Leontieff Model : Reproducible Result

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1. **Experiment**

- In order to get a reproducible result, a class *ReproducibleResult()* is defined.

- Treatments: In the class *ReproducibleResult(),* 20 replications of the class *Leontief_Model()* used for each demand shocks (used the values 0.3, 0.7, and 1.0 for "*shock_size"* parameter in the method "*shock"*). We doesn't change other parameters in the class *Leontief_Model(). ReproducibleResult()* class calculate the range (mean +- standard deviation) of the effect of the mentioned demand shocks for upper 1% quantile. We can choose different number of replications.

- Response: *ReproducibleResult()* will print three impact values (ranges) for each demand shocks.

2. How to run the code

The script can be executed directly. It will print the impact value for three parameters into the interpreter. It will also plot the values.

3. Code (Problem_02)

Please see the .py file.

4. Results and Interpretation

The effect of 100% demand shock is always higher than 70% and 30% demand shocks for the upper 1% quantile. On average, 70% demand shock has higher effect than 30% demand shock, but lower than 100% demand shock.