WIDER Working Paper 2022/95

Pension funds in sub-Saharan Africa

Owen Nyang`oro[1] and Githinji Njenga[2]

August 2022

United Nations University World Institute for Development Economics Research

wider.unu.edu

Abstract: The population structure the world over is going through a demographic shift, and the elderly proportion is projected to increase with population growth. This change is a matter of concern for sub-Saharan African (SSA) countries, where the majority of the people are young and the rates of both population growth and unemployment are high. A good pension system provides elderly assistance and is a source of savings for long-term investment. The pension systems in SSA, however, are characterized by low coverage and participation rates, and they therefore fail to guarantee a basic income to the elderly. The contributory nature of most private pension schemes is also not favourable in SSA due to high levels of informality and low levels of income, which limit contributions, and because such schemes do not promote risk-sharing and redistribution. Pension reforms in regions such as Latin America have not been overly successful, and this offers lessons for SSA countries. The pension sector in SSA is characterized by low assets under management, investment in short-term assets (mainly government securities), low returns on investment, and restrictive regulatory frameworks. The way out for SSA is to move towards a targeted universal pension system financed through public resources; however, the shift to such a system should be gradual so as not to lead to fiscal strain.

Key words: elderly assistance, pension funds, pension schemes, savings, sub-Saharan Africa

JEL classification: D14, E21, H50, H55

Acknowledgements: This paper has benefited from comments received at the KIPPRA/UNU-WIDER Domestic Savings Workshop held on 16–17 March 2022, and from an anonymous reviewer of an earlier draft of the paper. The views expressed in the paper are those of the authors.

---

[1] University of Nairobi, Kenya [2] Kenya Institute for Public Policy Research and Analysis, Nairobi, Kenya, corresponding author: njengam@kippra.or.ke

This study has been prepared within the UNU-WIDER project The domestic savings shortfall in developing countries—what can be done about it? which is part of the Domestic Revenue Mobilization programme. The programme is financed through specific contributions by the Norwegian Agency for Development Cooperation (Norad).

Copyright © UNU-WIDER 2022

UNU-WIDER employs a fair use policy for reasonable reproduction of UNU-WIDER copyrighted content—such as the reproduction of a table or a figure, and/or text not exceeding 400 words—with due acknowledgement of the original source, without requiring explicit permission from the copyright holder.

Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9267-229-4

https://doi.org/10.35188/UNU-WIDER/2022/229-4

Typescript prepared by Merl Storr.

United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development. The Institute began operations in 1985 in Helsinki, Finland, as the first research and training centre of the United Nations University. Today it is a unique blend of think tank, research institute, and UN agency—providing a range of services from policy advice to governments as well as freely available original research.

The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland, Sweden, and the United Kingdom as well as earmarked contributions for specific projects from a variety of donors.

Katajanokanlaituri 6 B, 00160 Helsinki, Finland

The views expressed in this paper are those of the author(s), and do not necessarily reflect the views of the Institute or the United Nations University, nor the programme/project donors.

1 Introduction

Resource mobilization and social protection have become major concerns in developing countries. Low levels of economic development in these countries call for the mobilization of resources to finance development activities so as to facilitate production and improve living standards. Social pensions are important in providing social protection for the elderly by ensuring they have some level of basic income, redistributing income among generations, and providing insurance to the elderly (Juergens and Galvani 2020). Social protection is important for meeting the 2030 Agenda for Sustainable Development, although over 50 per cent of the world's population is without any social protection (Durán-Valverde et al. 2019; ILO 2021), which raises policy concerns. Pensions for the elderly are the most common form of social protection in the world, with 77.5 per cent of people above retirement age receiving some form of old-age pension (ILO 2021).

Social old-age pensions provide an alternative source of income for elderly people not covered by contributory schemes (World Bank 2018). In sub-Saharan Africa (SSA), however, not everyone who qualifies is covered by an old-age pension, mainly because of the contributory nature of most pension schemes in the region. Only 32.5 per cent of the working-age population contribute to a pension scheme globally, and the labour force contribution is 53.7 per cent globally compared with only 8.9 per cent in SSA (ILO 2021).

Social pension schemes in SSA are characterized by low coverage and high costs, and they are regressive, focusing mainly on formal sector employees (Guven 2019; Stewart and Yermo 2009; Sy 2017). The contributory model of the social safety net excludes informal workers, making it unsuccessful in most developing countries due to the large size of their informal economies (ILO 2021; World Bank 2019b)—for instance, in Africa, the informal economies are large and heterogeneous (Guven 2019). It is estimated that fewer than ten per cent of the older population in SSA have a contributory pension, as the majority of workers in SSA are in the informal sector or agriculture and are not covered by pension schemes (Bloom and McKinnon 2013; Dorfman 2015; ILO 2010a; Stewart and Yermo 2009). People in the informal sector are highly susceptible to shocks, both local and global, the effects of which are greater for the older population. Recent studies have established that older informal workers without any social protection were more affected during the Covid-19 pandemic as income security and well-being could not be guaranteed (Alfers et al. 2021).

The low levels of pension contributions in SSA can also be attributed to low earnings or a lack of access to contributory schemes during people's working lives (Guven and Leite 2016). In SSA, only 22.7 per cent of people aged 60 and older receive a pension, whether contributory or non-contributory, compared with a global average of 68 per cent (ILO 2018). Also of concern are the low levels of pension benefit, which in most cases tend to be less than income levels at retirement, leaving the old vulnerable.

The need for improved social protection mechanisms is dictated by the demographic structures in these economies, where the majority of the population are young with low dependency ratios, there is a small but increasing ageing population, fertility rates are high, and most labour is in the informal sector. The social structure of most of these countries is such that they have multigenerational households, with active members of the household being responsible for the care of extended family members, particularly the young and the old. In most SSA countries, the problem has been compounded by the effects of the HIV/AIDS epidemic, which has led to a situation where grandchildren are left in the care of older members of the household, most of

whom have no stable source of income, since they are less active in the labour market due to retirement and old age.

