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THE LITHUANIAN PENSION SYSTEM AND ALTERNATIVES FOR THE FUTURE*

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ABSTRACT: The paper describes the current pension system in Lithuania, the changes that have recently been made to it and some alternatives for its future development. The current system comprises social insurance pensions paid from a separate state social insurance fund, which is independent of the state and local budgets, and state pensions and social pensions financed by the state budget. The main problems of the pension system resemble those of other Central and Eastern European countries: increasing expenditures and difficulties in financing them due to, e.g., tax and contribution evasion as well as an aging population. The alternatives for the future include relying more on voluntary private pension arrangements, adjusting contribution and replacement rates and retirement age, and switching to more funded pension systems.

KEY WORDS: Pension benefits and contributions, pension rules and formulas, funding.

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TIIVISTELMÄ: Artikkelissa kuvataan Liettuan eläkejärjestelmää ja siihen viime vuosina tehtyjä muutoksia, sekä pohditaan vaihtoehtoisia tapoja kehittää järjestelmää tulevaisuudessa. Nykyisessä järjestelmässä valtaosa eläkkeistä maksetaan erityisestä rahastosta, joka on valtion ja kuntien budjettitalouden ulkopuolella, ja pienempi osa rahoitetaan suoraan valtion budjetista. Eläkejärjestelmän tulevaisuutta uhkaavat samat asiat kuin muissakin itä- ja keski-Euroopan maissa: verojen kiertämisen ja eläkemaksujen maksamatta jättämisen yleistyminen sekä väestön ikääntyminen. Uudistusmahdollisuuksista pohditaan osittaista siirtymistä vapaaehtoisiin yksityisiin eläkejärjestelmiin, maksujen ja etuuksien tason muuttamista, eläkkeellejäämisiän nostamista, sekä suurempaan rahastointiin pohjautuvia järjestelmiä.

AVAINSANAT: Eläke-edut ja -maksut, karttumissäännöt, rahastointi.

LITHUANIAN PENSION SYSTEM

The Lithuanian pension system comprises social insurance pensions paid from a separate state social insurance fund independent of the national (state and local) budget, and state pensions and social pensions financed from the state budget. The level of social insurance pensions depends on the amount of social insurance contributions paid and are payable to people previously employed under labour contracts and self-employed persons. The state budget finances special pension schemes for military and police servants, their spouses, national resistance victims, and distinguished persons. State pensions may be paid along with social insurance pensions. Social pensions are paid in cases when a person is not eligible for any other types of pension.

1. The current state of the social insurance system

State social insurance pensions constitute the largest part of the Lithuanian pension system. In 1996 its outlays were 25.6 percent as compared to the state budget. State pensions accounted for 1.6 percent and social pensions for 3 percent of the state budget.

The state social insurance fund was separated from the national budget in 1991. The fund is administered by a tripartite council representing employers' organisations, labour unions, and the government.

The fund operates on the pay-as-you-go basis. Before 1995 the social insurance budget ran a slight surplus, but now it is suffering a deficit. Pension outlays are sometimes delayed. To cover the deficit, the fund takes short-term loans from banks. The social insurance fund is guaranteed by the state budget, which is supposed to finance shortfalls in the fund's revenues. So far the fund has dealt with the deficit without recourse to this provision.

The social insurance fund is financed by a 30 percent employer contribution on the wage bill plus a 1 percent employee contribution on their individual wages. The size of mandatory social insurance contributions is set by the government, whereas the parliament resolves what portion is to be paid by employees.

The aforesaid rates have not been changed since 1991. Social security contributions are used to finance old-age, disability and widows' pensions plus unemployment, sickness and maternity benefits. 23.5 percentage points of the 31 percent social insurance contributions are allocated to financing the pension scheme. Pensions constitute the lion's share (72 percent in 1996) of social insurance expenditures. Old-age pensions account for the biggest share of pension outlays, 79 percent, or 57 percent of all social insurance expenditures.

The payment of contributions is controlled by social insurance local offices. Contributions paid are documented in individual state social insurance certificates and the social insurance fund's database. Local offices throughout the country are also in charge of paying benefits, provided the beneficiary does not choose otherwise.

Social insurance is mandatory for all residents employed under labour contracts (also those working and earning income on a membership basis) and self-employed people who pay social insurance contributions themselves. Owners of sole priopríetorships and farmers are insured only for the basic component of the old-age pension. Their monthly contribution is equal to half the basic pension. It should be noted that the number of farmers and self-employed individuals who contribute to the scheme is negligible (only 1,622 farmers and 36,905 self-employed persons in 1996). Those who are not obliged to contribute to the state social insurance scheme (artists who work under authorship contracts) can insure on a voluntary basis, but in 1996 merely 371 persons did so. In general, the number of people insured under the state social insurance system, and therefore contributing to the social insurance fund, is steadily shrinking.

2. Demographic pressure on the pension system

Lithuania, like Western and other Central and Eastern European countries, is facing the problem of a greying society. The worsening demographic trends are a major setback. The number of working individuals is falling, while the ranks of pensioners have been increasing since 1973. As compared to 17.7 percent in 1973, presently they account for over 20 percent of the country's population. Out of every thousand working-aged citizens in 1985, 315 individuals were of pensionable age. In 1989 and 1995 these figures were 333 and 357 respectively. In 1996 the figure peaked at 415. Despite the 1995 pension reform, the number of pension recipients rose steadily from 39.2 percent of working-aged individuals in 1993, through 39.7 percent in 1994, 40.4 percent in 1995 to 41.5 percent in 1996. A particularly sharp increase was reported in the number of recipients of disability and victims' pensions.

The birth rate started to fall in 1990, reaching the lowest level in the country's history in 1994. Lithuania is now undergoing a period of natural decrease. The mortality rate of working-aged individuals (especially men of 30 to 35 years of age) has increased due to disease and injuries, but the life expectancy of pension-aged individuals remains almost unchanged. People who reach 60 years of age live on average another 21 years, which is a fairly long period of receiving pension benefits.

3. The effects of tax evasion

Wide-spread tax evasion is further decreasing the number of people insured under the state social insurance system. The ratio of the insured to working-aged individuals dropped from 83 percent in 1991 to 74 percent in 1992, 65 percent in 1993 and 61 percent in 1994. In the years 1995 and 1996 it rose to 63 and 64 percent respectively. In such circumstances people contributing to the social insurance system are carrying an increasingly heavy burden of supporting pensioners. As compared to 2.1 to 1 in 1991, the worker/pensioner ratio was 1.91 to 1 in the year 1992, 1.66 to 1 in 1993, 1.54 to 1 in 1994, and 1.51 to 1 in 1995. As compared to 1976, when three working individuals supported one pensioner, now three working individuals support two pensioners, and this figure continues to rise.

It is estimated that in 1991 through 1996 a total of 400 thousand people (or 27 percent of the work force) disappeared from the official labour market, joining the shadow sector and ceasing to pay both social insurance contributions and other taxes. Presently a mere 80 percent contribute to the social insurance system.

