



Support to the State Social Protection Fund on the introduction of funded element within the insurance-pension system, establishment of non-state pension funds and development of legal framework for regulating their activity
Twinning Project AZ/13/ENP/SO/24



Blueprint of establishment the funded component and development of legal framework in Azerbaijan



1.2.activity: Development of a blueprint of the funded component in the multi-level state pension system

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Blueprint for establishment the funded component and development of legal framework will provide wider context for developing funded component and will focus on specific aspects regarding to Azerbaijan's financial and economical situation.

1. General description, purpose and principle of the FDC component additional to the mandatory state social insurance

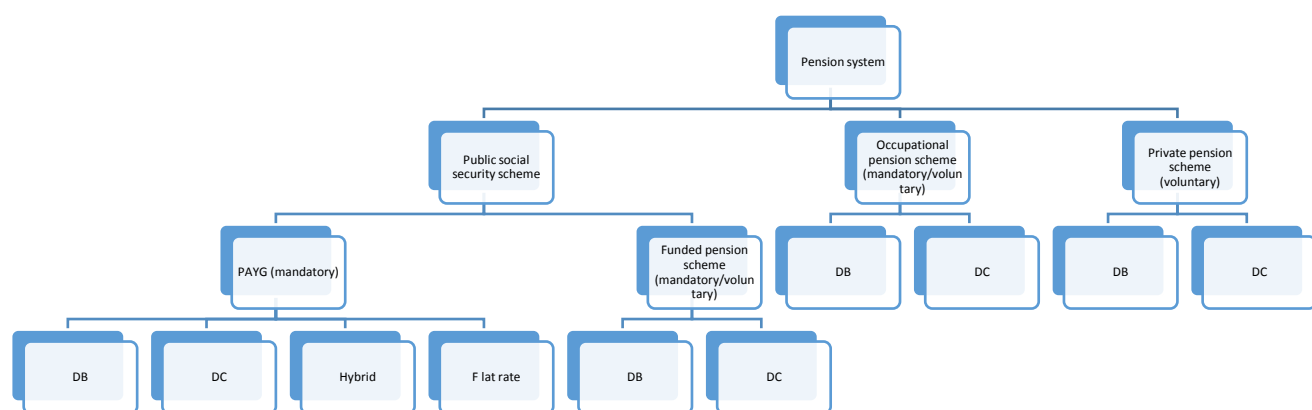
A social security system has a central role in a society's income redistribution policy. In any society, the kind of retirement provisions considered adequate depends on the prevailing attitudes on matters such as the distribution of responsibility between individuals and the State, redistribution and the support to be provided to the poor and vulnerable, and intergenerational solidarity.

There are two main goals for each pension system: 1) to promote pension system financial stability in long term - diversification of demographical and economical risks; 2) to increase replacement rate - protection of insured persons by saving more money for retirement.

An important social policy challenge facing ageing societies is to secure an adequate level of income for all people in old age without overstressing the capacities of younger generations. In view of the financing and sustainability challenge faced by social security systems in the context of demographic change, the State has a vital role to play in forecasting the long-term balance between resources and expenditure in order to guarantee that institutions will meet their obligations towards older persons.

Pension systems can be represented by the three pillars. The strong involvement by the public sector is represented by the public social security system. The funded pension schemes has grown recently as some countries have switched part of their social security pension schemes into funded schemes that are generally operated and managed by private institutions. Some Member States have occupational pension schemes. The third pillar represents individual private pension schemes in the private sector (see Chart 1).

Chart 1. Different types of retirement-income provision in EU countries



Defined benefit schemes (DB) - Scheme where the pension payment is defined as a percentage of income and employment career. The employee receives a thus pre-defined pension and does not bear the risk of longevity and the risk of investment. Defined benefits schemes may be part of an individual employment contract or collective agreement. Pension contributions are usually paid by the employee and the employer.

Defined contribution schemes (DC) - Scheme where the pension payment depends on the level of defined pension contributions, the career and the returns on investments. The employee has to bear the risk of longevity and the risk of investment. Pension contributions can be paid by the employee and/or the employer and/or the state.

Hybrid pension schemes - Hybrid schemes combine elements of defined benefits and defined contribution systems so that the risk of longevity and the risk of investment is split between beneficiaries and scheme's operator. The designs of the Notional Defined Contribution (NDC) schemes transform the public PAYG systems to become actuarially connected, which was previously only the case for private, fully funded schemes.

Source: Pension systems in the EU – contingent liabilities and assets in the public and private sector, European Parliament, Directorate General for Internal Policies

Funded pensions play an important role in the retirement income systems of many countries. Funded private pensions complement public PAYG-financed pensions, and in some countries might represent, in the future, the main source of retirement financing. Together, funded and PAYG plans are integral parts of a country's pension system. As part of the overall system, funded private pensions can therefore play a major role in avoiding adequacy gaps. Private pensions already play an important role in complementing retirement income in most of the countries, especially when these are mandatory.

An appropriate mix of the different pension pillars can help create sustainable pension systems in a period of intense demographic change:

First of all, risks need to be shared between government and individuals. The government cannot provide full replacement rates for all its citizens in most countries while avoiding deficits. Contrary to this, the return of pension funds is not always guaranteed. This means that, on the one hand, a public pillar is necessary to provide a certain basic replacement rate that is sufficient to prevent the elderly from falling into poverty. On the other hand, the old age risk must be borne by individuals through savings in occupational and private pensions plans. Together they can achieve a replacement rate comparative to previous earnings, while liabilities are split. The step from defined benefits to defined contributions in public systems is also an element of this risk sharing between government and individuals, with individuals certain about their contributions and a minimal return guaranteed by

the government, which in turn is safe from outside demographical and economical changes to future liabilities.

Secondly, risks need to be shared between individuals to provide a stable pension system. For the public pillar this is done by equalising contribution rates for all individuals as much as possible. In occupational and private pillars this is done by pooling resources in a fund without individual claims. Profits and losses are evened out between the participants and not based on individual accounts. The provision of a form of minimum pensions is also an element of risk sharing. A good example is the sharing of the gender risk as women are more likely to have atypical careers in their active years in the labour market. This could be applied to a number of target groups whose integration on the labour market is more difficult. Depending on career types, including part-time work or self-employment, it is not always possible to build up equal pension rights. Part of this falls under individual responsibility, but another part should be covered by basic pension rights for every individual to counter inadequacies in the labour market.

Thirdly, a solid pension system must share risks between generations. An element of generational risk sharing is found in the nature of the public PAYG systems. By obliging participation in occupational and/or private fund, funded systems can count on continuous inflow of capital reducing the risk caused by short-term losses in assets. However, a large increase in pension spending means less budgetary space for the contributing generation and should therefore be avoided, allowing of course for national preferences. Thus, in order to make a pension system sustainable, it must continue to be supported by all generations in practice (contributions) as in theory (policies). To start, benefits must be fair between each contributing generation and public pension spending must be contained. Adding the element of life expectancy to future benefits would ensure that the costs are shared more equally between generations. A final generational element is the creation of public support for these systems with all generations. In order to harness and keep this support, it must be avoided to place the cost of reforms with future generation. If not, it may result in the (un)willing avoidance of the general schemes by newer generations.

Source: Pension systems in the EU – contingent liabilities and assets in the public and private sector, European Parliament, Directorate General for Internal Policies

According with World Bank evaluation - in societies that have only been able to achieve limited coverage of mandatory first and second pillar schemes, developing well-supervised voluntary (third pillar) schemes may effectively reach the informal sector and provide an efficient means to supplement and diversify benefits for higher income groups. Some of the same societies may find that mandated first and second pillar schemes present obstacles to increased formalization of the labor force and achieve better outcomes with a combination of a social pension and a more extensive voluntary system.¹

A mandatory and fully-funded second pillar provides a useful benchmark against which the design of a reform should be evaluated. **A well-designed second pillar will generally satisfy the adequacy, affordability, sustainability and robustness criteria when implemented under the appropriate conditions.** Most members of the academic and development communities as well as within the World Bank agree that certain enabling conditions including macroeconomic, financial market and institutional characteristics are supportive of second pillar reforms. There is a spectrum of views however, as to what constitute the minimum conditions conducive towards success with some placing greatest importance on the clarity of the policy framework while others placing equal importance on environmental considerations.

¹ http://siteresources.worldbank.org/INTPENSIONS/Resources/395443-1121194657824/PRPNoteConcept_Sept2008.pdf

The efficiency and equity of alternative approaches to retirement savings, such as voluntary individual or occupational schemes can also be evaluated in relation to this benchmark. Relevant and feasible reform options depend on country specific circumstances which are broadly linked with the economical and demographical development in a country.

Azerbaijan has a relatively young population compared to other countries in the region and in the countries of the European Union, with share of working age people – almost 72% and share of people 65+ - less as 6% (in 2013). Such a demographical situation will not stay for a long. Projected increase of the share of people in the age 65+ wherewith sharp growth in old age dependency ratio would leave an impact on financing of pension expenditure in the future. **The timely established funded component of labour pension would reduce the state liabilities for future pensioners and stimulate financial sustainability of pension system.**

By funding, state reduces the risk of underfunding, i.e. the risk, that in the future state will not be able to deliver the benefits that have been promised by the system. Thus, individual's trust in the system increases that can positively affect individual's loyalty to the state and motivation to pay taxes. However, trust can also decrease, should unfavourable financial market developments occur, resulting in persistently negative investment returns and loss of trust to the pension system. **Therefore, communication strategy, financial literacy and adequate investment strategies are important.** Pension plans participants should reduce investment risk the closer they get to retirement. Life cycle pension plan options or automatic migration to less risky investment options can be considered.

2. The main framework - only voluntary, semi voluntary, other version

Since voluntary coverage provided for in the legislation often does not result in actual coverage for various reasons, a more conservative estimate considers only mandatory coverage².

