＜論　　説＞

BETWEEN EAST AND WEST: PENSION SYSTEMS AND THEIR GOVERNANCE（JAPAN AND LITHUANIA）

Kazunobu Oyama
（Professor of Kanagawa University, Faculty of Economies）
Audrius Bitinas（Professor of Mykolas Romeris University, Faculty of Law, Department of Labour Law and Social Security）

Abstract. *The aim of this article is to define the Japan and Lithuanian pension system models and reforms. Problems of the Japan and Lithuanian pension systems are similar to the others industrial Asian or European Union countries: ageing, impact of crisis and pension system budget deficit.*

Until recently, it was a common perception that Japan has managed economic success without worsening the income inequality and pension benefits, but since the economic recession in the 1990 and ageing, there are new challenges to the Japan pension system.

The pension system reform of 2003 and 2011 raised the wide discussion on the state social pension insurance system future development of Lithuania. This reform clearly demonstrates that the government in 2003 opted for a liberal position and in 2011–it was decided to strengthen state social insurance guarantees.

Moreover, the Japanese and Lithuanian population ageing rapidly（low birth rate, longer life expectancy）, therefore, ageing influences the entire society and requires more complex and pressing pension systems reforms.

Keywords: *pension system, reform, crisis, ageing, funded pension system, Japan, Lithuania.*

Introduction

The aim of state social insurance is to reduce the poverty and to protect persons from the poverty due to the occurrence of social risks, to promote social inclusion and equity between different social groups. State social insurance is based on the solidarity principle, i. e. social security contributors in real-time finance social security beneficiaries. This is particularly evident as regards the objective of extending social security coverage to all, beyond the formal economy to the masses of population living in abject poverty and insecurity.[1]

Japan's pension system is analysing in the context of Asia-Pacific region. The exclusivity of this region hides the fact that in this region the world's largest population is concentrated, the rapid increase of older population growth is expected, life expectancy is increasing, but the fertility rate is decreasing. Ageing in this region will be the most rapid until the year 2030. Given the long lag in pension-policy planning, there is now a narrow window for many Asian economies to avoid future pension problems.[2]

New economic and social trends encourage the countries of this region to reform their pension systems. In the World Bank report on the Asia-Pacific pension systems, the need to reform pension systems in order to avoid European mistakes is indicated: it is necessary to expand the scope of the system, to reduce an early retirement, to promote savings in private funds（which is actually not sufficient） and to index pensions by life expectancy formula.[3] Pacific Economic Council notes the following Asian countries' pension system's policy trends: a population ageing, expansion of atypical employment relationships, the need to the pension accumulation system, increasing of pension coverage, growing industrialization and urbanization（it requires extra income for persons living, higher costs for health care and pension income） and increasing demand for cross-border social security agreements（because of the migration of workers）.[4] International Social Security Association emphasises that people uses an early retirement pension schemes, the Asian and Pacific countries pension coverage is relatively low, the actual pension amount is not index-linked according to the standard of living.[5]

At the end of XX century, European Union countries（Lithuania became a member of the European Union from May 2004） faced with social changes in family and employment structure（growth of the number of divorces, increased demand for highly skilled professionals etc.）, economic changes（decreasing economic growth and deindustrialization） and demographic challenges（ageing）. The traditional concept of the welfare state has changed because of increasing of social security costs and the slowdown in economics, therefore states tried to find new forms of organization and management of the social security systems. Today we could underline common challenges to be met by Europe's social security systems: demands for more personal choice and quality improvements in services and benefits; the impacts of globalization（greater flows of people, goods, services and capital across national borders）; population ageing and economic, fiscal and social fallout of the current economic crisis.[6]

European Commission in the White paper "An agenda for adequate, safe and sustainable pensions" indicated that member states should: create i) link the retirement age with increases in life expectancy; ii) restrict access to early retirement schemes and other early exit pathways; iii) support longer working lives by providing better access to life-long learning, adapting work places to a more diverse workforce, developing employment opportunities for older workers and supporting active and healthy ageing; iv) equalise the pensionable age between men and women; v) support the development of complementary retirement savings to enhance retirement incomes.[7]

Thus, the international organizations identified the essentials social security reform strategies: to prolong the active working life, to ensure the security of persons income from the inflation, to review models of income redistribution, to ensure protection against poverty, to ensure the financial sustainability of pension systems and to ensure labor market efficiency. N. Barr and P.Diamond argues that the main cause of the pension "crisis" is a failure to adapt to long-run trends. The main source of financing problems is that, with the exception of adjustment to price and wage growth, defined-benefit systems have had a static design with no automatic adjustment to long-term trends.[8]

State social pension insurance system reforms and effective governance should be done analyzing the best practice in other countries, identifying the social, economic and cultural phenomena in the country and identifying necessaries changes in the pension system, preventing from the future financial shocks.

1. Economic and social assumptions of the pension reforms

Analysis of recent pension reforms shows that today pension systems are more vulnerable to the **economic shocks** and shifted part of financial and economic risks on individuals. However we should emphasize, that over recent decades most of the reform debates were implicitly analyzed by the perceived or real need for financial stabilization, not by the social stabilization. Social stabilization implies that pension levels are not allowed to fall below a certain minimum benchmark-for example article 65(1) of International Labour Organization Convention 102 requires a pension to be at 40% of the total of the previous earnings of the beneficiary after 30 years of service.

Social expenditure for pensions in Japan is raising: in 1970 it was only 1.1% of GDP, but in 1990 it was already 5.3% of GDP and in 2005 it was 9.2% of GDP. Forecast shows the same tendency for pension expenditure: in 2015 the level of pension expenditure will be 9.5% of GDP. After implemented reforms (raising retirement age, raising the level of contributions, decreasing the level of pension benefits), the level of pension spending will decrease by 8.3% of GDP in 2025. In 2006, the level of tax（personal income, corporate income, consumption, property）and the level of social insurance contributions in Japan was the smallest（27.9% of GDP）compared to France（44.2%）, Germany（35.6%）, Sweden（49.1%）, United Kingdom（37.1%）and USA（28%）.[9] Change of pension expenditure（period 1990–2007）in Japan was 80.5%. We could note that an average of countries of OECD was only 14.5%.