Since the heaviest burden of social insurance contributions falls on the employer, the social insurance fund is financed mainly by enterprises. Under-compliance of state-run industrial enterprises and companies supported by the state is a major concern. Private entities also tend to avoid social insurance payments.

Previously, the biggest share of social security contributions was collected from large state-owned enterprises. After the restoration of Lithuania's independence in 1990, these enterprises lost their markets in the former Soviet Union. In addition to that, the ownership of a whole range of state-run enterprises has not been transferred to private hands and they are now in poor financial shape. Many of the enterprises are insolvent, some are on the erge of bankruptcy. Their employees are on forced leave, receiving minimum wages. A range of social guarantees prescribed by labour legislation inhibit liquidation or sale of such entities. Social insurance contributions paid by them are very low. In many cases they are computed but not paid.

The financing of almost all budgetary institutions falls short of the required level, which frustrates payments to the social insurance fund. In 1996 the arrears to the social insurance budget rose by 18 percent.

Lithuania has been conducting a large-scale privatisation programme which has already divested 66 percent of all enterprises. High social insurance contributions increase labour costs. To maintain competitiveness, enterprises are forced to conceal real wages and the number of employees. Thus, the amount of social insurance contributions is further reduced. Given that only labour contracts place people under an obligation to pay social insurance contributions, the conclusion of labour contracts is avoided on a large scale. In 1991 people working under labour contracts constituted 94.9 percent of all the insured. This figure dropped to 92 percent in 1996. To avoid the payment of social security contributions, enterprises conclude agreements other than labour contracts (e.g. commission contracts regulated by the Civil Code) even for jobs of a permanent nature. Employees, in turn, also prefer higher take-home pays to more social security.

4. Pension reforms conducted to date

Lithuania's problems in the area of pension insurance resemble those of other Central and Eastern European countries. Social insurance expenditures have been steadily increasing, reaching the level of 8.8 percent of GDP in 1996. The social insurance budget is suffering a deficit. Its expenditures kept rising much faster than the revenues. In 1991 the expenditures rose by 77.8 times, while the level of revenues increased by 61.6 times. The size of pensions below the subsistence level (the average pension of non-working pensioners is about 60 US dollars). In 1996 the average replacement rate was a mere 35 percent. The 1995 pension reform failed to relieve the strain on the social insurance budget.

January 1, 1995 saw the coming into effect of a new Law on State Social Insurance Pensions, which regulates old-age, disability, widows' and orphans' pensions, as well as laws governing state pensions, including level I and II state pensions, pensions for victims, officials and scholars, plus social pensions. Before the reform Lithuania operated virtually a flat pension system. This was due to the previously high inflation rate and the prioritised indexing of low pensions. Later, the pension levelling was considered a social injustice, therefore the government resolved to restore pension differentiation.

The new laws replaced pension eligibility criteria and the pension formula and raised the retirement age.

Early pensions

Before the reform, Lithuania provided a variety of early retirement pensions inherited from the Soviet period. They were provided for people in certain occupations, especially those working in detrimental conditions, thus boosting the number of pensioners. In order to improve the worker/pensioner ratio, the reform abolished most of the early pensions. To mitigate the transition, compensations are now being paid based on the years of service.

The abolishment of early pensions is a measure that helps alleviate the social insurance fund's deficit. However, the removal caused retirement provision problems for people who cannot continue their professional employment until the officially established retirement age (aviators, ballet artists, people working in detrimental conditions). It is planned that the aforesaid professional groups will be offered a supplementary fully-funded insurance with pension funds, outside the social security system.

Pension eligibility criteria and the pension formula

On the adoption of a new pension law Lithuania switched to an earnings-related pension scheme. Only those who have a state social insurance record are entitled to social insurance pensions. The insurance period covers only the years when contributions were paid. This provision caused problems with regard to the enterprises in arrears, for their employees forfeited part of the right to pension benefits. Employers' negligence to pay contributions shortens the insurance period of the employees. The responsibility for the payment of contributions is imposed on employees, even though their contribution rate is one percent.

It was anticipated that the linking of social insurance contributions to future pension benefits would make people quit the shadow sector in favour of legal business activity and pay contributions to earn old-age pensions. Yet, the number of the insured continued to decline.

The current social insurance pension consists of two parts: the basic pension and the earnings-related supplementary component. The basic pension is almost flat, it slightly depends on a person's insurance period. The government-set size of the basic pension is related to the minimum subsistence level (MSL) and cannot be lower than 110 percent of the MSL. The government-set MSL is used as a basis to determine various social benefits. The MSL is adjusted for inflation at times.

The supplementary pension component is calculated separately for every individual according to an established formula. The pension formula is designed so that the basic pension reflects inflation, and the supplementary pension reflects the rise in incomes. Thus, pensions are indexed for inflation and an increase in wages and salaries, a provision that boosts social insurance expenditures.

The new formula was used to recalculate the pensions of all recipients, but if the new figure appeared to be lower than the previous one, the pension was not reduced. This augmented pension differentiation and required additional social insurance outlays. Although the level of social insurance contributions is not limited, the increased financial burden surpassed the capacity of the social insurance budget, bringing in constraints on pension differentiation. The same applies to pension benefits for working pensioners. Their level is limited regardless of the total amount of contributions paid.

Retirement age

The increased retirement age, which was another major policy change, is expected to alleviate the pernicious effect of the worsening demographic situation on the social insurance budget. Lithuania inherited from the Soviet era an early retirement age of 55 years for women and 60 years for men. The annual increase in the retirement age provides relief within the pension insurance system but at the same time it involves pitfalls for unemployment insurance, given that unemployment among working-aged individuals is expanding, increasing the need for unemployment benefits

5. The terms of providing pensions

5.1 State social insurance pensions

The state social insurance fund provides old-age, disability, widows' and orphans' pensions. Individuals who are entitled to old-age and disability pensions receive only one of them, chosen at their discretion. Widows' and orphans' pensions are provided along with social insurance pensions.

Old-Age Pensions

Eligibility criteria

Old-age pensions are granted in the following cases:

1. if a person reaches the retirement age. As of 1995, the retirement age is being raised by four months per year for women and by two months per year for men until it reaches 62 years and six months for men and 60 years for woman in the year 2009.
2. if a person was insured under the state social pension insurance system for at least 15 years. To draw the whole old-age pension, a person is required to have the so-called obligatory state social insurance period, which is 25 years for men and 20 years for wo-

men (as of 1995, this period is being raised by one year annually until it reaches 30 years);
3. if a person was insured under the state social insurance system for at least three years within the last five years or was insured for the whole last year or if a person's insurance record is at least 35 years (this provision will come into effect as of January 1, 2000).

A different social insurance scheme applies to people employed under labour contracts (also those working and earnings income on a membership basis) on the one hand and self-employed persons on the other. The former are insured for the basic pension and the supplementary component, while the latter are insured only for the basic part. People working under labour contracts have the state social insurance period necessary to draw the basic and supplementary components of the pension. Self-employed individuals need a social insurance record to qualify only for the basic pension. Thus, the social insurance period of each insured individual comprises two elements.