Some countries in EU has chosen funded component as one of pension system component in order to reduce the long-term cost of pensions, to reduce pension system less dependence from short term political decisions, to provide higher replacement rate and to develop, stabilise capital market and to stimulate the growth of the economy. Funded component is established in several EU countries by following conditions (see Annex 1)³:

- 1) **Latvia** - for persons born 1971 and after – mandatory, persons born 1951 - 1971 can join by voluntary base; contribution rate 2015-5%, from 2016 – 6%).
- 2) **Estonia** - for persons born 1983 and after – mandatory, persons born prior 1983 can join by voluntary base. The rate is 6% of wages – the employee pays 2% which is supplemented by the state with 4%.
- 3) **Lithuania**- participation by voluntary base. Opting out from the scheme once joined is not allowed. From 2014 the contributions to the Pension Funds comprise of three sources: 2 percentage points of obligatory social insurance pension contribution (3.5 p.p. since 2020), 1 percent paid by the member (2 per cent since 2016) and 1 percent of the country's average wage additionally paid by the State (2 per cent since 2016) (so-called “3.5+2+2” formula).
- 4) **Slovakia** - the participation for newcomers to the labour market has been changed from mandatory (with no possibility to opt out) to voluntary (with the default participation only in the first pillar) then back to mandatory (but with the possibility to opt out of the system within 2 years) and as from January 2013 back to voluntary again with the possibility to decide until the age of 35. Between 2013 and 2016 contribution rate to the second pillar has been decreased to 4% due to current fiscal issues in Slovakia (part of consolidation package). As of 2017 contributions to the second pillar will gradually grow by 0.25 p.p. per year until the final level of 6 percent in 2024. Until 2017, participants can contribute from their net incomes voluntarily to the second pillar with tax allowance up to 2% of the tax base (to compensate for the reduction of the rate to 4%).
- 5) **Poland** – persons born between 1949 and 1969 could choose whether they wanted to join II pillar or not; persons born after 1969 had an obligation to transfer part of their contribution to II pillar; from 2014 all members of OFEs have choice whether they want to continue saving in I and II pillar or just in the I pillar. In 2014 51.5% of the accounting units recorded in the individual account of each open pension fund (OFE) member was cancelled (i.e. a part of the assets invested, among others in the Treasury Securities and bonds guaranteed by the State Treasury), and their equivalent was registered on the sub-account in Social Security Institution (ZUS). Contribution rate – 7.3%.

² http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_310211.pdf

³ *Materials of Working Group on Ageing Populations and Sustainability*

- 6) **Sweden** – for persons born 1938 and after – mandatory, contribution rate – 2.5%.
- 7) **Czech Republic** - scheme is primarily designed for the people under 35 who can choose to join the scheme whenever they want. Persons over 35 years have had only limited time (6 months from the time they first become pension insurance payers after the reform’s initiation) to join. It is not allowed to change the decision taken by an insured person. Financing of the pension savings pillar is provided by funds transferred from participants in the first pillar in an amount of 3p.p. from the total contribution rate of 28%. In addition to this, each insured person has to pay an additional 2p.p. from his or her own sources. The total contribution rate is thus increased to 30%, of which 25p.p. is directed into the existing PAYG system and the remaining 5p.p. into the pension savings pillar.
- 8) **Bulgaria** - participation is compulsory for all workers born after December 31, 1959; older workers are excluded from the system. 5% of participants' social security contributions are redirected to the funded pillar, members choose their provider.

The Republic of Azerbaijan has chosen to establish the funded part of old-age labour pension what is appointed with Law of the Republic of Azerbaijan On Labour Pensions. Continuation of pension reform is established by the Concept “Of reforms of pension provision system in the Republic of Azerbaijan in 2014-2020” (Approved as per Executive Order Of November 4, 2014 of The President of Republic of Azerbaijan) and the one of main directions of implementation of this concept is: “Activation of **voluntary funded component** of labour pensions and development of non-state pension institutes. In order to achieve a reliable pension provision of people, it is intended to form mechanisms that allow provision additional to the mandatory state social insurance. It is considered reasonable to introduce voluntary social insurance on order to establish funded component in state pension provision system, as well as non-state pension institutions. To this end, it is intended to use a number of promotional means.”

Based on Latvian and German experience, real and expected economic and demographic situation in Azerbaijan, experts have made some possible models for funded component of labour pension (hereinafter – financial defined contribution – **FDC component**) in Azerbaijan. Experts’ proposals framework applies a five - versions FDC component and private pension options that should be considered (see Table 1).

Option A – based on voluntary participation by insured person and share of state redistributed state mandatory social insurance contribution rate (planned 25%). Total contribution rate for FDC component should be 6% (4% pay insured person and 2% - state) and total state mandatory social insurance contribution – 29%. Participants’ should be persons who born in 1971 and later for both gender. FDC component capital (included share of state) can be inherited before retirement. Participants can change investment plan once a year and choice options among conservative, balanced and active investment plans. Transitional period is very significant during the first years of the scheme. There is no possibility to withdraw from the scheme. After reaching retirement accrued pension capital can add to labour pension or buy annuity. Incomes to current social insurance budget will decline for the benefit of future pensioners.

Option B – based on voluntary participation by insured person and contribution from other government financed source (i.e. State budget, Oil fund). Total contribution rate for FDC component should be 6% (4% pay insured person and 2% - state) and total state mandatory social insurance contribution – 29%. Participants' should be persons who born in 1971 and later for both gender. FDC component capital (included share of state) can be inherited before retirement. Participants can change investment plan once a year and choice options among conservative, balanced and active investment plans. Transitional period is very significant during the first years of the scheme. There is no possibility to withdraw from the scheme. After reaching retirement accrued pension capital can add to labour pension or buy annuity. Incomes to current social insurance budget won't decline for the benefit of future pensioners.

Option C – based on voluntary participation by insured person and redistributed state mandatory social insurance contribution rate 4%. Total contribution rate for FDC component should be 4% (4% pay state) and total state mandatory social insurance contribution stay at same level– 25%. Participants' should be persons who born in 1971 and later for both gender. FDC component capital (included share of state) can be inherited before retirement. Participants can change investment plan once a year and choice options among conservative, balanced and active investment plans. Transitional period is very significant during the first years of the scheme. There is no possibility to withdraw from the scheme. After reaching retirement accrued pension capital can add to labour pension or buy annuity. Incomes to current social insurance budget will decline for the benefit of future pensioners.

Option D – based on mandatory participation and redistributed state mandatory social insurance contribution rate 4%. Total contribution rate for FDC component should be 4% (4% pay state) and total state mandatory social insurance contribution stay at same level– 25%. Participants' should be persons who born in 1971 and later for both gender. FDC component capital (included share of state) can be inherited before retirement. Participants can change investment plan once a year and choice options among conservative, balanced and active investment plans. Transitional period is very significant during the first years of the scheme. There is no possibility to withdraw from the scheme. After reaching retirement accrued pension capital can add to labour pension or buy annuity. Incomes to current social insurance budget will decline for the benefit of future pensioners.

Option E – based on voluntary participation by insured person. Total contribution rate for FDC component should be 4% and total state mandatory social insurance contribution will be – 29%. Participants' should be persons who born in 1971 and later for both gender FDC component capital (included share of state) can be inherited before retirement. Guarantees will refer to the loss of principal at retirement and will be provided by the state or other resources (like as tax advantages or rate guarantees). Participants can change investment plan once a year and choice options among conservative, balanced and active investment plans. Transitional period is very significant during the first years of the scheme. There is no possibility to withdraw from the scheme. After reaching retirement accrued pension capital can add to labour pension or buy annuity. Incomes to current social insurance budget won't decline for the benefit of future pensioners.

Table 1. Options for the introduction of FDC component in Azerbaijan*

Participation	Voluntary	Voluntary	Voluntary	Mandatory	Voluntary	Voluntary
Employee contributions	4%	4%	No	No	4%	Yes
Employer contribution	No	No	No	No	No	Yes
State mandatory social insurance contribution (redistributed from 25%)	2%	0%	4%	4%	0%	No
Contribution from other government financed source (e.g. State budget, Oil fund)	0%	2%	0%	0%	0%	No
Overall contribution	6%	6%	4%	4%	4%	Sum of individual contributions
Income tax breaks	No	No	No	No	No	Yes
Eligibility	Born after 1971	Born after 1971	Born after 1971	Born after 1971	Born after 1971	All
Effective social insurance contribution rate before	25%	25%	25%	25%	25%	Sum of individual contributions
Effective social insurance contribution after	29%	29%	25%	25%	29%	Sum of individual contributions
Inheritance	Yes. Full amount, including state contribution, before retirement.	Yes. Full amount, including state contribution, before retirement.	Yes. Full amount, including state contribution, before retirement.	Yes. Full amount, including state contribution, before retirement.	Yes. Full amount, including state contribution, before retirement.	Yes
Return guarantees/tax advantages	No	No	No	No	Yes	No/Yes. Depends on product type – DC or DB.
Pension plan change frequency	1x a year	1x a year	1x a year	1x a year	1x a year	No
Types of pension plans provided	Conservative/Balanced/Active	Conservative/Balanced/Active	Conservative/Balanced/Active	Conservative/Balanced/Active	Conservative/Balanced/Active	Conservative/Balanced/Active
Transition period	Yes	Yes	Yes	Yes	Yes	Yes
Opt-out	No	No	No	No	No	Yes
Pay out	Option to add to labor pension or to buy annuity	Option to add to labor pension or to buy annuity	Option to add to labor pension or to buy annuity	Option to add to labor pension or to buy annuity	Option to add to labor pension or to buy annuity	Paid out in full amount not sooner than 5 years before official retirement.

**Exact figures can change, depending on the final structure, financing options, modelling results and other factors.*

For modelling FDC component's part, experts used econometric model. Experts made a set of assumptions about economic and demographic scenarios, member decisions and so forth, and, based on those assumptions, the model projects the prospective outputs (see Table 2, 3 and ANNEX 2).

