Thailand Social Protection Diagnostic Review

Review of the pension system in Thailand

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Foreword

The Kingdom of Thailand has witnessed significant and positive social and economic progress, making it a regional pioneer in many areas including social protection. As the country continues to develop, it is now faced with significant demographic changes, the ageing of its population being the most visible, but also other transformations in family, social structures and urbanization. As in other countries, these developments require proactive policy changes to ensure that the changing needs of individuals, families and society are addressed within the constraints placed on public finances and private sector contributions to social protection schemes. Not surprisingly, policy options in this regard have become a frequent topic of discussion.

All of this is taking place with the backdrop of important regional megatrends that impact Thailand, including technological progress, natural disasters, climate change, migration, contested political space, and an ever-changing and arguably more precarious labour market.

The pension system is key in providing income security today and in the future, which will be essential in the development of a “silver economy”, reducing inequality and poverty and supporting a fully functioning labour market that promotes decent work. Thailand’s pension system can be considered as one of the best examples in Southeast Asia, particularly due to the high level of coverage provided by the Old Age Allowance and the role of the Social Security Fund schemes under its contributory tier, which provides a solid framework for adequate earnings-related benefits.

Nevertheless, the system also faces important challenges in relation to coverage, adequacy, financial sustainability, fairness and overall consistency. As for every maturing pension system worldwide, the Thai pension system needs to be updated to deal with these new challenges to enable it to continue to play the necessary role in ensuring income security for the elderly.

Addressing these challenges requires the development of a national strategy that sets out the vision for a multi-tier pension system. With this, the role and objectives of each tier are defined and measured as part of a long-term plan. This avoids an approach to reform in which changes are made to individual schemes without a view of the whole picture of provision.

This Report presents an assessment of the current system and provides insights into what this national vision could be. In this regard, the central proposal is to develop a multi-tier system that moves away from fragmented arrangements and towards multi-layered schemes that can better adapt to the changes throughout workers’ lives.

The Report, put together by the ILO, is part of a comprehensive, overarching Social Protection Diagnostic Review undertaken by the United Nations Country Team, within the framework of UN Joint Programme on Social Protection for All in Thailand, led by the ILO, together with UNICEF, IOM and UN Women as well as the Government of Thailand. Thus, the pension proposals in this document form a key and consistent part of a comprehensive review of the social protection system as a whole.

The recent COVID-19 pandemic has reinforced the importance of social protection as a mechanism to deal with the resulting economic and public health crisis and it has shown that countries equipped with inclusive social protection schemes, including pensions, are better positioned to deal with the impacts of crisis, particularly on the most vulnerable, including older people.

Furthermore, guaranteeing old-age income security takes on additional importance when viewed in the light of the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). To guarantee that no older person is left behind, policymakers and decision-makers should consider comprehensive and integrated public pension systems based on the principle of universality. Indeed, the development of an inclusive old-age pension system addresses several issues and has a multiplier effect beyond ending poverty in all its forms (SDG 1). It can support and significantly reinforce gender equality and the empowerment of women (SDG 5) and help to reduce inequality within and among countries (SDG 10).

The UN believes that Thailand has an opportunity to turn these challenges into opportunities by building on the existing strengths of its pension system. In doing so it will be building a more resilient, equitable and sustainable social protection system, including pensions. This is essential to ensure a human-centred recovery.

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Executive summary

Key messages

This report provides an assessment of the coverage, adequacy, financial sustainability and policy consistency of the Thai pension system. Its aim is to provide analysis and recommendations that can contribute to ongoing national policy discussion on pension policy and input into an overarching Social Protection Diagnostic Review (SPDR) that the United Nations (UN) is jointly carrying out with the Government of Thailand. It will be followed by an actuarial valuation that will provide updated projections of the Social Security Office (SSO) fund.

While the Thai pension system has made substantial strides in terms of coverage, it confronts significant issues in terms of adequacy, financial sustainability and policy consistency. A key underlying issue is the architecture of the pension system and the fragmentation of pension schemes across different categories of workers. This architecture does not reflect or accommodate the mobility and dynamism of the Thai labour market and the high levels of non-standard work and self-employment, yet it has a direct impact on the level of benefits individuals will receive at retirement. If these issues are not addressed, they threaten to undermine the effectiveness and financial sustainability of the pension system in the context of rapid population ageing.

The report makes the following recommendations, divided into two strands:

- **Undertake immediate reforms.** These should focus on boosting pension adequacy, building faith in the pension system and supporting households through the economic recovery from COVID-19. In particular:
  - **Increase the value of the Old-Age Allowance (OAA)** to provide a more meaningful pension guarantee and an economic stimulus to support households in recovering from the crisis.
  - **Make parametric adjustments to SSO pensions** to increase pension adequacy and support the fund's sustainability, including by (a) increasing the wage ceiling of the scheme; (b) providing for periodic payments for workers with shorter contribution histories than the current 15-year requirement; and (c) initiating a process to gradually increase the retirement age.
  - **Postpone the roll out of the proposed National Pension Fund** so that it forms part of a more systematic pension reform.
- **Develop a national strategy for pension system reform.** This should provide a vision to guide ongoing adjustments to the pension system in a way that ensures policy consistency. The vision should articulate the function, financing and interaction of pension schemes in Thailand to build towards a coherent multi-tier system that provides adequate and sustainable benefits in line with international social security standards. This report sets out options for a system of complementary tiers that will support workers in Thailand as they move through their careers. The main shape of this system would be as follows:
  - **Tier 0: The pension floor (OAA, complemented by the State Welfare Card (SWC) and Disability Grant).** As part of this tier, the integration of OAA and SSO benefit payments has the potential to support better pension adequacy, system sustainability and payment delivery and to make the system more transparent, fairer and to create positive labour market incentives.
  - **Tier 1: Guaranteed earnings-related benefits (SSO).** This requires making further parametric changes to strengthen the adequacy and sustainability of SSO. The report also outlines options for extending guaranteed and periodic earnings-related pension benefits via a mandatory scheme for non-salaried workers who are currently outside the scope of the SSO article 33 scheme.

- **Tier 2: Harmonized complementary savings (National Savings Fund (NSF)**, National Pension Fund (NPF), Government Pension Fund (GPF) and provident funds). A key task will be to provide a clear, coherent and effective landscape for individuals' savings.

Additional issues to be considered are the greater integration of civil servant pensions into the national pension system; strengthening the enabling environment for pension reform (including other social protection benefits and labour market policies); and developing a long-term strategy for robust financing mechanisms.

Report highlights

The context for the Thai pension system

Demographic and societal changes taking place in Thailand mean there is a growing need to enhance the effectiveness and sustainability of the country's pension system. Thailand is one of the most rapidly ageing countries in the world. While this reflects the fruits of economic and social development, old age is associated with increasing challenges of ill health and disability, which reduce individuals' capacity to earn an income. Demographic change and changing social norms mean that future generations of older people will be less able to rely on their children for support than previous generations, while the expectation that the Government should play a role is growing.

Pension policy can make a positive contribution to the recovery from the COVID-19 crisis towards a more robust and sustainable economic trajectory. The years prior to the pandemic saw a slowing of Thailand's economic growth and – for the first time in many decades – increases in poverty. The COVID-19 crisis has provided a further economic setback for Thailand. Nevertheless, it has also highlighted the important role that social protection plays in protecting people from risks and shocks and enabling robust and sustainable economic development. As part of a comprehensive social protection system, pensions will play a key role in many of the broader tasks that Thailand is faced with, including boosting productivity, formalizing the labour market and reducing poverty and inequality.

An effective pension system needs to be adapted to the structure and dynamism of the Thai labour market. Half of the Thai labour force is found in vulnerable employment and slightly over half in the informal economy. Yet the picture is not static. Many workers frequently move between different forms of employment throughout their working lives. The pension system needs to be designed in a way that accommodates workers across this range of fluid work arrangements, while also contributing to the formalization of the labour market.

Assessment of the current Thai pension system

The current array of pension schemes in place in Thailand has many strengths but also has important weaknesses. This report assesses the Thai pension system in terms of three outcomes: coverage, adequacy and sustainability. The system's policy consistency is also assessed. The assessment is anchored ILO social security standards and principles identified as relevant for the development of pension systems.

Coverage

Thailand has made considerable progress in recent years to build a near-universal pension system. This success rests heavily on the rapid expansion of the near-universal tax-financed OAA scheme since 2008, which covers about four in five older people. The coverage gap consists of retirees from the civil service (who are not eligible) and a small portion of the older population who receive no allowance at all. Over one third of older people also have their income supplemented by the newly introduced SWC.

Coverage of contributory schemes is much lower. The short history of pensions under the SSO – initiated in 1999 – means that to date very few older people receive contributory pensions. About 40 per cent of the employed population actively contribute to the SSO retirement scheme, which promises higher levels of contributory coverage for future generations of older people. There has also been some increase in coverage in the last decade, including via schemes directly targeted at workers in informal economy (the NSF and article 40 of the SSO). However, the majority of the Thai labour force remain in informal employment and do not regularly contribute to a pension scheme.

Adequacy

Despite its high coverage, the benefit level of the OAA is low by both national and international standards and far from providing a minimum pension floor (tier 0). The benefit (between 600 and 1,000 baht (B) per month) falls well below national and international poverty lines and is one of the lowest social pension benefits in the region and the world when compared to average income (at 3 per cent of gross domestic product (GDP) per capita). The lack of indexation also means the benefit has lost about one fifth of its real value since the last increase in 2011. The SWC provides a welcome supplement; however, the low benefit does little to reduce this issue of adequacy and the scheme does not accurately target the poorest older persons.

In principle, the SSO scheme has the potential to provide adequate and predictable earnings-related benefits (tier 1). The SSO pension (article 33) promises to provide a pension of 42.5 per cent of a worker's previous salary after 30 years of contribution,[1] which means it can be considered to comply with the minimum benefit level set out in the ILO Social Security (Minimum Standards) Convention, 1952 (No. 102). Currently, the short history of the scheme means that benefits for those who have retired are much lower, but this will change over time as the scheme matures.

Nevertheless, some important issues will depress the levels of adequacy in future if no action is taken. The most pressing issue is the salary cap for the scheme (B15,000 per month), which has not increased since the launch of the pension scheme in 1999 and is no longer appropriate for the earnings profile of contributors and salaried workers in the Thai labour market. Other important issues contributing to lower adequacy include low retirement ages, the nature of the pension formula and the fact that pension benefits are not indexed to inflation or wages once a member retires.

Savings schemes targeted at informal workers have limited coverage and are likely to provide low benefits in most cases. Despite increases in membership, the SSO article 40 scheme and the NSF still cover only a minority of workers who fall outside the scope of the SSO article 33 scheme. This reflects international experience of the limited success of voluntary schemes in extending coverage. The lump sum benefit provided under article 40 of the SSO will in most cases be small (due to low contributions) and will not provide a predictable level of income security during old age. While the NSF provides a periodic benefit for up to 20 years, it is likely that this will be no more than B600 per month for most members (and will last much less than the full 20 years), given the low level of contributions made to the fund. Another important issue relates to pensions provided under article 39 of the SSO, which means that workers who move from formal enterprises to self-employment during their final working years will receive much reduced benefits.

Lump sum benefits exist across the pension system, which threaten scheme objectives and create disincentives to members. They exist for workers with short contribution histories under the SSO article 33 and civil service pensions and as the standard pay-out under the GPF and article 40 scheme (SSO). The option of receiving a lump sum is also envisaged under the proposed NPF. While lump sum benefits appear to be popular, they provide poor value for money for the individual (for example, compared to pension benefits under SSO) and are commonly depleted during the early years of retirement. This, in turn, contributes to issues of financial sustainability, as this depletion of savings puts further pressure on other forms of support (such as other welfare programmes). The use of lump sums for other purposes such as a source of business investment capital or paying for children's education is also likely to become less appropriate, with future generations less able to rely on their adult children for financial support.

1 Calculated on the basis of the average salary for the last five years.

Sustainability

Overall, pension spending in Thailand is relatively low compared to other countries facing similar demographic transitions. Total expenditure on old-age pensions and other old-age income security programmes in Thailand amounted to 1.9 per cent of GDP in 2019, which is below countries such as China, Mongolia, the Republic of Korea and Viet Nam. Currently, more than two thirds of this expenditure (1.4 per cent of GDP) is allocated to civil servant pensions and close to one quarter (0.4 per cent of GDP) to the OAA. Despite the near-universal coverage of the OAA, the level of expenditure is modest by international standards. SSO pension expenditure remains small given that the scheme only recently began paying pension benefits.

Without action, the financial position of SSO pensions will deteriorate in the coming years. However, pragmatic gradual adjustments can put the scheme on a strong financial footing. The most recent actuarial valuation conducted by the ILO found that gradual but significant increases to the contribution rate and a transition to a higher retirement age would put the scheme on a solid footing beyond the year 2100. These necessary adjustments are in line with reforms of schemes in other middle and high-income countries. However, the current financial situation of the plan requires relatively urgent contribution increases to ensure sustainability and fairness across generations.

The proposed introduction of an NPF would also pose risks for system sustainability. This scheme, once fully implemented, would mandate all employees in enterprises with at least one or more employees[2] to make a contribution of 10 per cent of their salary (plus 10 per cent from the employer). It is unrealistic that this proposed contribution rate (a total of 20 per cent) could coexist with a contribution rate necessary to put the SSO on a sound financial footing (which will likely need to rise to at least 18 per cent over the next 30 years). In this sense the introduction of the NPF would hinder efforts to improve the financial sustainability of the SSO.

Civil service pensions constitute the largest expenditure in the Thai pension system and this is set to increase in the coming decades. Despite reforms in the 1990s and the introduction of the defined-contribution GPF, this benefit provision remains very generous. The majority of civil servant retirement benefits are paid from general government revenue. The IMF projects that by 2060, the cost of this tax-financed scheme will reach 2.4 per cent of GDP, which is significant for a scheme that covers a small share of older persons (currently about 6 per cent).

Policy consistency and harmonization

The compartmentalization of the pension system with respect to different forms of employment is not well adapted to the fluid nature of the Thai labour market. Pension schemes are generally organized according to workers' employment status, which does not recognize the way in which workers move between different forms of employment during their working lives. There is also a tendency for fragmentation within different groups of workers. Examples include SSO article 40 and the NSF, which offer similar schemes for workers outside the scope of the SSO article 33 scheme. The proposed NPF is also set to exist in parallel to the SSO article 33 scheme. The decision to make SSO benefits supplementary to the OAA was a positive step, but the two schemes remain administratively separate.

Fragmentation has negative consequences for adequacy, incentives and financial sustainability. Owing to the lack of portability between schemes, workers with long careers and significant contributions to social security may end up with inadequate benefits. This in turn affects financial sustainability because inadequate benefits from contributory schemes place greater pressure on tax-financed schemes. Fragmentation also undermines efforts to provide a coherent set of incentives to workers that can support processes of formalization.

2 Exceptions apply to (1) government officials and permanent employees of the central Government, provincial governments and local governments; (2) directors, teachers and educational personnel under the legislation on private schools; and (3) other fund members or persons in other pension systems, as prescribed by ministerial regulations.

The way forward

Based on the analysis of the current system, this report outlines a broad vision for a more effective and harmonized multi-tier pension system. Improving effectiveness would build on the strong coverage of the existing system but seek to strengthen pension adequacy in the context of the high levels of informal employment and labour mobility in Thailand. This would involve moving from a system that compartmentalizes workers into different categories to a multi-layered arrangement that follows workers on a range of diverse career paths. Such an approach would seek to set out a more coherent set of incentives for workers and employers, which support the expansion of contributory schemes and at the same time catalyse the transition to the formal economy. An integrated multi-tier system would also create a more efficient and cost-effective pension landscape that enables genuinely adequate income protection in a way that is financially sustainable.

The report outlines a set of broad elements for a way forward. A range of specific options are proposed, although many of them will require more detailed analysis. The key elements of this vision are as follows:

1. **Increase the adequacy of the pension floor, primarily via the OAA.** This will be critical for the current generation of older people and those soon arriving at their old age, who cannot wait for the time needed for the maturation of contributory schemes. There are various scenarios for the design of this floor and the OAA over time, including: the role of the SWC, the potential for a tapered pensions test (reducing benefits for those with other pension income) and adjustments to the age of eligibility for the scheme. A pension floor should be constructed with a vision to ensure that no older person falls below the national poverty line.
2. **Reinforce SSO pensions as the core earnings-related scheme (tier 1) that provides adequate earnings-related benefits in a financially sustainable fashion.** This will require adjustments to parameters in order to strengthen adequacy and sustainability, including contribution rates, the wage ceiling, the benefit formula and the retirement age. Previous actuarial valuations provide a solid foundation for understanding the scope and scale of the reforms necessary, while the forthcoming actuarial valuation of the SSO will provide updated guidance.
3. **Modify existing schemes within SSO to extend guaranteed earnings-related defined benefits (tier 1) to non-waged workers.** Such an approach would seek to provide guaranteed earnings-related benefits to workers, including those in self-employment and small and medium-sized enterprises, via mandatory contributory arrangements. If well designed, this could support efforts to formalize the Thai labour market and provide portability for those moving between different forms of employment. Care should be taken to provide strong incentives for people to contribute and to ensure that the administrative and financing modalities are well adapted to the situation of non-waged workers.
4. **Build a harmonized set of arrangements for complementary savings (tier 2).** This would rest upon the creation of a more robust tier 1 described above. The aim would be to locate existing complementary savings schemes (NSF, GPF, the proposed NPF and private provident funds) within a coherent package. This would seek to provide a clearer landscape for savers, greater portability and better returns on investment. It could involve greater coordination between schemes or the merging of some schemes (or functions within them).
5. **Integrate the OAA and SSO more closely.** This would allow the two benefits to be paid as a single pension payment, which could support two key reforms: (a) the introduction of a pensions test, which could support the financial sustainability of the scheme in the long-term; and (b) replacing lump sums for short contribution histories with pension benefits to be paid along with OAA benefits. Integration could be achieved in different forms.
6. **Consider greater integration of civil servants into the national pension system to support greater financial sustainability, fairness and consistency.** Options would include creating greater portability between the schemes, aligning scheme parameters and/or gradually bringing more government workers into the SSO scheme.

7. **Create an enabling environment for pension reform.** Various initiatives outside the realm of pension policy have important interactions with the pension system and can be considered enablers of successful reform. These fall into two categories:

    - **Policies to accompany increases in pension eligibility ages.** These include: (a) labour market policies that support longer working lives for those who can and wish to work; and (b) strengthening the system of disability benefits (contributory and non-contributory) to support those who face disability before they reach pension eligibility ages.
    - **Services and other initiatives to reduce costs for older persons.** These include solutions for long-term care, access to affordable health care and other relevant subsidies such as for transportation.

To guide this process, the report proposes that a concrete step forward would be to develop a national strategy on pension system reform that articulates a clear vision for the future. Such an approach would involve moving beyond scheme-level discussions to consider the shape of the pension system as a whole, while exploring in more detail specific reform proposals. This would require a process of social dialogue that involves stakeholders across the system (including representation of employers and workers) in order to develop a shared vision of the way forward at the system level. This process would also benefit from consideration of how pensions interact with other elements of the wider social protection system (such as social care services, disability benefits and the SWC). The refinement of a multi-tier system could also inform similar discussions for other life-cycle social protection contingencies (such as family, maternity and disability benefits).

Nevertheless, the report also proposes taking immediate action to reform the pension system in order to urgently increase its effectiveness. This would contribute to increasing the immediate income security of older people, increasing their faith in the pension system and providing a boost to household income that could contribute to the wider recovery from the COVID-19 crisis. Key proposals include (a) increasing the value of the OAA; (2) making parametric adjustments to SSO pensions in order to increase pension adequacy and support the fund's sustainability; and (c) postponing the roll-out of the proposed NPF so that it forms part of a more systematic pension reform.

Abbreviations

ADB	Asian Development Bank
B	baht (monetary unit of Thailand)
GAP	general average premium
GDP	gross domestic product
IES	Informal Employment Survey
ILO	International Labour Organization
IMF	International Monetary Fund
LFS	Labour Force Survey
MSDHS	Ministry of Social Development and Human Security
NESDC	National Economic and Social Development Council
NPF	National Pension Fund
NSF	National Savings Fund
PPP$	purchasing power parity dollars
PAYG	pay-as-you-go
SES	Socio-Economic Survey
OAA	Old-Age Allowance
SSO	Social Security Office
SWC	State Welfare Card
UN	United Nations

1 Introduction

Thailand is set to face unprecedented demographic, social and economic change over the coming decades. An effective pension system will be critical to ensure that all members of Thai society can live with dignity with a secure income in old age, as well as in a way that can be sustained economically, socially and politically.

This report aims to assess the strengths and weaknesses of the Thai pension system in delivering coverage, adequacy, sustainability and policy consistency both now and in the future. In this way, the report seeks to make a contribution to the national debate by taking a whole-system approach rather than focusing on specific schemes in isolation.

The report draws on the wealth of existing literature and analysis, assessing the Thai pension system through the lens of a comprehensive framework rooted in international labour standards and the global evidence base on pension policy and reform. Existing evidence is also supplemented by new analysis, where relevant and feasible, including costing for scenarios presented. The report should nevertheless be considered as a contribution to the wider body of research and analysis being undertaken on the pension system in Thailand. This includes the forthcoming actuarial valuation of the Social Security Office (SSO).

The report seeks to provide an input to the more comprehensive Social Protection Diagnostic Review (SPDR) that the UN is jointly conducting with the Government of Thailand. The ultimate SPDR objective is to generate a set of policy recommendations for a more inclusive, integrated, coherent and sustainable social protection system, including an analysis of the fiscal implications, which are expected to inform the national debate regarding the future of social protection.

The report is structured as follows. Chapter 2 describes key aspects of the socio-economic context in Thailand that are relevant for the analysis of pension policy. Chapter 3 sets out a framework for the analysis of the Thai pension system by assessing the various objectives and functions of pension systems, as well as the role of multi-tier pension systems in addressing these. Chapter 4 analyses the performance of specific schemes within the Thai pension system following this framework. Chapter 5 then summarizes the assessment of the Thai pension system and explores the way forward by setting out priority objectives for the pension system, as well as a range of reform options. Finally, Chapter 6 provides policy recommendations.

2 Socio-economic context in Thailand

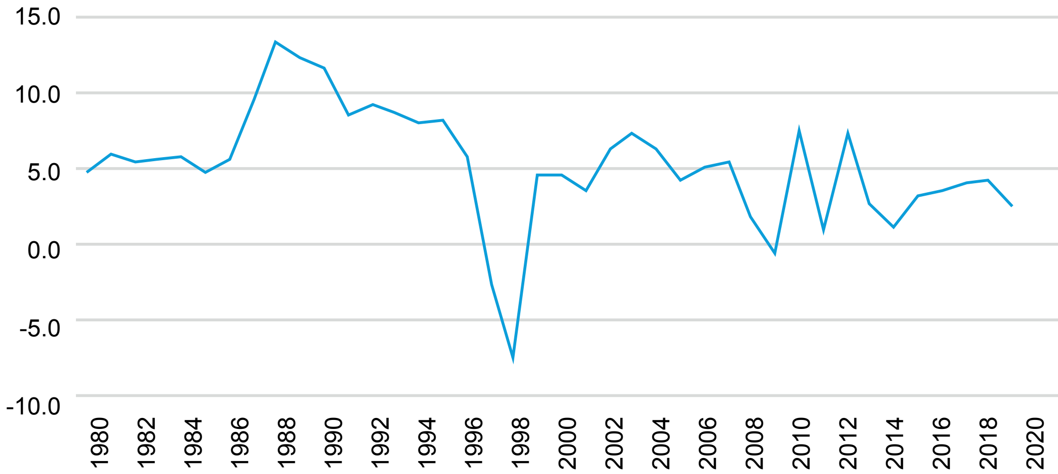
Pension systems are strongly interlinked with the wider national socio-economic context of a country. It is important for pension design and reform to respond to this context, while in turn pensions can directly influence a wide range of social and economic outcomes. This chapter highlights some key features of the Thai socio-economic context that are of particular relevance to the design and functioning of pension systems and that will be revisited in subsequent chapters.

2.1 Socio-economic trends in Thailand

Following many decades of rapid economic development in Thailand, growth slowed in the years prior to the onset of the COVID-19 crisis. Following rapid economic growth in the 1980s and 1990s, growth slowed in the period following the Asian financial crisis and further slowed following the global financial crisis. Thailand's gross domestic product (GDP) growth has been particularly sluggish since late 2018, reaching 2.4 per cent in 2019 on the eve of the arrival of the COVID-19 pandemic (figure 2.1). The drivers of slowing growth are widely discussed and debated, but they include low external and domestic demand, which are linked to structural issues of low investments and slow productivity growth. Low levels of growth provide a significant barrier to Thailand's ambitions to become a high-income country by 2037 (World Bank 2020b).

Recent years have also seen worrying increases in poverty. Thailand's progress in reducing poverty has largely been tied to rapid economic development, with official poverty rates falling from 65 per cent in 1988 to 10 per cent in 2018. However, the slowing growth of the economy in recent years has also seen an uptick in levels of poverty, with increases in 2016 and 2018. This corresponded with a fall in per capita household income from 2015–2017 and a decline in income from the labour market. This has also been accompanied by an increase, since 2016, of the proportion of households reporting that they did not have enough money for shelter or food in the last year (World Bank 2020a). Given the slowing economic growth in 2019, it is possible that this situation has deteriorated further.

Figure 2.1: Real GDP growth (constant prices), historical (1980–2019) and projected (2020–2021)



Source: ADB (2020b), IMF (2020a), World Bank (2020c).

The labour market is characterized by high levels of vulnerable and informal employment. As of 2019, close to half (48 per cent) of the employed population in Thailand was working in what can be classified as "vulnerable employment" (either own-account workers or contributing family workers).[3] An even greater share of the Thai working population (54 per cent) is found in informal employment, without contributory social protection or other workplace entitlements (ILO 2020). These workers are primarily found in agriculture and domestic work, hospitality and construction. Informal employment is highest for contributing family workers[4] and own-account workers (74 per cent), but a significant proportion of employees are also found in informal employment. Vulnerable and informal employment is strongly tied to the structure of the labour market, which is characterized by lower productivity levels in agricultural employment than in other countries of the region (World Bank 2020b). The expansion of manufacturing was strongly tied to Thailand's economic and productivity growth in the 1980s and 1990s, but this trend has slowed in recent years. More broadly, while levels of unemployment have remained relatively static over the last decade, the share of the working age population in the labour force has fallen (from 84 per cent in 2010 to 81 per cent in 2019). This appears to be primarily driven by lower levels of labour force participation among ages 15–24 and 60–64.[5]

The COVID-19 crisis is providing a further setback to Thailand's social and economic development ambitions. Thailand was one of the first countries to be affected by the health, human and economic crisis resulting from the COVID-19 pandemic. The country was a relative success story in containing the spread of the virus during 2020 and in launching unprecedented measures (including social protection) to protect the population from the economic and social impacts. Nevertheless, the crisis is having substantial negative impacts on the economy and labour market, not least due to the effect of the global downturn on Thailand's export-driven economy. It is estimated that the economy contracted between -6.5 and -7.8 per cent of GDP in 2020, with an anticipated (but uncertain) return to GDP growth of between 2.8 and 4.0 per cent in 2021 (table 2.1). ILO analysis has found that more than half of the employed population (21 of 37 million) are in sectors that are expected to experience a significant (medium or large) reduction in economic output as a result of the COVID-19 crisis. The hardest-hit sectors also tend to be those with the highest levels of informal employment (with the exception of agriculture, which is expected to be relatively less affected) (ILO 2020).

Table 2.1: Projected GDP growth, 2020–2021 (%)

	2019	2020	2021
Ministry of Finance (January 2021)	2.4	-6.5	2.8
ADB (December 2020)	2.4	-7.8	4.0
IMF (October 2020)	2.4	-7.2	4.0
World Bank (January 2021)	2.4	-6.5	4.0

Source: ADB (2020a), IMF (2020b), Reuters (2021) and World Bank (2021).

3 ILO calculations based on LFS 2019.

4 Contributing family workers are considered – by definition – as being in informal employment.

5 ILO calculations based on LFS 2010, 2015 and 2019.

2.2 Ageing in Thailand

One of the most important developments Thailand faces in the coming decades is the rapid ageing of its population. A historic fall in fertility rates and gradual increases in life expectancy mean that the population of older people is expected to grow significantly in both relative and absolute terms. According to United Nations (UN) population projections, the share of the Thai population who are aged 60 and over will increase from one in five people today (19 per cent) to one in three by 2040 (33 per cent) and 41 per cent by the year 2080 (figure 2.2). Presented in a different way, figure 2.3 shows that the old-age dependency ratio (the ratio of persons aged 65–100 to persons aged 15–64) is expected to rise from 18 in 2020 to about 50 by the middle of the century and 66 by 2080. This trend is fundamentally a positive reflection of social and economic development and, while Thailand is one of the fastest-ageing countries, it is a process that many countries are undergoing. Nevertheless, it creates real challenges for old-age income security, including the role of pension systems.

Figure 2.2: Population by age group, 2020–2080

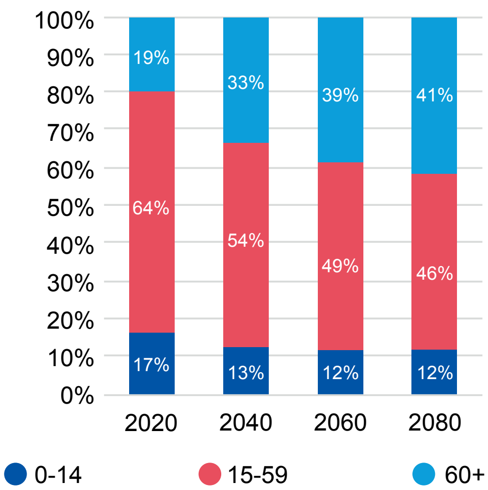
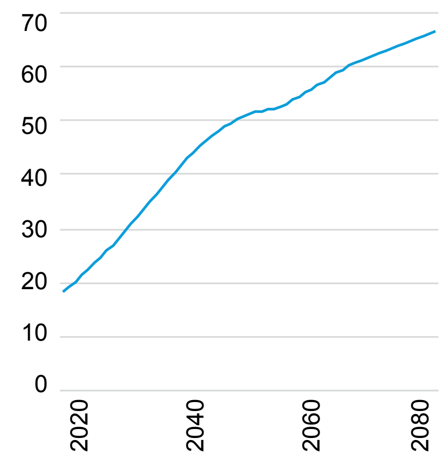


Figure 2.3: Old-age dependency ratio, 2020–2080



Source: UN Population Division (2019).

Old age is associated with significant health and disability-related issues, which make it more difficult for individuals to earn an income. Figure 2.4 gives an indication of the health issues faced by older people in Thailand by presenting indicators on levels of disability by sub-age group. Functional limitations[6] relate to difficulties in physical movement, while difficulties with the activities of daily living (ADLs)[7] relate to basic self-care tasks. Functional limitations are much more prevalent and affect the majority of older people in their mid-70s and older. Levels of ADL difficulties are lower but rise sharply for those aged 80 and over, indicating that a larger share of older people require care at more advanced ages.

