REFORMING PENSION SYSTEM IN LAO PDR

By

Sisamouth CHANTHAVONG

THESIS

Submitted to

KDI School of Public Policy and Management

In partial fulfillment of the requirements

For the degree of

MASTER OF PUBLIC POLICY

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ABSTRACT

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The publicly-managed Pay-As-You-Go (PAYG) defined-benefit pension scheme in Lao PDR is described, with an analysis of its financial sustainability in the context of an aging society in a dynamically efficient economy. By using actuarial models developed by the International Labor Organization (ILO), the paper finds that the implicit pension debt (IPD) of the scheme is high in comparison with GDP of the year 2000, the base year for projections. In addition, the paper also evaluates pension system reforms in German, Korea and Thailand. Moreover, regarding the social aspect, a high IPD implies that the burden of maintaining this scheme is borne by the current and future participants. For this reason, the pension scheme in Lao PDR will cause not only financial instability but also inter-generational inequity. In order to avoid this situation, the current scheme needs to be reformed. This paper suggests that the PAYG pension system be reformed to a fully-funded one. Other considerations include increasing retirement age, solving the implicit pension debt when moving from PAYG to a funded scheme, and the management and regulatory framework of the pension scheme.

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I. Introduction

The world's population has consistently and dramatically increased at the present, and it presently has significant impacts on the social and economic performances of countries, regions, and the whole world. According to the expectation of the United Nations in 2000, in the next 50 years, the number of elderly people over the age 60 will increase 4 times growing from 600 million people to 2 billion people, a fourfold increase. The proportion of the elderly in the total population is sharply increasing mainly due to declining fertility rates and increasing life expectancy. The elderly require huge public expenditures for pension, health and medical care, factors that influence government budgets, pension funds, and eventually long-term fiscal sustainability. The problem of an aging population becomes even more serious if it is associated with the pay-as-you-go (PAYG) defined-benefit pension scheme. Recent empirical analyses indicate that these two issues are potential threats to the financial stability of the pension fund in particular, and the government budget in general in almost all economies in the world.

Moreover, the problem of the financial instability arising from an aging society, PAYG defined-benefit pension schemes also cause inter-generational inequity. Along with the aging population, this issue is becoming more severe because young and future workers have to pay greater contributions to cover expenditures for the current pensioners. Hence, the pension scheme will, sooner or later, collapse because of contribution evasion, generous benefits, and huge implicit pension debt.

In the particular case of the Lao PDR, though its population is small, the growing population trend has been increasing tremendously. According to the expectation of the National Statistics Centre, in 2020 Lao population will grow to 8,736.046 in line with which aged population will be approximately 461,717 people or about 5.3% of the whole population.

Further, the current publicly-managed PAYG pension scheme in Lao PDR is inherently fragile in financial stability due to limited coverage, low contributions along with a relatively high replacement rate. The combination of these factors will result in an obvious consequence: deterioration of the scheme with an increasing financial instability if no policy measures are taken. This is an imminent pitfall of the pension scheme in the near future, and policy options sustaining the pension scheme need to be urgently explored.

The way to effectively solve the pension system issue on a permanent basis is to move toward the fully-funded defined contribution pension scheme, which has become very common in Thailand, Korea and Germany. Coincidentally, it is also the direction that Lao PDR is moving with the proposed National Pension Fund.

In order to come up with a sustainable pension system for Lao PDR, this paper discusses the issues of financial viability and stability by using policy suggestion.

II. **Pension System of Lao PDR**

2.1. **Historical Overview**

Since gaining independence in 1975 the government of Lao PDR has issued a lot of legal documents regarding social security for people who serve party and state organizations including the military and police (hereafter calls government employees). From the year 1975 to the year 1980s the government has issued a temporary regulation on pension and death grant for the government employees which were implemented by the Ministry of Finance. The pension here included old age pension, war invalidity pension and pension for losing working capacity. Until the year 1986, the government had issued two new regulations (No. 53 and 54) replacing the temporary regulation. The Committee for Social Welfare and War Veteran was responsible for implementing these two regulations. Regulation No. 53 is about the benefits for invalid persons and for the family of government employees who sacrificed their life before and after the year 1975 (independence year). Regulation No. 54, on the other hand, is about some benefit for government employees who suffer social contingencies like sickness, maternity, death, survivors, losing working capacity, old age and child allowance. The expenditure of the period from 1975 to 1993 was fully financed by the government including the cost for health care which free health care policies have been provided to all Lao people.

In 1993, the Ministry of Labour and Social Welfare was established and the first comprehensive social security decree for the public sector was adopted. This Prime-Minister decree No. 178/PM applied to civil servants, the military and police, and was replaced by regulations no 53 and No. 54 following the adoption of the 178/PM a few months later, a social security scheme for civil servants, armed forces, and the police was formally established Decree 178/PM does not apply to workers in State-Owned Enterprises (SOEs); hence these were excluded from coverage by the state system. SOEs had to set up their own funds with contributions paid by employees. The foundation for the establishment of a national social security scheme for private sector and SOEs workers was laid in 1999 with the adoption of Decree 207/PM. The decree created the legal framework for the establishment of a Social Security Fund and of the Lao Social Security Organization (SSO), the institution mandated with the management of the scheme. The scheme started operations in June 2001 and coverage has been extended so far to most private sector and state-owned enterprises in Vientiane Municipality and some in Vientiane Province.

In 2003, the conditions of service of civil servants were revised through the adoption of Decree 82/PM and the discussions surrounding the reform of public sector social security provisions resumed. A reform proposal has since been prepared by the Department of Social Security (DSS), Ministry of Labour and Social Welfare.

The social security scheme for civil servants and state employees provides benefits in case of sickness, maternity, death, old age, disability (including war invalidity), and employment injury. In 2003, the scheme covered an estimates 166,000 people, of which about 26% women. Dependent spouses and children of the insured and of pensioners are entitled to medical care, child allowance, orphans pensions, funeral grant and survivor benefit. The estimated number of dependents of insured and of pensioners was estimated at about 467,000 in the year 2003. Insured public employees pay the rest from the state budget. The income and expenditure of the scheme over the period 1995-2003 are show below:

Table 1: Income and expenditure (in million kip)

Fiscal year	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03
\Income	**7,709**	**9,253**	**9,409**	**23,038**	**27,352**	**39,738**	**46,329**	**62,160**
1.Contribution	4,459	4,534	4,052	8,908	9,745	12,403	16,619	21,985
2.Goverment subsidy	3,250	4,719	5,357	14,130	17,606	27,335	29,710	40,174
Benefit expenditure	**7,452**	**9,129**	**10,751**	**20,857**	**26,886**	**37,430**	**46,639**	**62,816**
Old-age pensions	4,039	4,138	4,276	10,353	12,668	13,956	24,561	30,471
Child benefits	500	920	859	2,349	2,894	4,275	5,061	6,619
War Invalidity pensions	1,198	1,393	1,767	3,052	3,705	4,237	6,548	11,298
Health care	672	628	1,055	1,896	1,921	2,195	3,869	7,316
Maternity benefit	106	110	82	113	104	110	118	233
Funeral benefit	937	1,000	935	2,087	3,275	3,469	3,457	6,648
Artificial limbs			18	47	43	150	100	127
Cost of living allowances		939	1,760	962	2,277	9,038	2,925	102
Balance	**257**	**125**	**-1,341**	**2,181**	**465**	**2,308**	**-310**	**-656**

Source: Department of Social Security , Ministry of Labour and Social Welfare

Note: Accounting on cash basic

It can observed that the total expenditure of the scheme in the fiscal year 2002-2003 amounted to about 63 billion kip, which represented about 13.3% of total wages of insure.

2.2. The current Pension System in Lao PDR.

Lao PDR pension system has two types of security pension programs: Public Social Security Pension Scheme and Private Social Security Pension scheme.

2.2.1. Public Social Security Pension Scheme

Social Security of Public sector covers Officials of the Government, Party Organization, and Mass Organization, as well as those who receive salaries and other allowances from the Government budget. Old age pension, on the other hand, is payable to employees who reach 60 year of age for men, 55 years for women, and 25 years for service. A special condition is made for employees working in poisonous substance environment which allows employees to retire five years earlier. Qualified persons will receive 75% of their salary, and for each additional year of service, 1% will be added. The maximum rate of pension is 6%. In addition to a monthly pension, a pre-retirement lump sum will be paid equivalent to 15% of salary multiplied by the number of service years. Employees who do not qualify for a monthly pension are entitled to a lump sum benefit equal to 75% of the last salary and multiplied by the number of years of service.

The social security for the public sector has been gradually and continuously developed. As of the 1996, the assistance of the International Labor organization (ILO) has provided the Ministry of Labor and Social Welfare for future development in the field of social security in Lao PDR. The assistance was commenced by a feasibility study systems for different groups of employees. Since then, a certain management mechanism of the social security for the public sector was reformed, for instance, the pension payment system was computerized, database system was developed, and the reform of social security policy was discussed. In 1996 the Prime-Minister decree adopted a new decree on social security for public sector No. 70/PM. This decree is applied in lieu of the decree No. 178/PM.

- **<u>Findings</u>**

- **Findings on Pay-As-You-Go Basis.**

The social security program in the Lao PDR for the civil servants and the members of the military and police is funded on a PAYG basis. It is unique in the sense that the workers contribute at 6% of basic pay, and government provides the balance. In the short period during the last 2 fiscal years that was considered, it was observed that while the share of the civil servants was made to remain at 6% of basic pay, the government share has increased from 12.55% to 16.6% of the basic pay. This escalation of government share is expected to continue until such time that the increase is no longer bearable. In absolute terms, for instance, the government share was expected to increase by 54% in Fiscal Year 2004-2005 over of the previous year.

This increase illustrates the tendency of PAYG funded scheme to balloon in terms of budgetary requirement, or for the rate of contribution increase due to demographic and financial trends that have been observed to be relatively fewer new entrants into the labour force because of declining fertility rates and fewer new jobs being created despite economic growth being achieved. Pensioners are expected to live longer, and an increasing number of them will have to be supported by relatively fewer active contributing workers. Thus, this type of PAYG funding is now avoided in favor of partially or fully funded schemes.

