THE MARKET OF FACTORS OF PRODUCTION

The basis of the economy is the production of goods and services. Economics distinguishes between 3 factors of production which are used in the production of goods:

- **Land** – is the primary factor of production because it is given by land
- **Labour** – it is a specific factor of production because it does not exist itself. It is human effort used in production. The payment for labor is a wage.
- **Capital** – it is a secondary factor of production because the amount of capital can be increased by economic activity. Capital has 2 forms – financial {all forms of money} and man-made {buildings, machines, ...}

Also, some economists mention enterprise, entrepreneurship, as a fourth factor of production. **Entrepreneurship** is the practice of starting new organizations, particularly new businesses. Entrepreneurship is often a difficult undertaking, as a majority of new businesses fail. Entrepreneurial activities are substantially different depending on the type of organization that is being started. Entrepreneurship may involve creating many job opportunities.

The factors of production are owned by households. Households supply these factors of production to firms in returns for *rent, wages, profit* and *interest*. Households use this money to buy good and services. Firms produce goods and services using the factors of production. s:

Demand for factors of production depends on demand for final product.

Total product (TP)- quantity of output produced by a given number of inputs over a period of time.
Marginal product (MP) - addition to output by an extra unit of input.

We distinguish:	Land	Labour	Capital	
	+1	+0	+0	- marginal product of land
	+0	+1	+0	- marginal product of labour
	+0	+0	+1	- marginal product of capital

Total revenue product: TRP is TP * p p is price of production
Marginal revenue product : MRP is MP * p - if there is perfect competition
MRP is MP * MR - if there is non-perfect competition

Demand for factors of production is determined by their marginal product and marginal revenue of product.
Marginal factor costs (MFC) -increase in costs when firm adds an extra unit of 1 factor of production and other factors of production do not change.

The firms decide if they increase the amount of certain factor of production according to comparisson of marginal revenue product and marginal factor costs.

LAND

Land and labour are primary factors of production because they are given by biological needs and demography.

.

The revenue for eland is the rent. **Clear (pure) economic rent** takes into consideration only quantity of land, but land differs also by its quality and location. Rent is called “clear economic rent” under 2 conditions:

- Total supply of this factor of production is perfectly inelastic
- Land is used only for agricultural production

<u>Quality and location</u> of land influence the price.
For example: If the quality of land is very good, the demand for land will increase as well as the price of land. On the other hand, if the quality of land is not good, the demand for land will decrease so the price will be lower.

Nowadays the price of land is calculated by this formula:

$$\text{Price of land} = \frac{\text{annual rent}}{\text{annual interest rate}} * 100\%$$

In the past, the price of land was calculated by the following formula {according to classical economist William Petty}:

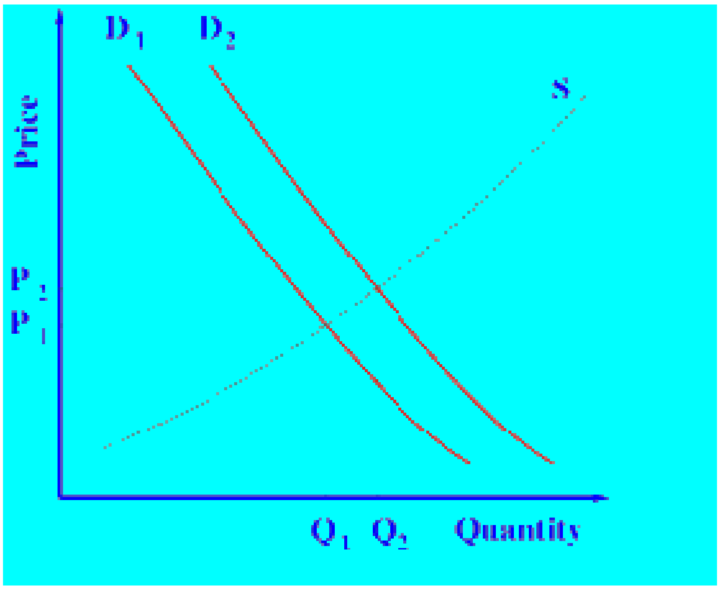
$$\text{Price of land} = \text{annual rent} * 21$$

For example: if the annual rent is 1500SK and the annual interest rate is 5% then the price of land now would be 30 000Sk but according to **W. Petty** the price would be 31 500 SK.

