

Official stamp reading: Government Office of the Slovak Republic  
8 June 2012  
Filing office

## **HONORS**

**Transformation towards permanently sustainable society**

---

### **Proposal to solving the current issue of pension system and issues related to social pension**

**Submitted by:** HONORS, a.s.

Illegible signature

**Drawn by:** Ing. Dušan Lukašík, CSc

Ing. Ľubomír Ružek

**Annex:**

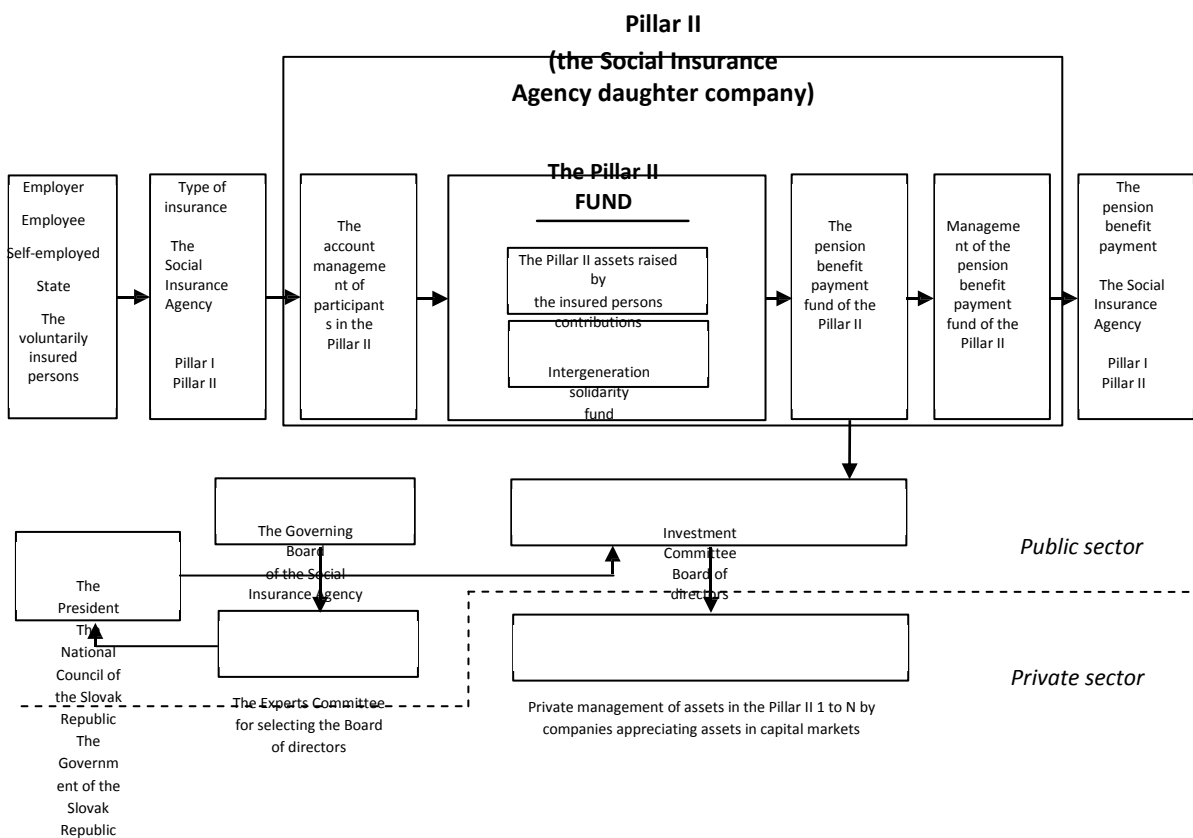
- 1. Essay on freedom of a man while choosing the particular Pension Assets Management Company**
- 2. Papers for Maroš Kondrôt, Member of Parliament, speech**
- 3. Agreement concluded between the Ministry of Labour, Social Affairs and Family and HONORS, a.s. for 1999 – 2002 and its assessment**
- 4. Article for International Seminar on Pension Reform in Slovakia, Bratislava 12 June 2002**

**Summary:**

A current Pillar II. of the pension system solved according to the Model B of the 2002 legislative intent brought a whole range of anticipated problems that relate to the existence of non-systematic pension system transformation, as having been proved by the 1999 - 2002 analysis.

The proposed solution in the form of the Pillar II. transformation into the recommended solution A according to the legislative intent, discussed by the government of the Slovak Republic on 7 August 2007, no. UV-5450/2002, solves a substantial part of problems that relate to the compliance with the principles of equality, expenditures of the Pillar II system, return of assets of the Pillar II and problems connected with the Social Insurance Agency liquidation and with the public finance consolidation. Its main concern is to reasonable allocate the Pillar II functions between the public finance and private sector.

**The proposed organization**



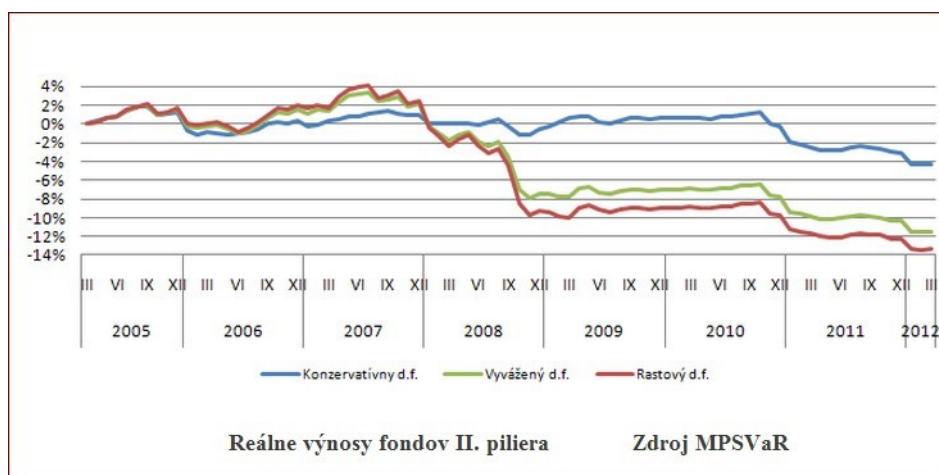
Keeping the Pillar II accounts with financial cover amounting to 9 per cent provides a solution for distributing the risk between labour revenue and revenue from capital fund. At the same time it solves demography problems, known as the problem of public goods and black passenger. Reducing the contributions to the Pillar II does not solve problems of the system, only partially it solves the problem of the Social Insurance Agency liquidity and of the public finance consolidation.

