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German Economic Team**

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Pension System in Belarus: Major Challenges and the Ways of Meeting Them

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Pension System in Belarus: Major Challenges and the Ways of Meeting Them

Summary

Belarus is facing a demographic challenge that should be properly met by reforming its pension system. In this paper, it is argued that the existing mono-pillar system should be changed by shifting to a two-pillar one *along with* some increase in the pension age. However, in order to be effective, these measures should be compatible with the demands and expectations of both current and future pensioners.

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1. Introduction: The Importance of the Pension Problem for Belarus

Pensions today are a major topic of public debate across all industrialized societies. Pension systems have been changing everywhere since the early 1980s and will continue to be reformed in the years ahead. Many worries are related to the way national pension systems are financed and function (on a pay-as-you-go (PAYG) basis) so a shift to two or three-pillar systems has been implemented. Both developed and transition economies have implemented this shift due to a number of overlapping reasons. The demographic factor is often considered as the most profound one. In particular, population ageing means that the number of contributors decreases over time. As a result, the PAYG systems that are funded by workers' contribution could experience financial problems. A number of policy measures serve to resolve these problems. The most immediate one is to increase the burden of payments by the current employees, but this leads to cost hike that eventually might dampen competitiveness.

All former socialist economies of Central and Eastern Europe and the former Soviet Union are faced with the common demographic challenges. Accordingly, the majority of them have been forced to revise their pension systems. Essentially, this revision has been about the introduction of at least two-tier systems. The first tier is the 'old', redistributive PAYG system, while the second (and sometimes the third) pillar is a funded one comprised of compulsory (or voluntary) contributions invested in financial market instruments.

In general, pension reform involves not only economic, but also social aspects. Indeed, the *economic side is dominant*, namely the need to maintain decent rates of productivity and GDP growth in order to fund the PAYG system under the pressures of ageing population. *But there is also important social dimension*, since pensioners (more than one-fourth of the population in Belarus) is an important social group whose interests have to be accounted for. In addition, the design of pension system reflects social justice preferences. For instance, the PAYG system has traditionally been about horizontal equity, while the development of the funded schemes promotes vertical equity. For a long time in Belarus, the government has been motivated to increase the real value of pensions and pay them on time. This activity could be seen as an important legitimacy factor for the authorities. The third aspect is a *psychological one, or perception of and incentives of participation in certain pension schemes*. This participation might be driven by the desire to invest in assets in order to obtain higher returns.

In terms of demography, Belarus is not an exception. The World Bank and UN reports show that the country would be confronted with similar demographic challenges so the reform of its pension scheme would be required in order to ensure their sustainability over the medium to the long run.

Since all countries maintain some basic pension funded by the employers via the payroll tax, increase in pensions could only be ensured by higher productivity and labor force participation. So the productivity-boosting policies are seen as one of the sustainable routes towards sustainability. Another route is related to the availability of investment opportunities in order to allow the development of the second and the third pillar closely related to the operation of financial markets. But this requires the proper mechanisms of supervision in place that cannot be quickly installed.

Apart from the macroeconomic considerations, there is a range of important aspects related to the installment of the funded system in addition to the existing PAYG scheme. In this policy paper, we discuss the possibilities of such introduction in Belarus. In doing so, we first provide justification for such a step on the basis of demographic forecasts available (section 2). These forecasts call for some change in the system by establishing the second pillar. Accordingly, the third section discusses the pros and cons of the 'pillarized' system. The fourth section touches upon the prospects

of introducing the second pillar in Belarus. The final section draws conclusions and provides some policy recommendations.

2. The Issue of Sustainability of Pension System in Belarus

In essence, the sustainability of redistributive system is determined by demographic challenge. Ageing is a major threat to sustainability. In case increase in the number of pensioners is accompanied by a decline in working-age population, a burden on the pension fund is automatically increased. Pensions (as a fraction of wages) are hard to maintain at the previous levels so they should either be cut or financed by taxes or via other sources. In fact, calculation of more or less precise effects of ageing is a complicated task since numerous factors should be taken into account. While demographic dynamics are not very volatile over time due to its dependence on more fundamental factors, economic changes are hard to foresee due to the influence of a multitude of short- and medium-term factors.

