The Fundamental Problem

2.1 Needs

In the present Part I, we will present some fundamental notions frequently used in economics. The sequence of the ideas to be discussed is not chosen arbitrarily. On the contrary, the discussion of each concept will generate a question leading directly to the following one.

At the beginning of our journey through economic thinking we refer to the observation that human beings are endowed (and burdened!) with needs and are permanently attempting to satisfy those needs.

A need is a feeling of suffering or dissatisfaction. Hunger, fear, loneliness, rejection and boredom are just a few examples which every reader may already have experienced to some degree. Probably the most prominent attempt to classify human needs stems from the psychologist Abraham Maslow.\(^1\) Maslow elaborated in detail on what he called the “need hierarchy”. At the bottom of this hierarchy he located the so-called basic needs. These he defined as fundamental physiological needs like hunger, thirst, tiredness or pain.

At the next level above the basic needs Maslow saw what he called safety needs. Safety needs can be best circumscribed using the terms “fear” and “anxiety”. Human beings may perceive the world as hostile and threatening. They feel endangered by wild animals, criminal assault, murder, social chaos, revolution, tyranny, war, disease, natural catastrophes, breakdown of authority and so on.

At the third level Maslow described belongingness and love needs. Love needs are in existence whenever humans suffer from loneliness, ostracism, rejection, friendlessness, and rootlessness. Maslow identifies belongingness needs as feelings of alienation and strangeness. Belongingness needs manifest themselves as a lack of group feelings, contact, intimacy and real togetherness.

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\(^1\) For more detail on the following, see Maslow (1987, pp. 15–22).
Esteem needs follow at the fourth level. These appear as feelings of inferiority, of weakness, and of helplessness. Maslow divided the esteem needs into two subsidiary sets. The first set comprises the desire for strength, achievement, adequacy, mastery and competence, confidence in the face of the world, independence and freedom. The second set contains the desire for reputation or prestige (defined as respect or esteem from other people), status, fame and glory, dominance, recognition, attention, importance, dignity, or appreciation.

Finally, at the top level Maslow located the self-actualization needs. Human beings suffer from failing to make full use of their actual potential. They have a desire for self-fulfillment in the sense of becoming actualized in what they are potentially. People want to become everything that they are capable of becoming.

Through his hierarchical ordering of needs Maslow (1987, pp. 56–61) intended to stress the point that needs at lower levels are stronger than needs at higher levels, while both remain unfulfilled. Moreover, needs at higher levels are unimportant, even non-existent, as long as needs at lower levels are unsatisfied. In Maslow’s own words:

[T]he common feature of the needs for self-actualization is that their emergence usually rests upon some prior satisfaction of the physiological, safety, love, and esteem needs. (Maslow 1987, p. 22)2

However, when both needs at low levels and needs at high levels are satisfied, a greater value is placed upon the higher need than upon the lower.

In economics, the needs of human beings are perceived as principally unbounded. This does not mean that it would be impossible to get rid of hunger or tiredness for the moment. But a look at Maslow’s needs hierarchy reveals that, once the needs at lower levels are satisfied, other needs at higher levels come into focus. Eventually humans, being sated, safe, socially involved and respected, strive for ever new forms of self-fulfillment. Consequently, for every human individual there is, at any point in time, at least one facet of the needs spectrum where it is possible to enhance the degree of satisfaction. This is called the postulate of local non-satiation. Thus, there always remains a certain feeling of suffering, even in the billionaire’s life. To Maslow himself we owe an impressive explanation:

It is quite true that humans live by bread alone – when there is no bread. But what happens to their desires when there is plenty of bread and when their bellies are chronically filled? . . . At once other (and higher) needs emerge and these, rather than physiological hungers, dominate the organism. And when these in turn are satisfied, again new (and still higher) needs emerge, and so on. (Maslow 1987, p. 17, italics in the original)

Once we know the point of departure of economics – human needs – the question arises of what is required to satisfy those needs.

