

## Chapter 2: Problems on Malthusian Economics

1. What key feature of the pre-industrial world made the economy “Malthusian?”
2. Europe in the 17th century had lower temperatures, so that this period is called by some “the little Ice Age.” Assuming that this reduced yields in agriculture, what would be the long run impact of this on living standards, population, and life expectancy?
3. Suppose that in China in 1300 the government improved sanitation in towns by public health measures, and so reduced infant mortality. What would be the long run impact of this on living standards, population, and life expectancy?
4. Some societies, such as China and Japan, seem to have practiced significant female infanticide. What would be the long run impact of this on living standards, population, and life expectancy?
5. Suppose that two pre-industrial societies have the same technology and marriage and other institutions, but one of them has a higher murder rate than the other. What will be the difference in living standards, population, and life expectancy?
6. The Black Death struck Europe periodically from 1348 to 1670. How did it affect population, living standards and life expectancy?
7. Suppose two pre-industrial societies have the same birth rate and death rate schedules, and the same climate and soils, yet one has a population density that is 10 times that of the other. What do we know about their technologies? Explain.
8. Edward Jenner (1749-1823), a country doctor in England, introduced vaccination (called this because the vaccine was derived from cowpox) against smallpox in England in 1796. Smallpox was one of the principle causes of death in England at that time, particularly for infants. Suppose the Industrial Revolution had not occurred. What would the long run effect of Jenner’s discovery would have been?
9. The English Parliament instituted a poll (head) tax in 1380 to finance the war against France. Each male over age 15 was required to pay 1 shilling (about 3-4 days wages for a

laborer). This provoked the Peasant's Revolt of 1381. Show that in the long run the poll tax would have no effect on living standards. What would it affect?

10. In 1492 Columbus, history's luckiest bumbler, stumbled upon the Americas. This exposed native American's to a range of diseases they had no immunity to, the "White Plague." What should have been the long run effect on living standards of Native Americans?

11. English Kings before 1700 collected only about 1% or less of national output in taxes, while the Chinese Emperors may have collected as much as 10%. Does this help explain the seemingly higher living standards in pre-industrial England? Explain.

12. Suppose that two pre-industrial societies are identical, except that in one people work 5 hours per day, in the other 10 hours per day. How will they differ in terms of material living standards, life expectancy, and population? Which society is better off?