

Course title: Selected economic and financial risks

Topic 3: Risk prevention

T3 processors:

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Aim: The aim of the topic is to acquaint students with the methods of risk prevention, the historical context and development of insurance and the products of insurance institutions.

Tasks for work:

Answer the following questions

1. How can risks be prevented and what influences the choice of a particular method?
2. What role does information play in relation to risk?
3. How has the insurance industry developed in the European cultural environment and in our territory ?
4. How can we classify the insurance offered by commercial institutions?
5. What is pension insurance and what types of pension insurance do you know?
6. How are pension insurance and risk related?
7. From what components consists calculation of the pension amount?

Content:

- Risk prevention
 - Insurance
 - Risk diversification
 - Additional information
- History of insurance in our territory
- Insurance - a banking product
 - Pension insurance
 - Retirement calculator

RISK PREVENTION

From the point of view of microeconomic theory, the impact of risks can be reduced in three basic ways:

- (a) insurance;
- (c) risk diversification;
- (c) additional information.

Insurance

People with a negative attitude towards risk are willing to give up a certain part of their income in order to avoid the risk, because if a person is insured, he or she has an income, whether or not a certain loss occurs. From the economic point of view, resp. Consumer decision-making guarantees the same income for any outcome, more than it would if a risky alternative was chosen. [1]

The decision to insure depends on the amount of loss and the probability of loss. While insurance does not change the expected wealth, it can balance both possible outcomes (ie a situation where there is a loss or no loss), this creates a higher level of expected benefits for consumers. The marginal benefit is therefore the same for the insured in both cases (with or without loss). The benefit (marginal) of insurance is higher for the uninsured in the event of a loss than if nothing happens (MU decreases in aversion to risk) = the transfer of wealth from a loss-making situation to a loss-making situation must increase the overall benefit. [2]

The so-called Fair insurance is the moment when the wealth of the insured person (security achieved by the insurance) is the same as the expected value of the wealth for the risks (without insurance). The amount of the insurance for a fair insurance is the same as the expected loss. In other words, a person with a negative attitude towards risk is happy to insure with the possibility of fair insurance. However, insurance companies usually charge an amount slightly higher than the expected loss, ie than the level of the above-mentioned fair insurance, the reason being: the pursuit of a certain profit; risk transfer compensation; they are based on the principle that a person with an aversion to risk is willing to pay more than the expected loss. [3]

Risk diversification[4]

It makes it possible to reduce the risk when it is possible to divide the effort between different activities, the outcome of which is not closely related to each other.

Additional information

Any effective management is associated with the need to have the necessary range of information. We can understand information as a set of data and characterize it as a message (data) that brings us benefits. Thus, a communication of no benefit to the individual does not consider it as information. [5]

Information is an important economic resource. The information is characterized by the difficulty of defining it. Forms of information are very diverse, which complicates the definition of the information file, ie the information environment of a particular decision-making problem. The information file itself is very variable. Information does not disappear by consumption - it can be used by more than one person at a time, in some cases information is the nature of a public good (it is indivisible - others can use it at zero cost; inseparable - no one can prevent others from using information. [6]

The value of information is determined by a number of influences - the experience of other people is valuable in my decision-making and indicates my value given the relevant information. Information is also associated with the process of their optimization in relation to the amount and price of information, taking into account the usefulness of the information described above - the usefulness is therefore given by its expressive power. We understand the price of information as the costs (in the form of money, time, energy) incurred in obtaining, processing and transmitting (using) this information. We have to understand information and in case of their lack it is replaced by improvisation, experience, etc. The point of optimum amount of information is in the interval of minimum cost and maximum benefit. With the continuing amount of information, the importance and price are in balance, and further growth leads to the loss of the positive effect. The cost of information increases disproportionately in the increase of the positive effect of information. [8]

History of insurance in our territory[9]

Basics of insurance

We have known the idea of insurance since the period of ancient Rome from the so-called collegia . From the point of view of Roman law, it was an association of persons in order to distribute the risk of property loss to all members. These associations had common interests, and therefore, as a rule, they all belonged to the same status, so we speak of professional

associations of persons. Examples of associations include associations of craftsmen, artists, merchants, swimmers, etc. Over time, the common denominator in the area of mutual assistance with colleges has become the care of members in the event of death, in the form of funerals, burials in a common cemetery, or payment to a family. the bereaved to arrange his funeral. These first forms of detention thus concerned the provision of a dignified funeral.

