ECON 305 - Comparative Economic Systems | September 23, 2004

First Midterm Exam Key | Professor Parker

I. (30%) Short Descriptions.

1. Coase Theorem: *With clearly defined, enforceable property rights and low transactions costs, any externality could be internalized. Since externalities or spillovers (e.g., public goods) are a fundamental market failure, this means that the market could be efficiently self-regulating if the state could simply clarify property rights and lower the costs of negotiation.*

2. Condorcet's Voting Paradox: *An example in which majority voting can lead to inconsistency and cycling. Three parties choose among three alternatives (A,B,C) by pairwise majority vote, and the result is that A>B>C>A.*

3. Creative Destruction: *Schumpeter argued that the entrepreneur under capitalism was the driving force of the economy, and his willingness to take risks and innovate led to the creation of new firms, technologies, products and institutions, as well as the destruction of the relatively less-efficient ones. This destruction was necessary to release economic resources for the new technologies, but the process is messy and engenders opposition to change.*

4. Feudalism: *An economic, social, and political system in Europe's middle ages (circa 9th - 14th Centuries) based primarily on the relationship of lord to vassal. Land was held in feud, meaning that the tenant owed services to the lord in return, from serf to lord to overlord, ultimately to the king. Property rights were limited, though there was mutual responsibility between lord and vassal based on tradition. The economy was predominantly rural, agricultural, cellular, and autarkic at the manorial level. The social structure was extremely rigid, mobility was very limited, and the Church played a strong role, for better or for worse.*

5. Gershchenkron effect: *If we use the purchasing-power parity method to convert another country's output into our own currency by multiplying our own prices times their quantities, we will avoid the problem of using official exchange rates that do not usually reflect purchasing power parity, but we will tend to over-estimate their output. Because relative prices differ between countries, and because goods which are relatively scarce tend to have relatively higher prices (and vice-versa), we would be giving our relatively higher weights to what they produce relatively more of, and relatively lower weights to what they produce relatively less of. The implication is that we simply can't make accurate comparisons of living standards between countries using different currencies.*

6. Hegelian Dialectic: *A dialectical theory of change through conflict between a thesis and an antithesis, which ultimately yields a synthesis. Originally posited by the philosopher Hegel as an explanation for the evolution of ideas, Marx applied this dialectic to his theory of historical materialism.*

7. Imperialism and the Weak Link: *Lenin's explanation of why the revolution should be expected to happen in Russia rather than in the most advanced capitalist economies. The advanced capitalist countries competed against each other for empires, so that they could exploit their colonies rather than their own working classes. Those countries which were unable to successfully compete for colonies would be forced to increase exploitation of their own workers, and thus become the weak link where the revolution would occur.*

8. Iron Law of Wages: *The prediction, based on the work of Ricardo and Malthus, that wages would always tend towards the minimum subsistence level, because population growth would only be constrained by starvation, and because of fixed factors labor would exhibit diminishing marginal product. As a result of this prediction, economics was known as the dismal science.*

9. Public Failure: *This implies that state intervention makes the economy less efficient. It might occur if the state lacks information about how to correct market failures (particularly since market prices are not present, and in a market economy the state is left with the most intractable problems), if the state's objective is not only to improve efficiency, or if the state is unable to provide its agents with proper incentives.*

Going beyond the expected answer, I will explain more. Large bureaucracies are always difficult and expensive to manage, especially when their objectives are hard to define and their performance is hard to measure. Such agencies tend to be risk averse, they may fear success because it threatens the agency's survival (unlike in the private sector, where success ensures survival), and they may be "captured" by firms they are supposed to oversee. If the state is involved in providing services, and if labor productivity in services does not rise as fast as other sectors, then the cost disease hypothesis argues that the state's share of output will inevitably increase. Even well-intentioned political leaders must get power, retain power, and extend power to be effective, and this all requires efforts to please decisive coalitions. Add to this the impossibility of determining society's preferences, and public failure seems more likely.

10. Public Good: *A public good is something produced with scarce resources that society desires, but with two particular characteristics that make it highly unlikely that private producers would provide it in efficient quantities. These characteristics are nonrivalrous consumption, which implies that marginal cost (the efficient price) is zero, and nonexcludable benefits, which leads many users to act as free riders. This implies that governments can provide what private producers cannot, paying for it through mandatory taxation.*

11. Socialism: *An economic system in which the state, under the unchallenged control of a Marxist-Leninist communist party, attempts to eliminate capitalism through state ownership of the means of production, and possibly the elimination of most private markets. This is not to be confused with the political philosophy of increased government intervention in a capitalist economy.*

12. Surplus Value Theory: *Marx's theory that capitalism would self-destruct because profits come from surplus value, i.e. value created by labor but not paid in wages. It relies on the Labor Theory of Value, and was the basis of the prediction that Socialism was inevitable.*

II. (30%) Short Answers.

a. Compare, contrast, and explain Adam Smith's Invisible Hand versus the Prisoner's Dilemma model. What are their implications for the appropriate role of the state in a market economy?