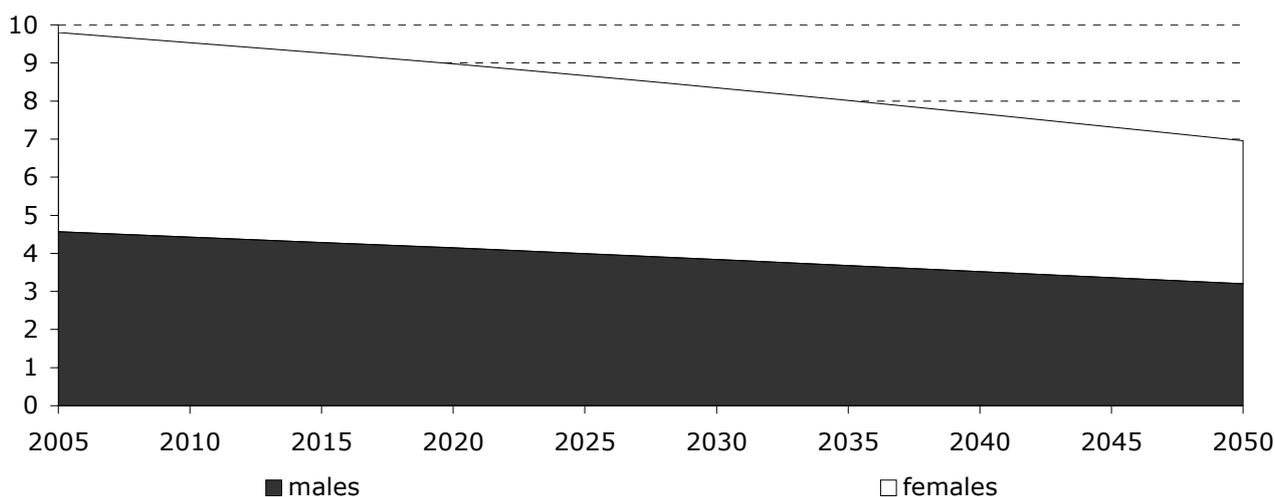
In this paper, a simplified account on the problem is made by using the demographic forecast until the year 2050 prepared by the UN.¹ The following indicators are used to address the issue of sustainability: (i) a payroll tax², (ii) a ratio of average pension to average wage, (iii) the share of wages fund in GDP, (iv) the unemployment rate, (v) the share of economically inactive population in working-age population.

Having all these data, two scenarios are subsequently simulated: (a) no upward adjustment of the current pension age (PA) is made; (b) an upward adjustment is made (a measure recently proposed in Belarus³) – by five years for both males and females.

2.1. The UN forecasts

In general, the UN experts seem to be rather pessimistic about the demographic future of Belarus. In 2006, a revised forecast until 2050 has been published. According to the medium scenario⁴, the population of Belarus might decline to 7 m people by the end of 2050 (Figure 1).

Figure 1: UN forecast of population dynamics in Belarus, 2005–2050, m people



Source: the authors' calculations on the basis of the UN estimates.

The UN also claims that population decline in Belarus would be accompanied by ageing so by the year 2050 the number of pensioners comes close to working-age popu-

¹ The details are available at: <http://esa.un.org/unpp/p2k0data.asp>.