The insurance period of a person working under labour or other contracts is increased by one year if social insurance contributions in that year are paid from the officially established 12 months minimum wage or more. If contributions are paid from less than the minimum wage, the insurance period is reduced accordingly. The period of receiving sickness, maternity and unemployment benefits are treated in the same way as the period of earning income. The insurance period of self-employed persons is raised by one year when they pay the established contributions related to the basic pension for 12 months. Contributions for national defence conscripts and mothers raising children of up to three years are paid from the state budget according to the same rules as for self-employed.

The right to old-age pension is linked to three mandatory criteria. The last requirement causes the greatest concern for it implies that, in order to preserve the right to pension benefits, a person must work until the retirement age. Those who cannot satisfy this requirement must have a 35-year insurance period, a condition which is difficult to fulfil for people with employment gaps and for part-time employees.

Because of this criterion part of elderly people may forfeit the right to pension, for in the current circumstances people of pre-retirement age are frequently dismissed and find it hard tc find jobs or requalify. It is anticipated that the complete enforcement of the new pension law (about the year 2005), a mere 54 percent of Lithuanian retirees will qualify for pension benefits. Ineligible persons will have a right to apply for municipal support, which is extended for a limited period of time after the living conditions of the applicant have been investigated.

The pension formula

The state social insurance pension comprises two, basic and supplementary, components. The basic component is a flat pension for all insured individuals with the obligatory period of state social insurance (see **Eligibility criteria**). For others, it is reduced proportionally. The supplementary component is calculated only for those who have a state social insurance period of working under labour contracts (also those working and earning income on a membership basis). The supplementary pension is an earnings-related pension. Thus, the whole old-age pension P is calculated according to the following formula:

$$P = B + 0.005*S*K*D + 0.005*s*k*D,$$

where

B stands for basic pension (or part of it if the recipient does not have the obligatory social insurance period);

S stands for a person's social insurance record of working under labour contract until January 1, 1994; **s** stands for the period after the year 1994;

K stands for the so called ratio of a person's insured income, which is calculated by dividing the annual income earned by the insured by the country's average annual wage until 1994. Given that there are no reliable data about the income earned by the insured person throughout his life and up to 1994, pensioners are allowed to choose the most favorable five successive years from 1984 to 1993 and to calculate the average value as **K**. According to the law, **K** cannot be higher than 5. The ratio **k** is calculated based on the social insurance fund's data about the payment of the person's insured income: the earned income from which social insurance contribution were paid are divided by the insured income **D** of a given year (see below) and the average for the whole period from 1994 is calculated. As of 2004, the data prior to 1994 will be gradually disregarded until the middle part of the formula disappears.

D stands for the insured income which is calculated as the average of the earned income from which pension insurance contributions are collected, as well as of sickness, maternity and unemployment benefits. The State Social Insurance Board approves the annual and quarterly average insured income. The Annual insured income is used to calculate the rate of a person's insured income (**K**), and the quarterly insured income is used to calculate the pensions to be paid.

The ratio 0.005 means that 0.5 percent of the monthly wage of the employee is added annually to the supplementary component of the future pension.

The size of pensions which are calculated based on this formula depends mostly on earned income and to some extent on the years of service. The formula is highly distributionary, for the replacement rate of a person who earned five times the country's average will be 15 percent, the pension will constitute only half the monthly contributions paid. Those, however, who receive minimum wages will have a replacement rate of 42.5 percent. Since the replacement rate is so low (35 percent on average in 1996), the number of working pensioners rose by 27 percent in 1993 through 1996, although the total number of pensioners shrank due to the increased retirement age.

A pensioner with the obligatory social insurance period can postpone his application for pension benefits. In this event the pension shall be increased by 4 percent of the amount calculated at the moment of application for each full year as of the date of the eligibility for the pension.

State social insurance pensions are paid on a monthly basis during the rest of the life of a person and for two more months after his death as a funeral grant. The size of the funeral benefit is affected neither by the number of dependent persons nor by his financial situation.

The law does not require to terminate employment in order to qualify for state social insurance pension. On the contrary, working pensioners who have reached 65 and more can draw a full old-age pension. Younger individuals who have the obligatory social insurance

period and earn not more than 150 percent of the official minimum wage are also eligible for full pensions. Those who earn more are entitled only to the basic component.

This pension scheme is rather costly, especially in light of the country's economic transformation. The new system was designed to achieve two aims, poverty alleviation (the basic pension) and income levelling (the supplementary component). These aims are fairly incompatible, and their combination in one formula makes the pension scheme inflexible. If the lowest pensions are to be increased for the purpose of alleviating poverty, all pension benefits must be increased, which is frequently unacceptable in financial terms. For this reason the pension differentiation was reduced, which, in turn, obstructed the goal of income levelling.

Disability Pensions

Disability pensions, which are also paid from the state social insurance fund, accounted in 1996 for 11.9 percent of the fund's total expenditures. The revenues, the procedure for paying contributions and their registration are the same as for old-age pensions. The number of the recipients of disability benefits is increasing, too.

The right to a disability pension is granted to people who on the day of documenting disability meet the following requirements:

1. if a person has the minimum obligatory insurance period. This period depends on the person's age. For individuals under the age of 23 only the fact of insurance, but not a social insurance record, is required. For individuals under the age of 26 the required insurance period is one year. Upon reaching the age of 26 a person must have a two-year period, etc. To draw a full disability pension, a person must have the obligatory insurance period, which also depends on the age. For individuals under 24 years of age the requirement is one year. A two-year period is required for individuals who reach 24, and a four-year period is required for individuals who reach 26. For people aged over 26 the obligatory insurance period is increased by one year each one and a half year but may not exceed the obligatory period established for the old-age pension;
2. if a person was insured under the state social insurance system for at least one year over the past five years or if his social insurance period reaches three fourth of the difference between his and 23 years.

There are three disability groups depending on how limited working capabilities are. Group I disabled have in most cases no working capabilities and need nursing. Group II also includes people with very serious disabilities. Group III disabled are considered to have limited working capabilities. The fact of disability, disability groups, the causes, time and duration of disability is subject to approval by the State Medical and Social Examination Commission (SMSEC), and in case of children under 16 by a special commission of medical institutions offering medical services for children.

The entire state social insurance period and the period of working under labour contracts are applied to draw and calculate disability pension just like in the case of old-age pension. The amount of the pension depends on both periods.

The disability pension consists of two components: the basic and supplementary components. The basic component equals the basic pension and is flat for all insured persons who have the mandatory social insurance period necessary to receive the disability pension (for those who do not have it, it is proportionally reduced). The supplementary pension component is calculated only for those persons who have a mandatory social insurance period of working under labour contracts. The supplementary component is related to a person's social insurance period of working under labour contracts and the number of years left until the retirement age. If a person does not have a mandatory social insurance record necessary to receive a disability pension, only a proportionally smaller part of the total number of years left until the pensionable age is credited to the insurance period. Having calculated the insurance period in such a manner, the formula for calculating old-age pension is used. The amount calculated is the disability pension for group II disabled. A supplement in the amount of 50 percent of the basic pension is paid to group I disabled, and only half the disability pension provided for group II disabled is paid to group III disabled.

