IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Cost Estimation In Implementing Universal Pension In Indonesia

Rendra Hymne Fajar Hutabarat

Student of Master of Economics Program
Faculty Of Economics and Management,
IPB University, Bogor, Indonesia

Abstract: Indonesia currently has 3 types of public pension programs but the programs are only for formal private workers, civil, servant and armed forces. These three programs have coverage of 18.49 million formal workers out of a total of 52.1 million formal worker. Importantly based on a survey conducted by the Indonesian Statistics Center, 55.2% of active workers in Indonesia are still informal. Through 2020 nation survey, it is known that Indonesia is still in a bonus demographic condition where the working age population exceeds 50% of the total population. But through projections made by the Indonesian government in collaboration with the world bank, in 2045 Indonesia will lose this demographic bonus and the population aged 65 years and over will reach 35% of the total population. Ensuring the welfare of these workers, especially those in the informal sector and those who are reaching old age, will be an important issue for the Indonesian government. It is necessary to conduct a study that provides an initial description of cost estimation in implementing universal public pensions. In carrying out this cost estimation, the guidelines prepared by the International Labor Organization (ILO) are used in calculating pension program costs. To calculate this cost, the data used are population data, labor force data, state revenue budget, and projections of the elderly population in Indonesia. In data processing, the ILO guidelines are used to provide a cost estimation of Rp 176 trillion that can be financed by the national budget.

Keywords**: dependency ratio, multi pillar, old age, social security**

***Index Terms* – H60; H53; H55**

I. INTRODUCTION

In the present the public pension programs in Indonesia are only for formal private workers and civil servants and armed forces. The pension program is run by 3 state institutions, namely BPJS Employment, PT. ASABRI, PT. TASPEN. These three institutions have different functions. BPJS Employment which is a transformation of PT Jamsostek has been running a pension program for private formal workers in Indonesia since August 2015 through the issuance of government regulation No 44 of 2015. Currently BPJS Employment pension program covers 13.25 million workers. PT. ASABRI, which was established in 1963 through the issuance of government regulation no 15 of 1963, has one of its functions in carrying out a pension program for armed forces and also civil servants working at the Ministry of Defense. In 2022 the total participants in the PT ASABRI pension program are 1.34 million people. PT. TASPEN which has been established since 1969 through the issuance of Law No. 11 of 1969, runs a pension program for civil servants in Indonesia. In 2022 PT TASPEN has covered 3.9 million people in Indonesia. In total these three state institutions have implemented pension programs for 18.49 million workers in Indonesia.

Based on a survey conducted by the Indonesian Statistical Bureau (BPS) in 2020, Indonesia has a total population of 270.1 million people. Of this population, 16.1 million people have reached age 65 years and over. Related to the workforce, there are 52.1 million formal workers out of a total of 140 million active workers in Indonesia. From these statistics, Indonesia is in a bonus demographic condition where more than 50% of the population are active workers. The structure of the active labor force in Indonesia is still mostly made up of informal workers, namely 87.9 million workers.

The Indonesian government through the National Development Planning Agency (BAPPENAS) has drawn up a long-term plan for 2005 – 2025 where one focus is to expand social security protection through long term programs, namely health care, children care services, and pension protection for elderly population for all Indonesians. The expansion of the pension program is important because Indonesia's demographic bonus will decrease and through the projections of the Central Statistics Agency, Indonesia's population in 2045 will reach 310 million people with a population aged 65 years and over reaching 45 million people (BPS, 2015).

When a person has reached retirement age, the individual will lose income certainty to finance their life. Because of this condition there is a risk that without a pension program for informal workers and for the population that has reached old age, they may fall into poverty. When reaching retirement age, physical abilities will also decrease so that an individual will find it difficult to return to the labor market (Heslop and Geslop, 2002).

Research conducted by Bloom and Dara (2016) shows that there are often political and constitutional adjustments in a country that is undergoing changes in population demographics. These adjustments are to mitigate the negative effects of changes in demographics, especially in the field of welfare and include adjustments to the needs of pension programs for workers and the wider community. Apart from reaching old age, there is also a risk when economic shocks occur which put pressure on the welfare of society and especially workers. The need for social security protection will be higher to provide income certainty when the economic shock occurs (Boulhol, 2019). Part of national income is allocated for welfare programs for the people. This is a major issue in the formulation of economic and social policies, where there will be trade-offs between budget efficiency and equality of welfare (Kariastanto, 2011; Raab and Gannon, 2011).