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2 In his Threepenny Opera, Berthold Brecht puts it colloquially: “Grub first, then ethics”.

2.2 Goods

2.2.1 Satisfying Human Needs

We call all aspects of reality that are able to satisfy human needs “goods”. Many goods have the ability to satisfy human needs directly, and such goods are called consumer goods. Maslow (1987, pp. 15–22) himself gave plenty of examples of consumer goods in relation to the five levels of his needs hierarchy.

At the level of the basic needs, consumer goods might include an apple that relieves hunger, a coat given to a person who is cold, or medicine used to cure pain.

Safety needs can be satisfied by security, protection, and structure; by order, law and limits. A savings account and insurance of various kinds (e.g., medical insurance, unemployment insurance) can serve as goods satisfying safety needs as well. Even religion or world philosophy that imposes order upon the universe can contribute to the satisfaction of safety needs.

As some examples of consumer goods corresponding to the belongingness needs, Maslow considered one’s neighborhood, territory, clan, own kind, class, gang or familiar work colleagues. The good satisfying love needs is affection received by and given to friends, partner or children.

Esteem needs may be satisfied for some people by a fast and expensive car which will carry prestige. Others may seek to gain respect through a chic outfit or academic grades.

The specific consumer goods satisfying the self-actualization need will vary greatly from person to person. For one individual, a child may represent a good which opens up the possibility of becoming an excellent parent. For another person, a studio may be the good that allows that person to express him or herself by painting pictures.

On the level of consumer goods, the postulate of the boundlessness of human needs introduced in Sect. 2.1 above does not mean that every human individual at every point in time wants more of every good. On the contrary: sometimes an additional unit of a certain good even implies a decline in the degree of satisfaction of needs. Think of beer, or any other kind of drugs, including medicine. Nonetheless, human needs are unbounded in the sense that at each instant in time there can be identified, for each human individual, at least one good of which an additional unit would enhance the degree to which the individual’s needs are satisfied. Which good it is depends on the individual and on the concrete situation. This has already been labelled “local non-satiation” in Sect. 2.1 above.

2.2.2 Commodities and Services

Different goods have different characteristics. For example, a drop of lemonade directly relieves thirst and a massage directly alleviates muscular problems. However, there is a difference between lemonade and massages which leads to the distinction between commodities and services as two subsidiary sets of goods.
While you can touch physical goods like lemonade, bread, shirts and houses, many other goods are represented by certain actions carried out by other people like the massage given by a masseur, the investigations of a policemen which may help to overcome fear, having one’s hair dyed by a hairdresser, an actor’s play and the explanations provided by a tax adviser. We call every physical good which can be touched a “commodity”. Actions undertaken by other people which satisfy our own needs, however, are called “services”.

2.2.3 Excludability and Rivalry

There is another common way of classifying goods based upon the two criteria of excludability of use and rivalry in use. This classification is of special importance for economists because certain problems arise concerning the provision of goods which do not exhibit the characteristics of excludability and/or rivalry. As will be argued in subsequent sections, such problems are crucial in the case of some natural goods, and cause, for example, phenomena like global warming and overfishing.

By excludability of use we mean the possibility of preventing potential users of a good from actually using it, after the good has already been provided. For example, a zoo can be surrounded by a fence, preventing everyone who is not willing to buy a ticket from entering. Jewellery can be stored behind armoured glass, waiting to be handed out to someone willing (and able) to pay the price asked for it.

If, however, non-excludability is a feature of a good, it is not possible to prevent any person from using the good once it has been provided (or possible only via measures imposing non-justifiable costs). A TV program transmitted terrestrially may serve as an example. Such a program, once broadcasted, can be received by everyone living in the transmission area (given that the person owns a receiver).

If there is rivalry in using a certain good, the fact that person A uses the good makes it difficult or even impossible for Person B to use the good simultaneously. A pizza might be an illustrative example. After A has eaten the pizza, B can’t eat it anymore.