## Introduction

A problem of demography has required introducing the individual accounts. Accounts in the pay-as-you-go system have the registration nature and in the capitalization Pillar II the accounts are financially covered. Extensive analysis of the pension system commenced in 1999. On 7 August 2002, the Government of the Slovak Republic discussed the legislative intent motion for act on capitalization pension saving pillar (The Ministry of Labour, Social Affairs and Family, 2002). After six years, the amendment to Act on Social Insurance passed in 2004 and Act No.

43/2004 Coll. on Old Age Pension Saving System came into force.

Seven years after, the Ministry of Labour, Social Affairs and Family declassified and published the Pillar II fund returns that were inflation adjusted. What the theoretical analysis anticipated in the years 2000 - 2002 has finally been proven (D., 2000) (Lukášik D., 2001) (D., 2002) (Lukášik D., 2001). A structure of the Pillar II has naturally led to the funds loss in profits. Such loss is not due to decreased market efficiency, yet the loss in profit is caused by wrongly established system, in contradiction to the Ministry of Labour, Social Affairs and Family recommendations of 2002. Anticipated depreciation of savings in the year 2000, suggesting losses of 20 to 40 per cent due to the Pillar II structure, which was said to be system and institutional according to act No. 43/2004 Coll, has been proven. Solutions based on conservative appreciation of assets by 2% per annum above inflation assessed rationally appreciation in capital markets, as recommended by the Ministry of Labour, Social Affairs and Family. Act No. 43/2004 Coll. depends on the Model B, called the Chile model. In reality the situation looks as follows:



1. There is no market with the Pillar II accounts. Therefore, an incredible amount of SKK 9 billion were spent on commercials and Pension Asset Management Companies (DSS) providers, without having any value for people.
2. According to the Ministry of Labour, Social Affairs and Family, depreciation of the funds' assets amounting to 4.86 billion euros is 4.36 %  
in conservative pension funds, 11.65% in balanced pension funds and 13.62% in growth pension funds against inflation, average of  
11.98% in total amount of EUR 661 billion as of 31 December 2011.
3. Assets have however been depreciated against conservative parameters by 2% above inflation rate on average by 30.27%, in total by unbelievable EUR 1, 471 million
4. Fund assets have been depreciated by 33.27%, being EUR 1,617 million, against standard amount of 3% appreciation above inflation, used in the OECD analysis  
and documents of the Ministry of Labour, Social Affairs and Family.

The following calculations show that the Pillar II funds have been suffering a loss against inflation basically since its establishment, with even deeper deficiency since 2008. Upon closer examination we can see that unfavourable results are caused by ineffective system distribution of functions in the Pillar II between public finance and private sector, and partially by guarantee imposed on the

fund management companies of the Pillar II. According to authors, a state may not simply terminate the guarantee to a person upon dividing the mandatory pension system and transfer such guarantee to a private sector. People, who pay mandatory contribution into the Pillar II, must be granted certain guarantee by the state, just as it is in the Pillar I. Great Britain dealt with similar situation in the 1990s, when pension funds incurred loss of up to 40% as a consequence of incorrect regulations. Finally, such losses had to be paid to people in the form of approved claims for pensions. In addition, the financial crisis of 2008 - 2010 proved that the private sector fails to secure public finance within the pension system, on the contrary, the public finance were used to save the private sector, including the biggest financial institution in the world, the AIG.

| Calculation of losses in the funds assets in the Pillar II against inflation and against conservative returns of 2% and model returns of 3% used by OECD and the Ministry of Labour, Social |                  |                                 |                               |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------|-------------------------------|-----------------|--------------------|------------------------------------------------|------------------|---------------------------|----------------|----------------------------------------------|----------------|------------------|
| as of 31 December 2011                                                                                                                                                                      | Assets value net | Amount of monthly contributions | Profit/loss against inflation | Value of assets | Value of 1% assets | Value of assets, unless evaluated by inflation | Loss             | Loss with 2% appreciation |                | Loss with 3% appreciation in accordance with |                |                  |
|                                                                                                                                                                                             | parameter        | %                               | %                             | %               | €                  | €                                              | €                | %                         | €              | %                                            | €              |                  |
| <b>Net value of assets in a conservative fund</b>                                                                                                                                           |                  |                                 |                               |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 53.00.           | AEGON                           | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 130.20.          | Allianz                         | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 153.80.          | AXA                             | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 36.40.           | Poštová banka                   | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 34.60.           | ING                             | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 99.30.           | VÚB                             | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | <b>507.30.</b>   | <b>In total</b>                 |                               | <b>-4.3.</b>    | <b>95.7.</b>       | <b>5.30.</b>                                   | <b>530.09.</b>   | <b>- 22,79</b>            | <b>-18.75%</b> | <b>99,37</b>                                 | <b>-26.58%</b> | <b>140,91</b>    |
| <b>Net value of assets in a balanced fund</b>                                                                                                                                               |                  |                                 |                               |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 119.60.          | AEGON                           | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 483.50.          | Allianz                         | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 310.90.          | AXA                             | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 72.60.           | Poštová banka                   | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 169.30.          | ING                             | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 242.40.          | VÚB                             | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | <b>1,398.30.</b> | <b>In total</b>                 |                               | <b>-11.5.</b>   | <b>88.5.</b>       | <b>15.80.</b>                                  | <b>1,580.00.</b> | <b>-</b>                  | <b>-26.35%</b> | <b>416,33</b>                                | <b>33.87%</b>  | <b>535.15.</b>   |
| <b>Net value of assets in a growth fund</b>                                                                                                                                                 |                  |                                 |                               |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 325.40.          | AEGON                           | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 940.90.          | Allianz                         | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 837.70.          | AXA                             | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 158.80.          | Poštová banka                   | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 329.50.          | ING                             | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | 363.90.          | VÚB                             | 0,025%                        |                 |                    |                                                |                  |                           |                |                                              |                |                  |
|                                                                                                                                                                                             | <b>2,956.20.</b> | <b>In total</b>                 |                               | <b>-13.4.</b>   | <b>86.6.</b>       | <b>34.14.</b>                                  | <b>3,413.63.</b> | <b>-</b>                  | <b>-28.00%</b> | <b>955,82</b>                                | <b>35.84%</b>  | <b>1,223.44.</b> |
| <b>31</b>                                                                                                                                                                                   | <b>4,861.80.</b> | <b>DSS in total</b>             |                               |                 |                    |                                                | <b>5,523.72.</b> | <b>-</b>                  | <b>-</b>       | <b>1471,52</b>                               | <b>-</b>       | <b>1,617.68.</b> |
| <b>Average loss in %</b>                                                                                                                                                                    |                  |                                 |                               |                 |                    |                                                |                  | <b>-11.98%</b>            | <b>-30.27%</b> |                                              | <b>33.27%</b>  |                  |

