

# MANKIW'S PRINCIPLES OF ECONOMICS PART 3: RATIONAL PEOPLE THINK AT THE MARGIN

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Mankiw's third principle: Rational People Think At The Margin. His definition is:

Rational people systematically and purposefully do the best they can to achieve their objectives, given the available opportunities." Principles of Macroeconomics 6th Ed. at 6

He defines marginal change: a small incremental adjustment to a plan of action. He teaches that rational people often compare the results of marginal changes to make decisions. Finally we get to his major premise:

A rational decision maker takes an action if and only if the marginal benefit of the action exceeds the marginal cost.

The first example is dinner. The choice, Mankiw says, is not between fasting and eating like a pig, but whether to eat another spoonful of mashed potatoes. At exam time, the choice is not blowing them off versus pulling all-nighters, but whether to put in an hour on your notes or goof off for that hour. His next example is seat prices for airplanes. The airline should sell seats at the price above the marginal cost of flying the passenger. Then we get the water/diamonds example. Water is essential for life, but it's cheap. Diamonds are an extravagance, but they are very expensive.

All of this is in support of a central element

of neoliberal and mainstream economics, that economies can be modeled by treating them as made up of rational agents. This idea fits neatly into Mirowski's commandments of neoliberalism, specifically number 6: Thou Shalt Become The Manager Of Thyself. This means that individuals must learn to act rationally to decide upon a set of investments in themselves and changes in their behavior that will improve your appeal to people with money so they will give you money to work for them.

The food example is straight-forward enough, but how is the choice made? Some people are raised to clean their plates, and they do even if they could have skipped the last few forkfuls. Some people feel differently about meat than about French fries or carrots. Some people are abstemious, and always leave food. Others make the choice at the outset, by serving themselves a fixed amount and then eating all of it. Suppose the person would prefer to eat the last few bites of pork chop and skip dessert? If all these are rational choices for individuals, what possible generalization about eating is there? What, if anything, can this principle predict? How would Mankiw use that idea to model eating dinner?

The study example is fascinating. I remember my college days, and I 'm sure I didn't rationally choose whether to goof off with my friends or to study for finals. I chose, but it was random. And how would you calculate the benefit of one hour of study versus one hour of relaxing? Is that a real possibility?

The airline example is obvious to anyone familiar with basic business principles. It certainly isn't an indication of "rationality" in the sense Mankiw is using the term. It merely requires an understanding of the difference between fixed costs and variable costs.

Then there's the water/diamonds example. Here's Mankiw's explanation, so you won't think I'm being snarky:

The reason is that a person's willingness to pay for a good is based on the marginal benefit that an extra unit of the good would yield. The marginal benefit, in turn, depends on how many units a person already has. Water is essential, but the marginal benefit of an extra cup is small because water is plentiful. By contrast, no one needs diamonds to survive, but because diamonds are so rare, people consider the marginal benefit of an extra diamond to be large.

So water is cheap because people have a lot of it? Of course, there is plenty of water in most parts of the country, in our commonly held lakes, rivers, underground aquifers, and water run-off. As a commonly-owned asset, it's free, if you could get it. But it has to be cleaned, delivered, and disposed of. That means the real question is why do we have a lot of clean water at the tap and few diamonds? The real reason is that our ancestors decided to make sure we all had clean water to drink, and explicitly chose to keep the "free market" out of it.

There are plenty of diamonds, though they are hard to find and dig up. The diamond business is controlled by a monopoly that artificially restricts the supply. Our ancestors made sure that didn't happen to water. To see this clearly, think about the price of a bottle of water at the movies. There we have artificial scarcity, produced by the theater's policy against bringing in snacks. Just ask yourself whether you want to buy your water from a profit-maximizing monopoly, say the Comcast or the DeBeers of water. Maybe you'd like to buy your water from the private company that didn't have a system in place to detect the foul chemicals in the water supply of Charleston, WV?

So now let's see how this rationality principle works in practice. Consider retirement savings. What would it mean operationally to say that people act rationally when making decisions

about saving and preparing for retirement? What does this principle tell them to do? How should they invest? What should they do to protect themselves against losing big in those investments? What happens if they are hurt and can't work, or if their spouse gets hurt and they need to quit work to take care of them? How do you calculate the value of a dollar today against the value of that dollar in retirement? For a short lesson in the prevalence of financial literacy, look at this paper, or this site.

Finally, it isn't just one choice. There is a chain of choices in life, each one eliminates other choices and creates new choices and possibilities, each with its own probability of success. In the retirement example, you might have a 75% chance of correctly guessing at how much to save, a 95% chance of getting an honest financial adviser, a 60% chance that the investments will be very successful, and related chances of less good outcomes. Your chances of getting the best result are about 43%, and that's before you consider the general state of the economy when you need money, continued good health, unexpected possible current uses for your money, good relations with your partner and your partner's success in contributing, and all the other variables. That tells you that most people will be somewhat successful, a few will be wildly successful, and a fair number will crash and burn. The reality is that most families have very little success, and are dependent on Social Security and Medicare for a decent retirement. Even people who do reasonably well need those social arrangements to secure a good retirement.

This analysis shows that the margin plays little or no role in the lives of ordinary humans. It's just a construct used to simplify human life in a way that permits economists to justify their use of calculus.

Here are some possible conclusions:

1. This principle makes sense when considered in

the very short run, like the mashed potatoes example. For any longer term, it feels more or less random, mostly because there is no way to determine the probabilities. Some people get lucky and win the game of life. Others don't get lucky. The number of things that seem perfectly rational at a point in time either work, or they don't, and the results are unpredictable. That accords with my understanding of markets as minute by minute affairs. In the longer run, investment and housing markets are a real threat to the marginal thinking of Mankiw's rational people.

2. We all want to think we are pursuing their goals systematically and purposefully, Mankiw's definition of rational people. We want to believe our success is the result of their personal skill, and many people apparently feel justified in looking down on, and even punishing, the losers. I'd say the reality is that it's better to be lucky than rational.

2. By deciding that the economy is full of rational people, the door opens to armchair speculation. Hmmm, says Mankiw, if I were faced with a bowl of mashed potatoes, here's how I'd decide how much to take. I'm rational, so that means everyone would act that way. So, I'll model mashed potato eating based on purely rational me. In exactly the same way, they figure out how they prepare for retirement, and draw conclusions about the way rational people act and build that into their models. No.

3. I do not think this is the definitive discussion of the role of rationality in human decision making. The entire subject of rational agents has been subjected to criticism on philosophical and practical grounds, and I hope to get to it at some point.