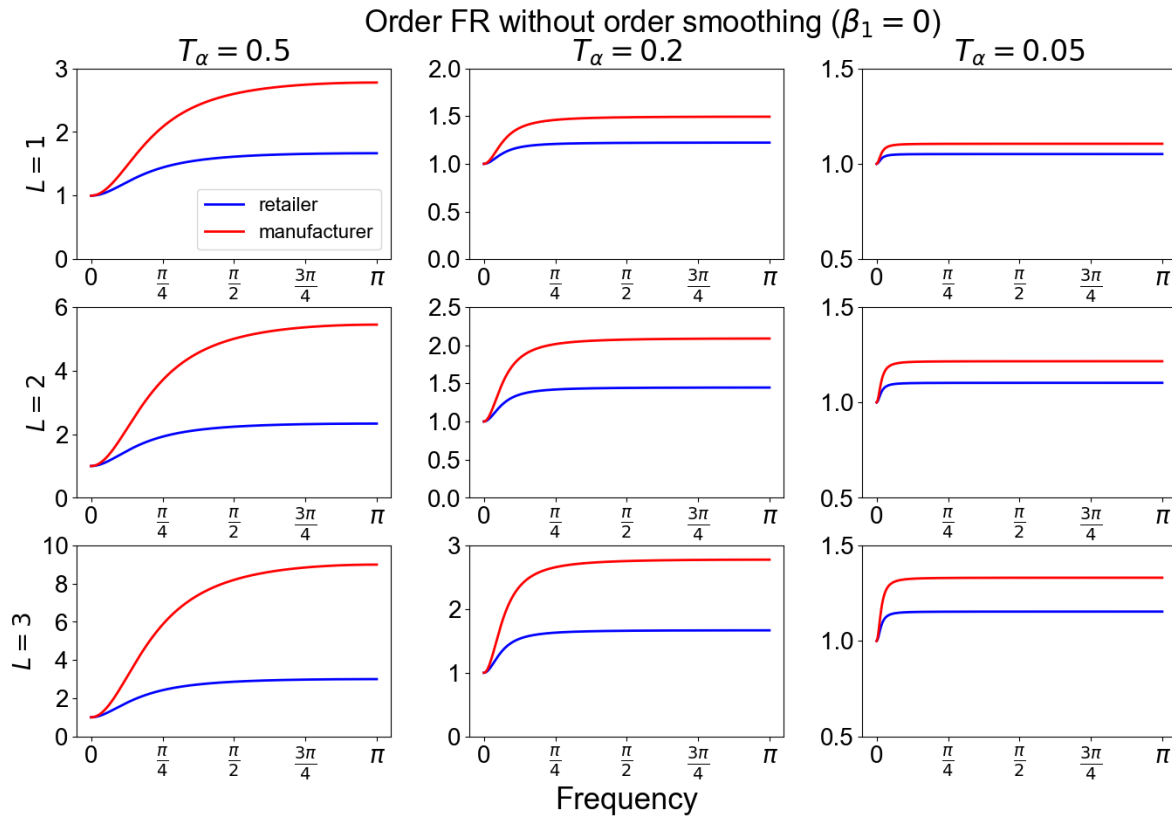
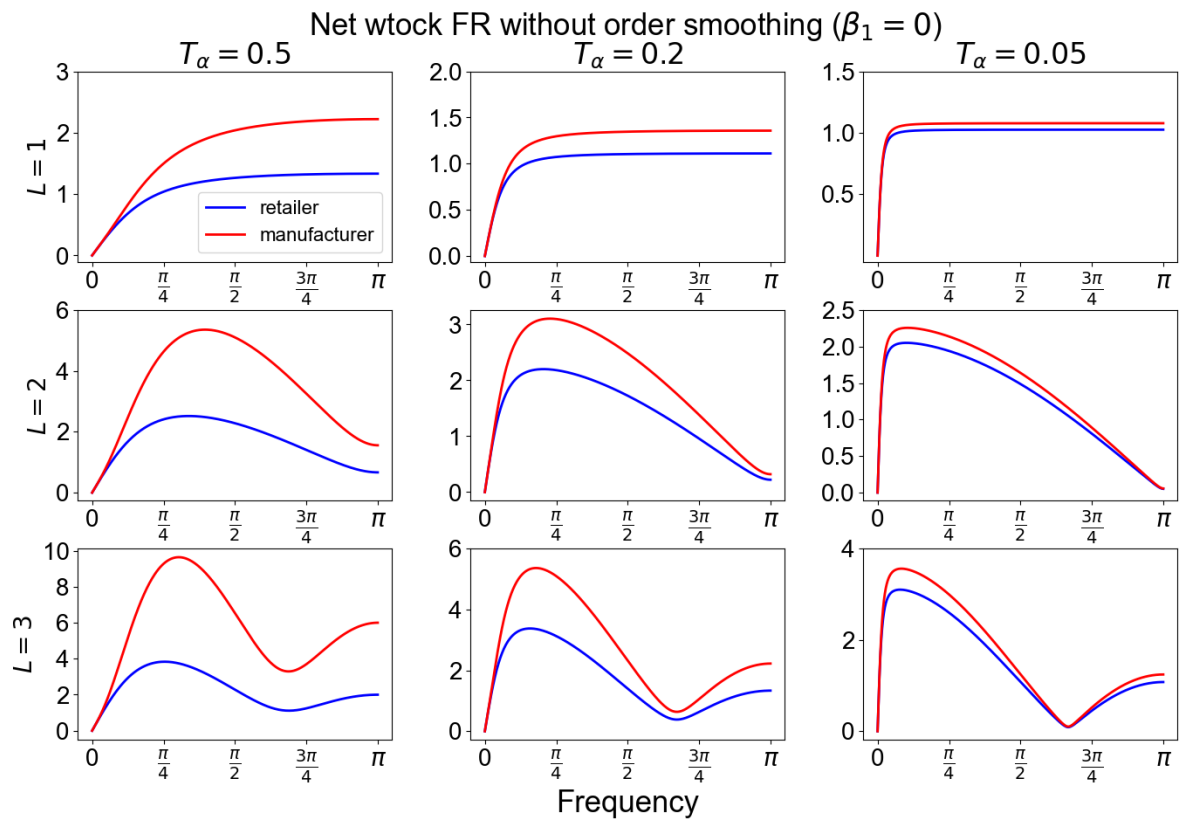


