

Lesson 3 --- Population; The Law of Rent (a synopsis)

This lesson covers Book II Chapter 4; also book III Chapters 1 and 2.

Population

In an endeavor to understand the cause of poverty, the longstanding question of population is now considered. Is poverty caused by overpopulation?

The world's population today (1999) is about 5.9 billion people. The FAO (United Nations Food & Agriculture Organization) estimates that with modern farming methods, the earth can grow enough food to feed 33 billion people, provided all tillable land is used. However, the UN estimates a plateau population of about 12 billion by the mid-to-late 21st century.

Each person in the world could have an acre of land in an area smaller than North America, at an average density of 640 people per square mile — less dense than Japan is today.

Africa, the World's poorest Continent, has 20.2% of the world's land area, 12.6% of its population, and 12.8% of its arable land. It has the greatest rate of population increase and the greatest rates of increase in hunger, illiteracy, and desertification. At the same time, many African nations, ravaged by disease and war, have actually lost population in recent years.

Arable land — defined as land capable of being cultivated in any given growing season — is a better measure of the food-production capacity than gross land area. Enough arable land exists in India to give each person in the country half an acre. In famine-ravaged Ethiopia, each person can have almost three-quarters of an acre of arable land.

	Population (millions)	People per km ² arable land	GDP per person	life expectancy Male	Female	% literate over age 15	People per km ² of forest
United States	272.6	154	\$31,500	73	79	97%	94
Bangladesh	127.1	1,209	1,380	56	56	38	5,885
Brazil	171.8	403	6,100	59	69	83	34
China	1,246.8	1,299	3,600	68	71	82	928
Ethiopia	59.6	441	560	39	41	36	211
India	1,000.8	543	1,700	62	64	52	1,323
Indonesia	216.1	1,125	2,800	61	61	84	181
Japan	126.2	3,034	23,100	77	83	99	498
Mexico	100.2	424	7,900	69	75	90	130
Nicaragua	4.7	404	2,500	65	70	66	134
Russia	146.3	107	4,000	59	72	98	18
Taiwan	22.1	2,560	16,500	74	81	94	1,117

Source: CIA World Fact 1999

There is no consistent correlation between poverty and density of population. High standards of living prevail in some countries that have either low or high densities of population; and the same is true of low standards of living.

In supposedly overpopulated countries, there are large unused areas of potentially productive land, very inefficient production, and large portions of what is produced going to non-producers.

The Malthusian theory — circa 1800 — was advanced to explain the persistence of poverty. It held that the tendency of population was to increase faster than subsistence. It hypothesized that population increased in a mathematical ratio like 2, 4, 8, 16, and so on, while the tendency of food was to increase in an arithmetic progression like 1, 2, 3, 4, and so on. Therefore, population would always tend to increase faster than food, and hunger would always be present. This has not been consistently true.

Not only have many countries increased their agricultural yields faster than their populations, but technology continues to make solar energy more adaptable. The solar energy that reaches the horizontal surfaces of the Earth is believed to be greater than the energy content of all the reserves of coal, oil, natural gas, and uranium in the earth's crust. Reductions in pollution and carbon dioxide emissions are also becoming technologically possible without losing production.

The Laws of Distribution

Inventions, innovations, and new technologies are rapidly increasing the potential, and in many countries, actual production. Were the full productive potential applied there would be more than enough wealth to end poverty — yet it persists. Therefore, it is not in the laws of production, but the laws of distribution that the persistence of poverty must be explored in pursuit of its cause. In political economy the distribution of wealth refers to the division of wealth among the factors that produce it. The natural laws of distribution result from predictable tendencies in human behavior.

The laws of distribution determine how much of each product will be taken by workers as wages, capitalists as interest, landowners as rent. The three avenues of distribution account for the entire product. Taxation, and portions of wealth that go to monopolies or theft may be considered as simply reducing the amount of wealth produced, or as though an equal amount of wealth were not produced. After the natural laws of distribution are observed and understood, the effects of monopolies, and other diversions of wealth by legislation can be evaluated.

