

KEY

ECO 610
Problem Set #1
Fall 2019

Instructions: This is a team assignment, so turn in one paper for all three members of the team. I will shuffle the composition of teams for each of the five problem sets. I will leave it to each team to figure out how to work on this assignment as a group, but if you encounter shirking by a teammate, don't hesitate to involve me. Turn in a hard copy at the beginning of class on 9/17/19.

1. (10 pts.) In the current public discourse about social economic organization, several terms/concepts keep coming up in the discussion. Capitalism, central planning/command, markets, socialism—what do they all mean? As a student of economics, you should have a clear understanding of what each of these terms mean. Explain/define each and discuss how they fit into any analysis or classification scheme of how different countries organize economic activity.

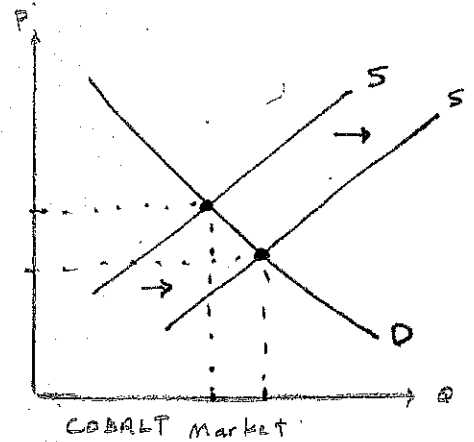
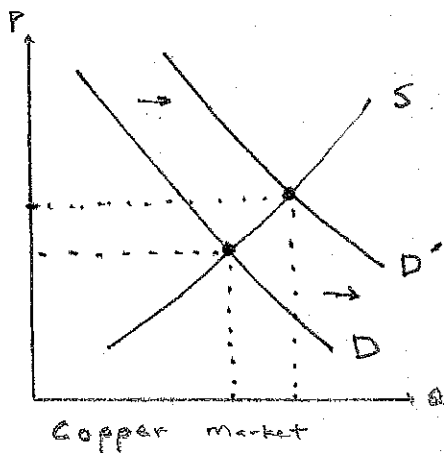
Economic systems can be classified according to (1) the decision-making process and (2) the ownership of resources. Markets vs. central planning refers to the decision-making process. Capitalism vs. socialism refers to the ownership of resources.

Every economic system must answer three basic economic questions: What goods will be produced and in what amounts? How will these goods be produced, i.e. what production techniques will be used? And For Whom will these goods be produced, i.e. who gets to consume the goods that the economy produces? Decision-making is decentralized in market systems. Consumers are sovereign, and decide what goods will be produced by voting with their dollars. Firms will choose inputs and production techniques so as to minimize costs, motivated by the quest for profits. Those households who both want and can afford to pay for goods will consume them. Decision-making is centralized in a command or centrally planned economy. The central planners will make all three decisions, deciding what will be produced, how the chosen outputs will be produced, and rationing goods among consumers by central diktat.

The scarce resources of a society can be privately owned by households or commonly or publicly owned by everyone (and hence no one). In a capitalistic system, human resources, buildings, machinery and equipment, and natural resources including land are owned by private individuals. And ownership implies the right to sell those ownership rights to another party. In a socialistic system, property rights do not reside with individuals. Land, factories, and other scarce resources are owned by everyone, which means that no one person or persons own land or factories. In the extreme case, individuals do not own their own labor, but instead work for the common good.

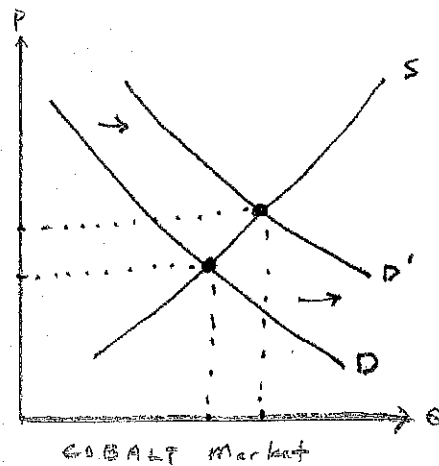
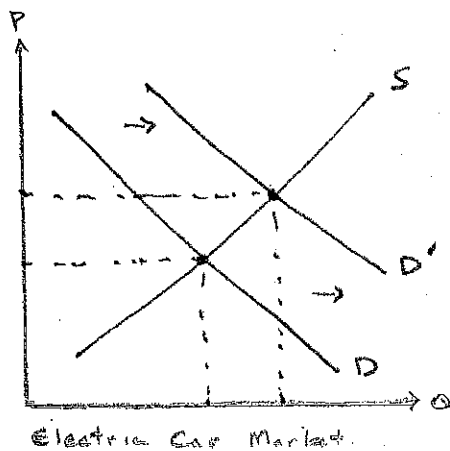
2. (10 pts.) Cobalt is a hard and lustrous metal and is mainly obtained as a byproduct of copper mining. It is a key component in the manufacture of batteries for electric cars. Both the price and quantity exchanged of cobalt has increased in the past several years. Two of your friends who don't understand economics as well as you do have competing explanations. One thinks that it must be because increased construction activity in China has led to a worldwide increase in the demand for copper. The other thinks that it is because several countries have mandated or are considering mandating electric cars, leading to an increase in the demand for electric cars around the world. Evaluate each of these two competing hypotheses, illustrating and explaining what would happen in each market. Which of your friends' explanation is consistent with the observed changes in the cobalt market?

Friend # 1:



Increase in price of copper leads to shift right in supply curve for cobalt. Lower price but higher output for cobalt.

Friend # 2:



Increase in demand for electric cars leads to increase in demand for a key input in car batteries - cobalt. Increase in Demand leads to higher price and output.

Friend # 1's explanation is inconsistent with the observed facts - higher price and higher output in cobalt market.

Friend # 2 has a consistent explanation.