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# The Pension System in Thailand

## Introduction

The Thai pension system was introduced during the reign of King Rama VI through the provision of pensions for government officers. This led to the first enactment of Rattanakosin pension provisions in 1901. The Act was amended in 1951 to increase the amount of pension benefits relative to the final salary before retirement. This amendment created a large financial burden to the government and has led to the situation where the salary of government officers was kept low for a long period of time.

As the proportion of Thailand's population over 60 years old is expected to increase from just 5% in 1950 to around 30% in 2035 (United Nations, 2017), the government fiscal budget to support pensions and old-aged expenses is estimated to reach around THB 478 billion in 2035 rising from just THB 246 billion in 2017 (Thansettakij, 2017). Apart from this demographic shift, the structure of the labour market in Thailand is largely composed of workers in the informal sec-

tor.\*<sup>1</sup> The number of informal workers is around 20.7 million compared to around 16.8 million formal workers (Office of the National Economic and Social Development Board, 2017a). Therefore, the Thai government has been trying to develop and redesign the pension system over the past decades to reduce the financial burden and also to increase the coverage of pension protections to the entire Thai population rather than just focusing on government officers or those that work in the formal sector.

One main mechanism that the Thai government used to reach those goals is the introduction of retirement saving funds. These funds are structured in both defined-benefit (DB) and defined-contribution (DC) formats. There are many types of retirement funds initiated by the government to target different groups in the Thai population. The government expects that this introduction will not only reduce the financial burden but also promote household saving rates and help to develop the capital market.

In order to draw a complete picture of the Thai pension system, this paper will separate and discuss the current pension provisions according to the three-pillar pension system initially introduced by World Bank (1994) in the next section. It will be followed by a discussion of the linkage between the Thai pension system and the development of the capital market. The paper will end with a discussion of the challenges that the Thai government will need to tackle in the next decades.

## Overview of Thailand's Pension System

The Thai pension system is complex in many aspects. Different schemes have different pensionable ages, different funding structures and different levels of risk allocation. This paper will separate the current system into two dimensions, namely the target population of each pension scheme and the three-pillar characteristics defined by the World Bank (Table 1).

The columns represent three different types of workers. This paper distinguishes government employees from other workers in the formal sector because they rely on a completely different pension structure. The first pillar on the vertical axis is the pension schemes that have the main objective of protecting households against falling below the poverty line. The second pillar is an occupational pension system provided by employers. The third pillar is a voluntary system that allows workers to increase their retirement savings and receive some tax benefits. The details of each pension provision are discussed below.

**Table 1: The Thai Pension System**

	Target Population		
	Government officers	Workers in the formal sector	Workers in the informal sector
Pillar I	Old-age allowance		
Pillar II	Old Civil Service Pensions	Section 33 of Social Security Fund	Section 39 and 40 of Social Security Fund
	Government Pension Fund		
Pillar III	Retirement Mutual Fund and pension insurance		
	National Saving Fund		
	Provident Fund		

Source: Author's analysis

**Old-age allowance – Pillar I for all**

The old-age allowance was introduced in 1992. The main objective of this allowance is to provide retirement income to cover workers who could not participate in other kinds of pension schemes provided by the government. This allowance is unfunded and paid directly from the government fiscal budget. The allowance is paid as a lifetime pension to the entire Thai population (except government employees) regardless of their income and wealth. The pensionable age to receive this allowance is 60 years old. The main reason for excluding government employees is the fact that they already receive adequate lifetime pensions from the Old Civil Service Pensions.

Because the old-age allowance is the pension welfare for all, the amount is low, starting at THB 600 per month for retirees aged 60 – 69 years old. The allowance amount is a step-up function according to the age of retirees, and it will rise to THB 1,000 per month for those over 90 years old. The allowance is also subject to inflation adjustment every 5 to 10 years.\*<sup>2</sup>

Even though this allowance is supposed to protect the Thai population against poverty during retirement, the amount of the old-age allowance is still below the official poverty line.\*<sup>3</sup> which is THB 2,686 per person per month (Office of the National Economic and Social Development Board, 2017b).

