Panth Patel

Data to Models

Data Used:

1. Civilian Unemployment Rate, Monthly, Percent, Seasonally Adjusted, 1948-P: <https://fred.stlouisfed.org/series/UNRATE>
2. Natural Rate of Unemployment (Long-Term), Quarter, Percent, **Not Adj**, Q1 1949-Q4 2029 (forecasted)
3. NBER based Recession Indicators, Monthly, 1/0, Dec 1854-Apr 2019:

<https://fred.stlouisfed.org/series/USREC>

1. Smoothed U.S. Recession Prob, Month, Percent, Jun 1967-Mar 2019:

<https://fred.stlouisfed.org/series/RECPROUSM156N>

1. Average Hourly Earnings of Production and Nonsupervisory Employees: Manufacturing, Month, $/hr and YOY % Change, Not Adj, Jan 1939-Apr 2019:

<https://fred.stlouisfed.org/series/AHEMAN>

1. Effective Federal Funds Rate, Percent, Monthly, Not Seasonally Adjusted, July 1954-Apr 2019

<https://fred.stlouisfed.org/series/FEDFUNDS>

1. Real Personal Consumption Expenditures, level ($), Quarterly, Seasonally Adjusted Annual Rate, Vintage: Current

<https://fred.stlouisfed.org/series/PCECC96>

1. Initial Claims for Unemployment Insurance, Number, Not Adjusted, Weekly 1967-2019:

<https://fred.stlouisfed.org/series/ICNSA>

1. Initial Claims for Unemployment Insurance, **1000s** of claims, Not Adj, Month, Aug1945-Mar 1969

<https://fred.stlouisfed.org/series/M08297USM548NNBR>

1. PERMIT, New Private Housing Units Authorized by Building Permits, Monthly, Seasonally Adjusted Annual Rate, **Jan 1960-Mar 2019**
2. S&P 500, Monthly, Yahoo, Jan 1950-May 2019 MAY WANT TO USE %CHANGE
3. UEMPMEAN, Average (Mean) Duration of Unemployment, Monthly, Seasonally Adjusted, Jan 1948-Apr 2019, lags (Its value is inverted so that it gives a higher reading during expansion and vice versa.)
4. PAYEMS, All Employees: Total Nonfarm Payrolls, Monthly, Seasonally Adjusted, Jan 1939-Apr 2019, Economy’s current state, shows net hiring.

Consumer Spending

S&P 500

High Yield Spread

Preprocession:

1. Seasonally Adjust Data: <https://anomaly.io/seasonally-adjustement-in-r/>
2. Convert Monthly to Quarterly Data: <https://rdrr.io/cran/wktmo/man/weekToMonth.html>
3. Change to % Change: <https://stackoverflow.com/questions/14614710/calculate-percentage-change-in-an-r-data-frame>