Pension expenditures in Lithuania in 2007 was only 6.8% of GDP and it was almost twice lower than an average of EU–27（11.8% of GDP in 2007）: this is due to a more favourable population structure and due to the fact, that in the rapid economy growth period（year 2002–2007）the pension level was not increased accordingly. Pension expenditures in Lithuania will grow: the change of the age-related expenditure 2007–2060 will be 4.6% of GDP（in EU–27 is projected 2.4% of GDP over the period 2007–2060）.

The average net pension amount（excluding private pensions）in Japan is about 39.7% of person's former salary（average of OECD countries–50%）.[10] However, Japanese people under the age of 65 have lower incomes than the average of OECD countries[11]: about 14.9%（OECD average is 10.6%）. Without any pension reform in Lithuania the replacement rate（male worker retiring at 65 after 40 years of career）in the first pillar will decline from 48% to 35% in 2048.[12]

The level of the social security contributions in Japan（for people, working in the company under a contract of employment）in 2010 was 15.4%（contributions are paid in equal parts by the employee and the employer and the maximum contribution limit is fixed in the law）, while the OECD average was 19.6%. In Lithuania, social insurance contributions for pensions: 23.3% of gross wage-employer contributions, 3% of gross wage-employee contributions. In Lithuania there is no automatic indexation rules, no minimum social insurance pension and no income tax is levied on pension benefits paid from the statutory schemes.

Japanese pension system *accumulates a reserve*. In 2009, in Japan's pension reserve was accumulated 25.2% of GDP（in OECD countries–67.6% of GDP）. No such reserve in Lithuania.

In Japan, the *public debt* continues to increase: in 2011 it reached 205% of GDP（in 1993 the debt was 74% of GDP, in 2003 it increased to 158% of GDP, in 2009 it was 193% of GDP）. In Lithuania, in 2010 the public debt was 38% of GDP.

Japan, as well as other industrial countries is faced **with ageing processes**. In 1975–1980, the fertility rate in Japan was 1.83 children per woman（OECD average–2.26）. In the period of 2005–2010, the fertility rate fell to 1.27（average of OECD–1.69）, but in 2050 the fertility will increase until 1.6（average of OECD–1.8）.[13] According to the Eurostat and Ministry of Social protection and Labour of Lithuania projections, the population of Lithuania will decline to 2.5 million from 2009 to 2060, the elderly population（aged 65 and older）will more than double from 16 to 32.7%.

It means that instead of the current ratio of people of working age to people over 65 years of age, which stands at 1.6, only 1 will remain. Lithuania has one of the highest negative rates of crude migration (net) in EU-27 (-4.6% against 1.9% in EU-27 and majority emigrants are 20-34 years).[14] The fertility rate in Lithuania is one of the lowest in the European Union. In 2007, total fertility rate was 1.35 children per woman (in 1970 it was 2.4, in 1990-2.03, in 2005-1.27).[15]

Japan's *life expectancy* (at the retirement age) in 2010 was 19.8 years for men (OECD average -18.5 years). Meanwhile, life expectancy for women in Japan was 26.7 years (OECD average was 23.3 years). According to the demographic projections, the life expectancy for men in Japan will increase until 21.6 years and for women until 27.7 years. In Lithuania, in 2009 life expectancy (after retirement age) was 13.38 yeas for men and 18.25 years for women.

Because of life expectancy and pension system deficit, *the retirement age* in Japan is increasing and for the first pillar pension will reach 65 years (retirement age for men is increasing during the period 2001-2013 and for women-during the period 2006-2018). The retirement age in the second pillar occupational pension is also increased until 65 years (for men the retirement age will be reached in 2025 and for women-in 2030). In Lithuania, legal retirement age from 2012 to 2026 will be gradually increased till 65 for men and women.

Japanese people can use *an early retirement pension* (at the age of 60), but the pension amount will be reduced by 6% annually. If the person continues to work after 65 years, the additional supplement to pension will be applicable (8.4% per every year, but the maximum limits is applicable). In Lithuania, the early retirement pension scheme (if less than 5 years were left until the retirement age) has been introduced in the year 2004 (0.4% reduction for every full month remaining until and after the retirement age).

2. Measures during economic crisis

Economic crisis of 2008 was an additional financial shock for the European states pensions systems among continuous problems since last decades: ageing society, engagements of the pay-as-you go pension systems, unstable results of funded pension system.

The crisis has wiped out years of economic and social progress and exposed structural weaknesses in Europe's economy, the world is moving fast and long-term challenges: globalization, pressure on resources and ageing.[16] Because the public pension replacement rates in general declined in the EU, reforms have given and will continue to give rise to greater individual responsibility for outcomes and it is important to provide sufficient opportunities for complementary entitlements: e. g. enabling longer working lives and increasing access to supplementary pension schemes.[17]

The need to strengthen the pension system and seeking for the financial sources in Japan is related to the global world economic crisis（Asian financial crisis in 1997–1998 and world economic crisis in 2008）, as well as the spread of atypical employment relationships, the growth self-employment, the increasing of the migration of workers, the need to strengthen pension system management, low incentives to participate in the private voluntary pension accumulation funds and mistrust of people in pension system. The Japanese population is ageing rapidly（low birth rate, long life expectancy）. Ageing influences society and requires reforms of the pension system in Japan both more difficult and more pressing. Of course, the Japanese government is looking for new ways how to stop pension system deficit growth, not only by reducing benefits or increasing contributions, but trying to change other pension system parameters. For example, in 2004 a modified indexation（automatic size change in the pension, depending on the demographic processes）has been introduced, the minimum pension has been established, the retirement age has been extended and so on. Social and economic changes in Japan require not only a comprehensive pension system reform, but reforms in other related areas（fiscal policy, labor market, management and capital markets）.

2. 1. Japan reforms during economic crises

Under an economic development, the pension payments increased depending on the economic situation. The worsening of the demographic situation and the growing deficit in the pension system launched new reforms at the end of XX-th century.