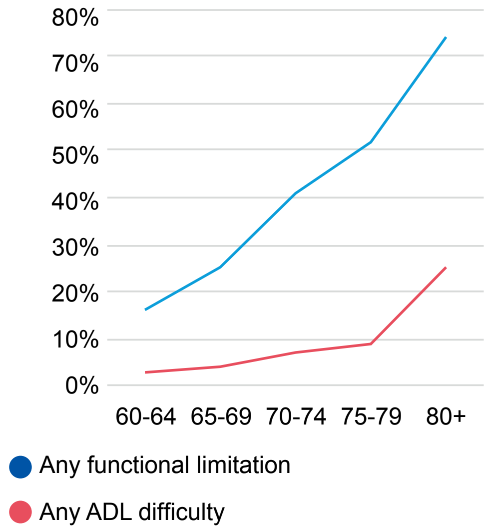
While about two in five older people still earn income from work, the proportion is much lower at more advanced ages. Data from the Thai Labour Force Survey (LFS) indicates that 35 per cent of older people were in employment in 2019 (figure 2.5). The share is significantly higher for men (51 per cent) than women (28 per cent). While this shows that many older people remain active in the labour force, the levels of employment vary significantly by sub-age group of older persons (figure 2.6). At age 60 to 69, the majority of men (66 per cent) and a large share of women (45 per cent) are in employment, yet this reduces sharply to 31 per cent

6 Functional limitations measured are: lifting 5 kg; squatting; walking 200–300 m; and climbing two or three stairs.

7 ADL difficulties measured are: getting up from lying down; using the toilet; bathing; dressing; washing face/brushing teeth; putting on shoes; grooming self; and eating.

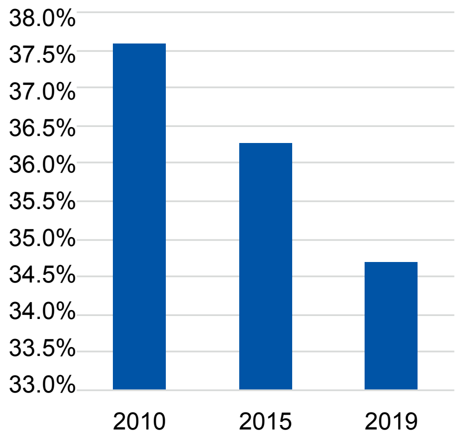
of men and 16 per cent of women aged 70 to 74. This suggests that challenges to earning a living increase substantially as individuals age, a trend which is linked strongly to levels of ill health and disability. There are also signs that levels of employment among older people have fallen slightly in recent years (figure 2.5).

Figure 2.4: Proportion of older people with functional limitations and ADL difficulties, by five-year age group



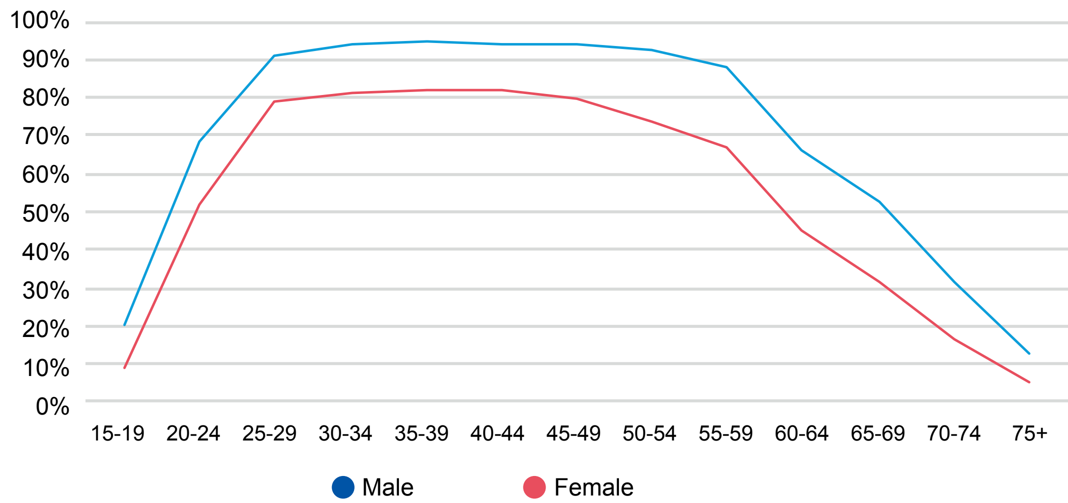
Source: Teerawichitchainan et al. (2019)

Figure 2.5: Proportion of older persons (60+) in employment, 2010–2019



Source: ILO calculations based on LFSs 2010, 2015 and 2019.

Figure 2.6: Proportion of population in employment by 5-year age group, 2019



Source: ILO calculations based on LFS 2019.

Those who continue to work into old age are also found in more vulnerable and more poorly remunerated employment. Figure 2.7 shows that the employment status of workers in Thailand varies significantly according to their age. Most workers of younger ages are employees, while the majority of those at more advanced ages are own-account workers. The sector of employment also varies significantly by age, with older workers significantly more likely to be in agriculture than younger workers, mostly found in services and industry (figure 2.8). This indicates that the kind of work older people are engaged in is less secure, with lower and less predictable incomes. Indeed, the analysis of average wages for employees shows a sharp fall from the age of 60, suggesting that those who remain in employment are those with lower incomes.

Figure 2.7: Proportion of population in employment by status in employment and 5-year age group, 2019

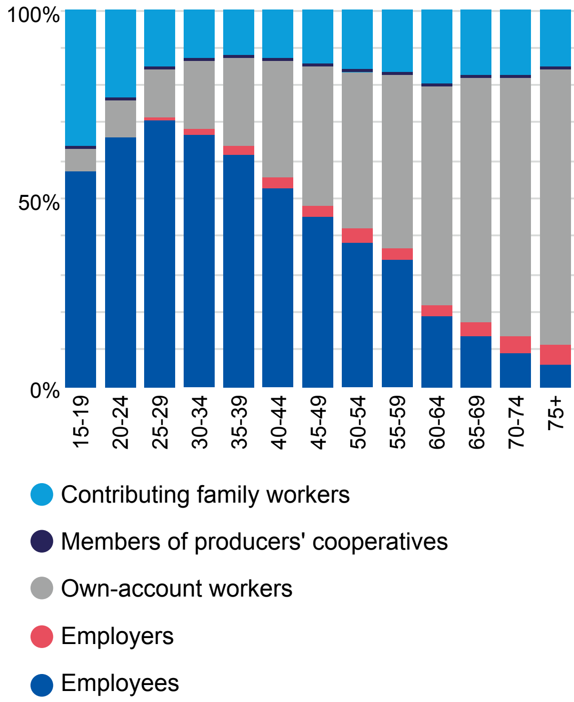
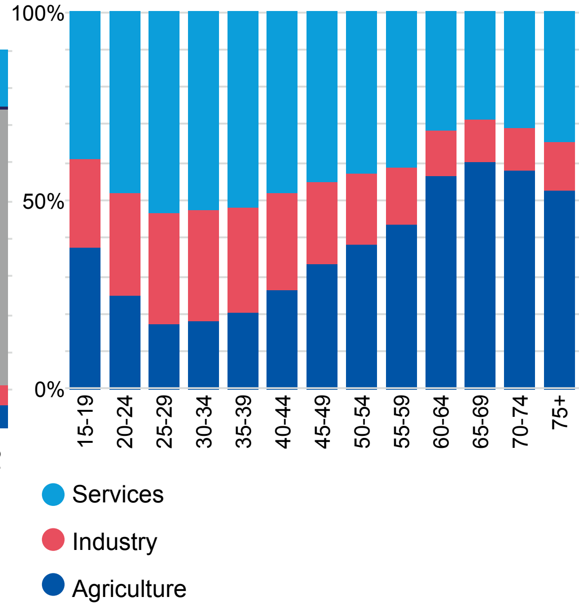


Figure 2.8: Economic activity by 5-year age group, 2019



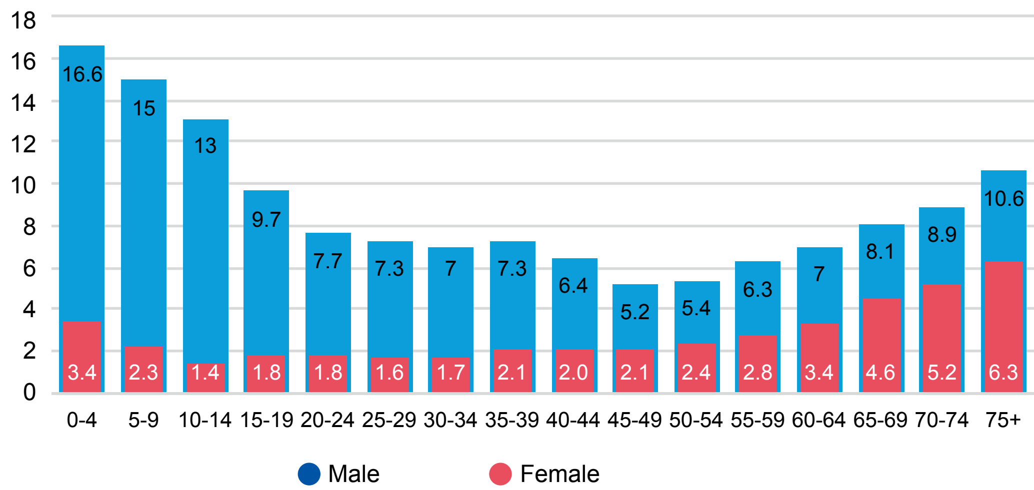
Source: ILO calculations based on LFS 2019.

Currently, most older people in Thailand receive some financial support from family networks, but there are signs that this is already beginning to change. As of 2017, more than half (51 per cent) of older people aged 60 and over lived with at least one adult child and about three quarters had a child living in the same village. Meanwhile, four in five (79 per cent) received some form of income from their children. However, this situation is rapidly changing. While older people aged 80 and over have an average of 4.1 children, those aged 50 to 54 – who are rapidly approaching old age – have an average of just 1.9 children. The 51 per cent of older persons now living with an adult child is already a significant reduction from the 71 per cent who lived with an adult child in 1995. Urbanization has consequences for these dynamics. Currently, the levels of financial and assistive support provided to older people are similar between urban and rural areas; however, this is expected to change. Childlessness is becoming increasingly common among the urban population, with 17 per cent of urban residents aged 50–59 expected to age without children (Teerawichitchainan et al. 2019).

Gender has a significant impact on the way in which older people secure an income in old age. The lower levels of employment among older women means that they are less likely to have income from work, while the significant periods that many women have spent outside the labour market mean that they are less likely to have accumulated savings or pension entitlements. The nature of old-age family support is also highly gendered. Close to half of older women (42 per cent) are widowed, compared to just 14 per cent of older men, meaning that more older women need to look to other family members for support, where needed. As a result, women are significantly more likely to report children as their main source of income (41 per cent) than men (28 per cent). Finally, on average women live longer than men, meaning that they make up a significant majority of those at more advanced ages, face higher levels of disability and poverty and are more likely to have to depend on family members.

The challenges faced by older persons contribute to elevated levels of poverty in old age. While poverty rates in Thailand are highest among children, they are found to be higher than average in older age groups, in particular those of more advanced ages (figure 2.9). On a positive note, there has been a fall in levels of old-age poverty from the much higher levels reported a decade ago. As discussed later in the report, this is largely due to the role of the Old-Age Allowance (OAA) and other social protection measures (World Bank 2012). Nevertheless, certain risks still disproportionately confront older people. In addition to the poverty rate, figure 2.9 shows the proportion of individuals by age group experiencing catastrophic health expenditure, where health expenditure is greater than 20 per cent of total household expenditure. While levels of catastrophic health expenditure are relatively low in Thailand, they are more elevated at older ages.

Figure 2.9: Poverty rate and catastrophic health expenditure by age group, 2019



Source: SES 2019, from analysis undertaken as part of the Thailand SPDR .

2.3 Pensions and social protection within Thailand's development planning

Thailand has recognized the challenges faced by demographic ageing in various development plans and strategies. Ageing issues have gained ever-increasing prominence in national development strategies on themes such as health care, long-term care, employment in old age and social protection. These strategies do not prescribe the specific shape of the pension system but do articulate the critical importance of pensions in addressing issues relating to ageing and wider sustainable development in the coming decades.

The ageing of the population and the situation of older persons features prominently in Thailand's National Strategy 2018–2037. Demographic ageing is described early in the Strategy as a trend which will "pose key challenges on the country's financial and fiscal stability, investments and savings, economic growth, social security, and sustainable natural resource management." However, the National Strategy also highlights that population ageing provides "opportunities for the development of new businesses to cater to the needs of the elderly, whose proportion is consistently to be on the rise". The scale of this opportunity will, to a significant extent, rely on older persons having the income security to be active consumers of goods and services in the Thai economy.

The National Strategy outlines clear actions for enhancing the country's pension system. The specific "National Strategy on Social Cohesion and Equity" includes the "quality of life of the elderly" as one of four core indicators. It also includes a specific action for "creating comprehensive social insurance schemes that are adequate for everyone regardless of gender and age, to prepare for rapid changes brought about by an aged society". The strategy does not dictate the specific shape of this initiative but it outlines important features, including the administration of the welfare system; the enrolment of both formal and informal workers in the social security system; promoting savings and long-term investment; and strengthening universal health coverage (Royal Government of Thailand 2018).

The question of pensions and social protection is also prominent in legislation and other strategies that are specifically related to older persons. While not included in the original Act on the Elderly (2003), "Extensive and fair provision of monthly old-age pension" was added in 2010 in a list of the protections, promotions and support that older persons have the right to access (MSDHS 2010). Social protection also featured a prominent strand of the Second National Plan on the Elderly (2002–2021). Most recently, the National Agenda on the Aged Society (2018–2037) articulates the establishment of a "System of Welfare and Social Protection for the Elderly" as a core component under the first of two measures on "Improving elders' and all generations' quality of life".

3 Objectives of a comprehensive pension system

The fundamental purpose of old-age pensions is to provide income security in the context of the economic challenges faced in old age, as described in the previous chapter. However, this broader purpose contains a number of more specific objectives. This section describes the key objectives of pension systems and the role of multi-tier pension systems in addressing them. The ILO has elaborated a core set of principles in the design of pension systems (box 3.1). For simplicity, these can be grouped into three overarching objectives of pension systems: *coverage, adequacy and sustainability, which need to be underpinned by effective governance and administration.* This section unpacks these four core areas and then explains why multi-tier pension systems are critical to achieving this.

Box 3.1:
ILO principles for designing and reforming pension systems

Principle 1. Universality

Principle 2. Social solidarity and collective financing

Principle 3. Adequacy and predictability of benefits

Principle 4: Overall and primary responsibility of the state

Principle 5: Non-discrimination, gender equality and responsiveness to special needs

Principle 6: Financial, fiscal and economic sustainability

Principle 7: Transparent and sound financial management and administration

Principle 8. Involvement of social partners and consultations with other stakeholders

Source: ILO (2018).

3.1 Coverage

The fundamental objective of a comprehensive pension system is that it should guarantee income security to everyone in old age. This principle of universality (principle 1 in box 3.1) is embedded in various human rights instruments, including the Universal Declaration of Human Rights, which articulates that everyone has the right to social security in old age.[8] This has been reinforced by various international labour standards, most recently in the ILO's adoption of the Social Protection Floors Recommendation, 2012 (No. 202), which defines "basic income security, at least at a nationally defined minimum level, for older persons" as one of four social security guarantees comprising the social protection floor (ILO 2012).

Universality can be considered of critical importance for a number of reasons, including:

- **Universality ensures that no one is left behind by the pension system,** regardless of the working patterns throughout their lives and other circumstances. This is critical in order to reach populations such as women, migrant workers and refugees, workers in the informal economy and those facing poverty or other forms of social exclusion. Universal pension systems contribute to the achievement of

8 Article 22 states that "Everyone, as a member of society, has the right to social security" and Article 25 states that "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control". This human right has been restated by various subsequent human rights instruments.

the Sustainable Development Goals, including target 1.3 to "[i]mplement nationally appropriate social protection systems and measures for all, including floors", as well as various other goals and targets.[9]

- ► **Universality is a precondition for fulfilling the pension system objectives of redistribution and risk-sharing (insurance).** Pension systems can support forms of redistribution and insurance in a number of ways (box 3.2), but this is only possible if they have a sufficient risk pool to protect all members in society.
- ► **Universality is key for pension systems to support social cohesion and stability.** Historically, developments in pension policy have been tied to concerns about social cohesion, from the introduction of the world's first social insurance scheme in Germany in the late nineteenth century and the major expansion of pension systems in Europe following the Second World War to the expansion of China's pension for rural and urban residents since 2009. This is linked to the role that pension systems play in poverty-reduction, risk-sharing and redistribution, which means they form a fundamental pillar of the social contract in higher income countries, where pensions form a significant part of public expenditure. As Thailand confronts the historically unprecedented demographic, economic and social changes over the coming decades, an effective universal pension system will be a core component in supporting social cohesion.

Box 3.2:
Redistribution and insurance in pension systems

While everyone hopes and expects to grow old, the individual life pathways towards and through old age vary substantially and are often unpredictable. Some people reach old age following a long and fruitful working career, while others experience a succession of low-wage jobs and significant periods outside the labour force. Some people will live long beyond retirement age, while others may pass away much sooner. Levels of ill health and disability also vary substantially. Some will retire at a moment when the economy is booming, while others retire during periods of economic crisis.

Pension systems provide a mechanism for countries to share the inequalities and unpredictable risks associated with old age. An important feature of public social protection systems, compared to private insurance, is that they seek to share these risks among members of society as a whole, rather than restrict them to a small risk pool or to individuals.

Pension systems can support redistribution in various ways, including:

- between higher- and lower-income members of society
- between generations
- between men and women
- between those with children and those without

Pensions have been found to be a powerful tool to reduce levels of income inequality. They make a major contribution to reducing the Gini coefficient in countries in the European Union, as well as in middle-income countries such as Georgia and Brazil, which have made important investments in their pension systems (World Bank 2009; ISSA 2013). This makes pensions an important part of national efforts to reduce inequalities and support inclusive growth.

Pension systems can provide a form of insurance by pooling risks. This is best understood by comparing pension systems to individual saving. Examples include:

9 Target 1.3 of the Sustainable Development Goals states: "Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable". This is measured by indicator 1.3.1, which makes specific reference to older persons: "Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable".

- Longevity risk, where an individual may live longer than their savings provide for. Pension schemes seek to insure against this risk by guaranteeing periodic benefits until death.
- Economic risks: individual savings may be vulnerable to economic crises. Pension schemes can pool these risks across members so that the impacts are shared.

The redistribution and insurance functions are strongly tied to the principle (principle 2 in box 3.1) of social solidarity and collective financing.

3.2 Adequacy

There are two important dimensions to the adequacy of pension systems in old age:

- **The horizontal dimension.** A pension system should guarantee a minimum level of adequacy for everyone when they reach old age, regardless of their work histories. This is the logic at the heart of the idea of a **social protection floor** set out by ILO Recommendation No. 202. This requires at least a minimum level of benefit that should allow a life in dignity and may be established relative to national thresholds such as poverty lines. It may also require the assessment of other areas of policy, such as health care and housing, which can have an important influence on the consumption of older people.
- **The vertical dimension.** A pension system should provide benefits that are adequate relative to previous lifetime earnings. This is the concept of **income replacement,** which is established in various international labour standards that prescribe that old-age pension benefits must fulfil a minimum **replacement rate** relative to previous earnings. ILO Convention No. 102 defines a minimum replacement rate of 40 per cent of the reference wage, while the ILO's Invalidity, Old-Age and Survivors' Benefits Convention, 1967 (No. 128) defines a minimum of 45 per cent. This function of pension systems is often described as **consumption smoothing,** by which individuals delay their consumption (by contributing to a pension) to ensure their consumption does not dip in old age.

Simply focusing on either the horizontal (minimum) or vertical (consumption smoothing) dimensions of pension systems in isolation is inadequate. Pension systems that are designed solely to provide earnings-related income replacement are likely to provide inadequate protection to those with low or modest earnings during their working lives, not to mention those who spend significant portions of their lives outside the labour force. On the other hand, simply providing a minimum floor of benefits means that pension benefits for those on relatively higher incomes will be far below their earnings during their working lives. While this is less of an issue from the perspective of addressing poverty, it can significantly undermine the political legitimacy of such systems and their support by the middle class.

The predictability of benefits is also of critical importance. Predictability has different dimensions, including:

- **The predictability of benefits once a person has reached old age.** This has two important aspects. The first relates to whether benefits are provided as regular pension benefits or as a lump sum. Various international labour standards stipulate that benefits should be provided as a periodic payment or annuity (a yearly amount that is paid until death) due to the significant difficulty and risks in managing lump sum benefits so that they cover the full period of retirement. Second, the formal indexation of benefits is also key to ensuring the predictability of income in the context of dynamics such as price inflation.
- **Predictability of future benefits for younger generations.** This implies younger generations knowing the nature and levels of benefits they are likely to receive in old age. For this reason, various international labour standards stipulate that benefits should be guaranteed at a given level that is stipulated by law, as is the case in defined-benefit pension schemes. Having this predictability supports the decision-making of generations that have not yet reached old age, enabling them to make investments and take risks with a strong understanding of their old-age income security. One motivation for the extension of the resident's pension in China since 2009 was to reduce the levels of household savings, which were being driven by precautionary saving for old age (Zhao, Li, and Chen 2016).

The relative adequacy of benefits for different members of society touches on issues of perceived fairness and equity. Pension systems may be considered to be unfair if they provide imbalanced rewards relative to the formal and informal contributions that individuals have made throughout their lives. Examples include vastly differing benefits between types of employment (for example public versus private sector), between men and women and between generations. Pension policy practitioners therefore need to be careful to design systems in a way that support equity and fairness. This is another way in which pension policy connects to issues of social cohesion.

3.3 Sustainability

One of the greatest concerns in pension policy is how to achieve coverage and adequacy into the future in a way that is financially sustainable. Sustainability can be defined as the current and future capacity of the economy to bear the costs of the pension system (principle 6 in box 3.1) (ILO 2018). In many countries, particularly higher-income countries, pensions constitute a significant share of government expenditure. Meanwhile, rapid demographic ageing means that – without changes to scheme parameters such as benefit levels and retirement ages – the costs of schemes will rise into the future. A common concern is that increasing costs will crowd out other important areas of expenditure, resulting in negative consequences for economies and societies.

Nevertheless, what constitutes a financially sustainable pension system is an area of substantial debate. While many high-income countries spend significant proportions of their expenditures on old-age pensions, there is little evidence that this is negative for economic performance or for other social outcomes. There is a strong logic that countries with larger ageing populations will want to allocate more resources to issues of old age and the optimal level of expenditure is not clear. Low pension expenditure may also lead to the "costs" of ageing falling elsewhere – primarily on systems of family and community support – which may lead to negative social and economic outcomes. Essentially, countries need to identify the best way to allocate these costs between different sources. How to assess financial sustainability in the Thai context will be discussed in subsequent chapters.

Pension systems have important implications for sustainable economic development. This goes beyond the question of the implications of pension expenditure to broader links to economic development, including productivity, demand, saving and incentives. Given that the functioning and performance of pension systems is heavily influenced by national economic performance, it is important that pension systems should support economic development – thus creating a virtuous cycle (Barr and Diamond 2006). The specific impacts of pension systems on economic development will depend on the national economic context and the specific design of pension systems.

Finally, pension systems need to be built in a way that is socially sustainable. A preoccupation with financial sustainability may result in lower pension expenditure; however, a low-cost system that fails to address the various issues described above can have major social consequences, including greater old-age poverty, overburdened family support networks and greater inequality. These issues in turn these can jeopardize social cohesion and political stability. Building a pension system that is seen to be fair is therefore key to social peace. Importantly, a pension system that supports equity is not necessarily one that provides the same support to different generations. Indeed, the pension system can be an important mechanism for distributing the dividends of economic development to older persons who have spent their active working lives contributing to this process but can no longer directly benefit via the labour market.

3.4 Governance and administration

The state has the overall responsibility to ensure the effective functioning of pension systems. This is captured in the principle of the overall and primary responsibility of the state (principle 4 in box 3.1), which is defined by various human rights instruments and international labour standards (including Convention No. 102 and Recommendation No. 202). Governments throughout history have often been tempted to create pension solutions that limit the role and responsibility of governments for old-age income security. However, eventually the political consequences of the failure of a pension system are likely to fall at the feet of government. This does not mean that governments should manage or finance every element of a pension system but rather that they should design institutional and regulatory arrangements that effectively deliver on its core objectives.

Key issues in governance and administration of pension systems include:

- **Ensuring the consistency of different pension schemes within a coherent system.** This is key to ensuring that multi-tier systems (discussed below) function in an effective way. Building integrated systems entails defining a comprehensive strategic vision for the pension system that is incorporated within a broader vision for the social protection system as a whole.
- **Sound administration and communication.** This includes clearly communicating the nature of the schemes in place and how people can engage with them as contributors and recipients of benefits. Schemes should also be accessible, take advantage of ICT and deliver high levels of service quality. To support sustainability, contributory schemes rely on strong skills and practices in terms of investment and actuarial analysis. They also rely on effective systems of contribution collection and compliance.
- **Social and national dialogue with a broad range of stakeholders.** This links to the principle of the involvement of social partners and consultations with other stakeholders (principle 8 in box 3.1). Effective dialogue and consultation are key to better understanding the circumstances and needs of the diverse groups of workers and older people that interact with the pension system. Given that pension design and reform can be one of the most contested areas of public policy, they are also key mechanisms for building consensus and buy-in, which in turn contributes to the social sustainability of pension systems.

3.5 Building multi-tier systems

Addressing the range of objectives of a pension system requires the careful assembly of a multi-tier system (in some cases referred to as a "multi-pillar"[10] system). The core rationale for multiple tiers is that pension systems serve different people in a diverse range of circumstances at different moments of their lives. For those with low lifetime earnings, the priority is to ensure that they are covered by a minimum floor of social protection in old age. On the other hand, those with higher incomes will seek mechanisms to achieve higher levels of protection in old age. It is rare that these multiple objectives can be achieved with one single instrument. The diversification of financing also reduces system risk and risk to the individual, compared to the provision of benefits through one channel. Nevertheless, effective multi-tier systems that meet the various pension objectives described above require careful design, not least in terms of how different tiers interact.

Multi-tier pension systems can be seen to consist of four main tiers. These tiers vary in terms of their financing, the relationship between contributions and benefits and whether they are mandatory or voluntary. Box 3.3 provides a summary of key terminology. The ILO has defined the four tiers as part of its multi-tier pension model (ILO 2018). These strongly align with the tiers defined by other organizations such as the World Bank, but with some slight modifications in emphasis:

10 This report considers the term "multi-tier" and "multi-pillar" to be broadly synonymous. The term "multi-tier" is used throughout rather than "multi-pillar" as the former is seem to better represent the overlapping nature of pension system components.

- **Tier 0: The pension floor.** The purpose of this tier is to guarantee universal minimum income security to all older persons, thus achieving the horizontal dimension of pension coverage. This is particularly important in contexts such as Thailand, where informal employment and working poverty mean that significant portions of the working population are not, at least in the short term, in the position to join a contributory scheme. This tier is usually provided via a non-contributory scheme financed by general government revenues. Depending on the national context and design of other tiers, this can be achieved through universal, means-tested or pensions-tested schemes.

Tier 1, 2 and 3 all contribute to achieving the vertical dimension of coverage, that is they provide income replacement/consumption smoothing. They can also contribute to the pension floor by reducing the need for a non-contributory pension. These three tiers are designed in different ways, as follows.

- **Tier 1: Social insurance.** The purpose of this tier it to provide a guaranteed level of income replacement in old age. This is usually achieved through mandatory and contributory defined-benefit schemes, which pool risks among members.
- **Tier 2: Complementary schemes.** The purpose of this tier is to provide supplementary levels of income replacement. This can be provided via employment-based occupational or non-occupational, defined-benefit or defined-contribution schemes, which are usually privately managed but regulated by the government. These may be voluntary or mandatory.
- **Tier 3: Voluntary personal savings.** This tier provides an additional supplement for income replacement, which is generally managed by private pension administrators under full market competition and government regulations.

Box 3.3: Key design features of pension schemes

Pensions can be:

- **Contributory:** where eligibility is dependent on having made previous financial contributions to a scheme and benefits are funded from contributions.
- **Non-contributory:** where eligibility is dependent on residency/citizenship and potentially other criteria (such as income and assets) and benefits are financed from general government revenues (often referred to as “tax-financed”).

Contributory schemes can either be **voluntary** or **mandatory,** whereby workers (and in the case of employees, their employers) are legally obliged to make contributions to a scheme.

Within contributory schemes, the **relationship between contributions and benefits** can be organized in different ways:

- In a **defined-benefit** scheme, a pension is normally calculated using a formula and typically depends on the number of years of contributory service and the insurable earnings over a certain period. The formula for the pension generally promises a yearly pension that is a certain percentage of the yearly income (called the accrual rate) per contribution year. The accrual rate multiplied by the number of years of contribution gives the replacement rate. The pension is then generally calculated by multiplying the replacement rate by the reference income of the beneficiary. The reference income can be the last salary of the contributor or the average salary over a certain number of years.
- In a **defined-contribution** scheme, contributions are saved or invested in a vehicle or account that typically belongs to the individual (although group defined-contribution schemes exist). The account increases over time with additional contributions paid and interest or investment returns earned, less any expenses deducted. At the point of retirement, the accumulated fund is paid out in the form of a lump sum and/or converted into an annuity (a monthly pension income amount that is paid until the death of the beneficiary and sometimes to the surviving spouse).

- So-called **notional defined-contribution** schemes operate on a similar principal to defined-contribution plans, with individuals having an individual account, the value of which will impact future retirement income. However, such schemes are not funded – the account balances are notional and do not represent a value of assets purchased as is the case with defined-contribution plans. Account balances are increased each year in line with a virtual annual rate of return, the level of which is normally stipulated by law but typically depends on factors such as GDP and/or wage growth. Factors used to convert accumulated balances to the pension income at retirement are also determined according to law and may also depend on demographic factors.

Contributory pension schemes can be financed in different ways:

- **Fully funded** means that the target level of assets or reserves in a scheme at a point in time aim to cover the value of pension liabilities determined at that same point. Defined-contribution schemes are typically by definition fully funded, as their liabilities to individual contributors are equal to the amount they have saved (unless there are minimum rates of return specified in legislation). While defined-benefit supplementary schemes are typically legally required to target fully funding, social security defined-benefit schemes are rarely fully funded
- **Partial funding** means that at any point in time, the pension scheme must have a minimum level of reserves. This amount – generally defined by law – is less than the actuarial equivalent of all future liabilities. The fact that new generations of workers will continue joining the mandatory social security scheme makes partial funding possible, because their contributions help guarantee most of the scheme's future liquidities. Reserves largely serve the purpose of smoothing contribution rates and helping to smooth the effects of economic downturns.
- **Pay-as-you-go (PAYG)** is an arrangement under which benefits are paid out of current scheme revenue as they become due and no pre-funding is made in respect of future benefit obligations. In reality, schemes financed on such a basis may hold a low level of reserves to take into account fluctuations in contribution income and benefit payments. Schemes financed on a pure PAYG basis rely entirely on the future contributions of current and future generations to pay the pension of each contemporary pensioner generation.

Social security defined-benefit schemes tend to be partially funded, as they rely in part on the future contributions of current and future members to pay the pensions of the current and future retired population.

Non-contributory pension schemes come in three main forms.

- **Universal pensions** provide a benefit to all older people over a defined age, solely on the basis of citizenship and/or residency.
- **Means-tested** schemes are targeted to those with a defined, limited set of resources (in terms of income and/or assets).
- **Pensions-tested** schemes are schemes in which eligibility (and/or the benefit level received) is influenced by whether an individual receives other pension income. A **tapered pensions test** is one in which the amount of non-contributory benefits received is reduced gradually according to the level of contributory pension.

It is important to stress that universal coverage is not the same as a universal pension. A pension system can provide universal coverage through a mix of schemes, without necessarily including a universal non-contributory pension.