Table 2. Overview of some key economic and social insurance system indicators

	2020-2050
Employment annual growth (%) ⁴	
male	101.1
female	101.0
Average contribution wage annual growth - for legal persons ⁵	102.81
Minimum wage annual growth ⁶	101.5
CPI (%) ⁷	101.5
Interest Rate to FDC (%) ⁸	103.0/105.0
Total Contribution Rates for pension capital (NDC+FDC, without additional rate to FDC) (%) ⁹	
legal persons	25.0
natural persons	50.0
land owners	6.5
family farm	50.0

Source: Experts assumptions

Table 3. Overview of Some Key Demographic Indicators

	2020	2030	2040	2050
Life expectancy for new birth				
male	72.2	73.1	74.1	75.1
female	77.5	78.5	79.5	80.8
Total Fertility rate	1.86	1.78	1.77	1.77
Population age 15-64 (% of total)	69.9	68.6	67.5	64.0
Population age 65+ (% of total)	7.5	13.2	16.6	20.3

Source: Experts assumptions

⁴ Employment rate will increase each year by 1,1% for male, by 1% for female. Contributors changes based on employment rate

⁵ Contribution wage will increase double in the next 25 years and again double in the next 25 years

⁶ Min wage will increase by growth of inflation

⁷ Inflation increase each year by 1,5%

⁸ Interest rate for first reforms years (apr. 10 years) will be 3% (nominal), later – 5%

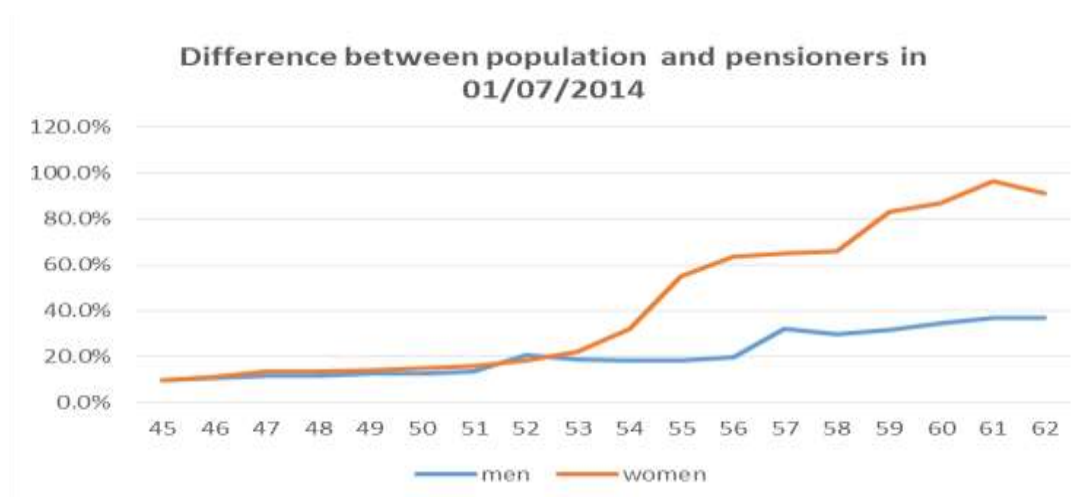
⁹ Pension capital will double started from 2020 for all insured persons. Until 2020 pension capital stay at same level

3. Scope of participation

In order to ensure a sufficient participation of the FDC component part should take into account actual retirement age:

- 1) retirement age increases gradually (by 6 months every year from January 1, 2010) for both gender. Retirement age for men is 63 years from January 1, 2012 and for women will reach 60 years in January 1, 2016. In 2014 old-age labour pension right is provided to men at age of 63 years and women at the age of 59, with minimum social insurance record 12 years;
- 2) there are several categories eligible to the lower retirement age, especially for women. Comparing the number of pensioners (old age, disability and survivors) and the number of population of a given age group, there is a tendency to choose early retirement rights. More as half women in age group from 55-60 year had chosen eligibility to pension like (see Chart 2).

Chart 2

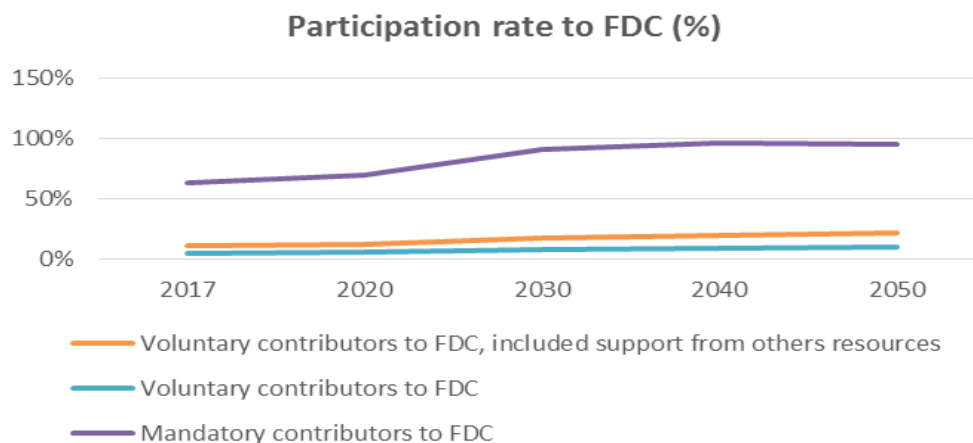


Data sources: State Social Protection Fund and State Statistical Committee data

If the FDC component will be introduced in 2017 and taking into account existing legislation and individual's behaviour: participants' should be persons who born in 1971 and later for both gender. Individuals born before 1971 are not feasible to include in the FDC component due to the short period for capital accumulation. **Scope of participation should be flexible (like as 5-10 years until retirement age) or without restriction if participation will be fully voluntary (Version E).**

Experts has carried out assumptions if FDC will by fully voluntary (Version E), participation rate will be low. Calculations show that participants to FDC component increase gradually and will reach 9% from total contributors in 2050. **According experts' view of points voluntary approach with state support (Version A, B, C) could increase participation rate reaching 21% from total contributors in 2050.** Opposite illustration if FDC will by fully mandatory – certain cohorts will join each year while participation rate will be reached 95% of total contributors in 2050 (see Chart 3).

Chart 3



Data sources: experts' consumptions and calculations

Persons may commence participation in a FDC component by submitting an appropriate submission to the State Social Protection Fund (SSPF) simultaneously to make choice of Assets Manager and pension plan. The person shall be registered as a scheme participant from the first date of the month that follows the month when the application regarding inception of participation in the scheme has been received.

Participation in a FDC component will be suspended in case of reaching retirement age or in case of death.

If a participant of the FDC component has died prior to requesting an old age pension, the whole FDC component registered by the day of the death of the participant will be inheritable according with Civil Code of the Republic of Azerbaijan.

The Civil Code (Civil law) of the Republic of Azerbaijan (Azərbaycan Respublikasının Mülki Məcəlləsi)

Article 1159. Heirs

1159.1. inheritance rights:

1159.1.1. first category - children of the deceased, the child after the death of the testator, the wife (husband), parents (adoptive parents).

1159.1.2. adopted children as heirs or relatives, which are the same foster children and grandchildren.

1159.1.3. grandchildren, and their children are regarded as heirs according to law. They have the same share of the estate of their parents.

1159.1.4. last grandchildren, and their children if their parents refused.

1159.1.5. Adopted children and adoptive relatives of her children as heirs and other blood relatives.

1159.2. The second category - the deceased's brothers and sisters. Testator's brothers and sisters children and their children's children, who are considered to be the heirs by law.

1159.3. The third category - from both the mother's and the father's side and from the midwife mother and father and grandfather's mother and father. Midwives

mother and father, grandfather's mother and father are considered heirs by law.
1159.4. The fourth category - aunts and uncles.
1159.5. Fifth grade - aunts children, uncles children.

4. Risks to be covered

It also seems to be a basic decision to limit the scope of the system to old age. This would mean that the amount will be paid out at retirement.

To cover death (survivors) and invalidity as well would very likely mean a kind of conversion to an insurance approach. The system envisaged in the first place has a savings approach rather than an insurance approach. To cover invalidity and survivors may make it a risk insurance and in that case would mean and require insurance calculations.

It may be decided to simply make invalidity and death also cases for paying out the accumulated amount at the time of disability or death. Depending on when this will happen the amount available might be small. According to international experiences protection in case of disability or death (survivors) usually means that there will be taken into account also those years the individual would have spent with the system if invalidity or death would not have happened. So the systems usually calculate the final benefit on the basis of not only the years the person actually has worked but also the years he would have been otherwise able to work until retirement. This then usually is expressed in a specific benefit formula. So if disability and death should also be covered this would in the end mean that this would be a way following the insurance principle since in this case a risk is covered like in any insurance. This would also mean that in such a case inheritance is not possible since the contribution is also the equivalence for a risk.

The question remains if disability and death should be covered or not and if it should be the case automatically or by choice only. Covering survivors internationally is retreating since more and more there are two-earner couples. To cover orphans may be necessary but there may be other means. So survivors' pensions might be dispensable. It is different in case of disability / invalidity. But nevertheless also here it may be a decision by the individual to opt for protection also in those cases – and by that disclaim inheritance. The option should be done at an early stage – preferably when joining the system, i.e. when paying the first contribution. If the individual does not make a decision it will remain protection in old age only.

5. Contributions of the FDC component

According to OECD estimation - a combination of higher coverage rates of private pensions and higher contributions, higher returns on assets, higher productivity growth, and higher effective age of retirement (leading to longer contribution periods) may increase the role that private pensions play in making people better prepared for retirement.¹⁰

Closely connected with this issue is the amount of contribution to the system. This has to be defined by taking into consideration a number of factors. One is a consideration of social policy which means that the replacement rate to be achieved by the different systems altogether and the role of the individual component in the overall system of retirement has to be defined. International experience say that an individual is in end of about 60 to 70 % of his former net income to have a decent living standard in retirement – close to the living standard during employment. Here the public system, the second tier and the third tier have to be taken into account. It has to be confessed that the 60 – 70 % assumption is related to some kind of ideal world and very often not achieved.

General social insurance contributions are 25% of gross labour payment (employers' pays 22%, employees – 3%). At same time social insurance contributions object and contribution rate is reduced for some categories (like as farmers, self-employed persons - not exceeding 12% of the minimum wage). Half (or 50%) of total contributions (12.5% from gross salary) are accounted for social insurance pensions on individual accounts from 2006. Replacement rate for new granted pension (insured part of labour pension) per average contribution wage of legal persons is crucial low (2014 – 15%). Increasing replacement rate is future challenge for pension system in Azerbaijan taking into account age structure of population, employment rate, shadow economy, high promised guarantees and other economical criteria. Very important step is duplication of pension capital in future (designed reforms from 2020).

International experience (see above) based on principle that contribution rate for FDC component is included in contribution rate for old age pensions, with additional contribution from participant's side. It is crucial important find the best balance between liabilities for pension payments and replacement rate for future pensioners. The right contribution size and differences between pension capital index for public pension part and interest rate for FDC component can help to reach above mentioned goals.

Blueprint is evaluated each version regarding financial stability of social insurance system in long term and replacement rate for individuals.

For pension system stability the most important measures are duplication of pension capital and uninsured pension expenditures (including basic part of labour pension) covering by state budget from 2020¹¹. The gradually on-going increase in life expectancy extends the payment period of labour pension (or number of months of expected pension payment period (T) is not related to life expectancy changes) and growing share of population aged 65 and more would create additional pressure for the pension system in the future. Taking account these reasons and according by

¹⁰ *file:///C:/Users/LM/Downloads/OECD_2014_pension_outlook.pdf*

¹¹ *Assumption by Latvian and SPPF experts*

experts' estimation pension system financial stability (or balance) will fall until 2050. At the same time contributions for FDC will increase, especially choosing the mandatory approach (version D) (see Table 4; 5; 6, Annexes 3-8).