**Old Civil Service Pensions – Pillar II for government employees**

Old Civil Service Pensions is an unfunded DB pension system. To be eligible to receive a lifetime pension government employees need to have been employed

before 1997 and have tenure of more than 25 years. If the period of employment is between 10 and 25 years, retirees will only receive a lump sum at retirement. The calculation of the lifetime pension and the lump sum is shown in Equations (1) and (2).

$$\text{Pension} = (1/50) \times (\text{Final salary}) \times (\text{Years of employment, rounded up}) \quad - (1)$$

$$\text{Lump sum} = (\text{Final salary}) \times (\text{Years of employment, rounded up}) \quad - (2)$$

Government employees who were employed after 1997 will automatically be enrolled into a new DC fund called Government Pension Fund. However, they still receive lifetime pensions from the Old Civil Service Pensions but at a lower rate. The new formula is based on the average of the final 60-months of salary instead of the final salary. The employment year for the calculation is also adjusted to be the actual year (with decimal) rather than the calendar year. This new formula reduces the amount of the lifetime pension amount by around 10% compared to the old one.

Based on the assumption of 4% annual salary growth rate and 35 years of employment, the amount of pension per month from the new formula is expected to be around 65% of the final salary. This replacement rate is considered adequate to maintain the same standard of living between before and after retirement (Antolin, 2009).

**Government Pension Fund – Pillar II for government employees**

Government Pension Fund (GPF) is a DC pension fund set up by the govern-

ment in 1996. Most people believe that the main reason of setting up this fund was to reduce the financial burden on the government from the Old Civil Service Pensions. However, this is not the case, because when the government changed the formula of the Old Civil Service Pensions, it proposed to fill the gap between the old and the new formula by an additional contribution to the GPF. Actually, the main objective in setting up the fund was to establish some mechanisms to develop the Thai capital market.

Members of the GPF are required to contribute at least 3% of their salary. The maximum contribution rate is set at 15% because the government caps the amount of tax deduction at that rate. Apart from this contribution, the government tops up another 5% which can be separated into 3% as an incentive for savings and 2% as the extra contribution to fill the gap between the new and the old pensions.

Because of those extra contributions, the government initially expected that this new system would provide more benefits to government employees. However, this is not the case in reality since those extra contribution rates are determined based on the assumption that the fund would receive investment returns of around 9% per year.

At the end of 2017, there were 1,028,961 members (GPF, 2017). The fund has five investment policies ranging from a money market fund to a target-date fund. At retirement, retirees can decide whether to keep the amount in the funds and gradually withdraw some portion over time or to take a tax-free lump sum withdrawal all at once. Currently, there is no annuity plan offered to retirees.

**Social Security Fund – Pillar II for workers in the formal sector**

The Social Security Fund (SSF) was established in 1972. The main purpose of this fund is to provide welfare for all formal workers in Thailand. The benefits include pensions, disability benefits, unemployment benefits, maternity benefits, sickness and death benefits. The fund is set up as a funded DB structure which receives contributions from both employers and employees. The Social Security Office under the Ministry of Labour is the main office that manages the fund and deals with claim management.

Enrollment to the fund is compulsory for every worker employed by companies registered in Thailand. Contribution rates for employers and employees are the same, at 5% of the employee's salary.

The government also contributes another 2.75% to the fund.\*<sup>4</sup> However, the maximum salary on which the contribution calculation is based is THB 15,000.

There are three main sections of the Social Security Fund Act that are related to old-aged pensions. Section 33 provides regulation for employees who are currently contributing to the fund. Under this section, pensions will be paid after the age of 55 only to those that have contributed for more than 180 months. The amount of pension is calculated as 20% of the final five-year final salary average. However, the maximum final salary amount for the calculation is only THB 15,000 per month. The accrual rate at 20% will be increased further by 1.5% for each additional year of contribution after the first 180 months, but this accrual rate is capped at 50%. This means that the maximum old-aged pension from Section 33 is equal to THB 7,500 per month. If workers' contribution period is between 12 and 180 months, they will receive a lump sum equal to the total amount of their own contributions plus investment returns during the contribution period.

If workers decide to leave the labour market before the age of 55 and continue contributing to the fund, they will receive pensions based on the calculation under Section 39. This section stipulates that the old-aged pension will be equal to the 20%, which will be increased by 1.5% for additional years of contribution after 180 months, of the maximum salary at THB 4,800 per month.