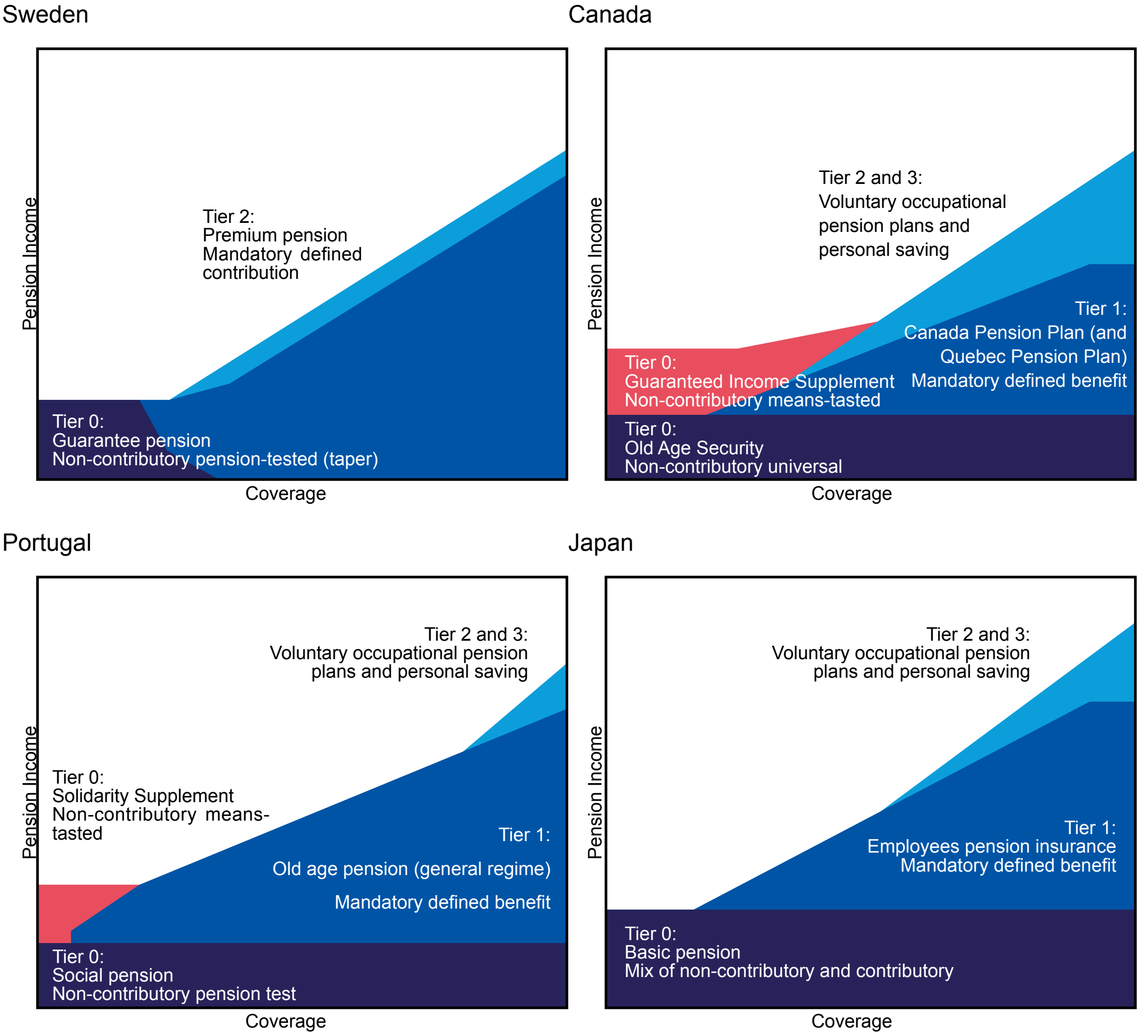
A core characteristic of the multi-tier model is that the coverage, risks, financing and resources are shared differently as one moves from tier 0 to tier 3. Tier 0 – being financed via the government budget and providing flat-rate benefits – distributes the basic economic challenges of old age most broadly: across society as a whole. Tier 1 provides a mechanism for those with contributory capacity to share the risks of achieving income replacement but it generally assumes that these costs are covered by members. Tier 2 schemes tend to assign greater risk to the individual, although with occupational schemes greater risk is taken by the employer and risk may be pooled among employees. Tier 3 puts the risks of old-age saving primarily on the individual. Moving from tier 0 to 3, coverage evolves from the whole population to those with the highest contributory capacity.

The way in which tiers are combined can vary from country to country. Figure 3.1 provides simple illustrations of the shape of multi-tier systems in Canada, Portugal, Sweden and Japan.

- **In Sweden,** the core component of the pension system is an earnings-related, PAYG, notional defined-contribution scheme (tier 1). There is also a small mandatory defined-contribution premium pension (tier 2). Those with no or low pension income are eligible for the Guaranteed Pension (tier 0), which tapers away for those with higher pension income. Various other forms of support (such as housing) are also provided to older persons with lower incomes.
- **In Canada,** all older persons receive a benefit from the universal non-contributory Old-Age Security pension (tier 0) and those with lower incomes also receive the means-tested Guaranteed Income Supplement (tier 0). Tier 1 consists of the defined-benefit Canada Pension Plan. This provides relatively low replacement rates and has a modest salary ceiling, meaning that voluntary occupational pensions (tier 2) and other private savings (tier 3) play an important role in this system for providing income replacement to those with relatively higher earnings.
- **In Portugal,** the pension system is orientated about a mandatory defined-benefit scheme (tier 1). The social pension (tier 0) is provided to older people who are not covered by any contributory social insurance scheme in order to ensure that everyone meets a minimum pension level. In addition, a means-tested “solidarity supplement” (also tier 0) provides additional income for pensioners who (based on household income) are assessed not to meet a minimum level of well-being.
- **Japan’s** pension system consists of two main components. The Basic Pension provides a form of tier 0, with a flat-rate benefit which mixes a contributory and non-contributory approach. Workers must contribute to the scheme but various exemptions exist to ensure the coverage of groups that are not able to contribute. General social assistance exists to support those not covered and top up those covered to a minimum level of income (not shown in figure 3.1). The second main component is the Employees’ Pension Insurance: a mandatory defined-benefit scheme providing earnings-related benefits (tier 1).

These examples highlight how pension tiers can be organized in different ways in order to meet the similar objectives of achieving both horizontal and vertical dimensions of coverage.

Figure 3.1: Multi-tier pension systems in Sweden, Canada and Portugal



Source: OECD (2018), OSFI (2019), Swedish Pensions Agency (2019), European Commission (2020) and Japan Pension System (2020).
Note: In simplifying the shape of national pension systems, the diagrams only reflect tier 2 and tier 3 schemes to a limited extent.

A key issue in designing multi-tier pension systems is to ensure integration and coherence between tiers. There are a number of reasons why this is important.

- **Integration influences incentives and the behaviour of individuals participating in the system.** An effective system will be one that workers and pensioners can navigate, with a good understanding of the pros and cons of different work and saving behaviour. It will also be one with the portability to allow workers to move between different types of employment and continue to accumulate pension rights. Systems with incompatible or contradictory tiers make it difficult for individuals to understand the best decisions, which can lead to poor decisions or to individuals opting out of the system altogether. On the other hand, incoherence between schemes can also lead to perverse incentives such as individuals with contributory benefits being excluded from non-contributory schemes, which – if not designed carefully – can incentivize workers to opt out of contributory schemes.
- **System financing.** Despite the different design of pension schemes, in the end they are all drawing from the same basket of resources – the national economy – via a limited set of mechanisms, namely contributions and taxes. It is therefore important to look at the pension system as a whole in terms

of how it is funded. By looking at schemes in isolation, there is a risk of ineffective policymaking, such as designing a scheme with a contribution rate that is not compatible with the existing levels of contributions and tax payments for a given set of workers.

4 Assessment of pension schemes in Thailand

The Thai pension system has many strong characteristics but also faces important challenges. Table 4.1 provides an overview of the main pension and old-age income security schemes in place in Thailand, highlighting that they vary significantly in terms of their financing; the relationship between coverage and contributions; and the populations covered. This section provides an assessment of the different schemes within the pension system rooted in the framework set out in the previous section (focused on coverage, adequacy and sustainability). Chapter 5 then begins with an overarching assessment of the system as a whole.

Table 4.1: Main pension schemes in Thailand

Scheme (year introduced)	Eligible group	Scope of scheme	Parameters (contribution rate, retirement age, benefits)
Tier 0: The pension floor			
OAA	Thai citizens not receiving civil servant pensions	Non-contributory (tax-financed)	**Contributions:** None. **Benefits:** Between B600 and B1,000 per month, depending on the age of the recipient. **Minimum pension age:** 60 years.
Tier 1: Social insurance			
SSO article 33 - Social Security Fund	Employees in private enterprises, with some exceptions including seasonal and domestic workers[11]	Contributory mandatory defined-benefit scheme (partially funded)	**Contribution rate:** 7% (3% employee, 3% employer, 1% Government) for two benefit funds (old age and family benefits - 0.65% allocated to family benefits). **Benefit:** Insured persons must contribute for 15 years (180 months) to receive a pension (a lump sum is provided for those with fewer years). The pension is calculated on the basis of the average of the last five years of salary. **Minimum retirement age:** 55 years.
SSO article 39 - Social Security Fund	Individuals who were previously members under SSO article 33	Contributory voluntary defined-benefit scheme (partially funded)	**Contributions:** Flat rate of 432 per month (9% of base salary of B4,800). **Benefit:** Calculated using the same formula as SSO article 33 pensions. **Minimum retirement age:** 55 years.

11 These include: employees of foreign governments or international organizations; employees of employers having offices in the country and who are stationed abroad; teachers or headmasters of private schools under the law on private schools; students, nurse students, undergraduates or interning physicians who are employees of schools, universities or hospitals; state enterprise; seasonal workers in agriculture, forestry and fishery; one-time contracts or seasonal contracts; employment by persons who are not employers or businesses (for example domestic workers); and hawking/floating trade.

Scheme (year introduced)	Eligible group	Scope of scheme	Parameters (contribution rate, retirement age, benefits)
Tier 2: Complementary schemes			
SSO article 40 - Social Security Fund	All workers not insured by other mandatory pension schemes	Contributory voluntary defined-contribution scheme	**Contributions:** B100 per month, with an additional B50 per month paid by the Government (option 2) or B300 per month with an additional B150 per month paid by the Government (option 3). Contributors can pay up to B1,000 per month (although the government contribution remains a maximum of B150 per month). **Benefits:** Lump sum based on monthly contribution (individual and government) x months + interest. **Minimum retirement age:** 60 years.
National Savings Fund	All workers not insured by other mandatory pension schemes	Contributory voluntary defined-contribution (funded) scheme	**Contributions:** B50–B13,200 per year. The Government matches contributions up to B600, B960 or B1,200 per year, depending on the age of members. **Benefits:** The pension amount is calculated as the total savings (including interest) divided by 240 (12 months x 20 years). The minimum benefit is B600 per month, which expires when pension savings are depleted. If a pensioner dies before the age of 80, the remaining amount is paid to their heirs. **Minimum retirement age:** 60 years. Lump sum possible before age 60 if disabled. If leaving scheme before 60, can receive lump sum (only their contributions and interest, not matching contributions.)
Provident funds (Privately managed)	Employees (schemes are voluntary and set up by employers)	Contributory, voluntary, defined-contribution	**Contributions:** Employees and employers each contribute between 2% and 15% of the worker's salary. **Benefits:** Lump sum of accumulated contributions with investment return, less any charges. Various tax privileges are provided for both contributions and benefits. **Minimum retirement age:** 55 years (those who withdraw sooner do not receive tax privileges).

Scheme (year introduced)	Eligible group	Scope of scheme	Parameters (contribution rate, retirement age, benefits)
Schemes for civil servants			
Civil Service Pensions	Civil servants	Non-contributory (tax-financed), defined-benefit	**Contributions:** None **Benefits:** Those with 25 years of service receive benefits calculated based on years of service and final salary (or average final 60 months of salary if they joined since 1997). Those with 10–25 years of service receive a lump sum. **Minimum retirement age:** 60.
GPF	Civil servants	Contributory, mandatory, defined-contribution	**Contribution:** Employees contribute between 3% and 15% of their salary (contributions above 3% are voluntary) and the Government contributes a total of 5%. **Benefits:** At retirement, retirees can withdraw the full value of their savings as a tax-free lump sum or make gradual withdrawals. **Minimum retirement age:** 60.

Sources: SSO legislation and documentation, as well as World Bank (2012), ILO (2016), IMF (2019a), Paitoonpong et al. (2016) and Ratanabanchuen (2019).

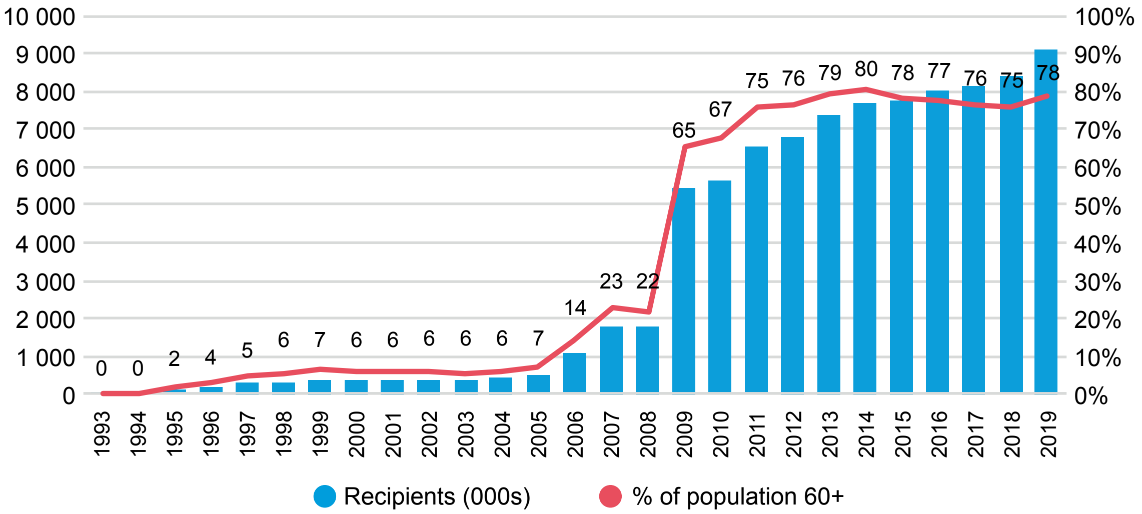
A number of pension, retirement and investment schemes are not covered in depth in this report. These include pension schemes for employees of state enterprises, the Local Government Officers Pension Fund and the Private Teachers Aid Fund. Such schemes cover relatively small groups of workers in the Thai labour market. This report also does not provide in-depth analysis of tax-deductible investment instruments, such as Retirement Mutual Funds and Super Savings Funds (which replaced Long-term Equity funds).

4.1 The Old-Age Allowance (OAA)

4.1.1 Coverage

A major factor contributing to high pension coverage of older persons in Thailand is the tax-financed OAA scheme. Legally, all Thai citizens who are not receiving a civil service pension are eligible to receive the OAA, which provides benefits of between B600 and B1,000 per month, depending on the age of the recipient (see table 4.1). This approach can be considered a "pension-tested" scheme (see box 3.3 above), although a notable feature in Thailand is that the pensions test only applies to civil service pensions, so that older persons can receive both the OAA and pensions from SSO, the National Savings Fund (NSF) or other sources. The expansion of eligibility from the previously poverty-targeted scheme in 2009 led to a dramatic increase in coverage, meaning that about 80 per cent of older people in Thailand receive the benefit. The data in figure 4.1 (based on a comparison of administration and population data) suggests that 78 per cent of persons aged 60 and over receive the OAA, although survey data suggests that the figure is closer to 85 per cent (Teerawichitchainan et al. 2019, 43).[12] Survey data also indicates that a larger proportion of women receive the OAA (between 86 and 88 per cent), compared to men (between 80 and 82 per cent).[13]

Figure 4.1: Coverage of OAA, 1993–2019



Source: National Economic and Social Development Council (NESDC), Department of Local Government Promotion, Bangkok and Pattaya Municipality. Note: From 1993–2009, based on UN Population Division data; from 2010–2019, based on NESDC data. (Source: Population Estimates of Thailand 2010-2040 (Revised), Office of the National Economic and Social Development Council).

There is still a gap in pension coverage, but it appears to mainly relate to better-off older persons and those who recently reached the age of 60. Figure 4.2 shows that the share of households with no pension income is significantly higher (11 per cent) for the wealthiest households than for those in the poorest quintile (4 per cent). Coverage is also higher in rural areas, compared to urban areas (Teerawichitchainan et al. 2019). This implies that older people in relatively better-off households may decide not to claim what they consider to be a low benefit.[14] For poorer households, the gap may relate to issues of knowledge, physical access or the documentation required to apply for the benefit. Another factor is that the share of older people not receiving the benefit is significantly higher for those of less advanced ages (figure 4.3). This suggests that one reason

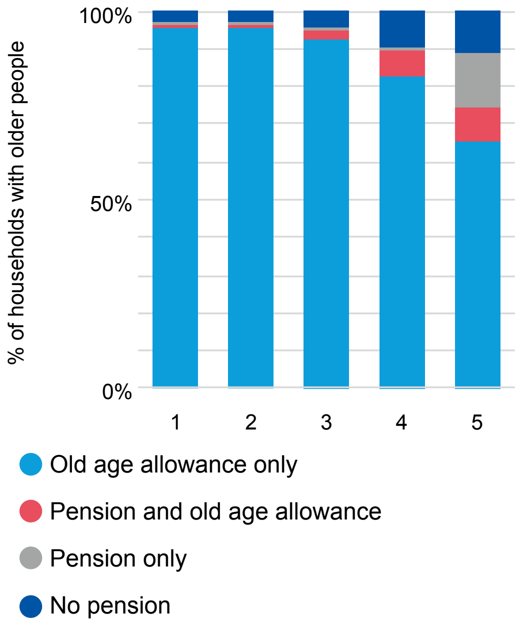
12 Analysis of the SES 2019 suggests that 83.5 per cent of older persons receive the benefit.

13 Analysis based on (Teerawichitchainan et al. 2019) and the SES 2019. The lower values are from the SES 2019.

14 Previous research by Suwanrada and Wesumperuma (2012) also found evidence for this dynamic.

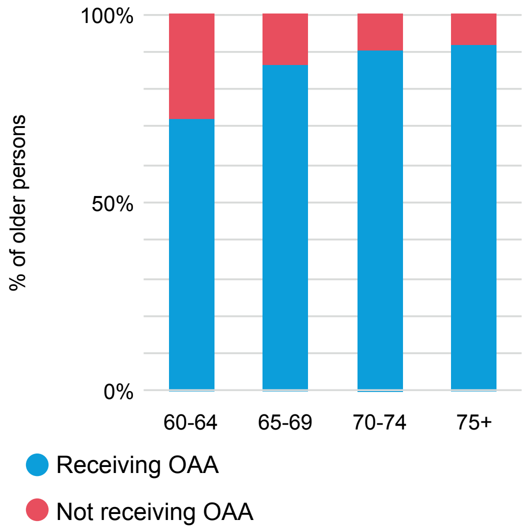
for the gap in coverage may be delays in application after reaching the age of eligibility. The way in which the question is asked about the receipt of the pension in the Socio-Economic Survey (SES) 2019 may also under-estimate the coverage for those aged 60.[15]

Figure 4.2: Households with older people (60+), by pension receipt and wealth quintile, 2013



Source: SES 2013, from HelpAge International (2017).

Figure 4.3: Receipt of OAA by 5-year age group, 2014



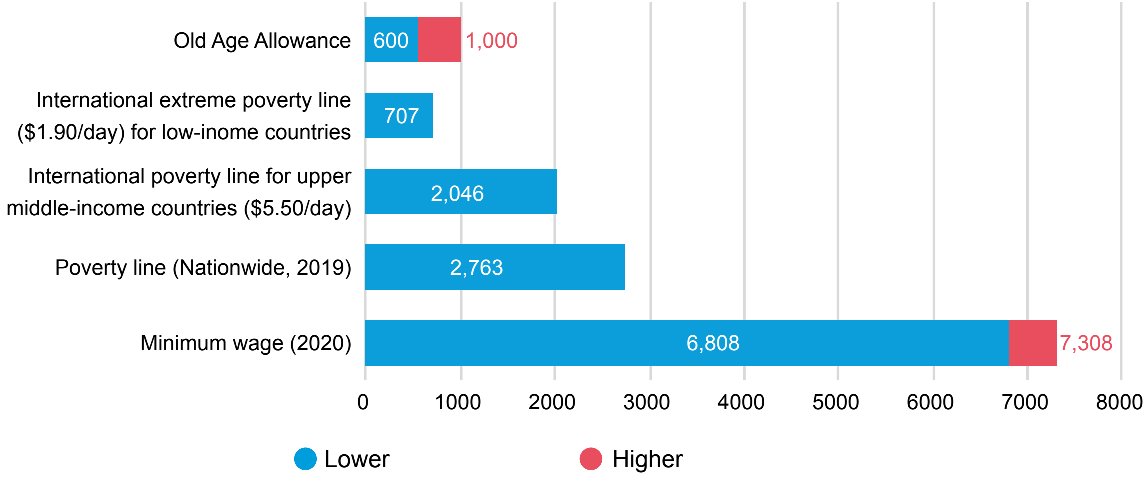
Source: SES 2019, from analysis undertaken as part of the Thailand SPDR .

4.1.2 Adequacy

Despite the high coverage, the benefit level of the OAA is low by both national and international standards. Figure 4.4 illustrates that the benefit level (between B600 and B1,000 per month) is significantly below Thailand's national poverty line (B2,763 per month in 2019). It also falls short of the international US$5.50 per day (B2,046 per month) poverty line (deemed appropriate for upper-middle-income countries), while the lowest benefit is below the international extreme poverty line (US$1.90 per day or B707 per month), which is generally used in reference to low-income countries. The benefit level is one of the lowest in the world when compared to GDP per capita, at just 3 per cent. Notably, the minimum benefit of B600 is lower in absolute terms (when measured by purchasing power parity dollars (PPP$)) than the benefits provided in much poorer countries, such as Nepal and Timor-Leste. The lack of benefit indexation also means that the value has significantly eroded since 2011. Figure 4.7 shows that due to inflation, the minimum benefit of B600 per month is worth B533 in 2011 prices – a fall in value of more than 10 per cent.

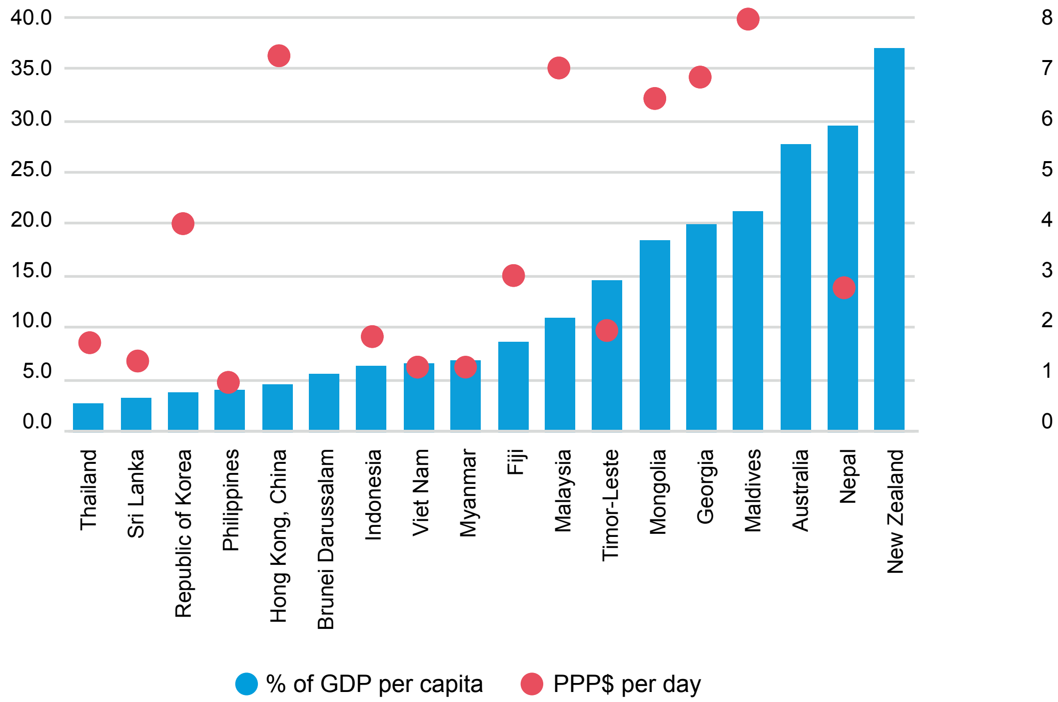
15 The SES 2019 asks respondents whether they have received the OAA in the last five years and if so for how long. However, the response can only be provided in whole years. It is therefore possible that individuals enrolled in the scheme for less than one year may not have reported receipt of the OAA in the survey.

Figure 4.4: OAA benefit relative to relevant benchmarks (2019–2020)



Source: Poverty, wage and minimum wage statistics from NESDC (2021). Data from international poverty lines based on IMF (2020b), using 2019 implied PPP$ conversion rates. Note: Minimum wage in 2020 ranges between B313 and B336 per day (or B6,808 and B7308 per month based on 21.75 working days per month).

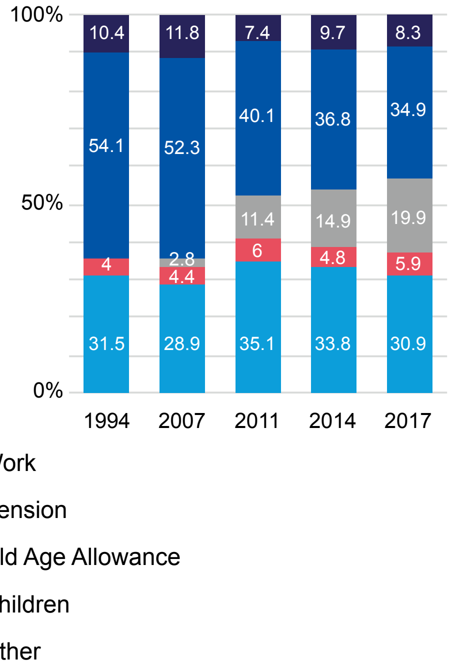
Figure 4.5: Benefit levels of social pensions for selected countries, % of GDP per capita, latest year



Source: HelpAge International (2018) Note: Benefit shown for Thailand is minimum benefit of B600 per month.

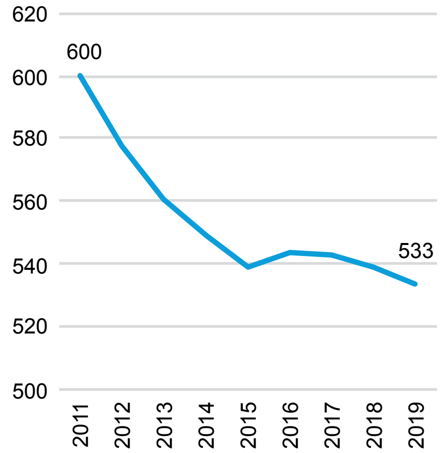
Despite the low benefit, for many low-income older people the OAA still provides an essential form of support. As of 2017, one in five older people in Thailand reported that the OAA was their main source of income (figure 4.6), a figure that has increased in recent years. This likely reflects the limited alternative sources of income for an important portion of older people, meaning that even those low benefits provide their primary source of income. The importance of the OAA increases with age, with nearly one third (31 per cent) of older people aged 70 and over reporting it as their main source of income. This likely relates to the lower ability to work and higher OAA benefits at older ages. More women than men also report the OAA as their main source of income. Figure 4.6 shows that the OAA has increased in prominence since its expansion in 2009 and has also been associated with a reduction in those reporting their children as their main source of income. The continued increase of the OAA as the main source of income since 2011 is striking given the gradual fall in the real value of the benefit since 2011. This may be linked to the worsening economic outlook in recent years and growing household poverty, which will have limited older people's alternative income sources

Figure 4.6: Main source of income, persons 60 and older, 1994, 2007, 2011, 2014 and 2017



Source: (Teerawichitchainan et al. 2019)

Figure 4.7: Real value of OAA benefit (2011 prices), 2011–2019



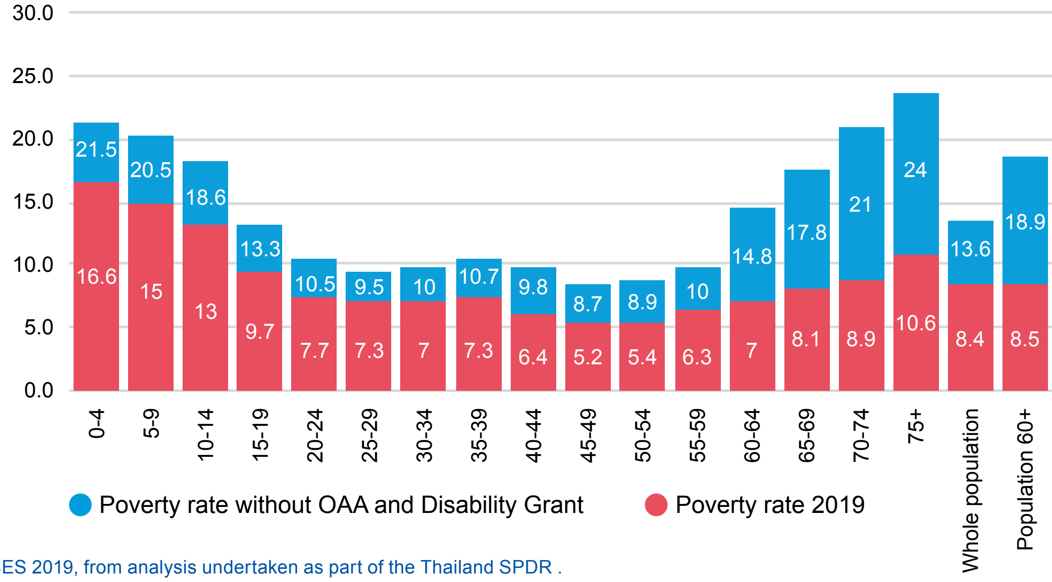
Source: Author's calculations based on inflation (average consumer prices) (IMF 2020b).

Another indicator of the important role of the OAA is the significant contribution it makes to reducing the poverty of older people and their wider households. Figure 4.8 shows how the poverty rate of individuals of different ages would change in the absence of the OAA and the Disability Grant in Thailand, based on analysis of the SES 2019.[19] Without these benefits, the poverty rate in Thailand would increase substantially, from 8.4 per cent to 13.6 per cent of the population. The two programmes have the biggest effect on poverty among older people. In total, the two schemes cut the poverty rate of older persons (aged 60 and over) by more than half, from 18.9 to 8.5 per cent, with even greater impacts for older people of more advanced ages. Meanwhile, substantial reductions in poverty are also found for other age groups, including children, with the poverty of those aged 0-4 being reduced from 21.5 to 16.6 per cent. While it is not possible to isolate the impact of the OAA, it is likely that it contributes to most of this poverty impact, given that expenditure on the scheme is almost four times that of the Disability Grant.[17] These significant impacts are striking given the modest expenditure on the scheme (discussed further below).

16 The SES 2019 only allows the impact of the allowances on poverty to be measured together.

17 Expenditure data from NESDC. In 2019, expenditure for the OAA was B71,912 million, compared to B19,062 million for the disability allowance.