Table 1 Calculations of the Pillar II losses in comparison to inflation, conservative model of the assets appreciation by 2% above inflation rate and to a model used by OECD and the Ministry of Labour, Social Affairs and Family with appreciation of 3% above inflation.

A solution to the Pillar I and II, in accordance with Act No. 43/2004 Coll., suggests inefficient distribution of functions between public finance and private sector, out of which the following shall arise:

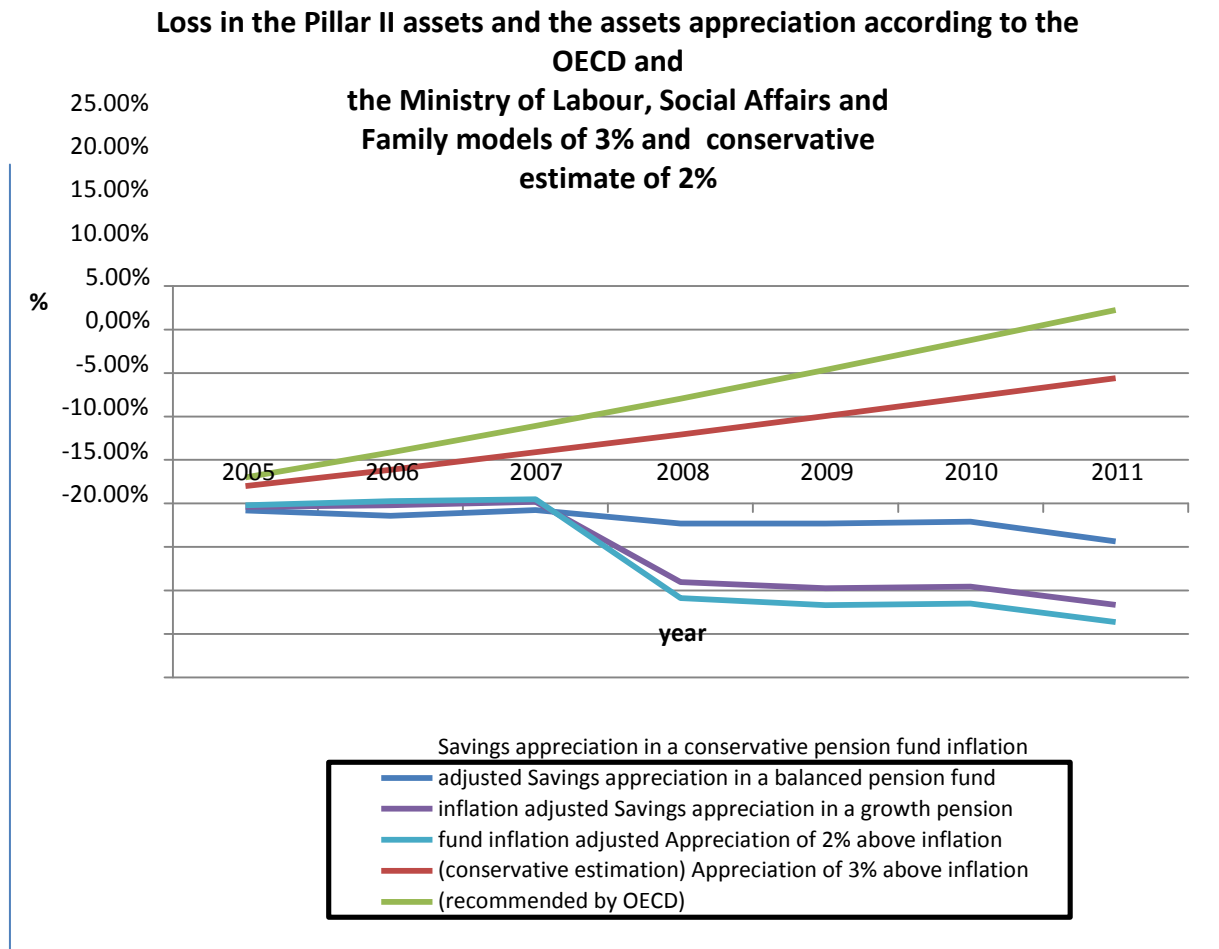
- freedom of a person deciding to choose a particular pension asset management company in the Pillar II shall be restricted, thus creating moral hazard to a person. The result is inequality among people, having impact on their property rights which means that people draw different pension benefits despite having contributed the same amount into the system. Most likely, this contradicts the Constitution of the Slovak Republic, Art. 12 (1) and 13 (3).
- to set the right guarantee system of the state to citizens and of the state to private sector, in accordance with providing space for investing, shall be impossible to achieve with the consequence of returns being decreased
- there is no market with the accounts management, however, the market is artificially established, which
  - restrict taking advantages from economy within the scope of managing accounts, having to increase expenses for the system
- effective competition with the assets management is not possible, consequently decreasing assets returns,
  - whilst the assets management monopolises assets for their own benefit
- conflict of interest with accounts management and assets management is impossible to eliminate,

consequently decreasing

assets returns

f. financial reserves in the Pillar II accounts are impossible to be accounted in the public finance and thus the state debt amounting to EUR 4.86 billion and permanent consolidation of public finance amounting to around EUR 700 million per annum is impossible to solve, having to increase costs for public finance debt.