The most serious problems of the second pillar pension insurance before 2000 were the height of eventual contribution rate in order to maintain the present benefit level and the degree of intergenerational inequality in the contribution-benefit relation due to the pay-as-you-go financing system.[18] Another problem was increasing number of atypical workers（short-term workers, temporary workers, subcontractors）. Due to the low economic growth, companies started to cut personnel costs（restructuring their full-time staff and searching for the possibilities how to avoid paying of social insurance contributions）. It was estimated, that the contributions rate of the second pillar pension insurance would increase from 13.6% in 2002 to 23% in 2025 without further reform.[19] The last decade of 20-th century, has been sometimes called the “lost decade” for Japan’s economy and society in general with some sense of self-scorn and this “lost decade” also represents a loss of confidence among policy makers.[20]

The aim of the pension system reform in the year 2000 was financial sustainability, raising of the retirement age and efforts to reform the second pillar pension system.[21] In summary, it can be stated that the fundamental reforms were implemented during the period at issue: the national basic pension was introduced, the reform in the second pillar pension was started, the contributions were consistently increased and the benefits reduced, the increase of pension coverage and pension guarantees was implemented, the increase of the retirement age was continued, new rules for the pensions indexation was introduced. However, the demographic situation deteriorated and pension system deficit continued to grow. Furthermore, we could note that no sufficient changes were made to improve the administration of the pension system (the high rate of exempt, non-participation in the system decreases the universality principle and creates instability of whole pension system), the general pension system data basis was not created. The increased level of the social security contributions for the second pillar pension resulted in various atypical employment relationships, however, the pension system was not adapted to the changes in the labor market.

Further increase in the pension system deficit and the deterioration of the demographic indicators, conditioned series of new reforms in 2004. In order to reduce benefits level and evaluating the life expectancy projections, the government decided to introduce an automatic pensions balancing mechanism. This automatic pension balancing mechanism is depending on the demographic situation-life expectancy (cohorts of people reaching the retirement age).

The government decided to fix the timetable for increase of social insurance contributions from 2004 to 2017 (pensions in first and second pillars). The reason was the low income of pension system and ageing issues. In 1999, the exempt rate of the national pension was more than 20%, indicating that one from five persons did not pay into the system. Another serious concern was the increase of the number of people who are not exempt, but are not paying the premiums (i. e. defaulters): in 2001, as much as 30% of the total expected premium revenue was defaulted.[22] Therefore, after government decisions person can be exempted from the social security contributions only in two cases: if it is related to the disability and if it is related to the public assistance system.

It should be noted that the constant increase of contributions and benefit reductions have a negative impact on confidence in the social security system and encourages the companies to pay lower wages (and persons will get lower pensions in future). Due to the increased contributions and general taxes, due to the development of the information technologies and other economic transformations, the Japanese companies already changed the employment policy: employment of young persons (because of possibility to pay lower salary) and avoiding of long-term contracts (because of the obligation to increase wages from the number of years).

According to the demographic projections, the Japanese government should continue with pension system reforms because the fertility rate will increase very slightly, life expectancy is growing, and the number of retiring persons with long professional career is increasing.

2.2. Lithuanian reforms during economic crises

The last economic recession (from 2008) strongly impacted Lithuanian pension system reforms. Therefore the reforms started quite late and government had to cut pension benefits level. During the economic crisis, the state can reduce pensions. However, the reduced pensions should be compensated in future (when the state social insurance fund's budget will be balanced) (*ruling of the Constitutional Court of 20 April 2010*).

On 28 October 2009, a National Agreement was signed between the Government of the Republic of Lithuania and social partners: the largest trade unions, business and employers as well as pensioners' organizations. Under this Agreement, the Government undertook to implement measures for financial consolidation, including a temporary and differentiated reduction in all pensions, pursuing the essential objective to pay social benefits on time, so that recipients of the smallest pensions would be protected and recipients of bigger pensions and other income would jointly assume a heavier burden of reduction (until 2012):

* in 2010–2011 all pension above the threshold of 650 LTL (1 EUR=3,45 LTL) temporally reduced (exception: disabled persons who lost 75–100% of capacity for work: no reduction)–in average by 5%.
* Additional reduction for working pensioners-progressively, depending on income (max. reduction–70%; in average–17%). No additional reduction for working disabled.

3. New trends for reforms

Pension system can be reformed reducing benefits (or reviewing the entire system of social benefits), introducing new taxes or increasing contributions (pensions are taxable in many EU countries). However, the success of reform depends on the employment growth, flexible employment forms and active social policy.

OECD noted that pension system should be reforming in accordance with the following principles: to prolong working life and the retirement age, to apply dependency ratio between pension benefits and life expectancy, to cancel early retirement system, to reduce the redistribution in pay-as-you-go system, to promote the incentives for private savings, to increase the confidence in the pension system and to diversify the pension system (pension system should work in two ways: pay-as-you-go system and funded savings).[23]

International Labour Organisation does not have a specific pension model, but it does have a set of basic requirements for pension systems: *i*) *universal coverage; ii*) *benefits as a right; iii*) *equity and fairness; iv) protection against poverty; v) replacement of lost income; vi) collective actuarial equivalence of contributions and pension levels; vii) guarantee of a minimum rate of return on savings* (the real value of contributions paid into savings schemes should be protected wherever these are part of the national pension systems); *viii) fiscal responsibility* (schemes should be financed in such a way as to avoid uncertainty about their long-term viability); *ix) policy coherence and coordination* (providing affordable access to essential health care and income security to all those in need); *x) state responsibility* (the state should remain the ultimate guarantor of the right to affordable retirement and access to adequate pensions, such guarantees can be applied to both PAYG and fully funded pension schemes).[24]

World bank recommends the following medium-term solutions during financial crisis: a) better diversifying the management of financial and other macroeconomic risks; b) making pay-as-you-go systems more sustainable, robust and secure; c) having a well designed zero pillar where affordable and justifiable; d) integrating unemployment savings and insurance options into an overall social insurance system.[25]

3.1. Future reforms in Japan: balancing of the budget deficit and future trends

There are three weaknesses in Japan's pension system: the budget deficit, ineffective management and demographic challenges.

Since 2002, *the deficit of pension system* is compensating from the reserve fund. The deficit has increased significantly, when the Japanese economy started to grow. Despite the increases in social security contributions and value added tax (from this tax the pension system deficit is financing), the pension system deficit is projected until 2050.