Not much research has been conducted to provide an initial overview regarding the implementation of public universal pensions in Indonesia. For the last few years, the Indonesian government was focusing in implementing the national health care program. The next social security program that the government should be developing is the public universal pension program for the population. Based on those backgrounds, the research questions that need to be answered are what frameworks are needed for a public pension program? How much is the cost estimation of the proposed universal pension in Indonesia? The objectives of answering these questions are to develop an early basic framework for a universal public pension program and to calculate the projected cost estimation of the proposed universal pension program.

II. WELFARE STATE THEORY

Social security programs, including pension programs, are part of the concept of the welfare state (Spicker, 2000). The welfare state provides protection from various social risks throughout a person's lifetime starting from birth to death and also provides income replacement and the opportunity to live a decent life (Airio, 2016). The initial concept of the welfare state itself emerged in the 1940s. It refers to the basic functions and goals of a country to guarantee a minimum standard of population welfare by providing protection and certainty for a decent life, namely the existence of income eligibility, health protection, full employment, implementation of education (Andersen, 2012). The welfare state causes adjustments to the market, namely by providing basic protection in preventing poverty that includes various social risks [10] and providing health services, worker protection, and services for children and the elderly.

In the construction of universal social protection model based on the welfare state idea, Leisering (2020) stated that there are 4 main concepts of universalism that can be chosen by a country. The first concept is universalism by provisions. It has a focus on the establishment of a mandatory social protection schemes instead on relying on the concept of absolute right for citizen. The second concept is the right for a universal social security. It has the focus in the absolute rights of the whole population and it is a more comprehensive concept than just being given a guarantee of a livelihood. This is an opposite concept to the first form. The right of social security relates to the constitution of a nation. The third concept is the availability of access to universal social service for the people which is integrated to social security program where the primary objective will focus on the availability of social security infrastructure that all eligible individuals, including population in hard-to-reach geographical area, can have access to social program services. The access for the social security benefit will depend on the distribution of social program infrastructure The fourth concept is a universal social security which refers to social protection schemes that include the right to all residents to receive social security protection when experiencing a socio-economic risk.

This concept of universal protection is commonly based on specific categories and for demography population with a certain characteristic (Melguizo et al, 2015). The two examples of a universal social program for a specific group of population that are in a very different life cycle are universal pension scheme and universal child care benefits (Orosz, 2017; Ortega and Aguila, 2022, Jin and Yuet, 2014). For those individuals who already reached old age, the weakened physical abilities make it difficult for them to stay in the workforce. Economic risk is one of the main risks that arise and indirectly lead to the view that those who are in old age will become a burden on younger family members (Thovoethin and Ewalefoh, 2018). Because of the disappearing of traditional family concept, it is estimated that intra-family transfers will tend to decrease (Charan and Ayanendu, 2015). In constructing a pension system, each country has its own characteristics of the national pension system and its funding (Ponds and Yermo, 2012). It is generally a combination of several pension programs currently present in a country which then produces a pension program scheme characteristic that is very specific to the country (Yves, 2019). Each pension system has its own mechanism, which can be described from the level of benefits provided, the amount of contribution charged, and the possibility of changes in benefits and contributions in the future (Miriam and Laurence, 2021). If the level of benefit provided has a high certainty, then in general the level of contribution will change more often (Gianna, 2016). However, if the eligibility of pension is stricter and the pension benefits received are greater, workers will decide to stay longer in formal employment (Rodrigo, 2017).