Most older people depend on family support systems[1] due to the scarcity of work opportunities and the limited availability of pensions (ILO 2017, 2018; Juergens and Galvani 2020), while at the same time household composition is gradually changing to smaller families and household types (United Nations 2020), increasing household dependency levels. The number of poor older people in developing countries is also projected to increase (ILO 2010a) as the population structure changes, further complicating the need for social support. In 2010, the Yaoundé Tripartite Declaration committed African countries to achieve a secure minimum income for the elderly through old-age pensions.[2] However, achievement of this commitment seems to be elusive given the low pension coverage.

The state of the pension sector and the need to offer adequate social protection to the elderly in SSA calls for reforms to the pension system. Early reforms to the pension sector focused on pension privatization, motivated by policy advice proposed by the World Bank in 1994. The initial success of the adoption of a multipillar pension system resulted in the easing of the fiscal burden of pensions, improved incentives to contribute to the formal pension system, increased equity, and improvements in the capital market (Gill et al. 2004). However, the success of such schemes was short-lived, as most countries faced a myriad of challenges such as increased fiscal burdens and a decline in active contributors; countries therefore fell short of meeting the objectives with regard to social pensions, leading to a reversal of pension reforms in some countries (Gill et al. 2004). At the same time, the approach failed to meet the needs of those in informal/temporary work (Bloom and McKinnon 2013). A different approach to reforms to the pension system, recommended by the International Labour Organization, based on parametric reforms and involving minor changes to the existing pension system rather than an overhaul of the entire system, has led to favourable outcomes (Ortiz et al. 2018). This has ensured that the pension system maintains the core objective of meeting the welfare needs of people in old age. SSA countries can therefore learn from these experiences when reforming their own pension systems, although they are starting from a worse position, especially as regards meeting the needs of the older population, given their social structures and economic conditions.

Pension funds are savings that provide the main source of livelihood for the elderly, enabling them to meet their daily basic needs by providing income security in old age, consumption smoothing, insurance (or risk-sharing), poverty relief, and redistribution (Sojo 2014). Pensions are important for poverty alleviation among the elderly, ensuring income security and addressing social inequality (ILO 2017; Juergens and Galvani 2020; Stewart and Yermo 2009), given that the ability to earn an income may be fully or partially lost in old age (ILO 2010a). Low and uncertain incomes limit access to private insurance and savings products (Bloom and McKinnon 2013), leaving the elderly vulnerable. Poverty rates tend to be higher in elderly-headed households and among elderly people with dependants compared with the average population. Pension programmes lead to significant reductions in the poverty gap ratio among the elderly (Kakwani and Subbarao 2005) and are also important in protecting against the socio-economic risks and vulnerabilities associated with older

[1] This may not be the case with older people living in informal urban settlements, who are more likely to live as single-person households (Ezeh et al. 2006).

[2] The Yaoundé Tripartite Declaration on the Implementation of the Social Protection Floor was adopted on 8 October 2010 at the Second African Decent Work Symposium, held in Yaoundé, Cameroon. African member states committed 'to adopt the principles, main elements and practical aspects of the Social Protection Floor, in synergy with the AU Social Policy Framework for Africa' (ILO 2010b).

age (Juergens and Galvani 2020). Given the multigenerational nature of households, the pensions received by older people are shared with secondary beneficiaries (Casey and McKinnon 2009).

The extent of the need for social protection in SSA among the elderly can be inferred from the pensions received among this category of the population. In SSA, 19.8 per cent of the population above statutory pensionable age receive a pension (ILO 2021), the lowest proportion among all regions. Inferring from household data in Kenya, the 2015–16 Kenya Integrated Household Budget Survey reported that 17.4 per cent of households (from a sample of 21,773 households) received a regular income from a pension as another source of income, with the monthly average pension being KES2,106 (approximately US$20). The 2021 Kenya Financial Access Household Survey found that 10.6 per cent of the adult population (about 2.9 million) used pension schemes, a decline from 12.2 per cent in 2019. The main barriers to participation in pension schemes in Kenya were unaffordability (48.7 per cent) and lack of knowledge about pensions (21.3 per cent) (FinAccess 2021). In Zambia, the Finscope Survey reported the pensions uptake as 8.2 per cent in 2020, an increase from 3.8 per cent in 2015 (PIA 2020). The main barriers to the use of pension services identified in Zambia were unemployment (66.6 per cent) and a lack of money to contribute (22.2 per cent). In Uganda, the pension coverage is 18 per cent of the working population (URBRA 2021).

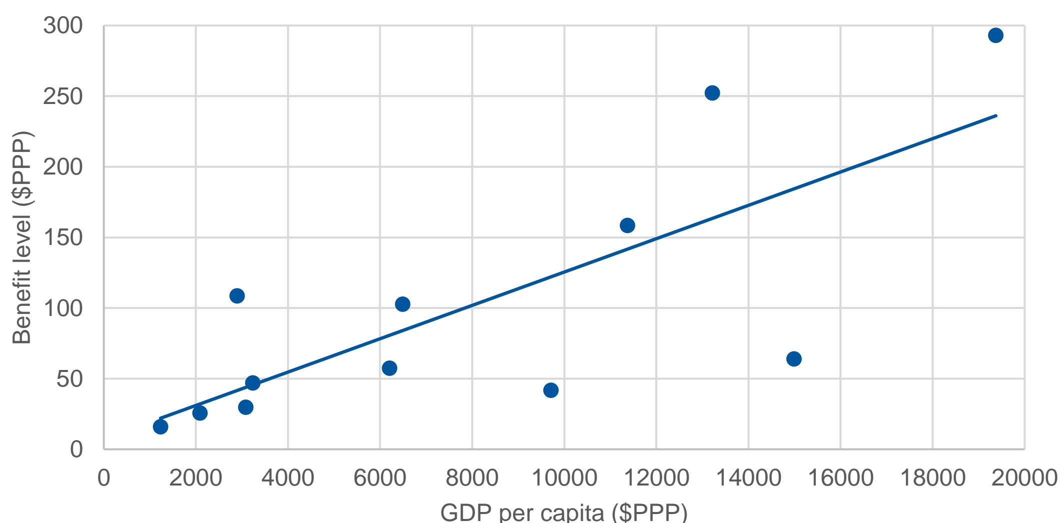
The old-age dependency ratio[3] was reported as 6.9 in the 2015–16 Kenya Integrated Household Budget Survey—higher than the 5.4 reported for SSA countries in 2015 (United Nations 2019b)—and it was higher in rural areas (9.3) than in urban areas (3.6). The lower old-age dependency ratio in SSA is due to the region's demographic characteristics, which mainly comprise a young population compared with other regions.

