

## Marginal

BY ANDREA WADDLE

Every day, people make trade-offs between what they want and what they can afford. They must decide how to divide their total budget to gain the most satisfaction from total consumption. In particular, people weigh the benefit of consuming an extra unit of one good instead of an additional unit of another.

Take pizza. A diner might get, say, 10 units of satisfaction from the first slice. Two slices may give 15 total units of satisfaction, with the second slice providing only five. That's because the person's initial craving is gone, and he is not as hungry after already having eaten one slice. So even as the total value of eating pizza is rising, the specific value of each additional slice is decreasing. Instead of reaching for a third slice, this person might well decide to spend his time and money on something else.

Everyone talks about the law of averages. But to economists, some of the biggest insights are found at the margins. In economics, the term "marginal" refers to the difference of one more unit. The way people look at pizza consumption, for example, is a textbook case of marginal utility. If we think of utility as the sum of satisfaction gained from consuming a given amount of goods, then marginal utility is the additional satisfaction gained from each additional unit of consumption. Each unit of consumption of a certain good has a cost in terms of lost utility from the consumption of another good. "Marginal analysis" helps economists make sense of decisions that people make to receive the most benefit from their limited resources.

Why is this important? If there were only one good in the world, people would continue to consume it until their marginal utility was zero. (Imagine this happening when you eat so much pizza that you start to feel sick.) This doesn't happen with all goods, though. For example, a person may not reach a point of negative utility from acquiring jewelry. Their utility might go up, but at a continually decreasing rate, because they don't covet that 100th pair of earrings as much as they did the first.

Marginal analysis is especially useful in cases when consumers create a "basket" of goods with their budget. This means that there are many goods from which consumers can choose. They can choose to either consume all of one good or to consume some combination of goods. The trade-off

is that, because of limited budgets, they will consume less of any one good if they choose to have many goods in their basket.

Think of a shopping cart. Either you can stuff yours with only potatoes or you can combine a few potatoes with a small amount of many other goods, all the while spending a set amount of budgeted money. The question then is: What combination gives you the most satisfaction? Once each

additional unit of a given good or activity starts to give you less satisfaction, you will spend the next dollar on the good that gives you the most utility.

Sometimes this can lead to spending patterns that may seem at odds with the grocery cart example. Let's say you are landscaping your back yard and have allotted \$20,000 for the project. But after you have reached that threshold, you determine that there is an additional item — say, a privacy

fence — that would make all the other renovations more enjoyable. The extra dollars you spend on the fence will not result in decreased utility. Instead, they will give you more satisfaction. This is a case where more spending on a single project can actually give you greater "bang for your buck." You might be a bit upset that you went over budget, but you determine that the extra money spent on the fence will increase your utility more than spending that money on anything else.

Understanding marginal principles is also important in understanding how much people are willing to work, or how much leisure they consume. The United States and most other developed countries have a progressive income tax: The more money you make, the higher tax rate you pay. If you are near the threshold of being bumped into a higher tax bracket, you might decide that you are unwilling to work additional hours per week because the wages you receive are proportionately less. You might consume leisure instead.

There are few concepts in economics that are more important than marginalism. It can help explain how consumers, producers, and workers make decisions on a daily basis. And, as the taxation example demonstrates, it can have powerful implications for public policy. **RF**

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