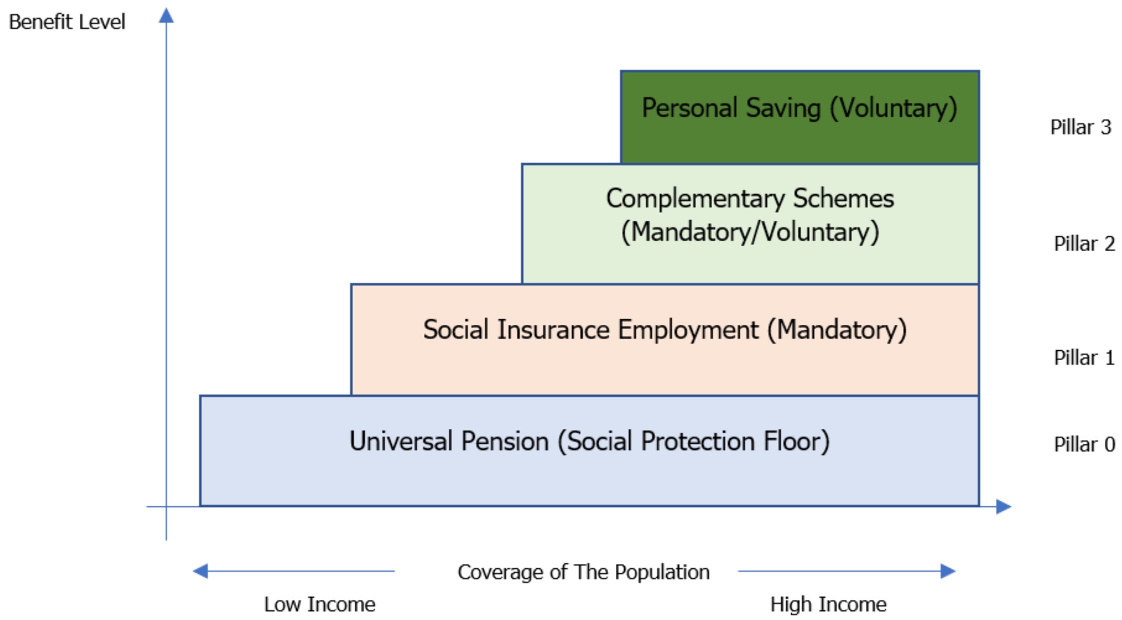
In a study conducted by Willmore (2016)**,** it was found that the aging of population is a common issue all over the world, although there is distinction between countries. In structuring those different pension program in countries, World Bank Pension Model and International Labour Organization (ILO) Pension Model are two main models which are widely used as benchmark in international level (Mustafizur et al, 2021; ILO, 2022)

III. MULTI PILLAR PENSION BY ILO

The In constructing the concept of a universal pension program in a country, the adapted model will be ILO Multi Pillar Model. It is based on international best practices and concept developed by ILO. The multi pillar concept is also supplemented with ILO Guidelines in pension cost estimation. The Multi Pillar represents combination of possible universal pension schemes which serve multiple objectives to guarantee a universal coverage of the population. There are 4 pillars of pension program in the ILO model:

1. **Pillar 0** is universal basic protection and through government funding (national budget), provides the amount of basic pension benefits for the population whose majority are still with low income.
2. **Pillar 1** is funded through the payment of contributions from certain percentage of wage, by those who are actively working. It is for the population with low to medium income with higher benefits
3. **Pillar 2** is an additional pension program for the population with middle and upper income with high pension benefits
4. **Pillar 3** is the top pillar which is part of the personal savings of the population who have high incomes with higher retirement benefits as well. The level of income is high enough to finance personal saving and insurance payment.

Figure 1: ILO Multi Pillar Pension (ILO Pension Book)



Source: ILO Policy Brief 2022

IV. RESEARCH METHODOLOGY

For this study secondary data has been collected. From the database of National Statistic Center, the demography of Indonesian population is obtained from 2020 – 2021, including the detailed statistic of formal and informal worker. From the website of Ministry of Finance, the data for the GDP and government expenditures variables are collected for the period of 2020 until 2021. The time series monthly data is collected on macroeconomic variables for the period of 2 years.

The quantitative analytical tool is the pension cost estimation guideline by ILO:

Universal Pension with Pillar 0, estimation of cost:

$$\mathbf{Cost}_t^{\text{Pillar 0}} = \mathbf{R}_t \times \mathbf{B}_t$$

Where R_t represents the number of retirees in year t and B_t represents nominal value of pension benefit in year t.