g. Increased costs on debts service (higher interests due to higher debts of the state) amounting to EUR 300 to 400 million as it is anticipated for the period of 7 years



**Table 2 Loss in the Pillar II assets compared to inflation and conservative plans of 2% above inflation rate and in accordance with the OECD and the Ministry of Labour, Social Affairs and Family models of 3% above inflation.**

### Problems that require solution

To solve problems connected with social system in the Slovak Republic, we hereby propose the following:

1. To solve the issue of solidarity and merit principle in the social system, upon having to comply with the minimum costs criteria, under ILO 3:1 ratio as for the contributions and reduction as for the benefits with not properly set merit principle, in order to ensure pension benefit equal to 45% (50%) of average wage during the period of 35 (40) years of having to make contribution into the system.
2. To divide the pay-as-you-go system into the Pillar I and II, having to keep individual accounts in the

## Pillar II

and financial cover of assets in the Pillar II with optimal division of functions between public finance and private sector with solving the following:

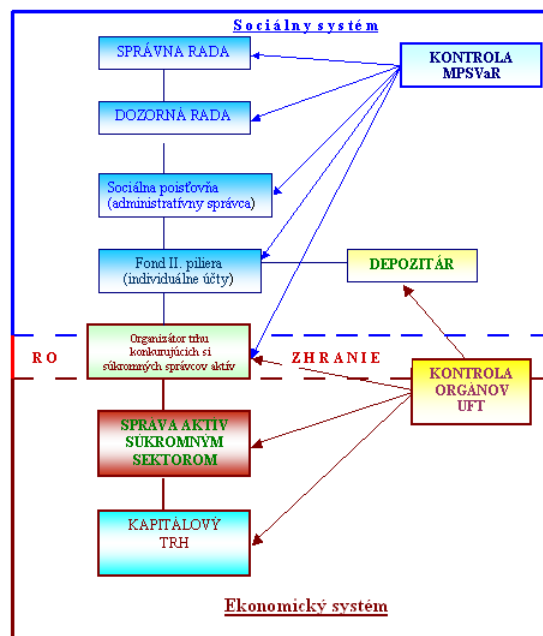
- a. Expenditures connected to accounts management and assets management
  - b. Return of assets
  - c. Guarantee of the state to people and of the private sector to state
  - d. Liquidity and solvency of social system
3. To solve problems of public goods and black passenger:
- a. In the labour market

- b. With human capital having been formed
- 4. To bring down the risk when people start families with more children, representing a separate part of the problem

### Proposed solutions

Only with individual accounts is it possible to approach the problems of black passengers, either in the labour market or with human capital formation. The main purpose for dividing the pay-as-you-go system into the Pillar I and II is to distribute risks between workforce returns and capital returns. In the 40-year long run, the workforce returns shall reach 2-3% (Orszagh P. R., Stiglitz J. E. , 1999) and capital returns 3-4% (Taylor) above inflation. Pension system divided into the Pillar I and II under act No. 43/2004 Coll has included a whole range of drawbacks which, in combination with solidarity on a side of expenditure, brought a range of problems into the system in the period of 2003 – 2005. They can be summarized as follows:

A principle of solidarity, expressed by 3:1 on the side of income with reduction on the side of expenditure, was weakened by politically motivated strengthening of the merit principle on the site of expenditures. This makes pressure on an income side. The result of such weakened solidarity is that there is insufficient amount of sources and pension benefits differ in amount, leading to financial expenditures being increased with all its positive feedback consequences. **An increased ratio to 1:4 and considered increase to 1:5 shall result in increasing the financial expenditures of the system, and positive feedback shall, through increasing number of unemployed people, increase expenditures of the system.** Some employees with higher salaries will become self-employed or they establish their own companies, pushing their salaries down. As a consequence, the measures shall miss the aims. Therefore, an effective solution seems to be to return back to solidarity with the 1:3 ratio on the income side, with pension benefit amounting to 45% to 55% of average wage, depending on the number of years contributing into the system (35 - 45).



Picture 3. System distribution of functions between public finance and private sector

Upon dividing the social system into the Pillar I and II, having to allocate the functions between public finance and private sector wrongly, the citizen - the Pillar II contributor, becomes morally at risk. The risks that



the state should be responsible for, as it is in the Pillar I, were passed on a citizen, through the private sector. Contributions that the citizens paid into the Pillar II, upon having been ordered by the state, are free of any guarantee, and if, then only in a limited way. People are not aware of such risk, and even if, they do not have the right instruments, or knowledge, to manage it. The state secured risks in the Pillar I and valorises pensions every year, yet the risks in the Pillar II shall remain unsecured due to wrong distribution of functions. The private sector does not dispose of any instruments to secure risks connected with public finance in the Pillar II. Since the state did not require the guarantee from the Pension Asset Management Companies for adequate appreciation of assets, all the investments were carried out at the citizen's own risk. Upon implementing guarantees imposed by the state on PAMC, the risk of investments, thus returns of the PAMC, have substantially decreased. It is worth noting here that the loss in profits, due to currently set system, were envisaged by HONORS, a.s. in the period of 2000 - 2002 (D., 2000) (Lukášik D., 2001) (Lukášik D., 2001) (Lukášik D., 2001) (Lukášik D., 2001) and were the main subject for discussion at the conference on pension system reform taking place in June 2002 in Bratislava. (D., 2002) Such disastrous results of assets appreciation are not due to the crisis, yet due to the wrong system, in particular due to allocating functions of the Pillar II between the public finance and private sector.