Table 4. Pension system financial stability (balance¹²; mln AZN)¹³

Versions	2017	2020	2030	2040	2050
Without FDC component	-2 053	1 245	1 118	676	-1 692
Version A (4% voluntary by person + 2% redistributed contributions)	-2 072	1 222	1 074	622	-1 715
Version B (4% voluntary by person + 2% other resources)	-2 053	1 245	1 118	676	-1 692
Version C (4% voluntary & redistributed contributions)	-2 090	1 199	1 030	568	-1 739
Version D (4% mandatory & redistributed contributions)	-2 262	985	654	217	-1 665
Version E (4% voluntary by person)	-2 053	1 245	1 118	676	-1 692

Sources: calculations by experts

Table 5. Contributions for FDC component (mln AZN)

Versions	2017	2020	2030	2040	2050
Version A (4% voluntary by person+2% redistributed contributions)	55	70	141	255	387
Version B (4% voluntary by person+2% other resources)	55	70	141	255	387
Version C (4% voluntary & redistributed contributions)	37	46	94	170	258
Version D (4% mandatory & redistributed contributions)	209	261	505	841	1167
Version E (4% voluntary by person)	16	20	42	76	114

Sources: calculations by experts

Table 6. Estimation of each option

	Participation rate	Replacement rate	Resources for solidarity payments
Version A (4% voluntary by person+2% redistributed contributions)	Average	Increase	Decrease
Version B (4% voluntary by person+2% other resources)	Average	Increase	No changes
Version C (4% voluntary & redistributed contributions)	Average	Increase	Decrease

¹² Incomes minus expenditures

¹³ Pension capital will double started from 2020 for all insured persons. Until 2020 pension capital stay at same level. Started from 2020 all uninsured pension expenditures (included basic part of labour pension) will be covered by state budget.

redistributed contributions)			
Version D (4% mandatory & redistributed contributions)	High	Increase	Decrease
Version E (4% voluntary by person)	Low	Increase	No changes

Sources: estimation by experts

Introduction of voluntary FDC component (version A, B, C and E) won't have vital influence for pension system stability. Planned reforms regarding current pension system (see above) would give opportunity to choice such approach of voluntary FDC what can provide higher coverage and replacement rate (see Table 7 and Chart 3).

Participants in an FDC scheme earn a financial market rate of return, whereas participants in an NDC scheme earn an internal rate of return, which is determined by factors underlying the development of the economy (in Azerbaijan – by inflation rate). As an average monthly wage is small and taking account gradually growth, contribution rate have to be so high will provide higher replacement rate. According with experts calculations the most appropriate contribution rate will be 4% for individuals. Gross replacement rate is depended on contribution rate, wage/incomes, retirement age and rate of return. In Table 8 are included some individual examples of gross theoretical replacement rate for choosing the best approach from an individual perspective. Examples applies for cohorts who have born in 1975 and 1987, have paid contributions from 25 years until retiring in 60 and 63 years. Simultaneously examples are included assumptions that contributions rate for total pension capital will double (in 2020). **Higher replacement rate can be achieved by voluntary participation supported by others resources (Version B) as well as longer contributions period.**

Table 7. Gross theoretical replacement rate (individual examples)

	<i>Cohort 1975</i>		<i>Cohort 1987</i>	
	contributions from age 25, retiring at 60 (2035)	contributions from age 25, retiring at 63 (2038)	contributions from age 25, retiring at 60 (2047)	contributions from age 25, retiring at 63 (2050)
Without FDC component				
<i>NDC</i>	41.7%	46.3%	53.5%	57.7%
<i>FDC</i>	0.0%	0.0%	0.0%	0.0%
<i>Total</i>	41.7%	46.3%	53.5%	57.7%
Version A (4% voluntary by person+2% redistributed contributions)				
<i>NDC</i>	39.0%	43.2%	49.3%	53.1%
<i>FDC</i>	10.7%	13.0%	20.8%	23.8%
<i>Total</i>	49.7%	56.2%	70.2%	76.9%
Version B (4% voluntary by person+2% other resources)				
<i>NDC</i>	41.7%	46.3%	53.5%	57.7%
<i>FDC</i>	10.7%	13.0%	20.8%	23.8%
<i>Total</i>	52.4%	59.3%	74.3%	81.5%
Version C (4% voluntary & redistributed contributions)				
<i>NDC</i>	36.3%	40.1%	45.2%	48.6%
<i>FDC</i>	7.1%	8.7%	13.9%	15.9%
<i>Total</i>	43.4%	48.8%	59.0%	64.5%
Version D (4% mandatory & redistributed contributions)				
<i>NDC</i>	36.3%	40.1%	45.2%	48.6%
<i>FDC</i>	7.1%	8.7%	13.9%	15.9%

<i>Total</i>	43.4%	48.8%	59.0%	64.5%
<i>Version E (4% voluntary by person)</i>				
<i>NDC</i>	41.7%	46.3%	53.5%	57.7%
<i>FDC</i>	7.1%	8.7%	13.9%	15.9%
<i>Total</i>	48.8%	54.9%	67.4%	73.5%

Data sources: experts' assumptions and calculations

Based to experts' calculations, international experience, demographical and economical situation in Azerbaijan the most appropriate approach should be voluntary participation with state support (Version A, B, C). However taking into account adopted the Concept "Of reforms of pension provision system in the Republic of Azerbaijan in 2014-2020" participation could be voluntary simultaneously appointed incentive factors (like as tax advantages, inheritance).

6. DB or DC pension plans

Funded component is typically an individual savings account (i.e. DC plan) with a wide set of design options including active or passive pension plans management, choice parameters for selecting investments and Assets Manager, and options for the withdrawal phase. **DC plans establish a clear linkage between contributions, investment performance and benefits; support enforceable property rights; and supportive of financial market development.**

Experts primary focus so far has been on DC pension plans. Movement from DB to DC plans has been a trend internationally, given significant funding problems of DB pension plans that were elevated during the recent Global financial crises. Global low yield environment poses yet another challenge for DB pension plans that leads them to seek return in even more riskier investments as it has become impossible to achieve previously assumed risk free returns of 4-5%. This has led to the rise of DC pension plans, especially with life-cycle option.

Investment guarantees, described above, turn pure DC plans into hybrid or DB pension plans. Implications and requirements are described above.

Pure DB pension plans have to work out a process of how they would ensure defined benefits and perform risk assessment, estimation, management and provision making. Risk management process should be submitted and reviewed by the regulator. DB pension plans would have much more stringent capital requirements, as compared to DC plans, as DB plan providers have to show proven ability of meeting their liabilities. Rules on capital requirements are worked out by the regulator and supervised regularly.

Besides positive implications for the stability of the pension system, there is an added benefit for the country. Funding leads to gradual accumulation of significant financial resources in the country that, in turn, lead to the development of country's capital markets. Accumulated resources can be directed to finance country's investment needs. Country's vulnerability and dependence on external financing reduces thereby improving overall macro stability and investment climate.

Degree of capital mobility within the country and internationally is very important, as is existence of good (risk adjusted) investment opportunities. If domestic investment opportunities are underdeveloped and few, locally accumulated financial flows will be directed to foreign investments to a larger degree than justified by prudence and needs of diversification. This can cause tensions domestically and can weaken the system's support. Alternatively, if capital mobility is limited, and limits to foreign investments are introduced, it can depress local market yields and lead to lower risk adjusted returns for pension system participants.

7. Incentives for joining the system

The basic decision has been made not to have this system mandatory but rather voluntary. It should be taken for granted that such a voluntary system needs some incentives to work successfully. Experiences from other countries show that a voluntary component without any incentives whatsoever will not be worth the efforts. Therefore almost all countries provide some kind of incentives. This may mean tax incentives for the employee if he pays some money into the system; his contributions may be made tax deductible. There are also cases where the employee (company) takes part in financing such a system, in case of a voluntary system there may have to be tax incentives for him as well. Other possible incentives might be guarantees on return which take away the investment risk from the beneficiary. In an environment where people may also just put money in a savings account or other means of savings such a system may only make sense if it in its aims and effects go somehow beyond that. The only example to be found with a voluntary system without any incentives whatsoever is in Portugal; there the experiences are that only a small number of people has subscribed to that program which started in 2008.

In case of the tax incentives there have to be some for the employees who pay into the system. This means deductibility from income taxes. If a certain contribution rate is fixed this may present the limit for the tax deduction. It may happen that an individual wants to pay in more than this amount which should be possible. This might then be tax deductible as well depending on the overall treatment of tax deductions for retirement provisions in Azerbaijan.

Other possible incentives might be guarantees on return which take away the investment risk from the beneficiary. Financial markets can be very volatile and financial crises happen relatively frequently. **Pure DC scheme does not provide any guarantees to the pension plan participants in the form of guaranteed fixed returns or guarantees on the safety of principal.** Pension plan participants often prefer to have guarantees on their investment returns. There are several associated issues that need to be considered:

<i>Issues</i>	
<i>What is guaranteed?</i>	Nominal principal (sum of contributions) Real principal Fixed return Minimal return Principal before or after fees Other
<i>Return over what period?</i>	Annual return Return at retirement Return within investment period in particular pension plan Real return Other
<i>Who provides guarantees?</i>	Asset manager Independent 3 rd party State or its agency Other
<i>How guarantees are backed?</i>	Derivatives

Reserves based on actuarial calculations
Not backed

Guarantees, in their essence, are similar to insurance policy and a premium that is paid for the insurance policy. Amount of premium is based on probability calculations. Over the short term, there is significant probability of well diversified financial portfolio to experience significant financial losses. However, over the longer term, 10, 20 or 30 year horizons, probability to experience losses has historically been very low, at least in developed markets. Therefore, one could question the need for insurance and the rationale of paying for it. Even if such guarantee is applied, it should be provided by the entity that with a high degree of certainty will be around in 30 or 40. There are very few that have such a track record.

Provision of guarantees is complicated by the fact that asset allocation structure of pension funds is not constant and that financial derivatives for hedging purposes might not be available (typical in transition and emerging markets). Moreover, as pension plan participants are allowed to switch from one pension plan provider to other, hedging of investment risks can become even more complicated, as asset allocation can change rapidly (e.g. provider A to provider B, active pension plan to conservative).

Guarantee of real returns (returns after inflation) is complicated by the fact that inflation protected securities are not provided in the local market. The fact that exchange rate closely follows US dollar also makes it hardly possible for local yields to follow inflation trends (under fixed exchange rate local investment returns typically do not follow inflation over the short term). Thus, inflation hedging is hardly possible.