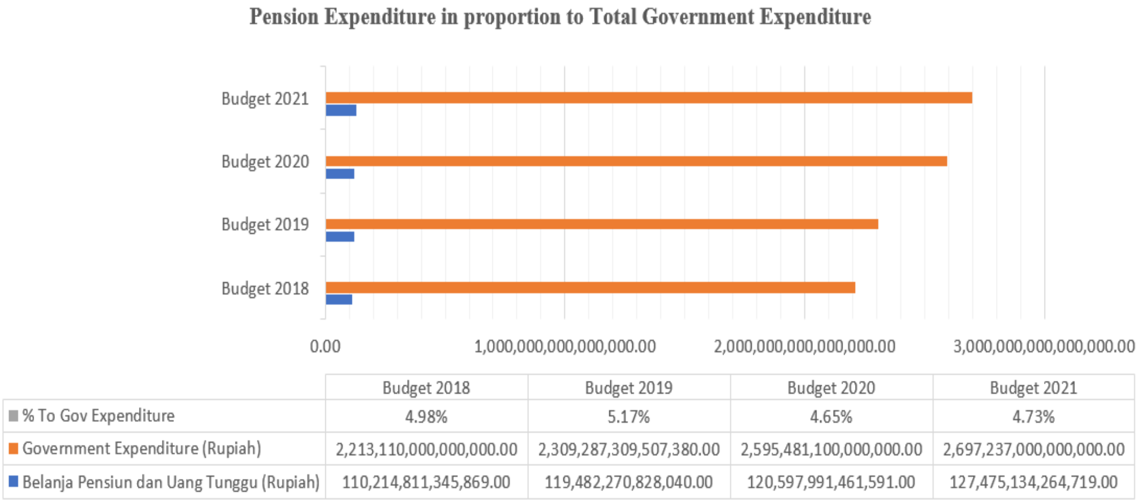
The estimated cost of a universal pension program using Pillar 0 also generally stated as the percentage of GDP in a certain year:

$$\textbf{National Cost of Pillar 0} = \frac{\textbf{Cost Pillar 0}}{\textbf{GDP}}$$

V. RESULT AND DISCUSSIONS

1. National Budget

In Indonesia, the State Revenue and Expenditure Budget (APBN) compiled by the executive and approved by the legislature has given special emphasis to social security programs, especially for health insurance and also has certain budget posts related to pension programs for civil servants and the armed forces and police. In the APBN, there is mandatory spending, which is a state expenditure or expenditure whose amount has been determined at a certain amount according to the applicable law. Based on the body of the 1945 Constitution Article 31 Paragraph (4) and Law No. 20 of 2003 related to the National Education System Article 49 paragraph (1), there is mandatory spending of 20% of the Regional Revenue and Expenditure Budget (APBD). For health programs, there is mandatory spending of 10% of the APBD excluding the employee payroll, according to Law No. 36 of 2009 concerning Health (Joedidabrata, 2012). The pension program itself is not included in mandatory spending, but for the pension program it is contained in the APBN in the employee expense budget post, pension expense budget sub post and waiting money. This is due to the fact that Indonesia does not yet have a universal national pension program funded by the state budget. The pension program covered by the current state budget is specifically pensions for the armed forces and civil servants, state officials, the police and the armed forces. The pension for private workers is through the payment of contributions by employees and employees and is not charged to the state budget. In 2020, based on the 2021 Central Government Financial Statements (Audited), the pension and waiting fees are Rp 120 trillion or 4.65% of government spending and in 2021 it will increase to Rp 127 trillion or 4.73% of government spending.



Source: Ministry of Finance Report 2021

Table 2 Pension expenditure in proportion to total government expenditure

	Year 2021 (Audited)	Year 2020 (Audited)
Civil Servant Salary & Allowance Expenditure (Rupiah)	85.975 Trillion	80.754 Trillion
Armed Forces & Police Department Salary & Allowance Expenditure (Rupiah)	63.029 Trillion	66.822 Trillion
Government Official Salary & Allowance Expenditure (Rupiah)	969.871 Billion	931.485 Billion
Medical Doctor (PTT) Salary Expenditure (Rupiah)	1.732 Billion	2.146 Billion
Non-Civil Servant Employee Salary Expenditure (Rupiah)	18.258 Trillion	17.612 Trillion
Honorarium Expenditure (Rupiah)	1.443 Trillion	1.671 Trillion
Over time Expenditure (Rupiah)	792.721 Billion	738.970 Billion
Special Allowance and Transit Employee Expenditure (Rupiah)	77.957 Trillion	75.747 Trillion
Pension and Special Waiting Fee Expenditure (Rupiah)	127.475 Trillion	120.597 Trillion
Employee Social Security Expenditure (Rupiah)	10.612 Trillion	10.179 Trillion
Special Goods and Services Salary and Allowance Expenditure (Rupiah)	12.134 Trillion	11.422 Trillion
TOTAL (Rupiah)	398.649 Trillion	386.481 Trillion

Source: Ministry of Finance Report 2021

There is an increase in the 2021 pension expense compared to 2020 due to the increase in the number of pension recipients and the adjustment of allowances for the armed forces and police department and civil servants. In adjusting the government's long-term obligations to the pension program, until the 2021 LKPP is completed, the government does not recognize long-term pension obligations and only takes into account short-term obligations, namely pension benefits that have not been paid until the end of the reporting period. This goes back to the fact that the government's budget report is based on a cash basis and covers a short period of time, mainly annual.