Data from the 2019 Kenya Financial Access Household Survey indicated that 29.7 per cent of respondents (from a sample of 8,669 households) had sought financial assistance where they were not expected to repay the money. Of these, 3.9 per cent had sought financial assistance from welfare funds offered by the government—for example, the social protection fund. There is likely to be little variation in these statistics across other SSA countries, demonstrating the need for support, especially among the elderly population. The challenge in most developing countries is the low rate of savings, which may be attributed to a number of factors, such as levels of financial literacy, inadequate financial inclusion in some countries, and huge numbers of informal sector workers, coupled with low income levels and high dependency rates. Thus, the pension system is a policy concern for SSA countries, as it can offer a means of providing a safety net for the elderly population.

Enhancing the provision of pension services in these countries as a way of providing support in old age may also be good for the development of these economies. A cross-section analysis shows a positive correlation between the benefit level of the social pension and the level of economic development (Figure 1). What is evident from the figure is that countries where the population receives higher nominal benefits from social protection are likely to have high economic development, although this does not necessarily indicate the direction of causality. While more developed countries are likely to have high social protection benefits, it is also possible that a more developed pension system may spur economic development through the provision of financing for infrastructure development. Given the dynamics of SSA countries, pension funds can play a major role in providing social protection and mobilizing much-needed resources for development; however, the potential of pension funds is yet to be fully exploited in these countries.

[3] The population aged 65 years and above relative to the total number of persons aged 15–64 years.

Figure 1: Absolute benefit level of social pensions and economic development in selected SSA countries



Note: $PPP: purchasing power parity dollars.

Source: Pension Watch (2022).

This paper focuses on the role of pension funds as savings for old age in SSA countries, and how pension savings can be used to mobilize resources for long-term financing. We first consider the role of pension funds in resource mobilization and the linkage between pension funds and economic growth. We then briefly present the demographic characteristics of SSA countries to establish how these can facilitate or impede pension system development. Consequently, we cover the status and development of pension funds in SSA, focusing on the performance of pension funds and the regulatory framework. Finally, constraints and challenges to pension fund development in SSA are outlined, together with relevant policy implications that can ensure the enhancement and promotion of pensions development in SSA.

2 Pension funds and resource mobilization

Pension funds are useful for mobilizing long-term funds to support infrastructure development (Commonwealth Secretariat 2014; Stewart and Yermo 2009; Sy 2017). SSA economies have low levels of development, characterized by inadequate or poor-quality infrastructure; hence the need to mobilize resources to finance development activities so as to facilitate production and improve living standards. Infrastructure has a direct effect on productivity and output, and it is an input to the production process (AfDB 2018). Infrastructure gaps can be addressed by governments through the mobilization of domestic and external financing resources. The annual infrastructure funding gap in Africa is estimated between US$68 billion and US$108 billion (AfDB 2018), and it is expected to widen over the medium term (Juvonen et al. 2019). SSA countries spent about US$60 billion on infrastructure development in 2012, against an estimated need of US$93 billion (Sy 2017).

A recent report on the dynamics of infrastructure financing in Africa shows that the financing gap widened during the Covid-19 pandemic following the withdrawal of international banks and the reduction in multilateral and bilateral lending (Baker McKenzie 2021). However, these countries face capacity constraints on lending to infrastructure projects. The need for resource mobilization to meet the infrastructure gap provides an opportunity for pension funds, which are currently underutilized in SSA (Juvonen et al. 2019; Sly 2017). Pension funds, among other institutional investors such as insurance companies and sovereign wealth funds, can be a source of long-term investment resources given their long-term investment horizons (AfDB 2021). Efforts to achieve

this have seen institutions such as the Inter-agency Task Force on Financing for Development call on regulators to encourage asset managers with long-term liabilities to take a long-term horizon (United Nations 2019a). Thus, resource mobilization and social protection have become a major issue for developing countries.

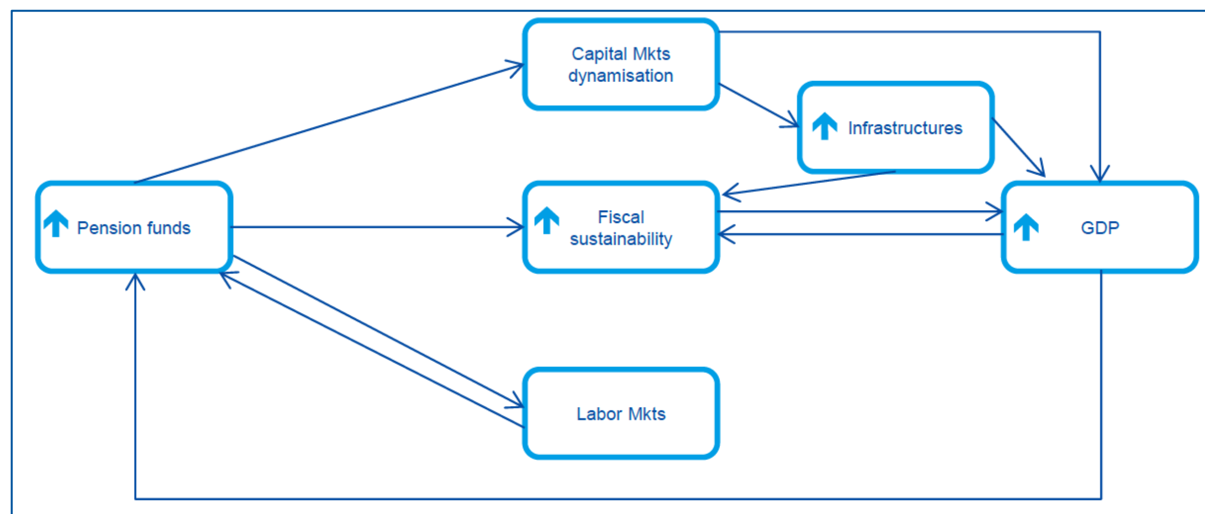
Institutional investors can exploit the opportunities provided by the increasing availability of financial instruments to fill the gap left by conventional investors (ICA 2018). However, the allocation of pension funds to infrastructure has been limited by governance, regulatory obstacles, and a lack of adequate financial instruments (Arezki and Sy 2016). Infrastructure investment provides an avenue for diversification and protects institutional investors against inflation and interest rates (Suzuki et al. 2016). Pension funds are also important for the development of capital markets and the improvement of liquidity (United Nations 2019a). For instance, Enache et al. (2015) found a positive effect of pension fund assets on market capitalization in ten Central and Eastern European countries.