If disability becomes more serious, a new pension formula is paid. A pensioner chooses at his own discretion a pension calculated either according to new data on the social insurance record and earned income or according to the data (the insurance period and earned income) based on which the pension was awarded. In the event of a lower degree of disability, the former pension of the new formula is awarded (a pension without a supplement for nursing is paid in case of a shift from group I to group II, and a pension reduced by half is paid in the event of a shift from group II to group III).

Disability pension is paid on a monthly basis until a person has the right to this pension (the duration of disability is approved by the SMSEC). The size of the disability pension depends neither on the number of dependants nor on the financial state. The pension is provided for two more months after the death of a disabled person as a funeral grant.

It is not necessary to terminate employment in order to qualify for disability pension. Group I working disabled individuals as well as disabled persons who have reached the pensionable age can draw a full disability pension. Younger persons with the full mandatory insurance period necessary to receive disability pension and earning not more than 150 percent of the average wage also receive a full pension. Group II and III disabled who earn more receive the basic pension and half the supplementary component.

Survivor's Pensions

The spouse and children of a deceased person are eligible for widow's, or widower's, pension and orphans' pensions accordingly if the deceased was entitled to or received disability or old-age pension.

The following people are entitled to survivor's pension:

1. a widow or widower who takes care of the deceased person's children as well as those who take care of group I disabled children of the deceased at home if said children became disabled under the age of 18 and if they qualify for an orphan's pension;
2. a widow or widower who have on the death of the spouse five years left until the retirement age or who is older or recognised as disabled;

3. the spouse who takes care of their group I disabled children at home if said children became disabled under the age of 18 and if they qualify for an orphan's pension as well as if there is no spouse to whom the survivor's pension may be awarded.

If no such relations exist, the survivor's pension is awarded to one of the parents of a deceased person, taking care of his/her children or nursing at home the deceased person's group I disabled children if said children became disabled under the age of 18 and if they qualify for an orphan's pension.

The *orphans' pension* is payable to the deceased person's children under 18 and children above 18 if they became disabled before reaching the age of 18 or are full-time undergraduate students (but only until they turn 24).

Adopted children as well as step children of a deceased person who before the stepfather's or stepmother's death did not qualify for an orphan's pension are entitled to receive orphan's pension under the same conditions as his/her children.

Survivors' and orphans' pensions are paid irrespective of the fact whether a person receives or not old-age or disability pension. In the event of remarriage the payment of survivors' pension is terminated.

Survivors' and orphans' pensions are calculated in the same manner as the disability pension for group II disabled. The pensions are paid in the following way: 20 percent of the pension is paid to the survivor, 50 percent is divided equally among the orphans (if there is only one orphan, she/he is awarded 25 percent of the pension). If there are no recipients of widows' pension, the pension of a deceased person is divided among orphans by 25 percent but not more than a hundred percent of the former pension. On the death of a disabled pensioner, his pension is divided in the same manner to the survivor and orphans.

Orphans who lost both parents are awarded pensions for each parent.

5.2 State pensions

Despite the changes in the pension system that linked the right to a pension to the payment of contributions, certain privileged pensions were retained. All of them are financed, not from the state social insurance fund, but from the state budget. These pensions include pensions for military and police servants plus state pensions for academics. The latter were introduced by a provisional law of 1992 in response to pressure from the academic community and are regarded as a compensation for previous low salaries. Special state pensions are awarded for distinguished people and resistance victims.

State pensions are awarded and paid regardless of the receipt of state social insurance pensions. Their level was linked to the basic pension but it inhibited the indexing of both social insurance and state pensions. For this reason, January 1, 1998 saw the introduction of the basic state pension to be used in calculating state pensions. Initially it equaled the basic social insurance pension. The old procedure continued to be used in calculating the pensions for state officials and academics as well as social pensions.

13.4 percent of all pension recipients receive not only social insurance pension but also some other type of state pension, in most cases victims' pensions (9.4 percent of all recipients). However, individuals who are eligible for several types of state pensions may receive only one pension chosen at their discretion. This pension is limited to a total sum equaling 1.5 times the country's average wage. Further, a limit of 150 percent of the average wage is imposed on a sum of state and social insurance pensions for one recipient. This limit is not applicable to level I and II state pensions. State pensions account for 1.6 percent of the total state budget expenditures.

State Pensions for Persecuted Persons

These pensions are assigned, just like social insurance pensions, in the event of retirement, disability, and survivorship. They account for the biggest part (73.6 percent) of state pension outlays and have the largest number of recipients. Since 1995, the year when these pensions were introduced, the number of their recipients has doubled.

State old-age pensions for persecuted persons who reached the retirement age set by the Law on State Social Insurance Pensions are awarded to political prisoners and departees, participants in the resistance movement, persons who during World War II were departed for forced labour or imprisoned in ghettos and concentration camps, participants in World War II, and persons who participated in the liquidation of the consequences of the Chernobyl nuclear accident. Said pensions are also awarded to mothers of 50 and more years of age and to pension-aged parents of the victims killed during the January 1991 aggression, to pension-aged parents of people killed during the resistance movement or during compulsory military service in the Soviet army.

Depending on the reason of eligibility, pensions for victims may equal 1.5, 1 or 0.75 times the basic state pension, regardless of other incomes of the recipients. The pensions are paid on a monthly basis for the rest of the pensioner's life and two more months after his death as a funeral benefit.

Disability pensions are awarded to persons who became disabled during the January 1991 aggression, political prisoners and deportees, participants in the resistance movement, persons who during World War II were departed for forced labour or were imprisoned in ghettos and concentration camps, participants in World War II; persons who participated in the liquidation of the consequences of the Chernobyl nuclear accident, and persons who became disabled during the compulsory military service in the Soviet army. Said pensions are also assigned to disabled parents of individuals killed during the January 1991 aggression, group I and II disabled parents of the participants killed in the resistance movement or during compulsory military service in the Soviet army.

Pensions to persons who became group I and II disabled during the January 1991 aggression equal 150 percent of the basic pension (in addition, a supplement of 50 percent of the basic pension is paid to group I disabled for their nursing if this supplement is not paid from the social insurance fund). Pensions in the amount of the basic pension are paid to group III disabled and parents of killed persons.

Other group I and II disabled persons receive pensions in the amount of the basic pension. Persons who became disabled due to illegal imprisonment, forced labour, imprisonment in ghettos and concentration camps, military actions, compulsory military service as well as the liquidation of the consequences of the Chernobyl nuclear accident receive the following amounts of pension: group I and II disabled receive pension in the amount of 150 percent of the basic pension (in addition, a supplement of 50 percent of the basic pension is paid to group I disabled persons for their nursing if this supplement is not paid from the social insurance fund), group III disabled receive pension of 75 percent of the basic pension. Pensions equalling the basic pension are paid to group I and II disabled parents of individuals killed in the resistance movement and during compulsory military service in the Soviet army.