Because of the economic crisis, Japan's budget deficit in 2011 exceeded 8%.[26] Japan's Economy, Trade and Industry Ministry forecasts that the increases in social security contributions will lead to the fact that about 1 million jobs will be lost, the unemployment will increase by 1.3% and level of consumption will decrease.[27] It should be noted that in 2009 the government already subsidized a half of the pension system (first pillar), which means that half of the pension system is financed from general taxes.

Other problem of Japanese social security and pension system is *the management efficiency*. The Japan's pension system administration costs are relatively low. However, the serious problem is the avoidance of paying of social security contributions. This is arising not only from the complexity of system, but is related to the efficiency of management and creation of the central database. In 2002, even 8.3 million persons had arrears of contributions and 12 million persons did not participate in the pension system.[28]

As a model of inefficient management we could mention the miscarriage of pension files, when about 50 million pension beneficiaries files missed. In Japan, there is no social security numbers or personal codes, the benefits are calculated according to the work books（issued for the first time in employment）. Only in 1998 it was decided to create a centralized information system.

Despite the reforms or reform's proposals, the trust in the social security system is still decreasing. It is an undeniable fact that every time population projections have changed in Japan, public pension schemes have also been revised so as to raise premiums and lower benefits. This has led to public scepticism over the veracity of these schemes, and hence, more positive solutions are now required to ensure the sustainability of public pension schemes.[29] The basic concepts of the first and second pillars pension system were so different in so many ways（individual vs. household as a unit of the coverage, flat-rate contribution vs. wage proportional contributions, flat-rate benefit vs. wage proportional plus flat-rate benefit etc.）that this reforms brought about a public pension system which was excessively complex and intransparent, the basic rules of which and the relation of whose burden and benefits almost nobody could understand and it causes people to mistrust the public pension system and which discourages willingness to pay contributions.[30]

Japan is one of the fastest ageing countries in the world. Population projections show that in 2055 the number of pensioners will exceed 40%.[31] Japan's National institute of demographic studies predict that in 2050 the population will fall by 32 million（from 128 million to 95 million）and the fertility rate will fall to 1.26 children per woman. But Japan, in particular and traditionally, has an advantage in promoting the employment of older people given their high motivation to participate in the labor market. And this positive situation in the labour market could partially balance budget deficit.

Thus, the Japanese scientists and international organizations raises confidence in the state social insurance system, better management, pension system reforms, flexibility of pension system, adaptation of pension system to the labor market changes. Definitions of social justice, equity between generations, solidarity and the pension system model are analysing as well.

T. Yamada proposes to cancel second pillar pensions and suggests, that first pillar basic pension could be financed directly by the consumption tax（the tax payers are richest part of society）and income tax（because pensions are related to personal earned income）. T. Yamada research showed that in this way it is possible to achieve greater welfare of future retirees.[32]

T. Fukawa emphasized that it is necessary to make the system less vulnerable to economic and demographic changes, to reduce the intergenerational inequality in the contribution-benefit relation due to the pay-as-you-go financing system. It is important to increase in the normal pension age beyond 65 years old, to change benefit structure (departure from flat-rate benefit, benefit accrual rate according to income level) and to adjust to the pension system to the changing labour market.[33] Future reform of the Japanese tax and transfer system would have to pay more attention to a) deploying measures that enable younger parents to combine child raising and work; b) changing the structure of social spending inevitably biased towards the elderly and refocusing on younger generations; and c) making social systems neutral to the individual's life style. It is rather obvious that a new form of solidarity is needed in Japanese society, and each member should bear the proper burden.[34]

N. Takayama believes, that ongoing pension reform is inevitable because of the ageing population. Pension system reforms should be oriented to promote private initiatives, using the potential of the economy and capital markets, finding the balance between solidarity and individual responsibility, to understand equality between generations, the government's commitments. The first pillar pension should be financed from general taxes.[35]

Pacific Council experts emphasize that level of social security contributions in Japan already exceeds the amount of tax revenue. More and more companies are facing difficulties in paying the increased social security contributions and average overall wages decline because the newly recruited employees receive lower wages than already employed middle-aged workers. Government increasing contributions and reducing benefits, but it means that people pay into the pension system more than they will get and this reduces the confidence in the system.[36]

Currently, the main task of Japan's government reform should be focused on question how to raise a number of employment and contributors (including especially women), reduction of exemptions, how to improve collection of contributions and how to increase confidence in the system. Employment and labor market system reform issues should be considered in the field of pension system reform. Excessively high tax and social security contributions can reduce the burden of Japan's competitiveness in a globalized world and could eliminate the motivation to participate in the pension system.

3. 2. Exploratory public survey about Japan's pension system administration, dissemination and confidence in the pension system

In order to clarify the problems of contemporary Japan's pension system, the exploratory public survey has been carried out in February 2012. Working persons were interviewed in two age groups: persons under 40 years (9 respondents) and having 40 years and more (10 respondents). In this survey participated working persons in the public sector (8 respondents) and in the private sector (11 respondents).

3.2.1. Financing of the pension system, pension system administration and trust in the pension system

37% of persons responded positively to the question of whether social security and tax rates are adequate to the Japanese pension system deficit (negatively–63%). As well, 37% of persons responded positively to the question whether the state should increase social security contributions or taxes under the substantial deficit in the pension system (negatively–63%). We could emphasize, that 67% of respondents under 40 years and 46% of respondents working in the private sector noted that higher taxes are positive issue in case of substantial pension system deficit (positively answered 40% of respondents over 40 years and 25% of persons working in the public sector).

47% of persons responded positively to the question of whether the state should reduce social insurance benefits, under the substantial deficit in the pension system (negatively–53% of respondents). Even 64% of private sector employees and only 25% of public sector employees think that it's positive issue. 53% of respondents believe that social security contributions and taxes or social security benefits should be in the actual level.

None of the respondents answered positively to the question of whether Japan's pension system is managed well. Also, none of the respondent responded positively that in the Japanese pension system is enough of the solidarity. 63% of respondents did not consider that the pension system has enough of the social justice (but 60% of persons who have reached 40 years (and more) and 46% private sector workers believe that social justice is enough).