Table 2: Population Project for Lao PDR from 2005-2020

Characteristic	2005 (%)	2006 (%)	2007 (%)	2008 (%)	2009 (%)	2010 (%)	2011 (%)	2012 (%)
Fertility								
Input TFR	4.2	4.3	4.2	4.0	3.9	3.7	3.5	3.4
GRR	2.2	2.1	2.0	2.0	1.9	1.8	1.7	1.7
NRR	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5
Mortality								
Female LE	63.0	63.7	64.5	65.2	65.9	66.7	64.4	68.1
Male LE	59.0	59.7	60.5	61.2	61.9	62.7	63.4	64.1
Total LE	61.0	61.7	62.5	63.2	63.9	64.7	65.4	66.1
IMR	70.0	67.2	64.4	61.8	59.2	56.6	54.1	51.5
U5MR	97.6	93.0	88.6	84.4	80.4	76.4	72.4	68.4
Vital Rates								
CBR per 1000	34.7	33.7	32.6	31.6	30.7	29.9	28.0	28.1
CDR per 1000	9.8	9.4	9.1	8.7	8.4	8.0	7.7	7.4
RNI percent	2.5	2.4	2.4	2.3	2.2	2.2	2.1	2.1
Characteristic	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Fertility								
Input TFR	3.2	3.1	2.9	2.7	2.6	2.4	2.3	2.1
GRR	1.6	1.5	1.4	1.3	1.3	1.2	1.1	1.0
NRR	1.4	1.4	1.3	1.3	1.2	1.1	1.0	1.0
Mortality								
Female LE	68.9	69.6	70.3	71.1	71.8	72.5	73.3	74.0
Male LE	64.9	65.6	66.3	67.1	67.8	68.5	69.3	70.0
Total LE	66.9	67.6	68.3	69.1	69.8	70.5	71.3	72.0
IMR	48.9	46.4	44.0	41.7	39.4	37.1	34.7	32.4
U5MR	64.3	60.7	57.2	53.8	50.5	47.2	43.8	40.5
Vital Rates								
CBR per 1000	27.2	26.2	25.1	24.0	22.8	21.5	20.1	18.7
CDR per 1000	7.0	6.8	6.5	6.2	6.0	5.7	5.5	5.3
RNI percent	2.0	1.9	1.9	1.8	1.7	1.6	1.5	1.4

Source: Department of Statistics, MPI, Lao PDR (2008)

The present civil servant pensioners receive what is considered a generous pension amount compared to civil service wages, and supported by contributions from the present civil servants and government. Pension amount indexed with current wages of government workers. This system is good for the present pensioners, but there is always the threat that such a pension system may be discontinued anytime to the disadvantage of the present contributors. There is no guarantee, although promised, that the present scheme will not be reformed via a reduction in the benefit formula if the cost has become unbearable in the future.

2.2.2. Private Social Security Scheme

The decree on the social security system for private sector was approved in 1999 and was formally executed at the beginning 2001. The purpose of the Decree on the Social Security of the Private sector is for the enterprise employees to set out the principle, regulation, organizations, procedure ad measure to ensure enterprise employees' social welfare right and benefit with the objective of improving their living condition and contributing to national socio-economic development. It is a compulsory scheme to employees and employers are required to participate in the scheme and may not enter mutual agreement for the purpose of avoiding their participation to the social security system. This Social Security Scheme is effective upon employees of state-owned enterprise, private enterprises, joint enterprises in the sectors of industry, agriculture, services and other businesses. The scheme applies 10 or more employees and shell apply upon units with less than 10 employees only when such labor units are branches of larger labor unit.

Since the launch of the scheme in June 2001, the number of scheme members has been increasing steadily. In the year 2004 about 22,000 workers on average paid monthly contributions to the scheme. The total number of works who were insured by the scheme in 2004 is estimated at about 27,800[1].

The Social Security Fund is divided into four sub-funds, each of which is financed separately. The four benefit funds are for health insurance, short-term benefits, employment injury, and long-term benefits. The Social Security Fund is financed by contributions from employers and employees. The overall contribution rate is 9.5% of insurable earnings including 5% for employers and 4.5% for employees. The contribution rates currently allocated to sub-funds are 4.4% for health insurance, 2.4% for shorter benefits, 0.5% for employment injury and 2.2% for long-term benefits.

Since the start of operations in the year 2001 the fund has achieved annual surpluses and built-up reserves for future benefit payments. In the year 2004, the total income of the fund amounted to about 16.8 billion Kip, of which about 14.1 billion came from contributions. Expenditure in the same year totaled about 6.2 billion kip, of which about 3.8 billion Kip for benefits and about 2.3 billion Kip for administration. The annual surplus in 2004 thus amounted to about 10.7 billion Kip whereas end-of year reserves of the fund totaled 31.6 billion Kip, an amount equivalent to about 5.1 times annual expenditure.

In 2004, the total PAYG cost rate[2] of the Social Security Fund was 4.1%, of which 2.6% for benefit expenditure and 1.6% for administration costs[3]. Benefit expenditure comprise 1.8% for health insurance, 0.7% short-term benefits, 0.04% for employment injury and occupational diseases, and 0.04% for long-term benefits.

The fund’s reserve has been invested in order to yield additional income and protect the value of the fund against inflation. Investments were made exclusively in savings accounts and fixed-term with state-owned commercial banks and joint-venture banks. The average rate of return on investment achieve on the [1]total reserve from 2001 to 2004 was about 8.3%, in nominal terms. Due to the high price inflation estimated at an annualized 11.5 over the same period, the real rate of return achieved from 2001 to 2004 was negative at -2.8% per annum.

The main purpose of the actuarial valuation is to assess the long-term solvency of the fund under present legislation and to review the level of contribution rates charged for the different benefit branches. This financial assessment is done by protecting annual income, expenditure, balance, and end-of-year reserves in the future. The projection horizon is chosen based on the financing system applied for each benefit branch. Health care and short-term benefits are financed through a PAYG financing systerm[4] whereas for long-term benefits a scaled premium financing system has been assumed.

For health care, the average PAYG cost rate of benefits to be provided over the period 2005-2010 has been projected at 2.46% of insurable earnings. Compared to the current contribution rate of 4.4% allocated for health insurance, it is concluded that this branch is currently over-funded. For the short-term benefits the average PAYG cost over the period 2005-2010 is estimated at 0.96% of insurable earnings. As the current contribution rate is 2.4%, it can also be concluded that the short-term branch is over-funded.

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[1]The number of insured is higher than the number of contributions due to intermittent unemployment, non-compliance, etc.

[2] The PAYG cost rate of a branch is given by the annual cost the branch divided by total insurable earnings in the same year

[3] Administration costs are inclusive here of subsidies received from the state and from technical assistance projects.

Long-term benefits have been projected over the period 2004 to 2099. A longer projection horizon is needed as pension liabilities accumulate over several decades. In order to reflect the uncertainty of the long-term future, projections have been made under three different sets of assumptions or scenarios:

In scenario 1, it is assumed that the share of private sector employment in total employment will increase continuously over the whole projection period and that the coverage of the scheme will be extended gradually to reach 90% in 2050 and to remain at that level in the following years. Under scenario 1, the total PAYG cost rate for long-term benefits is expenditure for pension benefits; it is expected to reach about 23% in the year 2099. At the current contribution rate of 2.2%, the annual balance of the long-term benefit fund is expected to become negative starting in the year 2027 and the fund is expected to become insolvent in 2032 if the contribution rate is not increased beforehand.

In scenario 2, it is assumed that the share of private sector employment in total employment will increase continuously until the year 2050 and stay constant thereafter. It is further assumed that the coverage of the scheme will be extended gradually to reach 75% in 2050 and to remain constant thereafter. Under scenario 2, the PAYG cost rate for long-term benefits is expected to increase gradually over the whole projection due to the increased cost of benefit expenditure which will rise to about 34% in the year 2099. At the current contribution rate 2.2%, the long-term benefit fund is expected to be in deficit as of the 2024 and the fund is expected to become insolvent in 2029 if the contribution rate is not increased.

Under scenario 3, it is assumed that the share of private sector employment in total employment and the cover of the scheme will stay at the current level over the whole projection period. This scenario is meant to illustrate the case where the scheme fails to extend its coverage and the economy does not develop as expected. Under scenario 3, the PAYG cost rate for pension benefits is expected to increase over the whole projection period but to level off towards the end at about 34% of insurable earnings. At the current contribution rate of 2.2% the long-term benefit fund is expected to be in deficit as of the year 2021 and it will become insolvent in 2027 if the contribution rate is not increased beforehand.

It can be concluded that the contribution rate if the long-term fund is not sufficient to sustain the fund over the long term. However, given the low level of expenditure expected for the coming years, there is no need to increase the contribution ate in the near future i.e. before the year 2020.

No actuarial projections have been carried out for the work injury and occupational disease branch. Given the short time span of the benefit history of the scheme and the low incidence rate of work injury benefits experienced so far, it is not possible to produce a reliable estimate for future cost of the branch. It is therefore recommended not to change the allocated contribution rate at this point in time. A thorough review of the branch should be undertaken at the next actuarial valuation when more experience data will be available.

Table 3: Scale premium contribution rates, base case and alternate scenarios.

Minimum Reserve Ratio	1		2		5		10	
Period	BC	Alt	BC	Alt	BC	Alt	BC	Alt
2004 - 2019	0.6%	1.0%	0.7%	1.2%	1.0%	1.7%	1.4%	2.5%
2020 - 2029	1.2%	3.8%	1.3%	4.1%	1.6%	4.9%	2.0%	6.2%
2030 -2039	1.9%	7.0%	2.0%	7.5%	2.5%	8.8%	3.2%	11.2%
2040 -2049	4.9%	16.3 %	5.4%	17.3 %	6.8%	20.2%	9.3%	24.8%
2050 - 2059	11.0 %	22.5 %	11.7 %	22.8 %	13.8%	24.0%	17.3%	26.0%
2060 -2069	17.5 %	26.8 %	18.2 %	27.1 %	20.1%	28.0%	23.4%	29.3%
2070 -2079	22.5 %	31.0 %	23.0 %	31.3 %	24.5%	32.0%	26.6%	33.3%
2080- 2089	25.6 %	33.8 %	25.7 %	33.6 %	26.2%	33.5%	27.1%	33.5%
2090 - 2099	26.4 %	33.3 %	26.35	33.2 %	26.0%	32.55	25.8%	31.4%

Table 4: Private Sector Social Security Scheme, Income and Expenditure from 2001

Item	Amount
Income from June to December 2001 -contributions -interest on investments	2,352,262,410 2,324,782,410 27,480,000
Expenditure from June 2001 to January 2002 -capitation payment to hospitals -sickness benefit -temporary incapacity benefit -death grant -administration	458,016,042 395,005,132 4,653,633 742,254 3,059,250 50,862,673

Source: Basic Statics of the Lao PDR, 2000(not all total agree due to rounding)

2.3 The problem in pension system of Lao PDR

Although, the government has reformed many regulations for implementation the pension system in Lao PDR to sustainable the financial of the pension scheme, the most serious problem of the public pension scheme lies in the long-term financial instability emanating from the structural imbalance between benefits and contributions. The problem of the financial instability of the pension scheme is more obvious in the condition of loose early retirement provision, Government subsidy insufficient, high replacement rate, growth and new trends of elderly population for coming decades. The pension scheme will suffer less from financial instability, and may yield fewer deficits per participant; this problem cannot be ignored because of its much size of the pensioners such as militaries F polices, civil servant. This situation indicates that the retirement period of retirement will extend along with higher life expectancy, and the pension burden of these beneficiaries will abruptly increase when benefit are indexed to an increasing minimum wage.

