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Midterm Exam I: Answer Key

Instructions

1. **(25 %)** "Many reforms that were undertaken in the Soviet-type economies (STE's) involved **decentralizing** decisionmaking. Yet an argument can be made that the fundamental cause of the collapse of these economies was a loss of central control." Comment and explain, paying particular attention to the following questions:

   (a) What types of chronic problems of the STE were decentralizing reforms addressed to?

   brief answer Primarily information problems. The directors know much more about production possibilities than do central planners. Giving them more discretion it was thought would lead to more cost efficiency and more innovation because the directors know more than the planners do. In a complex economy providing material balance is difficult.

   (b) Why might the problems you referred to in part (a) become more severe over time in STE's?

   brief answer When the economy is underdeveloped the major issue is mobilizing resources. Over time growth depends on innovation and using resources efficiently. Extensive growth gives way to intensive growth.

   (c) What economic problems, both microeconomic and macroeconomic, did the weakening of central control cause in STE's? Carefully explain.

   brief answer Weakening of central control complicated incentives. Agency problems are mitigated when punishments are severe. Microeconomic problems included diversion of resources. Because of weakened central control subordinates diverted resources to uses alternative to the plan. This is lucrative because of the sellers' market and the fact that the plan is implementing an allocation that is not market clearing. Macroeconomic problems caused by the weakening of central control include more repressed inflation, or monetary overhang. As central control weakens enterprises pay higher wages to keep the workers happy. With no more output repressed inflation, or shortage, results. This causes more queuing, more stolen hours, less production, and even bigger shortage.

2. **(30%)** What is the relationship between measured real income and welfare in planned economies?

   brief answer In market economies we expect real income and welfare to move in the same direction. But in planned economies, where prices are fixed below market clearing levels, they may move in opposite directions. The reason is that when demand exceeds supply at the official price, the excess demand spills over into longer lines and diversion to parallel markets. If aggregate demand exceeds supply then an increase in measured real income (aggregate wages) will just lead to longer lines. This reduces welfare.

(a) How can price liberalization simultaneously lead to an increase in aggregate social welfare and a decline in measured aggregate real income? Explain.

brief answer As in the previous remark, suppose that prices are initially fixed below market clearing levels. Now let prices be freed. Before any change in output or nominal income (Y) can occur all that happens is that prices (P) go up. This means that measured real income ($\frac{Y}{P}$) will decrease, as will queues. Agents still consume the same quantity of goods, but they waste fewer resources (leisure) to do so. Hence, their welfare must have increased, but measured real income $\frac{Y}{P}$ certainly goes down.

(b) Price liberalization leads to winners and losers. Who are the major winners from price liberalization? Who are the losers?

brief answer The losers are those who have a low opportunity cost of waiting, and those who had privileged access to goods in short supply. Primarily the elderly and the nomenklatura. The winners are those with a high opportunity cost of time and the people with no access (no friends in high places). Market-clearing prices equalize access to goods. Those who have little time to wait now have a better chance to purchase goods. Suppliers will also benefit from the increase in prices – they gain what the elderly and privileged lost.

(c) Are the gains of the winners greater or smaller than the losses of the losers? Explain.

brief answer One way to think about this is that with excess demand some resources are wasted trying to purchase goods (waiting in line rather than working or having leisure, for example). These are deadweight losses to society. While some of the gains are at the expense of losers (e.g., the elderly) the elimination of the deadweight losses is a pure gain to society. So the gains from price liberalization, which includes the elimination of this waste, should exceed the losses. This does not mean, however, that the winners will compensate the losers, so this is of little consolation to the losers in practice.

(d) What role, if any, does the monetary overhang have in complicating the relationship between measured real income and welfare? Explain.

brief answer This really restates the problem. The monetary overhang is the excess purchasing power that cannot be realized at fixed prices. It is the amount by which the money stock could be reduced without reducing actual consumption. If there was no monetary overhang, then welfare and measured real income would move together.

3. (20%) Economic plans in STE's were typically constructed "from the achieved level." Why did planners tend to use past performance to create current economic plans?

brief answer Primarily due to the sheer difficulty of creating new plans. To derive a feasible material balance requires a lot of iterations, and this takes time. Starting with the previous structure of production and then adding some growth reduces the complications in creating the plan. If achieved production took place, it was feasible, so planned production will be feasible.

(a) What specific difficulties did this address?

brief answer As stated above it reduces the complications involved with creating an integrated feasible plan. Rather than having to start from scratch, the planners start with the existing structure of production and fiddle at the margins. If information collection was accurate and costless then it would not be needed. But this is not the case.

(b) What economic problems did planning from the achieved level introduce? Be as specific as you can and carefully explain the linkage.

brief answer First, it introduces a lot of conservatism into the plan. Production processes should change with technological advances, but with planning from the achieved level the structure of production is frozen. It is hard to introduce new methods of production and innovations if you plan from the achieved level. Imbalances are frozen in time as well. Planning from the achieved level makes creates dynamic incentives problems because targets for next year will necessarily be based on performance this year. But this makes it harder to induce innovation.

4. **(25%)** Soft-Budget constraints are a particularly important legacy from central planning for transition.

(a) What is a soft-budget constraint? How does it differ from a hard-budget constraint?

brief answer A budget constraint is soft when violating it has no adverse consequences – when it does not bind. A hard budget constraint means that an agent must satisfy the constraint. A soft-budget constraint means that if costs turn out to be higher than revenues the authorities will make up the difference. What matters here is what happens ex post. It may be that ex ante there is a constraint, but if the agent knows that ex post there is no penalty for violation then the constraint has little effect on decisionmaking.

(b) Why were soft-budget constraints endemic in STE's? Explain.

brief answer Because under planning output fulfillment was the most important consideration (can you explain why?). Hence, if an enterprise were faced with the choice of violating the budget constraint or fulfilling the output plan the planners always insured that they chose the latter. So if an enterprise had insufficient revenues to purchase inputs the State Bank would credit their account to make sure that they fulfilled the plan.

(c) What type of problems do soft-budget constraints create?

brief answer Soft-budget constraints reduce (eliminate) the incentive to reduce costs. So they lead to wasted resources. Because there is no constraint on purchasing they lead to sellers' markets, which, in turn, reduce quality. Sellers' markets also reduce the incentives to create better products since it is easy to sell the current output. At the macroeconomic level soft-budget constraints require subsidies which worsens the fiscal situation of the government.