
Part III

Foundations of Demand and Supply

So far, I have motivated the structure and interpretation of the individual supply functions heuristically. I have argued that it is *plausible* that the supply of a good increases with its price and decreases with the prices of the inputs that are used for its production. I have argued that it is *plausible* that a point along the supply function can be interpreted as the willingness to sell this particular unit and the area between the market price and the supply curve can be interpreted as a measure for the gains from trade the firm is able to appropriate. By the same token, I have argued that it is *plausible* that the demand of a good decreases with its price.

This approach was a good first approximation, because it allows one to discuss the functioning of markets without large detours into the bits and pieces of firm decision making. However, it has (opportunity) costs (as one should know by now) as well, because it leads one no further than the current point. One's understanding of the demand and supply curve, the interpretation of consumer and producer surplus and the functioning of markets remain necessarily limited as long as one does not move on and look for a deeper understanding of how decisions are made by consumers and within firms.

This is the purpose of the following chapters. Remember that microeconomics is the study of decision making in households and firms and their interactions. Thus, according to this paradigm, the understanding of individual decision making must be at the core of one's discipline and the field that specializes on decisions is called *decision theory*. Models of decision making have two building blocks:

- They have to specify a *set of alternatives*, from which a decision maker can choose.
- They have to specify an *objective function* of the decision maker that specifies a ranking of the alternatives and a motivational assumption, which allows one to make predictions about the alternative she or he will choose, if confronted with a set of alternatives.

This specification is very generic and can be applied to all kinds of decision problems, ranging from demand decisions of consumers, to supply decisions of firms to voting behavior in elections.

The above approach allows one to develop a road map for the endeavor to more deeply understand demand and supply decisions: one first has to specify the set of alternatives from which a firm can choose. Afterwards, one has to specify the objectives of consumers and firms and bring those two building blocks together in order to derive hypotheses about consumer and firm behavior (i.e. demand and supply decisions).

From the point of view of a consumers, admissible alternatives are those consumption bundles that are affordable given prices and income. Economists assume that consumers can rank the affordable consumption bundles according to their tastes or preferences, and it is assumed that they try to select the best consumption bundle available. The formal model that allows to cope with decisions like these is introduced and analyzed in Chap. 7 where we will in a first step introduce the general preference model that will in a second step applied to the problem of consumer choice in competitive markets.

The set of alternatives from which a firm can choose is, as one will see, influenced by the costs it faces. I will, therefore, continue with an analysis of the different types of costs (Chap. 8). With a thorough understanding of the determinants and structures of costs, one can then go back to goods markets and see how they can be linked with objectives of the firm to better understand supply decisions. In order to do so, I assume that firms want to maximize profits (there will be more about this assumption in Chap. 8). Then I will return to the competitive environment to have a second look at firm behavior under perfect competition (Chap. 9). Costs will also be a crucial building block for firm behavior in monopolistic and oligopolistic markets that are analyzed in Chaps. 10 and 12.

The decision-theoretic perspective makes it possible to turn to the managerial perspective in greater detail. Chapters 9, 10 and 12 will move back and forth between a more “economic” perspective, which focuses on the functioning of markets, and a “management” perspective, which focuses on the decisions firms have to make in order to be successful in certain market environments, the information that is needed to make these decisions and the implications for the internal organization of the firm. Economics and business administration cannot be dealt with separately. Economists can only understand the functioning of markets, if they understand how managers make decisions, and managers can only make sound decisions if they understand the market context in which they act. Economics and business administration are, therefore, complementary and an in-depth exchange between both disciplines can only be fruitful for both of them.