According to the regulatory framework concerning tax treatment between the social security system and other instrument of contractual savings is also exacerbating the issue of evasion. For instance, contributions from employers and employees, and the accruals from life and pension funds are deductible for the purposes of corporate or individual income tax, while the contributions to pension funds are deductible for the purpose. Hence it creates motivation for enterprises to evade contributions by reducing the registered number of employees, signing long-term employees.

Nevertheless, the policy seems to have a gap because people who have received lump sum amounts also expect to receive pension money from the government.

Challenge and constraints

- The current administrative capacities of formal social system are limited. There is a need for improvement and further development.

- The majority of the labor force and population is relatively poor underemployed people, working the informal economy in rural and remote areas. It is difficult to increase coverage to the informal sector, both in terms of members and contributions.

- The population aging and life expectancy at retirement is increasing. The duration of retirements, and therefore receiving benefits, is being extended. This will increase the burden on pension funds.

- Governments' revenue, as the main source for the social assistance, are limited and insufficient to cover, in particular, the very poorest people. These are the main critical challenges in the short and medium term.

III. **Countries study**

3.1. **Korea Pension System**

The National Pension Scheme (NPS) implemented in January 1988, it is the first compulsory pension scheme. NPS is a part of Korea's Social Security Program; the program consisted: Public Pension, Social Health Insurance, Unemployment Compensation, and Industrial Accident Insurance. NPS was covering workplace 10 or more employees; it was extended to cover foreigners in the workplace. Though, during the economic crises in Korea, the extension of the plan to cover self-employed urban resident is somewhat uncertain.

- **The Factors that Contribution to the Evolution of the National Pension Scheme.**

  First, there was a rapid increase in the elderly population. The

Population structure of Korea is gradually changing from a "pyramid" (developing country) type to the "inverted pyramid" (developed country) type. The changing population structure raises the issue of the financial security of the elderly after retirement. To resolve this problem, the national pension scheme was though up by politicians.

Second, with the changes in lifestyle and economic opportunities, families gradually shrunk. More and more of the elderly were separated from younger generations (either voluntarily) as the latter formed nuclear families. Traditionally the elderly has lived with their offspring and thus their financial security after retirement had been a family issue. But as more elderly people were being left to be socially independent, their financial security became a social issue and the need arose for their protection following retirement.

Third, the policy of strong economic growth resulted not only in multiple social classes, but also in producing a feeling of exclusion in the poor. Politically it was necessary to have a measure that would ease complaints of this excluded sector of the population. To compensate for the misdistribution of income as well as the negative consequences it brought to the poor, the National Pension System was proposed.

Fourth, urbanization and the continuous growth of the industrial sector were blamed for various accidents, including industrial and traffic accidents. With these increasing over the years at annual rates of 7.5 percent and 11.8 percent, respectively, a need emerged for protecting household income from unexpected losses. And here the pension scheme was considered an imperative step (Min 1986).

Fifth, economic growth and the resulting increase in household income made the introduction of the NPS possible in the 1980s. With economic growth in the last two decades, the share of the population in the formal labor sectors their own future benefit. The fact that the stabilization of price level in the 1980s made the real value of the pension fund sustainable also enabled the government to push the forward.

Sixth, spurred by a strong economy and rapidly improving living standards, the average Korean became increasingly welfare-conscious. The average Korean believed that pension insurance and health insurance were basic requirements for Korea's becoming a developed country based on Organization for Economic Co-operation and Development (OECD) standards. Thus the government had to satisfy the welfare needs of people from various walks of life by introducing pension plans (along with health insurance).

Seventh, pension schemes were strongly supported by policymaker party because they could be a source of investment capital for massive government-initiated economic projects. Good examples of such projects are the heavy industry promotion plan in the late 1970s and the housing project for middle-income families in the late 1980s .

Eighth, ever since 1960, the after-retirements of government employees had been insured by their own pension schemes but there was no such protection available for industrial laborers and the self-employed. Some concerned academicians argued this as a serious social equity issue. By introducing the NPS, the government would be taking steps to resolve this inequity existing among occupational categories (Oh 1993).

Even there was some conflict in proposals concerning the details of pension coverage, financing, and benefits, in principle all sectors of economy-- Politicians, workers, households, and the government-agree to have a national pension system.

- **Public Pension Scheme**

There are four types of social security pension programs in Korea: the national Pension for corporate employees and the self-employed; the Civil Servant Pension for central and local government employees; the Military Pension for military personnel and their associates; and the School Pension for private schoolteachers and school employees. Each scheme is financially autonomous and managed by a different administrative entity.

- **The National Pension Scheme and the Role of the Private Sector.**

The national pension scheme is not clear whether the Korea NPS is defined as a public pension system or a private one. On the one hand it is a public system in the sense that it is compulsory, and is planned and designed by a government authority while being managed by a government-controlled semipublic cooperation—the National Pension Corporation (NPC). Also, it is a public system since it is classified as part of the social security system by government. On the other hand, it is private in nature because financing is entirely the responsibility of employers, employees, and rural households.

- **Financing**

There are two basic ways to finance pension plans: the pay-as-you-go system and the fully funded system. Under the PAYG approach, contributors pay for the benefits of current pensioners directly as a current disbursement out of operating income. The Korean NPS, however, uses the fully funded system. Under this system, payments are made on a regular basis into a pension fund, which then can be invested. The fund is controlled by a separate trustee, which is designed to meet the current as well as projected benefits of pension plan members.

- **The Benefit Structure**

Unlike employment-based private pensions, the Korean NPS covers old-age pension, disability pension and survivor payments. Since it is a mandatory system, the vesting and portability of benefits are guaranteed.

- There are two parts in the amount of pension payments paid to a household: the basic pension amount (BPA) and the additional pension amount (APA).
- There are several types of old-age pension payments within the Korean NPS: full pension, reduced pension, active pension and early pension

For the fully old-age pension is paid to a person who has made pension contributions for least 20 years and is at least 60 years old. One hundred percent of the BPA will be paid to the full pensioner on retirement.

- **Replacement Ratio**

The pension replacement of preretirement earnings for a single pensioner with average earnings after 20 insured term year is estimated to be about 35 percent. This means that the replacement ratio would be 70 percent after 40 years. It will be exceed 70 percent after 40 years of insurance, and it is below 70 percent if it is greater than the average level of earnings.

- **The policy Agenda: Lesson of Experience**

Pensions are a complex area involving savings and investment issues, employment practices, taxation, and capital market institutions. An appropriate legislative is framework is important to ensure the security of pension savings, to provide effective tax treatment, and to create a role for pension plans in the development of labor and capital markets. Since the Korean NPS is in the beginning stage of full implementation, its impact on wages and on export competitiveness is still not known. However, there are several problems with the Korean NPS detected to date.

- **Reform Proposal**

In less 10 years sin the introduction of the national pension system in 1988, the National Pension Reform Board (NPRB) was convened to deal with the then-emerging but inherent issues mainly relating to the sustainability of the current national pension scheme (NPS) system. The board was commissioned to address such issues as long-tem financial sustainability, potential problems associated with the then-planned extension of the coverage, efficient management of the fast growing reserve fund, lack of linkages within the public pension scheme.

After more than a year's activity, the NPRB produced a detailed report that included three proposals for the reform of public pension system that Government would have to review. The three proposal commonly demonization the imminent problem with the system's financial sustainability, with is mainly due to 'thee overly generous Government promise' as reflected in its benefit formula, over the initially mandated contribution rates

- ✓ The first proposal advocated a parametric rather than system reform: scaling down of the existing benefit formula and a scheduled increase of contribution rates;
- ✓ The second proposal advocated a systemic reform: splitting the scheme into a basic pension and an earnings-related pension, in addition to downward adjustment of the programmed benefit level;
- ✓ The third proposal advocates a Chilean pension system in place of the current one: individual account-based Defined Contribution system.
- ✓

3.2 Thailand Pension System

Thailand currently has a few system covering different sectors of employment. The Thai pension system can be categorized into two sectors: public and private sectors. Within both sectors there are some groups of workers that are not covered by any mandatory pension system. There are two voluntary defined contributions: Provident Fund and Retirement Mutual Fund (RMF), and Individual Retirement Account (IRA). Thailand's central government employees, government related organizations employees are provided with Provident Fund according to the government policy. Therefore, these voluntary defined contributions in this case can be counted as implicit mandatory defined contributions as well.

For state enterprise used to have defined benefits pension, due to government policy of privatization, some of state enterprises had replaced the original pension system to provident fund, therefore either workers receive the defined benefits pension or have their own retirement account with provident fund.

After established the Social Security Office (SSO) in 1990, Thailand initiate expand the social security program by the used the following schedule: ***First***, introduction of sickness, invalidity, maternity and death benefits to the employees of enterprises with 20 or more worker in March 1991. ***Second***, expansion of coverage to enterprises with 10 and more workers in September 1993. ***Third,*** initiation of voluntary insurance service in September 1994. ***Fourth***, provision of old-age pension insurance and child allowance schemes in January 1999. ***Fifth***, extension of coverage to employees of non-agricultural enterprises with than one worker in January 2001. ***Sixth,*** organization of unemployment benefits.