Institutional investors can invest in infrastructure directly by investing in projects and infrastructure funds or project/infrastructure bonds, or indirectly through listed equity, debt, and co-investments (Arezki and Sy 2016; Sy 2017). Most institutional investors invest in infrastructure indirectly (Suzuki et al. 2016). The disparities in pension investment in infrastructure are related to the type of pension scheme in place, which determines the preference for liquid or relatively illiquid investments (Sy 2017). A report by the Brookings Institution indicates that only a handful of pension funds in Africa are relatively large, with pension fund assets to gross domestic product (GDP) in South Africa (87.1 per cent), Namibia (76.6 per cent), and Botswana (47.3 per cent) ranking among the four largest in a sample of 38 emerging economies (Sy 2017).

Pension funds impact on economic growth through various channels—fiscal, labour market, and financial (Figure 2). In the financial transmission channel, pension funds lead to the development of domestic capital markets, from which funds for infrastructure development can be raised through the backing of these funds. Economic growth and improved labour markets provide more resources to pension funds, thus improving fiscal sustainability. The development of pension funds improves fiscal sustainability by reducing public borrowing, thus boosting growth through the fiscal channel (Alonso et al. 2016). In the labour market channel, improved pension funds create incentives for the formalization of labour markets and lead to improved labour market efficiencies, which in turn lead to greater pension uptake.

Theoretically, this shows that if pension fund growth can be achieved in SSA countries, then these economies will experience improvements in capital and labour markets and will attain fiscal sustainability, which will eventually spur economic growth. But due to the myriad of challenges faced by SSA countries, such as underdeveloped capital markets and high levels of financial illiteracy among others, these countries may face difficulties in realizing the benefits of pension expansion. For example, Sanusi and Kapingura (2021) established that pension funds had no impact on investment and growth in South Africa. The experience of Latin American countries showed that the pension reforms that were implemented did not lead to improved capital markets and economic growth as expected. Among the notable challenges were declining or stagnant coverage rates, reductions in pension benefits, increased gender inequalities, the shifting of financial markets to individuals, increased administration costs, and increased fiscal pressure (Ortiz et al. 2018). Despite the inability to achieve economic growth outcomes, the main objective of the social pension—to provide incomes and livelihoods to old people—is still viable in SSA countries, given the high poverty levels among this category of the population. It is expected that increased social pension coverage, including for those in the informal sector, will provide assurance of basic support and may positively influence savings, as the risk will be covered not by individuals but by the state.

Figure 2: Pension funds and infrastructure: the theoretical virtuous circle



Source: Alonso et al. (2016).

3 Demographic characteristics of SSA countries

An understanding of the pension systems in SSA needs to take into consideration the demographic characteristics of these countries. Among the issues to consider are population structure and population growth rates. Reports show that people are living longer, and the share and number of older persons is also growing rapidly (United Nations 2020). The population growth rate in SSA is much higher than in other regions, averaging at 2.7 per cent in 2015–20, almost double the population growth rate in other regions (Table 1). There is little variance in the population growth rates of East and West African countries; however, Central African countries record slightly higher average population growth rates, while Southern African countries record lower average population growth rates. With much younger populations and relatively high population growth rates, the number of dependants in SSA countries is increasing at a slightly faster rate, and over time the numbers of elderly people needing social support will also rise.

The share of the population aged 65 years and above is expected to rise from 9.3 per cent in 2020 to 16.0 per cent in 2050. The number of older persons in SSA is projected to more than triple between 2015 and 2050 (United Nations 2016). The challenge that SSA countries are likely to face is the low level of pension coverage and access; therefore, even with increased population growth, these countries may not enjoy the benefits of increased pension contributions. Fewer than 17 per cent of people of pensionable age in SSA receive an old-age pension, compared with a global average of 68 per cent (ILO 2017; United Nations 2016). The question then is how this gap can be addressed to ensure that pensions coverage in SSA moves towards the global average level. In addition to this, the unemployment rate is high among the young (who form a higher proportion of the population), thus limiting their ability to save for retirement. This, together with the bigger size of the informal sector, complicates matters for SSA countries as far as pension contributions are concerned. In this regard, SSA countries should focus on a framework to encourage their younger populations to grow their pension contributions.

Despite the high population growth rates, the old-age dependency ratio in SSA is lower compared with other regions and is projected to remain so until 2025 (Table 2); however, it is experiencing steady growth (Dorfman 2015). Across regions in SSA, Southern Africa's old-age dependency ratio averages 7.6 per cent, while those of East, Central, and West Africa are 5.4 per cent, 5.6 per cent,

and 5.2 per cent respectively, compared with the SSA average of 5.6 per cent. The low old-age dependency ratio can be attributed to the population structure in SSA, where the young tend to outnumber older people.