Therefore, experts' suggestion would be, in case guarantees are required and are regarded as a necessary precondition for successful implementation of the funded pension system, they should be provided to the nominal principal (contributions) at the time of retirement and the entity providing them should be State or its agencies. State, based on actuarial calculations, makes necessary provisions that ensure its ability to meet the liabilities in the form of investment guarantees. This would require additional state financing and would have negative fiscal implications.

Some countries impose return guarantee provision to the asset management. Experts think it is not optimal. If, for instance, pension plan is obliged to produce positive annual return every year, that would lead pension plans investing only in very safe, short term securities, like, short term deposits and short term government bonds. Longer term investments or investments in equities, real assets or infrastructure, will be avoided, as they can provide negative absolute return over the short term despite much higher expected long term returns. Short term investing eliminates one of the most significant structural advantages of pension plans – ability to make long term investments. With this, the whole set-up of the system can be questioned.

Some countries use relative return targets vs certain benchmarks or industry average performance benchmarks. This can also lead to sub-optimal investment results, herding behaviour by pension plans and limited value added.

Hedging would be made easier if pension plans would have to meet very strict asset allocation and risk requirements. However, strict requirements reduce the room for maneuver and scope for the active management. In this case, one should consider

what should be the number of pension plan managers and to what extent introduction of funded pension scheme is associated with capital market development and accumulation of financial assets that is redirected to support real economy and private investment projects.

Hedging and provision of investment guarantees could be made easier if investments are invested in developed foreign markets. Still, FX risk hedging option will be limited, as there are no instruments available in the market. Secondly, as global short term interest rates are currently close to zero, even negative, in some cases, it would be very hard to achieve positive investment returns by using derivatives as investment hedges. Investment structure could resemble that of State Oil Fund and even that wouldn't guarantee preservation of principal over the short term.

Role of guarantees should be also viewed in the wider context of overall pension system set-up, including PAYG pillar, minimal pension arrangements, FDC component and private pension scheme. By introducing guarantees to FDC scheme, diversification benefits of the system can reduce. Guarantee provision can create significant negative liabilities to the entity providing guarantees at the time financial markets experience negative returns. That, in turn, can create negative financial implications for the entity providing guarantees. With this, diversification benefits are multi pillar pension system are reduced.

Operational and financial risks of all these counterparties should be closely followed by the Assets Manager as they can also negatively affect investment operations and returns.

An alternative to this would be a system of strict supervision to avoid risky investment strategies.

As a consequence it is good that the basic decision now has been made in favour of certain incentives. Above all it has been made clear **that there will be tax incentives**. It also has been made clear that this tax incentive is limited in order to avoid tax evasion. Also a redistributive effect is considered which means that the state will provide the employee with the same amount – taken out of the public fund – the employee has paid into the fund.

In case of the tax incentives there have to be some for the employees who pay into the system. This means deductibility from income taxes. If a certain contribution rate is fixed this may present the limit for the tax deduction. It may happen that an individual wants to pay in more than this amount which should be possible. This might then be tax deductible as well depending on the overall treatment of tax deductions for retirement provisions in Azerbaijan; this means that more might be tax deductible if in the third pillar also a generous tax deductibility is in place.

Before making a choice for the best option of FDC component in Azerbaijan should take into account previously experience for development of the same product. For example, savings attracted from population in Azerbaijan is developing very slowly and on 2013 the ratio of savings attracted from population and the GDP in Azerbaijan is close to 11% (regarding to State Statistical Committee data), which is not considered to be an optimal level, taking into account, that all savings of population are short term. There is no long-term life insurance savings still in the economy. **According experts point of view without additional state support (see above**

suggested options) fully voluntary FDC component will not promote active participation at the same time existed voluntary private pension scheme.

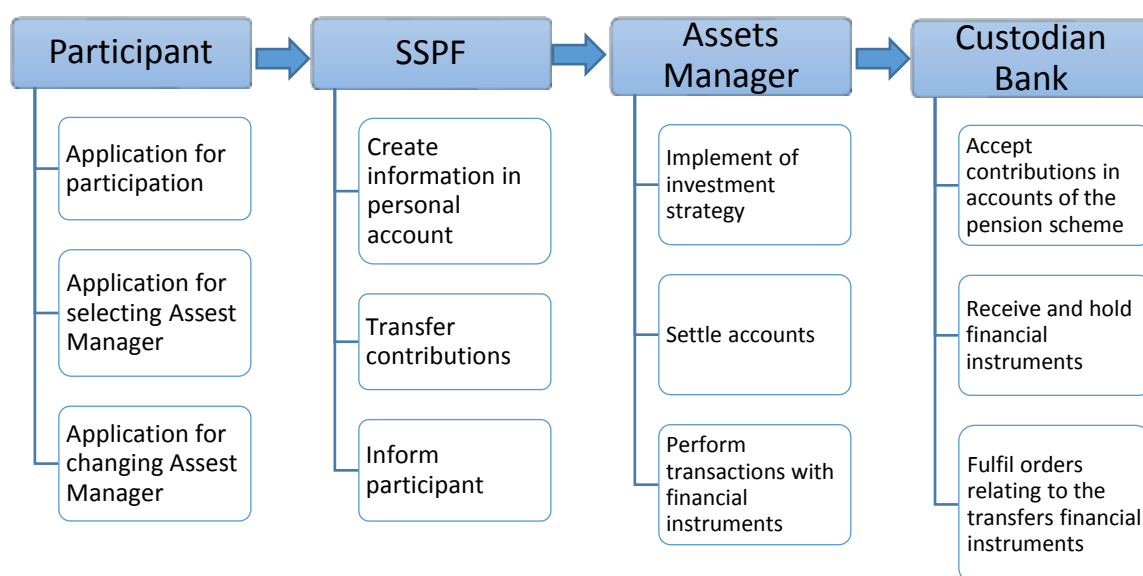
8. Rights of participants (choose and change Assets Manager, receiving of information)

In any of these systems an issue will be that of Consumer Protection and the Rights of the Participants. This becomes relevant in the Funded Component in case there is a choice among the funds. Here this would mean that the participants have to be enabled to make a sound decision on choosing the fund. So such a fund would have to be transparent in the relevant figures. It is no argument in that case that the average participant may not be able to understand all the details. Transparency means that he generally should have the possibility to do that.

In case of additional and separate asset management the question is whether there will be any kind of choice of the asset management company. In that case also the consumer protection issue is involved. It would have to be decided who is in charge of choosing the pension fund – and how.

Participant has the right by submitting a respective application to the SSPF, to select Assets Manager, specifying an pension plan. In order to register for participation in the scheme the persons shall submit to the SSPF an application regarding selection of Assets Manager and the pension plan. SSPF shall send to these persons a notification regarding registration for participation in the scheme. A scheme participant shall have the right, when submitting a respective application to the SSPF, to change the Assets Manager once a calendar year. In addition to these provisions the change of the Assets Manager and the pension plan shall be carried out in such cases: granted licence is abolished or activity is arrested; reorganisation of Assets Manager; if Assets Manager is resigned from the management of the scheme funds (see Chart 4).

Chart 4. Rights and duties for FDC participant, SSPF, Assets Manager and Custodian Bank



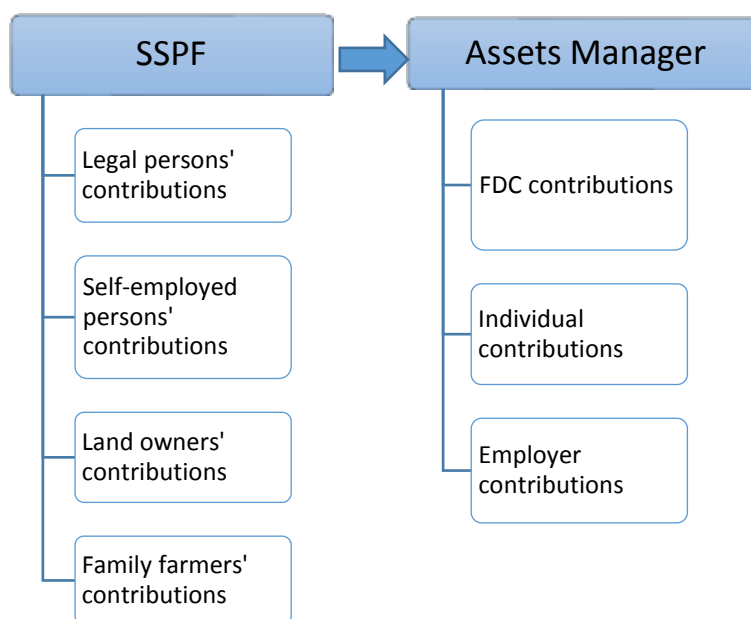
9. Accounting of social contributions for FDC component (included information transfers to Assets Manager)

Personal accounting system has been established in mandatory state social insurance area. The individual account with the permanent social insurance number is opened by the SSPF in the accounting period for every insured person. For each account SSPF has issued electronically plastic card which can be used for information of contributions paid into individual account and gives opportunity to control fiscal discipline of employer regarding to state social contributions payments.

The accrued FDC pension capital to each participant are calculated and registered in an account of the participant of the FDC component.

Contributions to the account of a scheme participant should be registered on the basis of the account statement regarding made voluntary contributions and not earliest on the first business day of the second month following the reporting month, however latest on the 10th business day if the information regarding the contributions of the reporting month at the SSPF is complete and correct (see Chart 5).

Chart 5. Individual accounting system



SSPF shall ensure the accounting of the following information about each participant of the scheme in the account of a participant:

- 1) information that allows identifying a scheme participant (social insurance number, name, patronymic and surname, date of birth);
- 2) information about participation in the scheme (date the participation in the scheme was started, the name of the selected Shareholder and the pension plan, date when the participation in the scheme was terminated and the selected FDC pension capital disbursement method);

3) information on contributions made (the sum from which contributions were paid, rate of the contributions made in the scheme and the date they are registered in the account of a participant);

4) information on the administration expenses of the SSPF scheme (scheme administration expenses of the SSPF attributed to a scheme participant, type of expenses, their rate and date the above mentioned expenses are withheld);

5) information on the transfer of contributions to a Assets Manager (the date when contributions were transferred to a Assets Manager, the number of the newly calculated pension plan shares and the value of a single pension plan share);

6) information on the following transactions with the FDC pension capital: transfer of the FDC pension capital if the Assets Manager has been changed, old age pension requested or a scheme participant has died (separately for each transaction – type of transaction, date, name of the Assets Manager and the pension plan, number of the calculated or redeemed pension plan shares, value of one pension plan share and the FDC pension capital).