The other section related to old-aged pensions is Section 40 which allows workers in the informal sector to voluntarily contribute to the fund if they want to receive some welfare benefits. The amount and type of benefits depend on how much they contribute. In order to receive a pension, they need to contribute THB 100 per month for at least 40 months. The government will match the contribution at THB 100 per month. The amount of pension in this option is set at THB 600 per month or more.

Currently, there are around 11.5 million members under Section 33, 1.5 million under Section 39 and 2.6 million under Section 40 (Office of the National Economic and Social Development Board, 2017c). The fund's net asset value (NAV) is now THB 1.7 trillion.

#### **National Saving Fund – Pillar III for anyone except government officers**

National Saving Fund (NSF) was recently introduced in 2011 specifically to promote the savings of workers in the

informal sector and the unemployed. It is a DC fund that will only pay pensions (not a lump sum).

Because the target group of this fund is low-income workers, the government sets the minimum contribution at just THB 50 per year and the maximum at THB 13,200 per year. The main reasons for the cap on contribution come from the fact that the government will need to match contribution, guarantee a minimum return and guarantee to pay pensions for at least 20 years after the pensionable age.

The matching contribution by the government is capped at 600, 960, and THB 1,200 per year depending on the age of members. However, this matching contribution will no longer be paid if members switched employment from the informal sector into the formal sector. The minimum return of the fund is guaranteed at the average deposit rate on 12-month time deposit accounts offered by the Government Savings Bank, Bank for Agriculture and Agricultural Cooperatives and the five biggest commercial banks in Thailand. This guarantee means that the fund will mostly invest in fixed-income securities because there is no incentive for fund managers to create higher returns.

The pensionable age to receive pensions from the fund is 60. The amount of pension per month is calculated as the total savings amount divided by 240 (12 months × 20 years). If pensioners die before age 80, the remaining outstanding amount will be paid to their heirs. In contrast, if pensioners live longer than 80, the government will continue to support payments until they die.

At the end of 2017, there were around 546,012 members of the fund. The value of the fund was THB 3,589 million (NSF, 2017). The government is currently considering raising the cap on the maximum contribution in order to promote savings among the poor. However, this increase might be accompanied by introducing a limit on the maximum amount of lifetime pension guaranteed by the government.

#### **Provident Fund – Pillar III of voluntary occupational pension**

Apart from the mandatory Social Security Fund, employers can voluntarily set up a provident fund (PVD) for their employees. The contributions from both employers and employees are tax deductible. This means that the contribution rate for employees can only be between 2% and 15% of salary. Employers are free

to set their contribution rates, but the rate is also capped at 15%.

Pensionable age of the fund is 55. If members retire or would like to take a lump sum before 55 years old, they will not receive any tax privilege. Currently, the government provides tax benefits through three channels, namely, 1) tax deduction of contributions 2) tax exemption on investment returns and 3) tax exemption on receiving a lump sum at retirement.

Because participation in the fund is on a voluntary basis, the coverage of the provident funds is not high. Based on the data from the Securities and Exchange Commission (SEC), there are currently around 387 funds covering three million employees, but the total number of workers in the formal sector is at 16.8 million.

A provident fund can be set up as a single fund where a company hires a fund management team to solely manage the fund for them or a pooled fund where a fund management company offers existing mutual funds to a company. The single fund is popular for large companies because fund committees have flexibility in selecting the asset classes and the number of investment plans offered to their employees.

Nowadays, fund management companies increasingly provide the flexibility for employees to change asset allocations on a weekly or monthly basis. This is known as a DIY plan. This option is offered in both the single fund and the pooled fund formats.

#### **Retirement Mutual Fund and pension insurance – Pillar III for everyone**

Retirement Mutual Fund (RMF) is a DC fund through which the government provides a tax incentive to promote savings for retirement among Thai households. The amount of savings through the fund can be used as a tax deduction up to the maximum of 15% of annual salary but not more than THB 500,000 per year. Investment returns from the fund and a lump sum payment at retirement are also tax exempt.

