

# Comparative Advantage

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A man decides to open a bakery. He figures that for each hour he bakes, he can make 20 doughnuts, which he will then sell for \$2 each. Or he can make 10 loaves of bread that sell for \$3 each every hour.

The first week he is in business he bakes both doughnuts and bread and finds demand is so high he cannot possibly do both. He decides to hire an assistant. As an entrepreneur, the baker has limited capital and so he hires a local high school student to help out. Because the youth has limited baking experience, he can make only 15 doughnuts or five loaves an hour. The baker realizes he should specialize in either doughnuts or bread, but because he is clearly adept at producing both, he is not sure which task to pick.

The baker would be wise to heed the advice of David Ricardo, who first theorized about comparative advantage in the early 1800s. The baker, Ricardo would say, ought to specialize in bread making because that would be cheaper.

Most often, comparative advantage is used when discussing trade between nations. A country holds a comparative advantage when it can produce a good at a lower opportunity cost than another country.

Comparative advantage differs from absolute advantage, which is the ability of a country to produce a good more efficiently. While it is possible for a country to lack an absolute advantage in producing goods, every country has a comparative advantage.

For example, imagine if the United States and Mexico both produced tacos and hot dogs. To produce each taco, the United States needs two workers while Mexico needs three. For every hot dog produced, the United States needs one worker while Mexico needs two. The United States holds an absolute advantage in producing both tacos and hot dogs because it can produce both goods with fewer workers. However, Mexico holds a comparative advantage in producing tacos, because it can produce them at a lower opportunity cost. In the United States, every taco made costs two workers, and thus two hot dogs. For Mexico, every taco made costs three workers, and only one and a half hot dogs.

Comparative advantage is important in the macro-economy because it explains the benefits of global trade. If each country specialized in the good for which it held a comparative advantage and then traded among each other, more goods would be produced and the efficiency of the global economy would be maximized.

In the Mexico-United States example, if Mexico produced one extra taco, the United States could produce two extra hot dogs. In the global economy, there would be the same number of tacos and one more hot dog, indicating a slightly higher standard of living for both countries, assuming they could trade freely.

Comparative advantage is also useful in analyses of firms and industries. With no specialization, it would be reasonable to assume that both the baker and his assistant spend four hours on both bread and doughnuts. If that were the case, the bakery would produce 140 doughnuts and 60 loaves of bread. At that level of production, there would be \$460 in revenues.

Not bad, but if the baker spent all his time on bread while his assistant focused on doughnuts, then the bakery would produce 80 loaves of bread and 120 doughnuts — increasing production in both bread and doughnuts. Assuming demand exists for the excess production, the bakery will now have revenues of \$480 dollars.

That's also better, by the way, than the \$440 the bakery could earn if the owner specialized in doughnuts.

Looking at comparative advantage enables one to understand how scarce resources are used in the microeconomy. Often, the most talented individuals in our society are adept at more than one task. For example, the baker was superior in both bread-baking and doughnut-making. However, his time was limited to eight hours a day, and therefore a scarce resource. To get the most production in such a small time frame, the baker had to maximize productivity to increase revenue. In the end, the consumer ultimately benefits because the increased number of doughnuts and bread represents a rise in the standard of living, if not an increase in waistlines.

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