Survivors' and orphans' pensions are awarded to family members of the following persons: those who were killed or died from injuries suffered during the January 1991 aggression, individuals killed in the resistance movement, during illegal imprisonment or deportation, persons who died because of the participation in liquidating the consequences of the Chernobyl nuclear accident, persons who were killed during obligatory military service in the Soviet army, political prisoners and deportees who had earlier presented rehabilitation certificates issued by legal institutions of the Republic of Lithuania and certifying the rehabilitation of the rights of political prisoners and deportees; deceased participants in the resistance movement against the Soviet occupation who were acknowledged as participants in the resistance movement, persons who were killed during World War II while being in military service in the armies of the countries with operating anti-nazist troops or units of partisans, and deceased disabled persecuted persons who received state pension.

State pensions for persecuted persons which was received or may be awarded is divided among the survivor and orphans in the same manner and amounts as the state social insurance pension. The survivors and orphans of persons killed during the January 1991 aggression receive higher pensions in the amount of twice the basic pension.

By a governmental decree additional compensations are paid from the state budget to the orphans of persons who died during the January 1991 aggression.

State Military and Officials' Pensions

These pensions are assigned in case of retirement, disability, and survivorship, just like social insurance pensions. In 1996, they accounted for 17.4 percent of all state pension expenditures.

Old-age state pensions for state military and officials are assigned for twenty and more years of service in internal affairs, the country's defense, and law and order. The officials of prosecutor's office qualify for the pension if they have reached the retirement age set by the Law on State Social Insurance Pensions. State military and officials who served for five and more years can draw a pension if they have reached the retirement age set by the statutes or the regular retirement age.

The amount paid for military and officials equals one percent (1.8 percent for years of service before 1995) of the wage (including extra payments) earned in the last position for

every year of service. If the wages of acting officials rise, the pensions increase accordingly. An increased percentage for the years of service before 1995 was introduced as a means of smoothing the transition from very high levels of pensions (which existed before) to lower ones. For retired military and officials who have no other sources of income the basic pension is paid as a supplement until they qualify for social insurance pensions in terms of age. This supplement will be paid until the year 2005, the year when a system of officials' requalification is to be developed.

The pension is paid on a monthly basis during the rest of the life of a pensioner and for two months his death as a funeral grant. Its amount will depend neither on the number of dependents nor on his financial standing. To qualify for this type of pension, a person must retire from service but may take other employment and receive the full pension.

Disability pensions for military and officials are awarded to:

1. military and officials for service in internal affairs, the state security and national defence systems if their disability was related to the service. If the termination of service was due to health problems or disability not related to the service, the pension is awarded only for those individuals whose length of service is five or more years;
2. conscripts and volunteers in national defence whose disability was related to the service.

Disability pension for group I disabled military and officials equals 1.2 percent of the wage (including extra payments) earned in the last position for every year of service, 1 percent for group II disabled, and 0.5 percent for group III disabled. This amount is multiplied by 1.8 for the years in service before 1995 (see above). If disability is related to service, the length of service is automatically considered to be not less than 20 years. An increase in the wage of officials in corresponding positions means an increase in the pension.

Group I and II conscripts and volunteers in national defence whose disability was related to service receive 150 percent of the basic social insurance pension (a supplement of 50 percent of the basic social insurance pension is paid for nursing group I disabled persons if it is not paid from the social insurance fund), group III disabled are entitled to 75 percent of the basic social insurance pension.

The pension is paid on a monthly basis as long as disability continues. The pension is paid for two more months after a person's death as a funeral grant. Its amount depends neither on the number of dependants nor on the financial standing of the deceased. In order to qualify for the pension, it is necessary to terminate service, but a person may take another employment and receive a full pension.

Survivors' and Orphans' Pensions. On the death of a person who received or could have received state pension for military and officials, the pension is extended to the survivor and orphans in the same portions as in the case of state social insurance pension.

Level I and II State Pensions

Level I and II state pensions are awarded to distinguished people for their merits in restoring the country's sovereignity, economy, culture, arts and sports, for top state officials, and

mothers of ten or more children. These pensions account for 4.5 percent of all state pension expenditures.

The pension may be granted to persons of pensionable age or group I and II disabled persons. The payment of the pension must be approved by a special commission. The commission comprises the social security and labour minister, who acts as chairman of the commission, and 12 members, of these four members of parliament (two representing the majority and two on behalf of the opposition), four members governing institutions and four representatives of the society. The Government and governing institutions are represented by the chairman of the commission, the minister of culture and one of the vice-ministers of the social security and labour ministry. The commission is formed by a governmental decree. Level I pension equals four times, and level II pension two times, the basic pension. The pension is paid on a monthly basis lifelong regardless of other incomes of the recipient and two months after the death of the pensioner.

On the death of a person who received or could have received level I and II state pension the pension is divided to the survivor and orphans in the same amounts as in the case of state social insurance pension.

State Pensions for Scientists

Before the 1995 pension reform retired scientists used to receive government-provided annuities as supplements to social insurance pensions. After the reform these supplements, although much lower, are guaranteed by a provisional law on scientists' pensions. These pensions now account for 4.5 percent of all state pension expenditures.

Individuals who have reached the retirement age or were acknowledged as group I or II disabled are awarded scientists' pensions if the length of service as Doctor of Science or Doctor Habilius is at least 10 years. The pensions are provided for scientists who are not employed under labour contracts and who worked in state educational establishments. The size of the pension depends on the length of service of a scientist: for every year of service as Doctor of Science a person receives 10 percent of the basic social insurance pension, and as Doctor Habilius a supplement of five percent of the basic social insurance pension. A scientist's work after 65 years of age is not included in the length of service. The pension is paid monthly for the rest of the life of a scientist and for two more months after his death.

Social Pensions

Outside the state social insurance scheme are social pensions financed from the state budget. When the size of pensions was linked to the contributions paid, people who have never worked or those who worked a short time forfeited the right to receive a pension, a right guaranteed by the Lithuanian Constitution. This gap is partly filled by social pensions which are granted only to individuals who through no fault of their own were unable to work and are therefore uninsured. These are people who were disabled from childhood, those who took care of their own disabled children, and mothers of large families. All others who have reached pensionable age are entitled to means-tested social benefits, but not pensions.

Social pensions are awarded to persons who have reached the retirement age and who have no right to receive a higher state or state social insurance pension. This pension is paid to:

1. individuals who for at least 15 years nursed their disabled children (including adopted), as well as their group I and II disabled children (or adopted) who became disabled in childhood or before reaching the age of 18;
2. mothers who gave birth and brought up five and more children up to eight years of age.

The pension is equal to the basic social insurance pension.

Before qualifying for a social pension, a monthly compensation of 150 percent of the basic social insurance pension is extended to people who have five years left until the retirement age, who are group I and II disabled, or who have been nursing for at least ten years until the enforcement of this law disabled children-in-law or adopted disabled children and children-in-law or adopted group I and II disabled children since their very childhood or if they became group I and II disabled before reaching 18 years of age, and also mothers who until the enforcement of this law had brought up five and more children under the age of eight. The compensation for one child may be granted only to one person.