Both the Invisible Hand and the Prisoner's Dilemma assume that individuals rationally act in their own self-interest, but they make different assumptions and reach different conclusions. Adam Smith argued that men acting in their self-interest promote the social interest as if guided by an invisible hand, and do so more effectively than if they had intended to act for the benefit of society. The Prisoner's Dilemma is a model of how well-informed and self-interested individuals may face incentives to not

cooperate, and as a result everyone becomes worse off. It may be possible that both models simultaneously apply; for example, competition makes firms worse off by driving their profits to zero (a Prisoner's Dilemma), while society benefits by having more goods at cheaper prices (the Invisible Hand). Under the Invisible Hand, the best government is one which follows a laissez faire policy. Since the Prisoner's Dilemma model is solved by making individual choices interdependent and iterative rather than independent, and by punishing those that defect from cooperation, the most efficient government may be one that coerces cooperative behavior and limits individual choices.

b. Compare, contrast, and explain Olson's bandit model versus Locke's social contract. What are their implications for the objectives of state intervention? Under what circumstances would they have similar implications?

Olson's bandit model views the state as more predatory than voluntary. Applied to the state, this model presumes that government is imposed and in the self-interest of the government. In contrast, Locke's social contract presumes that the state is created by voluntary participation, and is in the self-interest of the governed. In order to provide for a common defense, protect the group against the misbehavior of individual members, and provide for other public goods, people voluntarily submit to a government.

Bandits tend to take everything from their victims; once they become stationary, however, they no longer take everything, since this would make continued theft impossible (a 100% tax on nothing is still nothing). Instead, stationary bandits maximize the revenue they can receive over time, and may find it in their self-interest to enforce order and peace (since this reduces competition from other bandits) and promote economic development (since this gives more to steal). Thus, stationary bandits may act in the interest of the governed, if they believe that this benefits them.

c. Compare, contrast, and explain Keynes' General Theory versus the views of the Monetarist/New Classical economists, especially as they pertain to ideal macroeconomic policies.

In his General Theory, Keynes (pronounced like sugar "canes") argued that a free market economy is inherently unstable, and capitalism needed to be saved from itself. Say's Law posited that the economy was inherently stable, because supply creates its own demand, but Keynes argued that classical theory was wrong because prices, wages, and interest rates do not quickly adjust to keep the economy at full employment, except in the long-run (but in one of his famous quotes he said that in the long-run we are all dead). Instead, it is possible to enter into a low-level equilibrium. The source of this instability is the investor, who is subject to herd behavior or "animal spirits," and the multiplier effect exacerbates this instability. The way to stabilize the economy and keep it near full employment, Keynes argued, is for the government to use fiscal policy. When investment falls, the government needs to spend more or tax less to keep spending up, and vice-versa.

Monetarists, on the other hand, argue that the money supply is the key element that Keynes dismissed in his analysis. Unstable monetary policy creates the instability that investors react to, by changing prices and interest rates, and thus the source of economic instability is the government's mismanagement of the money supply. The New Classical economists extended this analysis to argue that government efforts to increase GDP can only work if people don't expect it, but doing this it creates instability in expectations that make future reactions unpredictable. Both Monetarists and new Classical economics favor rule-based, predictable policy, and generally oppose macroeconomic intervention by the government.

d. Compare, contrast, and explain *Laissez Faire* versus Mercantilism. What arguments did Smith, Hume, and Ricardo put forth in favor of *Laissez Faire*?

The Mercantilist philosophy promoted capitalism as a tool of the state. Trade was viewed primarily as a way to increase the state's accumulation of gold and other specie, as a win-lose game in which exports led to wealth and power. As a result, states encouraged monopolies for their power and their revenue potential. In contrast, the philosophy of Laissez Faire – Laissez Passer, *particularly as honed by Smith and his followers, promoted capitalism in order to increase the goods and services consumed by the state's citizens. In this view, competition among producers best promotes the social interest. Ricardo illustrated that trade according to comparative advantage was a win-win game, and Hume argued that efforts to accumulate gold through trade surpluses were inevitably self-defeating because gold inflows caused price inflation. The state should thus leave markets alone to benefit society, and not use markets for its own gain.*

III. (40%) Essay Topics.

A. How do we measure the performance of an economic system? What are the major criteria we use? What are the major problems of measuring economic performance? In addition to the institutions and policies underlying the economic system, what other factors affect its performance?

Measures of economic performance may include GDP per capita, its composition and growth rate, the distribution of income (equity), dynamic and static economic efficiency, economic freedom, stability, economic security, and long-term viability. You need to explain each of these enough that I know you know what they are.

Some of these performance measures may be complementary, but others may in fact be substitutes, and then we have the problem of picking weights, which may be subjective and biased. Even if statistics for each performance measure were available and accurate, it would still be impossible to derive an overall measure of performance.

