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LECTURE 15: ABSOLUTE AND COMPARATIVE ADVANTAGE I

I. Absolute Advantage
   a. The nature of wealth
      i. Jobs, gold, and money are not true wealth (though they are sometimes useful proxies).
      ii. The key measurement is happiness.
   b. Under free trade, the full benefits of specialization can be realized. In much the same way people divvy up their budgets to buy certain bundles of goods, agents use resources to produce certain bundles of products.
   c. In some countries (or firms or factories), one product is cheaper to create than others. For example, consider five countries and their production possibilities for wine and chocolate.

Country	*Maximum Wine (barrels)*	*Maximum Chocolate (pounds)*
France	80	20
Germany	120	240
Switzerland	20	100
Spain	100	100
Italy	80	40

   d. Each of these numbers represents what a country could produce if it dedicated all of its resources to one particular product.
   e. *Absolute advantage*—being able to produce more—is generally how people determine if someone should do something. Notice that Germany can produce more of either good: it has the absolute advantage in both. Does that mean it should do everything? Not necessarily. To understand why, we turn to comparative advantage.

II. Comparative Advantage
   a. Comparative advantage is based on the ever-present existence of opportunity costs.
      i. It was first described by economist David Ricardo in *On the Principles of Political Economy and Taxation* in 1817.
   b. The question then becomes: which nation sacrifices less? The nation with the lowest opportunity cost has a comparative advantage in producing that particular good.

c. To find the comparative advantage, divide:

$$\frac{\text{Opportunity cost of Product A}}{\text{Product A}}$$

i. Appreciate the math here. For every unit the country produces of A, it gives up such and such amount. By putting it in terms of each unit of Product A, the equation considers both how much the country can produce and what the country *could have* produced if it didn't make Product A.

d. And so we find:

Product A	**Country**	**Math**	**1 unit costs…**
Wine	France	20/80	0.25 pounds of chocolate
	Germany	240/120	2.00 pounds of chocolate
	Switzerland	100/20	5.00 pounds of chocolate
	Spain	100/100	1.00 pound of chocolate
	Italy	40/80	0.50 pounds of chocolate
Chocolate	France	80/20	4.00 barrels of wine
	Germany	120/240	0.50 barrels of wine
	Switzerland	20/100	0.20 barrels of wine
	Spain	100/100	1.00 barrel of wine
	Italy	80/40	2.00 barrels of wine

e. Because France's opportunity cost for making wine is lower (they sacrifice 0.25 pounds of chocolate, which is the cheapest wine that can be made among the five), France should specialize in wine.

f. Who has the comparative advantage in chocolate?