Social pension is not granted if a compensation is paid. When a person qualifies for social insurance or any other state pension, he is paid either a compensation or a pension, depending on his choice. The compensation is paid from the same resources as social pension are.

Social pensions are also granted in the event of disability. Social pension is awarded to individuals who have no right to receive a higher state or state social insurance pension in case they suffered disability:

1. under the age of 18 or over if they are disabled since childhood;
2. while studying in secondary, high schools or higher educational establishments or while being postgraduates under the age of 24;
3. while being graduates of secondary and high schools or higher education establishments, if they are registered as unemployed but for no longer than one year after graduation.

Social pension is equal to the basic social insurance pension. Group I disabled receive a supplement 50 percent of the basic social insurance pension for their nursing, and group III disabled are paid a supplement in the amount of 50 percent of the basic social insurance pension.

On the death of a person who received or could have received ***social pension*** the right to said pension is given to children under 18 and to children above 18 if they became disabled before reaching the age of 18 or if they are undergraduates (until they turn 24). The deceased person's pension is divided equally among the children but not more than a hundred percent of the basic pension to all the children and half the basic pension to one child.

6. Pension Systems: General Features

Pension is a regular life payment to a pension recipient. Retirees may receive pensions from both state and private institutions. The overall pension system comprises all types of pensions, institutions providing pensions and conditions for receiving pensions. Two principal pension systems are those operating on a pay-as-you-go basis and those operating on a fully funded insurance basis. Both systems are open to various options, which, in turn, determine the structure of the systems. First, we will discuss options possible under the pay-as-you-go pension system, then alternatives of fully funded insurance and different combinations of options will be analysed. Finally, we will look at the ways of applying the alternatives to the Lithuanian pension system.

I. PAY-AS-YOU-GO

State pension systems are usually built on a pay-as-you-go principle: they are financed from current revenues of the state budget or a special fund. Under such a system reserves accumulated are very scarce, if any.

The aims attached to a pension system determine the form it is going to take. Pensions may be viewed as the way to alleviate or head off poverty of the aged. They may also be regarded as replacement of previously earned income so that at retirement people do not face a sudden decline in wealth. In the former case state pensions are of minimum size, in the latter they depend on previously earned incomes.

1. Minimum pensions. As a rule, pension systems that are aimed at alleviating poverty of the aged are not very generous. Minimum pensions might be:

1) Means-tested pensions. The right to and the level of such pensions depend on individual (family's) income or assets.

Such a pension system costs the state less than other options because it virtually acquires the form of a social benefit system, that is, pensions are not necessarily paid to a recipient for life because eligibility for pensions is regularly reconsidered and payments may be terminated. Although the expenditures for means-tested pensions are low, their administration is fairly costly. Therefore, a system demanding higher expenditures but facilitating complex administration might be preferable.

2) Flat-rate pensions. Under this option, all residents who reach a pensionable age are eligible to receive flat-rate pensions. Sometimes the right to a flat-rate pension is granted depending on retirees' length of service or term of residence. Even though small contributions may be collected to the national budget to finance flat-rate pensions, such contributions are viewed only as a kind of solidarity contributions and the size of the pension does not depend on the level of solidarity tax.

Minimum pensions are mainly funded by the general state budget. They often constitute the first tier of a pension system - a certain safety network that guarantees at least modest means of livelihood for any individual. Other tiers of a pension system may comprise both state and private pensions.

2. *Earnings-related pensions.* The size of earnings-related pensions depends on an individual's previously earned income and contributions paid. The pension is not viewed as a society's support of the aged but rather as an old age insurance, although it is financed on a pay-as-you-go basis. Pensions are usually financed from special funds.

These pension schemes are contributory in character. One may "earn" a pension by way of paying contributions from his wage. Such pension insurance contributions are mandatory and in most cases shared by the employer and employee.

The size of a pension for any insured person is set according to a formula which, among other factors, includes the length of service and incomes (or the amount of contributions paid). Thus, pensions are more or less differentiated. The extent of differentiation as well as the ceilings placed on pensionable wage precondition redistribution of funds among the insured. Redistribution may be either very extensive, making the system particularly favourable for low-income people, or less extensive, making pensions proportional to contributions. Following social insurance principles, a pension should be paid as soon as an individual reaches a retirement age and regardless of other sources of income.

In some cases the state pension system comprises nothing but earnings-related pensions. In other cases, however, minimum flat-rate pensions and supplementary earnings-related pensions constitute a two-tiered public pension scheme.

II. FULLY FUNDED PENSIONS

The principle of fully funded insurance is in most cases applied in financing private pension insurance. Private pensions may be paid by pension funds (special old age saving institutions), insurance companies or any other financial institutions. Pension funds may be set up in companies, industry-wide and as open economic entities on the market.

State pensions may be financed in the same way, although this is not a common practice. A more typical procedure is when state pensions are partly based on the pay-as-you-go principle and partly on the fully funded pension principle. Fully funded pensions may also be financed on a mixed basis: a certain share of pensions is paid from accumulated reserves, while the other portion is paid from current contributions.

There are two main schemes of fully funded pension insurance:

— a defined-benefit scheme,
— a defined-contribution scheme.

1. *Defined-benefit scheme.* A person who obtains pension insurance is promised a future pension of a fixed level. The size of the pension is usually related to previously earned incomes. For example, an individual's pension may account for 60% or 70% of his last salary. Then actuaries calculate how many contributions a person needs to pay the promised pension. Since contributions made by the insured are invested and investment returns are further invested, calculations are based on future investment returns appraisal. Another factor which is taken into consideration is a projected rate of growth of an individual's salary. The scheme operates on a fully funded principle, therefore the size of contributions also depends on the length of insurance, that is, the younger a person is, the longer

period of accumulation he has and the smaller contributions he makes. A pension fund or an insurer providing pensions under a defined-contribution scheme assumes a responsibility to pay pensions of a size set in the insurance contract. Given a long period of insurance, assumptions made in calculating contributions do not always prove correct and the insurer himself has to smooth losses or surpluses.

2. *Defined-contribution scheme*. Under a defined-contribution scheme, not the size of future pensions, but the amount of contributions payable by the insured person or his employee is set. The insurer (or a pension fund) does not promise to provide a pension of a fixed size. The size of the pension is related to the size of contributions and investment returns, while losses and surpluses are not levelled. The insured person runs investment risks, because the insurer is not obliged to cover losses in case of decreased investment returns. In many cases pension fund schemes are administered by paying contributions to individual accounts. Pension accounts are easily portable among pension funds increasing the mobility of labour force. Furthermore, contributors make pension funds compete by being able to easily withdraw from one pension fund and enrol in another.

Since under a defined-contribution scheme funds are accounted separately for each individual, it is more acceptable during the period of paying contributions. The scheme does not have risk pooling, therefore pensions are not paid for life. With the amount accumulated the insured may purchase an insurance policy on the market or have the money paid in instalments from the account until it runs dry. Apart from accumulating funds, the system may also provide disability, widows' and widowers' pensions from special contributions managed on a defined-benefit basis. These contributions are channelled to a separate reserve fund or used to purchase insurance policy on the market.