Figure 4.8: Poverty rate by age, with and without the OAA and Disability Grant, 2019

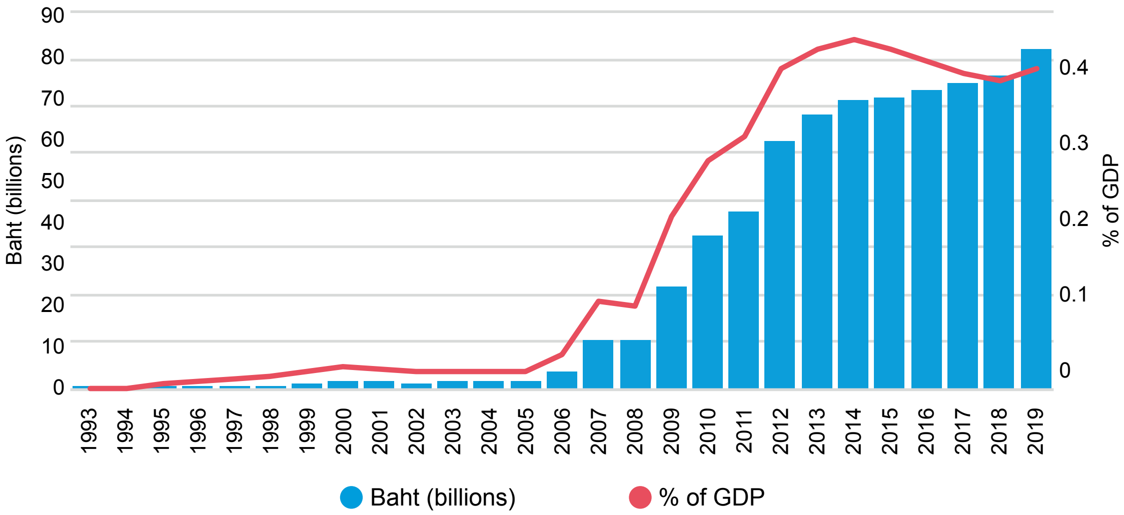


Source: SES 2019, from analysis undertaken as part of the Thailand SPDR .

4.1.3 Sustainability

While expenditure on the OAA has increased, it remains a relatively modest component of public expenditure. With the expansion of the OAA to a near-universal scheme in 2009, expenditure increased significantly, from B11 billion per year before the reform to B72 billion in 2019. Despite this increase, the scheme still represents a small component of the government budget, at 2 per cent of total government expenditure in 2019.[18] It is also modest compared to expenditure on social pensions in other countries in the region and the world. Figure 4.10 shows expenditure on the OAA compared to other middle- and high-income countries with high-coverage non-contributory pensions. Various middle-income countries (including Brazil, Georgia and South Africa) spend significantly more than Thailand, while high-income countries such as Denmark, Norway and New Zealand spend more than 4 per cent of GDP.

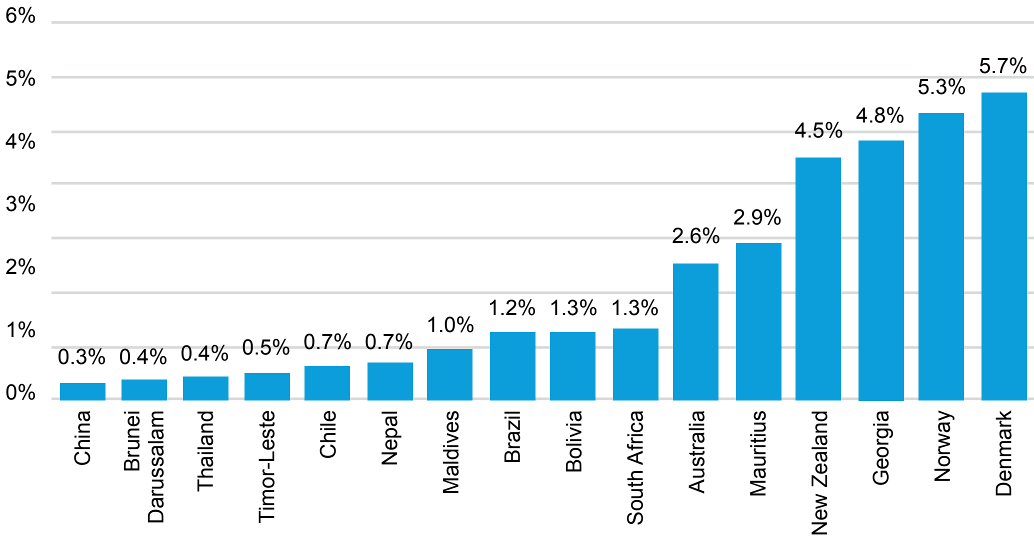
Figure 4.9: Annual expenditure on the OAA, 1993–2019, in billions of baht and as a percentage of GDP



Source: NESDC (2021) and IMF (2020b). For 2009 and earlier, population data is from UN Population Division (2019).

18 Authors' calculations based on IMF (2019b).

Figure 4.10: Expenditure on high-coverage social pension schemes, per cent of GDP, latest year



Source: HelpAge International (2018)

Even with the rapid ageing of the population, the OAA does not pose a major challenge in terms of fiscal sustainability. Projections undertaken by the International Monetary Fund (IMF) and for this report (see Chapter 5) suggest that – assuming the scheme evolves within its existing parameters – the cost would reach between 1.2 and 1.3 per cent of GDP by 2060 (IMF 2019a). This level of expenditure would be very low considering the likely socio-economic context in Thailand in 2035, when it can expect to be a high-income country with a significant older population. As discussed later in the report, the key question is how the design of the scheme may evolve over time to increase adequacy while ensuring sustainability.

4.2 Other non-contributory schemes

The recently introduced State Welfare Card (SWC) has provided an additional income supplement to a significant portion of older persons, but the benefits remain very low. As of 2019, 42 per cent of older persons (4.8 million)[19] had qualified for the SWC, which is targeted at low-income Thai citizens on the basis of assessment of income and assets.[20] Individuals with the SWC receive between B200 and B300 per month, to be spent at Tong Fah Pra-cha-rat stores, plus a B500 per month fare subsidy for public buses, interprovincial buses and electric trains and a B45 discount for cooking gas purchases every 3 months. While this no doubt provides a welcome supplement for older people in receipt, it does not fundamentally address the low adequacy of the OAA described above.

While low-income older people are more likely to receive the SWC, targeting does not appear to be particularly accurate. As illustrated by figure 4.11 based on SES 2019 data, older people in the poorest consumption quintile (49 per cent) are more likely to receive the SWC than those in the richest quintile (18 per cent). However, this is very far from perfect targeting. Given that 36 per cent of older people are reported to have received the SWC in the SES 2019, perfect targeting would imply that all older people in the poorest quintile would receive the benefit, rather than just the half that were found to be in receipt. One would also expect no benefits to go to the third to fifth quintiles – yet a significant portion of them are in receipt.

19 Calculated as a share of the total population aged 60 and over of 11,587,151 (NESDC 2021).

20 As of 2019, a family-based income qualification was added for those newly registering to the system (Bangkok Post 2019).

Figure 4.11: Proportion of population aged 60+ in receipt of the SWC, by consumption quintile, 2019

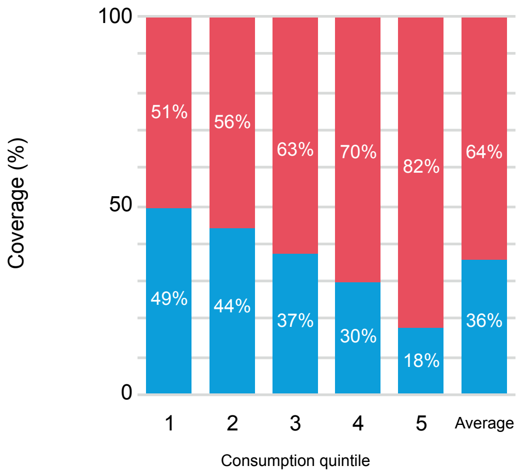
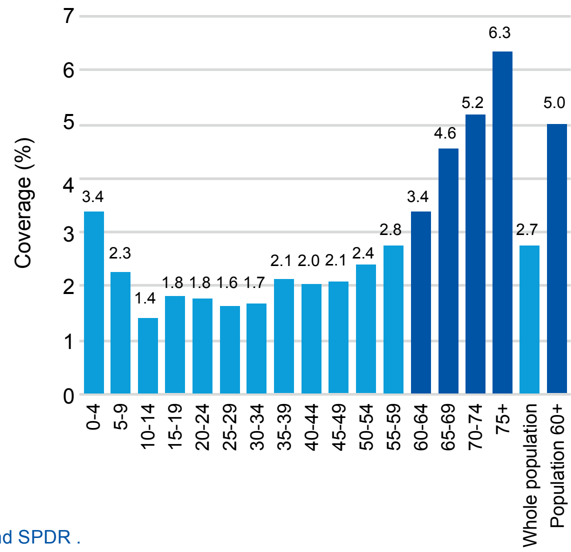


Figure 4.12: Proportion of population in receipt of the Disability Grant, by age, 2019



Source: SES 2019, from analysis undertaken as part of the Thailand SPDR .

The Disability Grant is also a notable component of the wider landscape for old-age income security. In Thailand, recipients of the OAA are also able to receive the non-contributory Disability Grant. Indeed, figure 4.12 highlights that the coverage of the Disability Grant is twice as high among older people 60+ (5 per cent) than the population as a whole (2.7 per cent). Coverage is the highest among those of the most advanced ages, reflecting higher levels of disability among this group (see Chapter 2, section 2.2). Given that the benefit level of the Disability Grant (B800 per month) is higher than the minimum level of the OAA, this additional income is likely to have a significant impact on those in receipt.

4.3 The Social Security Office (SSO)

4.3.1 Coverage

Assessing the coverage of contributory schemes such as the SSO involves assessing two core dimensions. First, the proportion of those over retirement age currently receiving benefits is similar to the indicators discussed above in relation to the OAA. Second, the proportion of the current working population that are contributing to the system and building future entitlements gives an indication about the benefit coverage of older people in the future.

While the SSO only recently began paying old-age pension benefits, the number of recipients is expected to rapidly increase. Given that the SSO article 33 pension scheme was only initiated in the year 1999 and workers must contribute for 15 years in order to receive a periodic benefit, the first of such benefits were only paid in 2014. The number of those receiving pension benefits is increasing significantly each year and reached 231,733 pension recipients in 2019, or 1.7 per cent of the population 55 and over. The number of recipients is expected to continue increasing rapidly as more workers with the required years of contributions reach retirement age.

Currently about two in five workers (38 per cent) are actively contributing to SSO retirement schemes. As presented in table 4.2, in December 2019 11.7 million workers were actively contributing to the SSO article 33 scheme and 1.6 million members were actively contributing to the SSO article 39 scheme, or 31.1 and 4.4 per cent, respectively, of the employed population (35.5 per cent in total).[21] An additional 3.2 million workers were members of the article 40 scheme; however, less than 1.1 million of them were actively contributing

21 In SSO administrative data, only those who actively contribute to the scheme are reported as "insured".

to either option 2 or 3, which build entitlements to retirement benefits.[22] In total, this implies that 14.4 million people (38.3 per cent of the employed population) actively contributed to the scheme in 2019.

There are notable differences in the contributory coverage of men and women. While the number of male and female contributors to the SSO article 33 scheme is almost the same, more women contribute to the SSO articles 39 and 40 schemes. Overall, more women than men actively contribute to SSO schemes (7.5 million versus 6.9 million). Since women are less likely than men to be in employment, the share of employed women who contribute to SSO schemes is also significantly higher than men (43.6 versus 33.8 per cent).

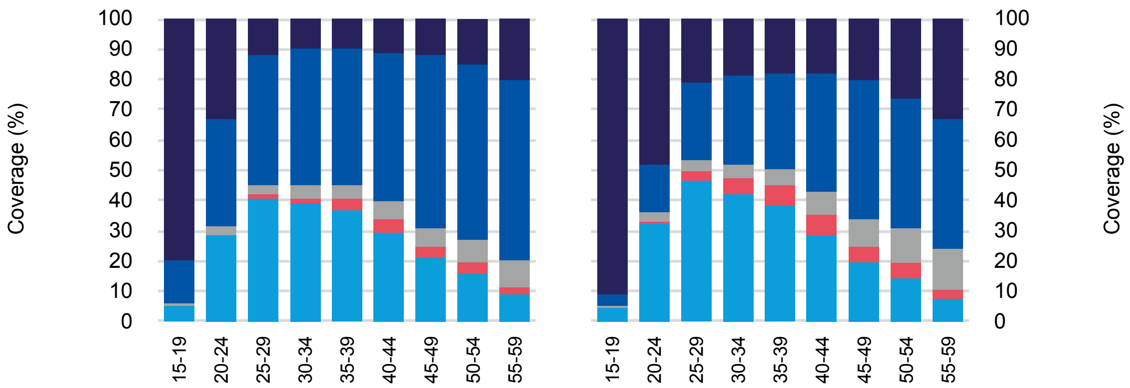
Table 4.2: Active contributors to SSO, by article, December 2019

Scheme	Number			% of employed population			% of total
	Total	Males	Females	Total	Males	Females	
SSO article 33	11,686,393	5,847,396	5,838,997	31.1%	28.6%	34.1%	81.2%
SSO article 39	1,648,118	615,838	1,032,280	4.4%	3.0%	6.0%	11.5%
SSO article 40, of which	3,242,579	1,392,790	1,849,789	8.6%	6.8%	10.8%	22.5%
Active contributors (all)	1,071,996	460,456	611,540	2.9%	2.2%	3.6%	7.5%
Active contributors to retirement schemes*	1,054,374	452,887	601,487	2.8%	2.2%	3.5%	7.3%
Total active contributors	14,388,885	6,916,121	7,472,764	38.3%	33.8%	43.6%	100.0%

* Active contributors to retirement schemes are those who contribute under options 2 and 3 (which include retirement benefits). Figures in italics (active contributors to the SSO article 40 scheme by sex) are estimated based on the distribution by sex of all SSO article 40 scheme members.
Source: SSO administrative data. Note: Calculated in relation to the LFS 2019.

Contributory coverage is higher among younger workers. Figure 4.13 shows the number of members of SSO articles 33, 39 and 40 schemes as a percentage of the population in each five-year age group from 15–59. For both males and females, the share of the population contributing is highest from age 25 to 39 and is lower for more advanced ages. Notably, while women are less likely to be in employment than men, those who are in employment are significantly more likely to be contributing to the SSO.

Figure 4.13: Distribution of population insured by SSO schemes, by age and sex, 2019

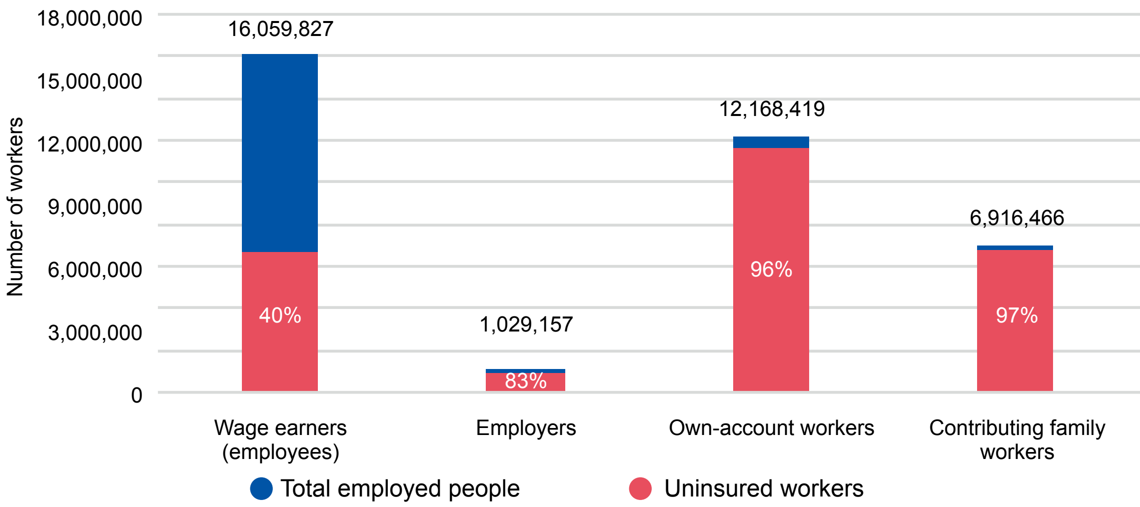


Source: SSO administrative data and LFS 2019. Note: Percentages for article 40 scheme include all members, rather than being limited to active contributors. "Not employed" includes both unemployed individuals and those outside the labour force.

22 The vast majority under option 2 (906,016) rather than option 3 (128,654).

A major driver of the low coverage of SSO pensions is the significant levels of vulnerable employment in the Thai labour market. As discussed in Chapter 2, about half of those in employment are either own-account workers or contributing family workers (disproportionately found in agriculture) who are typically very hard to reach with social security schemes. Based on Informal Employment Survey (IES) 2018 data, figure 4.14 shows that only a small minority of own-account or contributing family workers are contributing to SSO schemes. The SSO article 39 and article 40 schemes have made some positive progress in reaching a portion of these workers but still only cover a minority of them.

Figure 4.14: Size of employed population uninsured by SSO schemes, 2018



Source: Source: ILO calculations based on IES 2018.

Meanwhile, there is also an important gap in the coverage of workers in enterprises that should legally be covered under the SSO article 33 scheme. In theory, most private employees in enterprises of at least one employee (with some exceptions) and temporary government workers should be insured under the SSO article 33 scheme. Figure 4.14 shows, however, that based on IES 2018 data 40 per cent of wage earners[24] are not insured by any SSO scheme. This estimate is based on whether workers were reported to be contributing to an SSO scheme in the IES 2018 survey. Using administrative data,[25] the gap in coverage appears to be lower, with 26 per cent of wage earners uninsured by the SSO article 33 scheme. This may indicate some under-reporting of contributions to SSO in the IES survey; nevertheless, it still represents a substantial gap.

Coverage is lowest in small enterprises and those paying low wages. Analysis of reported contributions to SSO pensions in the IES 2018 shows that coverage is significantly higher in larger enterprises than smaller enterprises, highlighting that the greatest gaps are among small and medium-sized enterprises (figure 4.15). Workers not covered by SSO schemes also appear to be those receiving lower wages. Figure 4.16 illustrates that while the vast majority of workers in the highest three wage quintiles contribute to one of the SSO schemes, this is the case for just 13 per cent of employees in the lowest wage quintile.

24 For the purpose of the analysis, wage earners include both private employees and temporary government workers.

25 In this case, the number of contributors to the SSO article 33 scheme is compared to the number of workers in relevant employment categories according to the IES 2018.

Figure 4.15: Percentage of non-government* employees contributing to social security by enterprise size, 2018

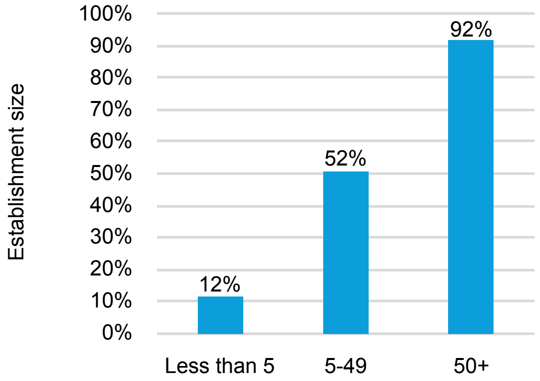
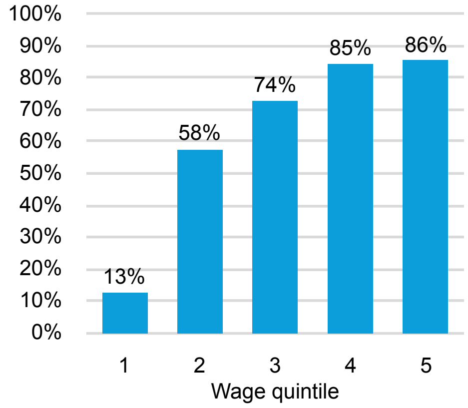


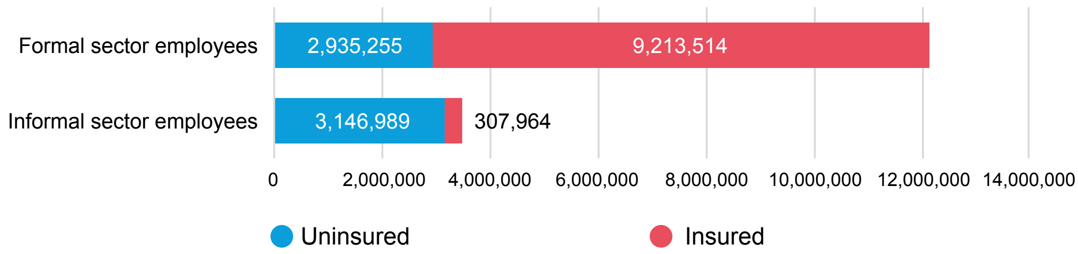
Figure 4.16: Percentage of non-government employees contributing to social security, by wage quintile, 2018



Source: ILO calculations based on IES 2018. Note: *Non-government employees exclude civil service or government officials who are covered by other social security arrangements but include temporary government employees.

While coverage is much lower among informal sector employees, a significant number of formal sector employees are not insured. Figure 4.17 shows that only a small minority of employees in informal sector enterprises are insured by the SSO. This contrasts with formal sector employees, the majority of whom are covered by SSO. Nevertheless, given the larger number of employees in the formal sector, in absolute terms the number of formal sector employees and informal sector employees who are uninsured is relatively similar, at about 3 million each. The gap in the coverage of formal sector employees may result from a variety of factors, including evasion and non-compliance, as well as legal gaps in coverage such as exclusions relating to seasonal workers in agriculture, forestry and fishery and one-time contract or seasonal contracts. A detailed discussion of the interaction of social protection and informal employment goes beyond the scope of this report and is discussed in further detail in a background paper on the issue as part of the wider UN SPDR (Merttens, Cunha, et al. 2021).

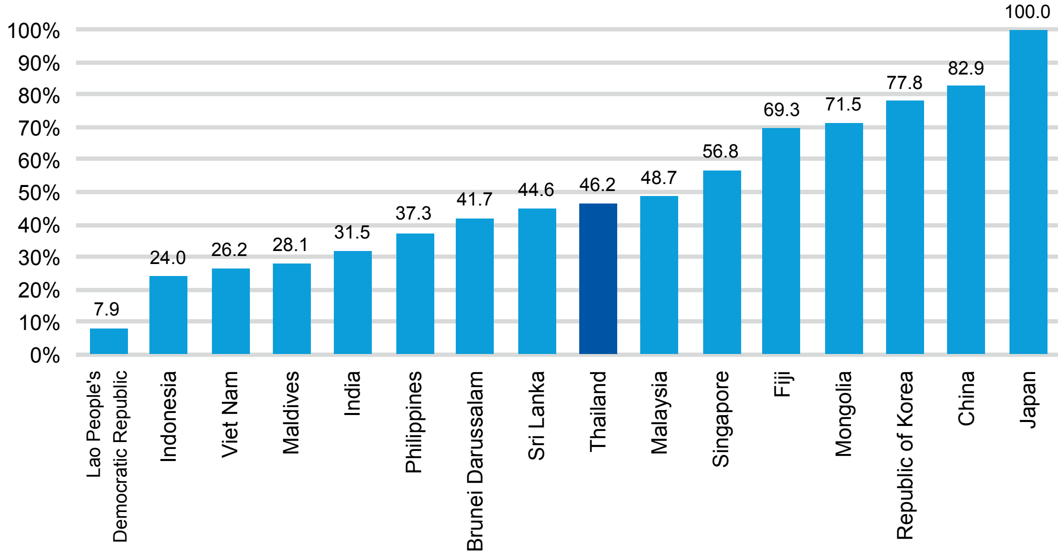
Figure 4.17: Number of insured and uninsured employees by sector (formal/informal), 2018



Source: ILO calculations based on IES 2018.

This level of contributory coverage of SSO pensions is not unprecedented when put in international comparison, but it shows significant potential for improvement. Figure 4.18 shows the proportion of the labour force who actively contribute to (or are insured by) retirement schemes in Thailand. Although this includes all schemes (see Appendix 3), the SSO accounts for the majority of those covered (38 per cent of the employed population). This coverage is similar to other countries at a similar level of economic development such as Malaysia and is higher than the coverage in countries such as the Philippines and Viet Nam. Nevertheless, other countries with lower per capita income, including Fiji and Mongolia, have pension systems with higher contributory coverage than Thailand. This suggests that it is possible for a country such as Thailand to reach significantly higher levels of pension coverage.

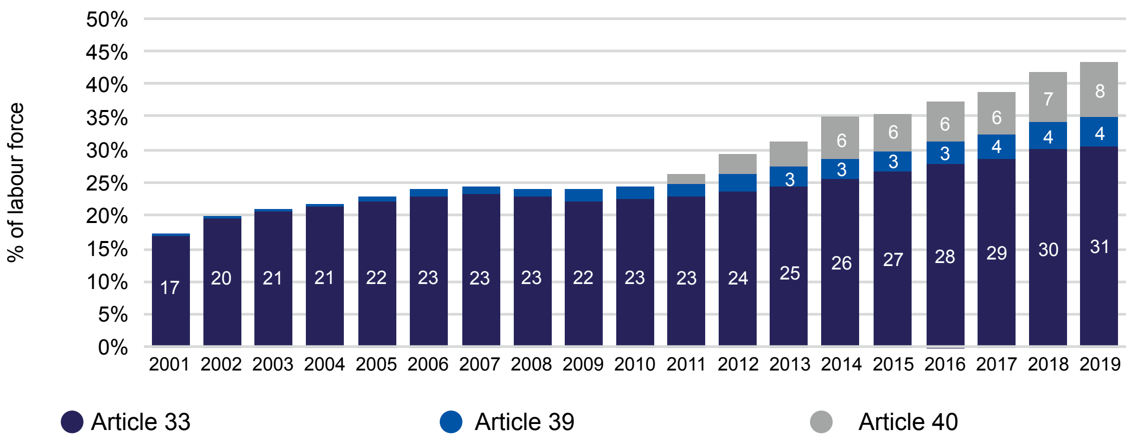
Figure 4.18: Proportion of the labour force actively contributing to/insured by a pension, selected countries in Asia and the Pacific, latest year



Source: ILO, "World Social Protection Database". Note: The figure for total coverage is slightly lower in this case (46.2 per cent) as it is reported in reference to the labour force (LFS 2019) rather than the employed population.

On a positive note, there has been a gradual increase in contributory coverage over the last two decades. Figure 4.19 shows the evolution of the coverage of SSO schemes over the last two decades. In 2001, shortly after the pension scheme was introduced, just 17 per cent of the labour force was contributing to SSO pensions, almost exclusively through the SSO article 33 scheme. The coverage of the SSO article 33 scheme has risen gradually to 31 per cent of the labour force by 2019, with an additional 4 per cent now continuing contributions via the that scheme. One factor contributing to the increased coverage of the SSO article 33 scheme may be falling levels of self-employment over time (ILO 2020). The SSO article 40 scheme has also rapidly increased in coverage since the introduction of a pension component in 2011 and its members now represent 8 per cent of the labour force. Nevertheless, as discussed above, less than one third of SSO article 40 scheme members are active contributors.[26]

Figure 4.19: Percentage of labour force covered by SSO pension schemes, 2001–2019



Source: Author's calculations based on NESDC (2021) and Bank of Thailand (2021a; 2021b). Note: SSO coverage refers to insured population in December of each year, compared to labour force in the same month.

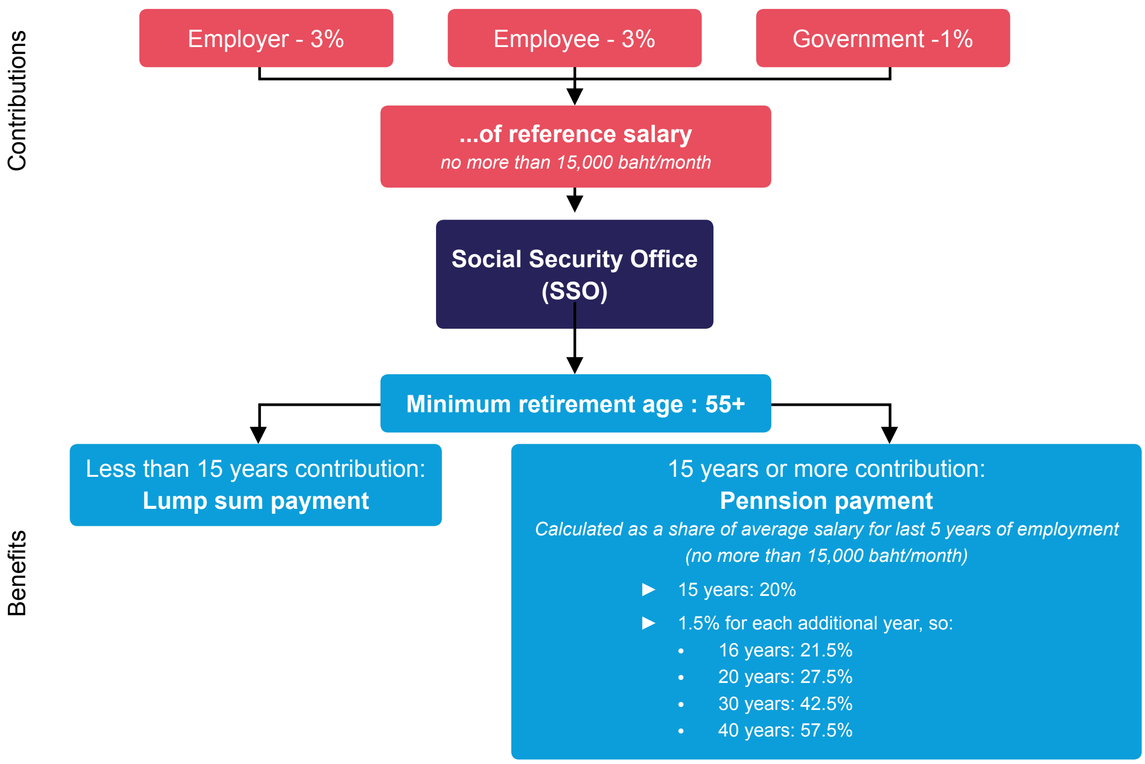
26 Defined as having made at least one contribution in the preceding year.

Thailand can build on this progress to further extend the coverage of SSO pensions as part of a broader transition to the formal economy. There are indications that existing dynamics relating to skills and demographics will contribute to the continued expansion of contributory coverage. Appendix 1 describes how generational differences in employment patterns mean that the Thai labour force appears to be gradually transforming into one that will have higher overall levels of contribution to SSO pensions. This is primarily due to that fact that younger cohorts have higher levels of contributory coverage and in all likelihood will continue to do so. Evidently, such dynamics as the emergence of new forms and work and the economic shock of the COVID-19 crisis may threaten this potential progress. Extending SSO coverage to more workers will also depend on a broader strategy to formalize the Thai economy, including economic and employment policy, improving the compliance of enterprises in contributing to social protection schemes and establishing processes to strengthen business registration.

4.3.2 Adequacy

The benefit structure and formula of the pensions provided under SSO article 33 have the potential to provide adequate minimum benefits, in line with international standards. Figure 4.20 presents the core parameters of the SSO article 33 pension in terms of contributions and benefits. Members who have made 15 years (180 months) of contributions are entitled to a pension equal to 20 per cent of the average earnings of the last five years of employment (those with less than 15 years of contributions receive a lump sum). The minimum retirement age is 55 years. For every additional year of contribution beyond the base contribution of 15 years, an additional 1.5 per cent is added. This means that an individual who has contributed for 30 years will receive a pension equal to 42.5 per cent of the insured salary. Contributions and benefits are only calculated up to a monthly salary ceiling of B15,000 per month. In principle, the benefit structure of the SSO article 33 old-age pension complies with key international standards. For example, the 42.5 per cent replacement rate for the SSO pension after 30 years of contribution is higher than the 40 per cent stipulated by ILO Convention No. 102, although lower than the 45 per cent stipulated by ILO Convention No. 128.

Figure 4.20: Key parameters of SSO article 33 old-age pension



Note: The contribution rate of 7 per cent relates to the two-benefit fund of the SSO, which includes both old-age pensions and child allowances. The contribution rate for old-age pensions is 6.35 per cent, when excluding the recommended contribution for the child allowances in the latest actuarial valuation (0.65 per cent) (ILO 2016).

However, there are a number of factors that limit the adequacy of SSO article 33 pensions. These can be categorized into two groups: (1) issues that limit the number of years of contribution that workers accumulate and (2) issues in the way in which the benefit is defined.

