

Goals for this session

- Quick recap of last week's material
- Review the model of the firm from Tuesday's lecture
- Look at General Equilibrium model from Thursday's lecture
 - What are the dynamics of this model when you shock variables?
 - Why do we care about this model?

Vocab

- Partial vs. General EQ
- Social Planner's Solution
- Positive/Negative Correlation
- Pareto Optimality

Warm Up Qs

1. Recap: What is the main idea of last week's material?
2. Draw the firm's model we looked at on Tuesday:
 - Label all axes and formulas for graphed lines
 - Draw in and label the firm's profits
 - What is the optimality condition for the firm?

Problems (Written by Prof. Eudey)

1. Assume that markets are competitive, that there is no perfect information, that there are no externalities, and no proportional taxes on either production, income, or consumption. In each of the three cases below:
 - Graph the social planner's solution
 - Show/explain the effect of the change on
 - Consumption (C)
 - Employment (N)
 - Output (GDP)
 - Real Wage (w)

- If there are any ambiguous cases, note that and explain the conditions under which the variable would either increase or decrease.

- An increase in technology (z)
- A shift in preferences toward consumer goods (C)
- An increase in government spending (G) funded by lump-sum taxes

2. Fill out the table below. For the information in the three right-hand columns, show the sign of the co-movements between variables implied by the model when there is a positive shock to technology (z), government spending (G) or Preferences.

		Model Response to each (positive) shock		
	Corr in data	Technology (z)	Gov Spend/Taxes (G/T)	Preferences for C
$\text{corr}(\text{GDP}, z)$				
$\text{corr}(\text{GDP}, N)$				
$\text{corr}(\text{GDP}, C)$				
$\text{corr}(\text{GDP}, w)$				

- Under what conditions is the model consistent with the business cycle data? Does it depend on the type of utility function? On the type of 'shock'? Explain
3. Why does a distorting tax on labor income lead to an inefficient outcome regardless of the type of utility function households may have? (Hint: it has to do with income and substitution effects).