2. Estimated cost of universal pension program in Indonesia for 2 scenarios

The preparation of the national budget is one of the core tasks of a government (Martinez, 2022). The national budget basically covers a short period of time, namely the budget for the annual period, so that its preparation focuses on the availability of revenue sources, the objectives and objectives of the prepared budget, and the government's financial condition. The preparation is carried out based on the law that stipulates state executive officials to be within spending limits approved by state legislature officials (ILO, 2017).

The type of data used in this cost estimation is secondary data in the form of time series data. Data will include data on Gross Domestic Product (GDP), Income per capita, total population, the dependency ratio which describes the ratio of children population (0-14 years old) and older persons population (65 years or over) compared to the working-age population (15-64 years old), pension program national budget, the number of pension program participants. Secondary data for Indonesia can be obtained from the Central Statistics Agency of the Republic of Indonesia, BPJS Employment, World Bank, ILO.

The two scenarios proposed are based on Pillar 0 and Pillar 1 which are in accordance with the definition by the ILO with 3 different possible threshold of pension benefits. The amount of benefits considered is based on the poverty line in Indonesia, income replacement based on the replacement rate stated in the ILO Convention 102 (1952), and the average wage for informal workers in Indonesia. Through pillar 0, the universal pension program is financed through the government budget which will consider the percentage of costs to total GDP. Through pillar 1, the universal pension program is financed by the payment of contributions every month by working citizens to finance the pension program.

Table 3 Scenario I pillar 0 year 2021

PILLAR 0 2021			
Cost	**Benefit Level (Monthly, Rupiah)**		
	Poverty Line 2021	Replacement Rate (Convention 102) 30%	Average Wage of Informal Workers
	486,168.00	806,317.20	1,164,685.00
Total Benefit 12 Months (Rupiah)	176.294 Trillion	292.386 Trillion	422.338 Trillion
% Of GDP	1.04%	1.72%	2.49%
% Of Govt Expenditure	6.54%	10.84%	15.66%
Number Eligible Retirees 2021 (65+)	30,218,330		
GDP 2021 (Rupiah)	16,970.80 Trillion		
Government Expenditure 2021 (Rupiah)	2,697.237 Trillion		

Source: Cost Estimation ILO Guidelines Formula

Scenario I describes if the universal pension program will be implemented starting in 2021. Three pension benefits can be considered, namely: Indonesia's poverty line level in 2021 of Rp 486,168.00 (Statistical Publication of BPS 2021), replacement rate of 30% of the average wage of workers Indonesian formal workers (Rp 2,687,184.00, BPS 2021 publication) are Rp 806.317.20, and the lowest average wage for informal workers in 2021 is farmer informal workers, which is Rp. 1,164,685.00 (Statistical Publication 2021). If the targeted retirement benefit rate is the income replacement rate according to the ILO Convention 102 (1952) which is Rp 806.317.00 per month, then in a year more than Rp 292 trillion will be needed, which is 1.72% of Indonesia's GDP in 2021 or 10.84% of Indonesia's GDP in 2021. If the pension benefit level being targeted is the lowest average informal wage, namely casual workers in the agricultural sector of Rp. 1,164,685.00, the pension financing in a year is more than Rp. 422 trillion or 2.49% of the total GDP of Indonesia 2021.

Table 4 Scenario II pillar 1 year 2021

PILLAR 1 2021			
Cost	**Benefit Level (Monthly, Rupiah)**		
	Poverty Line 2021	Replacement Rate (Convention 102) 30%	Average Wage of Informal Workers
	486,168.00	806,317.20	1,164,685.00
Cost of Pension (Rupiah)	176,294.220 Trillion	292,386.710 Trillion	422,338.028 Trillion
Contribution Revenue (Rupiah)	308,198.235 Trillion	511,151.574 Trillion	738,332.967 Trillion
Cadangan Dana (Rupiah)	131,904.015 Trillion	218,764.863 Trillion	315,994.939 Trillion
Contribution Rate	13.65%	13.65%	13.65%
Monthly Contribution (Rupiah)	221,206.44	366,874.33	529,931.68
Number Eligible Retirees 2021 (65+)	30,218,330		
GDP 2021 (Rupiah)	16,970.801 Trillion		
Government Expenditure 2021 (Rupiah)	2,697.237 Trillion		
Dependency Ratio	45.50%		
Working population	116,105,057		