Furthermore, there are several problems with using statistics to compare performance of different economic systems. Statistics are often not comparable, objective, or even available. One important example of the comparability problem is that even something as simple as GDP per capita requires currency conversion, but exchange rates may be volatile and subject to both interventions and distortions in international trade sectors; using purchasing power parity estimates seems to be a good alternative, except the Gershchenkron effect tells us that we will tend to overestimate another country's output if we do so.

Assuming that these measures were available, comparable, and could be weighted appropriately, performance would still depend on factors other than the economic system, such as the level of economic development, the natural environment, and social and cultural factors. We also have to be careful not to compare actual to ideal systems.

B. What are the three Arrow-Debreu welfare theorems? What do they mean, and what do they tell us about perfect markets? What are the three conditions for perfect markets, and what do they mean? If these conditions are not met, what does the Theorem of the Second Best tell us about the relative efficiency of a market economy?

The three Arrow-Debreu theorems are (1) existence, (2) efficiency, and (3) distribution. The existence theorem proves that at least one set of relative prices exists that would yield a Competitive General Equilibrium (GGE), in which all markets clear simultaneously at prices that equate relative marginal costs with relative marginal utilities (or values). To actually achieve CGE, of course, would require both perfect competition and perfect information. The efficiency theorem, also known as the First Fundamental Theorem of Welfare Economics, says that if there are complete markets, then any CGE is Pareto Optimal, even under the Kaldor Compensation Criterion. Thus, if the three perfect market conditions are met, a free market economy would be perfectly efficient.

The distribution theorem, better known as the Second Fundamental Theorem of Welfare Economics, says that any possible CGE is consistent with some appropriate redistribution of resource ownership, meaning, for example, that free markets could be consistent with a more equal distribution of income if the ownership of productive factors could be distributed more equally. In a free market, income distribution results from what you own and how the market values it; if you change what you own, it is not necessary to mess with the market.

For your information, Pareto Optimality is the economic condition in which no further mutually-beneficial trades are possible, and so no one can be made better off without someone being made worse off. It implies that the economy, at a static moment in time, is perfectly efficient in its use of scarce resources, particularly if we assume (as Kaldor suggested) that winners could, in principle, compensate the losers if any further change improved overall efficiency – even if such compensation never actually occurred.

The three preconditions for perfect markets are, of course: (1) perfect competition, with many buyers and sellers so no individual may control the price alone; (2) perfect information, so we all know all relevant information about the goods we are buying and selling; and (3) complete markets, so there is a market for everything, with no externalities or public goods as a result. Violations of the first condition include monopolies; violations of the second include adverse selection, moral hazard, or fraud; violations of the third include pollution, national defense, and the market for babysitters.

If these conditions are not met, then a free market economy will probably not be perfectly efficient. Unfortunately, the Theorem of the Second Best then informs us that second-best solutions cannot be determined, and more market failures may not be more inefficient than fewer market failures since it is possible that failures offset each other to some degree. Thus, once we leave the world of perfect markets, we can no longer prove that markets are relatively efficient.

C. Are democratic societies more likely to choose relatively optimal economic policies? In your answer, consider the implications of Arrow's general impossibility theorem, Olson's theory of coalitions, and Madisonian Liberalism, briefly explaining each.

Democratic societies are not likely to choose optimal economic policies. First, it is impossible to actually determine what society prefers with any reliability, with any voting mechanism. Second, most people do not participate in collective action or even vote in elections, so the political process is dominated by distributional interests advocating policies which usually reduce the social welfare.

However, democracies do put a check on social policies, and in the long run can prevent less preferred policies.

Arrow's theorem is a proof that no method of determining social choice from individual preferences could reliably be consistent, fair, and decisive, and it works by showing circumstances in which any decisive coalition could be broken into inconsistent groups. It thus implies that we cannot really know with certainty what society wants, so society cannot reliably make the best economic decisions, and it implies that the interplay of groups plays a key role in determining actual choices.

In his theory of collective action, Olson argued that individuals consider marginal costs and benefits in their decision to participate in groups. Self-interest makes distributional coalitions (in which gains from action accrue only to those who join the group) much more likely to be well-organized and successful in their efforts, while encompassing coalitions (in which gains from collective action accrue to everyone, regardless of membership) tend to suffer from the free-rider problem of nonparticipation. Similarly, large numbers of people fail to vote because their stake is small and they do not see a direct benefit from voting. As a result, political decisions are often made on the basis of pressure from coalitions.

In a democracy distributional coalitions may compete for influence. In an autocratic society, however, there may be few checks on such influence and one coalition may be able to dominate. Olson argued that even autocratic and self-interested governments may be led to make wise shepherding decisions if they have a long-term monopoly on tax revenue. In a democratic state there may be less incentive to make decisions in the social interest if power is not retained, though the possibility of losing power may encourage better decisions and democratic states are more likely to have other checks on power.

Madisonian Liberalism can be summed up by Churchill's axiom that democracy is the worst system, except for all the others. True, voting cannot determine the best policy, but it does act as a check on the worst policies. While political entrepreneurship can lead to socially less-preferred policies in order to form new governing coalitions, returning to the center can often be a winning strategy.

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