In ancient times, we also find forms of business insurance in the form of *fenus nauticum* . This form of insurance is also sometimes interpreted as a shared risk loan and mainly concerned commercial voyages. From the point of view of Roman law, it was a loan on the condition that the debtor is not obliged to repay the borrowed amount if the ship sank. Conversely, if the ship returned with the merchandise, the creditor had a share of the profits from the imported merchandise. Thus, with the help of this specific loan, the debtor distributed his possible property damage between himself and one or more creditors. Similar groups of swimmers, sharing a risk with each other, can be found in the Middle Ages in Spanish sailors.

Maritime insurance can be considered as a precursor to ordinary insurance, which then spread further among urban dwellers and especially in rural areas among farmers who started sharing the risk in the event of a natural disaster, fire or other unforeseen event. The first insurance policies, which are similar to our insurance policies, can be found in Genoa , Italy, in 1434. From the 17th century onwards, the first insurance companies appeared and the insurance of individual risks began . The fire insurance, which we know in our territory from the 18th century, when the so-called *Bauernassekuranzen* appeared, *became very widespread* . During the 18th century, the state also began to participate in the insurance industry in Austria , issuing several opposing patents recommending the establishment of insurance associations, and even creating a central fire fund in the Czech Republic, to which part of the tax revenue was paid. In the field of insurance, Maria Theresa also tried to accelerate the development, calling on the states to submit proposals for the form of insurance companies, but this call was met with little response and we have been monitoring real activities on the establishment of municipal insurance companies since 1762. proposal for the form of insurance institutions. Joseph II was also interested in the development of insurance institutions, but the real development is not apparent until the first half of the 19th century. We follow a similar genesis of development as fire insurance companies in life insurance companies, which also have their roots in ancient Rome and did not develop until the 19th century.

Insurance - a banking product[10]

Definition of insurance

Insurance means the creation, distribution, administration and use of reserves (financial and technical) intended for the payment of insurance claims on the basis of insured events, which are random in certain cases, but as a whole can be estimated. Insurance is a tool for financial elimination of the negative consequences of chance. [11]

Insurance classification

Before we move on to the characteristics of individual branches of insurance in detail, we divide the branches of insurance into two groups:[12]

- life insurance industry,
- non-life insurance sector.

The life insurance industry can be further divided into:

- insurance in case of death, insurance on survival or insurance in case of death or survival,
- wedding insurance or child support insurance,
- pension insurance,
- all the insurances mentioned above, which are connected with the investment fund,
- capitalization,
- accident or sickness insurance , if it is part of the five insurance mentioned above.

Just as we can divide the life insurance industry, we can also divide the non-life insurance industry as follows:

- accident insurance,
 - with a single payment,
 - with the fulfillment of the nature of damages,
 - with combined filling,
 - passengers,
- sickness insurance,
 - with a single payment,
 - with the fulfillment of the nature of damages,
 - with combined filling,

- private health insurance,
- insurance against damage to land vehicles other than rail vehicles,
 - motor,
 - non-motorized,
- insurance against damage to railway vehicles,
- insurance against damage to aircraft,
- ship damage insurance,
 - river and canal,
 - lake,
 - maritime,
- insurance of transported goods, including luggage and other property, regardless of the means of transport used,
- insurance of damage to property caused by others,
 - by fire,
 - explosion,
 - storms,
 - natural elements other than storms (lightning, floods, inundations),
 - nuclear energy,
 - landslides or subsidence,
- insurance against damage to property other than those mentioned above caused by hail or frost or other insurance risks (eg robbery , theft or damage caused by wild game), unless these are covered by the sector "insurance against damage to property caused by other", including insurance against damage to livestock caused by infection or other insurance hazards
- liability insurance for damage resulting from
 - from the operation of a land motor vehicle and its trailer
 - from the activities of the carrier
 - from the operation of a railway vehicle
- liability insurance for damage resulting from the ownership or use of an aircraft, including carrier's liability
- liability insurance for damage resulting from the ownership or use of a river, canal, lake or sea vessel, including carrier's liability
- general liability insurance other than those mentioned in the three sectors mentioned above

