**Description of Main Files (Updated July 20, 2021)**

.ipynb – I use jupyter lab interface to interact with most of the data

.jl – this is the Julia file saved. This is where I like to save functions that automates a lot of the work (and hides the messy parts of everything from view).

**Run\_Scenario.ipynb**

This will allow you to change demand test conditions as well as supply chain design easily and run the whole process very quickly. Can do 1 run to 50 or however many you want. When varying multiple runs, the total demand for all the runs is caged to within 5% of the total demand of the very first run so that comparing results can be done. NOTE: Cannot change cost here

**OptEvalCombined.jl**

This file stores the function that allow Run\_Scenario to do its work of many runs right after another. YOU CAN CHANGE COSTS AND LAGS HERE.

**Modified\_OptPolicy.ipynb**

This notebook is great if you want to look at all the results of a single run. I save specific costs and others but avoid saving them for the sake of space. The other costs per specific things are here and you can play around with them if you think they are important.

**Analyze\_Data.ipynb**

This notebook is solely for analyzing data. This is done to split up the mess that can accumulate over time (note there are multiple of these in different folders testing different networks and ideas).

**Generate\_Forecast.jl**

This has all the functions needed to generate past demand data, future demand realizations, and the forecast associated with past demand data as well as finding the Markov Bootstrap little s policy. Other functions are connected to here, but they are smaller and accomplish small math goals. Refer to them if needed.

**Functions.jl**

This has quick necessary functions that help the process. Involves set based designs and analysis of transition matrices, calculating the confidence interval of data, analyzing the raw outputs of the Eval MILP, and saving data. (NOTE: I save very specific data that matches my research goals, so you might want to alter the save data and analyze outputs functions every now and then.)

**MILPSetups.jl**

This one holds a function that preps costs, lags, and routes to be inputted into the MILP and then the 2 MILPs that actually solve. The first MILP is related to solving the Big S policy for the s,S ordering policy. The second MILP is the evaluation MILP that goes time period by time period making decisions on what to ship/produce at any given time.