

ECON 305

Comparative Economic Systems

Professor Elliott Parker
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Syllabus Review

Website:

<http://www.coba.unr.edu/faculty/parker/econ305>

Office Hours: TWR 11:00-11:50, or by appointment

Grading based on:

- * Essay Exams
- * Two Papers – one short, one long
- * Daily One-minute Essays

I. INTRODUCTION

- Not long ago, the world was divided into two seemingly monolithic systems - the socialist and the capitalist worlds - engaged in a long-standing conflict, the Cold War. Countries were either in the first (capitalist), second (socialist), or third (developing) worlds.
- After 1989-1991, that all changed. By 1992, Francis Fukuyama argued that liberalism (private property rights, free economic activity, market exchange) was the only surviving alternative.
- What we then experienced was one of the greatest economic experiments in history. Socialist economies began to transition into market economies, and we could observe and participate in the construction of economic systems, and learn how they really work.
- The journalist Thomas Friedman argues that the Cold War was the world's economic system, and the new world system is Globalization. The new conflict is between the Lexus (the modern economy, with trade, technology, and human capital) and the Olive Tree (traditional economies, traditional values, and nationalism).

What did we learn from the transition process?

- We learned that economic principles really matter, that incentive matters and markets work. But markets don't solve all problems, and some problems they can make much worse.
- We also learned that everything is so much more complicated than we had believed. Change is slow and difficult, information is limited, economic institutions and behaviors evolve slowly, and everything in a modern economy is dependent on everything else.
- This field, comparative economic systems, is also evolving. Not long ago it focused on studying the comparative performance of socialism vs. capitalism, but that is becoming less relevant. Now, we are focusing on the diversity of institutions and systems even among the capitalist economies, the process of economic reform and transition, and the emergence of new alternatives.

What is an Economic System?

"An economy is a group of people who are located within a political entity that has particular geographic characteristics and who are producing and consuming goods and services."

— Rosser & Rosser

It must decide what goods are produced (and with what resources), how these goods are produced, and who receives the goods produced.

An economic system is the set of rules and institutions that define and constrain the production and consumption of goods and services.

Institutions include households and the family, government policies and instruments, enterprises (or firms), labor organizations, NGOs, and markets.

Rules include the legal framework and the extent of enforcement, organizational rules, procedures, customs, culture, and tradition.

The Economy as a Production Process

Country i 's economic outcome $O_i = \{Q_i, \text{other outcomes}\}$
and $Q_i = F_i(NR_i, PC_i, LF_i \times HC_i) = T_i \times f(NR_i, PC_i, LF_i \times HC_i)$

where Q_i = real economic output produced, which is produced with:

- T = total factor productivity,
- NR = natural resources (including land),
- PC = produced capital assets,
- LF = labor force, and
- HC = human capital assets per capita.

Extensive growth occurs by having more resources, i.e. using NR faster, or having more PC (through savings and investment) or LF (labor force participation). This is subject to diminishing returns, resource constraints, depletion, overuse.

Intensive growth occurs through greater T (better technology, more efficient use) or more HC (skills, education).

Economic Dualities

Let's start with two ways of looking at the basic opposing forces in an economic system:

- The Public Sector (the state, a.k.a. government), its roles, rules, power and limits, versus the Private Sector, with private property, free markets, and the institutions and associations of a civil society.
- Capital, with a minority controlling the "means of production" (firms, equipment, natural resources, et cetera), versus Labor (which itself can be divided into skilled and unskilled). The role of government then depends on which group controls it (e.g., capital through funding or labor through voting).

Social vs. Self Interest

Economics usually assumes that people are primarily motivated by individual self-interest, and by the accumulation of material wealth. All groups (e.g., firms, societies) are composed of individuals with interests that may or may not conflict.

This is in contrast to the Marxian approach, which generally assumes that people act as a class, in their class interest.

Two contradictory models of self-interest drive the private sector:

- Adam Smith's Invisible Hand: Individuals who act in their own self-interest unintentionally promote the public interest, frequently more effectively than when they intentionally pursue it.
- The Prisoner's Dilemma: When individuals act in their own self-interest at the expense of others, the result can be that everyone is worse off.

This leads to...