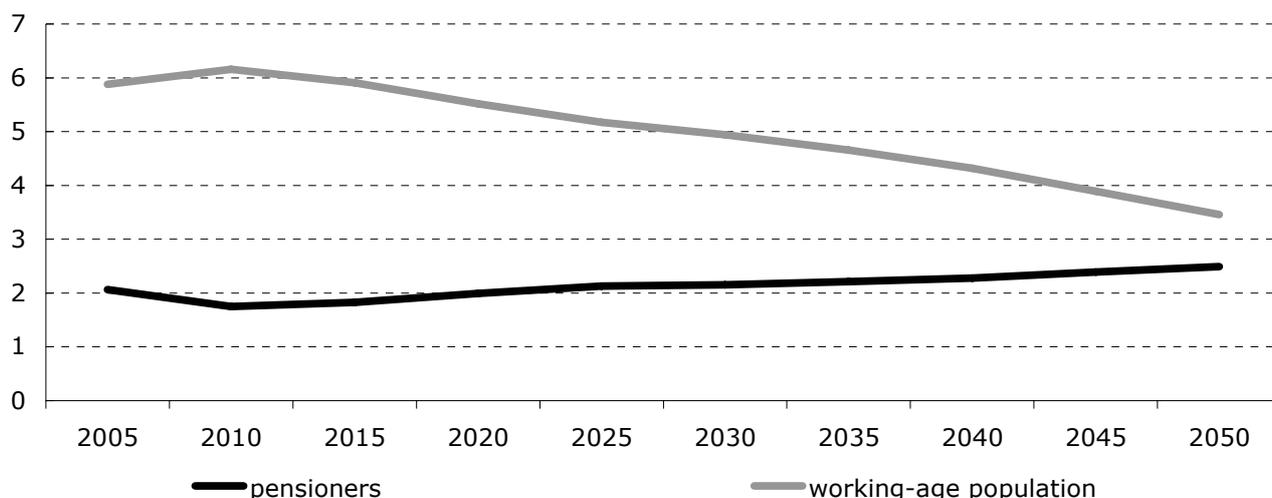
² How it is labeled in Belarus, 'a contribution to the Social Security Fund' (SSF).

³ See http://naviny.by/rubrics/society/2008/05/20/ic_articles_116_157166/

⁴ See <http://esa.un.org/unpp/index.asp?panel=4> for a detailed description of its assumptions.

lation (Figure 2). Such pessimistic estimates suggests of non-sustainability of the pension system exclusively based on the traditional PAYG scheme.

Figure 2: Working-age population and pensioners, m people



Source: the authors' calculations based on the UN estimates.

2.2. Estimating sustainability of the Belarusian pension system

Estimation is based on the following assumptions extended until the year 2050:

- Payroll tax is set at 36% of wages fund⁵;
- Ratio of average pension to average wage is 40% (in 2005, it was 43%, while in 2006 – 42%);
- A share of wages fund⁶ in GDP is taken at 43% (2005 level);
- Finally, the unemployment rate is assumed to be equal to 5% of economically active population, while the latter is taken to be 90% of the working-age population. These assumptions reflect the current situation at the labor market of Belarus.

The next step is to make assumptions about the structure of expenditures of the Social Security Fund (SSF). For instance, in 2006, a surplus was recorded and spent for the purposes other than pensions and related expenditures. Accordingly, the SSF can be considered as a 'balanced' one. The revenues of the Fund could be assumed at the level of 36% of the wages fund (WF), while its pension expenditures could be calculated by using the formula: $PF=0.36*WF*(P/E)$, where PF denotes the amount of funds to pay pensions, P is the number of pensioners, and L is a number of employed. All other expenditures (15.7% of WF in 2005, according to our estimate) are assumed to be invariable.

No change in the pension age

In case the UN forecasts are taken, there would be the Social Security Fund's deficit (about 0.1% of GDP) by 2010⁷ if the current pension age is not changed (and assumptions made above are fulfilled). The funding can be found relatively easy, since the budget, for instance, is underestimated at a higher amount. For instance, in December

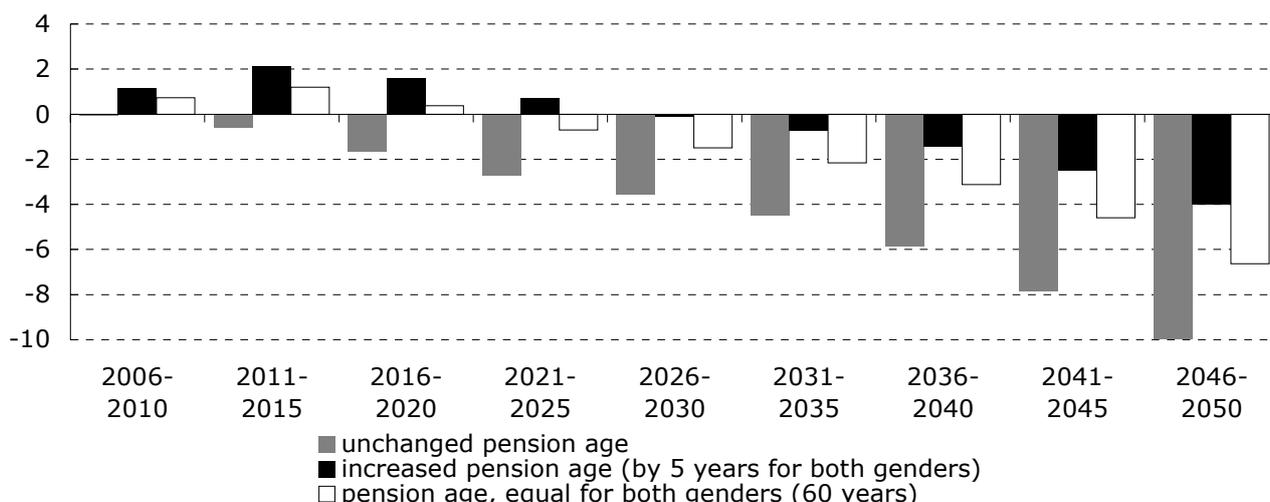
⁵ This means that all wages in the economy subject to payroll tax. This simplification is not crucial for our results, as they show a tendency rather than precise dates and figures.

