Productivity

the relationship of input to output

How would we know we increased our productivity?

In the 17th century, Adam Smith, the father of modern economics, visited a factory making pins. There, he saw each worker making a complete pin from start to finish. Smith suggested dividing the tasks and allowing each worker to specialize in one particular step of the process. The owners listened and tried his idea. What do you think happened? Why?

Why does productivity matter?

Warm Up:

1) Define productivity.
2) Identify three ways countries can increase productivity.
3) What does an increase in productivity do to a country’s Production Possibilities Curve?
4) What is meant by “standard of living”?
5) How is productivity related to standard of living?

EQ: How do we increase productivity and wealth in the overall economy when everyone is not equally productive?

Comparative Advantage

The Problem: Resources are unevenly distributed:

Land: US has lots of natural resources, Japan has very few.

Labor: China has a large workforce, Germany’s workforce is aging and declining.

Physical Capital: US has abundant machinery and technology, Somalia has very little.

Human Capital: US has an educated population, most developing countries have little educational opportunity.

Entrepreneurship: In the US, you have lots of people willing to take risks and start businesses. In developing countries, would-be entrepreneurs cannot get the money to start up, even when they only need a microloan of $100.
What’s the solution?

ABSOLUTE ADVANTAGE
THE ABILITY TO PRODUCE MORE OF A PRODUCT USING A GIVEN AMOUNT OF RESOURCES
WHO HAS THE ABSOLUTE ADVANTAGE?

Comparative Advantage
THE ABILITY TO PRODUCE A PRODUCT WITH THE LOWEST OPPORTUNITY COST
WHO HAS THE COMPARATIVE ADVANTAGE?

Who should specialize where???

Another Example

<table>
<thead>
<tr>
<th>Tires Changes per hour</th>
<th>Oil changes per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tires Changes per hour</th>
<th>Oil changes per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

JELLY FISH CAUGHT PER HOUR | CRABBY PATTIES MADE PER HOUR
Sponge Bob | 50 | 65
Patrick | 30 | 50

Closing:
Sarah is a lawyer who can charge about $350 per hour. She is also an accomplished typist, capable of typing about 85 words per minute. Sarah is considering hiring Jill as a secretary to do all of her word processing. Jill is capable of typing only 35 words per minute, and would be paid approximately $11 per hour.

Should Sarah hire Jill???
Warm Up:
1) What does it mean to have the absolute advantage?
2) What does it mean to have the comparative advantage?
3) Explain the connection between specialization, comparative advantage, trade, and productivity.
4) Review Sarah and Jill problem.

BERT and BETSY

<table>
<thead>
<tr>
<th></th>
<th>Dishwashing (sink loads per hour)</th>
<th>Sweeping (trash loads per hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Betsy</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Bert</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Productivity: From 4,000 pins per day to 10,000 pins per day!!

Remember this example? How is this an example of exploiting comparative advantage?

Closing:
- What is comparative advantage?
- How does it relate to specialization and trade?
- How does it relate to productivity?
Attachments

- Japan and Nigeria Productivity Comparison.docx
- Japan and Nigeria Productivity Comparison Key.docx