- liability for environmental damage
 - liability for damage caused by a nuclear installation
 - liability for damage caused by a product defect
 - other
- credit insurance
 - general insolvency
 - export credit
 - installment loan
 - mortgage loan
 - agricultural credit
- guarantee insurance (deposit)
 - direct guarantees
 - indirect guarantees
- insurance of various financial losses resulting
 - from the exercise of the profession
 - from insufficient income
 - from bad weather conditions
 - from the loss of profit
 - from fixed costs
 - from unforeseen business expenses
 - from loss of market value
 - from the loss of a regular source of income
 - from another indirect business financial loss
 - from other financial losses
- legal protection insurance
- insurance for assistance to persons in need during travel or stay outside their place of residence, including insurance for financial losses directly related to travel[13]

It is also possible to use other classifications, eg from:

- Non-life insurance.
 - property insurance
 - liability insurance
- Life Insurance.

Or from the following breakdown: [14]

- property insurance,
- liability insurance,
- personal insurance.

Pension insurance [15]

The pension system of the Czech Republic is based on compulsory basic pension insurance pursuant to Act No. 155/1995 Coll., On pension insurance. Furthermore, pension savings pursuant to Act No. 426/2011 Coll., Since 2013 and supplementary pension savings pursuant to Act No. 427/2011 Coll., Which replaced supplementary pension insurance with a state contribution pursuant to Act No. 42/1994 Coll. Voluntary supplementary schemes also include products of commercial insurance companies - especially life insurance. In the EU Member States, relatively common employer pension schemes are not represented in the Czech Republic.

Basic compulsory pension insurance is defined-benefit (DB) and continuously funded (PAYGO), is universal and provides for all economically active persons. The legal regulation is uniform for all insured persons, there are no special sectoral or professional schemes, etc. Only from the organizational-administrative point of view, certain deviations apply to the so-called power departments (eg soldiers, firefighters, police officers, customs officers). More than 99% of the population over the age limit for entitlement to a retirement pension receive a pension from the basic pension insurance.

Types of benefits

The following pensions are provided from the basic pension insurance:

- **old-age** (including the so-called early old-age pension),
- **disabled**,
- **widow and widower**,
- **orphans**.

Retirement consists of two components, namely

- from the basic assessment (determined by a fixed amount equal to all types of pensions regardless of the length of the insurance period and the amount of earnings) and
- of the percentage acreage

If the conditions for entitlement to the payment of several pensions of the same type or to the payment of a retirement pension or invalidity pension are met at the same time, only one higher pension is paid. If the conditions for entitlement to the payment of an old-age or invalidity pension and to the payment of a widow's or widower's pension or orphan's pension are met at the same time, a higher pension is paid in full and half of the percentage is paid from other pensions, unless otherwise provided by the Pension Insurance Act. .

The Czech Social Security Administration decides on the right to a pension, its amount and payment, except in cases where the social security bodies of the Ministries of Defense, Interior and Justice are competent to decide (in the case of members of the armed forces and corps).

The amount of the regular old-age pension[16]

The amount of the pension consists of two components, namely the basic acreage and the percentage acreage.

- The amount of the basic pension assessment is determined by a percentage rate of 10% of the average wage; until 31 December 2018, the percentage rate was 9% of the average wage (after appropriate rounding).
- The amount of the percentage assessment of the pension for each full year of the insurance period acquired until entitlement to this pension arises is 1.5% of the calculation basis or 1.2% of the calculation basis for the period acquired as a gainful activity, which coincides with participation in pension savings.

The insurance period also includes the so-called replacement insurance period (Section 5 of the Pension Insurance Act), but only to the extent of 80% in terms of:

- period of study (however, studies taking place after 31 December 2009 are no longer considered as a replacement period of insurance),
- the period of keeping in the records of the employment office as job seekers, if unemployment benefit or retraining support is due and in the range of three years also the period when the said benefits do not belong, with the fact that before reaching the age of 55 it is included in the maximum year,
- the period during which persons with disabilities are included in theoretical and practical training for employment or other gainful activity,
- period of civil service; and

- period of receiving a third-degree invalidity pension (before 1 January 2010, period of receiving a full invalidity pension).