The analysis above resulted in the Ministry of Labour, Social Affairs and Family proposing to adopt a plan A, called the Canadian model, on 7 August 2002. New Government, however, adopted a current model, the Chile model, based on act No. 43/2004 Coll. (Ministry of Labour, Social Affairs and Family 2002). Results, analysed in 2007, were presented by Mr Maroš Kondrôt at the National Council of the Slovak Republic in December 2007 (D., 2007) (Lukášik D., 2007). Summarized problems of the Pillar II pointed out to high losses and proved analysis of 2000 – 2002 period.

Reducing contributions into the Pillar II to 5% basically fails to solve any major issue, except for an immediate liquidity of the Social Insurance Agency and a partial decrease of the public finance deficit.

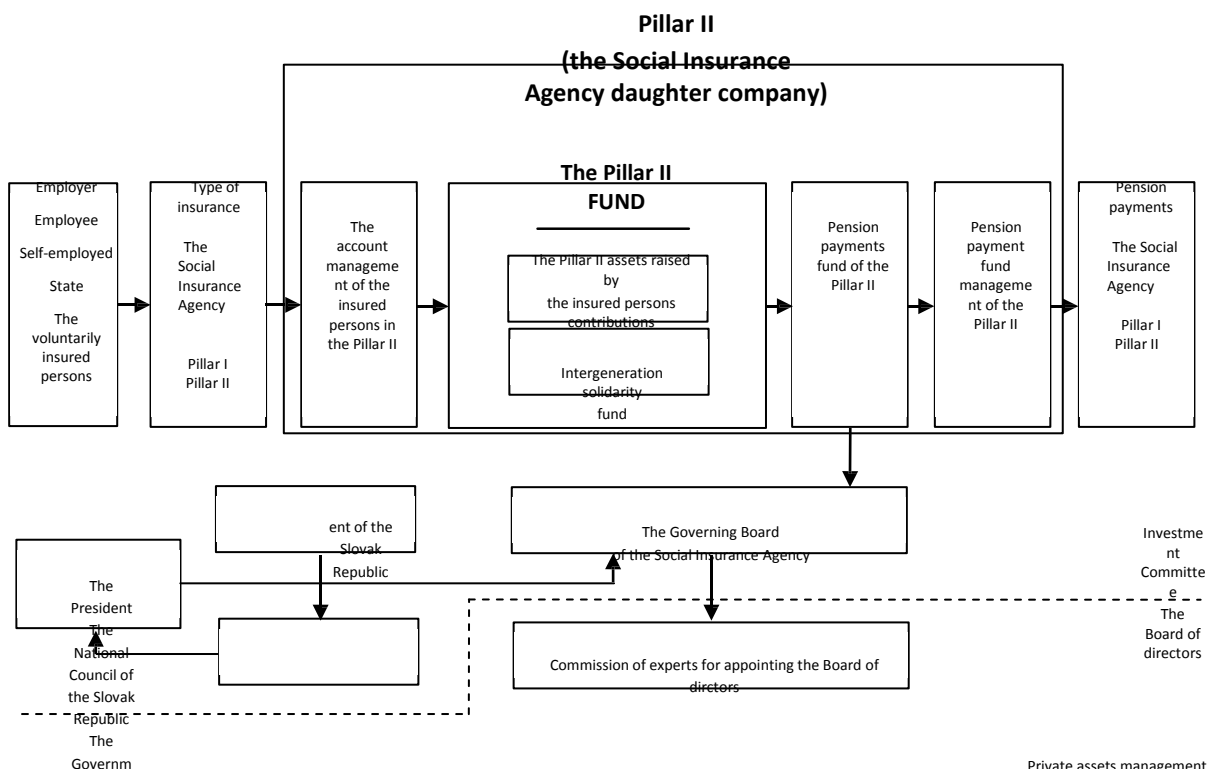
### **Solutions to the current problems are to be summarized as follows:**

1. To strictly define social risks in legislation
2. To introduce balanced solidarity and merit principle to the pension insurance system, in accordance with the ILO recommendations, with the contributions of 3:1 at the entry and 2:1 at the output, having to minimize expenditures for securing the system, and thus ensure the economy competitiveness in the Slovak Republic. To provide financial sources to the social system from contributions and eliminate, or minimize, income from general tax.
3. To harmonize the Pillar I and II with the Constitution of the SR and ensure that with the same amount having been contributed into the system the people are guaranteed the same pension benefit. The public finance principle implies non-existence of a market with the accounts management in the Pillar II. Solving one account management shall solve the following:
  - a. It uses economy and thus substantially reduces costs of account management
  - b. It eliminates a conflict of interests with account and assets management, thus increases assets returns
  - c. Having a third subject in between the one account management and assets management brings competitiveness, thus it substantially increases appreciation
  - d. It establishes equality between people and harmonizes legislation with the constitution principles contained in Art 12 and 13 of the Constitution of the Slovak Republic
  - e. Upon deciding the accounts management within the public finance, the state may set effective guarantee for the Pillar II accounts that equals to the Pillar I guarantee, having to create a system with exactly defined contribution up to the scope of guarantee. Returns above the state guarantee represent the defined amount of contribution.
  - f. Upon deciding the accounts management within the public finance, the public finance debt

can be cut by EUR 4.86 billion and the public finance can be consolidated permanently by around EUR 700 million per annum, leaving the principle of financial cover in the Pillar II unchanged.