The pensionable age to receive a lump sum from RMF is at 55. The contribution rate needs to be at least 3% of annual salary and not less than THB 5,000 per year. Contributions do not need to be paid on a periodic basis. Households can decide to save any time in a calendar year. However, in order to be eligible for tax privilege, the period of investment in the fund needs to be at least five years before retirement.

Even though RMF provides a lot of tax benefits, households tend not to invest much in these funds because there is another competing fund called “Long Term Equity fund (LTF)” which has the same tax benefits but provides more flexibility in terms of investment periods. Investors in LTF only need to invest for a minimum of seven calendar years rather than until retirement as in the case of RMF. Therefore, the growth rate of the total RMF NAV has been just 20% per year over the past 10 years compared to 23% for LTF. The current market size of RMF is THB 254 billion while it is THB 397 billion for LTF (Figure 1).

Apart from RMF, the government also promotes savings for retirement through a pension-related insurance policy. If households buy an insurance product that pay pensions during retirement, the premium paid for that product can be used as a tax deduction for as much as THB 200,000 per year. Moreover, the payment of pensions from that product is also exempt from income tax.

#### The forthcoming mandatory DC fund – Pillar II for workers in the formal sector

Because the establishment of a provident fund is voluntary and not many companies (especially small-and medium-sized companies) provide this fund to their employees, the government is now planning to introduce a new nation-wide DC fund for all workers in the formal sector. If employers do not provide a provident fund, employees will automatically be enrolled into this new fund, called “National Pension Fund (NPF)”. The draft bill on the NPF has yet to pass into law. Many aspects are now under debate, such as the structure of the fund management process, the amount of matching contributions from employers and the minimum contribution rates from employees to the fund.

## Pension System and the Development of Thailand’s Capital Market

As discussed in the previous section, the Thai government has been trying to promote savings for retirement through DC retirement funds. This policy not only aims to increase financial sustainability

but also hopes to develop the Thai capital market.

Based on the data provided by the Association of Investment Management Companies (AIMC), it can be seen that the proportion of households’ own savings compared to other savings channels has been declining from 55% of the total GDP in 1992 to just around 47% in 2017 (Figure 2). This proportion is expected to drop further as new pension schemes and tax incentive programs are introduced in the future. The total value of retirement investments which includes RMF, PVD, GPF and SSF increased from only 1.3% of GDP in 1995 to 22.5% in 2017.

Within retirement investments, the value of SSF stands at THB 1.7 trillion (Figure 3). This accounts for 10.7% of to-

tal household savings and investments. Since SSF is a mandatory system for every worker in the formal sector in Thailand, it is therefore the biggest fund in retirement investments. Nevertheless, over the past 10 years, RMF has the highest growth of NAV at 5.6 times followed by SSF at 2.2 times and PVD at 1.45 times. The drop in the NAV of the GPF in 2015 resulted from the fact that the government allowed government officers to convert their pension provisions from the new to the old system.

There is a lot of concern nowadays about the financial sustainability of SSF. It has been forecast that SSF would become unsustainable from 2045 onwards (Chanduywit et al., 2010). Currently, the Social Security Office and the government are in the process of adjusting the benefit for-