## Results based on the ES demand forecast

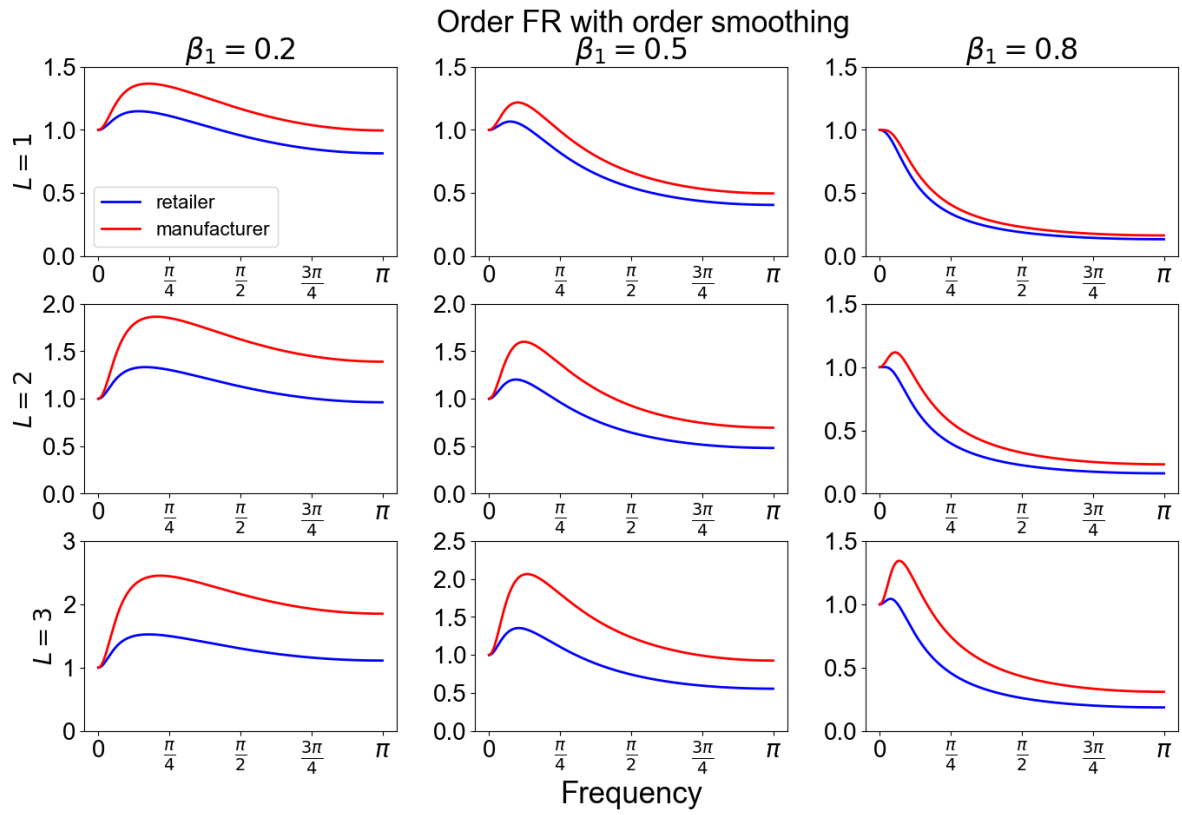
### 1. Control theory analysis



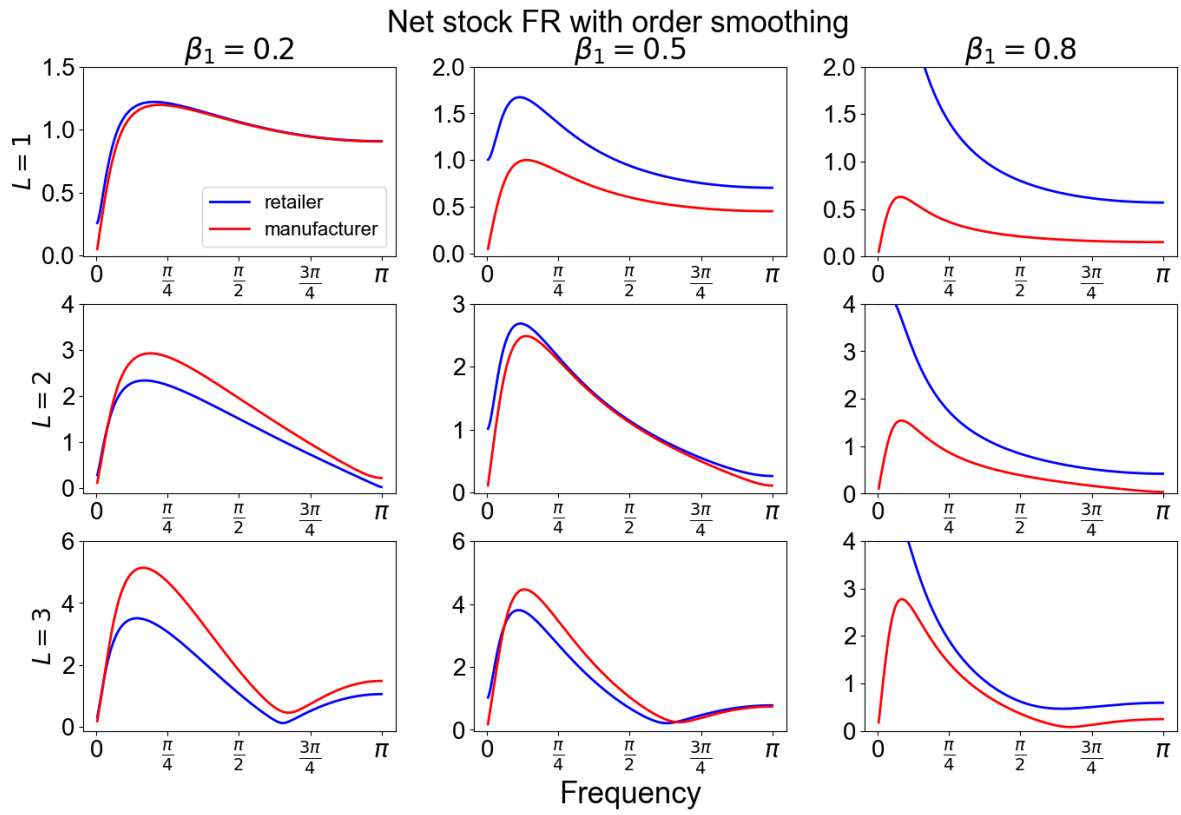
FR plots of orders for various  $T_\alpha$  and  $L$  values when order smoothing is not applied



FR plots of net stocks for various  $T_\alpha$  and  $L$  values when order smoothing is not applied