- g. Upon managing accounts by one administrator it is possible to achieve charges of 0.2% of assets per annum
- 4. Upon introducing competitiveness in the assets management in the Pillar II system the returns with anticipated appreciation of 2-3% per annum shall increase
- 5. While allocating functions between public finance and private sector the state can offer guarantee to the people in the same way as it does in the Pillar I.
- 6. Establishing the intergeneration solidarity fund as part of the Social Insurance Agency shall solve the problem of the Social Insurance Agency liquidity.
- 7. If an agreement is reached then it is possible to set the same level of solidarity at the entry in either Pillar I or II, having to reduce costs spent on system and increase competitiveness of the Slovak Republic economy in international markets
- 8. It is reasonable to separate the assets management from the accounts management by the third subject - Investment Committee and thus solve the conflict of interests and at the same time distribute public finance into the private sector, having to increase assets profitability
- 9. Solving solidarity in the system suggests a period of 37 years of contributing into the system. **This gives the citizens an opportunity to freely decide when to retire,** if the following criteria are met:
  - a. They actively contributed into the social insurance for the period of 37 years
  - b. Their calculated pension benefit amounts to 1.2 times the minimum wage for his or her individual length of life
- 10. the number of years of contributing into the system relates to the medium length of life

**Proposed organization**



by companies  
appreciating assets on  
capital markets

*Public sector*

*Private sector*

The main purpose for contributions of 9% : 9% contributions meant balanced division of risks between capital returns and workforce returns. The reason is that workforce returns in the 40-year long run reach 2% to 3% (Orszagh P. R., Stiglitz J. E. , 1999) and capital returns reach 3% to 4% (Taylor) above inflation. With 2% capital appreciation above inflation the wage refund can amount to 45% during the period of 35 years, if charges amount to 0.1 %- 0.2 % of assets per annum. Reducing contributions into the Pillar II and keeping it as it is now does not solve the problems of wrong allocation of function between the public finance and private sector. Only after the right allocation of the Pillar II function is it possible to eliminate the problem of a black passenger in the social insurance system both in the labour market and with human capital creation.

### **Problem of demography**

A significant problem of the social system represents decreasing reproduction of society, called the demography problem. In a three-generation family the property intergeneration redistribution of sources takes place on individual levels among the family member. The children were obliged to secure pension for parents through family's property in a family like this one. Events of the past connected with social risks lead to establishing public goods in the form of a social system. An individual risk of a person, covered by own child and his or her ability to create values, had been distributed among a number of anonymous children living in the state. Out of sudden, a child's participation at creating future sources becomes insignificant. Until that time a child had been fulfilling both emotional and economic function. In a modern social system, however, economic function of a child is fading away. Two generations have shown that one child fulfils emotional function and since the economic function for parents had lost its importance, many families became fairly happy with one, or two children maximum. Reproduction of society is on average at a rate of 2.1. Therefore families with less children create a problem for society, being addressed as a black passenger by economy. As soon as the problem of one-child families spreads further, it brings a problem of the public goods sustainability in the form of a social system (Hardin, 1968). The problem of demography, as it is in the social system, brings back the economic function of a child. We can say that only the system of altruism, without any individually motivated stimuli, is unsustainable from a long term point of view (Ridley, 1996). All systems of altruism without any guarantee or economic motivation have failed (Leas, 1994). The public goods comprises of social, and mainly pension system that we all bear responsibility for, but to such insignificant extent that no one considers creating other sources, except for financial contributions. Families with fewer children than the 2.1 reproduction rate are responsible for the problem of a black passenger. Their pension benefits depend more or less on other children rather than on their own. Investments to bring up two or three children are several times higher than financial contributions into the pension system paid by an individual.

This problem is connected also with the level of knowledge, out of which the amount of remuneration shall arise in the labour market. Unless parent invest into their children sufficient amount of money for education and skills in order to create values according to the labour market demands, the children would fail to find a job (even if they graduated and were awarded a title) and they would do not create values. On the contrary, they are inconvenient due to having to increase unemployment and many times it is necessary to provide other sources for their requalification. The socially non-adaptable citizens represent an extreme for society.

It's been evidenced that the natural person tax revenue is an objective indicator for showing amount of human capital having been produced. If this element created economic motivation for parents in form of benefits having been paid into an individual account of a parent then the young people would try to start a family earlier, families would have two or three children, and most of all, parents would invest in such education as to enhance child's opportunities in the labour market. A problem of moral hazard, crated in the social system by the state, would be substantially eliminated. Parents should ask a question "what will you

do to ensure living for me?" instead of "what will you do for living?". Such principle is based on three or four children in a family proposing that 10% of a pension benefit should come from a natural person income tax per child. This would mean that 20% to 30% of a pension benefit for a parent comes from a natural person income tax of his or her own children. We can assess that the number of years contributing, through a natural person income tax into the account of his or her own parent, would be within 15 to 20 years. Moreover, it would motivate to start a family at an earlier stage.

## Merit principle and solidarity in the social system

Documents published by the Ministry of Labour, Social Affairs and Family with the aim of providing basis for discussion identify two main problems that the society has to find answers to. To what extent do we want to have a pension system based on merit principles or principle of solidarity and to what extent do we prefer relatively more generous system with higher pensions in the future, and therefore ready to bear higher tax burden. We can jointly formulate the questions as follows:

*"Is it better for a society to have more expensive pension system or is it better to have a pension system which provides decent life with all the social risks arising, with the lowest possible costs, guaranteed by the state?"*

Social risks are exactly defined and need minimum costs for ensuring decent life with all its social risks. Social risks are of random character and not every risk can be overcome by an individual. Therefore, the insurance principle solves such systems on a collective level with much lower costs than the individual saving systems, which are not able to provide enough sources for covering such social risks. Another substantial reduction of the social system costs can be achieved through the combination of solidarity and merit principle. They represent two trends, contrary to each other. Therefore it is necessary to find a balanced solution to bring the two trends together. The merit principle is based on an idea to keep reasonable economic motivations in the system for those with higher income. Some social and pension insurance benefits, such as old-age or disability pension are differentiated depending on amount of contributions having been paid by an individual. On the other hand a solidarity principle suggesting a redistribution of sources, which substantially reduces costs of system. Upon harmonizing solidarity and merit principle we can achieve such solution that ensures the lowest possible costs of social system, generally accepted by society. This shall ensure higher competitiveness of economy in international goods, services and investment market. A balanced system, recommended by ILO, represents a system based on 1:3 ratio, while the system provides pension benefits amounting to 45% of average wage after the period of 45 years of having to pay contributions into the system and 50% after 40 years of contributing. The system must at the same time prevent the input costs from unreasonable increasing because such pressure immediately increases pressure for entry costs. This makes the system more expensive and the economy competitiveness lower. As a consequence, the number of unemployed people is increasing and therefore income into the social system decreasing which implies that the entry costs are rising, having impact on competitiveness of economy. Such positive feedback for increasing the expenditures and costs has a negative impact on competitiveness of economy. Therefore, any increase to expenditure on social system must have good grounds and financially balanced.