The old age pension system intends to guarantee a replacement rate of 15 percent after 15 years of contribution (with an additional 1 percent for every extra year), starting from as early as age 55. Financing comes from equal contribution by employers and employees starting at 1 percent of the employee's wages in 1999 and increasing by an additional 1 percent each in 2000 and 2001. Government will contribute a fixed 1 percent all years. In 1997 it introduced a national pension fund for civil servants personnel, the Government Pension fund (GPF), which is replacing a defined benefit plan.

The old age income support system in Thailand consists of several component highlighted in the overview: (i) the social security scheme for private sector workers, (ii) the Government Pension Fund for public sector workers, and (iii) provident fund for state agencies and certain types of private companies.

- **Benefit and Coverage**

The benefit of the old-age pension of the social security system presents several distortions. The use of the last five years of earnings as the wage base for determining old-age benefits for the pension delinks benefits from contributions and may lead to strategic manipulations, affectively reduces encouraging evasion, and results in disproportionately high benefits to workers with steep age-earnings profiles. For instance, one may decide to work double time for the last five years to double pensions; or alternatively, one could avoid contributing for extended periods but make sure that the final five years of earning count towards the wage base and the required 15 years of contributory service.

- **The Government Pension Fund (GPF)**

The Government Pension Fund (GPF) the first public sector defined contributions fund in Thailand was founded in March 1997 with two major points has been changed.

- ✓ The original pension benefit is reduced by using average of 60 months' salary rather than last month salary and the ceiling is not more than 70 percent rate. Therefore the total replacement increases from the retirement saving from GPF.
- ✓ The Act mandates the government to accumulate the reserve fund equal to 3 times of fiscal budget for gratuity and pension payment.

- **Investment**

The investment is one way to gain benefit for the pension fund. The investment for the NPF, there is an Investment Sub-committee to review and recommend investments to the Board of directors. The investment must comprise of more than 60 percent in low-risk security and less than 40 percent in higher-risk assets. In this regard, the risks in ministerial rules would mean credit risk only. Current GPF's investment is managed 70 percent in-house and 30 percent by external fund managers. The investment policies have resulted in rather passive portfolios, likely with rates of return. Provident fund accounted for 50 percent; the Thailand's government pension fund 31 percent; and the Social Security Fund, 19 percent. Provident fund resources at end-1996 were distributed among cash and deposits (49%), corporate debentures (28%), bank deposit instruments (10%); stocks (8%) and other investment (5%).

- **Reforming the Pension system through ADB Assistance**

With the sharp decline of birth rates couples with rising life expectancy, the Government of Thailand accorded high priority to the reform of its pension system.

The basic pension (Pillar1) provide by the Old Age pension (OAP) office was insufficient as it replaces only 35 percent of the average pay for pensioners. Therefore, there was need to introduce a defined mandatory contribution (pillar 2) to supplement the OAP with a target replacement rate of another 15-20 percent of average pay—deemed an adequate pension to prevent poverty in old age. Also, the Government of Thailand considered it important to encourage saving necessary to stimulate financial and capital markets' development as well as labor market efficiency.

3.3. **<u>Germany's Pension System.</u>**

Since the Second Word the German pension system espouses the principles of equivalence and income maintenance based on the male breadwinner model. Breadwinner model. As poverty rates among the elderly were very low, Germen retirement policy was a success. Fiscal sustainability was not big concern and contribution rates were periodically increased to match expenditures.

After the German reunification in 1980s, the pension debate shifted onto fiscal aspects of the system and revolved around: (i) reductions in the financial burden for the state; (ii) maintenance of a stable future contribution rate, i.e. reduction in employers' non-wage labor costs.

In the early 2000s, various scarcely successful attempts have been made to supplement the shortfalls in public benefits with increased occupational plans and individual savings (2001 Riester and 2004 Ruprup reform). This worked only in unionized sectors under collective agreement. Hence, Germany pension system shifted from a (occupationally fragmented) system that protects individuals from social exclusion to a (sectorally fragmented) system whose outcomes are subject to randomness and which may breed poverty during old age.

Moreover, Germany has recently changed its law regarding social assistance. For people with low earnings, including pensioners, there are means-tested benefits to guarantee a basic income.

The first pillar (state and mandatory) is divided into: (i) compulsory pension insurance for blue-and white-employees (*Arbeiter-und Angestelltenversicherung*); (ii) pension scheme for farmers (*Altershife for Landwirte*); (iii) insurance for civil servants and judges—tax-financed (*Beamtenversorgung)*; and (iv) several professional schemes.

Public pensions are a contribution-financed, PAYG defined-benefit scheme, which has a contingency reserve (*Nachhaltigkeitsrücklage*) of between a minimum of 0.2 and a maximum of 1.7 of monthly expenditure. For the Actual Pension Value is valorize/indexed to gross wages, but it also depends on two factors: (i) changes of the contribution rates to the statutory pension scheme and to subsidized voluntary occupational and personal pension schemes are taken into account (an increase of contribution rates will reduce the adjustment), (ii) sustainability factor, which links the adjustments to changes in the system dependency ratio. These factors limiting valorization/indexation are meant to keep the contribution rate under check. In 2001, in fact, the increase in the rate limited to 20 percent by 2020 and to 22 percent by 2030.

In 2008-2009 total contributions amount to 19.90 percent and are equally split between the employer and the employee. The insured pension contribution 9.95 percent earnings; the insured self-employed also contribution 19.9 percent of monthly income; the employers pay 9.95 percent of the monthly payroll and 15 percent of earning for mini-jobs under EUR 400. The status retirement age will increase stepwise (1 month per year until 2024 an 2 months per year afterwards) between 2012 and 2029 from 65 to 75 for both men and women. Flexible retirement is possible between 63 and 65 967 from 2029) with 35 years of qualifying period. However, early exit implies permanent benefit decrements amounting to 0.3 per month missing to the statutory retirement age, up to 14.4 percent maximum. The main problem with the system I is the differential periods outside work and atypical work contracts. Women are fairly protection (during childrearing, care of divorce – as they split entitlements with the former spouse), as are disable people. Unemployment, especially long-term, is not. Credit for apprenticeships and higher education has been drastically reduced. Atypical jobs are particularly discriminated: part-time jobs called mini- and midi-jobs are partly voluntarily insured and take up is minimal, false self-employment is not rise and many simply do not save. Now only first three years of apprenticeship are valued at 75 percent of average earnings (before more and irrespective of type of job). Credit for educational years after age 16 has been cut from 12 years (before 1992) to zero (after 2009).

The second (voluntary and privately managed) pillar consists of occupational funded schemes offered by a variety of sponsors and subsidized through tax relates. German employers have to offer at least one type of occupational pensions *(Entgeltumwandhund*) and five different options: they can administer scheme by themselves (*Direktzusage*), through insurance institutions (*Unterstütyungskasse, Pensionskasse* or *Pensionsfond*), they may take out a direct insurance with an insurance company for their employee (*Direktversicherung*). Even though, Germany is said to be a private pension ‘newcomer’, life insurance was widespread and used for purposes: as a human resource management tool to attract high-skilled workers; as a cheap financing method through the tax-free book reserve method. Low-income employees had occupational schemes in the public sector (mandatory since 1929) and constructions (the unions pushed for it n 195)

The 2001 Riester reform changed most of the rules. It gave the right to employees to require employers putting a share of gross earnings (tax-and contribution-free) into occupational scheme. However, the main problem with occupational remains the same: that they expanded only in those sector were collective agreement are being hammered out with the help of trade unions (and often contributions are not even additional as other fringe benefits are diminished). Hence, socially inclusive retirement has now become much more fragmented than it used to be under pure state provision and dependent on sector and firm size.

The third pillar consists of voluntary, subsidized individual plans, which were strongly encouraged through the 2001 Riester and 2004 Rürup reforms. The so-called *Riester-Rente* saves the purpose to encourage low-income workers to additionally save. The government the government recommends 4 percent of gross wages invested into these plans (and provides tax subsidies or direct or direct allowances on contributions). There are several conditions, which make Riester less attractive (it was simplified in 2005): guaranteed rate of returns, low charges, and consumer information requirements.

Everyone covered by public pension can claim state support from Riester (unemployed receiving ALG I are covered but not the self-employed). Full-time careers and child credits are eligible, so Riester undermines the male breadwinner model. To redistribute to women, unisex benefits were introduced.

- **Assessment and Future Challenges**

Even though the German public pillar is still a guarantee against poverty in old age, the equivalence principle on which it is based and the cuts in its redistributive elements imply that it is sliding out of line with an ever more flexible labor market. Hence, as written in the introduction, Germany shifted an occupationally fragmented system that largely protects individual from social exclusion to a sectorally fragmented system whose outcomes are subject to randomness and which may breed poverty during old age.

3.4. <u>Lessons from Country Studies</u>

Researching from the three countries study, I have seen many lessons from them, especially on reforming the pension systems, and how their pension systems are financially sustainable. These lessons are factors of the pension system in Loa PDR such as:

- **Lessons from Korea**

The Korean NPS is a recently developed funded system. It relies on accumulated contributions to finance pension obligations. Asset portfolios represent a large fraction of the total equity of public and private investment. If professionally managed, a pension fund can make a significant contribution to a functioning, competitive, and diversified capital market. It could be an important capital accumulation tool in the developing countries, where insufficient capital accumulation acts as a barrier to long-tem industrial investment.

The Korean experience tells us that the regulations governing pension fund investment are necessary to protect fund assets from conflicts of interests and to control financial risks through diversification requirements. To achieve these ends, general and specific obligations and restrictions on the behavior of pension administrators should be enforced. The administrators and Trustees should formulate an investment policy that fits the amount of investment risk that the plan's contributors are willing to take. Investment guidelines may include risk objectives, asset mix objectives, cash flow and liquidity requirements, and instruction for the measurement of fund performance.

There are two lessons to learn from the Korean experience. ***First,*** an accurate financial project on the sustainability of the programs involved is a prerequisite for a sound pension system. Second, a reasonable approach would be to start with a basic package, and then upgrade the benefit package along with economic growth. This gradual expansion approach is far better than the opposite one, which Korea is using now.