Issues affecting years of contribution

- **The scheme is relatively new.** Given that the scheme was only introduced in 1999, people who are currently receiving pensions have relatively short contribution histories of 15–20 years. This means that they can only achieve a replacement rate of 20 to 27.5 per cent. Box 4.1 gives examples of how short contribution histories affect pension entitlements. While Khun Somchai and Khun Malee have the same basic earning profile, Khun Malee – with a 30-year contribution history – will receive more than double the pension benefit of Khun Somchai. As the scheme matures, future retirees will likely have accumulated more contribution years. This is illustrated in figure 4.21, which shows the number of contribution years accumulated by age for active contributors in October 2020. While active contributors aged 55–59 have an average of about 17–18 years, those aged 40-44 have already on average accumulated more than 15 years. In theory, many of these workers will have sufficient time during the remainder of their careers to accumulate 30 full years of contributions (especially if they postpone retirement to age 60).

Box 4.1: Illustrations of SSO pension benefit entitlements

Khun Somchai: A short contribution history

- He started contributing with the inception of the SSO pension in 2000, at age 40.
- Contributed for 15 years before retiring in 2016, with 15 years of contribution.
- Average salary for last 5 years of employment was B14,000 per month, close to the average wage of all employees in the labour market (2015–2019).[27]
- Replacement rate for 15 years of contributions is 20 per cent, so monthly pension is:
  - B2,800 per month

Khun Malee: A longer contribution history

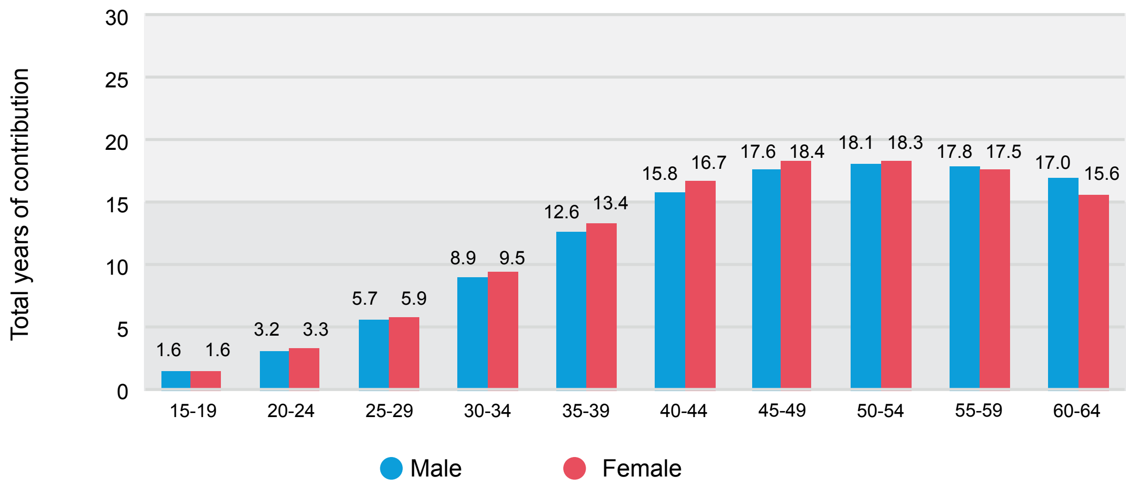
- She started contributing with the inception of the SSO pension in 2000, at age 25.
- Will contribute for 30 years and retire at age 55 in 2030.
- Average salary for the last 5 years of employment will be B14,000 per month.
- Replacement rate for 30 years of contribution is 42.5 per cent, so monthly pension is:
  - B5,950 per month

Khun Arthit: A longer contribution history and higher salary

- Started contributing with the inception of the SSO pension in 2000, at age 25.
- Will contribute for 30 years and retire at age 55 in 2030.
- Average salary for the last 5 years of employment will be B30,000 per month
- Replacement rate for 30 years of contribution is 42.5 per cent of the salary below the ceiling (B15,000 per month), so monthly pension is:
  - B6,375 per month
  - This represents a replacement rate of just 21.25 per cent of the average salary for the last five years of employment

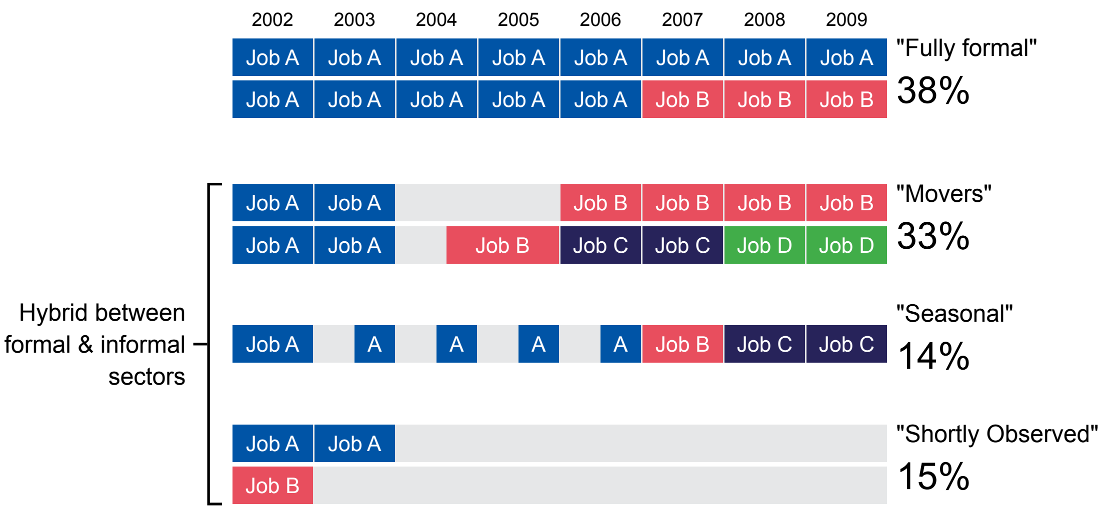
27 The average wage was B13,815 per month from 2015–2019.

Figure 4.21: Average years of contribution for active contributors to the SSO article 33 scheme, by age and sex, October 2020



- **Low retirement ages reduce the length of contributions.** Workers who retire at the minimum pension age of 55 have a relatively short window to achieve an adequate pension. A worker joining the labour force after studying in their early twenties will need to work relatively consistently with minimal career breaks to achieve 30 full years of contribution (and a replacement rate of 42.5 per cent). Later retirement ages provide a longer period to accumulate pension entitlements and also provide the opportunity for many workers to reach a higher level of seniority and receive higher wages (influencing the adequacy of their pension). As discussed below, this is also a major factor in the sustainability of pension schemes.
- **The dynamic nature of the Thai labour market.** As already discussed, it is common for workers in the Thai labour market to move in and out of formal employment throughout their working lives. This was explored by undertaking research based on SSO administrative data to explore labour market transitions over a period of eight years. The research found that, for the period 2002–2009, the majority of workers who made some contribution to SSO schemes moved in and out of formal employment. Less than half (38 per cent) could be considered "fully formal" across the period (figure 4.22) (Wasi et al. 2020). These dynamics mean that many workers will only accumulate few years of contributions.

Figure 4.22: Typical work patterns of SSO members, 2002–2009

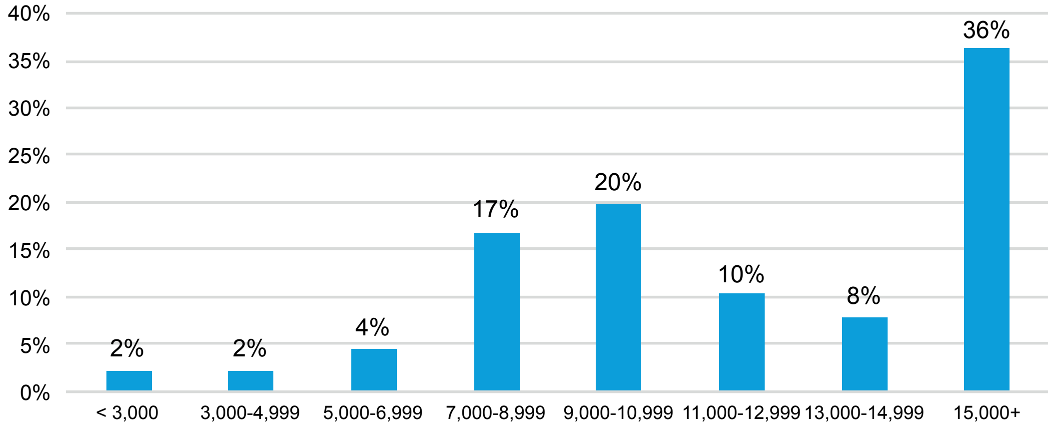


Source: Wasi et al. (2020).

Issues in the definition of benefits

- **The salary cap reduces the replacement rate for a significant portion of workers earning above B15,000 per month.** A salary cap of B15,000 per month was introduced with the inception of the scheme in 1999. While the cap may have been appropriate when the scheme was initiated, it is now relatively low compared to wages in the labour market. In the early years of the scheme, the average wage of employees was B6,700 per month (2004), but as of 2019 the average wage was B13,996 per month (figure 4.24). By October 2020, 36 per cent of contributors had a salary above the ceiling, which has increased from 25 per cent in 2018 (figure 4.23). By only accounting for a portion of a worker's salary, the low ceiling significantly limits the adequacy of the benefits provided. The impact on adequacy can be seen with the case of Khun Arthit (see box 4.1 above). He retires after 30 years of contributions, with a salary of B30,000 per month during the last years of employment. The benefit received (B6,375 per month) is 42.5 per cent of the salary below the ceiling; however, this represents a replacement rate of just 21.25 per cent of his actual earnings.

Figure 4.23: Distribution of contributors to the SSO article 33 scheme by salary, 2020



Source: SSO Administrative data (October 2020).

Figure 4.24: Average wage (employees), 2004–2019

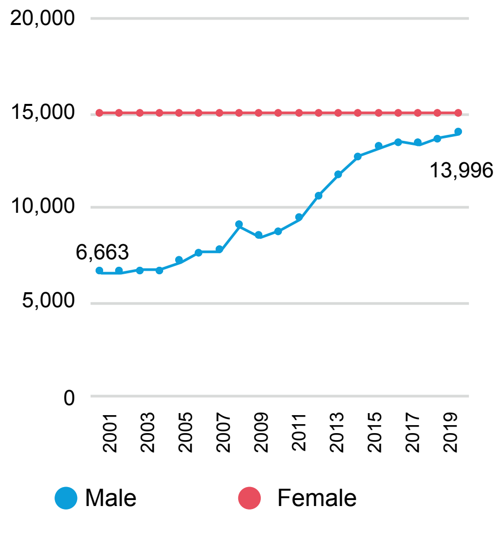
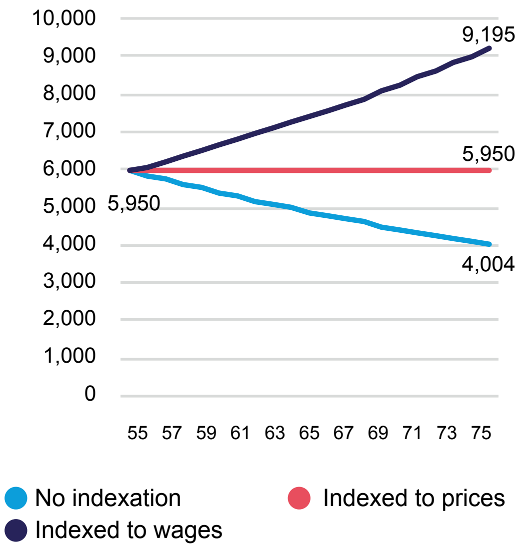


Figure 4.25: The value of Khun Malee's pension over a 20-year time frame



Source: LFS, various years, based on Bank of Thailand (2021c).

- **The pension formula is weighted against shorter contribution histories, which is potentially regressive.** The current pension formula means that the amount of pension earned per year is lower for the first 15 years of contribution (1.33 per cent), compared to subsequent years (1.5 per cent). Other countries have in place pension formulas that put greater weight on the earlier years, meaning that individuals with shorter contribution histories have proportionately higher benefits. Putting greater weight on earlier years can make schemes more progressive as lower-income workers are also more likely to be those with shorter contribution histories.
- **Pension benefits are not indexed to inflation.** This means that the purchasing power of the benefit gradually decreases during the years of retirement. Figure 4.25 illustrates this issue, giving the example of Khun Malee's pension over a 20-year time frame (with retirement at the age of 55). Assuming an average price inflation of 2 per cent per year,[28] Khun Malee's pension would have lost a third of its purchasing power by the time she reaches the age of 75 – falling from B5,950 per month to B4,004 per month in real terms. Figure 4.25 also shows how the benefit would evolve were it indexed to average wages (assumed to increase by 2.2 per cent per year in real terms[29]), indicating that after 20 years the benefit indexed to wages would be over 50 per cent higher (at B6,568 per month) than the benefit indexed to inflation (B5,950 per month). This illustrates how pension benefits can fall gradually further behind wages in the labour market, especially when not indexed to inflation.
- **Lump sum benefits limit adequacy and predictability for those with short contribution histories.** Those SSO members with less than 15 years of contributions can receive a lump sum payment on retirement. The way in which lump sum benefits are calculated means that they provide a significantly lower rate of return on contributions compared to the pension benefits provided by SSO. As with all lump sum benefits, they do not provide a predictable flow of income in old age or insure against longevity. These issues disproportionately affect women due to their longer life expectancy, meaning that they need to spread lump sum benefits more thinly over a longer period.

Specific adequacy issues relate to the pension provided under SSO article 39. The SSO article 39 scheme provides the scope for individuals who previously contributed to the scheme to continue contributing voluntarily, for example, if moving to self-employment. All contributors pay B432 per month, which is calculated as 9 per cent of the base salary of B4,800 per month. This contribution rate creates two issues in terms of adequacy. First, the base salary is arguably low compared to relevant reference points such as the monthly minimum wage, which equates to about B6,700 per month for someone working five days per week. Second, a move to the SSO article 39 scheme during the final years of an individual's career can significantly reduce the pension entitlement. This is because SSO pensions are only calculated as an average of the last five years of earnings, which in the case of the SSO article 39 scheme is B4,800 per month. Box 4.2 illustrates the case of Khun Praew, who has lifetime earnings significantly above 4,800 per month but – by moving to the SSO article 39 scheme for the final five years – receives a pension with a significantly lower replacement rate. This will present a major issue for workers who move to self-employment for their final working years. These two issues are part of the motivation for increasing the base salary for the SSO article 39 scheme and introducing a career-indexed pension plan, as discussed below.

28 This is in line with the average annual consumer price inflation for the period 2000–2019 (2.03%) (IMF 2019b).

29 This is in line with the average annual real wage growth for the period 2001–2019 (2.2%).

Box 4.2:
Illustration of the adequacy issues of the SSO article 39 scheme

Khun Praew: Moving to the SSO article 39 scheme during the final years of work

- ► She started contributing to the SSO pension in 2000, at age 25.
- ► Will contribute for 25 years and retire at age 55 in 2030.
- ► Khun Praew earns 10,000 as an employee in a formal enterprise before moving to self-employment for the last 5 years of employment, with the same level of earnings.
- ► The replacement rate for 30 years of contribution is 42.5 per cent and is calculated in relation to the base salary of the SSO article 39 scheme for the final five years of employment. The pension benefit is:
  - B2,088 per month.
  - Final replacement rate is just 21 per cent of the actual monthly earnings during the final five years.

A variety of factors mean that retirement benefits from the article 40 scheme will have limited adequacy and predictability.

- **Low levels of contributions and lump sum payment.** Contributors to article 40 can either contribute B100 per month (with a B50 per month contribution from the Government) under option 2 or B300 per month (with a B150 per month contribution from the Government) under option 3. A lump sum benefit on retirement is calculated by multiplying the contributions by months of contribution, plus interest. Calculations in Appendix 2 show that – even under relatively optimistic scenarios – final benefit levels from the scheme would be low. The real value of the final lump sum would vary between B54,600 under option 2 and B163,900 under option 3. When spread across the full years of retirement (from age 60), these sums would be very low, at B203 to B229 per month for option 2 and B608 to B688 per month for option 3. The lower values are for women who have longer years of life expectancy. The vast majority (86 per cent[30]) of active contributors to SSO article 40 retirement benefits are under option 2. Therefore, the lower values presented above provide the more relevant reference point for adequacy for most contributors.
- **Low contribution density.** The assumption that individuals will contribute for 30 years to the scheme is very optimistic for a voluntary scheme of this nature and based on the data available in Thailand. Only about two thirds of those actively contributing to SSO article 40 retirement schemes (option 2 and 3) contribute between 7 and 12 months within a given year. In sum, benefits from article 40 are likely to only provide small supplements to retirement income which, even in a best- case scenario, are lower than the already modest benefits provided by the OAA.

30 Of the total active contributors to option 2 or 3 of the SSO article 40 scheme, 906,016 (86 per cent) contribute to option 2 and 128,654 (14 per cent) to option 3.

4.3.3 Sustainability

The financial evolution of the SSO old-age pension is following the normal progression of a scheme of this nature. The latest ILO actuarial valuation undertaken for the SSO conducted a projection of old-age long-term benefits, assuming that the parameters of the scheme – such as retirement age and contribution rate – remained the same.[31] The basic dynamic identified by the valuation is presented in box 4.3. From the mid-2020s, benefit expenditure will begin to increase faster than revenue (from contributions and investment returns). This means that from 2035, the scheme would need to use income from investment returns to finance expenditure, while from 2043 it would be necessary to use fund reserves. By 2054, the reserves would be depleted, meaning that the scheme would need to significantly increase the contribution rate to cover expenditures or else receive a subsidy from the Government. While this analysis calls attention to the financial sustainability of the SSO pensions, such dynamics are normal for social insurance pensions. The main message is the need to adjust the parameters of the scheme in response to the changing national context in Thailand, in particular the ageing of the population.

The two main drivers of the projected financial progression of SSO pension schemes are the modest contribution rates and the low retirement age in comparison with life expectancy at retirement.

- The contribution rate of the SSO is relatively low compared to the benefits provided; even without demographic ageing, a higher contribution rate would be required in future in order to retain the actuarial balance. Many countries, like Thailand, have introduced pension schemes with relatively low contribution rates, with the expectation of increasing them in line with greater economic development, higher incomes in the labour market and more mature schemes.
- Without a change to the retirement age, the demographic factors described in Chapter 2 will have a significant influence on increasing the number of beneficiaries relative to contributors. Box 4.3 puts the current contribution rate in perspective given the projected financial evolution of the scheme.

Box 4.3:
Financial projection of SSO pensions

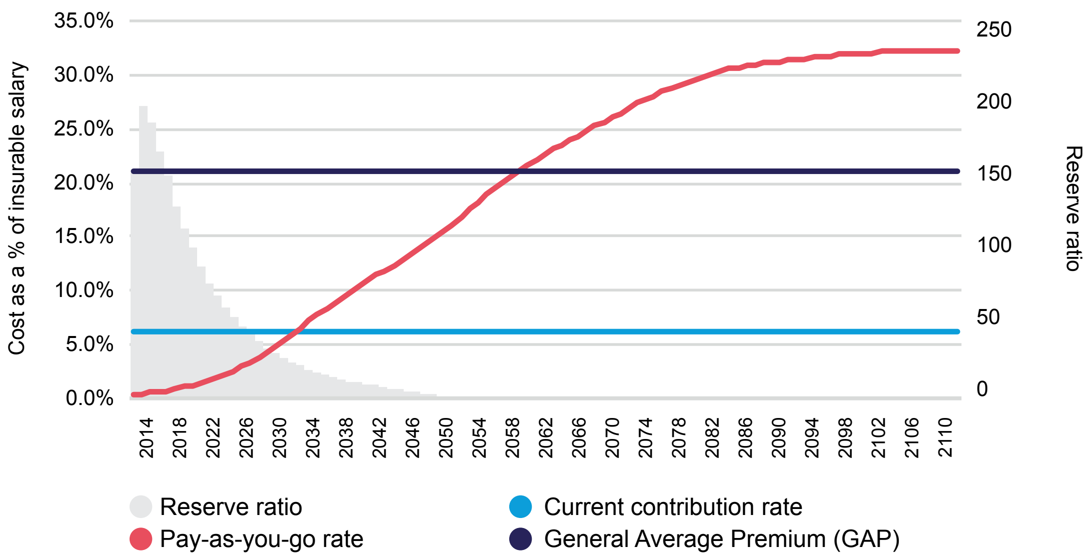
Figure 4.26 presents a set of indicators that help to understand the financial dynamics of SSO pensions, based on the latest actuarial valuation.

- ► The **pay-as-you-go (PAYG)** rate is the contribution rate that would be necessary to pay all expenditures (benefits plus administration) in a given year. For the early years of a pension scheme (when there are more contributors than recipients), the PAYG rate will be low, as is currently the case in Thailand (estimated at 0.7 per cent). However, as more scheme members reach retirement age and with the ageing of the population, this rate will increase rapidly and significantly into the middle of the century and beyond to reach 32 per cent by 2100.
- ► The **general average premium (GAP)** is the contribution rate, as a percentage of insurable earnings, that is required to pay for all expenditures over the entire projection period. This would be 21.1 per cent, which can be seen as the contribution rate required to keep the scheme in financial balance over the next century.
- ► Figure 4.26 also shows the **existing contribution rate** of 6.35 per cent.[32] While this is expected to be higher than the PAYG rate until 2035, it is significantly below the GAP necessary to keep the scheme in financial balance in the long run. Figure 4.26 also shows how – by maintaining the contribution rate and other scheme parameters – the fund will be depleted by 2055.

31 The analysis in the actuarial valuation refers to the situation as of 31 December 2013 and a new actuarial valuation is forthcoming.

32 The contribution rate for old-age pensions is 6.35 per cent, when excluding the recommended contribution for the child allowances in the latest actuarial valuation (0.65 per cent). The total contribution for the 2-benefit fund is 7 per cent (ILO 2016)

Figure 4.26: Key aspects of the financial projection of SSO pensions



Source: (ILO 2016).

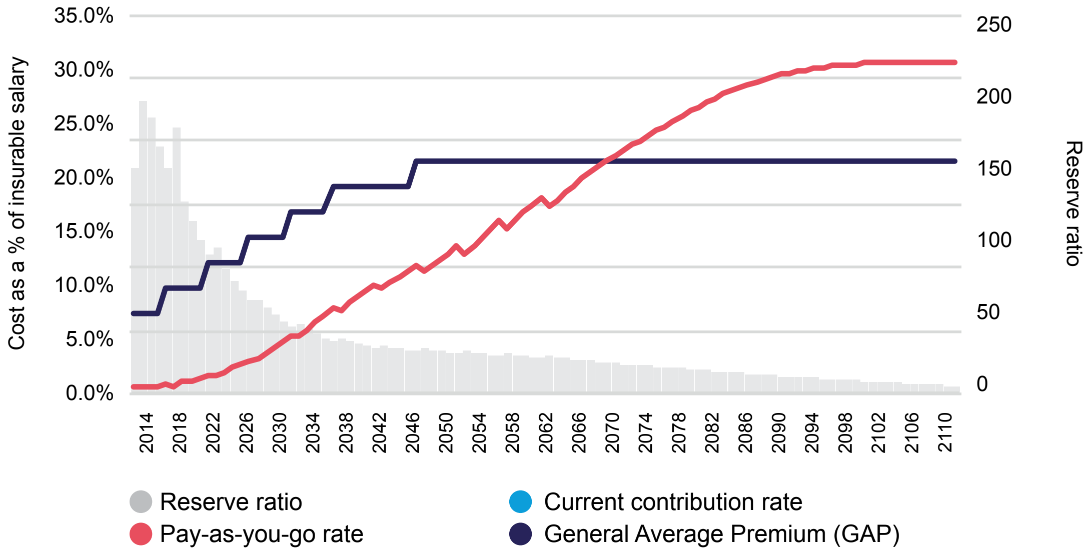
Gradual increases in the retirement age and contribution rate would dramatically improve the financial health of the SSO pension fund in the long run. The ILO actuarial valuation simulated hypothetical scenarios for reform, highlighting how a combination of parametric adjustments over time would strengthen the financial projection of SSO pensions. These included:

- **Increasing the contribution rate** gradually by 2 per cent every five years starting in 2018. In that scenario, the contribution rate would stop increasing in 2048 and remain at 18.4 per cent. This scenario alone would extend the depletion of the reserve by 35 years (from 2054 to 2089).
- **Increasing the retirement age** gradually to age 65 by 2064 (50 years after the start of the projection). Combined with the increased contribution rate, this would result in a remaining reserve at the end of the projection period, with a reserve ratio of 5.[33]

The results of these two adjustments are presented in figure 4.27. Combining these two measures would result in a remaining fund with a reserve ratio of 4.7 at the end of the projection period. These scenarios are illustrative and will be updated in the forthcoming actuarial valuation and will assess the scheme as of 1 January 2021. Nevertheless, they show that adjustments to the SSO pension scheme can have a dramatic impact on improving the fund's sustainability.

33 The reserve ratio is the ratio of the end-of-year reserve over the annual expenditures for the year.

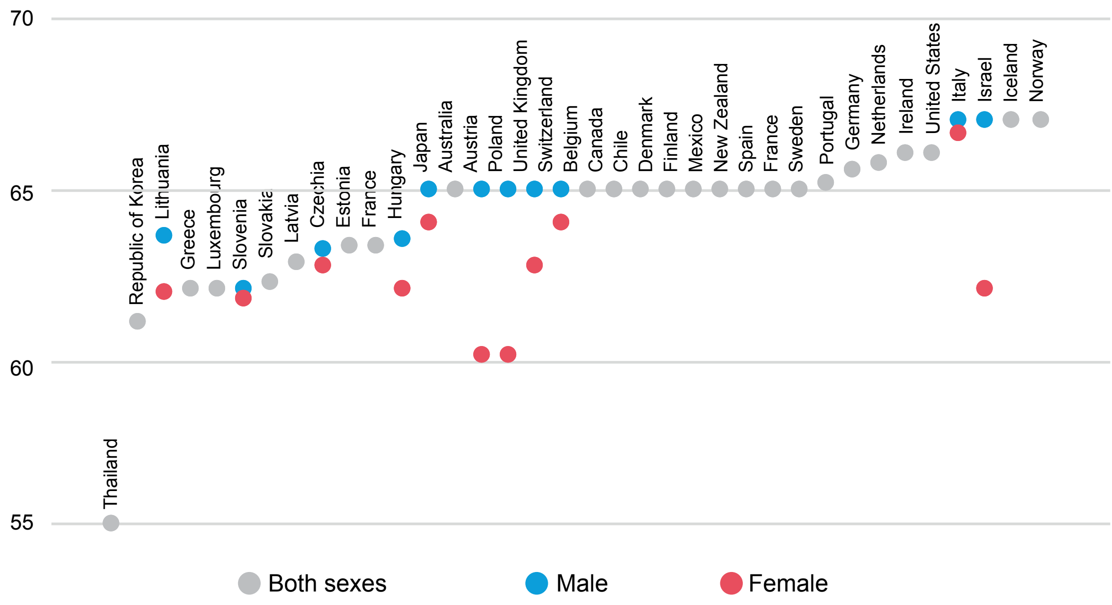
Figure 4.27: Consolidated reform scenario from ILO actuarial valuation (as of 31 December 2013)



Source: (ILO 2016).

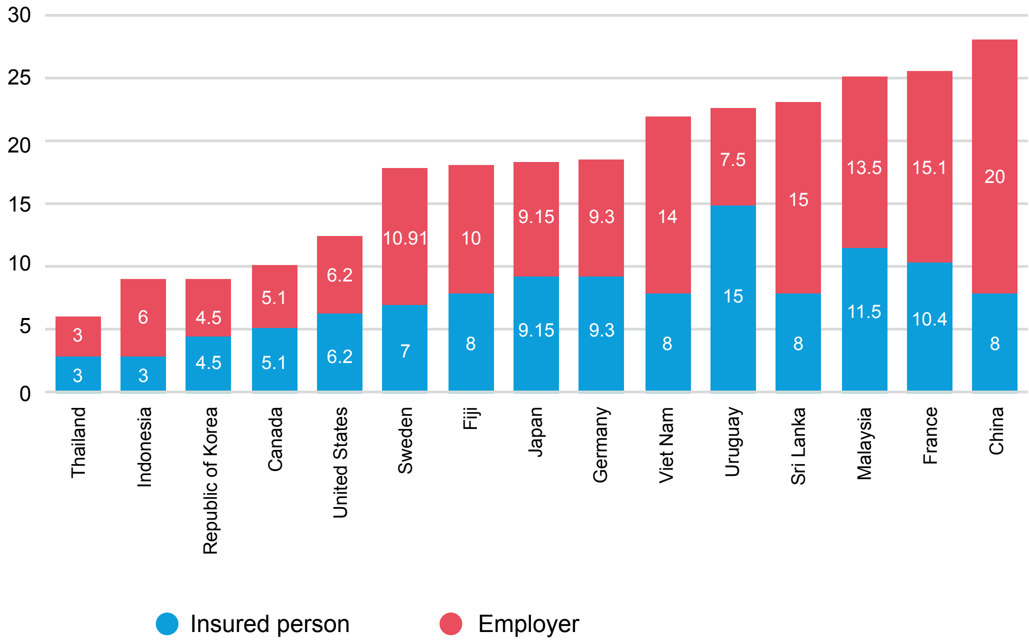
While such changes need careful planning, the necessary direction is in line with the design of pension schemes in other comparable countries. Any adjustments to the SSO pension scheme should be assessed carefully and also undertaken gradually so as not to provide a sudden shock to workers, employers and old-age pension recipients. Nevertheless, the trajectory of the reforms would be very much in line with countries facing similar challenges to Thailand. With regard to the retirement age, figure 4.28 shows retirement ages in OECD countries, which are mostly now about 65 years or above. In this context, the move to a retirement age of 65 by 2064 (outlined as a scenario in the actuarial valuation) appears reasonable given that by this time Thailand is expected to be a high-income country with a large older population. Similarly, the combined contribution rate of 18.4 per cent is modest by international standards, especially in high-income countries. Figure 4.29 shows that it is very common for countries to have a pension contribution rate higher than 15 per cent. Upper-middle-income countries in the Asia and the Pacific region, such as China, Malaysia and Viet Nam, already have contribution rates in excess of 20 per cent.

Figure 4.28: Normal retirement age in OECD countries compared to Thailand



Source: OECD (2019).

Figure 4.29: Contribution rates for pensions (old-age, disability and survivors), selected country, latest year



Source: OECD (2019).

4.4 National Savings Fund (NSF)

The National Saving Fund is a voluntary defined-contribution scheme introduced in 2011 aimed at informal economy workers who are not legally covered by other retirement schemes (SSO, civil servants and so on) and the unemployed. Individuals can make contributions from just B50 per year up to a maximum of B13,200 per year, which are matched by the Government based on the age of the contributor. The Government will match up to:

- B600 per year for workers aged 15–30;
- B960 per year for workers aged 31–50; and
- B1,200 per year from workers aged 51–60.

Contributions are invested and the NSF guarantees a minimum return of the fund at the average deposit rate on 12-month time deposit accounts offered by various banks in Thailand. These savings are then converted into a pension provided at the age of 60 for up to 20 years to the age of 80 (Ratanabanchuen 2019). With regard to the interaction of the NSF with other schemes, a member of the SSO article 40 scheme must resign from this scheme to begin contributing to the NSF; however, an NSF member need not resign from NSF to join the article 40 scheme (but would simply stop making contributions).

While the NSF rapidly expanded its membership in 2019, its coverage remains modest relative to the employed population. Having counted on about 0.5 million members from 2015 to 2018, coverage rapidly increased to 2.3 million members in 2019. This sharp increase was linked to a significant push for registration by the NSF linked to collaboration with various other ministries and financial institutions (Bangkok Post 2020). In 2019, this membership was equal to about 6 per cent of the employed population or about one in ten workers in informal employment. Data on active contributors, however, is not available and the experience of the SSO article 40 scheme – which targets a similar population – would suggest that only a minority of members actively contribute. In this respect, the coverage of the scheme represents an important but still modest expansion of coverage relative to the scale of the informal economy.