Source: Cost Estimation ILO Guidelines Formula

Scenario II uses pillar 1 pension structure, namely pension funding through the payment of contributions from each population of working age. Total contribution will be used to finance the payment of pension benefits for the population aged 65 years and over. Most middle-income and high-income countries have used pillar 1. Pillar 1 will consider the level of dependency ratio in a country and then determine the level of contribution to be paid. Compared to developed Asian country such as Japan, both pillar 0 and pillar 1 have been carried out simultaneously and are in a top-up scheme (Sagiri, 2015) namely pillar 0 as the basis and then added with pillar 1 as a mandatory complement. To determine the rupiah value of the contribution to be paid, it is necessary to know the dependency ratio, the value of the contribution percentage rate, and the wage value which is the basis for calculating pension benefits. Dependency ratio in Indonesia in 2021 is 45.5% according to BPS data. The Contribution Rate can then be calculated using the formula (ILO Pension Book) resulting 13.65 %. It means that 13.65% of the income of the productive population is needed to provide pension benefits of 30% of the national wage. If the pension benefit that is targeted is the poverty line of Rp 486,168.00 and the contribution rate of 13.65%, the contribution value to be paid per month is Rp 221,206.44 with a total contribution of more than Rp 308 trillion and the financing of pension benefits with a total of more than Rp 176 trillion. If the targeted monthly pension benefit is a 30% replacement rate of Rp 806.317.20, the monthly contribution value is Rp 366,874.33 with a total contribution receipt of more than Rp 511 trillion and pension benefit financing with a total of more than Rp 292 trillion. If the targeted pension benefit is the average wage of informal workers of Rp 1,164,685.00, the monthly contribution value is Rp 529,931.68 with a total contribution receipt of more than Rp 738 trillion and pension benefit financing of Rp 422 trillion.

3. Governance of Universal Pension Program

In implementing the proposed universal pension, the three institutions that have implemented the social security pension program namely ASABRI, TASPEN and BPJS Employment will continue to operate as before and continue to cover workers according to the functions of each institution.

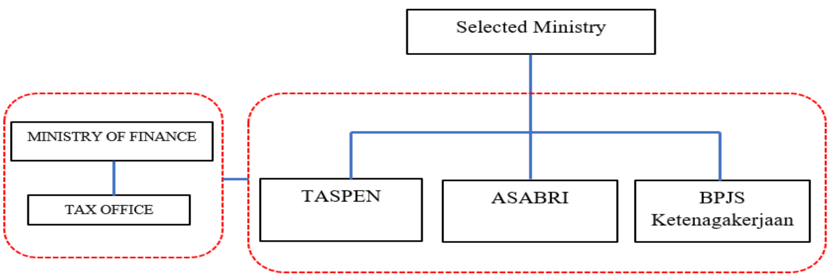
In organizing social security, in this case the pension program, the organizational structure can be separated between the administrator of daily operational and business process and the administrator of pension fund management. The proposed new administrators should be each under a competent ministry. Specially for the administrator of the pension fund, it must be directly report to the ministry of finance and the investment of the fund must also be tightly regulated and supervised by the government.

Through the universal pension program in Indonesia, ASABRI, TASPEN and BPJS Ketenagakerjaan will continue to carry out their function of providing pension programs to armed forces, civil servants, and formal private workers. At this time ASABRI and TASPEN are state owned enterprises which are under the ministry of state-owned enterprise and BPJS Ketenagakerjaan is an agency at the same level as the ministry and is directly responsible to the President of the Republic of Indonesia. In the process of implementing universal pensions in Indonesia, the main institution in charge can be a designated ministry such as the Ministry of Social Affairs and the management of pension funds can be delegated to the three existing pension institutions with supervision and direction from the ministry of finance. Administrative data for universal pension participants in Indonesia can be managed by the Ministry of Social Affairs and the three pension institutions are given responsibility for managing the receipt or funding of the pension program and also for organizing and operating the distribution of pension benefits for those who are entitled to receive pension benefits and reach retirement age.

On Pillar 0, where funding is through the national budget which is funded by tax revenues, the tax office becomes a very important part in organizing the universal pension system. The tax office provides complete data related to individual tax obligations which are then reconciled with data at the ministry of social affairs. In a developed country, tax data and social security data including pension program data have been fully merged and recorded in a single database, presented in a card which then is distributed to each resident.

In Pillar 1, which is funded through payment of contributions, the three existing pension institutions can function in receiving and billing monthly contributions for the pension program. The contributions that have been collected are then managed with a focus on providing pension benefits to those who are entitled. The management of this pension fund should be based on direction and supervision from the Ministry of Finance.