SSPF shall ensure that the following information is provided to each participant of the scheme:

1) the account statement, included: the name of the Assets Manager and the pension plan, the number and the value of the pension plan shares registered in the account of the scheme participant, as well as FDC pension capital at the beginning of the year; information regarding contributions made to the scheme during the year; information on the administration expenses of the SSPF scheme; information on the transfer of the scheme funds to a Assets Manager; information about the changes of the Assets Manager s or pension plans; the name of the Assets Manager and the pension plan, number and value of the pension plan shares registered in the account of a scheme participant, as well as the FDC pension capital at the end of the year;

2) a statement regarding the performed transaction by stating the start and the end dates of the transaction and the name of the new Assets Manager and the pension plan, the value of the pension plan shares and the number of the calculated or redeemed pension plan shares as well as the FDC pension capital;

3) an account statement for a year.

SSPF shall send the above mentioned information by mail to the address of a scheme participant at its disposal, however a scheme participant shall have the right to to select another way for receiving the information (from the ones offered by the SSPF) or to refuse receiving the information by submitting a respective application to the SSPF.

10. Cash flow from SSPF to Assets Manager

A successful implementation of FDC component is a cooperation of several institutions. Well managed information and cash flow will have the crucial role in the provision of successful operation of FDC component.

The role of some cooperation partners does not change with of the implementation of the FDC scheme, i.e., legal persons, self-employed persons, land owners and family farmers will provide the information about the social insurance contributions of the person as they did until now; the order of payment will also remain the same. It will be possible to transfer the contributions, which are paid to FDC scheme, only when the SSPF will receive precise information regarding the social insurance contributions made by each participant of the scheme.

After registering the contributions in the accounts of the scheme participants and according to the choice of participants regarding a Assets Manager and an pension plan, the SSPF will transfer the contributions to the respective pension plan account with the holding bank.

In order to ensure the scheme administration process, the pension plan funds shall be expressed in the pension plan shares. An investment plan share is an accounting unit of the pension plan that is used for the accounting of the pension plan funds and in transactions with these funds. The pension plan share is not a security. Assets Manager shall calculate new pension plan shares by expressing the funds that are transferred from the SSPF account into the pension plan account with the holding bank, in shares of the pension plan.

In case there are several funds it has to be considered whether the individual has the right to move from one fund to the other. This choice of moving from one fund to the other should not be given too frequently due to the costs associated with it and also due to considerations of investment policy which means that investment managers need to have a medium and long term perspective. Therefore the change from one fund to the other should only be possible after a minimum of one year or even longer.

11. Assets Managers

Another decision has been made insofar as there might be several funds – possibly competing with each other. The new system may start with just one fund but may be expanded. In case of several funds it may be necessary to decide what fund is in charge if the individual has not made a specific decision. This may mean that there has to be some kind of a “default option” – meaning that one fund takes all those not having made a decision. Such a default option has not necessarily to be introduced but otherwise a decision in favour of a certain fund has to be required.

From a legal point of view it is also important to decide on how and by what institution the fund should be administered. The same is with the question of collecting the contributions on the one side and assets management on the other side. Here it seems to be the decision that the fund as such and the assets management should be separated.

It has also been decided that SSPF will collect the contributions in the funded component. This can be supported by the argument that SSPF has files and data on the first pillar and thus can better cover those persons who are qualified for participating in the program.

It is also obviously decided that the benefits of the funded component to be paid out by the system established for the first tier and therefore this as well should be done by SSPF. So this would mean that – in case there is more than one fund – the choice of the different funds and the financial channels to and from SSPF and the funds have to be defined and established.

In case there are several funds it has to be considered whether the individual has the right to move from one fund to the other. This choice of moving from one fund to the other should not be given too frequently due to the costs associated with it and also due to considerations of investment policy which means that investment managers need to have a medium and long term perspective. Therefore the change from one fund to the other should only be possible after a minimum of one year or even longer.

Transitional period is very significant during the first years of the scheme. **Recommended transitional period for Azerbaijan could be five years. For the first years assets can be managed by the state - Central Bank of Azerbaijan or/and State Oil Fund of Azerbaijan. After transitional period assets management could be opened for private Assets Managers.** Experts suggest that number of Assets Managers is not limited administratively. Anyone who can follow set legal requirements can enter the market and provide the service. In the same way, we do not suggest to regulate how many and what kind of pension plans asset manager should have. Only exception would be the requirement to all asset managers to have one conservative pension plan that does not invest in equities and is focused on preserving real value of the accumulated capital.

In some countries State fully or partially manages funded pension scheme assets or has done so in the past. In Latvia, State Treasury alone managed pension 2nd pillar assets alone for the period of two years (from 2001 to 2003) and managed assets together with private asset managers until 2007 when it exited the business and split assets among private asset managers.

Benefits from state as Assets Manager are primarily related to perceived security and lower cost of service. However, potential issues are also multiple. Some of them are the following:

Issues	Description
Conflict of interest	State managers would have conflict of interest if, on the one hand, State issues government bonds, seeking lower returns and, on the other hand, state invests in own government bonds on behalf of pension plan participants, seeking higher returns.
Liabilities	The logic of issuing government bonds by the state and buying them up by state asset manager can be questioned. There is little added value from the state's point of view as financial liabilities towards future pensioners would still stay with the state and pension system would not really be prefunded.
Reputation	State asset manager's reputation can be negatively affected at the times when investment portfolio produces unsatisfactory investment returns.
Capital market development	There will be less capital market development if state alone would manage the resources. State can also have limited capacity and competence to review various investment proposals, and can often find itself in various conflicts of interest situations (e.g. financing of government owned enterprises)
Agency	State can create a special independent agency or a fund that would take over the management (similar to Oil Fund). However, making local investments and developing local economy can still be problematic. It would be much easier if such an institution invests only abroad but then local capital markets will not develop. If, however, local investments are allowed, one should take particular care in designing investment processes and decision making.

12. Counterparties

Assets management is associated with active work with various investment counterparties. Key counterparties and their roles are summarized below:

Counterparty	Key functions
Custodian	Ensures safekeeping of assets. Follows investment restrictions and calculation of fund's net asset value.
Brokers	Execute orders in financial markets
Fund administrators	Calculate fund net asset value
Fund accounting	Prepares fund balance sheets and fills provides legal reporting
Distributors	Distribute pension plans to clients.
Funds and asset managers	Provide assets management services. Provide access to funds.
Regulators	Supervise assets management service provision
State representatives	Follow agreement with the state.
Internal/External audit	Audit service provision and functions
Other	Legal, IT, HR, etc.

13. Pay-out of FDC pension capital

Generally there are two approaches internationally. One is to pay out a lump sum at retirement – consisting of the accumulated capital and the results of assets management. This may have to be paid out at retirement or a bit earlier. The other is to pay it out as an annuity which means periodically every single month for the rest of the life. The difference to the lump sum approach is that in the case of annuity it has to be based on assumptions following the insurance principle since the total amount to be paid out in the depends upon the years the person will receive the benefit.

In Azerbaijan the pay-out-system of the first pillar means that the amount accumulated at retirement will be divided by 144 – assuming a life expectancy of another 12 years after retirement. It seems to be fixed that this model will also be applicable for the FDC component.

A participant of the FDC component, upon reaching the age that gives rights to receive the old age pension or later, has the right to select whether:

- 1) to add the accrued FDC pension capital to the non-funded pension capital and to calculate (recalculate) the old age pension in accordance with the Law on Labour Pensions, or
- 2) to acquire a life assurance (lifetime pension) policy utilising the accrued FDC pension capital.

As disability and survivor pensions are included in the contribution rate for pensions (now 12,5%), FDC component pension part rights would be accessible reaching retirement age.

The life time pension insurance contract regarding a scheme participant shall be with not term restriction. On the basis of the life time pension insurance contract, the life time pension in the amount set in the contract shall be guaranteed for the insured person until the person's death.

Insured person can choose the periodicity of the life time pension, i.e. monthly, quarterly, once in 6 month or annually. It may be provided that the commencement of the disbursements of the life time pensions is postponed (recommended – not later as 10 years). Several periods of disbursement of the life time pension may be set not exceeding the number of three during which different amounts of the life time pension to be disbursed shall be defined. Insured persons can indicate a beneficiary.

In the course of setting the life time pension amount it shall be taken into account if a beneficiary is specified in the life time pension insurance contract.

14. Overall monitoring of operation of the FDC component and non-state pension scheme

SSPF shall perform the monitoring of the FDC scheme and non-state pension scheme. SSPF should request and reports submitted by the Assets Manager regarding operation of the FDC pension scheme and private pension scheme and request and receive reports on life assurance (lifetime pension) services, dynamics in the number of participants and the amounts of lifetime pensions.

15. Competence of SSPF

SSPF responsibilities:

1) ensure the establishment and updating of accounts of participants to the FDC scheme by registering contributions made and the FDC pension capital accrued;

2) inform the person regarding the registration in a FDC scheme and other significant changes in the operation of the FDC scheme;

3) issue or send a statement of account of the participant of a FDC scheme and information regarding the change of the Assets Manager or pension plan, upon the attendance in person of the participant of the FDC scheme, or upon submission of a written request;

4) conclude contracts with Assets Manager regarding the assets management of the FDC scheme and conditions thereof;

5) ensure fulfilment of submissions of the FDC scheme participants regarding selection and change of managers of the FDC scheme funds and pension plans. The Agency is not entitled on its own initiative to decide regarding the change of a manager of the FDC scheme funds and the pension plan,

6) each year prepare a report regarding the operation of the FDC scheme which provides a true and clear representation regarding the management of the FDC scheme, contributions made and fund transfers, as well as regarding the compliance of the accounting of accounts of the FDC scheme participants with the requirements of regulatory enactments. The report of the operation of the FDC scheme in accordance with international auditing standards shall be verified by a sworn auditor;

7) ensure the publication of information regarding the FDC scheme and the results of the operations thereof.

The documents providing for the establishment and updating of accounts of the FDC scheme participants shall be kept with the SSPF as long as the relevant person participates in the FDC scheme and for another 30 years following termination of the participation.

