

## Midterm Exam I: Answer Sheet

1. (25%) *"The Soviet Growth Model was successful at producing rapid growth when introduced in various economies. Over time growth performance slowed.*

(a) *What features of the model explain why it was relatively successful in the early years? Explain.*

**brief answer** The SGM was designed to mobilize inputs. Central control of the composition of output controlled savings. Consumption could be limited to engage in more capital accumulation. In early years moving labor from rural to urban is important, collectivization is a powerful instrument for this. Command is great for mobilization. In the early years industrialization is the key

(b) *What features explain why the model became less effective over time? Explain.*

**brief answer** Over time the easy fruit is picked. Once labor has been shifted from rural to urban that source of growth is gone. Mobilization is less effective at generating intensive growth. Now TFP growth is important, and the system was not good at encouraging the diffusion of innovations. Moreover, the institutions of the economy did not allow for easy substitution of capital for labor. With a low elasticity of substitution massive capital accumulation (something the SGM is good at) cannot compensate for a slowdown in the growth of labor inputs.

(c) *To some extent the early success represented borrowing from the future. How? What does this mean? Explain. Can you provide some examples?*

**brief answer** Essentially, this is cost shifting into the future. Leaving a large debt for future generations. Collectivization, for example, shifted labor to the cities but it ruined agriculture, requiring huge investments to maintain production over the next 50 years. Programs to grow cotton in and create new arable land in Central Asia led to the evaporation of the Aral Sea. Emphasis on output growth leads to subsequent environmental consequences. Hasty methods of oil recovery leave more oil in the deposits than could be pumped with a more efficient scheme. Perhaps most important the command system itself sowed seeds of future problems since it stifled individual initiative, induced subordinates to conceal information, and made it hard to develop new products and new industries.

2. (30%) *You are an adviser to a team designing a blueprint for economic transition in a post-socialist economy. Your task is to analyze the important legacies of the socialist period for the transition. Specifically, your task is to specify which are the most important legacies and why you think they are important. Since transition has not yet started your knowledge is based on your knowledge and expertise on the command system. You can choose an East European or a former Soviet country, but specify which one in your answer.*

- (a) *Which legacies do you think will have the most important impact in the short term? Explain.*

**brief answer** Macroeconomic crisis is one important one. How to control inflation and cut budget deficits with economy in trouble. In East European the loss of subsidized energy will hurt. In former Soviet Union the disruption of trade linkages will be difficult. In all cases, the shortages and effects of price control will be important. This includes the impact of soft-budget constraints, and the circus-mirror effect, since people will not realize the true nature of the economy due to mispricing. Also, the loss of authority of the government itself will make implementing reforms difficult since government has lost its credibility (perhaps successor governments will gain a window of opportunity). Lack of financial services will be a key problem in the short run – market economies need banks.

- (b) *Which legacies do you think will have the most important impact for the longer term transition? Explain.*

**brief answer** Structural legacies such as lack of services and over-industrialization are important. Lack of rule of law and lack of market institutions may be important. Soft-budget constraint will be a long-run problem – hard to end it with a snap of the fingers. How to deal with enterprises that produce low quality goods at high prices is a big problem. How can you privatize what nobody wants? How to introduce competition in an economy may be a big problem. In former Soviet case especially, one has to deal with health and environmental legacies, and in the Russian case with the location of industry in the wrong places.

3. (25%) *In market economies there is no central regulator of quality while in Soviet-type economies there was. Yet the planned economies suffered much more from the poor quality of goods. Why?*

**brief answer** In market economies consumers are sovereign, in planned economies planners are sovereign. That does not quite explain why planners are less concerned with quality. In principle they are not, but lack of quantity jeopardizes the plans of other enterprises, lack of quality does not directly impose such costs. Lack of quality shifts the cost onto the user. And in the planned economy it is hard for the user to effectively punish low quality suppliers.

- (a) *What is the source of the quality problem in planned economies (try to be as precise as you can)?*

**brief answer** Most important is the sellers market. With chronic excess demand sellers do not have to pay attention to the wishes of customers, and if quality costs, why bother? One could also argue that it is due to the difficulty of central planners *knowing* the quality that needed to be specified. This is an information-cost answer. Finally, notice that producers and consumers do not directly deal with each other. Planners organize such trades.

- (b) *Why didn't the specification of the quality of the good in the plan eliminate this problem? Why was this type of regulation ineffective? Try to focus your explanation as much as possible on fundamental features of the STE.*

**brief answer** Part of the answer is in the second part of (a), but this needs to be augmented with the point that fulfilling output targets always had priority over quality fulfillment. If goods are in short supply nobody rejects inferior inputs. You just produce with them and pass on the inferior product to your customers. If you reject the inferior inputs you will not fulfill your plan.

(c) Why is quality less of a problem in market economies? Explain.

**brief answer** In market economies buyers and sellers can directly negotiate price and quality. With prices clearing market there is no sellers market. Of course where there are monopolies, and hence no competition, quality tends to be poor; think of the post office, or phones prior to the breakup of ATT (if you are old enough to remember).

(d) *Why is the legacy of the quality problem important for transition?*

**brief answer** low quality goods makes it hard to compete in world markets. Producers are not prepared for competition. It also makes it hard for domestic firms to compete with imports.

4. (25%) *Economic reforms in many Soviet-type economies were designed to increase the autonomy and authority of enterprise directors. These reforms typically failed to improve performance and, in fact, often made things much worse. Why? Explain.*

**brief answer** Basic answer is lack of market prices. Giving more authority to agents who do not know the opportunity cost of their actions will lead to more misallocation, not less. In addition with soft-budget constraints it is not clear that directors have a bottom line mentality so why should they be given more authority. Moreover, these reforms made it harder for the planners to obtain information as more discretion below made it easier to conceal. This meant that the cost of inducing agents to fulfill plans increased. And the cost of monitoring is higher. In a pure command economy the agents are much more dependent on the planners for inputs. So it is somewhat easier to monitor their behavior.

- (a) *What is the fundamental problem with such decentralizing reforms in planned economies? Why don't they work? Explain.*

**brief answer** Fundamental problem is that only the planners have economy-wide information, so only they can judge opportunity costs. Directors know more about their own industries but not about the relative value of different goods or different inputs. Everyone thinks their activity is the most important one. Notice that if I was made czar of PSU I would think Econ is more important than the football team, but since we are in a market economy I would observe football revenues are much higher, so I would not divert resources from football to economics (maybe from sociology or human development). In a planned economy the local official cannot know the value of different activities.

- (b) *Explain how these reforms actually made performance worse.*

**brief answer** As already noted, by providing more autonomy to directors such reforms make it harder to the planners to induce plan fulfilment. Chain reactions of under-fulfillment can take place. Supply diversion is one of the perverse outcomes.