✓ **Problems**

During the initial years of any social security pension program, contributions often exceed benefits because there are few beneficiaries. As programs mature, however, the growth rate in benefits generally exceeds that of contributions, and the system's reserves are pulled down. This has been the trend in many European systems over the past four decades. Korea is faced with the same trend. As soon as estimate by the National Pension Research Center (NPRC 1997) predicts that with the current annuity payment scheme, the accumulated reserves will end up in deficit by 2031. The deficit is expected simply because the benefit ratio is too high compared with the contribution rate. Demographic trends are also forcing the NPS, financed on a fully-funded basis, into insolvency. It would be almost impossible to handle, both politically and financially, the insolvency issue when the deficit actually hits. Facing the insolvency problem, the government is preparing a major reform in the pension plan, lowering the replacement ratio from the current 70 percent to 55 percent. Public resistance is expected.

- **Lesson from Thailand**

For the lesson from Thailand I would like to show scope on the mandatory, contribution public pension system for formal sector private worker in Thailand, which includes the first and second pillar of the World Bank framework described in Holzmann and Hinz (2005). The first pillar is a mandatory contribution of a worker's income at retirement. In Thailand, this first pillar is the Old-Age Pension Fund (OAPF) which operates as part of the Social Security Fund. The second pillar of the World Bank approach is mandatory define-contribution (DC) system that acts as a savings account for participants. Workers place a portion of their income into the account which is vested into a range of financial assets, and the total assets available at retirement will depend on the performance of the underlying portfolio.

The proposed NPF in Thailand can be expected to provide a reasonable adequate income for the retirees. According to Chaiyasoot (2005), a suitable level for retirement pensions would be to replace 50 to 60 percent of the last month's salary at retirement. Then, it is a matter of determining whether the pension benefits would be able to replace this much in income. In order to examine this issue, Thailand will consider the nest-age ratio and the replacement rate. As the case with how the benefits are calculated in Thailand, they define the nest-egg ratio as the ratio of accumulated assets in the defined-contribution (DC) account at retirement to the average of the last five years of income before retirement. The replacement rate is the percentage of the average income from the last five years of employment that the pension annuity will provide. First, they consider the benefits from the DC pension in terms of the nest-egg ratio and the replacement rate

- ✓ **Replacement and Contribution**

In private sector, assuming that everyone is covered by OAPF and provident fund, according to the World Bank's study, the wage replacement rate of 60-70 percent of last month salary is defined as adequate old age income.

In public sector, government officials opting for pension (rather than gratuity) effectively enjoy a ' Super Pillar I' scheme which gives them wage replacement rate of about 70 percent with additional of GPF for the central government officials. The government relates employees and state owned enterprise employees will have the replacement rate over 60 percent from the total contribution more than 10 percent of salary. Moreover, the retirement age of the government employees is 60 year.

There are a number of approaches that could be undertaken to address this estimated shortfall:

- Increase contribution rate
- Reduce benefit level to less than 1 percent annum
- Increase the retirement age.

- **Problems**

Thailand is a developing country; the pension system is also faced with a rapidly aging population thanks to demographic transformation resulting from falling fertility rates and rising life expectancies. Besides that, the retirement system is confronted with a continuous increase of the old-age dependency ratio. Those problems are pushing the Government to consider reforming the current pension system. While Thailand has a well-developed social protection system, a fragmented structure and weak legal, regulatory framework hamper it from fully realizing its objectives. In addition, several factors, such as an aging population, low contribution rate, and a high accrual rate, are threatening the system's sustainability.

Moreover, in public management, unfunded or first pillar pension scheme, also known as a PAYG, the contributions of the current generation of workers pay the pensions of current pensioners. Such scheme can result in problems in the long run particularly in terms of financial balance and sustainability of the pension system. Furthermore, Thailand's pension system still lack some mechanism to achieve real savings for retirement such as: The lack of incentive to keep saving until retirement age, in provident fund as in GPF.

- **Lesson from German**

The reforming of the pension system in Germany in 1992 and in 2001 have been two major pension reforms, with further strengthening in 2001 and 2004.

- **The 1992 Reform**: the first change of the 1992 reform was to anchor benefit to net rather than to gross wage. This implicitly reduced benefit since taxes and social security contributions have increased, reducing net relative to gross wages. The second important element in the 1992 reform was the introduction of "normal" adjustment to benefits to retirement age and increase in the “normal” retirement ages for all pension types disability pensions (age 63), to 65.

- ✓ **The 1999 Reform**: pension system reform was supposed to lower the replacement rate according to a pre-specified “demographic factor”—a function of life expectancy plus several correction factors. This reform was revoked in 1990 after change of the government. A side effect of this reform, which was not revoked, was gradual change of eligibility ages for pensions for women an unemployed pensions from age 60 to 65.
- ✓ **The Riester Reform in 2001 was** a major change in the system. The reform aimed to achieve three main objectives:
  - **Sustainable contribution rates.**

    The key objective of the Riester reform was to stabilize contribution rates and thus (i) to limit further increases in nonwage labour costs and (ii) to achieve a fairer balance of intergenerational burdens. The law actually states that contribution rate to public retirement insurance scheme must stay below 20 percent until 2020 and below 22 percent until 2030 while the net replacement rate must stay above 67 percent.
  - **Secure the long-term stability of pension levels.**

    Pension will gradually be reduced from the current level of 70 percent of average net earnings to around 67-68 percent by the year 2030. At the same time, the Riester reform changed the computational procedure for reference earnings, now subtracting a fictitious 4 percent of gross earning to be invested into the new, funded, supplementary private pension.
  - **Spread of supplementary private pension savings.**

The decline in public pensions is expected to be offset by supplementary (occupational and private) pensions. To achieve this aim, supplementary pensions are subsidized, either by tax deferral and tax deduction, or by direct subsidies to individual and occupational pension plans.

- ✓ **The 2003 Proposal**

The Rürup commission met in 2003 under very different circumstances than Riester faced in the 2001. The proposal published in 2003, comprises two major elements plus several accompanying measures. The main element is a gradual increase of the normal retirement age from 65 to 67 years, this increase is slow and gradual, starting in 2011 with monthly steps such that age 67 will be reached in 2035; the second is a modification of the pension benefit indexation formula linking benefits to the system dependency ratio. The first element is accompanied by adjustment to the various early retirement ages, and the second element is accompanied by a revision of the Riester pension regulation.

Change of the benefit indexation formula: The “sustainability factor.” The commission proposes to extend the Riester benefit indexation formula by a new factor, the *sustainability factor*. This factor reflects the development of the relative number of contribution to pensioners, the system dependency ratio, which is the most important long-term determinant of pension financing.

Therefore, from the reforming of the pension system in Germany, one can conclude that: the Riester reform in 2001 attempted to reduce the tax and contribution burden by transforming the monolithic PAYG system to a multi-pillar system with subsidized or tax-privileged private pension individual accounts or as occupational pensions. The reform is an important first step toward solving the demographic problems confronting the pension system. It does not, however, stabilize the public PAYG pillar in the coming decades.

This instability precipitated the creation of the reform commission chaired by Rürup. In contrast to the Riester reform, this commission took the political risk of proposing a rise in the normal retirement age and a further reduction in long-term benefits at the same time. As a major innovation, this reduction was rationalized by linking benefits to the system dependency ratio. The mechanism became law in 2004 after the change in retirement age was postponed. Hence, the slow but steady reform process of the German pension system is likely to continue as the German population ages.

From above, for the countries study its can show at the table 5 as following:

Table 5: Comparative pension system of 3 countries study

	Korea	Thailand	Germany
Total Population	49,044,790(2007)	66,000,000	82,282,988(2010)
Annual population growth	0.578%(2007)	0.615% (2009 est.)	0.061% (2010)
Total Fertility rate	1.25(2006)	1.655(2010 est.)	1.42 (2010)
Population 0-14	18.3%(2007)	20.8%	13.7%
Population 15-65	72.1%(2007)	70.5%	66.1%
Population 65+	9.6%(2007)	8.7% (2009 est.)	20.3%
Labor force	24.82 million (2010 est.)	38.7 million (2010 est.)	43.35 million (2010 est.)
Type of the pension system	1.Pay-as-you-go 2.Fully funded	1. Pillar I : Unfunded defined benefit(PAYG) 2. Pillar II: Funded defined 3. Pillar III: Provident fund and Retirement mutual fund(For private sectors)	1. Occupational funded 2. pay-as-you- go defined-benefit -Minimum 0.2% -Maximum 1.7%
Number of pensioners	16,230,000 (year 2000)	11 million representing 17% of the total population.	20.2 million (2009)
Mandatory	60 years	50 years	65 years

retirement age			
Contribution rate	9% of wage(employees 4,5%; employers 4,5% (6% for the self employed) -The NPS contribution rate will be raise 16-18% by 2030	9% of wage(Employees 4.5%; employers 4.5%)	19.90% equally between employees and employers - The insured person contributes 9.95 of monthly earning - The insured self-employed contribute 19.9% of monthly income
Replacement contribution rate	Replacement Rates Applied under changing Benefit Formula of the NPS 70%	70%	70%
Old age dependency ratio	13%(2005)	9%	20.3%
Life expectancy	82.28 years(2010)	76.53 years	79.26 years
Pension system and targets	**1.Public pension** 1.1 National pension - Employees in the work place. - Rural agricultural and self-employed residents. - Urban self-employed residents 1.2. Government employees - Public sector employees and public school teachers 1.3. Military personnel - Military personnel and employees -1.4. School teachers - Private school teachers and employees. **2. Private sectors**	1. **Public pension system** -Central Government Officials - Central Government Regular Employees - Central Government Temporary Employees - Local Government Officials 2. **Private Sectors** - Salary-type Employees - Wages-type Employees - Information Sector - Teacher and headmaster in Private School	**1. First pillar:** 1.1. Compulsory statutory pension insurance for blue- and white-collar employees 1.2. Pension scheme for farmers. 1.3. Insurance for civil servants and judges – tax-financed. 1.4. several professional scheme **2. Second pillar** (voluntary and private managed consist of occupational funded schemes offered by a variety of sponsors and subsidized through tax rebates. **3. Third pillar**: consist of voluntary, subsidized individual plans,
Minimum PAYG pension	No finalize the detail	No finalize the detail	0.2 % of monthly expenditure
Maximum PAYG	No finalize the	No finalize the detail	1.7 % of monthly

pension	detail		expenditure
Statutory pension Insurance	No finalize the detail	1. Social Insurance or Social Security scheme (SSS) was upset under the Social Security to provide social insurance for private employees in firms with 20 or more workers. The SSS is administered by the SSO, presently a government department under Ministry of Labor 2. Unemployment Insurance (UI) is a part of SSS which has been enacted in the Social Security. UI benefit would be provided to insured persons when the stakeholders.	1.)23 regional insurance funds, the federal railway insurance and the seamen insurance fund administered all blue-collar workers and insurance self-employed 2.) The Federal Insurance Fund Employees administered white-collar workers. 3.) The Federal Insurance Fund for Ministers
Calculation formula	National Pension Benefit = Basic Pension * Adjustment Rate Supplementary Pension Basic Pension= [0.2(A+0.75B)*P1/P +0.5(A+B)*P2 /P]*(1+0.05N)	The formula to calculate benefits for those with at least 15 year of contribution BENEFIT=SALARY(<u>1.5x2.5)/ 100</u>	Pension= APV*PP*PF.APV= Actual Pension Value
Taxation	Korean tax system treats pension plans according to the partial "tax-exempt-exempt" of contributions, accumulations and benefits or pre-paid expenditure regime.	1. Employee contributions are tax-exempt up to certain limits. A tax allowance of EUR 213 (THB 10,000) applies, which means that yearly contributions up to that sum directly reduce the tax liability. In addition, contributions exceeding EUR 213 (THB 10,000), but not higher than EUR 6,165 (THB 290,000) per annum, are tax-exempt, provided that they do not exceed 15% of income. 2. In contrast to a tax allowance, tax-exempted amounts are deducted from gross income, therefore reducing the amount assessable for income tax, but not the tax burden itself. The employer can deduct up to 15% of salary as	Exempt Exempt Taxed or Taxed Exempt Exempt.