Figure 4.30: NSF members by occupation, 2019

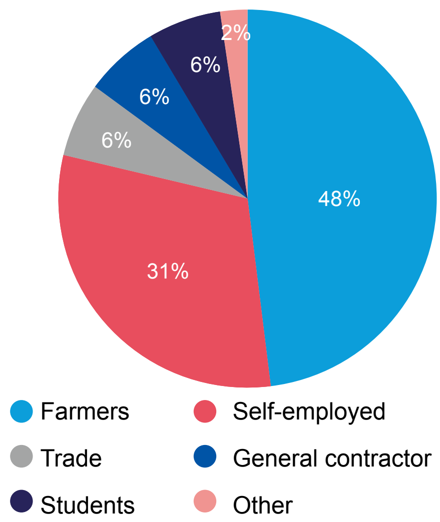
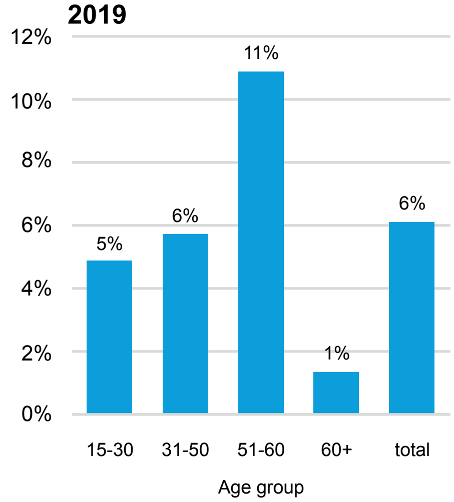


Figure 4.31: NSF members as a share of employed population, by age, 2019



Source: NSF. Note: According to standard statistical categorization of occupations and employment relationships, the categories in figure 4.30 can be considered to overlap. The definitions of each category have not been provided by NSF.

34 The Government Savings Bank, the Bank for Agriculture and Agricultural Cooperatives and the five biggest commercial banks in Thailand.

35 At the time of preparation of this report, it also appears that steps are being made to introduce an annuity.

36 Based on ILO analysis of LFS 2019. Total employment in 2019 was 37,613,439 persons (LFS 2019). Informal employment was estimated to represent 67.6 per cent of the employed population, based on ILO analysis of the IES 2018.

NSF members are dominated by workers in agriculture and self-employment, while older workers are disproportionately represented. Almost one half (48 per cent) of all NSF members in 2019 were in agriculture, while a further 31 per cent were self-employed (figure 4.24). Meanwhile, individuals aged 51–60 make up 38 per cent of all members and more than 11 per cent of the employed population in this age group are NSF members (figure 4.31). The higher share of contributors of more advanced ages is likely to be linked to the fact that the match of contributions by the Government is highest for the age group 51–60, along with the potentially greater urgency felt by older workers to put aside retirement savings. Data is not available on the distribution of NSF members by sex.

While the scheme can provide welcome additional retirement savings, in most cases the adequacy of benefits is likely to be low. Data is not available on the size of contributions made by NSF members; however, given that the Government's contribution matching does not extend beyond B100 per month, there is a strong likelihood that most individuals will contribute this amount. Calculations published on the NSF website suggest that an individual contributing B100 per month for 10 to 30 years could expect to receive B600 per month, equivalent to the lowest benefit of the OAA.[37]

Benefits are also likely to be paid for a short period. For members making a B100 per month contribution for 30 years (consistently from age 30 to age 60), the B600 per month pension benefit would last about 16 years, while for those contributing consistently from age 50 it would last only about 4 years. Given the higher match at older ages (which is reflected in the membership), it is likely that most contributors will have relatively short contribution histories at best. While this might provide a welcome supplement to retirement income for a few years, even when combined with the OAA benefit it would not reach close to the national poverty line.

The NSF scheme does not pose major concerns in terms of sustainability, but this could change if the matching of contributions were to be increased. While detailed data on this expenditure was not available at the time of preparation of this report, it is possible to give a sense of the scale of the government subsidy for the scheme. Were all 2.3 million members of the NSF to make the contributions necessary to take full advantage of the government match, this would have cost B2.2 billion in 2019. This represents a small sum relative to the B78 billion spent on the OAA or the B239 billion spent on civil service pensions in 2019. Even were the NSF to quadruple in coverage to 10 million consistently contributing members, this would equate to B10 billion. The main concern may relate to a situation in which the matching contribution made by the Government increases, which would have corresponding impacts on costs.

4.5 Civil servant pensions

Civil servant pensions consist of two layers. The first is a tax-financed scheme, which provides lifetime pensions for civil servants with a career of more than 25 years and lump-sum benefits for 10–25 years. All civil servants employed after 1997 are also automatically enrolled into the GPF, a contributory defined-contribution fund established in 1996. Members can make contributions from 3 to 15 per cent of their salary, with the Government paying an additional 5 per cent. On retirement, the savings can be withdrawn gradually or as a tax-free lump sum (Ratanabanchuen 2019).

Coverage of civil servant pensions is generally not considered to be an issue, but there are some salient points to note for some categories of government workers. First, a significant percentage of people working in government are not covered by the civil servant pension scheme. Of the approximately 3.1 million workers in government, about one third (1 million) are "temporary employees" and a further 0.2 million are "government employees". Both groups are covered by the SSO pension scheme rather than the civil servant pension schemes (where relevant for their contract[38]). Analysis of survey data suggests that about 66 per cent of temporary employees contribute to the SSO article 33 scheme.[39] Second, the nature of

37 The focus in the discussion is on contributions of 15 and 30 years, since a contribution history of 45 years is very high for any social security scheme and there would likely be few cases of individuals consistently contributing for this duration.

38 Temporary government employees may include contractors who are not mandated to contribute to the SSO article 33 scheme.

39 ILO calculations based on IES 2018. The gap is possibly due to short-term contracts of workers and also possibly to under-reporting within the IES 2018 survey.

the scheme raises issues for civil servants who only pursue short careers in government. Pension benefits are only provided after 25 years of service and a lump sum after 10 years of service. This would mean that an individual working 9 years in the civil service would receive no retirement income for this substantial portion of their working life. Equally, an individual with a career split between the public and private sectors (for example 20 years as a civil servant and 14 years in a formal enterprise insured under the SSO article 33 scheme) would only receive lump-sum benefits.

Adequacy of pensions for civil servants is significantly higher than other schemes in the pension system. While the civil servant pension system was reformed in 1997, partly with the aim of reducing benefit levels, civil servants with 35 years of employment can still expect to receive 65 per cent of their final salary, significantly more than the 50 per cent replacement rate for the same period of contributions under the SSO article 33 scheme. There is also no ceiling on the salary used as a basis for the benefit calculation – unlike for the SSO article 33 scheme. It should be noted that the salaries of civil servants are higher than in the private sector. In addition to the civil servant pension, the lump-sum benefits earned via the GPF further increase pension adequacy.

The costs of the civil servant pension scheme make up the main share of current old-age social protection expenditure and these costs are expected to rise substantially. As shown in table 4.3, expenditure on annuities (regular retirement benefits) in 2019 was B202 billion or 1.2 per cent of GDP. Lump-sum payments and government contributions to GPF constituted an additional 0.2 per cent of GDP in total. This implies that the total expenditure on civil service pensions is 1.4 per cent of GDP, more than three times the cost of the OAA. This is despite that fact these schemes cover about 5 per cent of older persons, compared to about 80 per cent covered by the OAA.

Table 4.3: Expenditure on civil service pension and retirement schemes

	2016	2017	2018	2019	2020
Millions of baht					
Annuity pension	143,560	163,351	184,313	201,925	225,569
Lump sum	18,236	16,679	16,937	18,202	18,630
GPF contribution	16,743	17,273	17,900	18,624	19,365
Total	178,539	197,303	219,150	238,751	263,564
% of GDP					
Annuity pension	0.98%	1.05%	1.13%	1.20%	1.45%
Lump sum	0.12%	0.11%	0.10%	0.11%	0.12%
GPF contribution	0.11%	0.11%	0.11%	0.11%	0.12%
Total	1.22%	1.27%	1.34%	1.41%	1.69%

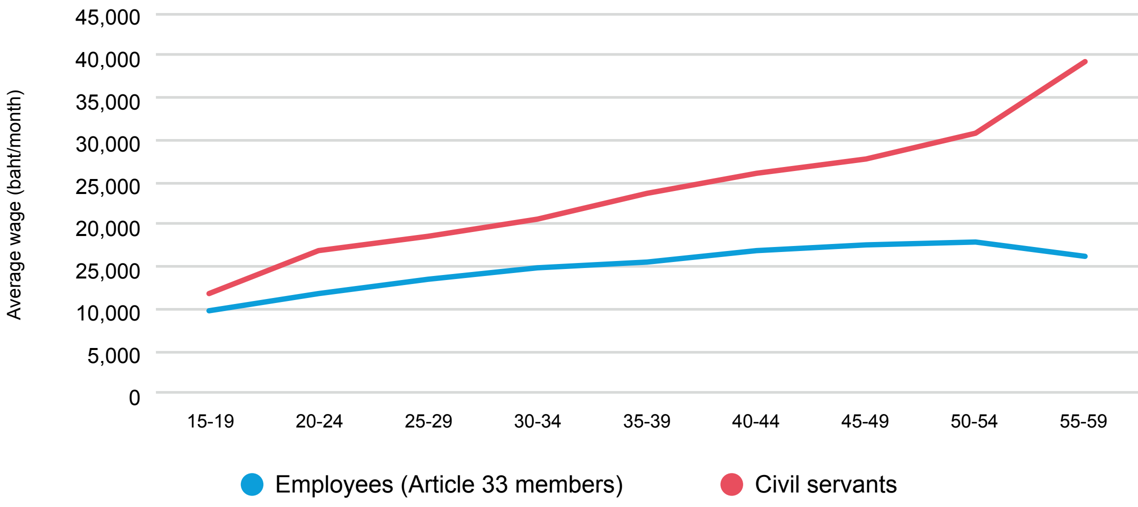
Source: Data from the Comptroller General's Department collected as part of the Thailand SPDR . GDP denominator based on IMF (2020b). Note: Disability and survivors' (death) benefits not included.

The IMF has also forecasted that costs will increase to 1.8 per cent of GDP in 2035 and 2.4 per cent of GDP in 2060. Notably, the expenditure in 2060 will exceed the total projected pension expenditure of the SSO (1.9 per cent of GDP) (IMF 2019a). Moreover, these projections appear to be related to only a portion of the direct benefit payments from the central Government and not to GPF contributions.[40] Indeed, the short period from 2016–2019 already saw a significant increase in total expenditure from 1.2 to 1.4 per cent of GDP. This further increased to 1.7 per cent of GDP in 2020, although this is to a large extent linked to the projected fall in GDP due to the COVID-19 crisis.

40 The IMF analysis estimates a total civil servant pension expenditure of 0.9 per cent of GDP in 2017, which is significantly lower than the reported annuity payments from the Comptroller General's Department (1.1 per cent of GDP).

While civil servant pensions need to be assessed in light of their role within the civil servant wage package, the scale of the scheme within the wider pension system merits careful review. An analysis of the level of the salaries of civil servants also points to some potentially relevant issues (figure 4.32). First, overall salaries within the civil service are significantly higher than those of contributors to SSO article 33 pensions. This would cast doubt on the argument – often used for more generous civil servant pensions – that they compensate for proportionally lower salaries in the civil service than in the private sector. Second, there is a notable uptick in the salaries of workers in the civil service from age 55–59. Given that the pension calculation is made in reference to the last five years of salary (or the final salary for those employed before 1997), this may suggest that salaries are being increased in later years in order to boost the pension entitlement. Such a dynamic may point towards the need for pension benefits to be calculated on the basis of a larger portion of a worker's career.

Figure 4.32 Average wage of civil servants and SSO article 33 contributors, by five-year age group, 2018



Source: ILO calculations based on IES 2018.

4.6 National Pension Fund (NPF)

The Government of Thailand is currently considering the introduction of the NPF – a mandatory defined-contribution scheme. Under the draft legislation, it will be proposed that once fully implemented, the scheme would mandate all employees in enterprises with 1 or more employees to be members of the scheme.[41] Employers and employees would each make a contribution of 10 per cent of the employee's salary (equal to 20 per cent in total), with the option to increase the contribution up to 15 per cent. Contributions would be invested by financial institutions licensed under the law on securities and the stock market, which would propose investment policies to the NPF committee for consideration. At the age of 60, members would be able to receive their total savings (plus interest) as a lump sum or as a pension for a period of 20 years. It is proposed that the scheme would be implemented with a phased approach. One year after the adoption of the NPF legislation, it would apply to businesses with 100 or more employees, plus other specific businesses and entities.[42] Three years after the adoption of the legislation, it would extend to enterprises with 10 or more employees and five years later to enterprises with 1 or more employees. The minimum contribution rate would also increase gradually, from 3 per cent (years 1–3) to 5 per cent (years 4–6), 7 per cent (years 7–9) and finally 10 per cent (year 10 onwards). News reports in March 2021 suggest that workers would contribute up to a salary of B60,000 per month, while for those on a salary lower than B10,000 per month only employers would contribute (Bangkok Post 2021).

In principle, the introduction of a mandatory defined-contribution scheme could strengthen the second tier of Thailand's pension system. A mix of old-age retirement income combining tax-financing (OAA), social insurance (SSO pensions) and mandatory saving (via a mandatory defined-contribution scheme) could help to increase pension adequacy while diversifying risk across different income sources. Given the current modest level of benefits provided by SSO pensions, a supplementary scheme could be a valuable addition to the pension system. The mandatory nature of the scheme could also increase coverage beyond the three million employees currently covered by provident fund arrangements for private employees (only about one quarter of the 11.7 million members of the SSO article 33 scheme) (Ratanabanchuen 2019).

Nevertheless, the current proposal raises important concerns that merit careful analysis.

- **The impact of the NPF contribution rate on SSO financial sustainability.** The proposed comparatively high contribution rate of the NPF (20 per cent of salary versus 6.35 per cent for SSO pensions) rightly recognizes the sizeable contributions needed for adequate retirement saving. However, as discussed earlier in this chapter, putting the SSO on a sound financial footing will require gradually increasing contribution rates to at least 18 per cent of earnings over the next 30 years.[43] Combined with the proposed NPF contribution rate, this would mean a combined contribution of at least 38 per cent of a reference salary. Given that such a contribution rate is unlikely to be politically, socially or economically feasible, the result may be a continued worsening of the financial position of the SSO, resulting in the need for government subsidy.
- **Limitations of lump-sum benefits.** As already discussed in relation to SSO, lump-sum benefits have many limitations in terms of the income security provided. Individuals face significant challenges to distributing such income across a period of retirement and risk outliving their savings. The 20-year option to some extent addresses this; however, international experience suggests that the majority of retirees opt for lump-sum benefits. The 20-year option would also leave participants with no income from the fund beyond the age of 80. These arrangements would disproportionately affect women due to their longer life expectancy.

41 Exceptions apply to (1) government officials and permanent employees of the central Government, provincial governments and local governments; (2) directors, teachers and educational personnel under the legislation on private schools; and (3) other fund members or persons in other pension systems as prescribed by ministerial regulation.

41 These include employers, businesses or entities receiving concessions from the state, the business establishment or entities promoted for investment under the law on investment promotion;, government officials in public universities; public-listed companies registered in the stock exchange under the law on securities and the stock exchange; state enterprises that are not in the pension system; public organizations under the law public organizations; and other state agencies that are not subject to the law on government pension funds.

42 The last SSO actuarial valuation concluded that increasing the contribution rate by 2 per cent every five years starting in 2018 would ensure that the fund would be depleted in 2089, while increasing the retirement age gradually to 65 over 50 years would ensure a reserve ratio of 5 in 2113.

- **Fund investment.** The adequacy of benefits from the NPF will depend heavily on the rate of return achieved on underlying assets. Effective investment requires robust governance structures and clear and transparent investment regulations, including limits on charges. The draft NPF legislation lacks specificity on these issues, which will need to be addressed in the finalization of the law. In addition, the low interest rate environment is likely to persist for some time in Thailand and globally. This will result in lower rates of return for a given level of risk budget. The experience with the NSF, in which actual investment returns have been much lower than those still used in the projection of future benefits, highlights the risk to benefit levels in such schemes.
- **Fragmentation.** Thailand already has various defined-contribution retirement savings funds in place, in particular the NSF and the GPF. This raises questions about the logic for an additional fund that will inevitably require a separate administrative structure. The interaction with the NSF raises issues of portability. Given the dynamism of the Thai labour market, it is possible that individuals might move between NSF and NPF membership. Some mechanism for portability would therefore be logical. A further issue of integration concerns the administrative interaction between the NPF and the SSO. The draft legislation currently proposes a largely parallel structure for the collection of contributions collection and payment of benefits. For the sake of simplicity for participants and economies of scale in administration, it would be logical for at least some of these functions to be channelled via a single institution.

Overall, the NPF does not provide the most promising route to ensuring pension adequacy in a financially sustainable way in the context of demographic ageing. Even with high contribution rates, ILO calculations show that an average wage-earner joining a newly launched NPF in 2022 could expect to accumulate a lump sum of approximately B400,000 on retirement at age 2035. This amounts to an income equivalent of about B1,300 (females) and B1,500 (males) per month (in 2020 prices). While this would no doubt be a welcome addition to their pension income for many, ILO proposals on a more comprehensive set of reforms to existing schemes would provide a higher, less risky and more sustainable increase in income. Importantly, ILO proposed reforms would provide more predictable benefits, in a more financially sustainable and integrated fashion. For example, they would entail a lower contribution rate for employers and employees.

Given these issues and the current economic context, there is a strong case for temporarily delaying the launch of the NPF scheme. While a scheme of this nature has potentially positive features, it would be preferable to locate it within a process of comprehensive reform of the pension system. In this way, the scheme could be designed in a way that enhances – rather than potentially undermines – the adequacy and financial sustainability of pensions. The process of recovering from the economic and social crisis created by the COVID-19 pandemic also does not provide the optimal moment for the introduction of a scheme of this nature.

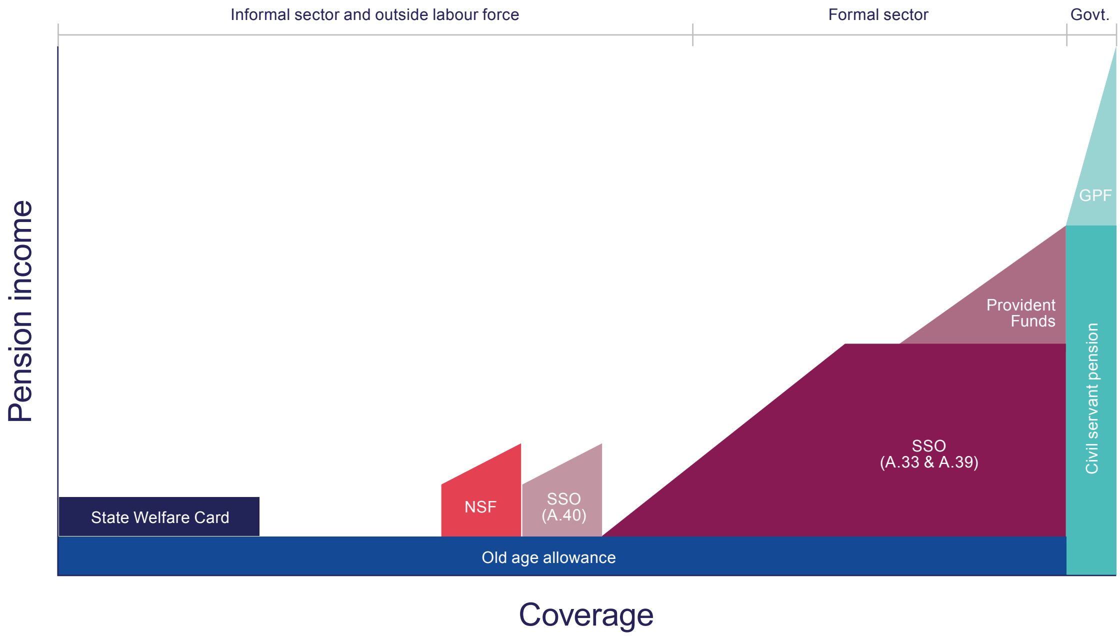
5 Towards a harmonized multi-tier pension system in Thailand

This chapter sets out a direction and potential options for moving towards a more effective and coherent pension system. It begins by providing a summary analysis of the system, then lays out a broad direction for the future and a set of more specific options.

5.1 Summary assessment of the Thai pension system

While the Thai pension system has many strong characteristics, it currently falls short of a harmonized multi-tier system that provides coverage and adequacy in a financially sustainable fashion. The following discussion focuses on the structure of the multi-tier pension system described in Chapter 3. The interaction of the various tiers of the system is illustrated in figure 5.1 to help highlight some of the key issues.

Figure 5.1: Illustration of the current Thai pension system



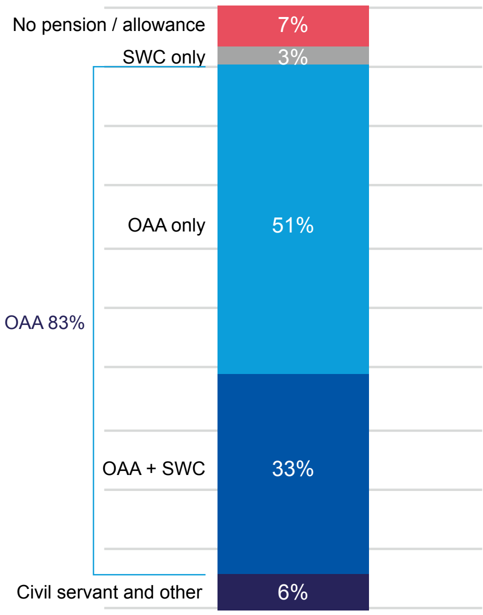
Thailand has been able to establish a near-universal pension floor (tier 0: the horizontal dimension), meaning that the vast majority of older persons receive some pension income. Figure 5.2 shows that the high-coverage OAA – combined with civil service and other schemes – means that just 7 per cent of older persons go without a pension income. More than one third of older people also receive benefits from the SWC.[44]

However, the OAA falls far short on adequacy. Comparison with national and international benchmarks shows that the OAA falls far short of providing a minimum that – on its own – would allow an older person to live in dignity. Most older people must rely on income from work or their families to reach this goal. The inclusion of older persons in the SWC provides welcome additional support, but its low value means that it does not fundamentally change this picture.

44 The coverage of the SWC in this chapter is slightly lower than that discussed in Chapter 4, section 4.2, as the analysis here is based on survey data (SES 2019), which may suffer from some under-reporting.

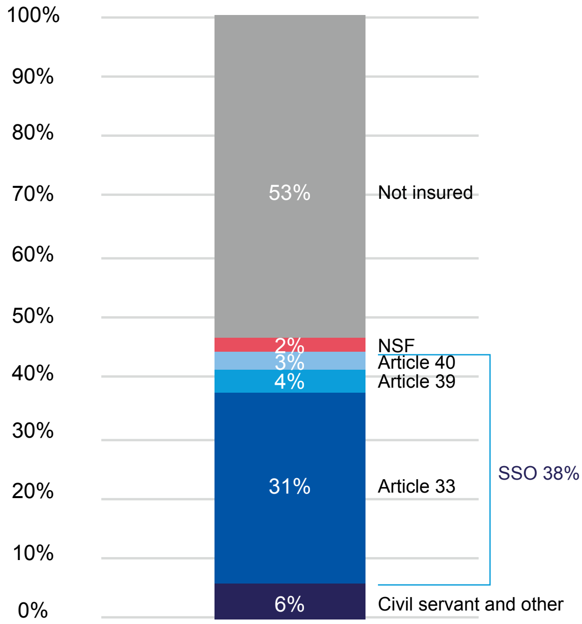
The pensions under SSO articles 33 and 39 provide a solid basis for an effective earnings-related pension tier 1 (the vertical dimension), but major gaps remain in adequacy and coverage. The SSO articles 33 and 39 pension schemes provide guaranteed contributory earnings-related benefits (the definition of tier 1) to those who fulfil the necessary eligibility criteria. The benefit structure also has the potential to comply with relevant international labour standards. As more members reach retirement, the scheme's role in providing old-age income security will become more evident. However, without adjustments to existing parameters (especially the wage ceiling), this promise will not be realized. With regard to coverage, there has been an important increase in the share of the labour force contributing to the scheme in recent decades, yet just 38 per cent of the employed population actively contribute to SSO schemes (figure 5.3).

Figure 5.2: Percentage of older persons (60+) receiving a pension/allowance, by type, 2019



Sources: Coverage of the OAA and SWC is based on SES 2019, from analysis undertaken as part of the Thailand SPDR . Coverage of civil servants and others is based on the share of population reporting receipt of pensions in Teerawichitchainan et al. (2019).

Figure 5.3: Percentage of the employed population insured by old-age retirement schemes, by scheme, 2019



Note: See Appendix 3 for detailed breakdown. Active contributors to NSF are estimated based on the share of SSO article 40 scheme members actively contributing. Under "Civil servant and other", other pensions include private teachers' funds and pensions provided to workers in government enterprises.

Initiatives to expand the coverage of old-age savings to workers in the informal economy have had some success, but they have been disjointed and do not promise adequate or predictable pension benefits. The NSF and the SSO article 40 scheme were both introduced in the last decade and have made a contribution to increasing coverage. However, just over half of the employed population are still not actively contributing or are not insured by any retirement scheme (figure 5.3). The function of the NSF and SSO article 40 schemes within the wider pension system remains ambiguous. Both schemes target similar workers with similar profiles but they exist in parallel, with little in the way of portability between each other or to other schemes (such as the SSO article 33 and 39 schemes). Neither scheme provides guaranteed benefits, so cannot be considered tier 1 pensions. The low and infrequent contributions made to the two schemes mean that benefits are likely to be low, whether as time-bound periodic benefits (under NSF) or lump-sum payments under the SSO article 40 scheme.

Lump-sum benefits are found across the Thai pension system and raise major concerns in terms of adequacy. These benefits, including payments from the GPF, the SSO article 40 scheme and voluntary provident funds, are illustrated in figure 5.1 with dashed shading. Not captured in the figure are lump sums paid for those with short contribution histories, such as those with less than 15 years contribution under SSO (articles 33/39) and civil servants with 10–24 years of employment history. In many of these cases, lump-sum payments will be insufficient to stretch across a full period of retirement; even when they are in principle, this is extremely challenging to achieve in practice. They are also problematic in terms of gender equity given that women live longer beyond their retirement age than men. The NPF would add another layer of lump-sum benefits to the system.

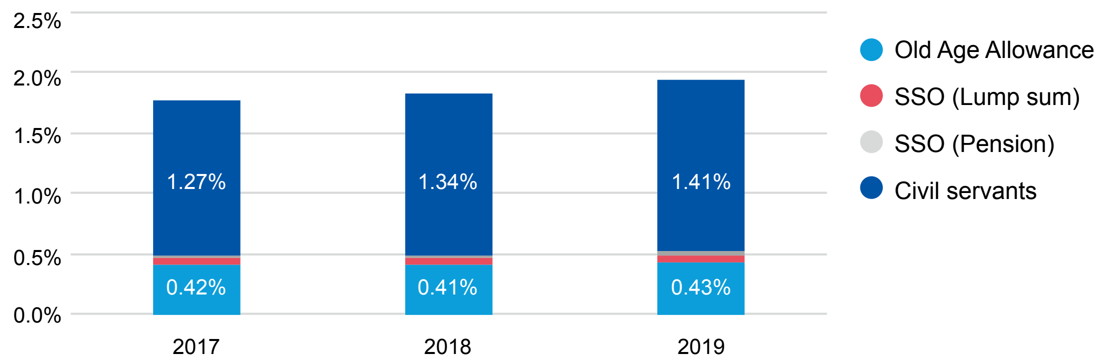
Overall, the compartmentalized nature of pension schemes is not adapted to the dynamism and mobility that exists within the Thai labour market. The picture provided in figure 5.1 highlights that pension schemes are generally organized according to workers' employment status. Own-account workers and employees outside the scope of the SSO article 33 scheme fall under the NSF and SSO article 40 schemes, which have a different scheme design and offer no opportunity for portability if employment status changes. This is problematic given that many Thai workers move between different forms of employment throughout their working lives. Meanwhile, the pension system for civil servants is completely detached from the system for private sector workers (and certain categories of non-civil servant employees in government who fall under the SSO).

Fragmentation has negative consequences for adequacy, incentives and financial sustainability. Lack of portability between schemes will result in workers with long careers and significant contributions to social security ending up with inadequate benefits. At the same time, it could constitute a disincentive to labour mobility towards more productive employment. Ensuring that workers remain covered even as they seize new economic opportunities is key to facilitating geographic and occupational labour mobility. Fragmentation is also a lost opportunity to provide a coherent set of incentives to workers that could support processes of formalization.

This compartmentalization also applies to complementary saving under tier 2 and tier 3 pensions. Various forms of individual savings accounts exist across the Thai pension system, including the GPF, NSF and SSO article 40 schemes and private provident funds. The proposed NPF legislation proposes yet another mechanism. Questions of portability for workers moving between schemes, as well as effective investment policy, suggest a need for greater consideration of how these schemes interact.

While pension expenditure in Thailand remains low by international standards, achieving financial sustainability in the future involves confronting a range of issues. Total expenditure on old-age pensions and other old-age income security programmes amounted to 1.9 per cent of GDP in 2019, which is below countries such as China, Mongolia, Republic of Korea and Viet Nam (ILO 2017). A key challenge will be to address the gaps in coverage and adequacy in a way that maintains financial sustainability in the context of demographic ageing. This relates to the fiscal requirements for a more adequate OAA, and also the parametric adjustments that are necessary to maintain the SSO in financial balance. An important issue on the horizon will be how to expand the NPF without reducing the space to make the SSO financially sustainable. Finally, a key issue is the shape of civil servants' pensions, which take a dominant and growing share of pension expenditure (figure 5.4).

Figure 5.4: Total expenditure on old-age social protection schemes in Thailand, 2017–2019



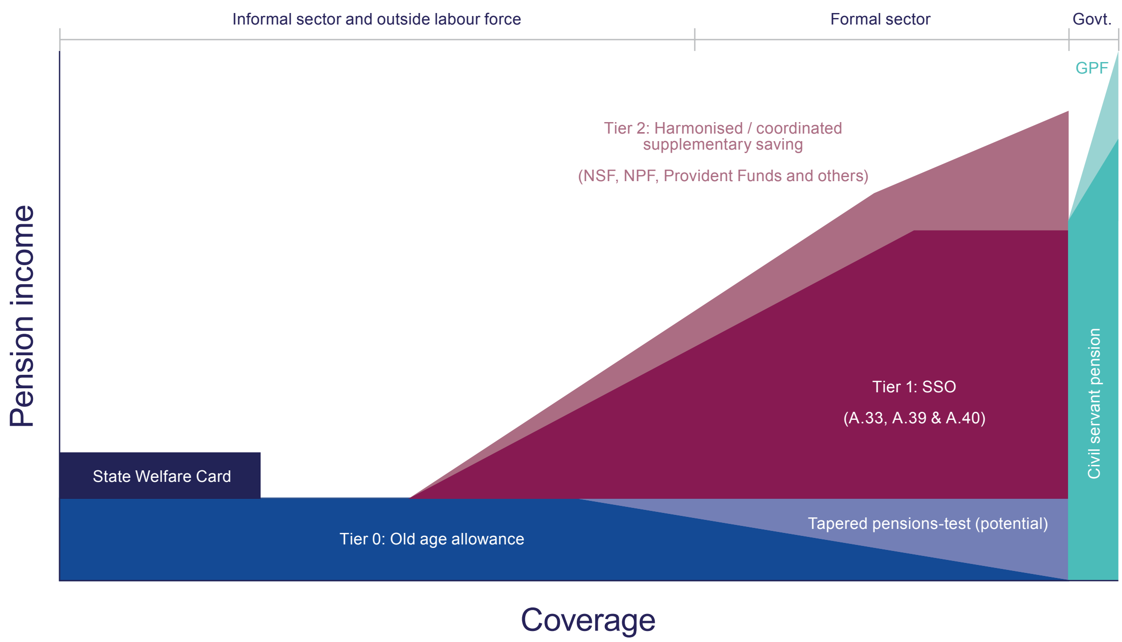
Sources: SSO, NESDC (2021) and data from the Comptroller General's Department collected as part of the Thailand SPDR .