There may also be schemes comprising combinations of defined-contributions and defined-benefits principles. They include defined-contributions schemes combined with guaranteed investment returns. The insurer guarantees an increase in investment rather than the size of the pension.

Defined-benefits schemes have been fairly popular so far, but with the increasing mobility of work force and state institution as overseers, their attractiveness is waning. The trend among employers is towards defined-contributions schemes, which involve fewer obligations. Employers also tend to switch from conducting pension fund activities to purchasing insurance policies for their employees or hiring insurance companies to conduct pension fund activity.

Defined-contributions schemes are gaining currency across the world. They appear to be more transparent and easier to manage. Also, they pave the way for public pension funds operating independently of employers. The possibility to select a pension fund at one's own discretion without having to accept the employer's decision is highly appreciated. Employers, in turn, have their obligations and responsibilities reduced considerably.

Various pension system models

I. The most radical model contains no pension system. The function of old age security is performed by various private arrangements, undertaken by people themselves and by means of social allowances paid from the state budget. Unlike pensions for life, so-

cial benefits are paid in certain cases and an established set of criteria is used to regularly test whether a person is unable to do without state support. Thus, state expenditure appears to be the lowest and so is redistribution among society.

II. Life payments may be provided by either a one-tier or several-tier pension systems. They may be either solely constituted of state pensions or private pensions or a certain combination of both. Private pensions may be optional or mandatory whereas state pensions are invariably mandatory.

Models of pension systems comprising state pensions only correspond to pay-as-you-go pension systems. Optional private pensions are briefly discussed under Fully Funded Pensions.

III. Combinations of state and private pensions (pay-as-you-go and fully funded respectively) constitute pillar pension systems. We will now discuss models which might be applicable to the Lithuanian pension system.

7. Alternatives to the Lithuanian Pension System

The state social insurance system constitutes the largest part of the pension system in terms of both pension recipients and expenditures. It includes old-age, disability and widows' or widowers' pensions. Old-age pensions, in turn, account for the largest part of social security pensions. Therefore in addressing problems confronting the pension system, attention is focused on state social insurance pensions or solely on old-age pensions.

Even though the pension reform has been adopted, the current state social insurance system inspires no public confidence. Social insurance contributions are considered to be too high and distortionary with regard to the labour market, whereas pensions are too low to cover living expenses. The conditions for receiving pensions do not always seem to be socially just. Views about differentiation of pensions and redistribution of funds are highly controversial. Many argue that the system is beset by a fair amount of inexpedient expenditures.

The reform did not provide a viable solution to the problem of financing the pension system. It would be fair enough to say that the reform exacerbated the current predicament by increasing expenditures on pensions while leaving contributions intact. The state social insurance fund is now in deficit, which is increasing in spite of the changes adopted. Therefore the pension system calls for a new reform. Mathematical models of general equilibrium may help simulate different reform variants and weigh their effects on the social security system and the economy at large.

Policy Options

The future Lithuanian pension system might be framed according to the following options:

1. The Absence of a Pension System

This scenario would allow to evaluate the Lithuanian economy in the absence of both private and public pension schemes. According to this scenario, people would make

alternative provisioning for the old age or would rely on state social support in the form of means-tested benefits.

2. Voluntary Private Fully Funded Pensions Only

The market offers a wide range of private pensions (pension funds or insurance companies), which are optional.

3. The Preservation of the Current Earnings-Related Pension System

No further changes to the current pension system suggest that the means of financing, the rate of contributions, the eligibility criteria and the pension formula will remain as they are under the current legislation. Yet, the 1995 pension reform provided for a gradual adoption of certain changes in the pension system. One of them pertains to the retirement age which is increased each year by four months for women and two months for men and a mandatory period of insurance, which is each year increased by one year for every insured. The retirement age—which in 1995 was as low as 55 for women and 60 for men—will be raised until it reaches 60 years for women and 62.5 for men by the year 2009. The period of insurance necessary to receive a full pensions was raised from 20 years in 1995 to 30 years.

In addition, the year of 2000 will see the enforcement of a requirement of working until the retirement age. To qualify for a pension, it is necessary to have an insurance record for the last years of service or 35 years of service in general. The aforesaid conditions are fairly strict. It will be hard for people who had part-time jobs or gaps in career to comply with the requirement. It is anticipated that by the time the new regulation comes into effect, about half of the population of the retirement age will be ineligible for pensions. In designing this option, the changes in question should be taken into consideration.

It is essential to make forecasts of further development of the current pension system with regard to numerous changes adopted under the 1995 reform. The reform entailed an array of financial modifications. The pension formula related pensions both to the price index and wage increase. The right to receive a pension was linked to contributions paid. Pensions were differentiated to a far greater degree than ever before. The effects of these changes will manifest for a long time in the future.

If the conditions of the payment of contributions and pensions provided for in the new legislation do not undergo further changes, the pension system will be affected solely by external factors. Of these, the most significant are demographic trends and the number of the insured.

The number of the insured keeps falling due to the demographic situation and tax evasion. People's interest in paying taxes is affected by a number of factors, including their economic capacity, the size of taxes, unemployment and the pensions-to-earnings replacement rate. In framing this model, return on contributions of the current pension system should be assessed.

The insured/pensioner ratio also depends on the number of pension recipients, which, in turn, is affected by the pension eligibility provisions. Since the current system has a low replacement rate (about 35 %), some of pension recipients (about 20%) continue to work

earning wages and paying social security contributions. According to the pension law, the size of pensions for working pensioners is limited.

The insured/pensioner ratio is steadily falling in Lithuania. There is a potential danger that social insurance will be in immense deficit and the state social insurance fund will be unable to provide pensions unless it is combined with the state budget. The model should assess the likelihood of such pitfalls.

Analysis of the impact of economic growth on the current pension system would be of great interest.

4. Fragmentary Reforms of the Current Earnings-Related Pension System

The current pension system may be reformed without adopting changes to the financing provisions according to several scenarios. The following parameters may be replaced and measures adopted:

1) The Contribution Rate

The rate of contributions was set by a newly established separate social security fund in 1991 and has not been changed since then. The total social welfare contributions (sickness and unemployment benefits included) are financed by a 31% payroll tax, with 30% paid by the employer and 1% by the employee. Of this, 22.5 and 1 percentage points respectively are allocated for pension outlays. Although this contribution rate may appear low as compared to that of other Central and Eastern European countries, it imposes a fairly heavy burden on labour force, making it avoid paying mandatory social insurance contributions. Labour contracts are disregarded and the real number of employees and the level of wages are hidden. According to some assessments, the shadow sector accounts for about a quarter of the economy.

The social security budget is suffering a growing deficit. One of the opinions is that pensions are low due to the low rate of contributions. A higher contribution rate may largely help with balancing the budget and increasing pensions. This scenario should foresee the extent, pace and consequences of raising the contribution rate.

A reduction in the rate of contributions, which is often regarded as impossible, should also be contemplated.