⁶ The calculation has been performed by using the data from Household Budget Surveys. These data show that employment is higher than the other official sources record. The difference is substantial: there are about 700,000 people more than other sources contain.

⁷ Taking into account our assumption about the balanced SSF.

2007, the government expected that the actual consolidated revenues in 2007 exceed the budgeted ones by 6% of GDP.

Figure 3: Social Security Fund Balance, % of GDP, 2006–2050



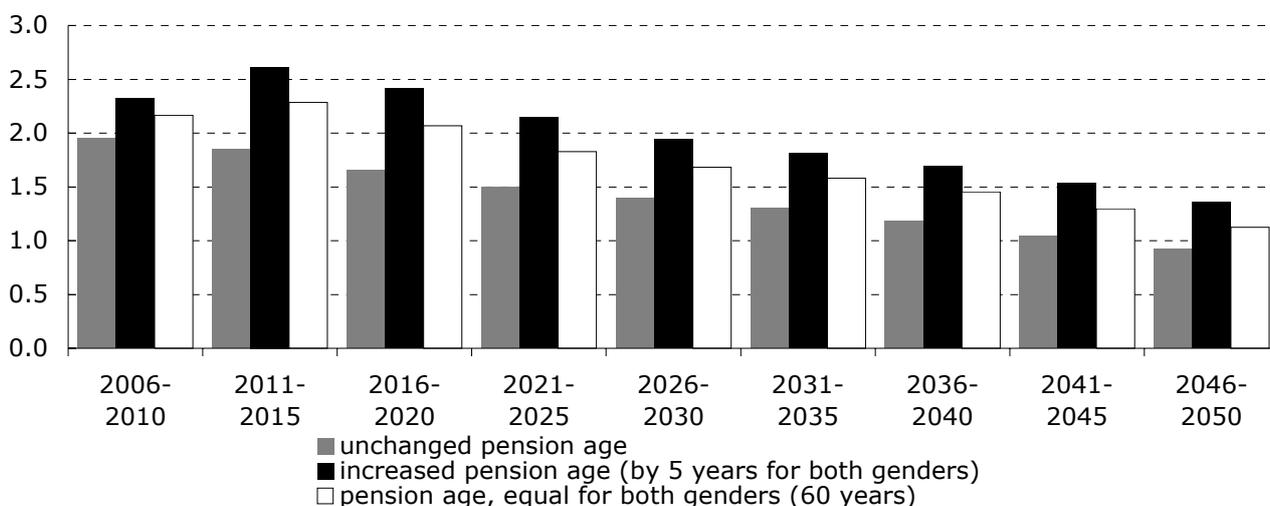
Source: own estimates on the basis of the UN forecasts.

Over the years, the deficit would only be growing to reach the level of 1.7% of GDP annually over 2016–2020 and even higher over a longer time span (until 2050) (Figure 3). Importantly, this estimate does not account for the additional burden the state budget and enterprises would experience following recent energy price hike. Accordingly, it seems that there is time to revise the stance towards the pension system reform.