On the contrary, non-rivalry means that the use of a certain good by one person does not prevent the same good simultaneously being used by many other people. Obviously, this holds for terrestrial broadcasted TV programs. Once transmitted, anybody who owns a receiver can view the program without preventing others from viewing the same channel at the same time.

Using the criteria of excludability and rivalry, goods can be classified according to Table 2.1. If a good is characterized by both excludability and rivalry, it is called a private good. Think of a bottle of wine stored in the cellar. Since the cellar can be locked so that no unauthorized person has access to it, excludability is at hand. Moreover, after the owner has enjoyed the wine, no other person can do so anymore, so there is rivalry.

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On the other hand, collective goods\textsuperscript{4} are characterized by non-excludability and non-rivalry. Military protection of a country’s borders provides safety from exterior threats for all people living within these borders without exception. No person living within these borders can be excluded from consuming the resulting safety. Furthermore, the fact that person A enjoys this safety does not in any way prevent all the other people being safe as well, so there is non-rivalry.

If there is excludability and non-rivalry, we speak of a club good. Think of a swimming pool built and cared for by a swimming club exclusively for members. Non-members who refuse to pay the fee are rejected at the entrance. If, however, the membership subscription has been paid, there is no rivalry among members concerning the use of the pool (if one neglects possible overcrowding).

Another example for a club good is cable TV. As opposed to the terrestrially broadcast TV programs mentioned earlier, a potential user not willing to pay for the cable TV program can be excluded from watching it. Those who did pay, however, do not rival at all for the use of this good because they can watch it simultaneously in identical quality, irrespective of the number of users (even overcrowding is impossible).

Finally, if non-excludability meets rivalry, an open access good is at hand. Think of an account accessible to both married partners. Neither of them can be prevented from withdrawing money (hence, there is non-excludability concerning monthly earnings). But the amount of money withdrawn by one of them is no longer available to the other (so we have rivalry concerning withdrawn money). Another example of an open access good which might be quite familiar to many readers is a buffet. A buffet is characterized by non-excludability because all guests have free access to the table where the meal is presented. However, once vegetables and cold meat are located on the plate of a certain guest, there is rivalry, because it is quite unusual to serve oneself from one’s neighbour’s plate.

If goods are necessary to satisfy human needs, the question immediately arises of where the goods should come from.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|}
\hline
 & Excludability & Non-excludability \\
\hline
Rivalry & Private goods & Open access goods \\
Non-rivalry & Club goods & Collective goods \\
\hline
\end{tabular}
\caption{Classification of goods}
\end{table}

\textsuperscript{4}These are often called “public goods” as well.

2.3 Production

If humans seek to obtain goods in order to satisfy their needs, they usually produce those goods. The notion of production characterizes a process in which inputs are combined in a certain manner to obtain a desired output. Think of a bakery as an
example, where flour, water, yeast, the baker’s work time, an oven and fuel are combined according to a special recipe to obtain, eventually, a loaf of bread.

This example reveals that inputs often do not have the ability to satisfy needs directly. But, although humans can’t eat ovens, ovens can make a contribution to the satisfaction of human needs and, therefore, they should be called “goods” as well. Consequently, we use the term “investment good”, as opposed to consumer goods as defined in Sect. 2.2 above, when a good’s ability to satisfy human needs is of an indirect character, i.e., activated by a process of production. The example of a bakery also reveals that investment goods can, like consumer goods, be classified into commodities (oven, fuel, etc.) and services (a baker’s working time).

Note that the distinction between consumer goods and investment goods does not always depend on the characteristics of a certain good but often on its mode of use. For example, the same pen could be classified as a consumer good if used for writing a love letter, or as an investment good if used to sign a contract in a firm.