2) The Retirement Age

Lithuania's worsening demographic situation and the problem of ageing society is similar to that of Western states. The number of workers continues to fall, while the number of pensioners keeps increasing. Thus, the worker/pensioner ratio is decreasing. In 1976, for every one pensioner there were three insured people to support them. Presently three insured individuals support two pensioners.

The new social security law, which came into effect in 1995, provides for a gradual but slow increase in the retirement age, a provision which caused a great deal of outcry from the society. In Lithuania it is a popular belief that the majority of the population (especially

men) will not reach the fixed retirement age. True, in the last few years the average life expectancy was falling due to a growing mortality rate. The number of infant deaths has been growing. These tendencies have a tremendous impact on the average life expectancy at birth, which at the present moment is 65 years.

At the same time pensioners' life expectancy remains almost unchanged. A sixty-year old person lives approximately another 21 years, which is a fairly long period of pension outlays.

A faster pace of raising the retirement age would alleviate the budget deficit and preserve the financial capacity of the current system.

Increasing the retirement age may be halted. While this measure would tally with the society's demand, it would most probably deepen the budget deficit. Reduction in the retirement age would not be acceptable, for the present retirement age is sufficiently low.

3) The Replacement Rate

In Lithuania there are different views on the pension-to-earnings replacement rate. The average replacement rate is 35%. It is considered to be insufficient to smooth people's incomes during the working life and at retirement. On the other hand, a low replacement rate and its further reduction would help preserve the balance of the social security budget. Therefore in considering this scenario, both a reduction and increase in the replacement rate should be taken into account.

The replacement rate may be changed by replacing the pension formula.

The existing pension formula consists of two components: the basic pension and a supplementary component. The size of the basic pension is set by the government.

The size of the supplementary component is set according to a special formula based on the period of insurance, an individual's income (compared to the country's average wage of each year of insurance) and average insurance incomes (incomes from which social security contributions were paid in the last quarter throughout the country). The figure calculated is multiplied by a ratio of 0.005, which means that 0.5% of an individual's monthly wage is added to his future pension. The formula is designed so that with the help of the "average insurance incomes" ratio it can reflect the growth of wages in the country.

The ratio 0.005 applied in this formula may be changed, as it affects considerably the replacement rate.

When the reform was launched, plans were made to introduce a greater differentiation of pensions. It appeared, however, that the differentiation exceeded the capacity of the social insurance budget. Therefor the ratio reflecting the individual's average income and the country's average wage was set at 5. This limit may be changed or removed altogether.

The pension formula involves extensive redistribution. The replacement rate for people with higher incomes is low (only 15% if they earn 15 times the average wage), while for

those with minimum incomes this figure is 48%. Redistribution would also diminish if a ceiling were put on social insurance contributions. According to this scenario, the introduction of a "ceiling" for social security contributions could be considered.

The replacement rate may be changed by way of changing the rules of pension indexing.

4) Taxation of Pensions

The social insurance fund's revenues might be multiplied by taxing all or some of social outlays.

5) Limiting of the Size of Pension

Given other retirees' income, limiting of the size of pensions reduces social insurance expenditure. This implies a transition from a pension system based on social insurance principles to a means-tested pension scheme.

7) Merger of the Social Insurance Fund with the State Budget

The elimination of a separate social insurance fund would allow the state budget to cover the social insurance deficit, and social benefits could be financed not only by social but also other taxes.

8) Combinations of Options in Question

In most cases a single measure fails to bring about fundamental changes in pension systems or it cannot be adopted so as to bring about major changes. Therefore various combinations of the aforesaid scenarios should be tested, including changes to the retirement age, the rate of contributions, the pension formula, merging of the social insurance budget with the state budget, etc.

5. Preserving the Current Earnings-Related Pension System and Introducing Optional Fully Funded Pension Insurance under a Defined-Contribution Scheme

There are plans to introduce an optional fully funded pension insurance with pension funds under a defined-contribution scheme, leaving the current state pension system unchanged.

A special tax policy is going to be applied to fully funded pension insurance: fully funded pension insurance will be financed from tax-free contributions and investment returns and taxes will be deducted from pensions received. Such deferred taxation will influence the state budget's revenues. However, the shadow sector is expected to reduce slightly since people who intend to contribute to fully funded pension insurance will report their real incomes. This will provide additional revenues to both the state budget and the social insurance fund. Fully funded pension funds have a profound impact on the capital market , causing a notable increase in the supply of capital and investments. This impact with a playback must be taken into account too.

This model should help with predicting changes in the economy, state revenues and expenditure as well as the overall pension system when supplementary fully funded pension insurance has been introduced.

6. Reforming the Current Earnings-Related Pension System and Adopting Optional Fully Funded Pension Insurance under a Defined-Contributions Scheme

Since it would be impossible to maintain the current pension system without adopting changes, one of potential scenarios could involve a reform of the public pension system and the introduction of voluntary fully funded pension insurance. An increased rate of social insurance contributions would be unacceptable, for it would leave no room for supplementary fully funded pension insurance. It would be expedient to adopt fully funded pension insurance along with changes that would lift the burden of the public pension system. Private fully funded pension insurance would make up for reduced social insurance pensions.

7. Providing Minimum State Pensions and Adopting Optional Fully Funded Pension Insurance under a Defined-Contribution Scheme

This scenario involves more radical changes in the current pension system, offering transition from earnings-related pensions to minimum pensions financed from the state budget. The current pension formula should be redesigned so that pensions would become even less differentiated. A ceiling should be placed on contributions and the linking of eligibility to contributions should be phased out.

8. Providing Minimum State Pensions and Adopting Mandatory Fully Funded Pension Insurance under a Defined-Contribution Scheme

Introduction of mandatory fully funded pension insurance involves the problem of transition from one system to another. One working generation should pay double contributions, for their future pensions and for pensions for present retirees. Therefore, financing is one of the most important problems of a transition.

One of possible ways to reform the current system is a gradual division of the rate of the mandatory social insurance pension into two components: social insurance and fully funded pension insurance. Initially, the former component would be higher, while later it would be progressively reduced in favour of the latter component. In changing the rate of social insurance, the pension formula should also be gradually modified making it flatter. The terms of receiving pensions should also be revised, removing a strict dependence of pensions on contributions made. Social insurance pensions would be replaced with a minimum state pension paid from the state budget.

By dividing the rate of social insurance into two parts, one of which would be reformed into fully funded insurance, the social insurance budget would run a deficit. There are several ways to prevent a deficit. One is by making subsidies from the state budget, issuing bonds, cutting the expenditures of the state budget and those of the social insurance fund. The way of financing the transition should be combined with aforesaid changes of social insurance that would help prevent the deficit of the state pension system.

This option should evaluate different ways of financing the transition as well as forecast its development and impact on the economy.

9. Adopting Mandatory Fully Funded Pension Insurance Only

Under such a system every worker would transfer part of his wage to fully funded pension funds or other fully funded pension insurance institutions. This option also involves the problem of financing the transition. However, after the transition period the public pension scheme would be phased out.

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