Table 1: Average annual rates of population change (%)

Sustainable Development Goal region	1995-2000	2000-05	2005-10	2010-15	2015-20	2020-25
SSA	2.63	2.64	2.73	2.73	2.65	2.52
East Africa	2.78	2.74	2.79	2.77	2.67	2.52
Central Africa	2.75	3.06	3.23	3.17	3.05	2.89
Southern Africa	1.66	1.21	1.32	1.52	1.39	1.18
West Africa	2.64	2.64	2.73	2.72	2.67	2.56
North Africa and West Asia	1.93	1.93	2.10	2.02	1.76	1.57
Central and South Asia	1.88	1.71	1.50	1.32	1.21	1.08
East and South-East Asia	0.95	0.77	0.71	0.69	0.58	0.41
Latin America and the Caribbean	1.55	1.32	1.18	1.07	0.94	0.84
Australia/New Zealand	1.06	1.24	1.74	1.47	1.21	1.01
Oceania (excluding Australia and New Zealand)	2.10	1.79	1.97	1.78	1.77	1.70
Europe and North America	0.32	0.36	0.43	0.37	0.30	0.16

Source: authors' compilation based on data from United Nations (2019b).

Table 2: Old-age dependency ratios

Sustainable Development Goal region	1990	1995	2000	2005	2010	2015	2020	2025
SSA	5.9	5.8	5.7	5.5	5.4	5.4	5.5	5.6
East Africa	5.7	5.6	5.5	5.3	5.2	5.2	5.3	5.5
Central Africa	6.0	5.9	5.8	5.6	5.5	5.4	5.3	5.3
Southern Africa	7.1	7.3	7.2	7.1	7.2	7.6	8.2	8.9
West Africa	5.8	5.7	5.5	5.3	5.3	5.2	5.2	5.2
North Africa and West Asia	7.4	7.7	8.0	8.0	7.9	8.2	9.1	10.3
Central and South Asia	6.6	6.9	7.2	7.5	7.8	8.3	9.3	10.5
East and South-East Asia	8.8	9.5	10.4	11.0	11.7	13.4	16.8	19.8
Latin America and the Caribbean	8.2	8.7	9.1	9.8	10.5	11.6	13.4	15.4
Australia/New Zealand	16.6	17.8	18.4	19.0	19.8	22.4	25.2	28.3
Oceania (excluding Australia and New Zealand)	5.4	5.5	5.7	6.0	6.3	6.3	6.9	7.6
Europe and North America	19.0	20.4	20.9	21.8	22.6	25.0	28.3	31.9

Source: authors' compilation based on data from United Nations (2019b).

Given the relatively high population growth rate, the old-age dependency ratio will remain low in the near future. However, as the population grows, the size of the older population will rise due to age composition shifts and people having fewer children (Amaglobeli et al. 2020), meaning that

more attention will need to be paid to this population group in the future. This calls for further improvements to the pension sector in order for SSA countries to be able to take care of the older population.

4 Classification of retirement income provision

The classification of pension funds can follow the World Bank's five-pillar system or the Organization for Economic Co-operation and Development's (OECD) three-tier system. The World Bank's (2008) conceptual framework provides a multipillar system for the provision of old-age pensions: the zero pillar, which is a non-contributory public pension system providing a minimal level of protection to the elderly; the first pillar, which is mandatory and public, and where contributions are linked to earnings and financed on a pay-as-you-go (PAYG) basis; the second pillar, which is a mandatory, private, and fully funded system (i.e. defined contribution (DC) plan); a third pillar, which is a voluntary and fully funded system; and a fourth pillar, which is a non-financial system providing informal support, other formal social programmes, and individual financial and non-financial assets. The OECD's (2017) three-tier system comprises tier 1, which is a universal or targeted pension and can be a basic, social assistance, or minimum pension; tier 2, which is a mandatory savings system, public or private, and can be defined benefits (DBs), DCs, points, or notional accounts; and tier 3, which is a voluntary savings system managed by the private sector and can be DBs or DCs. The World Bank approach provides a basis on which retirement systems can be compared, while the OECD approach provides a basis for understanding the roles of each type of pension (Mercer 2021). However, the two approaches overlap in terms of classification, so it is possible to classify a retirement pension system using either approach.

Pension schemes in most SSA countries are predominantly state-run schemes meant to provide a basic pension for old age. These pensions fall under the zero pillar or tier 1, as per the classifications. However, the pension system has been evolving with the emergence of privately managed, employer-based schemes in the wake of pension reforms since the late 2000s, which has resulted in a shift from DB to DC schemes (Irving 2020). The reforms introduced mandatory contributions that are linked to earnings run by the public or private sector. The motivation was mainly to increase pension coverage and address the challenges of financing non-contributory schemes. It is notable, however, that SSA countries are at different stages in reforming their pension systems. The pension reforms have enabled privately managed pension fund administrators to play a bigger role in pensions administration, leading to improved fund management practices within national pension systems and resulting in an increase in assets under management (Irving 2020).

5 Performance of pension funds

The performance of pension funds can be established by considering the asset base of the funds, investment, membership, and contributions. One challenge to understanding the performance of pension funds in SSA is the dearth of data. Data on the performance of pension funds in SSA is only available for a few countries and is incomplete for some countries, with the data having several gaps. Despite this, we have conducted our analysis with the available data complemented by the available literature, and we have then made inferences about the performance of pension funds in SSA.

5.1 Asset base and asset allocation

Pension assets in SSA countries tend to be small, and asset allocation tends to favour equities (Arezki and Sy 2016; RisCura 2020). Heavy investment in equities is mainly done by the Southern African countries of Botswana, Eswatini, Namibia, and South Africa, while asset allocation in Nigeria and East Africa is dominated by fixed-income assets (mainly government bonds), driven by local regulations and the deficiency of alternative investment opportunities (AfDB 2018; Juvonen et al. 2019; RisCura 2020). The asset allocation of pension funds depends on (among other factors) market trends, investment strategies, regulation and governance structures, risk appetites, tax structures, and the availability of assets domestically (Juvonen et al. 2019). Asset allocation may also depend on the type of retirement scheme under consideration—for example, in the case of DB pension funds, asset allocation is dependent on the scheme maturity, the funding ratio, and a time trend (Zhao and Sutcliffe 2021).