		expenses for corporate tax purposes. From the age of 55, benefits from provident funds are tax-exempt without limit, as long as membership in the plan has been at least five years. The EEE taxation principle applies.	
Administrative Structure	The Committee of National Pension Fund Operation (CNPF), which is co-chaired by the Ministers from the: Ministry of Financial and Economy (MOFE) and Ministry of Health and Welfare (MOHW), regulate and supervises the fund. The MOHW, in consultation with MOFE and the Sate Council, prepare guidelines on fund operation for approval by the President, the purpose of the regulatory guidelines is to define the investment policy, including the distribution of investments by sector (public, financial and welfare).	The SSO is one of the departments under the Ministry of Labor and Welfare. Its main responsibilities are to monitor and manage the operations of the Social Security Fund and the Workmen's Compensation Fund and perform the administrative functions of the Social Security Committee. These include collection, compilation and analysis of data pertinent to social security	*The Federal Ministry for Labor and Social Policy is responsible for legislation. *The federal Insurance Institute supervises the administrative function of the Federal German Pension Insurance, which is responsible for day-to-day operations and management. * The Statutory Pension Insurance had tree Institutional branches : (i) 23 regional insurance funds, the federal railway insurance fund and the seamen insurance fund administered all blue-collar workers and insured self-employed; (ii) the Federal Insurance Fund for Salaried Employees administered white-collar workers; and (iii) the Federal insurance Fund for Miners.
Problem	Financial instability stemming from the imbalance between benefits and	1.Regard to coverage, adequacy of benefits and management 2. Long-term financial stability management.	1.Increasing in the dependency ratio will almost double from 24.0 percent in 2000

	contribution. Lack of coverage for the majority of poor people Difficulty of assessing the incomes of the self-employed	3.Population aging rapidly increasing	to 43.3 percent in 2030
Reform Pension system	*Recent Reform Efforts 1. Sustainable financing, and integration of the NPS and other retirement provisions: - Savings versus redistribution - One reform option is to require new civil servants, teachers and military personnel to join the NPS and gradually phase out the old individual scheme. - Reform planning also considers provisions such as the retirement allowance mandate and voluntary personal plans. 2. Expanding coverage. -Coverage under the NPS expanded to encompass the urban self-employed and small firms. - One option involves strengthening and expanding the safety net(i.e.., a general tax-based means of redistribution)	1. Financial Sustainable: The interim solution of lowering the contribution rate is a temporary measure to help the government keep to its pension implement schedule during and economically depressed period, and the government have to revisiting the task of designing a more sustainable system, taking into consideration the social, labor and financial factors. 2. Administrative autonomy to ensure the security and the effective operation of the SSO, it is necessary to safeguard a certain degree of administrative autonomy. So the SSO be conferred status as an independent government agency, empower with the authority to create and implement proper collection policies. In addition, each individual fund with in the social security system should be set up as a separate legal entity segregate from the budget and governance structure. 3. Administrative capacity the present staff is already taxed beyond its capacities, immediate and extensive technical assistance should be procure. Professionals involved with pension reform should be given the necessary assistance	1.Year1992 reform was the introduction of “ actuarial” adjustments to benefits to retirement age and increasing in the “normal” retirement age for all pension types, except disability pension(age 63), to 65. 2. Year 1999 reform was supposed to lower the replacement rate according to a pre-specified so-called “demographic factor”, a function of life expectancy plus several correction factors. 3. The Reiester reform in 2001. The reform aimed to achieve three main objectives -.Sustainable contribution rates: (a) to limit further increases in non-wage labor costs and (b) to achieve a fairer balance of intergenerational burdens. - Secure the long-term stability of pension level * Reducing from the current level of 70

	3. Stimulating the growth of financial markets. -As demonstrated by financial projections, a high contribution rate would be necessary to sustain it - Increase in forced saving through the NPS scheme could crowd out private savings in turn affecting the marketability of pension and insurance products and, by extension, capital markets development. - If the NPS's significant reserves were directed towards market-based securities, they would stimulate to financial markets	and training in actuarial methods, computerization, informatics, quality control, as well as other areas essential to the successful operation of a modern social security system. 4.Investment management: To ensure optimal performance of the Social Security fund, it is essential develop investment policies designed to maximize return in a well diversified portfolio, properly manage through competitive building the Government Pension Fund has successfully contracted out part of its investment function, and also need to set up policies for investing accumulated social security reserves.	percent of average net earnings to round 67-68 percent by the year 2030. - Spread of supplementary private pension saving: supplementary pensions are subsidized, either by tax deferral and tax deduction, or by direct subsidies to individual and occupational plans. 4. Year 2003 reform proposal, it comprises two major elements plus several accompanying measures. - The first main element is a gradual increase of the normal retirement age from 65 to 67 years - The second a modification of the pension benefit indexation formula linking benefits to the system dependency ratio. 5. The 2004 Reform: Most of the Rürup proposals, and most significantly the introduction of the sustainability factor, were passed by the German parliament on March 31, 2004. The shift in the retirement age, was not legislated

IV. Reforming the pension scheme in Lao PDR

4.1. Reform Proposal in 2003

The reforming of the social security or pension system of the public sector has been discussion for several years. A reform proposal was prepared in 2003 and 2004 by the Department of Social Security (DSS), Ministry of Labour and Social Welfare, with technical support provided by the ILO project. The main objectives of the planned reform are:

- ✓ To establish a financially sustainable social insurance scheme for civil servants and to improve financial government of the social security fund for civil servants.
- ✓ To improve benefits structure, in particular to benefit provision s for health care, maternity, invalidity, and survivor benefits.
- ✓ To bring the benefit provision of the scheme in line with those of the social security scheme for private sector workers, in light of a possible merger of the two scheme in the future.

Current reform plans foresee the establishment of a separate fund for social security of civil servants. According to the decree, the new fund referred to as the Civil Service Social Security Fund(CSSSF) will have the features of a social insurance fund with regular contributions to be paid by the government (as employer) and insured persons, based on insurable earnings. The contribution rate necessary to cover benefits expenditure and administration cost is to be set through regular actuarial valuations. Any surplus is put into a reserve which is invested to yield additional income. The state is the ultimate guarantor of the solvency of the fund. The fund shall furthermore be divided in four separate sub-fund or accounts which shall comprise a Medical Benefit Account, a Short-term Benefit Account, a Pension Account and Employment Injury Benefit Account.

The proposed reform foresees a change in the benefit formula for age pension so that the amount of pension received will depend on the number of service years, the accrual rate, and the reference wage of the retiring official[3].

The reference wage will be based on the average salary received furring the previous 5 years before retirement. The accrual rate has been proposed as 2%p.a. According to the decree, the minimum pension amount provided should be equal to the basic minimum wage for state employees.

Pension amount = Nr of service years x Accrual rate x Reference wage.

Under the reform plans, it is foreseen to grant disability pensions to insured who become disabled. The level of disability pensions is similar to the one for retirement pensions. If disability occurs before age 55, the remaining years until age 55 are taken into account for calculation of the pension.

Reform plan foresee the introduction of widow/er pensions as a replacement for the grants paid currently to survivors of insured members and pensioners. The proposed level of widow/er pensions is 60 percent of the age pension amount for deceased pensioners or 60 percent of the assumed disability pension in case death occurs before retirement. The level of orphans’ pensions in the draft decree is set to 20 per cent of the same reference amount than for widow/ers.

Table 6: Project cost of social security benefits for Civil Servants, old law

actual		Projected					In % of total wage			
Old law (decree178)	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Health care (1)	1.5%	1.3%	1.2%	1.2%	1.2%	1.2%	1.3%	1.3%	1.3%	1.3%
Maternity benefits	0.05%	0.04%	0.05%	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%
Funeral grant	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Child allowances	0.8%	0.6%	0.7%	0.7%	0.8%	0.8%	0.9%	0.9%	1.0%	1.0%
Long-tem benefits (2)	7.6%	9.0%	9.6%	10.1%	10.6%	11.1%	11.8%	12.1%	12.7%	13.3%
Sub-total	**10.4%**	**11.5%**	**12.1%**	**12.7%**	**13.3%**	**13.8%**	**14.4%**	**15.0%**	**15.6%**	**16.3%**
War invalidity pensions	2.2%	2.6%	2.8%	3.0%	3.1%	3.3%	3.4%	3.5%	3.5%	3.6%
Total PAYG cost rate	**12.6%**	**14.2%**	**14.9%**	**15.7%**	**16.4%**	**17.1%**	**17.7%**	**18.4%**	**19.1%**	**19.9%**
Contributions (3)	4.7%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Government liability	8.0%	9.2%	9.9%	10.7%	11.4%	12.1%	12.7%	13.4%	14.1%	14.9%

Note: (1) including artificial limbs

(2) including retirement, disability, and orphans pensions, and survivor grants

(3) 6% of basic salaries expressed here in terms of estimated total wages.