With regard to the period of basic military service, the period of care for a child until a certain age is reached and the period of care for a person dependent on the care of another person due to an unfavorable state of health are fully counted.

Retirement calculator [17]

- **Assessment base** - Indicate the gross earnings achieved in the relevant calendar year (for employees), or the annual assessment base for determining the insurance premium (for self-employed persons), or the sum of earnings and the assessment base. Income in the year of award of the pension is not taken into account for the calculation of the pension.
- **Excluded periods** - usually the period of receiving sickness insurance benefits, the period of receiving a full disability pension (from 1 January 2010 disability pension for third degree disability), the period of basic military service, if it is not a professional soldier , the period of personal care a child under four years of age or a person dependent on the care of another natural person in stages II to IV or a child under 10 years of age in stage I (formerly a predominantly or completely helpless person or a partially helpless person over 80 years of age), studies, the period of "computable" unemployment (see below).
- **The annual assessment base** is the sum of assessment bases (gross revenues) for a calendar year multiplied by the relevant coefficient of increase of the general assessment base.
- **The personal assessment basis** is the monthly average of the sum of the annual assessment bases.
- **The calculation basis** is a personal assessment basis reduced using the stated reduction limits.
- **The percentage** assessment of the **pension** is determined from the calculation basis by a percentage rate corresponding to the length of the insurance period.

Resources:

- [1] SOUKUPOVA, Jana. *Microeconomics* . 3rd add. Prague: Management Press , 2002. ISBN 80-7261-061-9.
- [2] SOUKUPOVA, Jana. *Microeconomics* . 3rd add. Prague: Management Press , 2002. ISBN 80-7261-061-9.
- [3] SOUKUPOVA, Jana. *Microeconomics* . 3rd add. Prague: Management Press , 2002. ISBN 80-7261-061-9.
- [4] SOUKUPOVA, Jana. *Microeconomics* . 3rd add. Prague: Management Press , 2002. ISBN 80-7261-061-9.
- [5] HUNČOVÁ, Magdalena. *Managerial accounting: basics* . 2nd edition Ostrava: Mirago , 2007. ISBN 978-80-86617-34-3.
- [6] SOUKUPOVA, Jana. *Microeconomics* . 3rd add. Prague: Management Press , 2002. ISBN 80-7261-061-9.
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- [8] HUNČOVÁ, Magdalena. *Managerial accounting: basics* . 2nd edition Ostrava: Mirago , 2007. ISBN 978-80-86617-34-3.
- [9] SVOBODA, K. 1910. Historický vývoj pojišťovnictví. Mercury

- [10] Note on the topic: this part of the study is taken over part 7 of the chapter of the study support *Personal Finance* from the authors Petr Málek, Gabriela Oškrdalová and Petr Valouch. Source: MÁLEK, Petr; OŠKRDALOVÁ, Gabriela; VALOUCH, Petr. *Personal finance*. 1st ed. Brno: Masaryk University, 2010. 203 pp. ISBN 9788021051577. chapter 3.)
- [11] DAŇHEL, J. *Insurance theory*. Prague: Professional publishing , 2005, p. 182.
- [12] The given insurance classification will be based on the valid legislation, as it is possible that each insurance company will have this division slightly different.
- [13] The entire classification of insurance branches was based on Act No. 363/1999 Coll., On Insurance.
- [14] ČEJKOVÁ, V., MARTINOVIČOVÁ, D. *Insurance*. Brno: Masaryk University in Brno, 2004, p. 31.
- [15] Ministry of Labor and Social Affairs. Pension insurance. Available [online] at : <<https://www.mpsv.cz/duchodove-pojisteni>>
- [16] Ministry of Labor and Social Affairs. Pension insurance. Available [online] at: <<https://www.mpsv.cz/starobni-duchody>>
- [17] Ministry of Labor and Social Affairs. Pension insurance. Available [online] at: <<https://www.mpsv.cz/kalkulacky>>