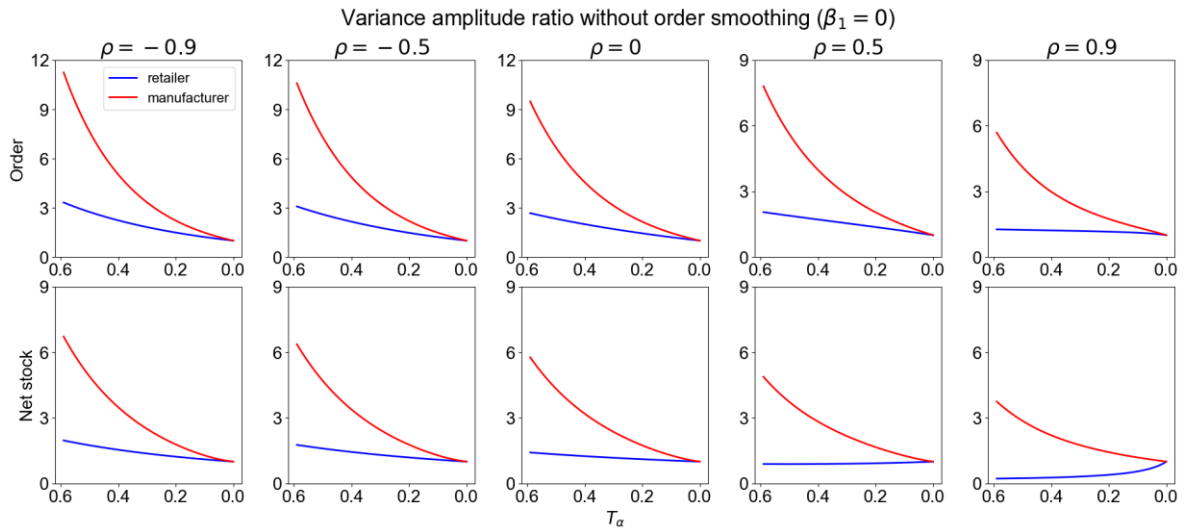


FR plots of orders for a fixed value of  $T_\alpha = 0.2$  and various  $\beta_1$  and  $L$  when order smoothing is applied

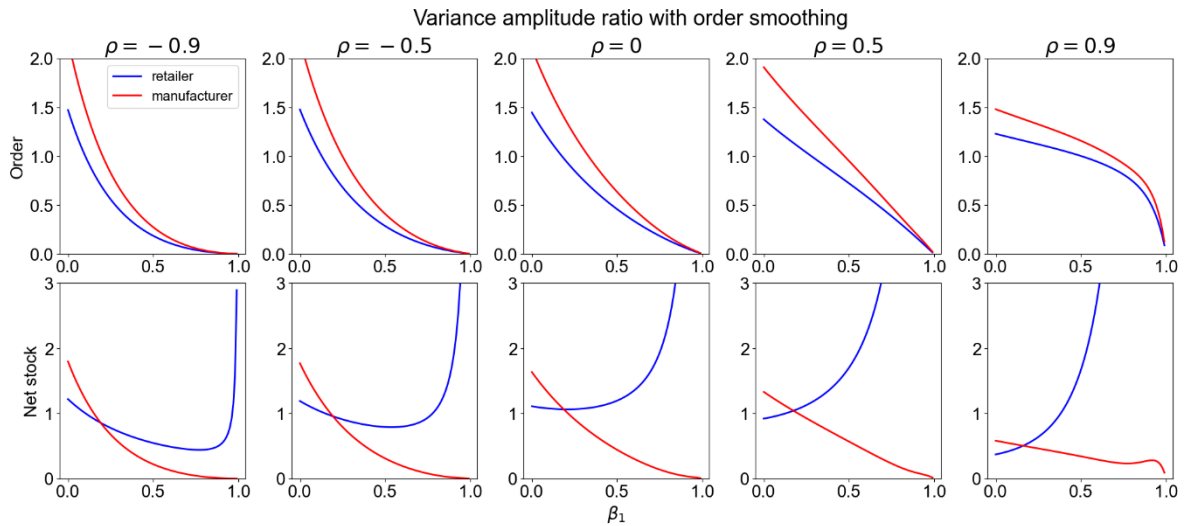


FR plots of net stocks for a fixed value of  $T_\alpha = 0.2$  and various  $\beta_1$  and  $L$  when order smoothing is applied

## 2. Statistical analysis



The variance amplitude ratio of order and net stock in the two echelons in the benchmark situation



The variance amplitude of order and net stock in the two echelons when the retailer uses the OUT