Two contradictory models of the role of government:

- The Social Compact: Individuals join together to govern themselves. By restraining self-interest and providing public goods, government can promote the public interest.
- The Predatory State: Government is used by one group (e.g., government agents, an oligarchy, a privileged class, even a voting majority) in its own interest, at the expense of society overall.

Understanding the objective of the state is key to understanding its actions, and the role of the state is key to classifying economic systems.

How do we define and classify economic systems?

(1) **Ownership** of property, and the role of individual rights

- Three aspects of property rights:
 - Right of control, of transfer, to residual income
- Private vs. public (state/government or common) ownership
- Private rights are never complete.
 - Zoning laws, for example, prevent many uses of private property, and taxes limit residual income.*
- Difference between *de facto* and *de jure* property rights. Capital is most useful when they coincide (De Soto).
- Other aspects of individual rights: Civil rights and labor mobility

Marx saw ownership as the fundamental condition.

Classification continued

(2) **The Coordinating Mechanism:**

- The method of allocation and distribution
- System includes the collection and dissemination of information
- Command vs. market

(3) **The Organization of Decision-making:**

- Are economic decisions centralized or decentralized?
- Hierarchy, institutions, firm structure, culture, and the type of political system.

(4) **The Incentive Structure:**

- How do you motivate people to do what you want?
- material, coercive, and/or moral incentives

Classification continued

(5) **Income Distribution and Redistribution:**

- Poverty programs, unemployment, subsidized education, social security, disability, medical insurance, minimum wages, et cetera.
- Is the outcome of a market economy just?
- Does redistribution worsen incentive?

(6) **Political or Ideological Objectives:**

- For example, efficiency, fairness or equity, state power
- Mao's China had revolution as an end in itself
- Others (Friedman) might argue that free enterprise or consumer sovereignty is the goal, not just a means to an end.

So how many possible economic systems are there?

There are many potential combinations of these six characteristics:

- two possible outcomes each: $2^6 = 64$
- three possible outcomes each: $3^6 = 729$

However, if economies are systems, many of these characteristics go together as part of a system.

Two Basic Archetypes of Economic Systems:

- **Market Capitalism** – predominance of private property and individual rights, free market coordination of allocation, production, and distribution, material incentives, decentralized decision making and popular election of governments with laissez faire policies.

Kennett also lists commercial capitalism, industrial capitalism, finance capitalism, the Rhine model, and the Asian model, and Rosser & Rosser combine these into planned market capitalism and social market capitalism. There is also monopoly capitalism, dirigism, corporatism, fascism, et cetera.

- **Command Socialism** – predominance of state ownership, state management and planning, moral and coercive incentives, centralization of decision making, and unchallenged power held by an ideologically-driven oligarchy.

There is also market socialism, labor-managed socialism, and the hybrid economies of the former socialist economies.

Virtually all economies are mixed to some extent, and we have to consider the predominance of a characteristic, not its mere presence. Still, some economies cannot fit in the two basic categories (e.g., new traditional economies), and some economic systems are simply dysfunctional.

Capitalism vs. Socialism

Marx's definition of **capitalism** – an economic system in which one class (the bourgeoisie) owns the means of production and thus is able to exploit another class (the proletariat).

Kornai's definition of **socialism** – an economic system in which a Marxist-Leninist communist party has an unchallenged monopoly on political power.

Socialism is not simply government intervention, nor having an expanded welfare system. Just because a color is not white does not make it black.

What is **communism**? Many people are confused by the terms.

- Communism as an economic system is neither socialism nor capitalism. Advanced communism (as opposed to primitive communism) would require the elimination of scarcity and the withering of the state. As a political system, communism refers to a totalitarian government that meets Kornai's definition.

The U.S., Sweden, the U.K., Nazi Germany, Italy, China, the U.S.S.R.?

2. The Comparison of Economic Outcomes: Criteria and Difficulties

Once we define an economic system, how can we judge how well it performs?

Economic Outcomes

- 1) Output/Income produced (usually GDP)
- 2) Economic Efficiency
- 3) Macroeconomic Stability
- 4) Economic Security
- 5) Economic Equality
- 6) Economic Freedom
- 7) Long-term Viability

(1) Output Produced

Say's Identity: Output produced = Income received

Basic Measure is GDP: the final market value of goods produced within a country during a given year. GNP and GNI are similar measures, with minor adjustments.