Sometimes the rent is for free because of two reasons:

1. some natural resources do not have their owners or the owners are not interested in maximizing the profit
2. sometimes it is impossible to measure the usage of resources and that is why government allows to use these resources free of charge

LAW OF DEMAND AND SUPPLY GENERALLY

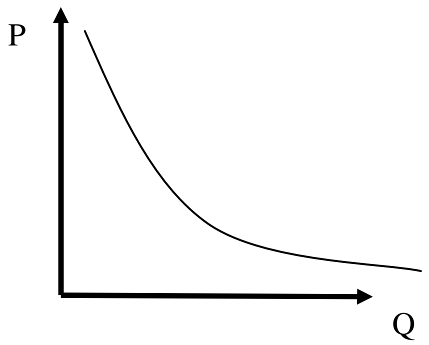


The **supply and demand** model describes how prices vary as a result of a balance between product availability at each price (supply) and the desires of those with purchasing power at each price (demand). The graph depicts an increase in demand from D_1 to D_2 along with the consequent increase in price and quantity required to reach a new market-clearing equilibrium point on the supply curve (S).

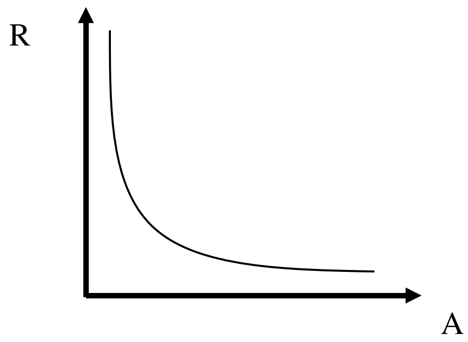
DEMAND FOR LAND:

Demand for land is dependent on demand for final products. If the demand for final products increases then the demand for land will increase as well.

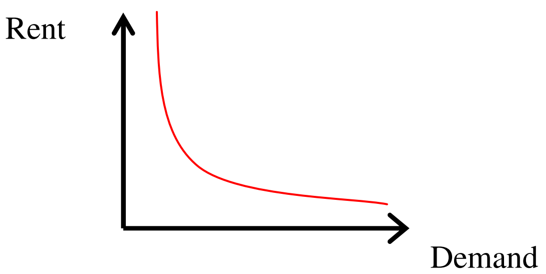
Demand for vegetables



Demand for land



Demand for land is also influenced by rent. The higher the rent the lower the demand for land.

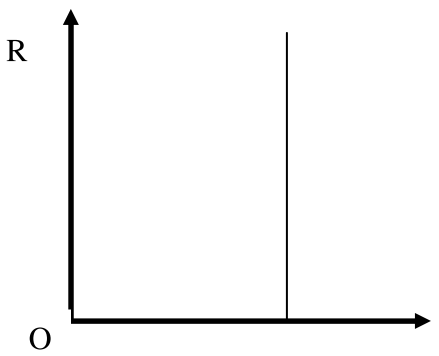


The land is usually rented for a longer period of time. This is disadvantage for the owner because if the demand for the final products increases the owner wants to increase the rent. This is impossible because of contract that is fixed.

- demand for land is influenced by marginal revenue product. Firms want to maximize the profit so the ideal demand curve is the curve of MRP_{land}

THE SUPPLY OF LAND

The Law of Supply **–** quantity demanded and price are directly related. Or, alternatively, at increasing prices an increasing quantity will be supplied by seller in the marketplace.



