialSmoothing
from sktime.performance_metrics.forecasting import mean_absolute_percentage_error
from sklearn.metrics import mean_squared_error

import warnings
warnings.filterwarnings('ignore')
```

1. 20 pts - Exploratory Data Analysis

1.A 10 pts Perform quantitative and qualitative EDA

In [2]:
```
df_hw6 = pd.read_csv('hw6_data_var.csv', parse_dates=["Unnamed: 0"]).rename(columns={"Unnamed: 0":"date"})
```

In [3]:
```
print(df_hw6.isnull().sum())
print(df_hw6.shape)
```

```
date     0
PCE      0
AHE      0
```