Physical Quality of Life Index Human Development Index – life expectancy, infant mortality, literacy, educational enrollment, nutrition, et cetera, are all highly correlated with GDP per capita.

Output levels: should be adjusted for inflation, population, comparable currencies. A truly accurate measure would measure the net social value of all economic activities, rather than merely GDP, and would adjust for the use of natural resources and other capital.

Growth rates: change over time. But lesser-developed economies have the potential to grow at faster rates, since they start at a lower initial base and there is a catch-up effect.

Output composition: civilian or military goods; consumption, investment, or government goods; food vs. housing vs. luxury goods.

(2) Economic Efficiency

Efficiency is the ratio, relative to the maximum possible, of the total value of what we produce, divided by the total value of the resources we used, from now into the future.

Efficiency is a more perfect measure than GDP, but it is also much harder to measure and not easily available.

- a. **Static efficiency** - Can a reallocation of existing resources increase current output? Can we get the same current output using fewer resources? Do prices reflect scarcity values?

technical efficiency: Are we using the most productive technology?
allocative efficiency: Are resources distributed to the right producers, in the best mix?
consumption efficiency: Are we consuming the best mix of goods and services?

We often look at *labor productivity*, which is an incomplete measure at best.

- a. **Dynamic efficiency** - Is the long-run value of output being maximized? Savings, investment, technological progress, etc.

And the rest...

Macroeconomic Stability – prices, unemployment, recessions, and growth.

Economic Security – can people find and keep good jobs, is insurance (public or private) widely available? Is there a social safety net?

Economic Equality (Equity) – distribution of wealth, income, and opportunity.

Economic Freedom - To own, buy, or sell what you want, to work and live where you want.

Long-term viability - Is the economic system adaptable? Does it maintain or destroy itself? Is it sustainable in its use of the natural environment?

Conflicts and Complements

Which of these measures are likely to be complementary?

- Output level is usually correlated with static efficiency, growth with dynamic efficiency, both with economic freedom
- Economic security is correlated with macroeconomic stability and/or equity
- Dynamic efficiency implies long-run viability

Problem 1: There are often conflicts between measures.

- For example, some static inefficiencies may be dynamically efficient, and vice-versa.
- Economic freedom may conflict with security.
- Efficiency may conflict with equity.

Problem 2: Many (most) statistics are usually not available, not objective, or not comparable.

- Statistics are measured differently for each country, e.g., unemployment in U.S. vs. China. GNP, GDP, or NMP?
- Should output include black or grey markets? What about nonmonetary goods?
- Inflation is often hidden or repressed.
- Do growth rates accurately adjust for capital accumulation, or natural resource depletion?

A problem of comparison: exchange rate comparability and variability

We often compare one country's income to another using official exchange rates.

But Purchasing Power Parity (PPP) is *not* true, at least in the short-run. Relative prices differ. Trade markets are segmented, distorted. Productivity differences may lead to widely different wage rates, e.g., cost of services.

The PPP method tries to adjust for this, in effect by using our prices times another country's quantities to develop a relative index.

But it is not perfect. Not only does it have more measurement error, problems with comparing product quality, but there is the *Gershchenkron Effect* - An economy looks better if measured in foreign prices, e.g., the CIA measurements of Soviet GDP were typically overstated.

Gershchenkron Effect Example for China and Japan

Assume agricultural output (A) is relatively abundant in China (C), and industrial output (I) is relatively abundant in Japan (J). So we define GDP (Y) in each as:

$$Y_C = P^A_C Q^A_C + P^I_C Q^I_C$$

$$Y_J = P^A_J Q^A_J + P^I_J Q^I_J$$

with quantities: $Q^A_C, Q^A_J, Q^I_C, Q^I_J$

and prices: $P^A_C, P^A_J, P^I_C, P^I_J$

We expect that if $(Q^A_C / Q^I_C) > (Q^A_J / Q^I_J)$ - China produces relatively more A, then this implies $(P^A_C / P^I_C) < (P^A_J / P^I_J)$ - China has relatively lower prices for A.

Suppose $E = \text{RMB(Yuan)} / \text{Yen}$

For Japan: China's Y (in Yen) = Y_C / E

For China: Japan's Y (in RMB) = $Y_J \times E$

So what's so strange about that?