Like any other system, permanently sustainable with a man in the centre, also the social and pension system must be formed in such a way as to consider human character and emotions (Frank, 1988) (R.H.Thaler, 2009) (Akerlof George A., 2009). A well planned system must, in addition to setting a social role, include both a motivation element which identifies an individual with social aim, and a repressive element which punishes those participants in the system who break the rules.

Nature has developed through evolution such systems that allocate sources (human and material) with the maximum efficiency, well expressed by organization of the hunt for a big fish (Ridley, 1996). Economics described such systems as systems of altruism with guarantee (Collard, 1978), or as organizing cooperative and competitive market (Lea, 1994). In case of social and pension system it means to harmonize those problems that contradict each other, that is the individual merit with collective solution to the problem. The main aim is to establish such system with lowest possible costs that would guarantee covering the social risks to each person. Moreover, the solution must guarantee that each participant to the system has both a repressive element and economic motivation in order to be an active participant

in accordance with its functional structure. *In order to maintain competitiveness in the market, it is vital for any economy to have the lowest possible costs for labour, while preserving reproduction, which means human capital in the form of the number of children, health and knowledge for creating values.*

The Constitution of the Slovak Republic guarantees the citizen freedom. The state has the right to restrict freedom by legislation unless such restriction solves the problem of social system. When restricting freedom and legal rights, the legislation must consider main purpose and apply it only when aiming at particular target. Under the same conditions, all people must be equally restricted and duties and rights must apply to everyone equally. On the other hand there is a state which according to law has to give guarantees to its people, the guarantees which meet the Constitution principles.

First question that needs to be answered is whether 45% (50%) wage compensation during the period of 35 (40) years of making payments into the system and minimum of 1.2 times the subsistence minimum for the retirement after 35 years of having to contribute into the system means a decent life for people who retire.

Second question is whether the period of 37 years of active contributing into the social system, under the medium lengths of life represents adequate criteria in order to claim pension benefit from the social system. This ensure freedom of choice for people when making the decision to retire within 57 to 65 years of age.

Third question is whether solidarity, expressed in the form of contributions restricted to three times the minimum wage at the entry and with reduced pension of 45% to 50% of the pension benefit at the output, shall represent good enough motivation for every person and entities when creating collective sources of the pension system public goods. We hereby note that decent life connected with social risks is ensured by the lowest level of social contributions.

### **The black passenger in a labour market**

A number of employees in the labour market are not interested in increasing their qualification, and in case they lose job they are not willing to find a new one. The problem of black passenger comes to light when unemployment allowances from an anonymous collective account, where each employed person contributes, are being paid out. In Singapore and Malaysia, the solution is based on fact that a part of unemployment allowances is paid from an individual account. Motivation of a person to remain attractive in a labour market is thus connected with his or her pension benefit (Stiglitz J.), and if substantial part of that pension benefit is used at the productive age then it is substantially decreased when a person retires.

### **An issue of political presentations**

An idea to separate a pay-as-you-go system of pension insurance into the Pillar I and II, with individual accounts, failing to solve problems of solidarity and black passenger together with other details has proved to be as bad as not to solve the social system at all.

First, the pay-as-you-go system of social and pension insurance experienced unreasonable cancelation of merit principle at the output during the period of 2002 - 2006 and then the contribution ceiling was increased from 1:3 to 1:4 in the period of 2007 - 2009 implying that it is a must in order to solve the system sources. As a result, expenditures on social system have unreasonably increased.

A substantial problem of the pension system was the pension reform suggesting separating the social system into the Pillar I and II, the process which was lacking for any reasonable allocation of functions between the public finance and private sector. As a consequence, there is moral hazard for people, high costs, low returns, and conflict of interests when managing accounts and assets and failure to provide people with guarantees. The same is it with introducing merit principles into the Pillar II, which does not solve the issue of maintaining the criteria of 1.2 times the minimum wage for approximately 60% of people saving in

the Pillar II, thus expenditures on system shall increase. In addition, it does not solve the most fundamental problem and that is the equality between people participating in mandatory system in accordance with Art. 12 and 13 of the Constitution of the Slovak Republic.

### **The pay-as-you-go system and the Game theory and human character**

The pay-as-you-go system is based on mandatory altruistic principles under which all participants are obliged to build up sources of a social system. However, the Game Theory has proved that mandatory altruistic system, though pure, is not stable from the long term point of view. Unless it includes individual motivation stimuli, harmonized with common targets, it shall collapse as a consequence of constant increase in the number of black passengers. On the other hand, if the system does not include motivation stimuli then the solutions, lacking such stimuli just on the basic level of social system benefits (known as the contribution bonus in Slovakia), fail to provide motivation for people and probably therefore none of the countries have introduced it. If we want to solve motivation and its forms, we have to consider the following:

1. Motivation based on the amount of contributions
2. Motivation based on creating human capital - the number of children and their education, capabilities to create values paid by market
3. Combination of both

### **Conclusion**

The current solution to the Pillar II. of the pension system according to the Model B of the 2002 legislative intent

brought a whole range of anticipated problems that relate to the non-systematic pension system transformation, having been proved by the 1999 - 2002 analysis. The proposed solution in the form of the Pillar II. transformation into the recommended solution A according to the legislative intent, discussed by the government of the Slovak Republic on 7 August

2007, no. UV-5450/2002, solves a substantial part of problems that relate to the compliance with the principles of equality, expenditures of the Pillar II system, return of assets of the Pillar II and problems connected with the Social Insurance Agency liquidation and with the public finance consolidation. It concerns the reasonable allocation of the Pillar II functions between the public finance and private sector.

Keeping the Pillar II accounts with financial cover amounting to 9 per cent provides solution for the distribution of risk between labour revenue and revenue from capital fund. At the same time it solves the problem of demography which is known as the problem of public goods and the black passenger problem in economy. Reducing contributions into the Pillar II does not solve problems of the system, only partially it solves the problem of the Social Insurance Agency liquidity and of the public finance consolidation.