Higher pension age

The most straightforward technical solution is to increase the pension age. In case it is increased by five years, the deficit of the SSF would be shifted to 20 years ahead, while equalization of the pension age of males and females (60 years for both genders) would postpone the deficit by 10 years (Figure 3). This would occur due to a sharp increase in the ratio of employed to pensioners: after increase in the pension age for both genders, this ratio would be 2.7 instead of 2 per 1 pensioner (Figure 4).

Figure 4: The number of workers per one pensioner, 2006–2050



Source: own estimates on the basis of the UN forecasts.

These solutions look attractive from a purely technical point of view, but it is very hard to implement them in Belarus. First, life expectancy in Belarus is decreasing.

Second, population is rather hostile to this proposition. The study made by the IPM Research Center at the end of 2007 shows that the vast majority of the population does not support the idea of such upward adjustment the pension age. Specifically, 75% of the respondents of the national survey said that the current age is optimal, while another 20% called it 'too high'.⁸ Although an intermediate solution could be *equalization of the pension age* between genders, it merely 'postpones' a more effective solution.

With these considerations in mind, we suggest increasing pension age, but also in combination with the introduction of a second pillar. In that case it could be realistically expected that additional funds accumulated by the Social Security Fund would be spent more efficiently so the pension age increase would be properly 'rewarded'.

3. Architectures of the Pension System: the PAYG and the Funded System

Overall, the major incentives for the introduction of a 'pillarized' system are related to the need to respond to prospective ageing of the population and to increase the efficiency of accumulation and spending of accumulated funds. It can be done in a number of ways, including encouraging labor market participation, increasing pension age, and slower indexation of pensions (against inflation). Macroeconomically, incentives have to be put in place in order to increase employment and long-term participation in labor force.

One of the issues (observed in virtually all transition economies, albeit at a different scale) is the existence of the shadow economy and informal employment providing no contributions to the social security fund. According to a most recent estimate, it is about 420,000 people working abroad.⁹ This is about 7% of the working-age population of Belarus. Accordingly, reduction of the shadow economy sector would allow the collection of additional contributions.

A problem with the collection of pension contributions is that some employers might be inclined to save on labor costs so any tax increase to fund a growing demand for pension payments would be accommodated by 'going into the shadows'. However, some reduction in the rate of compulsory contributions can be a good way to actually increase the total volume of payments. First of all, there would be a second pillar in place allowing collection of additional revenues. This is actually met with by expectation of the population (see Section 4 for details). Second, the costs of contributing to the system can become lower than the costs of non-contributing. As a result, some reduction in contribution would be offset by a greater participation.

Typically, the ageing challenge is advised to tackle by introducing the second and in some cases the third pillar in order to lessen the burden of the first one. The idea of the second pillar is to invest some fraction of contributions (from 4–6% to 7–10% out of 30–40% payroll tax) to pension funds that could then collect returns on these contributions¹⁰ after investments are made.

Whatever the pressures for pension reform, the role of the first pillar remains indispensable. It serves the purpose of poverty reduction among the elderly and, in some cases, smoothens the patterns of consumption among low-income households. Often, the reverse side of the PAYG system is the lesser differentiation and a weakening of the interrelationship between contributions and pensions that in the end could dis-

⁸ The results of the study are available in Russian at: <http://www.research.by/pdf/wp2008r02.pdf>.

⁹ http://www.gazetaby.com/cont/print.php?sn_nid=10681.

¹⁰ See Lindemann, D., Rutkowski, M., Sluchynskyy, O. (2000). *The Evolution of Pension Systems in Eastern Europe and Central Asia: Opportunities, Constraints, Dilemmas and Emerging Practices*, The World Bank. Besides that, some major aspects of pension reforms are reviewed in the paper by Haiduk, K. and Slabchenko, D. (2008). *Pension System Reforms: Review of the Most Important Aspects*, IPM Research Center Working paper WP/08/07.

courage the payment discipline. In fact, the results of the focus group studies in Belarus reveal that people is somewhat uncomfortable with the low degree of pension differentiation that the current pension system offers (see below).

The expected result of the shift to a two-pillar system is greater differentiation related to the establishment of a closer connection between wages and pensions. Essentially, the second pillar is introduced *in addition* to the PAYG system. Individual accounts do not only encourage participation, but also have some benign consequences at the macroeconomic level. Specifically, greater participation could lead to higher savings and investment and thus maintain decent rates of economic growth. Next, a 'pillarized' system helps spreading of the risks associated with the functioning of a mono-pillar one.