None of the respondents expect that the state will pay an additional welfare benefits for living in the retirement and 79% respondents do not trust the Japanese pension system (all persons working in the public sector and 64% of private sector employees do not trust the pension system).

74% of respondents responded positively to the question of whether the respondents planned to work at the age of 65 and more. It should be noted that 90% of the persons over 40 years (and more) and 88% of the public sector employees plans to work at the age of 65 and more. All respondents indicated that they desire to work longer, but not for the financial incentives (because of higher pension).

Another group of questions concerned the need to collect additional money or to accumulate an additional pension for the retirement. All respondents believe that it is necessary to accumulate additional amounts for the retirement or to participate for the additional pension accumulation. However, only 37% of respondents participating in the supplementary private pension accumulation (in the private pension accumulation participate 60% of respondents under the age of 40 years (and more), as well as 38% respondents working in the public sector and 36% of employees working in the private sector).

3. 2. 2. Information about the pension system

Only 16% of all respondents indicated that the Japanese pension system is clear (it means, that people know pension rights). For the 84% of respondents, the Japanese pension system is not clear. Respondents answered that they find information about Japan's pension system on the television (18 answers), in the internet (10 answers), in the national media (8 answers), on the radio (1 answer), in the discussions (1 answer), in the company (1 answer). No special information, regional or international media were mentioned.

All respondents clearly stated that the state should provide more information about the pension system. 79% of respondents believe that information about the pension system must be in the internet sites of public institutions.

32% of respondents responded positively to the question of whether there is sufficient information about the company occupational pension funds (negatively–68%). 44% of respondents (under 40 years) and 55% of private sector respondents answered positively to this question. However, all public sector employees answered to this question negatively). Only 32% of respondents were satisfied with the professional company funds (44% under 40 years and 55% private sector workers), however, none of public sector employee was satisfied with the professional company funds.

3. 2. 3. Key points about Japanese pension system

After evaluation of the survey results, it can be concluded that:

1. Younger workers and private sector workers positively indicated the opportunity to increase social security contributions or taxes.
2. Most of the private sector employees believe that the social security benefits have to fall under the substantial deficit in the pension system. However, 55% of the private sector and 50% of the public sector employees believe that there is no need to change the current level of social insurance contributions and pension benefits.
3. Japanese pension system is badly managed, the respondents do not trust the Japanese pension system, do not believe that the state will pay an additional welfare benefits for living in the retirement and believes that it is lack of solidarity and social justice in the pension system.
4. In Japan there is a tradition to work as long as possible, this applies to both older and younger generations and for the persons working in public or private sectors.
5. Persons understand, that it is necessary to accumulate additional money for the retirement

or to participate in the additional private pension accumulation, but only a small part accumulates private pension.

6. The pension system in Japan is unclear, the state should provide more information about the pension system, especially in the websites of the public institutions. The most effective information channels for the information are television, internet and national media.
7. Japanese workers have not enough information about the occupational pension funds and are dissatisfied with their work.

3. 3. New reforms in Lithuania: the future trends

The time for reforms is actually critical in Lithuania: without the prolongation of retirement age and without incentives for the private pension accumulation, the deficit of state social insurance fund will be higher and the trust of people in social insurance system could fell down. In addition, after economic crisis, the demographic and macro economical situation in Lithuania should improve（the wages should increase, unemployment decrease, growth of GDP）.

On 15 June 2010 the Concept of the reform of state social insurance and pension scheme has been approved. The goal of the reform is to establish essential elements of the reform of state social insurance and pension scheme, after identification of the problems of this scheme, so that a foreseen new legal regulation will ensure the scheme's long-term financial sustainability and the scheme will guarantee adequate and target-oriented benefits and will be administered more efficiently.

In the long term perspective, several proposals fixed in the Concept: non-contributory social assistance pensions（ensuring a minimum protection of income at old age should be paid from the state budget; social insurance old-age pensions and work incapacity pensions should be paid from a separate budget of the state social insurance fund; to apply a new clearer formula for pensions and procedure for the establishment and indexation of the amount of pensions; to change the formula for calculation of the social insurance old-age pension by awarding a certain number of accounting units（"points"）for each year of the social insurance record and contributions paid or to switch to the scheme of virtual personal accounts; to gradually switch to a new basic pension or a national pension financed from general taxes by expanding the funding base of the scheme; to separate the calculation of work incapacity benefits from that of old-age pensions in order to increase the clarity of the scheme and rationalize it; to optimize strategies for the investment of accumulated means in pension funds; to integrate state pensions into the general scheme of social insurance and cumulative pensions by paying higher contributions.

The Lithuanian Parliament reached a wide political agreement and on *24 May 2011 adopted*

Guidelines of pensions and social security reform. According to the obligation for the Government) as foreseen in the Parliament's Guidelines, the Government adopted the Measures plan for implementation of Parliament Guidelines (adopted in Government on June 8, 2011) and timetable for the preparation of the laws projects.

The reform will have two stages. The transitional period will start since 2012 and will last until 2026. Second stage will start form 2027.

The main aim of the reform as indicated in the Guidelines is to ensure that in future people would receive adequate pensions, that social insurance fund budget would be stable, non-deficit and that system of pensions would adjust more easily to economical and demographical changes. Several principles have been indicated in the Guidelines:

1. More transparency in the pension system — pension system participants should receive all information about pension rights, should know about system' benefits and should be constantly notified of the obtained rights to the state social security pension.
2. Separation of the social insurance and social assistance. It means that we should seek for the better correlation between contributions and benefits and make labour market more flexible: gradually increase a retirement age (65) and later pensionable age should be flexible, pensions amounts should be related to the demographic and economic situation and government must encourage employment of elderly persons.
3. To establish clear indexation rules and clear relationship between social insurance fund and state budget. The pension benefits indexation should be linked to economic and demographic indicators (and not to the strong political impact). Other changes related to the new pension formula: to transfer of flat-rate basic pension to state budget and to introduce NDC (virtual accounts) system or accounting units ("points") system. All reforms should be made without raising of the level of the social insurance contributions.
4. Consolidation of privileged state pensions to the state social insurance system and to professional funds: to refuse privileged benefits in future, to reintegrate all state privileged pensions to the social insurance system and to create professional pension funds.
5. Better regulation and more efficiency in second pillar private funded pension schemes. In the first place, accumulation in second pillar gradually should be restored and voluntary pension accumulation should be encouraged. In the same time, measures for the better management must be introduced: introduction of the life-cycle investment system; to analyze the possibility to introduce state pension fund; to reduce assets fee and gradually abolishing contribution fee; to reduce the total deductions from the pension asset levels; to reduce the pension system participants the investment risk and to regulate the pension annuity sale process.