Figure 1: Total NAV of RMF and LTF

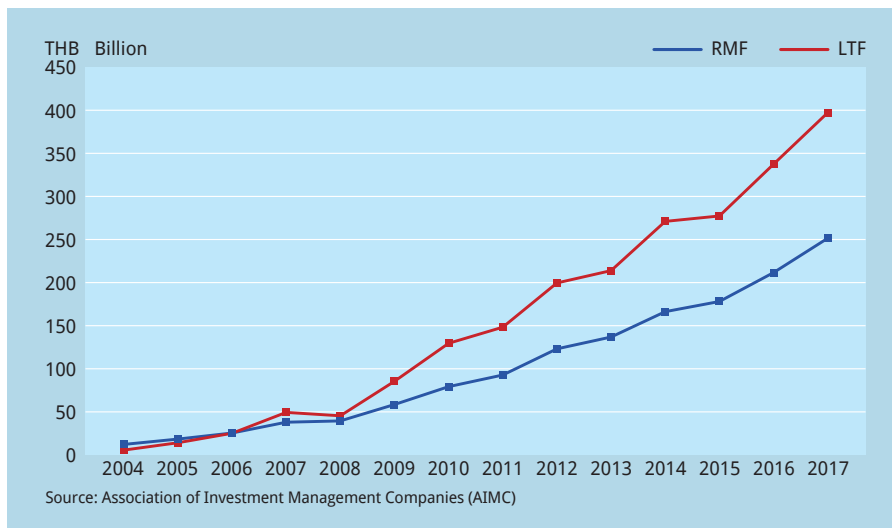


Figure 2: Development of Savings in Thailand

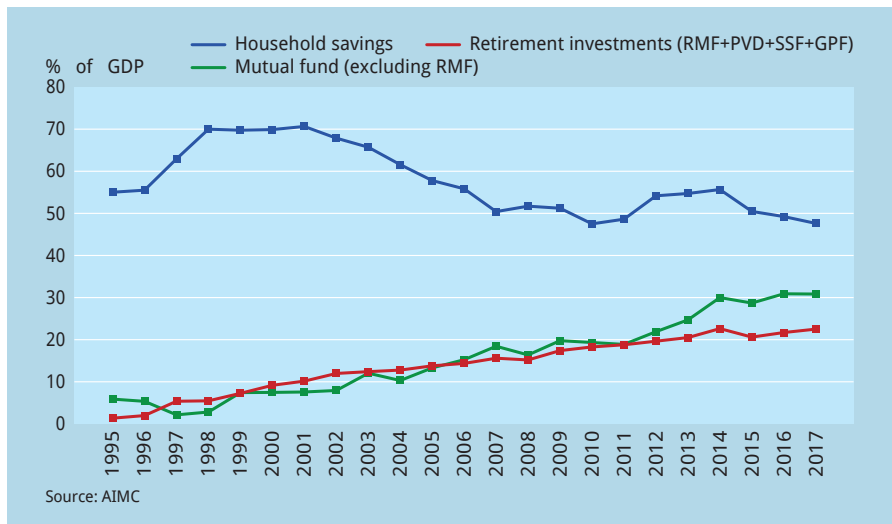
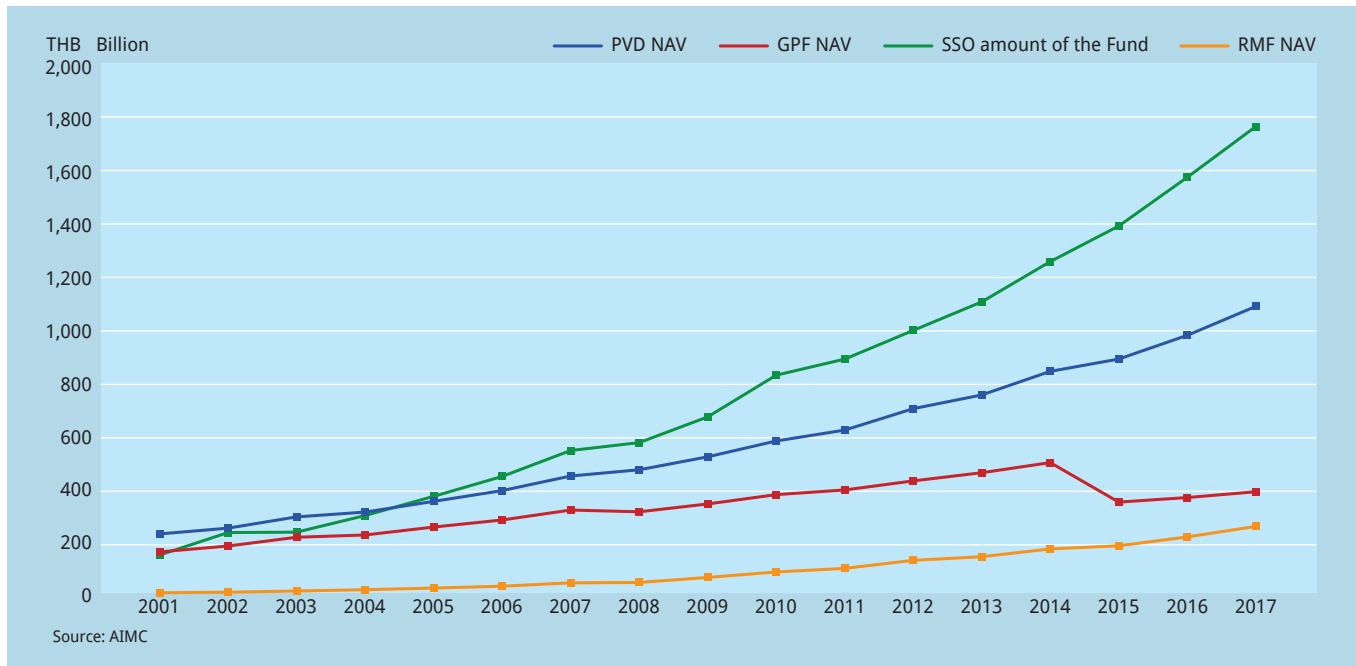