On average, we can expect:

$$Y_C / E < (P^A_J Q^A_C + P^I_J Q^I_C) - \text{China's PPP income will be higher}$$

$$Y_J \times E < (P^A_C Q^A_J + P^I_C Q^I_J) - \text{Japan's PPP income will be higher}$$

Though more precisely, given our assumptions, it is easy to prove that:

$$Y_C \times Y_J = (P^A_C Q^A_C + P^I_C Q^I_C) \times (P^A_J Q^A_J + P^I_J Q^I_J) < (P^A_J Q^A_C + P^I_J Q^I_C) \times (P^A_C Q^A_J + P^I_C Q^I_J)$$

To explain this in words: If we use our prices to measure another country's output, we are giving more weight to what they produce relatively more of, and less weight to what they produce less of.

Using the PPP should lead to a bigger number. If it doesn't, then this implies that the exchange rate is really overvalued.

An example?

1998 Data

Country	Population (millions)	GDP Per-Capita (USD OER)	Per-Capita (USD PPP)	Ratio
United States	270	\$29,340	\$29,340	1.00
United Kingdom	59	\$21,400	\$20,640	0.96
Germany	82	\$25,850	\$20,810	0.81
France	59	\$24,940	\$22,320	0.89
Sweden	9	\$25,620	\$19,480	0.76
Japan	126	\$32,380	\$23,180	0.72
Russia	147	\$2,300	\$3,950	1.72
China	1239	\$750	\$3,220	4.29

World Bank Data 2003

	Population	GDP	Growth	GNI per capita	Growth	PPP-Adjusted	PPP/GNI1
Norway	4.6	221	0.4%	43,400	-0.2%	37,300	-14%
Switzerland	7.4	320	-0.4%	40,680	-1.2%	32,030	-21%
United States	290.8	10,949	3.1%	37,870	2.0%	37,500	-1%
Japan	127.6	4,301	2.7%	34,180	2.7%	28,620	-16%
Sweden	9.0	302	1.6%	28,910	1.2%	26,620	-8%
United Kingdom	59.3	1,795	2.2%	28,320	2.1%	27,650	-2%
Germany	82.5	2,403	-0.1%	25,270	-0.1%	27,460	9%
France	59.8	1,758	0.5%	24,730	-0.3%	27,460	11%
South Korea	22.6	605	3.1%	12,030	2.4%	17,930	49%
Czech Republic	10.2	90	3.1%	7,150	2.9%	15,650	119%
Hungary	10.1	83	3.1%	6,350	0.7%	13,780	117%
Mexico	102.3	626	1.3%	6,230	-0.1%	8,950	44%
Poland	38.2	210	3.8%	5,280	4.9%	11,450	117%
Russia	143.4	433	7.4%	2,610	7.8%	8,920	242%
Iran	66.4	137	6.6%	2,010	4.4%	7,190	258%
China	1288.4	1,417	9.3%	1,100	8.4%	4,990	354%
India	1064.4	601	8.6%	540	6.4%	2,880	433%

More Problems:

Problem 3: How do you weight these criteria?

$$O = \sum_k a_k o_k$$

where o_k are different outcome values and a_k are the weights.

Too many dimensions to the problem, weights are biased and subjective.

Problem 4: You should be careful comparing actual to ideal systems.

- Comparing theoretical capitalism to actual socialism is poor science, and vice versa.

Problem 5: The Source of Performance Differences may not be the Economic System .

Bornstein argues that performance depends on:

- 1) **The level of economic development** - capital and technological, size and structure of economy, the degree of centralization (and the degree of corruption?).
- 2) **Social and cultural forces** - beliefs, values, education, social mobility, and the role of ideology (in influencing, rationalizing, and disguising).
- 3) **The Natural Environment** - geography, climate, resources, population. More soon.

So, how do countries compare?