6. Better management of the social insurance fund is based to achieve the main goal-to balance the budget of the social security fund. In the first place, when the budget will be balanced, pension reserve fund should start functioning. Also the state budget is guaranteed（including interest rates of loans） when state social insurance fund is in the deficit and not enough the reserves in pension reserve fund. Other measures: better administration and control of the disability benefits; to distinct health insurance and pension social insurance; state social insurance fund board should pay all social insurance benefits（state pensions, unemployment benefits etc.）.

On June 9, 2011 the Parliament approved the amendments to the Law on state social insurance pensions, whereby the retirement age will be gradually raised as of 2012. The retirement age will be increased by 4 months per year for women and 2 months per year for men as of January 1, 2012 until it reaches 65 years in 2026. Presently, the retirement age is 60 years for women and 62.5 years for men. This decision was adopted with regard to the longer lifespan after the retirement age.

On June 28, 2011 the Government has approved changes in the funded pension scheme and submitted its proposals to Parliament. The aim — to create opportunities for current and future retirees to decide how they would like to accumulate their pensions in future. According to the new proposed regulation, starting from 2013, the person's contribution to retirement pension will consist of three parts: the contribution transferred from state social insurance fund budget, contribution paid from person's earnings and from encouraging contribution paid by the State for participation in private accumulation.

Regarding the first part of contribution, it is offered that possibility to participate in accumulation of pensions at current conditions, when contribution of 2% size from insurable earnings is transferred from state social insurance fund to the private funds and insurance companies, would remain. The currents size won't change（until 2020） and will the obligatory to every participant of this scheme. Since 2020 the first part of contribution would be increased from 2% to 3.5%.

If a person on his initiative and from his earnings decides to accumulate bigger part of pension in private funds and pay bigger contribution, this possibility will be allowed. It is offered that in this case since 2014 a person would pay contribution of 1% size, since 2016–2% size from his insurable earnings to private pension fund（second part of contribution）.

In order to encourage a person to accumulate in private funds, the state will financially encourage person: in this case an encouraging contribution（of size of 1% since 2014 and 2% since 2016 from an average wage in the economy） would be transferred from the state budget to a person's pension account.

During transitional period (from 1 January 2013 to 1 September 2013) persons would be able to return to accumulating their pension only in the state social insurance fund (as it was before 2004). The possibility to abort participation in accumulation in private funds will valid only until September 1, 2013.

Other changes related to the better regulation of the pension funds. The Government's approved the proposal to repeal the restriction to change the pension fund (actually it is possible to change pension fund for the first time only after three years). Pension fund or insurance company could be changed if a person is paid on behalf of at least one savings deposit.

It is also proposed to reduce the deductions from the assets fee and gradually abolishing contribution fee. It is therefore suggested that a maximum deductions from the assets in the conservative investment funds must be 0.7% (now–1%), maximum deductions from the assets in the non-conservative investment funds will remain 1%. The maximum deduction from the contributions will be 2% in 2013 and will be reduced by 0.5% every year until the total relocation.

After optimization of the structure of State social insurance fund board territorial institutions, the total amount of job positions will be reduced by 11.4%. None of the State social insurance fund board territorial divisions will be closed down, only the juridical status and subordinations will change (actually State social insurance fund board has 47 territorial units, will be 10). The order of servicing won't change but customer service quality will be improved. The reform will allow saving around 10.5 million LTL per year.

In conclusion it is definitely clear that Lithuanian government should continue pension system reforms. A low fertility rate, longevity and other facts of ageing population challenged the need to increase the social security contributions, to revise benefits level and to raise the retirement age. But budget deficit is still considerable and ageing is significant.

4. Importance of government credibility regarding the pension system

The preceding chapter discusses the serious problem of government credibility regarding the Japanese pension system. In this chapter, I would first like to summarise the resolution policies in Japan for the pension system and its principal problems, and then analyse the fundamental problem and critical solution.

4.1. Problems in the Japanese pension system and viable solutions

As has already been indicated in the introduction to this paper, the main problems of the Japanese pension system are a rapidly aging population, declining fertility, and economic depression. These problems are common in most developed countries. Moreover, Chapter 3 indicates some peculiar problems that exist in the Japanese pension system, such as inefficient management, use of an obscure system, low solidarity, and low trust in the system.

The present Japanese government intends to raise the consumption tax in order to reduce the rate of public debt and to prepare for increased pension expenditures. This government founded the Democratic Party and captured political power from the Liberal Democratic Party in 2009 with the political manifesto of trimming the budget by extensively reducing money wastage in government expenditure without raising taxes.

The majority of people in Japan are in favour of increasing taxes because of the budget needs for the reconstruction of northeast Japan, which was seriously damaged by a tremendous earthquake and tsunami in 2011（The Great East Japan Earthquake）. Nevertheless, some people doubt whether the government will actually spend the tax income in this area. The problem of government credibility is critical and fundamental. In this section, I would first like to summarize some cases and policies common to all developed countries.

Three factors contribute to the crisis of the pension system. These are a rapidly aging population, declining fertility, and economic depression. The problem of aging cannot be resolved as it stems from developments in medical science, pervasiveness of welfare services, improvements in nutrition, and decreased war. These circumstances, which surround an aging society, are the result of the growth of social welfare.

We cannot stop the aging process itself, however, we can restrict the increasing expenditure on pensions in two ways. The first solution is to reduce pension payments, and the second is to extend the working age limit and postpone the age at which people can begin to receive a pension. Although, public expenditure on pensions can be reduced in these ways, some unresolved questions may arise, for example, how the private pension system can be improved, or how the elderly can work in their old age.