A

Land, unlike most goods, is durable and is not removed from the marketplace. Land supply is inelastic; we say that it's monopoly in the market, so it cannot be increased by human activity. If we increase the demand for land, supply will be the same but the price will be higher.

The Common Agricultural Policy

The **Common Agricultural Policy** (**CAP**), dates from the early 1960s, is a system of European Union agricultural subsidies which represents about 44% of the EU's spending.

Objectives of CAP are to:

- Increase agricultural productivity
- Ensure a fair standard of living for farmers
- Stabilise markets
- Guarantee regular food supplies
- Ensure reasonable prices to consumers

The CAP promotes a fair standard of living for European farmers who have always seen their average income lag behind average industrial earnings. The CAP stabilised agricultural markets and regulated prices so that farmers could be assured there would be a market without huge fluctuations in the prices they received for their annual output.

Consumers also benefit under the CAP. In the 1950s, food across Europe was scarce, expensive and of poor quality. Through the CAP, consumers are guaranteed a steady supply and a choice of high quality agricultural produce at reasonable and consistent prices.

Economics and the CAP

The CAP provided an incentive to farmers to increase their agricultural productivity and to make use of the factors of production; capital, enterprise, land and labour.

LABOUR

Labour is a meaningful activity with the aim to create goods and services.
Labour does not exist itself, the bearer of labour is the man.
Revenue for labour - **wage.**
Demand for labour - depends on wages, other resources of production, amount of capital, used technology.
Demand for labour also depends on marginal product of labour and marginal revenue product of labour. Marginal revenue product of labour is wage.
The curve of demand is downwards sloping, because if the labour force increases, wages decrease.

Labour supply - depends on:

- wage in comparisson to social benefits
- population
- a part of population which forms labour force (both the employees and unemployed)
- average number of working hours a year (number of working days * daily working hours)
- quality and quantity of work

Curve of labour supply is backwards bending, because from certain point wages are so high that some people value more free time than higher wage.

Unemployment is measured by unemployment rate: number of unemployed divided labour force, times 100%. It is given in %.

Forms of wages:
Hourly rate - reward for certain time of hour
Piece rate - is derived from the performance standards - how many pieces on average are made per hour.
Nominal wage - amount of money we get as a wage
Real wage - amount of goods and services which we can buy for the nominal wage. It depends on - the level of nominal wage
- the level of prices of goods and services
- taxation

Wage differentials - if wages differ - among the economies - it depends on the development of the economy
- within one economy

Reasons are: compensation for dirty work, difference in the quality and quantity of work, exeptional abilities.

If there are differentials because of race, age, sex, religion, sexual orientation, we speak about **wage discrimination.**

Trade unions - influence labour market, negotiate with the employers as the representatives of workers.
Tripartity negotiation -3 subjects - government, employers, trade unions
A single union agreement - agreement between the employer and the single trade union organisation. They can agree some extra benefits for employees -shorter working hours, an extra week of holiday....

CAPITAL
Capital goods – are not used for final consumption, but for production of other goods.
We distinguish:
financial capital – in the form of money
man-made capital – in the form of machines, buildings…
Financial capital is divided – potentional capital - savings which can potentionally be used for loans or purchase of capital goods
- real capital - investment

Capital stock – the total amount of capital
Investment – the addition to capital stock
Social capital – mainly state owned capital used to produce goods and services that are not usually sold via the market mechanism.

Interest- income from lending capital, revenue for lending capital
Interest rate – rate of interest expressed in %

Credit – money borrowed from bank

Share – ownership of part of a companz which entitles the shareholder to dividends
Dividend – proportion on share of the profit on the company

Profit – the difference between total revenue and total cost
Normal profit – the profit that the firm could make by using its resources in their next best use – opportunity cost for investment
Economic / pure , abnormal/ profit – the profit over and above normal profit, when total revenues are higher than total cost.

Obligation – any bond, certificate issued by the government or a corporation serving as evidence of indebtedness.