It can be observed that over the period 2003-2012 the projected total PAYG cost ratio of all benefits is expected to increase from about 12.6% to about 20% of total insurable earnings. Long-term project show that the cost of pension benefits will gradually increase to about 48 per cent of total wages in the year 2099.

4.2.Reform Process

In order to avoid the future financial deficit and shift the current PAYG

pension system to a funded scheme, partial on the status of the system, the government reformed social security to created to Social Security Fund (SSF) and processed in 2008 have seen to major pension reforms such as: (i) increasing the contribution is 8 percent of the total wage, and the employers' contribution is 8.5 percent of payroll; (ii) increased pension age from 50 years for women, 55 for men to 60 for men and women. 60 years pension age for the employees who started work in post-1976. After reform the SSF, it is not easy to implementation pension fund, thanks to the Social Security Fund is not strongly yet. Cause of to fail after reforming such as:

- ✓ **The Government's supporting**: The budget from Government has to support to the Social Security Fund 8.5 percent but in fact the government's supporting insufficient into the Social Security Fund. Because of, the government provides re-retirement to veterans; they did not contribute to the pension fund. All of them the government has to burden 100 percent. So, some benefits inadequate to provide from social security fund (e.g. war invalidity benefits and re-retirement pensioners benefits)
- ✓ **Large contingent liabilities in the public sector scheme**: some of the civil servants and armed forces personnel receive very high replacement rates 100 percent for the pensioners. The government pays for the unfunded portion from its revenue. Moreover, some of the pension benefits, such as the health benefits, are in the form of services to be provided rather than monetary at a faster rate than overall inflation. Furthermore, the high import dependence of Laos's health care system is likely to significantly increase the budgetary burden of fulfilling health care obligations due to sharp depreciation of currency.
- ✓ **Administration capacity**: The Social Security Fund implemented in 2008, it is very young system for the Social Security System in public sector. In view

of the fact that the present staff lack of experience, technical assistance, actuarial methods, computerization, information, and quality.

- ✓ **Investment performance**: The social security system did not implement investment performance, thanks to the financial inefficient. In other side, the lack of a clear governance structure regarding fund management, and the case in Lao PDR the system is very young, which mean there will initially be large accumulation of contributions. Furthermore, the limited supply of quality is a major obstacle for efficient asset allocation to achieve of optimum balance capital growth and preservation of capital. In other hand, the lack of broad range of quality instruments due to relatively small and immature financial and capital markets in developing countries markets it difficult especially for large funds to achieve efficient diversification. Table 7 below show the revenues and expenditures after reforming the social security system.

Table 7: Revenues and Expenditures (in billion Kip)

Fiscal year:	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**
1. Total Revenue	**267,824**	**320,089**	**340,325**	**329,842**
1.1.B/L from previous year	46,851	101,142	114,649	69,177
1.2.Government Contribution	152,202	111,756	88,554	145,840
1.3. Civil Servant Contribution (8%)	68,770	106,912	132,526	109,338
1.4. Contribution from pensioners (2%)	0	271,833	2,083	3,859
1.5.Other	0	5,600	2,510	1,627
2. Total Expenditure	**166,681**	**205,439**	**271,147**	**283,427**
2.1. Health Insurance	**18,164**	**16,945**	**21,647**	**21,737**
- Fee for service	16,698	13,389	14,584	10,775
- Capitation	0	2,228	6,955	10,906
- Optical	1,465	1,327	108,364	75,658
2.2.Short term benefit	**18,663**	**24,896**	**42,873**	**41,812**

- Maternity Benefit	540,877	632,824	927,270	832,698
- Death Allowance	18,122	24,263	39,728	37,607
- Lump Sum Benefit	0	0	2,218	3,372
2.3.Long-tem benefit	**129,849**	**161,949**	**201,274**	**216,584**
- Retirement Pension	89,401	119,689	147,425	185,717
- Disability Allowance	30,248	31,016	42,981	48,492
- Orphan Allowance	10,199			
- Child Pension Allowance	0	3,253	2,964	2,592
- Parents Care Survivors'			4,860	14,760
- Widowhood			209,532	52,095
- Mental Disability				29,641
- Administrative Costs and Other Expenditure	3,553	1,647	5,351	3,262
Total Balance:	**101,142**	**114,649**	**69,177**	**46,414**

Source: State Authority of Social Security

4.3.<u>Concept and Methodology</u>

- .**<u>Concept.</u>**

In order to ensure the financial sustainability of pension scheme over the long-term, its financial situation should be reviewed on a regular basis through actuarial valuations. The main purpose of an actual valuation is to assess the long-term financial situation of the scheme and determine appropriate contribution rates. The financial situation of the fund has been assessed both for the current law and the proposed reform plan. In case scheme reforms are being considered, an actuarial valuation can be help to assess alternative reform option and to provide policy makers with information about their financial implication s. An actuarial valuation thus creates a rational basis, enabling policy makers to ensure a sound financial governance of the scheme.

As the future financial situation of the pension scheme depends on many variables, it is relevant to make use of a quantitative model that takes into account the main parameters. Once a model has been established, it is possible to assess the financial situation of the scheme under different parametric assumptions. The main variables of relevance are: the population, labor force, the future state of the economy, the level of prices and wages. Moreover, the government should support 8.5 percent into the social security fund as soon as.

The future value of most parameters, in particular those relating to the future state of the economy (GDP growth, wages, prices, investment return, etc.) cannot be predicted accuracy due to their inherent uncertainty. The objective of an actuation valuation is therefore to produce a best estimate of the future situation based on historical data, and on coherent and realistic assumptions pertaining to the future.

- **<u>Methodology.</u>**

  In order to assess the future financial situation of the pension scheme, we need to project yearly income and expenditure over the projection period. Based on the resulting annual balances, it is possible to assess the future evolution of the reserve and the future solvency of the scheme.

The projection of expenditure and insurable earnings are of particular relevance as they enable the calculation of the future pay-as-you-go (PAYG) cost rate of the scheme. The PAYG cost rate of a benefit branch for the given year representative the contribution rate that has to be charged during that year to cover the expenditure of the branch, assuming no interest and other income.

Scheme income consists of contribution income, investment income (interest), and other income)e.g. fines for delayed contribution payments). Contribution income is projected multiplying projected insurable earning with the appropriate future contribution rate. Investment income is calculated from the reserve at the beginning of a year, the cash flow during the year, and the assumed future rate of the return on investment.

Total expenditure is projected by projecting benefit expenditure, administrative expenditure, and other expenditure separately. Administration and other cost are projected bases on their assumed relative level compared to contribution income or to total expenditure.

- **Financing of the short-term**

The benefits paid under health care, short-term, and employment injury branches are of short-term nature i.e. the payments relating to single claim are usually not paid over longer period of time (except for pensions paid for permanent invalidity following an employment injury).

Short-term benefits are generally financed with the pay-as-you-go system. Under this system, the contribution rate of particular branch is assess year-by-year basis in such a way that the contribution income over a given year is sufficient to meet the total expenditure expected for branch in the same year. In practice, the contribution rate is generally set slightly higher than the expected PAYG cost. The purpose of the additional margin is to build up a small contingency in order to ensure liquidity in case of unexpected fluctuations in income or expenditure is generally considered sufficient.

❖ **Financing of long-term benefits**

Long-term benefits consist mostly of pension payable for life. Due to the accumulation effect of pensions, expenditure is generally quite low during the initial years of a scheme. Benefit expenditure rises gradually with increasing maturity of the scheme. A scheme is considered fully mature when the first generation of pensioner has deceased. It can take up to 80 years before a pension scheme is fully mature.

In order to prepare for the expected increase in expenditure, it is relevant to built up a technical reserve for benefit payments in the future. It is also relevant to somehow level out the burden of pension payments between the current and the future generations of contributions.

Apart from the PAYG system, two other financing systems are widely used for the financing of defined-benefit pension scheme the level premium or General Average premium and the scaled premium system.

Under the level of premium system, a fixed contribution rate is calculated such that the scheme can be maintained over a long time period(e.g. 50 or 100 years) without raising the contribution rate. The fixed contribution rate is called General Average Premium (GAP); it is given by the ratio of the present value of total expenditure to the present value of the total insurable earnings over the chosen time period. In the early stages of implementation of the scheme, the GAP is usually much higher than the PAYG cost rate of the scheme. As a consequence, a considerable amount of reserves are accumulated during that phase in the early stages of implementation of the scheme. The end result is that a substantial amount of reserves are accumulated as contribution income is not sufficient to cover all benefit payment.

The scaled premium system is an intermediate approach between the PAYG system and the level premium system. Under this system, the contribution rate is fixed such that over the determined period of equilibrium (e.g. 10 or 20years), contribution and investment income is sufficient to meet total expenditure, general with the constraint that the reserve does not decrease. As scale premium system assures the stability of the contribution rate an extended period of time, and allows controlling the accumulation of reserves.

4.4. Policy Recommendation

- **Reform Direction**

The old-age pension insurance scheme is the first formal public retirement protection system in Lao PDR, National Social Protection mechanisms redistribute between 5-35 percent of GDP depending on a country's stage of development. Strong institutional arrangements are needed to ensure the social protection programmes are effective. The government will need to determine whether it will continue to use targeted mechanism and attempt to link individual programmes for comprehensive coverage. However, in the long run the system may not be fiscally sustainable depending not only on the government's ability to levy taxes, but also government have to provide appropriate policy for pension system. Furthermore, as an employment-related pension scheme, it faces certain limitations. But to improve the system, the government should focus on the following issues:

- **Financial sustainable:** The Civil Service Social Security Fund (CSSSF) should be combination of fully funded and PAYG scheme, to consist of 3 type of separate funds for Current Pensioners and Beneficiaries, Present Civil Servants, and Future Civil Servants.

  To finance the pensions of current pensioners and dependents, Fund I should be set up and funded annually on a pay-as-you-go scheme by government from the

State Budget. This Fund is only necessary as a transition provision until all such present beneficiaries have passed away. The government is now providing top-up funds with civil servants sharing in the funding.

In addition, government will also pay an additional amount to finance the past service liable of present civil servants, which represents the amount they had contributed but had been spent for the pension benefits of the past and current pensioners. This is to be called Fund II, and maybe amortized by a fixed amount by government over a period of 10 to 20 years. Government may also fund this by disbursing the appropriate amount wherever anyone in this group retires or joints the group of pensioners. Government's liability to finance Funds I and II will diminish in time and what will remain in the future is Fund III, which will generate a pool of reserves to be invested and whose earnings will form part of the funds.