The second problem is declining fertility. The total fertility rate（children per woman）in Japan in 2011 was 1.3, which is critically low. Low fertility rate is obviously related to various problems. Economic depression may lead to a decline in the fertility rate, which in turn may decrease GDP by reducing the size of the future working population, diminishing the tax base. A decrease in government's revenue from taxes as a result of economic depression could restrict its pension expenditure.

Initially, the Democratic Party government attempted to support families with children by providing allowances for child-rearing costs and reducing high school fees. These policies were prominent in their political manifesto before the election. However, they were never able to realise these policies completely, and ultimately abandoned them, which seriously damaged the government credibility.

The third problem is economic depression or decreasing government income from taxes. The government needs to not only stem the decline in revenue from taxes but also increase that revenue. The present government intends to raise the consumption tax rate in order to increase income from taxes. This resolution, however, quite doubtful because increasing the rate of consumption tax restricts consumer activity and causes more serious economic depression.

In 1997, the Hashimoto Cabinet increased government income from consumption tax by 4 billion yen by raising the consumption tax rate from 3% to 5%. In 1999, however, the total income from corporation tax and personal income tax decreased by 6.5 billion yen as a result of economic depression caused by the increased consumption tax rate. Of course, other factors also affected government tax revenue, for example, the reduction of the corporation tax rate and personal income tax rate at that time or the Asian currency crisis in 1997, which negatively affected the total government income from taxes. Nevertheless, it can be assumed that the increased consumption tax rate has damaged the GDP by undermining consumption.

4.2. The causes and effects of the pension problem and its solutions

To summarise this discussion, we have illustrated the causes and effects of the pension problem in Figure-1. In this figure, a plus sign denotes a positive correlation between cause and effect, whereas, a minus sign denotes a negative correlation between cause and effect. The element inside the box refers to the solution policy.

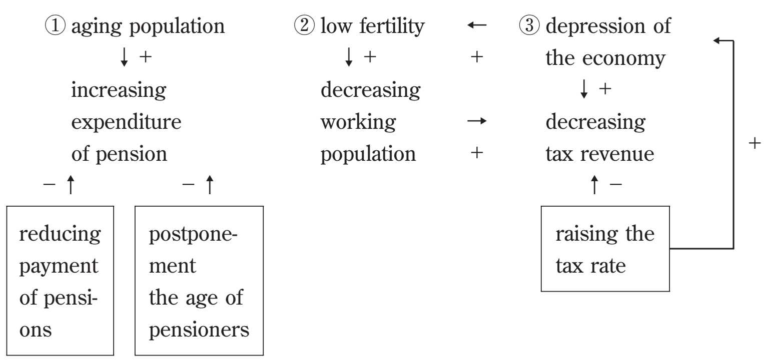

Figure-1, An outline of the causes and effects of the pension problem

Figure-1 illustrates the aging population is increasing the expenditure on pensions, which can be restricted by policies intended to reduce pension payments and postpone the age at which retirees can begin receiving pensions. The low fertility rate is reducing the size of the working population, which also decreases tax revenues. At the same time, the low fertility rate is perpetuated and worsened by economic depression. A depressed economy in which tax is decreasing, thus resulting in a policy increasing the tax rate. The policy of increasing the tax rate will, however, depress the economy in the long run instead of increasing revenues from taxes in the short run.

This structure of the causes and effects suggests that the critical problem is the depression of the economy. If we overcome this, the revenues from taxes will increase naturally through an increase in consumer activity, the increased resulting revenues from consumption, and the progressive increase in the size of the working population owing to improved fertility.

An economic package that precludes the increase in the tax-rate as a measure to counter the depression of the economy is now necessary. Moreover, public investment for reconstruction in northeast Japan, where the 2011 earthquake and tsunami inflicted serious damage, must be the mission of the Japanese government. From an economic perspective, such formidable destruction creates tremendous demand for reconstruction.

Given this circumstance, the Japanese government and the Bank of Japan must conduct quantitative easing, which means supplying money for the reconstruction of northeast Japan. The Japanese government has already issued approximately 12.5 trillion dollars in national bonds, of which Japanese citizens hold 95%. Japan also holds 3.2 trillion dollars in international net assets. In 2011, its holdings in American bonds alone amounted to 0.8 trillion dollars.

If the Bank of Japan purchases American bonds from the public or private sectors, it can supply an estimated 0.16 trillion dollars towards the cost of reconstructing northeast Japan without issuing any additional national bonds. Mr. Hideo Tamura, (a journalist for the Sankei) has indicated that this entails increasing the money supply by utilising international net assets.

A prompt money supply for reconstruction without additional governmental debt will save not only the people in northeast Japan but also all Japanese who are suffering from the economic depression by the effect of economic gains. According to Keynesian economics, tremendous public investment an estimated 0.16 trillion dollars in Japanese case will be able to create a considerable amount of effective demand by the multiplier effect.

4. 3. Credibility of the Japanese government

Professor Bitinas conducted out a questionnaire survey on the Japanese pension system which is described in chapter 3 of this article. It is noteworthy that 79% of respondents do not trust the Japanese pension system. This astonishingly low credibility of the Japanese pension system must be caused by the low credibility of the government itself.

For decades, the Japanese government has wasted tremendous assets earmarked for pensions.

For example, a public project named 'Green-Pia' run by the Ministry of Health and Welfare, attempted to develop resort institutions for aged people all over Japan. The project that was already abandoned wasted approximately 25 billion dollars. However, this figure only reflects the direct loss by investment in lands and buildings. The actual cost, including the wages of the many managers and workers involved in the project, wasted astronomical amounts of assets. The Japanese people realised that the 'Green-Pia' project was not intended for commoners but for the members of government: the many resort institutions all over Japan would have accommodated many retired government officers by supplied many positions of executives of them. The 'Green-Pia' project, however, is just the tip of the iceberg.

The questionnaire survey of Professor Bitinas also showed that 84% of the respondents found the Japanese pension system be unclear. Most Japanese people suspect that the complicated pension system gives favourable treatment to persons in the public sector.

