

ECO 103, Winter 2015, Required Homework Assignment #4
Not to be Collected

Consider the production function from class: $y = Ak^{\frac{1}{3}}$

1. Worse institutions or lower human capital are some examples of events that would decrease A . A also includes technology and could thus decrease if technology regressed, but such cases are very unusual.
2. Recall from class that this causes the production function to shift downwards. On your graph, the economy moves straight down to the new production function so that output decreases.
3. When A decreases, any amount of capital now produces less output than it did before because it has been made less productive.
4. The intersection of depreciation and savings now occurs further to the left. The capital stock is thus reduced, further lowering output.
5. #4. In #2, output decreased only because A is lower. In #4, it decreased both because of this effect and because there is less capital.
6. False. A model is not intended to capture every aspect of reality. We have neglected fertility in the interests of simplicity and to focus on a few other things that affect growth.
7. False. Savings is waiting to spend your wealth so that you can consume more later. Investment is new capital and housing. They are different in general, even though in the Solow Model they are always equal. In other settings they need not be equal.

View the following data from the World Bank at <http://data.worldbank.org/indicator/NY.GNS.ICTR.ZS>

8. According to these data, Germany has a higher savings rate. Using the Solow Model, it would have higher output than the United States. Recall, however, that higher savings rates do not imply higher consumption. We thus cannot say which country would have higher consumption.