5.2 A broad vision for a multi-tier system

This report recommends that the Government of Thailand define its vision for the pension system: A national strategy for pension system reform. Many of the key issues described above cannot be addressed at a scheme level and indeed result from fragmentation within the pension system. An important precursor to any significant reforms in the architecture of the system and scheme parameters will require a vision that articulates the function and interaction of pension schemes in Thailand to build towards a coherent multi-tier system. It is suggested this should come in the form of a national strategy developed through further analysis, stakeholder consultations and social dialogue.

To inform this process, this report outlines a broad vision for moving towards a more effective and harmonized multi-tier system. The shape of this system is outlined in figure 5.5. This vision is not intended to prescribe a precise set of actions but rather to suggest the shape of a future system, with a variety of different scenarios for how this might be achieved. Section 5.3 describes the options in more detail. The picture outlined in figure 5.5 also represents a destination for the system which might take some years to achieve.

Figure 5.5: Illustration of an outline future scenario for the Thai pension system



The key elements of this vision are as follows.

1. **Increase the adequacy of the pension floor, primarily via the OAA.** This will be particularly important for the current generation of older people and those soon arriving at their old age, who cannot wait for the time needed for the maturation of contributory schemes. There are various scenarios for the design of this floor and the OAA over time, relating to the potential for a pensions test (reducing benefits for those with other pension income); adjustments to the age of eligibility for the scheme; and the supplementary role of the SWC and disability benefits.
2. **Reinforce SSO pensions as the core earnings-related scheme (tier 1) that provides adequate earnings-related benefits in a financially sustainable fashion.** This would require adjustments to parameters, including contribution rates, the wage ceiling, the method of calculating benefits and the retirement age. Significant evidence already exists on the kinds of adjustments that are necessary.
3. **Extend existing schemes within the SSO to provide guaranteed earnings-related benefits (tier 1) to those currently working in the informal economy.** Such measures would seek to provide guaranteed earnings-related benefits via mandatory contributory arrangements for workers, including

those in self-employment and in categories of employees not covered by the SSO article 33 scheme (for example domestic workers). If well designed, this could support efforts to formalize the Thai labour market and provide portability for those moving between different forms of employment. Care would be needed in creating positive incentives.

4. **Build a harmonized tier 2 for complementary savings. This would rest upon the more robust tier 1 described above.** The aim would be to locate existing complementary savings schemes (NSF, GPF, the proposed NPF and private provident funds) as part of a coherent package. The rationale would be to provide a clearer landscape for savers, greater portability and a better return on investment. This could involve greater coordination between schemes or the merging of some schemes (or functions within them).
5. **Establish closer integration of the OAA and SSO schemes.** This would allow the two benefits to be paid as a single pension payment, which could support two key reforms: (a) the introduction of a tapered pensions test, which could support the financial sustainability of the scheme in the long term; and (b) replacing lump sum payments for short contribution histories, with pension benefits paid along with OAA benefits.
6. **Consider greater integration of civil servants into the national pension system.** This is not visualized in figure 5.5 but could be conducive to financial sustainability, portability and greater equity in the pension system. Options would include creating greater portability between the schemes, aligning scheme parameters and/or bringing more government employees into the SSO scheme.
7. **Create an enabling environment for pension reform.** Various initiatives outside the realm of pension policy have an important interaction with the pension system and can be considered enablers of successful reforms. These include increasing employment opportunities for older persons; strengthening long-term care; ensuring access to affordable health care; and improving disability benefits.

5.3 Policy reforms to promote the harmonization of the national pension system

This section describes in more detail the specific scenarios for the broad elements of the reform described above.

5.3.1 Increasing the adequacy of the pension floor

Increasing the adequacy of the OAA is a critical step for strengthening the foundation of the Thai pension system. This will be key for addressing the income insecurity and persistent levels of poverty faced by the current generation of older persons, few of whom have access to other pension income (SSO and civil service pensions). It will also be critical for those who will soon reach old age, who are expected to have decreasing recourse to family support but will mostly not receive significant benefits from SSO retirement schemes or other savings schemes (such as NSF) as they mature. This will require a reconceptualization of the OAA from a subsidy to other income (primarily from work and family) to a scheme that allows older people to live with a minimum level of dignity. In doing so, it will be essential to maintain the universal guarantee provided by the OAA, avoiding a move to means-testing, which historically has failed in the Thai context. However, this does not preclude the use of some form of pensions test or supplementing these benefits for those facing greater need (for example through the SWC and Disability Grant).

In determining an adequate benefit, a number of factors are important to consider.

- **What constitutes an adequate minimum income for an older person.** The most relevant benchmark for a minimum income in old age is the national poverty line, which stands at an average of B2,763 per month (in 2019). This can be considered the best reference point in the Thai context for a minimum level of income that an individual can live on in dignity.

- **Other sources of income for older people.** As discussed in Chapter 2, pension income is not the only way in which an older person can achieve a minimum income. Other sources include financial support from families (including spouses), income from work, other pension benefits and other savings. It is conceivable that for a significant percentage of older people, an OAA benefit below the poverty line will be sufficient to raise their total income from all sources to the poverty line, even if the OAA itself is below this benchmark.
- **What is affordable now and in the future.** What might be considered an optimal benefit may entail significant additional expenditure, which needs to be balanced against other government priorities.

A broad range of options exists for how the OAA could be adjusted to meet higher levels of adequacy. To provide context for the discussion of options, table 5.1 presents the estimated and projected costs of the OAA, based on a range of illustrative scenarios and compared to existing scheme parameters. These scenarios are set out below.

- **Increasing the benefit to the poverty line for all recipients.** This would increase the cost of the scheme to 2.4 per cent of GDP in 2020, rising to 4.7 per cent by 2060. This scenario would involve a significant increase in expenditure but is not unprecedented by international standards. Middle-income countries such as Georgia and Mauritius currently spend more than this on tax-financed pensions (2.9 and 4.8 per cent of GDP, respectively), as do high-income countries including Australia (2.5 per cent), Denmark (5.7 per cent), Norway (5.3 per cent), New Zealand (4.5 per cent) and the United Kingdom (4.3 per cent). Such a scheme would also have significant impact, not only on older people directly but on wider household incomes, the economy and levels of inequality.
- **Providing a benefit at the poverty line with a higher pension age of 65+.** This would substantially reduce the cost of the scheme, to 1.6 per cent of GDP in 2020 and 3.9 per cent in 2060.
- **Providing smaller incremental increases in benefit levels.** This would entail a far lower cost. For example, increasing all benefits by B400 per month would increase the cost from 0.57 per cent of GDP to 0.9 per cent of GDP, rising to 1.9 per cent of GDP by 2060.
- **Taking different approaches to differentiate benefit levels by age.** For example, recognizing the greater ability of older people of less advanced ages to work could prioritize increases in benefits for those aged 65 and over, with the highest increases for those aged 70 and over. The final scenario in the table provides one example of this, which still maintains the B600 benefit for those aged 60–64, while increasing it for other groups.

Table 5.1: Estimated current and projected cost of scenarios for OAA benefit levels (2020–60)

	2020		2030	2040	2050	2060
	% of GDP	Baht (billions)	% of GDP			
Baseline: Current benefit levels 60-69: 600, 70-79: 700, 80-89: 800, 90+: B1,000 per month	0.57%	98	0.80%	1.01%	1.13%	1.23%
Poverty line for 60+ 60+: B2,763 per month	2.36%	411	3.32%	4.07%	4.39%	4.74%
Poverty line for 65+ 60–65: None 65+: B2,763 per month	1.59%	277	2.41%	3.21%	3.64%	3.86%

All benefits increased by B400 per month 60–69: B1,000 per month 70–79: B1,100 per month 80–89: B1,200 per month 90+: B1,400 per month	0.91%	158	1.28%	1.60%	1.76%	1.91%
Mixed approach 60–64: B600 per month 65–69: B1,000 per month 70+: B1,500 per month	0.93%	162	1.36%	1.77%	2.00%	2.14%

Note: All benefit levels stated are in 2019 prices. Benefit levels are assumed to remain constant as a share of GDP per capita in subsequent years (meaning they are effectively indexed to GDP per capita). Costings assume that benefits would be provided to 90 per cent of the older persons in each demographic group, recognizing that civil servant pensions cover approximately 10 per cent of older persons.

The integration of the OAA with other pension and welfare schemes also provides options to contain the cost of the scheme while addressing adequacy. Two core options are available.

- **Supplementing the OAA for those with greater levels of vulnerability via the SWC and the Disability Grant.** The logic would be to maintain an OAA benefit that is significantly higher than the existing benefit but does not necessarily reach the poverty line. It would assume that many older people could fill this gap with continued employment, family support or other income sources. However, more targeted support would be provided for those unable to do so, such as via the SWC and disability benefits (which older people are already eligible for). The interaction and combined benefit level of these schemes would need to be carefully assessed.
- **Introducing a tapered pensions test.** This would reduce the OAA benefit for those with other pension income, which would require **closer integration with SSO and other schemes providing pension benefits.** Options are discussed in greater detail in section 5.3.4 below.

Regardless of the specific configuration of benefit levels chosen, it will be important to index benefits at least to inflation to ensure that they retain their purchasing power. In fact, the costings above assume that benefits will increase in line with growth in GDP per capita, which is usually well in excess of inflation.[45]

5.3.2 Reinforce SSO pensions as the core earnings-related scheme (tier 1)

With adequate reforms, SSO pensions provide a solid structure for delivering a predictable level of income replacement for Thai workers into their old age. This is critical to ensure that workers with some contributory capacity are able to transform this into a benefit that can maintain their standard of living in old age. The SSO is the only scheme in Thailand that is currently able to deliver these kinds of guaranteed benefits. The fact the scheme is relatively new means that this role of the scheme is not yet visible, but as more members reach retirement age the scheme will evolve into a core source of old-age pension income. Nevertheless, adjustments to the scheme will be necessary to ensure that it provides a good level of income replacement into the future, while remaining financially sustainable in the context of population ageing.

45 The reason for indexing benefits to GDP per capita in the costing is that benefits indexed to inflation over long periods will significantly reduce their value relative to average incomes. While this is common in the short term, it is likely that over time there will be an expectation that benefits should increase in line with average incomes, even if this happens through ad hoc increases in benefits.

The broad nature of parametric adjustments necessary to support adequacy and sustainability are well established. Fortunately, the kind of reforms required reflect the route taken in other countries. A key enabler will be undertaking reforms gradually and in good time and building political buy-in. Key parametric adjustments (described in more detail in Chapter 4, section 4.3 above) include:

- **increasing (and index) the wage ceiling** to ensure that the scheme continues to provide meaningful benefits to its members;
- **gradually increasing the retirement age** to account for the rapid ageing of the population and to support longer-contribution histories (and therefore benefit adequacy);
- **gradually increasing the contribution rate** to an appropriate level for a scheme of this nature;
- **introducing a career-indexed pension plan** that better reflects earnings across full working lives, creating a fairer system and avoiding distortions; and
- **increasing (and indexing) the base salary for SSO article 39 contributions and pensions**.

Defining a road map to a more adequate and financially sustainable scheme requires the development of a long-term reform plan, as well as specific funding and investment policies. A reform plan will need to be crafted via a tripartite process that involves employers, workers and the Government, as well as other actors including civil society, political actors and academia. This will be critical in order to define and refine an appropriate pathway that builds on collective knowledge and ensures the political buy-in which is essential for a successful reform. This would ideally be linked to the articulation of a strategy for the pension system as a whole, as proposed in the recommendations of this report. Financing and investment policies should sit within the wider vision for the SSO and have specific objectives. In particular:

- a **financing policy** would seek to formalize the long-term funding objectives of the scheme (including targets for an appropriate level of reserve over the long-term) and outline elements such as timings/triggers for changes to contribution rates and pensionable ages; and
- an **investment policy** should be outlined specifically for the pension branch of the SSO and should articulate an approach to investment that reflects the long-term nature of the branch.

The last ILO actuarial valuation of the SSO made a recommendation to introduce financing and investment policies (ILO 2016). The forthcoming actuarial valuation will be able to provide more up-to-date recommendations based on the current context of the scheme.

5.3.3 Extend guaranteed earnings-related pension benefits to those currently outside the scope of the SSO article 33 scheme

There is significant scope in the Thai pension system to extend guaranteed earnings-related benefits to workers without mandatory coverage under the SSO article 33 scheme. These include own-account workers, as well as employees in specific forms of work. While the NSF and SSO article 40 voluntary schemes have rapidly increased their membership among some of these workers, they have a number of important limitations:

- The NSF and SSO article 40 schemes – as defined-contribution schemes – <u>do not provide guaranteed old-age benefits.</u> Such systems are vulnerable to variations in the return on investment. Low contribution rates also mean that the benefits provided are likely to be low.
- The schemes are <u>voluntary.</u> International experience shows that voluntary schemes have had limited success in expanding the coverage of contributory schemes (ILO 2019).
- There is <u>no portability</u> between these defined-contribution schemes and the defined-benefit SSO article 33 and 39 schemes (and it is very difficult to create portability between these different kinds of entitlements). This limits the scope for workers moving between different kinds of employment to accumulate adequate pension entitlements. It also limits the scope of using social security schemes to incentivize formalization.

Extending earnings-related benefits requires further detailed analysis but a number of key options can be identified. Significant lessons can be taken from other countries that have used innovative approaches to extend the coverage of core pension schemes to informal workers in an integrated way that allows the portability of benefits (see box 5.1). Key elements and considerations of this approach are the following.

- **Guaranteed earnings-related benefits (defined-benefit).** This is a core feature of the scheme and should align with the structure of other SSO benefits in order to allow portability. The best reference point for such a scheme in the Thai system is the SSO article 39 scheme, which has the same defined-benefit structure as the SSO article 33 scheme. Members pay a flat-rate contribution of B432 per month (9 per cent of an assumed base salary of B4,800) and the pension is defined according to this salary. This scheme is only available for workers who have previously contributed to the SSO article 33 scheme. A similar approach could be taken to extend coverage to other groups of workers, although specific parameters would need to be defined. This could involve a redefinition of the SSO articles 39 and 40 schemes or the creation of a new scheme/article under the SSO.
- **Mandatory contributions.** Mandatory schemes provide a legal obligation for workers and employers to affiliate with social security schemes, providing a basis for monitoring and enforcing compliance. In general, where contributory schemes are mandatory they are more effective at extending coverage than voluntary schemes (Nguyen and Cunha 2019; ILO 2019). In seeking to extend guaranteed earnings-related pension benefits, the SSO could establish the principle that all workers and employers in Thailand should be legally obliged to affiliate with the SSO. In practice, the legal obligation could be defined based on income thresholds, sectors of employment, contractual status and/or other criteria. Mandatory coverage should not simply be a question of enforcement and sanctions but part of a package to nurture a culture of social protection, combined with forms of subsidies, incentives and simplified administration.
- **Subsidization.** Combined with extended mandatory coverage, some form of subsidization would be important to provide an inventive for workers/employers with modest contributory capacity to join the scheme. It could be achieved in one of two ways: (a) as with NSF and the SSO articles 40 and 33 schemes, the Government could provide a matching of contributions; or (b) higher benefit levels could be subsidized via the SSO fund, which would implicitly require a redistribution between higher and lower earners (and contributors under different articles). The benefit provided by an enhanced OAA could also be considered as a form of subsidy to the benefits provided by such a scheme, although this would not provide incentives to contribute.
- **Managing incentives.** This requires careful consideration, administration and coordination. The contribution rate would need to be low enough to incentivize workers with modest incomes to contribute, yet high enough to contribute to benefits that would provide a meaningful level of income replacement when combined with any subsidization. Care would be needed to ensure that this scheme would not provide a lower cost alternative to the SSO article 33 scheme for employers and workers. This could be ensured by careful scheme design, as well as enforcement and compliance. An important advantage of housing different schemes/articles under the SSO is that a single institution would be able to monitor and assess whether workers and employers were contributing under the correct arrangement.
- **Coordination with other parts of government (including tax administration, labour legislation and business registration) would be important for scheme implementation.** Coordinated efforts could help ensure a clear and coherent set of processes and arrangements for the formalization of enterprises. They could also support the enforcement of compliance by sharing data and adopting integrated administrative processes.

Box 5.1:
Uruguay's experience of extending pensions to those in the informal economy

Uruguay, which has recently transitioned to high-income country status, has had considerable success in extending contributory social protection schemes to workers previously in the informal economy. An important element of this progress has been the implementation of a *"monotax"*, which is a form of simplified collection system for social security contributions and tax payments for defined categories of microenterprises and self-employed workers. Key features of this approach include the following.

- The scheme forms part of the core contributory pension scheme in the country, with rules that allow the portability of entitlements for workers when they move between different types of employment.
- The taxes and contributions paid under the *monotax* scheme are lower than in the normal regime, thus providing an incentive to formalization.
- The combination of social security and tax payments in a single instalment simplifies payment and reduces the administrative barriers to formalization that self-employed workers and small enterprises face.

Since the scheme was introduced, there has been a considerable increase in the proportion of eligible workers and enterprises joining the scheme, thus contributing to increasing formalization.

Another innovation in Uruguay was the extension of coverage to domestic workers. Since 2006, contribution to the social insurance system has been mandatory for domestic workers. This change, combined with efforts to simplify administrative processes and improve knowledge and understanding, resulted in evasion from the scheme falling from 61 per cent to 36 per cent between 2006 and 2017.

Source: ILO (2014), Cetrengolo et al. (2014), Nguyen and Cunha (2019) and ISSA (2020)

5.3.4 A harmonized tier 2 for complementary savings

Complementary savings can provide an important supplement the two tiers described above and help diversify their retirement income. Many schemes exist in Thailand to provide such savings, including the National Savings Fund, provident funds and the GPF, while the Government is also considering the introduction of the NPF. Nevertheless, this broad menu of schemes does not necessarily represent the most efficient arrangement for fund management or a clear landscape for savers to navigate. Box 5.2 outlines some key prerequisites for tier 2 pension schemes, while international labour standards also provide guidance in this respect.

Key options for reform include the following.

- **Temporarily delay the introduction of the NPF so that it does not jeopardize pension system sustainability.** This report assesses that a clearer vision of the architecture of the pension system as a whole is required before introducing such a scheme. A particularly critical point is to avoid the scheme crowding out the increased contribution rate that is necessary for the financial sustainability of the SSO – which would present a significant risk to public finances. The potential risks associated with a scheme of this nature means that the governance and investment arrangements of the scheme also require careful consideration. The immediate recovery from the COVID-19 crisis does not represent the optimal moment to introduce a major new scheme of this nature. The forthcoming actuarial valuation of the SSO will define an updated road map of the contributions required for the financial sustainability of the SSO and will therefore provide important information for the further elaboration of the NPF.

Box 5.2:
Prerequisites for effective second tier pension schemes

Structured in the right way, supplementary tier 2 pension schemes can reinforce retirement system adequacy, support system incentives and diversify both benefit and financing risk. It is important, however, that the structure, administration, risk management, cost-effectiveness, financing, governance, delivery and communication of such schemes meet certain minimum criteria. It is also important that the system is not overly fragmented and that it is well regulated.

- **The benefit structure needs to reflect and complement other public pension provisions.** If the majority of benefits in a system are provided in defined-benefit income format, then supplementary provision on a defined-contribution basis (with certain guarantees) can make sense. However, if this is not the case – for example social security pension is low and/or in lump- sum form – then a supplementary defined-contribution system will increase system risk and may create disincentives to join social security.
- Supplementary schemes that provide significant benefits depend on employers contributing. Top-up individually focused voluntary schemes will only be able to provide small additional benefits, but to ensure adequate benefits it is important that employers pay part or all of the contribution to ensure **financing requirements** are met.
- Appropriate **governance** requirements, with effective **monitoring from the Government** (for example, limits on assets, charges, vehicle, disclosure and so on), should be ensured.
- **Fragmentation** of the system, which can cause confusion and increase costs, should be avoided.
- Systems should ensure there are no **disincentive effects** to contribute to supplementary and/or social security.

- **Position the NSF as complementary to SSO pensions.** Currently, in order to contribute to NSF members must resign from the SSO article 40 scheme. With the proposed extension of guaranteed benefits under SSO (described in section 5.3.3 above), the NSF could be considered as complementary, thus avoiding competition between schemes.
- **Consider greater integration of pension funds.** There is significant commonality in the core business of NSF, the proposed NPF and the GPF in investment of defined-contribution benefits. For the sake of economies of scale and efficiency, consideration could be taken of greater integration of this investment and its management.

5.3.5 Integration of SSO and OAA pensions

Greater integration of SSO and OAA pensions would enable two important adjustments to the pension system that would support greater adequacy and financial sustainability. The fact that OAA and SSO pensions are complementary is a positive feature of the Thai pension system. However, the payment of two separate benefits is not the most administratively efficient arrangement. Integrating the OAA and SSO pension payments could also change perceptions of benefit adequacy, with recipients receiving a higher single benefit payment, rather than fragmented smaller payments. Delivering SSO and OAA benefits in one pension payment could address this and also facilitate two new features of the system.

1. **Pensions-testing.** As described in section 5.3.1 above, while there is a clear need to increase the pension guarantee provided by the OAA the cost of the scheme also needs to be considered. One potential approach to reducing the future cost of tax-financed pensions is pensions-testing, by which the benefit from the social pension is reduced for those with other pension income (see box 3.3

above). A tapered pensions test, starting at a relatively high-income level, would provide a preferable variant of this approach as it avoids creating disincentives to enrol in contributory pensions. However, implementing a tapered pensions test requires would strong integration between the two benefits, as the OAA benefit will be determined by the level of SSO benefit (box 5.3 describes a scenario for pensions-testing).

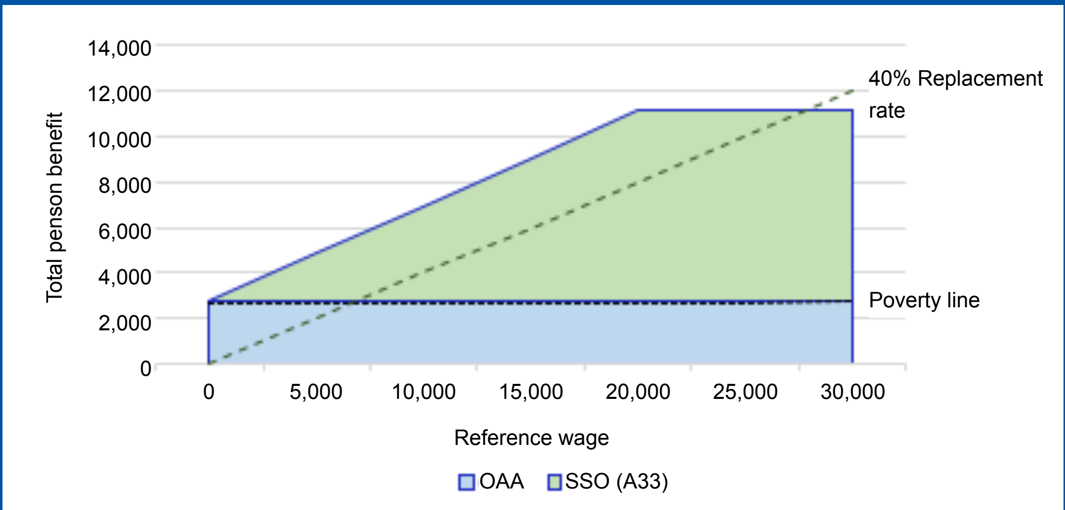
Box 5.3:
Options for pensions-testing the OAA

In order to illustrate the potential configuration of a tapered pensions test in the Thai pension system, a “before” and “after” scenario is considered in figures 5.6 and figure 5.7. Both scenarios show the total pension benefit levels (vertical axis) for an older person who contributed for 30 years to the SSO. This is shown in comparison to the reference wage (horizontal axis), which is currently the average of the final 5 years’ salary. It should be emphasized that the figures do not represent coverage and are only intended to describe the interaction of OAA and SSO benefits for individuals receiving an SSO pension. For example, all individuals with no SSO pension would be at point “0” on the x axis.

The scenario assumes that the basic OAA benefit is set at the poverty line and the salary cap is increased to B20,000 per month. The figures also show (with dashed lines) the 40 per cent replacement rate and the poverty line. The figures presented are in 2019 prices.

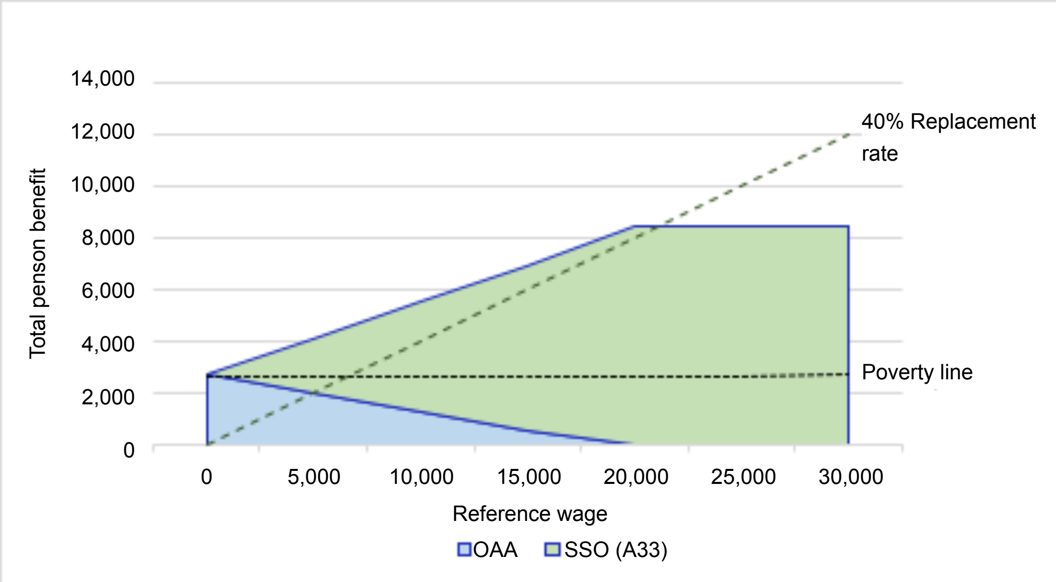
Under the first scenario (figure 5.6), all SSO pensioners are paid both the OAA and the SSO pension. This ensures that no older person has an income below the poverty line. It also results in a replacement rate that is significantly in excess of 40 per cent of the reference wage for workers with 30 years of contribution history (apart from for those well above the salary cap of B20,000 per month).

Figure 5.6: No pensions test



Under the second scenario (figure 5.7), a tapered pensions test is introduced, which means that the OAA is reduced by B1 per month for every B3 per month of SSO pension, meaning that the benefit gradually reduces for those with higher SSO incomes. In this scenario, the replacement rate is lower but still remains in excess of 40 per cent for all pensioners up to the salary cap.

Figure 5.7: With tapered pensions test



A broad array of options exist for the formula for a tapered pensions test. One possibility also available is that it could be designed to only take effect above a certain minimum level of SSO pension.

2. **Moving away from lump-sum benefits.** A move away from lump-sum benefits for SSO contributors with short contribution histories would provide a higher level of total retirement income and greater security throughout retirement for individuals. The main rationale for not paying periodic benefits is that delivering relatively small monthly payments to pensioners is administratively cumbersome. However, this would not be the case if the benefits were paid as a supplement to OAA benefits. Box 5.4 describes a scenario for replacing lump-sum benefits with periodic pension payments. It is also important to highlight that the provision of lump-sum benefits creates an obstacle for effective pensions-testing since a pensions test can only be applied successfully to periodic benefits. Otherwise, some workers could seek to receive a lump-sum payment in order to avoid a pensions test.

Box 5.4:
A scenario for replacing lump-sum payments

The two following scenarios present the situation of Khun Anong, who has the following characteristics:

- She contributes to the SSO for 14 years before retirement at age 60 in 2035; and her salary for the five years of his contributions was B18,784 per month (real 2020 prices), which is the projected average wage for employees in the labour market.[46]

In the first scenario, Khun Anong is provided a lump sum, as provided for by existing SSO legislation.

- The lump sum is calculated by:
  - 6% of salary for the 14 years of contribution, plus interest of 1.87% per annum.[47]
  - Total lump sum (including interest): B196,907 (2020 constant prices).

46 This is based on the increasing the average wage from 2020 to 2035, assuming an increase of 2.2 per cent real growth per annum (based on real average wage growth from 2001–2019).

47 Equal to the net credited return to the SSO article 33 scheme from 1999–2019.

- Assuming Khun Anong lives for 26.2 years after retirement,[48] the monthly value would be B625 per month.

In an alternative scenario, a pension is provided along the lines of the existing pension formula, with an accrual rate of 1.33 per cent per year (equivalent to the 20 per cent for 15 years contribution).

- Accrual rate: 18.67% (1.33% x 14 years).
- Reference wage: B18,784 per month (average for last five years).
- Pension benefit: B3,506 per month.

Two important observations emerge from this example.

- Assuming that Khun Anong lived for 21.4 years during retirement, the pension benefit from SSO would be worth more than five times as much as the lump sum benefit.
- While delivering smaller monthly benefits to individuals with short contribution histories would add additional administrative burden, this would be avoided if the pension payment could be combined with OAA benefits that are already being paid.

Greater integration between OAA and SSO could take one of a number of forms.

- **Maintain the OAA and SSO benefits under their existing institutional mandates** but create the option for a single benefit payment for SSO pensioners, meaning that those who receive SSO pensions will receive the OAA and the SSO pension through one payment. For example, funds for OAA benefits paid to SSO recipients could be transferred to SSO as the channel of payment. This would require a strong integration of management information systems.
- **The OAA is managed and delivered by the SSO.** This would imply a shift in responsibility for payment of the OAA to SSO. However, it would not necessarily remove the role of the Ministry of Social Development and Human Security (MSDHS) from the scheme implementation, which could continue in areas such as registration, monitoring and evaluation.

5.3.6 Greater integration of civil servants into the national pension system

The separation of civil servants from the rest of the pension system creates issues in terms of the fairness and portability of pension entitlements. The current lack of portability between the SSO and civil service pensions means that workers who move between different sectors have incomplete pension entitlements. It may also provide disincentives to move between sectors. From a perspective of fairness, the significantly higher pension adequacy within the civil service compared to private sector schemes is hard to justify. This higher adequacy is also a contributing factor to the fact that civil servant pensions are (and will continue to be) the most significant area of expenditure of the Thai pension system.

Different options exist for the closer integration of civil servant pensions with the wider pension system and a detailed assessment goes beyond the scope of this report. However, two broad approaches can be outlined.

- **Maintain the current civil servant pension arrangements, while more closely aligning its parameters to the SSO scheme and allowing portability between schemes.** This would seek to address the issues of inequity between schemes, support the movement of workers between private and public sector jobs and would potentially address sustainability issues.

48 Female life expectancy at age 60 for 2035–2040 (UN Population Division 2019).

- **Integrate civil servant pensions with those of private sector workers.** This would entail a more significant structural reform and could come in different forms. For example, a transition could happen gradually, with only new entrants to the civil service joining the SSO scheme. This would gradually reduce the number of workers in the civil servant scheme and result in it being phased out over time.

5.3.7 An enabling environment for pension reform

As discussed in Chapter 2, pension systems do not exist in a vacuum and effective policy in other domains will have a strong influence pension adequacy and the feasibility of reforms. It is not within the scope of this report to provide a thorough analysis of these enabling factors, but a number of key elements can be identified.