Figure 1 Governance Structure of Universal Pension



VI Conclusion

1. From the descriptive and comparative analysis, the implementation of universal pension in Indonesia in 2045 will cover a very large number of people aged 65 years and over reaching 45 million people. This number is much larger than most countries in the world. Most of the workers in Indonesia are also still informal so that the implementation of this universal pension will cover these informal workers where at present these informal workers are still not covered by pension programs organized by public bodies such as BPJS Employment.
2. Judging from the structure of workers in Indonesia, the proposed form of implementation is a form which at the beginning of its implementation was relatively easy administratively and immediately reached the entire population. Funding through the government budget is administratively and mechanically easier than financing through monthly contributions.
3. Projected financial costs can be seen from the 2 proposed scenarios. In the first scenario that use pillar 0, it can be seen that the percentage of funding cost for pension programs to GDP and government spending is still quite low when compared to developed Asian country. The implementation of pillar 0 in Indonesia in 2021 as a base line will use 1.04% - 2.49% of GDP or 6.54% - 15.66% of total government expenditure. The projection for 2045 is that universal pension program funding is 0.66% - 1.59% of GDP. This percentage in 2021 is still low when compared to Asian countries which reached 9.4% of GDP or around 20% of total government expenditure (OECD Pensions at a Glance 2021, p196). When compared to a peer nation such as Malaysia, public pensions account for 11.7% of government expenditure. Appropriate fiscal policies can be taken to provide sufficient fiscal space in carrying out funding for the universal pension program in Indonesia. In 2 scenarios that use pillar 1, it can be seen that the contribution in 2021 that must be paid is Rp. 221,206.44 – Rp. 529,931.68 per month or about 13.65% of the average income in Indonesia. The amount and percentage of this contribution is still quite high when compared to the contributions of other social security programs such that it will not be suitable to be applied in the early days of implementing the universal pension program.

VII Recommendations

1. By conducting preliminary studies and discussions regarding the implementation of the universal pension program, the Indonesian government can prepare fiscal space for the funding of the universal pension program.
2. For the Indonesian government, the implementation of this universal pension program can be a way to simplify the various existing social safety net programs. An integrated social safety policy can be formulated by the Indonesian government with the implementation of a universal pension program for the population.
3. The current pension program managerial bodies can propose an initial study concept for the government related to the implementation of a universal pension program in which they are public bodies that manages the worker pension funds with large number of participants. These bodies can build a cooperation framework to expand their coverage and reach every resident in Indonesia.

References

[1] Airio, I., Nurminen, M. 2016. The Case of The Guarantee Pension Reform: Change of Perceived Income Adequacy Among Low Income Pensioners in Finland. *European Journal of Social Security.* 12 (3).
[2] Andersen, G.J. 2012. Welfare States and Welfare State Theory. *Centre for Comparative Welfare Studies WWorking Paper.* ISBN: 978-87-92174-46-8.
[3] Bloom, D., Dara, L.L. 2016. The Global Demography of Aging: Facts, Explanations, Future. *Discussion Paper No 10163.* Institute for The Study of Labor. Bonn. Germany.
[4] Boulhol, H. 2019. Objectives and Challenges in The Implementation of a Universal Pension System in France. *OECD Economics Department Working Papers No. 1553.* https://dx.doi.org/10.1787/5a476f15-en
[5] [BPS] Badan Pusat Statistik. 2015. *Demography and The Projection of Indonesia Population 2045.* Jakarta, Indonesia.
[6] Charan,S. Kanchan, B. Ayanendu, S. (2015). Ageing in India: Need for Universal Pension Scheme. *Economic and Political Weekly Journal*, Vol 50, No 18. Mumbai, India.
[7] Martinez, G.C. (2022) Universal Social Pensions Are Unaffordable…Not! Testing the Unaffordability Hypothesis in Latin America and the Caribbean, Forum for Development Studies, 49:1, 77-106, DOI: 10.1080/08039410.2021.1998212
[8] Gianna, F. (2016) Welfare of Pensions Plans. *University of Groningen*. Groningen, Netherlands
Hammer, B., Spitzer, S., Prskaetz, A. (2021). Age Specific Income Trends in Europe: The Role of Employment, Wages, and Social Transfers. *Social Indicators Research.* 162:525-547. https://doi.org/10.1007/s11205-021-02838-w
[9] Heslop, A & Geslop, M. (2002). Chronic Poverty and Older People in the Developing World. *Chronic Poverty Research Centre.* ISBN Number: 1-904049-09-5.
[10] ILO. (2017). Working Paper No 58. Research. Research Department.
[11] ILO. (2022). Old Age Pension Models Worldwide from An ILO Perspective. *Policy Brief.*
[12] Jin, K.K.,& Yuet, N.Y.(2014). Aging gracefully: A comparative study of Japanese and Malaysian women aged 65-75. *Journal of Aging Studies, 31*(2014), 54-61. http://dx.doi.org/10.1016/j.jaging.2014.08.007
[13] Joedadibrata D. (2012). A Study of The Shift Towards Universal Social Policy in Indonesia. *International Institute of Social Studies*. Hague, Netherlands.
[14] Kariastanto, B.D. (2011). Effects of The National Social Security System on The Indonesian Economy: An Overlapping Generation Model. *Review of Indonesian Economic and Business Studies.* November 2011, Vol 2 No 2.
[15] [Leisering, L. (2020). The Calls for Universal Social Protection by International Organizations: Constructing a New Global Consensus. *Cogitatio Social Inclusion.* 1, 90-102. DOI: 10.17645/si.v8i1.2569
[16] Melguizo, A., Bosch, M., Pages, C. (2015) Better Pensions, Better Jobs: Status And Alternatives Toward Universal Pension Coverage in Latin America and The Caribbean. *PEF Cambridge University*, 16(2):121-143, doi:10.1017/S1474747215000190.