Even the primitive hunters of the Stone Age\(^5\) were already engaged in production, where arrows and bows served as inputs, while roasted meat and fur clothing represented the outputs. Since then, of course, permanent improvements in production technologies\(^6\) have made it possible to enhance the way in which many people are provided with goods enormously in comparison to the situation of the Stone Age hunters. Does this imply that nowadays human needs are perfectly satisfied?

### 2.4 Scarcity

In the Stone Age, the bounded availability of game restricted hunters’ opportunities to satisfy their basic needs. Stone Age famines, e.g., due to animal epidemics, were by no means an unrealistic scenario. In spite of the fact that in modern times the provision of goods is much better than in the Stone Age, our own opportunities to satisfy our needs are restricted as well. Certainly, the nature of the desired goods may have changed. While Eolithic hunters were probably just missing an additional roebuck, we may be striving for an additional holiday trip or a second car (and maybe for an additional roebuck as well). But the character of the problem has not changed at all: there is a fundamental tension between the bounded availability of goods, on the one hand, and the boundlessness of human needs, on the other. This tension is called scarcity. The land in which such a tension does not exist is usually

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\(^5\) Imagine roughly the time span from 2,600,000 years ago to 2000 BC. The fact that the economic approach enables researchers to interpret the life situation and hardship of mankind thousands, even millions of years ago reveals the importance of economic science for humanities.

\(^6\) Böhm-Bawerk (1959, pp. 79–101) describes industrial production of the modern age as “round-about” which means that consumable goods available at present are not consumed immediately but, instead, used to produce investment goods. Using these investment goods productively yields a higher amount of consumable goods in the future than were available initially.
called Cockaigne – an imaginary land of plenty, where all goods are always immediately available and hardship does not exist at all.

The problem of scarcity existed (and exists) at every level of cultural development. Scarcity does not necessarily mean that people starve, that they have to run naked and sleep in trees. The mere fact that basic needs are satisfied does not ensure that there are no unsatisfied needs left, for example at the higher levels in Maslow’s needs hierarchy. Scarcity, defined as the tension between the bounded availability of goods and the boundlessness of human needs, implies that it is impossible to satisfy all the needs of all the people simultaneously. What is the observed reaction of human beings to that fact?

**Review Questions**

1. What is a human “need”?
2. Which levels of human needs did Maslow describe?
3. Please explain the hierarchical ordering of human needs according to Maslow.
4. What is required to satisfy human needs?
5. What is the difference between a “commodity” and a “service”?
6. Please clarify the characteristics of a “collective good” as opposed to a “private good”!
7. Please outline the characteristics of an “open access resource”!
8. What is the basic structure of the “production process”?
9. What is the difference between a “consumer good” and an “investment good”?
10. What is the meaning of “scarcity”?

**Exercises**

1. Please find an example for services that might satisfy human needs on the various levels of Maslow’s needs hierarchy!
2. Please discuss the practical relevance of the various levels of Maslow’s hierarchy of needs for different people who are:
   (a) Living in a country of your choice today, 500 years ago, and in 2050, respectively;
   (b) Presently living in a country of your choice and belonging to the poorest 10% and the richest 10%, respectively;
   (c) Presently living in a developing country and in a developed country, respectively.
3. How do the following goods fit into the classification scheme that includes the criteria “excludability of use” and “rivalry in use”?

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7 “There you cannot help but thrive; The geese, they roast themselves alive. Meat, fish, fat capons, it’s no ordeal, Cook themselves for the midday meal” (Pleij 2001, p. 38). And maybe the best of all: “This is the land that God holds dear! Those who sleep longest earn the most here” (ibid., p. 37).
(a) A zoo;
(b) A street light;
(c) A family size pizza;
(d) A smartphone.

4. Is it possible to classify the following goods unequivocally as a “consumer good” or an “investment good”, respectively?
   (a) A limousine;
   (b) A laptop;
   (c) A software package for bookkeeping;
   (d) A video game.

5. How could scarcity appear to
   (a) A farmer in Israel;
   (b) An owner of a successful business in Germany;
   (c) A student preparing for an examination.

References

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