Determinants of the Terms of Trade

The terms of trade ultimately decided on by the two trading farmers will depend on a variety of different and distinct factors. Next we describe many of these factors.

Preferences

The strength of each farmer's desire for the other product will influence how much he is willing to give up to obtain the other product. Economists assume that most products exhibit diminishing marginal utility. This means that the tenth orange consumed by Farmer Smith adds less utility than the first orange he consumes. In effect, we expect people to get tired of eating too many oranges. Since for most people the tenth orange consumed will be worth less than the first apple consumed, Farmer Smith would be willing to trade at least one orange for one apple. As long as the same assumption holds for Farmer Jones, the tenth apple for him will be worth less than the first orange, and he will be willing to trade at least one for one. How many more oranges might trade for how many more apples will depend on how much utility each farmer gets from successive units of both products: in other words, it depends on the farmers' preferences.

Uncertainty

In this situation, each farmer is unlikely to have well-defined preferences. Farmer Smith may never have tasted an apple, and Farmer Jones may never have tasted an orange. One simple way to resolve this uncertainty is for the farmers to offer free samples of their products before an exchange is agreed on. Without a sample, the farmers would have to base their exchanges on their expectations of how they will enjoy the other product. Free samples, on the other hand, can be risky. Suppose a sample of oranges is provided and Farmer Jones learns that he hates the taste of oranges. He might decide not to trade at all.

To overcome uncertainty in individual preferences, many consumer products are offered in sample sizes to help some consumers recognize that they do have a preference for the product. This is why many supermarkets offer free samples in their aisles and why drink companies sometimes give away free bottles of their products.

Scarcity

The relative quantities of the two goods available for trade will affect the terms of trade. If Farmer Smith came to the market with one hundred oranges to Farmer Jones's ten apples, then the terms of trade would likely be different than if the farmers came to the market with an equal number. Similarly, if the farmers came to the market with ten oranges and ten apples, respectively, but recognized that they had an entire orchard of apples and an entire grove of oranges waiting back at home, then the farmers would be more likely to give up a larger amount of their product in exchange.

Size

The sizes of the apples and oranges are likely to influence the terms of trade. One would certainly expect that Farmer Smith would get more apples for each orange if the oranges were the size of grapefruits and the apples the size of golf balls than if the reverse were true.

Quality

The quality of the fruits will influence the terms of trade. Suppose the apples are sweet and the oranges are sour. Suppose the apples are filled with worm holes. Suppose the oranges are green rather than orange. Or consider the vitamin, mineral, and calorie contents of each of the fruits. Quality could also be assessed by the variety of uses for each product. For example, apples can be eaten raw, turned into applesauce, squeezed into juice, made into pies, or covered with caramel.

Effort

Although a pure exchange model assumes that no production takes place, imagine momentarily that some effort is required to harvest the fruit. What if apples grew at the top of tall trees that required a precarious climb? What if predatory wolves lived in the orange grove? Surely these farmers would want to take these factors into account when deciding the terms for exchange. Of course, this factor is related to scarcity. The more difficult it is to produce something, the scarcer that item will be.

Persuasion

The art of persuasion can play an important role in determining the terms of trade. Each farmer has an incentive to embellish the quality and goodness of his product and perhaps diminish the perception of quality of the other product. Farmer Smith might emphasize the high quantities of vitamin C found in oranges while noting that apples are relatively vitamin deficient. He might argue that oranges are consumed by beautiful movie stars who drive fast cars, while apples are the food of peasants. He might also underemphasize his own desire for apples. The more persuasive Farmer Smith is, the more likely he is to get a better deal in exchange. Note that the farmer’s statements need not be truthful as long as the other farmer is uncertain about the quality of the other product. In this case, differences in the persuasive abilities of the two farmers can affect the final terms of trade.

Expectations of Utility

Decisions about how much to trade are based on the utility one expects to obtain upon consuming the good. The utility one ultimately receives may be less. Indeed, in some cases the value of what one receives may be less than the value of what one gives up. However, this outcome will arise only if expectations are not realized.

For example, a person may choose to voluntarily pay $10 to see a movie that has just been released. Perhaps the person has read some reviews of the movie or has heard from friends that the movie is very good. Based on prior evaluation, the person decides that the movie is worth at least $10. However, suppose this person winds up hating the movie and feels like it was a complete waste of time. In hindsight, with perfect knowledge about his own preferences for the movie, he might believe it is only worth $5 or maybe just $2, in which case he is clearly worse off after having paid $10 to see the movie. This is one reason individuals may lose from trade, but it can only occur if information is imperfect.

Expectations of a Future Relationship

If the farmers expect that the current transaction will not be repeated in the future, then there is a potential for the farmers to misrepresent their products to each other. Persuasion may take the form of outright lies if the farmers do not expect to meet again. Consider the traveling medicine man portrayed in U.S. Western movies. He passes through town with a variety of elixirs and promises that each will surely cure your ailment and possibly do much more. Of course, chances are good that the elixirs are little more than colored water with some alcohol and are unlikely to cure anything. But this type of con game is more likely when only one transaction is expected. However, if the transaction is hoped to be the first of many to come, then untruthful embellishments will be less likely.

Government Policies

If a taxman stands ready to collect a tax based on the amounts traded between the two farmers, this is likely to affect the terms of trade. Also, if laws impose penalties for misrepresentation of a product, then this will also affect the farmers' behavior in determining the terms of trade.

Morality

Imagine that Farmer Smith was raised to always tell the truth, while Farmer Jones missed those lessons during his upbringing. In this case, Farmer Jones might be more likely to misrepresent his apples in order to extract a more favorable terms of trade.

Coercion

Finally, the terms of trade can also be affected by coercion. If Farmer Jones threatens Farmer Smith with bodily injury, he might be able to force an exchange that Farmer Smith would never agree to voluntarily. At the extreme, he could demand all of Farmer Smith's oranges and not give up any apples in exchange. Of course, once coercion enters a transaction, it may no longer be valid to call it trade—it would be more accurate to call it theft.