[17] Miriam, K. & Laurence, W. (2021). Pension systems and The current Account: An Empirical Exploration. *Journal of International Money and Finance.* Journal of International Money and Finance 120 (2022) 102520. https://doi.org/10.1016/j.jimonfin.2021.102520

[18] Mustafizur, R., Towfiqul, I.K., Mostafa, A.S. (2021). An Estimation of the Implementation Costs and Financing Options for Introducing a Universal Pension Scheme in Bangladesh. *South Asia Economic Journal.* 22(1) 110-131. DOI: 10.1177/13915614211008102

[19] Orosz, A. (2017). Development of Welfare State Theory: A Review of The Literature. *Pro Publico Bono – Mqgyar Kozigazgatas*.2, 176-191

[20] Ortega, M.L & Aguila, E. (2022). Non-Contributory Pensions, Functional Limitations, and Unpaid Family Care for Older Adults in Mexico. *Journal of Aging and Health.* 0(0) 1-15. DOI: 10.1177/08982643221110093

[21] Ponds, E., C. Severinson and J. Yermo (2012). Funding in Public Sector Pension Plans: International Evidence. *OECD Working Papers on Finance, Insurance and Private Pensions,* No. 8, OECD Publishing. http://dx.doi.org/10.1787/5kgcfnm8rgmp-en.

[22] Raab, R., Gannon, B. (2011). How to Reform Pension Systems? Comparing Outcomes in Austria and Ireland. *European Journal of Social Security,* Vol 13 (2011), No.2.

[23] Ranganathan, M.N. (2017). Public Expenditure Requirements and Fiscal Sustainability. *Indian Growth and Development Review,* 10(2), 89-116. DOI 10.1108/IGDR-07-2017-0047

[24] Rodrigo, C. (2017). Pension schemes and labor supply in the formal and informal sector. *Ceni IZA Journal of Labor Policy.* (2017) 6:8..DOI 10.1186/s40173-017-0085-1

[25] Sagiri, K. (2015). Pension reform and individual retirement accounts in Japan. *Journal of The Japanese and International Economies.* 38 111-126. http://dx.doi.org/10.1016/j.jjie.2015.06.002

[26] Spicker, P.(2000). The Welfare State: A General Theory. Sage Publications ISBN 0-7619-6704-4. California. USA.

[27] Thovoethin, P-S. & Ewalefoh, J.O. (2018) Universal old-age pension: Can Africa overcome its challenges. *Africa's Public Service Delivery and Performance Review* 6(1), a232. https://doi.org/ 10.4102/apsdpr.v6i1.232

[28] Willmore, L. (2016) Universal Pensions for Developing Countries. *World Development,* Vol 35, No.1, pp.24-51. doi:10.1016/j.worlddev.2016.09.008

[29] Yves, S. (2019). The Role of The Government in Creating or Enhancing the Access to Funded or Unfunded Pensions in the Modern Welfare State. *Financial and Monetary Policy* Studies, 48. https://doi.org/10.1007/978-3-030-29497-7_4