Figure 3: Development of Retirement Investments in Thailand



mula by raising the pensionable age and increasing the cap on salary in the calculation of contributions. However, after two full years of the redesign and hearing process, it has not yet been finalised.

In terms of the investment and asset allocation of these retirement funds, SEC sets quantitative restrictions on investments in certain asset classes. The aim of those restrictions is to limit concentration of risk, exposure to liquidity risk and conflicts of interests. Investment limits for GPF, PVD, SSF and RMF are mainly based on four levels, namely, 1) single entity limit, 2) group limit, 3) product limit and 4) concentration limits. PVD also has an extra limit on investment in securities of the fund's sponsor.

In the past, most investment policies of these funds were largely composed of domestic fixed-income securities. Recently, asset allocations of many retirement funds are increasingly expanding to cover investments in alternative asset classes such as commodities, real estate and private equity. Investments in foreign securities are also attracting more attention. For instance, GPF has increased its investment in alternative asset classes of the SAA plan\*<sup>5</sup> from 8.1% in 2013 to 12.37% in 2017 (GPF, 2013; GPF, 2017). SSF also has a policy to increase investments in alternative asset classes and foreign securities. The investment in those assets increased from just 4% in 2012 to around 8% in 2016 (SSF, 2012; SSF, 2016).

Some of these retirement funds are also used to promote the development of certain areas of the Thai capital market. In the past, SSF and GPF have been the main investors to promote Thai government bonds. Nowadays, the investment of these funds is used for other strategic purposes such as SSF's investment in infrastructure funds in 2015 (TCIJ, 2015) and GPF's special mandate to invest in Thai companies that have high ESG rating in 2018 (The Nation, 2018).

## The Next Challenges and Concluding Remarks

The main challenge of the Thai pension system is related to the coverage and adequacy of pensions for workers in both the formal and informal sectors. With the total number of informal workers at 20.7 million, there are only 4.2 million people who are members of SSF under Section 39 and 40, and 0.5 million who are members of NSF. The coverage rate of provident funds for workers in the formal sector is also low at just 22%, although it has increased from 14% in 2007 based on the

data from AIMC.

A typical worker in the informal sector who decides to make contributions under Section 44 of SSF will receive the maximum of THB 2,400 per month plus THB 600 from the old-age allowance. This is quite low compared to the average THB 8,000 to 9,000 per month spending during retirement surveyed by the National Statistics Office.

As the government is trying to shift from a DB pension structure into a DC fund format, another challenge relates to the financial literacy of Thai households. The implementation of DC funds will be successful only if households acquire a certain level of knowledge about financial risk, return, and the importance of savings for retirement. Without an appropriate level of financial literacy, Thai households will only save at the minimum contribution rate and will only invest in an investment policy that may be too conservative and not appropriate in the context of long-term savings for retirement.

Apart from the plan to set up a new compulsory "National Pension Fund" for formal workers and the plan to increase the value of the old-age allowance for informal workers, many organizations such as the Bank of Thailand, the SEC and the Stock Exchange of Thailand have also been arranging events throughout the year to encourage better awareness of savings for retirement among the Thai population. With a wide range of pension

schemes, a task force to increase financial literacy, and a lower reliance on government financing, the Thai pension system is set for a sustainable path to protect Thai households from poverty and financial difficulty during retirement.