The basis of asset allocation reflects familiarity with alternative asset classes, the development of local capital markets, and the availability of investment opportunities, among other factors (RisCura 2020). Some countries have diversified into different asset classes, which has widened the alternative investment opportunities. Countries such as Botswana, Namibia, Nigeria, and South Africa have invested in private equity (RisCura 2020).

A huge asset base of a pension fund is an indicator of its size, and a reflection of the better performance and stability of retirement savings plans. Table 3 presents total assets in retirement savings plans from 2010 to 2020. Total assets are higher in Kenya, Namibia, Nigeria, and South Africa compared with the other countries, with South Africa having almost ten times more assets in retirement savings plan than Nigeria, which has the second-highest asset base in retirement. Pension assets in Nigeria have improved over time, and this is attributed to (among other things) regulatory changes that were implemented in 2006 (AfDB 2018).

As a ratio to GDP, pension assets in developing countries are still low, at about 20 per cent in 2019 compared with 92 per cent in OECD countries (United Nations 2021). The proportion varies considerably for different regions and even within regions. In SSA, the dominance of South Africa in retirement savings is also evident when total assets in retirement savings plans as a ratio of GDP are considered (Table 4). The proportion of assets in retirement savings to GDP for South Africa is over 90 per cent, using the most recent available data (from 2013 to 2018). Namibia has over 70 per cent of total assets in retirement savings to GDP, making it the second-best performer among the selected countries, followed by Botswana at over 42 per cent, and Kenya with a proportion of between 12 and 14 per cent. Nigeria, despite having a large value of assets in retirement savings plans (Table 3), has a small proportion of total assets to GDP, with the highest proportion of assets to GDP of eight per cent, recorded in 2020. This shows the small size of retirement savings plans relative to the size of the economy, and hence an untapped potential compared with the ratios for South Africa.

In terms of the share of asset size to GDP for specific pension funds, analysis by the African Development Bank (AfDB 2018) shows that the top three pension funds are in South Africa (87 per cent), Namibia (77 per cent), and Botswana (47 per cent).

Table 3: Total assets in retirement savings plans, 2010–20 (US$ millions)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Southern Africa											
Angola	..	..	..	..	1,749	1,761	897	903	765	877	865
Botswana	..	..	..	6,731	6,242	6,572	7,015	8,310	7,523	8,768	..
Lesotho	..	272	308	..	..	..	..	..	..	..	..
Malawi	..	..	..	409	525	456	523	727	944	1,154	1,320
Mauritius	..	..	227	265	..	482	528	633	..	1,517	..
Mozambique	..	..	..	..	..	..	..	..	91	171	..
Namibia	9,636	8,532	10,088	9,877	10,117	..	10,008	12,496	11,628	12,196	12,112
South Africa	331,501	298,395	323,385	306,107	317,525	259,622	302,975	346,106	312,355	..	..
Zambia	561	594	690	822	857	562	634	752	689	616	..
Zimbabwe	..	..	..	..	..	..	..	..	..	983	1,348
West Africa											
Ghana	..	..	..	..	807	1,231	1,617	2,496	2,700	3,138	3,823
Nigeria	13,418	15,435	20,041	25,801	27,178	26,913	20,213	24,560	28,136	33,284	32,299
East Africa											
Kenya	5,346	5,419	6,380	8,072	8,344	7,957	9,588	10,463	11,452	12,811	..
Tanzania	..	..	..	2,986	3,889	4,115	4,155	4,444	..	..	..
Uganda	..	..	..	..	..	..	2,228	..	..	..	..

Source: authors' compilation based on data from NBFIRA (2014–16) and OECD (2021).

Table 4: Total assets in retirement savings plans, 2010–20 (% of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Southern Africa											
Angola	..	..	..	..	1.3	1.7	0.9	0.7	0.9	1.3	1.6
Botswana	..	..	..	46.9	40.7	50.6	44.0	45.5	42.5	47.2	45.0
Lesotho	..	11.6	12.5	..	..	..	..	..	..	..	..
Malawi	..	..	..	8.8	9.6	9.6	9.7	11.7	13.7	14.9	16.4
Mauritius	..	..	2.0	2.1	..	4.2	4.4	4.6	4.8	11.1	..
Mozambique	..	..	..	..	..	..	..	..	0.6	1.1	..
Namibia	77.4	77.1	80.2	88.2	86.9	..	86.5	90.3	92.7	95.0	101.8
South Africa	80.0	80.4	84.5	90.7	96.6	99.7	95.1	91.6	92.1	..	..
Zambia	2.8	2.7	2.7	3.0	3.3	3.4	2.9	3.0	3.0	2.9	..
Zimbabwe										10.2	10.1
West Africa											
Ghana	..	..	..	..	1.7	2.6	3.2	4.3	4.3	5.0	5.7
Nigeria	3.6	3.8	4.3	5.0	5.1	5.6	6.0	6.5	6.7	7.0	8.0
East Africa											
Kenya	13.6	12.4	12.9	14.7	14.0	13.0	14.0	13.2	13.1	13.3	..
Tanzania	..	..	..	6.5	8.1	9.4	8.3	8.3	8.4	..	..
Uganda	..	..	..	..	..	..	7.7	..	..	..	..

Source: authors' compilation based on data from NBFIRA (2014–16) and OECD (2021).

The preceding analysis shows that Southern African countries perform much better than the rest of SSA when the performance of pension funds is considered by asset base. Only Namibia and South Africa have pension asset ratios that are comparable to those of OECD countries. Substantial investment in pension schemes is necessary for the other countries to increase their asset ratios towards the OECD average. The asset base reflects the extent of pension fund accumulation in the respective countries and mainly arises from collections made over a period.

