Intro text

Market and price formation

Reservation price

Would you buy a latest-generation mobile phone for CHF 1,000? How about for CHF 300? You definitely would if it cost CHF 1. Whatever you're planning to buy, there is a maximum price that you are prepared to pay. Economists call this the reservation price. It expresses, in monetary units, how much the product is worth to you. The same applies to someone wishing to sell something: there is a minimum price that they want to receive for their product. If they cannot achieve this reservation price, they prefer to keep the goods.[1]

Trading profit

If a buyer and a seller can agree to trade, then a profit usually results for both sides. Let's look at an example: You have a used moped (scooter) that you want to sell. It's worth CHF 3,000 to you, since you were planning to get a car soon anyway. To a younger friend of yours, who doesn't yet own a moped, it's worth CHF 5,000. So if you agree on a sale at CHF 4,200, both of you have achieved a profit. You have made a profit of CHF 1,200, because you have received CHF 4,200 although the moped was only worth CHF 3,000 to you. The buyer has benefited to the tune of CHF 800, because for CHF 4,200 she has acquired a moped for which she would have been prepared to pay CHF 5,000. In economics, the sum of these profits, 1,200 + 800 = 2,000, is called the trading profit, and corresponds to the difference between the two reservation prices, i.e. 5,000 – 3,000 = 2,000.

Equilibrium price

A market brings together lots of people who want to buy or sell a specific good. However, the price demanded or offered will dictate how many of them will actually buy or sell. At a price of CHF 1, a mobile phone would probably attract not just you as a potential buyer but most other people too. By contrast, hardly anyone would be prepared to sell for that price.[2] As the price rises, the number of people prepared to buy a mobile phone decreases, while the number of people prepared to sell increases. Thus, at some point, a price is reached at which buyers are prepared to pay exactly the same amount as the sellers are prepared to sell for. This is called the equilibrium price.

As long as the price is lower than the equilibrium price, more people want to buy than sell, and this drives the price up. As soon as the price exceeds the equilibrium price, more people want to sell than buy, and this drives the price down. Over time, therefore, the market price settles at the equilibrium.

Competition and transparency

These market forces act particularly fast and reliably in well-organised and transparent markets. This is because, in such markets, the current market price is always known to all participants, enabling them to react quickly. For instance, crude oil is traded on well-organised exchanges by professional traders using an electronic platform, which allows trades to be performed very cheaply and rapidly. Other goods such as wheat, gold, shares, bonds and currencies are also traded on exchanges.

However, most of the goods we come into contact with in our daily lives are traded with a lot less effort. For example, we don't buy our clothes and shoes on an exchange. But the price discovery mechanism that works so quickly on the exchange (or in Pitgame) also operates for most everyday goods, just a little more slowly and less perfectly.

Market efficiency

So, taking the economy as a whole, it would be interesting to know which price would yield the highest possible profit for the market participants overall. This is precisely what the equilibrium price does. Only at this price can those buyers and sellers trade who can potentially achieve a profit. Buyers whose reservation prices are lower than the equilibrium price do not buy, because they do not value the product so highly. Sellers whose reservation prices are higher than the equilibrium price cannot sell their goods. For them, the product is worth more than the price they would receive on the market. Thus, when the market is in equilibrium, the highest possible trading profit is achieved for all market participants overall.

Economists refer to such a situation as being efficient. They talk of market efficiency or efficient markets. Not all interested buyers and sellers manage to trade when the price is at the equilibrium. So efficiency does not mean that as many trades as possible are carried out, but rather that the 'right people' carry out the trades.

Summary

- The equilibrium price is the price at which the sellers in a market are, overall, offering the same amount of goods as the buyers are, overall, prepared to buy at that price. At this price, there is a convergence (equilibrium) between the amount offered and the amount demanded.
- In well-organised and transparent markets (e. g. an organised commodities exchange), the equilibrium price quickly comes about almost 'on its own', in other words, through the interplay of market forces. In less well-organised and transparent markets, too, the price tends to settle at its equilibrium value, just more slowly.
- As a rule, every trade on a market results in a trading profit.
- If there is competition and transparency in a market, the equilibrium leads to the best possible result for the market participants overall. This is because, of all prices, the established equilibrium price yields the highest possible sum of trading profits for all market participants. Economists call this efficiency or market efficiency.
- So, with efficiency, the important point is not that as many individuals as possible achieve a profit, but rather that the sum of all trading profits is as high as possible.

Footnotes:

[1] In the Iconomix Pitgame, the buyer's reservation price is referred to as the maximum purchase price, and the seller's reservation price as the minimum sale price.
[2] Except in cases where an expensive mobile contract (e.g. for 24 months) is sold at the same time.