From a practical point of view, an important issue is what percentage of social security contributions should be transferred to a 'funded' pillar. As for the transition economies, the rates vary between 2% in Latvia to 7.2% in Poland. In many cases, the World Bank suggests to start from 2 or 4% and then increase it to 7 or 10% over a decade or so. What is the proper choice for Belarus is yet to be decided, but nevertheless appear in this range. A proper measure could be to start from 2% and then check the results. If successful, this figure could be increased further to 3%, and so on. There are certain advantages and disadvantages attached to non-pillarized and pillarized system that are summarized in the table below.

Table 1: The PAYG and the funded schemes

Pillar	Method of funding	Pros	Cons
1 st pillar: redistributive	PAYG: payroll tax = compulsory contributions	<ul style="list-style-type: none"> - Guaranteed for the pensioners irrespective of market fortunes; - Prevention of poverty; - Horizontal equity considerations. 	<ul style="list-style-type: none"> - As a rule, low degree of differentiation; - Discouragement of long-term labor force participation.
2 nd pillar: funded	Compulsory contributions: from 4–6% to 7–10% of wage fund	<ul style="list-style-type: none"> - Ability to accumulate additional funds; - Greater differentiation of pensions depending on the contributions made; - Diversification of risks related to the functioning of the pension system; - Vertical equity considerations; - At the macroeconomic level: additional savings and investment. 	<ul style="list-style-type: none"> - Risks associated with the operation of financial markets; - The need to finance a shift from a purely PAYG to a system combining the latter and second pillar.
3 rd pillar: funded	Voluntary contributions	<ul style="list-style-type: none"> - Ability to accumulate additional funds by those who are willing to do that; - Additional incentive for the development of financial markets. 	<ul style="list-style-type: none"> - Risks of failure leading to a loss of accumulated funds; - The need to establish prudential supervision that is typically possible over the medium to the long run.

Source: the authors' interpretation.

Whatever the pressures, the role of the first pillar remains to be crucial. The two-tier and especially the three-tier systems require well-functioning capital markets and effective supervision. As for Belarus, the latter are still underdeveloped, while their maturing could only occur over a long run. Therefore, it is much more feasible to think of the establishment of the second tier along with maintaining the PAYG scheme. Nevertheless, the very possibility of the introduction of the second pillar has to be considered these days.

4. Ways of Improving the Pension System in Belarus

Dealing with the challenges

It has been shown above that a mere increase in the pension age would not be a sustainable solution over the long run. Rather, it would lead to postponement of the problem instead of solving it. Such a problem delay would be exacerbated by the existence of the PAYG system, which is essentially redistributive. In case the pension age is increased now, additional funds would again be redistributed via the state budget and not invested.

A more forward-looking strategy would be to increase the pension age *and* the second pillar. In other words, the recommendation of pension age equalization would work only in combination with the move towards the 'pillarized system'.

The introduction of the second pillar leads to a deficit in the Social Security Fund. The deficit would typically require additional revenues in order to finance expenditures. There is a range of options to do that. One is the use of loans, but it would inflict additional costs related to servicing the debt. In the end, a debt spiral might appear. In Poland, the transition had been partially financed by privatization revenues.¹¹

Another option is the use of current tax revenues, but it would require the reorganization of budget expenditures. This reorganization is particularly difficult under the conditions of energy price hike. A non-debt option would be to increase the pension age, but it is socially painful step. The calculations made in the section 2 shows that a promising option would be the equalization of the pension age between two genders supplemented by the introduction of the second pillar.

Incentives for participation in the second pillar

No pension reform is successful unless it is based on the society's consent and meets 'social demands'. The results of the focus-group studies conducted by the IPM Research Center¹² indicate that there is a demand for the pension reform in Belarus in terms of expansion of accumulation opportunities. In general, the population is strongly concerned with the size of the pension. It is currently perceived as insufficient to satisfy the acceptable standard of living. It is believed that pension income has to be compounded by work (usually part-time, or even full-time).

However, people tend to display the low degree of knowledge about the functioning of the system. Some are even uncertain whether the current pension system is a distributive or a funded one. Also, there is broad mistrust to the financial institutions because of the negative experience with loss of savings (after the collapse of the Soviet Union) and the Russian financial crisis of 1998). Nevertheless, there is still a strong interest in pension-related savings opportunities.