- **Employment in old age.** Providing a supportive environment for Thai workers to continue to work into old age can be positive for their well-being and income security and is also an enabler of key pension reforms. Most notably, any moves to increase pension eligibility ages will need to be accompanied by measures that enable individuals to work longer. Even beyond pension ages, older people who are willing and able should be supported to continue engaging in the labour market. This issue has been recognized strongly within the National Agenda on the Aged Society, in measure 1.2 to "Promote elder-employment and sustainable income". Since 2017, the Government has offered greater tax incentives to companies that hire older workers; however, it is recognized that greater action is needed. A recent set of policy options (formulated with the contribution of MSDHS) proposed to "review existing rules and regulations related to hiring of older workers", including "the revision of the Labor Standard Law to accommodate more flexible work arrangements that are suitable for the health status of older-age workers, including those with disability" (Teerawichitchainan et al. 2019).
- **Long-term care.** Effective long-term care systems are key to providing dignity in later life and also to support individual older people and their families to manage the costs of care. Demographic change in the country will inevitably stretch the capacity of the family to take on care responsibilities and it is not reasonable to expect the pension system to bear the costs of care. Thailand has recognized the importance of strengthening long-term care in various strategies, including the Health Development Strategic Plan for the Elderly (2013–2023) and the National Agenda on the Aged Society. Historically, there has been a strong emphasis on a combination of support from the family and community-based services (often via volunteers). However, since 2016, there have been initiatives via the Ministry of Public Health to channel additional funds to the care sector and develop an integrated care model. Continuing to strengthen the functioning of this system and ensure sufficient funding will be a key task for Thailand in the coming decades.
- **Affordable health care.** High out-of-pocket health expenditure can stretch the capacities of even the most robust pension system. This means that access to affordable health care is a "critical enabler" pension policy. Thailand has a strong record in this respect, with older people being granted free government medical services since 1992 – a decade before the extension of universal health coverage to all Thai nationals in 2001. An important task will be to continue to ensure that the system continues to meet the health-related costs of the growing older population and to address the levels of catastrophic health expenditure still faced by a small but important minority of older people.
- **Disability benefits interact with the old-age pension system in two key ways.**
    - **Filling the gap left by increasing retirement ages.** Disability benefits providing a minimum level of income security will be key to any transition to higher eligibility ages for pensions. Even if the population is on average experiencing longer, healthier lives, there will be many cases of individuals who begin facing the health and disability challenges of old age before official pension ages. Effective disability benefits are key for supporting such individuals. Thailand has a positive foundation for such initiatives, with both a non-contributory Disability Grant and disability benefits paid via SSO schemes.

- **Supporting disability-related costs of older persons.** In broad terms, disability benefits provide two core functions: (a) to compensate for a reduced income from work and (b) to cover disability-related costs (such as assistive devices and care). While old-age pensions can be seen to address the first part, they do not cover the second. Thailand, like many high-income countries, has recognized this by extending the eligibility for the country's Disability Grant to older persons. This represents a strong feature of the system and can be supportive of a coherent social protection system that provides relevant benefits into the future. The role of the Disability Grant can be refined in future in line with the evolution of other benefits (particularly the OAA, SSO and the SWC) and other policy areas that influence the disability-related costs of older persons (particularly long-term care).

5.4 The impact of reform at the individual level

In order to understand the potential impact of the above reforms, it is useful to consider how they might affect individuals with different profiles. Table 5.2 and figures 5.8 and 5.9 show how a set of specific reforms would affect the retirement income of four hypothetical individuals with different employment, earning and scheme membership profiles throughout their working lives. All individuals are assumed to retire from the labour force at age 60, in January 2035.

Four illustrative reform options are considered. These seek to capture some of the key elements of the reform options discussed above; however, they should be considered illustrative. Specific options would need to be established as a part of the forging of a national vision for the Thai pension system. The key reforms included are the following.

- ► **Increase the OAA** to B2,000 per month for older persons aged 60 and over (and indexed to inflation).
- ► **Offer pension benefits to SSO recipients with short contribution histories** of at least five years (using the accrual rate of 1.33% per annum).
- ► **Provide an increase in the SSO contribution ceiling** to 20,000 in 2021 and indexed to average wages thereafter.
- ► **Introduce a tapered pensions test.** The OAA benefit would be reduced by B1 for every B3 of SSO pension above B4,000 per month. This would mean that the pension test would only apply at a relatively high benefit.

All monetary amounts are shown in constant 2020 prices.

These reforms would have a significant impact on pension adequacy in all four cases. The specific impact is described in table 5.2 (see Appendix 4 for more detail) and is illustrated visually both without reform (figure 5.8) and with reform (figure 5.9). In all cases, the reforms result in significant increases in pension adequacy. Some notable impacts include the following.

- ► The increased OAA benefit particularly benefits Khun Somsak and Khun Anong but also Khun Pornthip (despite some of her OAA benefit being reduced by the tapered pensions test).
- ► Offering pension benefits for shorter contribution histories significantly boosts the pension of Khun Anong; when combined with the OAA, her benefit is four times higher than the pre-reform scenario.
- ► The increase in the contribution ceiling in SSO significantly increases pension benefits for Khun Pornthip and Khun Kittisak. Even with the tapered pensions test for the OAA, Khun Kittisak receives a higher pension with the reform than without the reform.

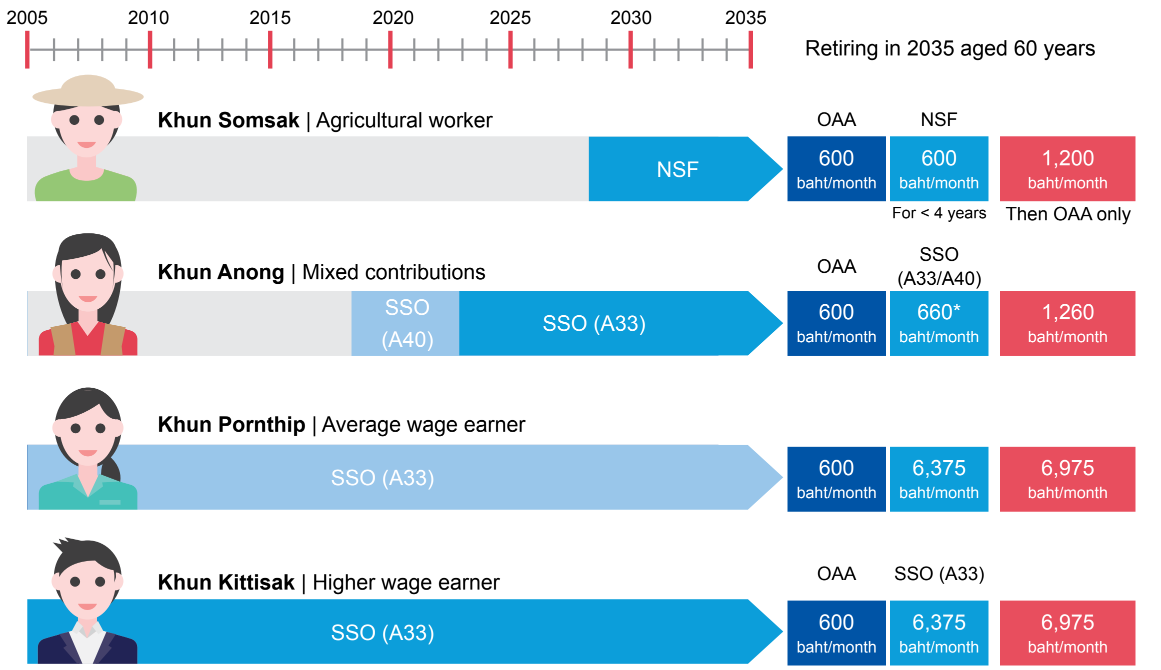
No reforms are included for the NSF or SSO article 40 schemes, but in principle these could further benefit Khun Somsak and Khun Anong.

Table 5.2: Individual profiles and benefits received with and without reforms

Profile	Impact of the reform
Khun Somsak is an agricultural worker who spends most of his life outside the social protection system. At age 51 in 2026, he decides to join NSF, contributing B100 per month (with a 100% match from the Government) every month until he is 60.	An increased OAA benefit brings Khun Somsak's pension benefit much closer to the poverty line. However, he still only receives the NSF benefit of B600 per month for about 3.5 years. This low NSF benefit level is due to the small contributions made over a short period.
Khun Anong starts work as a self-employed street vendor at age 41 after many years out of the labour force caring for her young children. She contributes to the SSO article 40 scheme for 5 years before gaining formal wage employment at age 46, earning the average wage*. She then contributes to the SSO article 33 scheme for 14 years before retirement.	Without any reform, Khun Anong is unable to claim a periodic pension from SSO due to not meeting the 15-year minimum contribution. She therefore receives two lump-sum benefits (from both the SSO article 33 and SSO article 40 schemes), with low adequacy across the years of retirement. By extending pension benefits to those with shorter contribution histories, the reform significantly increases her SSO pension. The increase in the OAA also gives a substantial boost. Her situation could be further improved with portability between the SSO articles 33 and 40 schemes.
Khun Pornthip has a formal sector job earning the average wage* and contributes consistently to the SSO article 33 scheme from 2005 to end–2034.	While Khun Porthip's wage is below the contribution ceiling in 2020, by 2034 it is significantly higher (B19,610 per month). Increasing the contribution ceiling increases the SSO benefit significantly. The higher SSO benefit means that she is affected by the tapered pensions test for the OAA included in the reform. However, the B672 per month OAA benefit she receives is still higher than the benefit without reform.
Khun Kittisak also has a formal sector job, but earns B5,000 per month above the average wage.*	Despite the higher wage, Khun Kittisak's pension benefit from the SSO is the same as that of Khun Pornthip without reform since – for both workers – it is calculated relative to the contribution ceiling. The reform increasing the contribution ceiling significantly improves his SSO pension. The higher SSO benefit and the tapered pensions test for the OAA means that he receives no OAA.

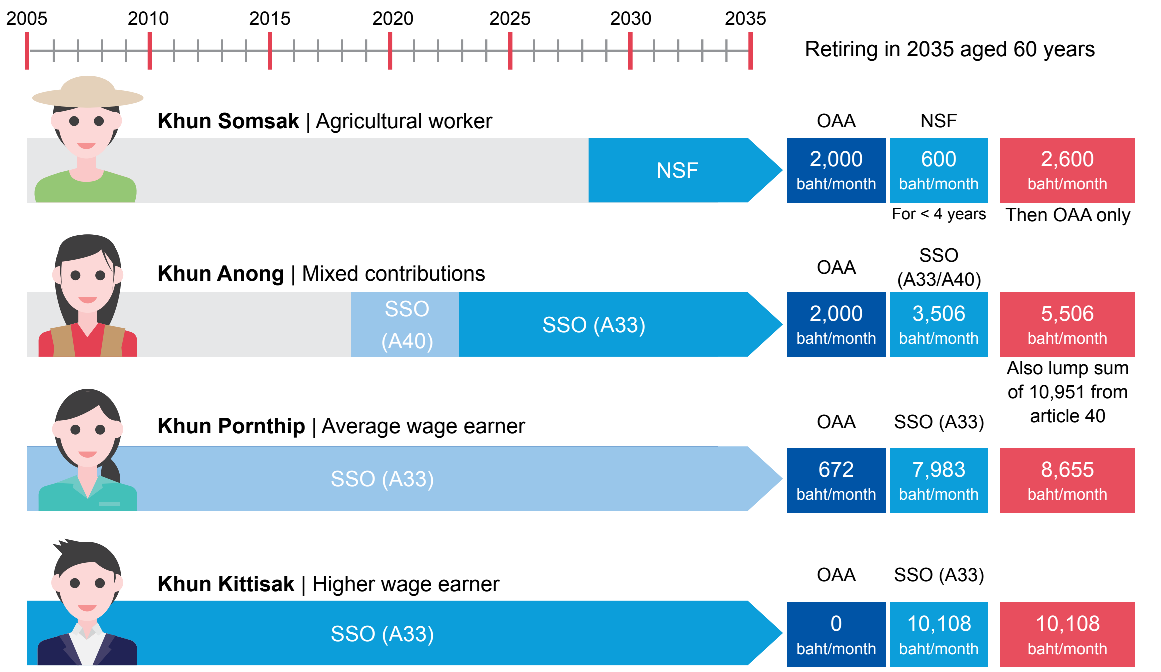
* The average wage in 2020 was B14,460 (LFS 2019). For future benefit calculations, it is assumed that average wages will grow by 2.2 per cent per year in real terms. The average wage in 2034 is assumed to be B19,610 (in 2020 prices) and the average across the five years before retirement to be B18,784.

Figure 5.8: Individual scenarios, without reform



* The value of the monthly amount for Khun Anong is the total value of lump-sum benefits (B207,858) divided by female life expectancy for 2035–2040 (26.2 years)

Figure 5.9: Individual scenarios, with reform



Notably, it appears that the reforms would result in greater increases in adequacy than the introduction of the NPF. This can be observed by comparing the increase in benefits for Khun Anong and Khun Pornthip (average wage earners) relative to the ILO simulations for NPF benefits described in Chapter 4, section 4.6. This is the case even without the increase in OAA benefits. Specifically:

- For Khun Anong, the SSO benefit would increase by **B2,846 per month** (5,506 – 660).
- For Khun Pornthip, the SSO benefit would increase by **B1,608 per month** (7,983 – 6,375).
- By comparison, the ILO projection suggests an NPF benefit of about **B1,300 per month.**

Importantly, the benefits provided under the reforms listed would be guaranteed and would be significantly more supportive of system integration and financial sustainability.

The individual scenarios above do not account for some important dynamics, which deserve some commentary, as follows.

- **Retirement age.** The examples all start from age 60; however, they would have a similar configuration if the retirement age were raised. The main difference would concern lump-sum benefits, for which the amount would be spread over a shorter period on average.
- **Indexation of benefits.** The scenarios illustrate the pension benefits paid on retirement. Indexation to inflation would ensure they retained their purchasing power (this is particularly important for women, who live longer than men and have a greater incidence of poverty).
- **Career-indexed pensions.** The examples provided above only consider the final five years of contribution as the salary base. Scenarios could be scoped using a career-indexed pension plan, which would however involve greater complexity.
- **SWC.** This is not included in the pension income outlined above but could potentially play an important role in filling the income gap for those who still do not achieve a pension income at the poverty line.

6 Recommendations

This report proposes a two-step strategy to enhance the Thai pension system. The strategy recognizes the urgent need to boost the adequacy of the pension system, especially in the context of the recovery from the COVID-19 pandemic. However, it also recognizes that many of the reforms discussed above need to be considered as part of a systemic approach to pensions – within the wider social protection system – that will require further consultation, assessment and deliberation.

The key recommendations are as follows:

- **Undertake immediate action focused on boosting pension adequacy.** This urgent action responds to three key issues. First, limited adequacy represents the most significant issue in the pension system. Second, strengthening adequacy will make a contribution to building public faith in the pension system, which in turn will support reform efforts. Third, increased pension income will provide an important boost to household income and a stimulus to the wider economy, which will support the recovery from the COVID-19 pandemic. To address these key issues, three specific actions are needed:
  - **Increase the value of the OAA to provide a more meaningful pension guarantee.**
  - **Make parametric adjustments to SSO pensions to increase pension adequacy and support fund sustainability.** This includes: (a) increasing the wage ceiling of the scheme; (b) providing for periodic payments for workers with shorter contribution histories than the current 15 year requirement; and (c) initiating a process to gradually increase the retirement age.
  - **Postpone the roll-out of the proposed NPF so that it forms part of a more systematic pension reform.**
- **Develop a national strategy for pension system reform.** This is judged to be an important precursor to more significant reforms in the architecture of the system and scheme parameters, which will contribute to greater policy consistency. The vision will articulate the function and interaction of pension schemes in Thailand to build towards a coherent multi-tier system. This paper sets out options for a system of complementary tiers to support Thai workers as they move through their careers. The main shape of this system would be as follows:
  - **Tier 0: Pension floor (OAA and SWC).** As part of this, the integration of OAA and SSO benefit payments has the potential to support better pension adequacy and system sustainability.
  - **Tier 1: Guaranteed earnings-related benefits (SSO).** This requires making further parametric changes to strengthen the adequacy and sustainability of SSO, as well as the extension of earnings-related benefits to provide a guaranteed benefit for workers who are currently outside the scope of the SSO article 33 scheme.
  - **Tier 2: Harmonized complementary savings (NSF, NPF, GPF and provident funds).** A key task would be to provide a clear, coherent and effective landscape for savers.

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Appendix 1 Generational differences in employment patterns of Thai workers

Chapter 2 described how older workers display distinct working patterns from younger workers, for example, being more likely to be working in agriculture and in self-employment. This strongly correlates with the characteristics of SSO contributors, who are more likely to be of younger ages.

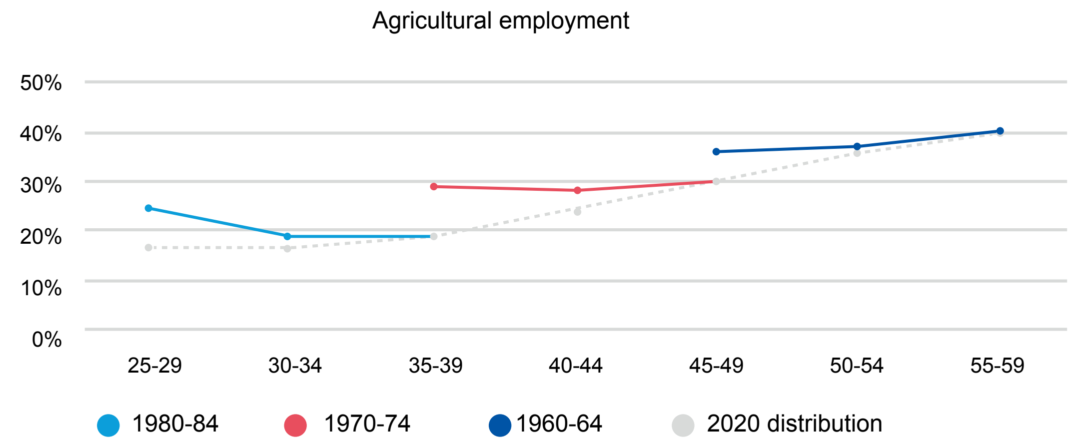
To understand the future trajectory of the Thai labour market and the levels of contribution to SSO pensions, it is therefore important to understand whether these patterns are age-related (that is, workers transition into different kinds of work as they get older) or cohort-related (that is, these patterns more closely represent the characteristics of specific generations of workers).

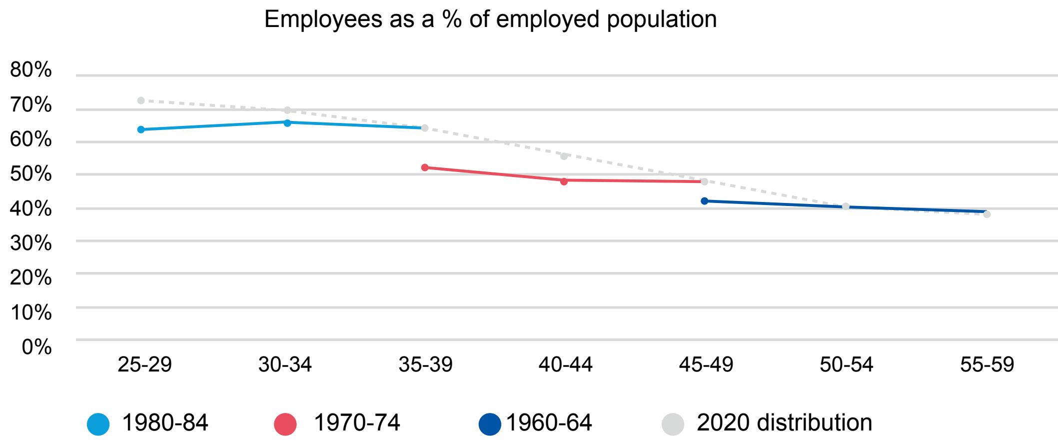
To explore this question, figure A.1 uses LFS data to plot the changes of employment patterns of different generations of workers over time. The generations chosen are workers born in the periods 1960–1964, 1970–1974 and 1980–1984. The situation relative to specific indicators is plotted against their age in three LFSs (in 2010, 2015 and 2020). For example, a person born in the period 1960–1964 would have been at age 45–49 in 2010.

The analysis suggests that these employment patterns are strongly related to different generational patterns. This is illustrated in figure A.1 for levels of agricultural employment and the share of the employed population who are employees. Overall, each generation appears to have maintained its employment characteristics over time, which are distinct from other generations. For example, while 25 per cent of the older generation (1960–1964) were in agriculture at age 45–49 (rising slightly over time), this applied to just 25 per cent of the youngest generation (1980–1984) and actually fell as this group aged. Similarly, the higher levels of employees in younger generations was generally sustained over time. These dynamics are likely linked to higher levels of education and skills among younger generations, resulting in a greater ability to engage in the higher-value work available in the economy.

Overall, these dynamics suggest that as the labour force ages, it will be more significantly represented by workers in a more conducive position to contribute to SSO pensions.

Figure A.1: Cohort analysis of employment patterns (2010, 2015 and 2020, Q1)





Source: ILO calculations based on LFS (2010/Q1, 2015/Q1 and 2020/Q1).

Appendix 2 Projected SSO article 40 retirement benefits

Tables A.1 and A.2 estimate the size of the retirement benefit from the SSO article 40 scheme. Both tables calculate the cumulative savings of a contributor, assuming that they contribute consistently for 30 years.

- Table A.1 presents the scenario in which an individual contributes to option 2 of the SSO article 40 scheme (B100 per month contribution, with a B50 per month match from the Government)
- Table A.2 presents the scenario in which an individual contributes to option 3 of the SSO article 40 scheme (B300 per month contribution, with a B150 per month match from the Government)

Values are presented in real prices (2021). The interest applied to the saving per annum is 1.16 per cent, which is the average annual net return credited to SSO article 40 scheme account holders for the period 2011–2019.

The anticipated lump sum is the cumulative value of all savings after 30 years (highlighted in green). The monthly value is calculated by dividing the lump sum by average life expectancy (in months) for men and women in 2040-2045 based on data from the UN World Population Prospects 2019 (23.6 for men, 26.7 for women). This is a relatively simplistic way of calculating the monthly value but it nevertheless gives an appropriate sense of the scale of benefit when spread across years of retirement.

The tables show that for option 1, the anticipated value of benefit per month is between B203 and B229 per month, while for option 2 it is between B608 and B688 per month.

Table A.1: Projected SSO article 40 retirement benefit for option 2 (B100 per month contribution)

Year	Contribution per year	Government contribution	Total contribution	Cumulative savings (with interest)
1	1,200	600	1,800	1,821
2	1,200	600	1,800	,3,663
3	1,200	600	1,800	5,526
4	1,200	600	1,800	7,411
5	1,200	600	1,800	9,318
6	1,200	600	1,800	11,247
7	1,200	600	1,800	13,198
8	1,200	600	1,800	15,172
9	1,200	600	1,800	17,169
10	1,200	600	1,800	19,189
11	1,200	600	1,800	21,233
12	1,200	600	1,800	23,300
13	1,200	600	1,800	25,391
14	1,200	600	1,800	27,507
15	1,200	600	1,800	29,646
16	1,200	600	1,800	31,811
17	1,200	600	1,800	34,001
18	1,200	600	1,800	36,216
19	1,200	600	1,800	38,457
20	1,200	600	1,800	40,724
21	1,200	600	1,800	43,018
22	1,200	600	1,800	45,338
23	1,200	600	1,800	47,684
24	1,200	600	1,800	50,058
25	1,200	600	1,800	52,460
26	1,200	600	1,800	54,889
27	1,200	600	1,800	57,347
28	1,200	600	1,800	59,833
29	1,200	600	1,800	62,348
30	1,200	600	1,800	64,892
			Per month (Male)	**229**
			Per month (Female)	**203**

Table A.2: Projected SSO article 40 retirement benefit for option 3 (B300 per month contribution)

Year	Contribution per year	Government contribution	Total contribution	Cumulative savings (with interest)
1	3,600	1,800	5,400	5,463
2	3,600	1,800	5,400	10,989
3	3,600	1,800	5,400	16,579
4	3,600	1,800	5,400	22,234
5	3,600	1,800	5,400	27,954
6	3,600	1,800	5,400	33,741
7	3,600	1,800	5,400	39,595
8	3,600	1,800	5,400	45,517
9	3,600	1,800	5,400	51,508
10	3,600	1,800	5,400	57,568
11	3,600	1,800	5,400	63,698
12	3,600	1,800	5,400	69,900
13	3,600	1,800	5,400	76,173
14	3,600	1,800	5,400	82,520
15	3,600	1,800	5,400	88,939
16	3,600	1,800	5,400	95,434
17	3,600	1,800	5,400	102,003
18	3,600	1,800	5,400	108,649
19	3,600	1,800	5,400	115,372
20	3,600	1,800	5,400	122,173
21	3,600	1,800	5,400	129,053
22	3,600	1,800	5,400	136,013
23	3,600	1,800	5,400	143,053
24	3,600	1,800	5,400	150,175
25	3,600	1,800	5,400	157,380
26	3,600	1,800	5,400	164,668
27	3,600	1,800	5,400	172,041
28	3,600	1,800	5,400	179,499
29	3,600	1,800	5,400	187,044
30	3,600	1,800	5,400	194,676
			Per month (Male)	**688**
			Per month (Female)	**608**

Appendix 3 Estimated total pension coverage

Table A.3: Active contributors to retirement schemes 2019

Scheme	Number			% of employed population			% of total	Source
	Total	Males	Females	Total	Males	Females		
SSO article 33	11,686,393	5,847,396	5,838,997	31.1%	28.6%	34.1%	66.7%	SSO
SSO article 39	1,648,118	615,838	1,032,280	4.4%	3.0%	6.0%	9.4%	SSO
SSO article 40, of which	3,242,579	1,392,790	1,849,789	8.6%	6.8%	10.8%	18.5%	SSO
Active contributors (all)	1,071,996	460,456	611,540	2.9%	2.2%	3.6%	6.1%	SSO
Active contributors to retirement schemes	1,054,374	452,887	601,487	2.8%	2.2%	3.5%	6.0%	SSO
NSF members, of which:	2,335,085	1,350,380	984,705	6.2%	6.6%	5.7%	13.3%	NSF
Active contributors (estimate)	771,979	446,435	325,543	2.1%	2.2%	1.9%	4.4%	See notes
Civil servants	1,877,360	943,301	934,059	5.0%	4.6%	5.4%	10.7%	IES 2018
State enterprise	382,190	236,503,	145,686	1.0%	1.2%	0.8%	2.2%	IES 2018
Private teacher fund	98,758	31,321	67,436	0.3%	0.2%	0.4%	0.6%	IES 2018
Total active contributors	**17,519,171**	**8,573,682**	**8,945,489**	**46.6%**	**41.9%**	**52.2%**	**100.0%**	

Notes:
• SSO statistics from SSO (2020) and administrative data provided directly.
• NSF data from NSF website (NSF 2021). Data on active contributors to NSF was not available. Therefore, for the estimation it is assumed that the share of members actively contributing under NSF is the same as the share of members actively contributing to the SSO article 40 scheme (33 per cent).
• Where IES 2018 data is used, it is assumed that the number would have remained the same in 2019. The category "civil servant" excludes government employees and temporary government employees covered by SSO schemes.

Appendix 4 Scenarios for enhanced pension adequacy

Table A.4 provides a more detailed description of the benefits received for the four individual scenarios in Chapter 5, section 5.4.

Note: All values refer to retirement in January 2035 and are presented in 2020 real/constant prices. In the "no adjustment" scenario, it is assumed the OAA is indexed to inflation.

Table A.4: Individual scenarios for adjustments (2035

	Employment history	Pension received	
		Without reform	With reform
Khun Somsak	An agricultural worker who spends most of his life outside the social protection system. At age 51 in 2026, he decides to join NSF, contributing B100 per month (with a 100 per cent match from the Government) every month until his 60th birthday.	OAA:B600 per month NSF: B600 per month for 3–4 years. This assumes a total saving of B25,724,[49] divided between payments of B600 per month (B7,200 per year).[50] **Total: B1,200 per month** until NSF funds are depleted, then B6000 per month from OAA only.	OAA: B2,000 per month NSF: B600 per month for 3–4 years. Same as in no-reform scenario. **Total: B2,600 per month** until NSF funds are depleted, then B2,000 per month from OAA only.
Khun Anong	Starts work as a self-employed street vendor at age 41 after many years out of the labour force caring for her young children. She contributes to the SSO article 40 scheme for 5 years before gaining formal wage employment at age 46, earning the average wage.* She then contributes to the SSO article 33 scheme for 14 years until her retirement.	OAA: B600 per month SSO: B660 per month This monthly amount is the total value of lump sum benefits (B207,858) divided by female life expectancy for 2035–2040 (26.2 years). The lump sum from the SSO article 33 scheme (B196,907) is described in box 5.4 above. The lump sum from the SSO article 40 scheme (10,951) is calculated on the basis of contributions under option 2 (2016–2020), with interest.[51] **Total: B1,260 per month**	OAA: B2,000 per month SSO: B3,506 per month The calculation is based on 18.67 per cent of the last five years' salary (see box 5.4 above). The SSO article 40 scheme lump sum remains unchanged but is not included in the above. **Total: B5,506 per month** plus a lump sum of B10,951 from the SSO article 40 scheme.

49 This assumes a real interest rate of 1.5 per cent (3.5 per cent target rate of NSF, minus 2 per cent inflation). Average inflation from 2000–2019 was 2.02 per cent per annum. Implicitly, this also assumes the contribution rate would be increased each year in line with inflation, which is not currently the case.

50 With payments of B600 per month (in real prices), the benefit could be expected to be depleted by 3 years and 7 months.

51 The interest applied to the savings per annum is 1.16 per cent, which is the average annual net return credited to SSO article 40 scheme account holders for the period 2011–2019.

Khun Pornthip	Has a formal sector job earning the average wage* and contributes consistently to the SSO article 33 scheme from 2005 to end–2034.	OAA: B600 per month SSO: B6,375 per month Calculated as 42.5 per cent of the reference wage, which is the wage ceiling of B15,000 per month. **Total: B6,975 per month**	OAA:B 672 per month The pensions test applies to SSO pension income above B4,000 per month, meaning the benefit above the threshold is B3,983 (B7,983–B4,000). With B1 removed for each B3 of SSO benefit, the reduction is B1,328 (B3,983/3). Subtracted from the full OAA benefit, this leaves B672 (B2,000-B1,328) remaining. SSO: B7,983 per month Calculated as 42.5 per cent of the actual wage, which is B18,784 / month. **Total: B8,665 per month**
Khun Kittisak	He also has a formal sector job and contributes consistently to the SSO article 33 scheme from 2005 to end–2034, but earns B5,000 per month above the average wage.*	OAA: B600 per month SSO: B6,375 per month Calculated as 42.5 per cent of the reference wage, which is the wage ceiling of B15,000 per month. **Total: B6,975 per month**	OAA: B0 per month The pensions test applies to SSO pension income above B4,000 per month, meaning the benefit above the threshold is B6,108 (B10,108 - B4,000). With B1 removed for each B3 of SSO benefit, the reduction is B2,036 (B6,108/3). Given that this sum is higher than the OAA benefit, Khun Kittisak receives no OAA benefit. SSO: B10,108 per month Calculated as 42.5% of the actual wage, which is B23,784 per month. **Total: B10,108 per month**

Notes: * The average wage in 2020 was B14,460 (LFS 2019). For future benefit calculations, it is assumed that average wages will grow by 2.2 per cent per annum in real terms. The average wage in 2034 is assumed to be B19,610 (in 2020 prices) and the average across the five years before retirement is assumed to be B18,784.

This report provides an assessment of the coverage, adequacy, financial sustainability and policy consistency of the Thai pension system. Its aim is to provide analysis and recommendations that can contribute to ongoing national policy discussion on pension policy and input into an overarching Thailand Social Protection Diagnostic Review (SPDR).

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