5.2 Investment

Institutional investors in SSA mostly invest in short-term assets such as term and saving deposits instead of long-term investments (AfDB 2021), creating a mismatch between the investments they make and the long-term savings they hold. In terms of the annual nominal investment rate of return, Malawi outperforms the other countries, with investment returns averaging about 20 per cent, followed by Zambia and Nigeria at 14 per cent and 11 per cent respectively (Table 5). Nominal investment returns for South Africa declined from a peak of 16 per cent in 2013 to 4.4 per cent in 2018.

A general observation from the data is that the nominal investment returns of retirement savings plans are relatively low in the selected countries; hence, real returns will tend to be much lower once inflation is considered. Given that retirement savings plans are long-term in nature, the value of savings upon retirement will have been eroded by inflation, meaning that the amount of pension benefit will ultimately be small in real terms.

Relatively low levels of return on retirement savings plans have implications for pension incomes upon retirement, especially in contributory schemes where pension incomes depend on contributions made over a working life and the interest earned on contributions. In the case of non-contributory schemes, the benefit level will depend on the statutory prescribed amount, rather than on contributions and interest. However, the annual real return on investment is still key in determining overall pension benefits, even in the case of non-contributory pensions. With high inflation rates in SSA, annual real rates of return of retirement savings are very low or even negative in some countries, meaning a loss in real terms to the pensioner. This may affect individuals' decisions regarding whether to join a retirement savings plan at all, especially where retirement savings are contributory.

Since inflation management takes place on the monetary policy side and hence falls outside the realm of pension schemes, the only option is to ensure higher annual nominal returns on retirement savings, as this will address the likely low real annual returns. This then points to a deliberate choice in the portfolio of assets in which pension funds can invest. In most jurisdictions, there are regulations that define the distribution of pension schemes' asset holdings to protect retirement savings against exposure by holding classes that may be risky in a single (or few) asset(s). This is mainly aimed at securing the funds against investment in risky assets. This, coupled with the challenge of having a diversity of attractive assets for investment, also poses a challenge to retirement schemes.

In the Kenyan case, the maximum limits vary by asset class, with 100 per cent and 90 per cent holdings respectively allowed in guaranteed funds and government securities, which are among the safe assets. Investment in quoted equities is set at 70 per cent; investment in immovable property, fixed deposits, and real-estate investment trusts is set at 30 per cent (Table 6). Up to ten per cent of investment can be held in any other asset class, which provides an avenue for pension funds to venture into new asset classes. Pension funds in Kenya hold close to half of their investments in government securities, one of the safe assets, with an average portfolio holding of 38 per cent between 2014 and 2021.

Table 5: Annual nominal investment rates of return of retirement savings plans, 2010–20 (%)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Southern Africa											
Angola	..	..	..	..	..	..	..	..	5.1	5.5	6.0
Botswana	..	..	..	..	..	..	..	12.0	3.1	8.0	..
Malawi	..	..	..	36.0	24.2	15.2	14.2	26.1	20.7	13.0	13.1
Mauritius	..	..	..	..	..	6.4	0.9	..	..	..	..
Namibia	..	12.7	14.4	16.5	9.6	..	2.5	8.4	..	..	..
South Africa	12.4	9.0	11.1	15.6	14.7	9.0	6.0	5.8	4.4	5.2	..
Zambia	14.6	12.3	9.3	15.8	14.6	20.0	8.0	17.0	13.0	10.0	..
West Africa											
Ghana	..	..	..	..	21.0	24.0	20.0	..	..	..	..
Nigeria	10.8	3.4	11.9	12.8	8.0	9.1	11.8	15.4	9.3	11.4	18.3
East Africa											
Kenya	17.5	-9.9	..	17.6	13.1	..	7.3	10.0	..	..	..
Tanzania	..	..	..	..	..	13.5	5.1	..	..	..	..

Source: authors' compilation based on data from OECD (2021).

Table 6: Pension sector assets distribution in Kenya (%)

Asset class	2014	2015	2016	2017	2018	2019	2020	2021	Allowable limit
Government securities	31.0	29.8	38.26	36.49	39.41	41.88	44.72	45.69	90.0
Quoted equities	26.0	23.0	17.43	19.46	17.27	17.52	15.59	16.45	70.0
Immovable property	17.0	18.5	19.55	20.99	19.71	18.40	17.96	16.45	30.0
Guaranteed funds	12.0	12.2	14.20	13.24	14.36	15.48	16.48	16.79	100.0
Listed corporate bonds	6.0	5.9	5.14	3.89	3.45	1.66	0.38	0.44	20.0
Fixed deposits	5.0	6.8	2.69	3.04	3.12	3.03	2.7	1.80	30.0
Offshore	2.0	0.9	0.76	1.18	1.13	0.49	0.81	1.25	15.0
Cash	1.0	1.4	1.42	1.20	1.09	1.15	0.87	0.62	5.0
Unquoted equities	1.0	0.4	0.43	0.37	0.33	0.28	0.24	0.23	5.0
Private equity	0.0	0.0	0.02	0.03	0.07	0.07	0.12	0.19	10.0
Real-estate investment trusts	0.0	0.0	0.09	0.10	0.06	0.04	0.02	0.02	30.0
Commercial paper, non-listed bonds	0.0	0.0	0.00	0.01	0.00	0.00	0.00	0.00	10.0
Others (e.g., unlisted commercial papers)	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.07	10.0

Source: authors' compilation based on data from RBA (2015, 2017, 2019, 2021, 2022).

The level of investment in government securities increased from 31 per cent in 2014 to 46 per cent in 2021, showing a preference for this asset class in pension funds. Over the same period, the average portfolio holdings of quoted equities, immovable property, and guaranteed funds were 20 per cent, 19 per cent, and 14 per cent respectively. Pension fund holdings in other asset classes remained low. What this shows is that pension institutions also consider returns in as much as they seek to secure the funds against risk.

5.3 Membership and contributions

The performance of pension schemes can also be evaluated based on membership and pension contributions, especially in contributory schemes. Membership of pension schemes shows the extent to which the working-age population is participating in the pension process. In countries that have a universal social pension system, all of the working-age population is covered due to its non-contributory nature. In this situation, a basic minimum living standard is ensured in old age. Contributory pension schemes, either private or public, can also coexist with a universal pension system, and individuals with high earnings can join such schemes to guarantee a high level of pension income upon retirement.