In the recommended funding scheme, the Current Pensioners and Beneficiaries will be funded on a PAYG scheme, Present Civil Servants will be partially funded and move toward full funding, while Future Civil Servant will be fully funded.

- **Civil Servants social Security Fund (CSSSF) should separate 5 accounts and independent from each other, should have their own separate financial statements. In addition, there also should be a Consolidate Financial Statement.** The 6 sets of Income Statements and Balance Sheets are (i) consolidated, (ii) Health Insurance, (iii) short-term benefits, (iv) Long-term benefits, (v) work injury and occupational diseases, and (vi) administrative expenses fund.

CSSSF should separate 5 accounts by actually maintaining 5 separate bank accounts. All contributions retirement to accredited bank would go to a CSSSF Main Current Account. The CSSSF will then advise the bank as to how much would be moved to reach of the 5 separate current accounts of Health Insurance, Short-term Benefits, Work Injury, Occupational Diseases, Long-term Benefits, and Administrative Expenses Fund. From these current accounts will be drawn the benefits payments or expenses as in the case of Administrative Expenses Fund. The balances of these current funds may be controlled by transferring funds to separate daily saving accounts that pay an interest rate better than that offered for current accounts. CSSSF may also withdraw funds from these current accounts for investment elsewhere.

- ❖ **Administrative capacity**: The Social Security fund reformed and implemented in 2006. However, with the regulation of the pension insurance and allowance scheme in the social security scheme, the workload of the Social Security in Public Sector will experience an exponential increase. In view of the fact that the present staff is already taxed beyond its capabilities, immediate and extensive technical assistance should be procured. It is critical that professionals involved with pension reform be given the necessary assistance and training in actuarial methods, computerization, informatics, quality control, as well as other area essential to the successful operation of a modern social security system.
- ❖ **Investment management**: Although reserves are currently low, their investment will produce important revenue for the system, implying the Social Security System need to prepare appropriately for this function. To ensure optimal performance of the Social Security fund, it is essential to develop investment

policies designed to maximize return in a well diversified portfolio, properly manage risk, and engage the expertise of world-class fund managers through competitive building—the Government Pension Fund has already contracted out part of it investment function. But there also need to set policies for investment accumulated social security reserves. With the situation economic and the decline in budgetary revenue, the government may be under pressure to utilize the current surplus to finance or subsidize public. To safeguard funds from usage for infrastructure investment and to help meet ever mounting social need, accrued reserves should be managed as separate trust funds, with clearly defined government structures. In principle, partially or fully funded plans have the potential to increase individual saving and capital formation. But this potential can only be realized of pension funds are insulated from government manipulation and channeled through the capital markets where incentive exist to select productive investment on a competitive basis.

- **Increasing the retirement age and establishing consistency between men and women**: The retirement age in Lao PDR is very low, with lower age under early retirement provision, and life expectancy, especially civil servants and militaries started work pre-1975 (women 50 years, men 55 year and reach 20 years of service). Furthermore, Lao PDR is country retirement income provision. The government should consider gradually increase retirement age 50 years to 60 years both women and men and increase to 65 years in 2030.
- **War pensions and invalidity is not a social security contingency in the classical**. It is therefore recommended that war pension and invalids be separated

from the social security scheme. The financial for them should rest with the government and not with the social security fund.

- ❖ **Merging two schemes social security public sector and private sector:** In order to reduce administration cost through economies of scale. However, the two schemes present fundamental differences in benefit provisions, wage levels, and financing. A major issue is the fact that the public sector scheme carries heavy financial liabilities from the past, in particular for pension promises granted in the past, whereas the private sector scheme does not. It would be unfair to burden private sector workers with the past liabilities of the civil servants' scheme. Due to these issues, a merger of two schemes is hardly possible in the near to medium future. Possible merger with the social security of private sector i) needs consensus about equity between two scheme: contribution, benefit provisions, and size, demographic structure and risk structure of the scheme ii) full coordination might be possible after transitional arrangements finalized for the public sector scheme and future alignments iii) administrative coordination worth consideration.

V. Conclusion

This thesis has described the publicly-managed Pay-As-You-Go (PAYG) defined-benefit scheme in Lao People's Democratic Republic, with special emphasis on analyzing its financial sustainability in the context of an aging society in a dynamically efficient economy. The challenges that the prevalent system encounters have been outlined, the most outstanding one being that, the financial viability of the pension fund, though ensured to be sustainable over the short to medium term, is not sustainable beyond that period. Under the prevalent conditions of the status quo, for instance, the long-tem pension benefits cannot be sustained over the long run without a corresponding increase of the contribution rate in the future. Given the prevailing conditions, it is expected that the reserve of the long-term benefit branch will be depleted earliest in 2030. Furthermore, by using actuarial models developed by the International Labor Organization (ILO), the paper finds that the implicit pension debt (IPD) of the scheme is high in comparison with GDP of the year 2000, which is the base year for projections. Socially, a high IPD implies that the burden of maintaining this scheme is borne by the current and future participants. For this reason, the pension scheme in Lao PDR will cause not only financial instability but also inter-generational inequity. It is on the basis of the foregoing that the thesis is advocating for a reform of the pension system in Lao PDR.

As a way of giving direction to the possible reforms of the pension system in Lao PDR, the paper also evaluates pension system reforms in German, Korea and Thailand. The pension systems of these three countries have been in operation for much longer, and all of those have had successful experiences with pension reforms. All the three are faced with a rapidly aging population due to demographic transformation resulting from falling fertility rates and rising life expectancies. Currently, the retirement systems are confronted with a continuous increase of the old-age dependency ratio, eventually pushing the Governments to consider reforming the current pension system.

A number of lessons can be learned from these three countries' experiences with pension system reform. First, an accurate financial projection on the sustainability of the programs involved is a prerequisite for a sound pension system. Second, reasonable approach would be to start with a basic package, and then upgrade the benefit package along with economic growth. In addition, and in the particular case of Germany, the pension system has been reformed from pay-as-you-go system to funded pension system in order to stabilize the contribution rate for the young generation with acceptable replacement rate for the older generation.

In the final analysis, this paper this paper suggests that the current PAYG pension system in Lao PDR be reformed to a fully-funded one. Other considerations include increasing retirement age, solving the implicit pension debt when moving from PAYG to a funded scheme, and the management and regulatory framework of the pension scheme. In addition, the paper suggests some policy recommendations, as well as possible implementation mechanisms, for the policy makers responsible for the pension system reform in Lao PDR.

APENDICE: ABBREVIATIONs

ADB	Asian Development Bank
APA	Additional Pension Amount
APV	Actual Pension Value
Alt	Alternate
BC	base case
BPA	Basic Pension Amount
DSS	International Labor Organization\
CSSSF	Civil Servant Social Security Fund
ILO	International Labour Organization
IR A	Individual Retirement Account
Lao PDR	Lao People Democratic
NPC	National Pension Corporation
NPRB	National Pension Reform Basic
NPS	National Pension Scheme
OAP	Old Age Pension
OECD	organization for Economic Co-operation and Development.
PAYG	Pay-As-You-Go
PF	pension Factor;
PP	Personal Point ;
PSSS	Public Social Security Scheme
SSF	Social Security Fund
SOEs	State-Owner Enterprises
SOP	Special Occupation Pension
SSO	Social Security organization

Bibliography

Axel H, B. Wilke(2005) " *Reforming the German Public Pension System"*.

Kai A.Konrad and G.Wagner " *Reform of Public Pension System in German*"

Holzmann, R; Palacios, R., and Zvinienne, A. (2001). *"Implicit Pension Debt: Issues, Measurement, and Scope in International Perspective"*. Social Protection, Human Development Department, the World Bank.

Niwat Kanjanaphoomin (4004) **"** *Pension Fund, Provident Fund and Social Security System in Thailand*"

Hagemann, R., and Nicolleti, G. (1989). *"Ageing Populations: Economic Effects and Implications for Public Finance"*. Department of Economics and Statistics, the OECD.

Estelle, James. (1998). *"Social Security Reform-Lessons from Other Nations"*. Heritage Foundation.

Bong-min Yang, Ph.D.(2001) " *The National Pension Scheme of the Republic of Korea*" School of Public Health Soul National University.

W http://en.wikipedia.org (2009,2010)" Demographics of Thailand"; "Demographics of Korea", and " Demographics of German"

Ministry of Labor and Social Welfare(2006) *" Reforming Social Security in Public Se*ctor" and Ministry of Labor and Social Welfare(1999) "*Social Security System for Enterprise Employees"*

Padeumphone Sonthany(2006) " *Social Security in Lao P.D.R*" Social Security Organization

World Bank(2010) *" Indicators Lao PDR Population".*

Lao/01/M01/LUX(2002-2007*)"Development of Social Security Phase II".*

Consultation study – social Protection for All the Way Ahead.

Robert Holzmann, Iran W. Mac Arthur and Yvonne Sin(2000) *"Pension System in East Asia and the Pacific: Challenges and Opportunities"*

Wade D. Pfau (2008*) " The Impact of the National Pension Fund on the Suitability of Elderly Pension in Thailand"*

Kenneth Thompson "*Social Protection in Lao PDR"*

Hanam S.Phang(2004) *"The Past and Future of Korean Pension System: A Proposal for a Coordinated Development of the Public-Private Pensions"*

Niwat Kanjanaphoomin(2004) *"Pension Fund, Provident Fund and Social Security System"*

Holzmam, Mac Arthur, and Sin(2000) " *Pension System in East Asia and the Pacific: Challenges and Opportunities"*

Leeber Leebouapao "Report *on Social Protection in the Lao PDR*"

Salditt, Whiteford, and Adema " *Pension Reform in China*"

Byung Hyun Park, DSW "*Social Welfare Policy for the Elderly in Korea: With Emphasis on the Influence of Confucian Culture"*

Riksförsäkringsverket (RFV) "*The Swedish National Pension System*"

Paitonnpong, Chawla, and Akkarakul "*Social Protection in Thailand Current State and Challenges"*

Dorfman, Robert (1999) " *Vietnam Pension Security*"

Yoon, S.M. et al. (1999) "*Policy Recommendations for a Balanced Development for the Public-Private Pension System in Korea (Korean").*