Moreover, the current pension system is perceived as offering little differentiation (i.e. there is small difference between the minimum pension and the one based on the years worked, wage level, etc.). Potentially, low degree of differentiation¹³ creates the incentives of lesser participation in the system by lowering the real values of their incomes (i.e. obtaining incomes 'in shadow', or showing lower wages, etc.).

From a macroeconomic perspective, the functioning of the funded system is related to problem of savings horizon. Pension-related savings are long-term ones. Accordingly, there should be incentives put in place in order to increase their attractiveness.

¹¹ See <http://www.knuife.gov.pl/english/>.

¹² See the results at: <http://www.research.by/pdf/wp2008r02.pdf>.

¹³ In Belarus, the Gini coefficient calculated for pensions for the 2nd quarter of 2007 amounted to 0.17, while for incomes as a whole – 0.33.

With all these observations in mind (i.e. comparison of the PAYG and pillarized systems and the results of the focus group studies¹⁴ against the background of profound demographic challenges), it might be suggested that there is a proper timing to start with the second pillar. It can be done prior to the demographic challenges begin to materialize, and the participants express their readiness to participate in the system. *Also, there is a proper macroeconomic context in Belarus now because of the need for additional investments to finance economic growth under the conditions of growing energy prices and competitiveness challenges.*¹⁵ It could realistically be expected that as soon as people start to participate in the reformed system and their participation is considered successful, more people could join the new system given the positive experience accumulated by early participants.

5. Conclusions and policy recommendations

The key challenge for Belarus is how to reform the pension system in such a way that the demographic challenge is properly met. One of the questions is whether the adjustments within the one-pillar (PAYG) system could solve the demographic challenges (by increasing pension age, revising indexation rules, enhancing productivity, etc.) or there should be additional measures to ensure the sustainability of the pension system. In order to be effective, such measures should necessarily respond to the demand of the population (both current and future pensioners) and meet their expectations.

As in other countries of the region, the pension problem for Belarus is related to the adverse demographic trends resurfacing over the medium to the long run. The implication of ageing – given the PAYG pension system – is that employers would face greater costs when financing the growing number of pensioners. But the costs cannot be increased indefinitely. As a result, enterprises would have an incentive to moderate incomes of employees in order to maintain competitiveness in the part of labor costs. In turn, employees could display their consent to such policies because of the low degree of differentiation and the lack of transparency (as revealed by the focus group studies).

Current mono-pillar system is certainly unsustainable in the future, so pension policy sooner or later should be changed. Although such policy requires a long-term planning, there is a space for the introduction of more immediate policy measures. Moreover, it seems to be a good time now to start gradual change until the problem would become too urgent.

The first pillar remains to be important in the Belarusian context, but there is a space for complementing it with the funded pillar. The operation of the second pillar would bring necessary differentiation of pensions. However, a shift to a pillarized system would certainly create the deficit in the social security fund. The analysis shows that the gap could be funded in a non-debt way by equalizing the pension age between the genders, given the adverse reaction to a mere increase of the pension age for both males and females. Therefore, what is required is a combination of increased and equalized pension age and the workable second pillar.

Accordingly, some policies have to be made towards the introduction of the second pillar. Its establishment is closely related to the creation of opportunities for long-term savings. The latter are problematic in Belarus, given the experience of financial crises of the early 1990s and later in 1998. These negative memories also inform a relatively high degree of both official and unofficial dollarization in Belarus. But as soon as some experience with functioning of the second pillar is accumulated, incentives could change. It could realistically be expected because of the current demand for the ac-

¹⁴ See the results at: <http://www.research.by/pdf/wp2008r02.pdf>.

¹⁵ Pelipas, Rakova, Chubrik (2007). *Business in Belarus: Status, Trends, Perspectives*, IPM Research Center.

cumulation of additional funds. The results of the focus group studies show that people are ready to contribute more as soon as they could control the funds they put into the system. Also, there seems to be a proper time for establishing a two-pillar system because of the macroeconomic and competitiveness challenges. Finally, given the long amount of time required for introducing a second pillar, concrete policy steps should be conducted as soon as possible.