

## 1 Model en mode Agent based

After lot of experiment with different number of good and number of agent we can see that the number of goods impact a lot, and number of agent change, but not so much. It react not so much to ratio, but mor to number of goods

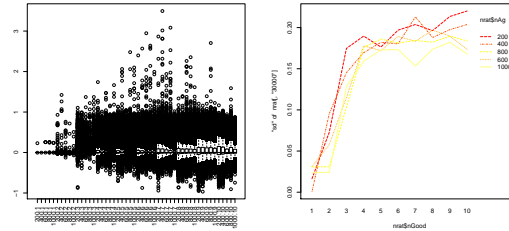


Figure 1: Interaction between number of agent and number of good.

## 2 New Mathematical stuff

EQUATION:

test with  $n_{goods} = 3$  and  $n_{agents} = 500$  and  $timeStep = 30000$

### 2.1 Score of the agents:

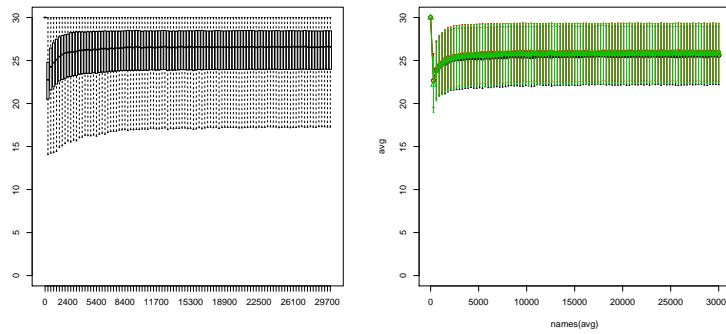


Figure 2: Evolution of the score of the agent during the simulation.

### 2.2 Difference of optimal price:

(for the non produced price, I don't know for the produced one)



Figure 3: Interaction between number of agent and number of good.