## Bibliography:

1. **D., Lukášik.** *Costs analysis Chile, Great Britain, Sweden Bolivia.* Lipt. Mikuláš : HONORS, a.s., 2000.
2. **Lukášik D.** *Cost analysis of American share funds.* Lipt. Mikuláš : HONORS, a.s., 2001.
3. Will the Slovak Republic citizen become a serf paying regular tithe to the feudalist who is currently the pension system management company, and will the Slovak Republic citizens loose pension amounting to SKK 300 billion under the current prices or the Slovak political representations will decide on the pension. **D., Lukášik.** Bratislava : U.S.-EU-SLOVAKIA ACTION COMMISSION International Seminar on Pension Reform in Slovakia, 2002.
4. **Lukášik D., Ružek Ľ.** *SWOR analysis for Ministry of Labour, Social Affairs and Family.* Lipt. Mikuláš : HONORS, a.s., 2001.
5. **Ministry of Labour, Social Affairs and Family.** Analysis of long term sustainability and proposal for changes to the pension system in the Slovak Republic *lt.gov.sk.* [Online] [Date: 3. 6 2012.]  
<https://lt.justice.gov.sk/Attachment/vlastn%C3%BD%20materi%C3%A1l%20nov%C3%A9%20znenie.pdf?instEID=-1&attEID=38194&docEID=189277&matEID=4164&langEID=1&tStamp=20110816140348840>.
6. **Orszagh P. R., Stiglitz J. E.** . *Rethinking Pension Reform : Ten Myths About Social Security Systems.* Washington : The World Bank, 1999.
7. **Taylor, B.** The Equity Risk Premium. *Global Financial Data.* [Online] [Date: 4. June 2012.]  
[http://www.google.sk/#hl=sk&gs\\_nf=1&cp=55&gs\\_id=6v&xhr=t&q=Equity+risk+premium+Brian+Taylor++Global+Financial+Data&pf=p&scient=psy-ab&oq=Equity+risk+premium+Brian+Taylor++Global+Financial+Data&aq=f&aqi=&aql=&gs\\_l=&pbx=1&bav=on.2,or.r\\_gc.r\\_pw.r\\_qf.,cf.osb](http://www.google.sk/#hl=sk&gs_nf=1&cp=55&gs_id=6v&xhr=t&q=Equity+risk+premium+Brian+Taylor++Global+Financial+Data&pf=p&scient=psy-ab&oq=Equity+risk+premium+Brian+Taylor++Global+Financial+Data&aq=f&aqi=&aql=&gs_l=&pbx=1&bav=on.2,or.r_gc.r_pw.r_qf.,cf.osb).
8. **Lukášik D.** *Analysis oline- individual investing in capital markets.* Lipt. Mikuláš : HONORS, a.s., 2001.
9. **Lukášik D., Lendacký M.,.** *Canadian Pension Insurance System.* Liptovský Mikuláš : HONORS, a.s., 2001.
10. **Ministry of Labour, Social Affairs and Family.** Government Office of the Slovak Republic. *Proposal to draft bill on capitalization Pillar of the pension insurance.* [Online] 7. 8 2002. [Date: 3. June 2012.]  
[http://www.rokovania.sk/File.aspx/ViewDocumentHtml/Mater-Dokum-54877?prefixFile=m\\_](http://www.rokovania.sk/File.aspx/ViewDocumentHtml/Mater-Dokum-54877?prefixFile=m_).
11. **D., Lukášik.** *Documents for Maroš Kondrát's speech for discussion on the Pillar II petition in December 2007.* Liptovský Mikuláš : HONORS, a.s., 2007.
12. **Lukášik D.** *Reasoned report on documents for Maroš Kondrát's speech at the National Council of the Slovak Republic in December 2007.* Liptovský Mikuláš : HONORS, a.s., 2007.
13. **Hardin, G.** The tragedy of commons. *Science.* 1968, Vol. 162. 1243-8.
14. **Ridley, Matt.** *The Originnes of Virtue.* London : Penguin Books, 1996.
15. **Lea, Tarpy,Webley.** *Psychológia ekonomického chovania (Psychology of economic behaviour),* Prague : Grada, 1994.
16. **Ministry of Labour, Social Affairs and Family.** Analysis for a long term pension system sustainability. [Online] [Date: 2012. March 2012.]  
[https://lt.justice.gov.sk/Attachment/DOCHODKY\\_V2\\_20110119anal%C3%BDza.pdf?instEID=-1&attEID=31235&docEID=153661&matEID=3544&langEID=1&tStamp=20110131090203293](https://lt.justice.gov.sk/Attachment/DOCHODKY_V2_20110119anal%C3%BDza.pdf?instEID=-1&attEID=31235&docEID=153661&matEID=3544&langEID=1&tStamp=20110131090203293).
17. **Frank, R. H.** *Passions within Reason.* New York : Norton, 1988.
18. **R.H.Thaler, C.R.Sunstein.** *Nudge. Improving Decisions About Health, Wealth and Happiness.* London : Penguin Books Ltd., 2009.
19. **Akerlof George A., Shiller Robert J.** *Animal Spirits. How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism.* USA : Princeton Univerisity Press, 2009,.
20. **Collard, D.** *Altruism and economy.* Oxford : Martin Robertson, 1978.

21. **Stiglitz J., Yun J.,** Integration Of Unemployment Insurance With Retirement Insurance. *NBER Working Paper Series*. [Online] [Date: 4. June 2012.] [http://www.nber.org/papers/w9199.pdf?new\\_window=1](http://www.nber.org/papers/w9199.pdf?new_window=1).

22. **Ministry of Labour, Social Affairs and Family.** Proposal to draft bill on capitalization Pillar of the pension insurance. *Government Office of the Slovak Republic*. [Online] 7 August 2002. [Date: 7. June 2012.] <http://www.rokovania.sk/Rokovanie.aspx/BodRokovaniaDetail?idMaterial=743>.