## Notes

- \*1 Workers in the informal sector refers to those that have uncertain income, are self-employed or work in the agricultural sector.
- \*2 In 2018, the government has approved a top-up of THB 100 per month, but this top-up is only offered to population with annual income of less than THB 30,000.
- \*3 Thailand's poverty line is calculated from expenditures incurred by individual in obtaining food and non-food items necessary for living subsistence.
- \*4 The contribution rates that are counted as contributions for old-aged pensions are 3% (employer), 3% (employee) and 1% (the government).
- \*5 SAA stands for Strategic Asset Allocation investment plan which is a default plan for government officers.

## References

Antolin, P. (2009) "Private pensions and the Financial Crisis: How to Ensure Adequate Retirement Income from DC Pension Plans." *OECD Journal: Financial Market Trends*, Vol.2009 (2).

"Budget supporting the old-aged society approaching 500 billion in 20 years," *Thansettakij*, 23 September 2017. Retrieved from <http://www.thansettakij.com/content/210038>

Chandauywit, W., Chitsuchon, S., Na Ranong, V., Phlangprapun, J., and P., Kotnarin. (2010) "Social Welfare Choice in Thailand," Thailand Development Research Institute.

Government Pension Fund. (2013) "Government Pension Fund 2013 Annual Report."

Government Pension Fund. (2017) "Government Pension Fund 2017 Annual Report."

"GPF launches environmentally and socially focused portfolio," *THENATION*, 26 October 2018. Retrieve from <http://www.nationmultimedia.com/detail/business/30357207>

National Savings Fund. (2017) "Current Status of the fund." Retrieved from <http://www.nsf.or.th/index.php/2016-02-10-11-29-25/2016-05-24-08-12-48>

Office of the National Economic and Social Development Board. (2017a) "Number of workers in the formal and informal workers." Retrieved from [http://social.nesdb.go.th/SocialStat/StatReport\\_Final.aspx?reportid=3466&template=1R2C&year type=M&subcatid=8](http://social.nesdb.go.th/SocialStat/StatReport_Final.aspx?reportid=3466&template=1R2C&year type=M&subcatid=8)

Office of the National Economic and Social Development Board. (2017b) "Poverty line in Thailand." Retrieved from [http://social.nesdb.go.th/SocialStat/StatReport\\_Final.aspx?reportid=671&template=2R1C&year type=M&subcatid=60](http://social.nesdb.go.th/SocialStat/StatReport_Final.aspx?reportid=671&template=2R1C&year type=M&subcatid=60)

Office of the National Economic and Social Development Board. (2017c) "Numbers of members in Social Security Fund." Retrieved from [http://social.nesdb.go.th/SocialStat/StatReport\\_Final.aspx?reportid=172&template=1R2C&year type=M&subcatid=46](http://social.nesdb.go.th/SocialStat/StatReport_Final.aspx?reportid=172&template=1R2C&year type=M&subcatid=46)

Social Security Fund. (2012) "Social Security Fund 2012 Annual Report."

Social Security Fund. (2016) "Social Security Fund 2016 Annual Report."

"Thailand's social security fund focuses infrastructure investment," *TCIJ*, 9 March 2015. Retrieve from <https://www.tcijthai.com/news/2015/09/scoop/5437>

United Nation. (2017) "World Population Prospects 2017." Retrieved from <https://population.un.org/wpp/Download/Standard/Population/>

World Bank. (1994) "Averting the old age crisis: policies to protect the old and promote growth - summary (English)." Washington DC: World Bank. Retrieve from <http://documents.worldbank.org/curated/en/649951468344639990/Averting-the-old-age-crisis-policies-to-protect-the-old-and-promote-growth-summary>



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Dr. Roongkiat has expertise in personal finance, capital markets, fund management and bank management. He has earned a number of awards and scholarships including the 2017 CFA Institute Best Paper Award for research about market microstructure and the 2018 SEC Best Paper Award for research on fund management. He also received a research scholarship in microfinance from the National Research Council of Thailand (NRCT) in 2015 and a research scholarship in the risk management of Thailand savings cooperatives from the Thailand Research Fund (TRF) in 2016.