16. Transitional period

Introduction of FDC component is very complex task with many counterparties involved from public and private sector side. It would be prudent to set a transition period and introduce the system gradually. Elements of the gradual introduction system are the following:

- for the first few years, assets can be managed by the state (Central Bank of Azerbaijan or/and State Oil Fund of Azerbaijan. After transitional period assets management could be opened for private Assets Managers);
- alternative is for the state or state institution to provide initial seed capital to the system that can be split among asset managers to form initial capital base;
- system should start with investments in relatively safe financial instruments, like local government bonds and insured deposits;
- maximum equity related exposure and open FX position could be gradually relaxed, first to 30% and later to 50% or even 75% of pension plans assets under management;
- legislation should distinguish risk characteristics of conservative, balanced and active plans. During transition period, it would be sufficient to have only conservative pension plans;
- investments restrictions should be gradually relaxed as system matures. Latvian experience suggests that State manages assets during first two years, and then private market players join in. For the first 5 years of investment operation, 30% equity exposure limit is set. Later on it relaxed to set maximum levels;
- it is important to pre-define how long transition period will last and how investment restrictions will change along the way, as it would affect capital markets, asset managers and other counterparties;
- proper communication and improvement of financial literacy among potential pension plan participants, is critical.

FDC component is being started from zero point. All institutions providing the operation of the scheme should develop new IT systems, administrative procedures, train employees as well as ensure the operation of data registration and transfer systems, provide fast data transfer as well as a high level information security and protection. Since there will be a significant part of the SSPF budget transferred to FDC scheme even the existence of minimal errors in the information system providing the operation of the scheme is not allowed.

17. Administration costs (for Assets Managers, SSPF, fee ceiling)

Fees give motivation for Assets Manager and custodians to provide the service. Assets management fee level internationally is not fixed and can vary from 0.2% in some countries to 2% in others (calculation methodology is also very important and one should be particularly careful comparing fee levels internationally). In general, fees should be related to costs and assets under management. Fees are also related to the kind of services Assets Manager is expected to provide that can vary significantly from country to country. In some countries, there is one fee covering costs of assets management, custody, distributions, marketing etc. In others, assets management fee would exclude distribution costs, custody costs, pension plan switching costs, fees on subscriptions and redemptions, marketing costs, fees payable to regulator and others.

It is typical that initially, when system is launched, fees are relatively high, allowing Assets Manager to cover their costs and creating motivation for asset managers to join the system and cover the investments. When assets under management start to grow, fees are reduced by the pressure of competition or by legislation.

Fees have significant long term impact on investment returns and accumulated pension capital. State should follow fee development and ensure that they are justified.

Some countries relate size of fees to the achieved investment performance, i.e. the higher the investment performance, the higher the fees. Academic evidence is mixed about the benefits of such system. On the one hand it aligns interests of asset managers and pension plan participants. On the other hand, it can lead to excessive risk taking and higher overall fee level. Exact implications depend on the specific structure of performance fees, alignment of interests and many other factors. As introduction of performance fees can be very demanding from operational point of view, we do not suggest considering them at initial stages.

Experts suggest that pension 2nd pillar funds have pre-set fee limits while pension 3rd pillar, which is voluntary, does not have any explicit fee limits. Fee levels also vary depending on the complexity of the investment strategy provided.

For a summary of operating costs and fees in selected OECD countries, see Annex 9.

Already existing institutional body as SSPF will be playing a central role in the administration of FDC. The experience and knowledge of these existing institution shall be used most effectively in order to make the system as secure as possible from the very beginning. It is also important to build up the confidence in the population for the new system and to keep the administration expenses as low as possible for the benefit of the participants.

Expenses of SSPF for administration of the FDC scheme consist of two main sub-groups:

- 1) start-up costs;
- 2) maintenance costs.

Start-up costs, that are qualified as investments would consist of:

- development of IT systems;
- project administration expenses: development (or enlargement) of department (establishment of working places), personnel costs;

- public information campaign;
- training of employees.

Maintenance expenses can be relatively divided into administration expenses and expenses that depend on the number of the participants of the scheme or number of clients. Alternatively, the number of clients depends on the participation in the FDC scheme.

The administration expenses generally consist of personnel costs, communication expenses and maintenance of IT systems.

Expenses that directly depend on the number of clients:

- expenses associated with client service: expenses related to the development and printing of forms, payment of postage expenses (sending of notifications regarding the affiliation to the scheme or change of the fund), expenses associated with account statement campaign;
- personnel costs at local offices (client consulting, provision of printouts, etc.).

During the first years of the operation of FDC scheme there are two possible financing sources of the start-up costs (investments):

- 1) resources of the SSPF budget;
- 2) subsidy from the state budget.

Hereafter expenditures would be financed as payment of set percentage of each participant's contributions. But should take into account that fully voluntary participation (Version E) may not provide enough resources and administration fee would be too high for each participant.

Fees to cover Assets Managers, Custodian Banks and custodian services expenses – from contributions for FDC component.

Administration costs should be limited by ceiling.

18. Reporting

Reporting channels between all the persons and entities involved in the administration of FDC scheme should be established in order to ensure the effective and timely transmission of relevant and accurate information.

Processes need to be put in place to ensure that institutions receive appropriate, timely, accurate, complete, consistent, and easily comprehensible information so they may discharge their responsibilities effectively.

Regarding the assets management functions, the custodian functions, State supervision, savings product design see to Blueprint of establishment non-state pension institutions and development of legal framework in Azerbaijan.

Funded component in some EU countries¹⁴

Estonia

The second pillar of the Estonian pension system is a mandatory funded pension based on full pre-financing and covering only the risk of old age. Private asset management companies administer the II pillar pension funds. In essence, the II pillar is an individual savings scheme, where the size of pension depends on the total contributions over the career and rate of return of the pension fund.

Participation in the II pillar is mandatory for persons born in 1983 or later. People born prior 1983 and participating at the labour market can join the II pillar on voluntary basis. The rate of the II pillar contribution is 6% of wages – the employee pays 2% from gross wages, which is supplemented by the state with 4% of gross wage on the account of social tax paid by the employer.

The retirement age in the II pillar is the same as in I pillar. An additional requirement to receive a funded pension is the fulfilment of a qualification period of 5 years, which has to be passed from the date of commencing the payment of contributions. II pillar was launched in July 2002. Thus the payment of first benefits were done in 2009 (benefits on the basis of inheritance started from 2007). According to the law the main payment modality is a compulsory lifetime annuity. Insurers are allowed to offer only base (insurance) products for policy holders. Joint products are also allowed but they have to meet the requirements of the base product. A guaranteed period may be stipulated so that the beneficiary or beneficiaries specified in a contract are entitled to payments made pursuant to the contract if the insured dies during the guaranteed period.

Lithuania

The quasi-mandatory private funded pension scheme was introduced on the 1st of January 2004. The second tier of the statutory pension system is voluntary: people are free to choose whether to join it or not. Opting out from the scheme once joined is not allowed. The right to cancel the participation within 30 days of signing the agreement is given only to the newcomers to the system. There are no other limitations to participate except that for being insured with the social insurance pension system and aged below the legal retirement age.

The number of participants in quasi-mandatory private funded pension scheme grew largely due to the involvement of younger population (the share of participants in labour force is 79 %).

The scheme is a defined contribution scheme financed by a fraction of the social insurance contribution (increased from 2.5% to 5.5% of gross wage in 2004-2007 and reduced to 3% from January, 2009 and further to 2% from July, 2009 due to budget constrains). The rate of contributions was 1.5% in 2012 and 2.5% in 2013.

At the end of 2012, the Parliament adopted changes in the funded pension scheme. From 2014 the contributions to the Pension Funds comprise of three sources: 2

¹⁴ *Materials of Working Group on Ageing Populations and Sustainability*

percentage points of obligatory social insurance pension contribution (3.5 p.p. since 2020), 1 percent paid by the member (2 per cent since 2016) and 1 percent of the country's average wage additionally paid by the State (2 per cent since 2016) (so-called "3.5+2+2" formula).

Contributions:			
Year	Fraction of social insurance pension contribution	Additional contribution paid by member	Contribution paid by the state (percentage of average wage in the country)
2014	2%	1%	1%
2016	2%	2%	2%
2020	3,5%	2%	2%

The contributions from the state budget will also be transferred for parents raising children of age under three years and receiving maternity (paternity) social insurance benefit or covered by state social pension insurance by state means. Contributions equal 2 per cent of the country's average monthly gross wage of the year before last. If these parents raise more than one child under 3 years of age, a fixed payment to the parent account is credited for each child.

The members already participating in the pension accumulation were given an option to choose further form of accumulation: to transfer additional contributions to the pension fund, to keep accumulating only part of their social insurance contributions or to terminate pension accumulation. 409 thousands of persons (36.7% of all participants of the scheme) have chosen to transfer the additional contributions, 684 thousands (61.2 % of all participants of the scheme) have chosen to accumulate only part of their social insurance contributions and 24 thousands (2.1 % of all participants of the scheme) have chosen to terminate pension accumulation in the private pension funds (data of December 2013). In the last case the accumulated sum is left in the pension fund till the person acquires the right for the benefit from pension fund. All new participants will join the scheme with additional contributions.

Pension funds management fees were reduced by amendments. As from 2013 the fee from accumulated assets, which is paid by member, is up to 0.65 percent of a member's average annual assets held in conservative pension fund and up to 1 percent of assets held in other pension funds. The fee from contribution is up to 2 percent and each year is being reduced by 0.5 percentage points till it reaches 0 percent:

Maximum contribution fee is being gradually decreasing since 2013:

2013 – 2%

2014 – 1.5%

2015 – 1%

2016 – 0.5%

Since 2017 – no contribution fee applied.

Joining the funded defined contribution system reduces the part of contributions going to the social insurance budget. The social insurance pension benefit formula reflects this part of "lacking" contributions by coefficient which is calculated yearly and applied to the earnings-related part of the social insurance pension (see coefficient C

above). The coefficient of insured income is not reduced due to additional person's contributions or the contributions from the state budget.

At the retirement, a participant has an obligation to purchase a pension annuity from Life Insurance Company. Only in case of very small annuities (half the amount of the basic pension) or for sums exceeding the annuity of three times the basic pension, one can choose to receive pension benefit in lump sum or as phased withdrawals from the pension fund. Unisex life tables are used for annuity calculation since December 2012.

From 2013 it is possible to receive benefit (annuity) from the pension fund not earlier than 5 years before the retirement and when the early old age state social insurance pension is awarded.

The transfer of a part of social insurance contributions into quasi-mandatory private pension funds in 2004–2007 was partially (by 50%) funded by state allocations (from the means of the Reserve (Stabilisation) Fund). During the economic crisis and later in 2009–2013, the transfers were fully funded by the State budget allocations. Since 2014 these transfers are not compensated by State budget any more. This policy assumption is included in the projections.

There are no government guarantees on the return of the quasi-mandatory private funded pension scheme.