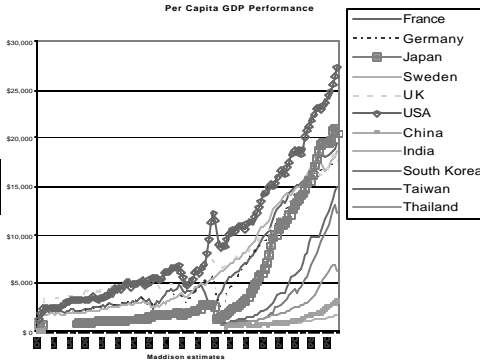
In chapter 1, Kennett shows some performance measures:

- The U.S. is the world's largest economy, with the highest PPP per-capita (and HDI) of any major economy. It is one of the most free, it is the most globally competitive, and it is in the upper fifth of most transparent (i.e., least corrupt) economies.
- China is currently the fastest growing economy, with the highest investment rate, but it does not score well on economic freedom and transparency indices.
- Japan has the highest life expectancy and the most equal distribution of income of any market economy. Sweden is second.

We also know that:

- As a share of GDP, Sweden spends the most on education, Cuba and Germany the most on health.
- The U.S. spends relatively more on the military than any other major economy. In total spending, the U.S. spends more on the military than all other countries in the world, combined.
- China has a relatively small government, though there is clearly a measurement problem. Of capitalist economies, Japan and Hong Kong have the smallest governments. The U.S. government is relatively smaller than in most major economies.
- Hong Kong has the best score for economic freedom, and among the worst are Iran, Iraq, Cuba, and North Korea (the U.S. is closer to HK than Japan or other major economies).

Per Capita GDP Performance

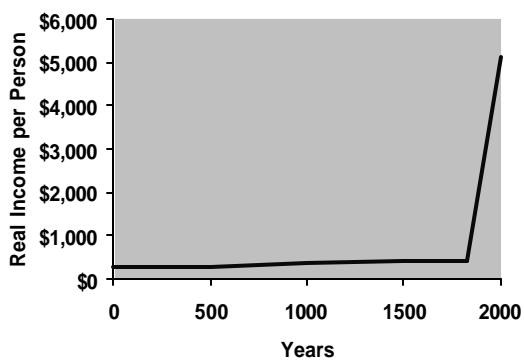


Growth patterns

- Why do some countries grow faster than others?
- Why do some poor countries grow more slowly than rich countries (divergence)?
 - Low-level equilibrium trap
 - Dysfunctional economic and/or political system
 - Many countries (e.g., in Africa) have stopped growing at all.
- Why do some poor and middle-income countries grow more quickly than rich ones (convergence)?
 - Catch-up effects due to available technologies
 - Foreign Trade and Investment

A More Long-Run View of the World's Growth History

- From 0 AD to 1000 AD:
 - Population grew at less than 0.02% per year
 - Output per capita did not improve
- From 1000 AD to 1820:
 - Population grew at less than 0.2% per year.
 - Per-capita GDP grew at an average of 0.05% per year.
- From 1820 – 2000:
 - Population grew at slightly less than 1% per year.
 - Per-capita GDP grew at more than 1% per year.
- And from 1950 – 2000:
 - Population grew at about 1.8% per year.
 - Per capita output grew at about 2.1% per year.



Another way to look at it...

- Economic growth is a relatively recent phenomenon.
- The question may not be why do many countries not grow.
- Instead, why did the economies of some countries suddenly start growing, and how did this growth affect other countries that did not?

Conditions for Growth

Bernstein's (William, not Morris) book posited four conditions necessary for sustained economic progress:

- 1) **Property rights**—Creators must have proper incentives to create.
- 2) **Scientific rationalism**—Innovators must be allowed to innovate without fear of retribution.
- 3) **Capital markets**—Entrepreneurs must be given access to capital to pursue their visions.
- 4) **Transportation/communication**—Society must provide mechanisms for effective communication of ideas and transport of finished products.

These conditions were first met in the Netherlands, then the UK, then the USA. Steamships, railroads and telegraph accelerated everything.

An Alternative Explanation

Jared Diamond's *Guns, Germs, and Steel* provides an alternative explanation for why the European economies were able to conquer much of the rest of the world. It wasn't just that they had conditions for economic success.

"Much of the credit for European military success in the New World can be handed to the superiority of their weapons, their literary heritage, even the fact they had unique load-bearing mammals, like horses. These factors combined, gave the conquistadors a massive advantage over the sophisticated civilizations of the Aztec and Inca empires.

"But weapons alone can't account for the breathtaking speed with which the indigenous population of the New World were completely wiped out.... Instead, Europeans were aided by a deadly secret weapon they weren't even aware they were carrying: Smallpox."

(From the PBS website)
