Resource 2 – Applications of Rational Decision-Making

Theories of rational decision-making are very relevant to a number of different areas of the economy. As the following section will demonstrate, we can move beyond the standard application of the assumption in traditional markets, such as in the neoclassical model described above, to more unusual settings. Consider the following two examples:

2a – Can Criminals Be Rational?

The suggestion that criminals could be rational decision-makers might seem rather unrealistic, however some economists would like to tell you otherwise. Gary Becker was an American economist who became well-known for his work on criminal rationality. He argued that while law-abiding citizens operate in line with stricter ethics and morals, criminals can be seen to make the decision to commit a crime because the benefits of doing so outweigh the costs. Take a criminal considering whether or not to commit a potential burglary. This criminal might well decide that the monetary benefit that they expect to make from the crime is higher than the cost(s) of doing so, such as the probability of being arrested and going to prison, and of the alternative options they have for a life outside of crime. Becker's work was able to show that for a subset of the population, such as those who were unemployed or less well-educated, their decision to enter into a life of crime was the result of a rational assessment of the benefits and costs of that decision. The utility-maximising choice for these individuals was to enter in to a life of crime!

You might be interested to know how Becker first came to this realisation of criminal rationality. Ironically, he underwent the very same cost-benefit analysis as our rational criminal! The story goes that Becker, one day in a rush, had to weigh up the costs and benefits to parking in an illegal spot. After weighing up the costs of this crime, such as the probability of getting caught and having to pay a resulting fine, Becker believed that the benefit to this crime, the precious time he would save by parking in the illegal spot, outweighed the costs. He made the rational decision to commit a crime!

2b – Are We Rationally Avoiding Climate Action?

It seems that every week the news includes a new story on the potentially devastating impact that carbon-induced climate-change will have on our society. Amongst the headlines of catastrophic sea level rises, melting polar ice caps, and the forced migration of huge proportions of the population, how could it ever be rationale to do so little in response?

To better understand this conundrum, let us introduce a concept that you may already be familiar with: the **discount rate**. The discount rate is essentially a measure of the preference individuals have for consumption today versus tomorrow, or a measure of how impatient an individual is. A higher discount rate essentially means that an individual values the utility that they get from consumption today more than the utility they would get from waiting to consume tomorrow – they are very **impatient**. By considering our assumption of individuals as utility-maximisers, and with this concept of discount rates in tow, we can begin to develop an understanding of how the lack of response to climate change may be rational.

Economists agree that the economic cost of climate-change could be large, but just how large is at this stage uncertain. However, any actions or policies to prevent the potential damaging effects of climate-change will also be costly, and in some cases, very costly. Consider the example of a carbon tax, a tax that the government charges on goods that require a lot of carbon resources to produce. The tax will most likely lead to an increase in prices faced by consumers today, and this has a negative impact on their utility. Similarly, the profits of producers will suffer from a fall in demand following the price increase.

Imagine now that our individuals and firms also have a relatively high discount rate. As we know, this means that they prefer consumption today versus tomorrow, and they prefer consumption today a lot more than they prefer consumption in a few years' time. As we know, if the carbon tax is implemented, there will be an effect of the utility of other individuals and firms today. Consumers suffer a loss of utility from the higher prices, and firms face lower profits today. However, the climate policy will likely increase the utility of our individuals (and firms) in the future, because the policy helps to avoid the disastrous economic costs of climate change!

The decision sounds like a no-brainer, right? Not necessarily. If our individuals and firms have high enough discount rates, it may be that they prioritise consumption today so strongly over consumption in future periods, that they are willing to take steps to make sure the climate-change policy doesn't come in to effect. In the case of individuals, this could be voting for political parties that deny the dangerous effects of climate change, while firms may invest heavily in lobbying against climate-policy suggestions such as a carbon tax! We can further illustrate the logic of this decision if we consider that the benefits of avoiding costly climate action accrue to the current generation, however any costs that will arise because of this action are likely to only affect future generations.

The end result is a rational avoidance of climate-change action. Like in the earlier example of criminal rationality, our assumption of rational decision-makers can generate some quite alarming conclusions when we think about the problem in the context of more abstract economic settings!