Capital is not a necessary factor in the production of wealth. If it were, there would be a dilemma; labor would require the results of labor before it could be expended (Workers would require the results of work before they could work). However, labor without the use of capital is very inefficient. Capital is produced, and then used to give labor its maximum efficiency.

Wealth is not always divided into three parts. In some instances the land that is used in production may not be owned, like fishing at the National Seashore. In other cases the land may only yield enough for wages and interest. In either case there would be no rent.

It is certainly a rare event when people do not use any capital at all. However, a person could gather seashells on the public beach — and they might carry the first few in their hands until they were sold. There would be no capital involved; therefore, there would be no interest taken. This

would be true even if some of the wages were exchanged for a basket (capital) to carry future shells.

Profit or profits are used to reflect the rewards of investments. They could result from an investment in capital, land, or other monopoly. It sometimes erroneously includes the labor of salesmen. While an investor is concerned with the profits of an investment, political economy is concerned with the distribution of wealth. It accounts for the amount that goes to landowners as rent, workers as wages, and capitalists as interest. Making this distinction is necessary to understanding the rights of ownership and the manifestations of modern societies.

The Law of Rent

To reiterate, in common speech rent is paid for the use of a house, car, or a tool. In political economy, rent is the gain from land only. That portion of any product, which is claimed because of the ownership of land, is called rent — even if the owner and user is the same person.

The Potential Rent does not depend on a particular land's own productivity (ability to yield wealth), but on that land's productivity as compared to the least productive land in use. In agriculture, it is not only superior fertility, but also nearness to markets that make some land more productive than other land. In mining, productivity reflects the cost of extraction and transportation to factories and markets. In commerce or sales, the concept of potential productivity is based largely on the number of potential customers.

The margin of production, or cultivation, refers to the best land that is free — or the least productive land in use, which is the same thing when there is no free land. This is true because no one will use a particular piece of land if a better one is still free. If labor must resort to land of inferior quality to get it free, the potential rent (advantage) on all better lands will increase.

The Law of Rent: **“The rent of land is determined by the excess of its produce over that which the same application of labor and capital can produce from (on) the least productive land in use.”** As stated before: the least productive land in use is also be the best land that can be used without the payment of rent, if there is any.

It is generally accepted, if no one is willing to pay for the use of land, there is no measure of the potential rent.

The highest rents are found in commercial and industrial districts, and on mineral lands.

The laws of wages and interest, taken together can infer the law of rent. After labor and capital (the producers) get their portion of any product, what is left goes to landowners as the actual rent. Wealth that goes to taxes and monopolies may be thought of as diminishing what is produced, or

The potential rent will be equal to what the landowner would have enjoyed if the most efficient ratios of labor and capital were applied to a particular parcel of land. The potential rent is measured by the most that other people are willing to pay for the use of land.

In the following chart the numbers represent a hypothetical amount that each grade (block) of land would yield if used most efficiently. The grey area represents land that is owned. The unshaded blocks to the right represent the land that is still free. Since there is free land that will yield 6, labor and capital will be paid at least 6 in wages & interest on all better lands. Rent, which is listed on the 3rd row, is determined by simply subtracting what labor and capital get from what they produce. The remainder goes to the owners of land as rent. It may help to think of it as 6 units of wealth per year, or 6 dollars worth of wealth an hour. If you measure it in money there is no inflation (money losing value).

Wealth Produced	9	8	7	6		5	4	3	2
Wages & Interest	6	6	6	6					
Rent	3	2	1	0					
	Land already owned					Land still free			

In the second chart below: As the place where land is free has moved from that which will yield 6 to 5, therefore, the amount that can be claimed as wages and interest falls from 6 to 5 as well. Rent takes the difference.

Wealth Produced	9	8	7	6	5		4	3	2
Wages & Interest	5	5	5	5	5				
Rent	4	3	2	1	0				
	Land already owned						Land still free		