Slovakia

The second pillar is a fully funded, defined contribution, private pension scheme introduced by the government in January 1st, 2005. During its existence, the participation in the second pillar for newcomers to the labour market has been changed from mandatory (with no possibility to opt out) to voluntary (with the default participation only in the first pillar) then back to mandatory (but with the possibility to opt out of the system within 2 years) and as from January 2013 back to voluntary again with the possibility to decide until the age of 35.

Pension contributions are tax exempt as Slovakia taxes neither pension contributions nor pension benefits to/from the first and second pillar. The sum of individual's pension contributions is the same regardless of whether he/she participates in the mixed system (in both the first and second pillar) or only in the first pillar. The introduction of the second pillar in 2005 only split the employer's contribution (14%) into a part that goes to the first pillar and a part that goes to second pillar, if one participates.

Participants in the second pillar can choose to invest their contributions into at least two funds – guaranteed bond fund and non-guaranteed equity fund (mostly passively managed funds) according to their preference. These two are offered mandatorily by pension fund management companies. Decisions about creating an arbitrary number of other pension funds (including or excluding guarantees) have been left up to private pension companies. Before reaching the pension age, the savings in non-guaranteed funds will be moved automatically into a guaranteed fund such that the share in the guaranteed fund will gradually increase by 10% a year. The assessment period for providing guarantees in a bond-based guaranteed fund is 10 years and in another guaranteed fund, if any, it is 15 years at the most. The whole system is strongly

regulated (more restrictions compared to, e.g., mutual funds) and the supervision is carried out by the Central bank.

The second pillar savings can be paid out in several ways. The basic way is to conclude a contract with an insurance company for a lifetime annuity. Receiving a temporary annuity (concluding a contract with an insurance company for certain number of years) or a programmed withdrawal (withdrawing the savings without concluding an insurance contract) requires that the pensioner's income from the two-pillar system is higher than the hypothetical income calculated as a pension benefit for 42 years of contributory period with average pension point of 1.25. At the same time, his/her income from the two-pillar system must be higher than the hypothetical income from the I. pillar if the person never participated in the II. pillar. The pension fund management company will allow programmed withdrawal also in case that no insurance company is willing to conclude a contract with a pensioner because his/her savings are not sufficient.

The 2012 reform

- ✓ The second pillar became voluntary for newcomers to the labour market.
- ✓ Minimum participation period in the second pillar changed from 15 to 10 years.
- ✓ As of September 2012, contributions to the second pillar have been decreased from 9 to 4 percent of the assessment base. Starting in 2017, contributions are going to be gradually increased by 0.25 p.p. until they reach the final level of 6 percent in 2024.
- ✓ As of 2013, the maximum assessment base for pension contributions was increased to five times the average wage in economy (before it was four times the average wage).

Poland

The system, which was based on the defined benefit rule, was transformed into a system based on a defined contribution. The mandatory part of the system was divided into two parts: non-financial and financial. The former is managed by a public institution – Social Insurance Institution (ZUS), the latter by private institutions. People born before 1949 remained in old DB (defined benefit) system. People born 1948-1968 could chose if they want to join funded tier or stay in one pillar NDC (notional defined contribution) system. Due to subsequent reform participation in funded tier has been changed. The contribution rate is equal for all insured people without matter in which pillar they are.

There was another important pension reform in 2014 concerning second pillar. In accordance with the provisions of the Act, 51.5% of the accounting units recorded in the individual account of each OFE member was cancelled (i.e. a part of the assets invested, among others in the Treasury Securities and bonds guaranteed by the State Treasury), and their equivalent was registered on the sub-account in ZUS; in addition, the level of the contribution transferred to OFE was set at 2.92%, which corresponds to 40% limit of the investment of OFE in stocks at the primary level of the contribution transferred to OFE. At the same time, OFE will not be able to invest in Treasury Securities and in debt instruments guaranteed by the State Treasury. The

investment limits for assets managed by OFE will also be changed, aiming at recovering the market (capital) nature of OFE.

Moreover, the insured were offered a possibility to choose whether they are still willing to transfer the new contribution to OFE (in relation to the future contributions), or they prefer to transfer this contribution to the sub-account in ZUS. As result of the first choice, 15% of OFE members decided to remain in open funds. However, every four years, beginning since 2016, the insured will have a possibility to change the previous decision.

The maximum level of the fee charged by the OFE managing institutions was also reduced by a half, to 1.75%.

At the same time the issue of disbursement of annuity from the funded part of the pension system was regulated. The annuity will be paid by ZUS, no matter if the insured remained in OFE or moved to ZUS. For this purpose, the so-called “safety slider” was introduced, based on the gradual transferring - over a period of 10 years prior to reaching the retirement age – of the capital collected in OFE to the pension fund of FUS and its registering on the sub-account kept by ZUS. This solution should reduce the negative consequences of potential market disturbances related to the level of the pensions. At the same time, the contributions paid by persons covered by the safety slider shall be entirely transferred to ZUS.

The funds transferred to the sub-account in ZUS will be subject to the current rules of indexation, applying the indicator equal to the average annual growth rate of GDP for a period of the last five years. It should be expected that the growth rate of the nominal GDP in the nearest years will not be lower than the rate of return the Polish treasury bonds, causing that it will be neutral for the level of the pension of a person insured. As a result, the replacement rates should reach the level similar to the status before the changes were introduced.

The changes in the pension system introduced by the aforementioned act will have a positive impact on the FUS balance. They will mainly arise from reducing the contribution transferred to OFE (resulting from lower contribution rate and introduction of the choice over the transfer of the contributions to OFE), the mechanism of a gradual transfer of assets from OFE to ZUS at ten years before retirement and due to the proceeds from assets other than Treasury bonds, transferred by OFE to ZUS. Due to that expenditures are going to increase but fund balance will be improved.

Sweden

The public system also consists of a private mandatory fully funded defined-contribution part, the *Premium pension*. The system is administered by the state and financed by a contribution rate of 2.5% of pensionable earnings, following the same transition rules as the PAYG system. Individuals can choose from a large number of mutual funds when investing their capital. A government run default fund caters for people who do not make an active choice. The individual mutual funds earn a market rate of return. At retirement, at any age from 61 years, individuals can choose a fixed or variable annuity, in part or in full.

Chez Republic

The pension savings scheme has been effective since the 1st of January 2013. This scheme is primarily designed for the people under 35 who can choose to join the scheme whenever they want. Persons over 35 years have had only limited time (6 months from the time they first become pension insurance payers after the reform's initiation) to join. It is not allowed to change the decision taken by an insured person. The obligation of paying concerns just those periods when a participant pays social contributions to PAYG system, i.e. there are no payments from state budget for so called state insures to the pension savings pillar. However, if the participant does not pay social contributions, he/she is treated according to the law for PAYG scheme.

Financing of the pension savings pillar is provided by funds transferred from participants in the first pillar in an amount of 3p.p. from the total contribution rate of 28%. In addition to this, each insured person has to pay an additional 2p.p. from his or her own sources. The total contribution rate is thus increased to 30%, of which 25p.p. is directed into the existing PAYG system and the remaining 5p.p. into the pension savings pillar.

The pay-out phase for the saved funds from the pension savings pillar should be provided by a life insurance company selected by each participant. It is possible to draw the paid benefit in the 3 ways of annuity (life-long with or without survivor's pension for his/her heirs or 20-year long).

Participation in the pension savings pillar has of course an impact on the contribution rate on the revenue side and on the amount of an old age pension regarding the expenditure side. Outlays for other pensions, i.e. disability and survivors' pensions are not affected. In case of participants of pension savings pillar, their accrual rate from the first pillar is reduced from 1.5% to 1.2% for the period of their active participation.¹⁰ The flat rate component remains the same for all.

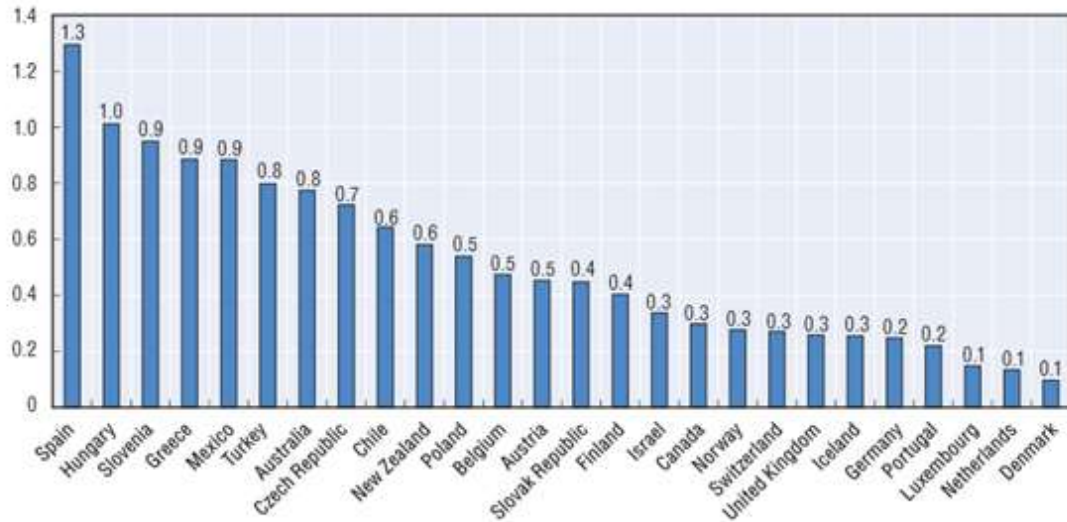
Appendix 2-8

See results of calculations.

Appendix 9

8.11. Pension funds' operating expenses as a share of total investments in selected OECD countries, 2011

As a percentage of total investment



Source: OECD, Global Pension Statistics.

StatLink <http://dx.doi.org/10.1787/888932908231>

Source: OECD Pensions at glance 2013

8.12. Average administration fee in DC systems in selected OECD countries, 2011

	Fees on (%)			
	Contributions	Salary	Assets	Returns
Austria			0.50	
Chile		1.42		
Czech Republic			0.60	15.00
Estonia			1.49	
Greece			0.90	
Hungary	4.50		0.80	
Israel	4.07		0.35	
Korea			0.70	
Mexico			1.50	
Poland	3.50		0.46	
Slovak Republic (2nd pillar)	1.50		0.30	5.60
Slovak Republic (3rd pillar)			0.083-0.165	
Spain (occupational)			0.19	
Spain (personal)			1.44	
Turkey	3.52		1.80-2.55	
United Kingdom			1.50	

Source: National supervisory authorities' data, IOPS, OECD, World Bank.

StatLink <http://dx.doi.org/10.1787/888932908250>

Source: OECD Pensions at glance 2013