The present Democratic Party government could not obtain the credibility of the people because of its non-fulfilment of its political manifesto, as discussed above. The preceding Liberal Democratic Party government also wasted tremendous pension assets and public budgets over several decades.

The tremendous waste of assets in the pension system and public budgets through the bureaucracy of the Liberal Democratic government has sometimes been considered as a great social problem or scandal, one that enabled the Democratic Party to capture political power in 2009. The Democratic Party nevertheless has not only failed to fulfil its manifesto but has also performed unsatisfactorily in reducing wasteful government spending.

The irresponsible behaviour of the Japanese government is the cause of the lack of government credibility. Restoring credibility is the first and the most important task for the Japanese government. Government policies on the pension system, taxes, and the economy cannot be managed well without first establishing credibility.

The results of Professor Bitinas's questionnaire survey suggest how to restore the credibility of the Japanese government regarding the pension system. Fundamentally, the Japanese pension system must be simpler and clearer, as indicated by 84% of the respondents of the survey.

Of course, the Japanese government must continue to pursue a policy that entails the strict reduction of the wasteful spending that still exists widely today throughout the ministries of government. That must be the most important policy, and must be done before increasing tax revenue.

Conclusions

Japan pension system model could be classified as conservative welfare model (according to the classical G.Esping-Anderssen classification types) because of state functions (guarantor of pension system), state employment related policy, earning-related pensions and mandatory contributions. Some elements (basic national pension) could be treated as an element of liberal model. The biggest practical challenge in designing or realigning national social security systems is the interplay of social insurance schemes, universal benefit schemes, social assistance schemes and private benefit systems as well as integrating social security policies closely with other sectors (particularly education, health and employment).

Japan government in the past several times decided to raise social insurance contributions and to cut benefits. In the future, Japan government should apply new policy regarding financial sustainability. Because of the impact on international competitiveness, it could be difficult to raise the contribution level from 2017 again and reconcile growth based on high labor productivity.

During the period of economic crisis (2008–2010 years), Lithuania survived huge diminishing of its social protection system, a sudden growth in unemployment and increasing gap between citizens expectations. The overall movement of Lithuanian social policy model from corporative, bismarckian type to the marginal, liberal model does not raise any doubts. Before 2000–2003 it is possible to affirm that corporative-bismarckian model has comprised a basis in the country. It consisted mainly of State social insurance fund system together with limited social assistance system which mainly comprised from stationary services. But on the threshold between the XX-th and XXI-th centuries the reform of private pensions clearly outlined the trajectory of the model change from corporative to liberal-marginal type.

Article analysis leads to the following conclusions:

1. The key policy in Japan and Lithuania is to rebuild the trust in public pension schemes. It is necessary to intensify the pension reforms because of sharpening of the demographic and social changes.
2. The expert survey in Japan indicates that Japanese pension system is badly managed, the respondents do not trust the Japanese pension system, do not believe that the state will pay an additional welfare benefits for living in the retirement and believes that it is lack of solidarity and social justice in the pension system. The pension system in Japan is unclear, the state should provide more information about the pension system, especially in the websites of the public institutions. The most effective information channels for the information are television, internet and national media.
3. The expert survey in Japan showed as well that persons understand, that it is necessary to accumulate additional money for the retirement or to participate in the additional private pension accumulation, but only a small part accumulates private pension. Japanese workers have

not enough information about the occupational pension funds and are dissatisfied with their work.

4. Participants of the first and second pillars pension system should be constantly and clearly notified of the obtained rights to the state social security pension.
5. Because of restricted European Union competence in the field of pensions, in Lithuania it is necessary to identify national economic, social and cultural phenomena, searching consensus between the social partners and following the European Union's recommendations.
6. The state role in Japanese and Lithuanian pension systems should be maintained as main pension rights guarantor. State should guarantee adequate state social insurance pension level.
7. The concept of social security in Japan and in Lithuania should cover state social security pension schemes (first pillar), occupational pensions or statutory private quasi/mandatory funded pensions (second pillar) and private funded pension schemes (third pillar). Governments should encourage a third pillar voluntary pension, assigning a certain part of liability for his own welfare to a person himself.
8. Japanese society today is one of the oldest in the world, the life expectancy in Lithuania is one of the lowest in the European Union. The challenges for the Japan and Lithuanian pension systems are still ageing population (especially low fertility rate, raising number of elderly people and life expectancy) and economic transformations.
9. Pension system must be very closely related to the flexibility of labor relations. Social policy should be more oriented on flexible working time arrangements, balance between work and family life.
10. Pension system reforms must be accompanied by the regulation of capital markets and the strengthening of fiscal policy. In the pension system the diversity of benefits sources should be foreseen (pension funds, guarantees of the state social insurance pension), the financial incentives for individuals to continue working longer should be increased, the requirements for early retirement should be revised).
11. The pension management and administration capacities must be improved (creating data bases and improving customer service), the analytical and forecasting work should be organised.
12. Due to the increasing of migration of workers in Japan, the international treaties in the field of social security should be concluded (aggregation of pension rights, benefit's export and so on.).
13. Social policy in Lithuania and in Japan should encourage women's and elderly person's par-

ticipation in the labour market.

Implications

The study of social security is concerned above all with compensation systems for poverty, unemployment, and disasters. The fundamental security of society must involve protection from the disasters that are serious causes of poverty and unemployment. This research is closely related to hardware sciences such as engineering, construction, and electronics.

The Great East earthquake and accident at the Fukushima nuclear plant in northeast Japan brought about tremendous compensation problems because of the destruction caused. We must learn from this great tragedy that the fundamental security of a society depends less on compensating for such disasters and more on saving society from disasters or limiting their consequences.

In the future, the field of social security may be usefully integrated with a hardware field of science, such as engineering, construction, and electronics. Earthquake-resistant buildings, for example, may take precedence over other buildings in receiving compensation, which may in turn encourage the spread of earthquake-resistant equipment in society.

Accordingly, Professor Bitinas and I visited an R&D centre of the Kajima Construction Company in Japan to investigate the advancement in Japanese earthquake-resistant engineering. I believe that risk is not to be escaped, but overcome. Any technology will certainly have some risks, however, civilisation has no alternative but to advance by overcoming technological risks with new technology.

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