In a country where membership encompasses a higher proportion of the working-age population and contributions are growing or are substantial enough, pension schemes can be said to be performing better. With information about contributions, it is possible to project the expected savings made and thus the availability of funds that can be put into infrastructure development as the pension schemes invest and earn returns to members.

Membership of contributory schemes may reflect the extent to which the working-age population wants to maintain a given standard of living in future, and may also indirectly reflect the inadequacy of pension benefits withdrawn in old age under the universal pension scheme. Membership goes hand in hand with contributions, and the amount contributed periodically forms part of long-term savings. Contributions to retirement as a percentage of GDP are low overall for SSA countries (Table 7).

The highest contribution rates are in South Africa at about five per cent, followed by Namibia at four per cent and Tanzania at two per cent. Savings rates are kept low by high financial illiteracy rates, unstable income levels, low life expectancy, and high levels of informal sector employment, thus contributing to low pension fund participation rates (Irving 2020). To address this gap, countries such as Kenya and Rwanda have come up with innovative pension arrangements by developing DC schemes that include informal sector workers in the pension system.

Kenya started the Mbao Pension Plan in 2009 to target informal sector workers, but it opened the plan up to all citizens in 2011. This is an individual pension plan that is more of a voluntary savings plan to cater for old age. It is a relatively affordable contributory pension plan, designed to function like a provident fund, for informal workers with mobile phone-based contributions. The plan pools individual savings, and a member can exit the scheme at any time after three years of participation, upon which the individual savings are paid as a lump sum with no penalty. This makes it a challenge for the pension scheme to meet its major objective of providing benefits in old age, since the low and variable incomes of informal sector workers mean they are likely to exit before reaching pensionable age. The members list beneficiaries who are to be paid a lump sum in case of the member's death. However, the programme has low coverage, which has been attributed to the voluntary nature of the scheme, high poverty rates, and the rapid growth of the informal sector (Kabare 2018).

Table 7: Contributions to retirement savings plans, 2010–20 (% of GDP)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Southern Africa											
Angola	..	..	..	..	0.2	0.2	0.1	0.1	0.2	0.4	0.2
Botswana	..	..	..	2.0	2.1	2.4	2.2	2.2	2.3	2.3	..
Malawi	..	..	..	..	1.2	1.3	1.2	1.4	1.9	2.0	1.9
Mauritius	..	..	0.2	0.3	..	..	0.6	0.3	0.8	0.9	..
Namibia	3.6	3.5	3.6	3.8	4.2	..	4.3	..	..	..	..
South Africa	4.7	4.7	4.9	4.9	5.1	5.3	5.2	5.1	5.3	..	..
Zambia	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	..
West Africa											
Ghana	..	..	..	..	1.3	2.0	..	..	..	..	..
Nigeria	1.6	0.6	0.7	0.6	..	0.8	0.6	0.6	0.6	0.8	1.0
East Africa											
Kenya	1.2	1.2	..	1.3	1.2	..	1.1	..	..	..	..
Tanzania	..	..	..	2.2	2.4	1.7	2.2	1.8	..	..	..

Source: authors' compilation based on data from NBFIRA (2104–16) and OECD (2021).

In 2017 Rwanda established the long-term savings scheme Ejo Heza. This government-sponsored voluntary DC scheme covers both salaried and unsalaried people, and is under the management of the Rwanda Social Security Board as scheme administrator. The scheme is open to all citizens; individuals have a choice of amounts to contribute and can make contributions any time. Enrolment in the scheme is free and can be done using a mobile phone or online, and the accounts are linked to the individual's permanent national identity card number. The aim of the scheme is to improve savings, ensure universal access to pensions and social security inclusion, enable financial inclusion, promote economic growth, and alleviate poverty. Members start receiving their monthly pension at 55 years of age, which is earlier than the retirement age of 65 years. Incentives have been put in place to promote enrolment in the scheme and contributions: a co-contribution by the government, depending on the member's contribution and the category the member has reached (for those in categories one to three) during the first 36 months of the scheme, and an insurance benefit with a premium paid for by the government once a member attains category four and saves a specified amount in a year.

6 Pension coverage and programmes

Pension coverage is still low in most developing countries, particularly in SSA. The need to improve pensions is clearly evident when we consider the coverage and pension programmes that are available to the population. SSA has the lowest ratio of the population above statutory pensionable age that is receiving pensions compared with other regions, with a pension coverage of about 20 per cent in 2020, a decline from 23 per cent in 2016 (Table 8). Apart from North Africa, which had a coverage rate of about 44 per cent in 2020, the other regions recorded proportions of over 50 per cent, with all people of pensionable age receiving a pension in North America. A consideration of regions within SSA shows that Southern African countries had the highest coverage, with 92 per cent of those above pensionable age receiving a pension; in other regions this figure was below 19 per cent in 2016. The same pattern was replicated in 2020, but with an across-the-board decline in the number of people above pensionable age receiving pensions within SSA. In Southern Africa, the proportion of those receiving a pension dropped to 83 per cent in 2020.

Table 8: Population above statutory pensionable age receiving a pension (%)

Geographical area	2016	2020
Asia	55.9	
Europe	96.4	96.7
Latin America and the Caribbean	70.8	75.4
North Africa	47.0	43.8
North America	100	100
Oceania	74.1	94.8
SSA	22.7	19.8
East Africa	14.5	11.4
Central Africa	17.9	14.9
Southern Africa	92.4	83.0
West Africa	12.8	11.3

Source: authors' compilation based on data from ILOSTAT (2022) and United Nations (2022).

Table 9: Old-age effective coverage: old-age pension beneficiaries

Country/territory	Proportion by type of programme (%) Total	Contributory	Non-contributory	Year	Statutory pensionable age (basis for reference population)
Southern Africa					
Angola	14.5	14.5	…	2012	60+
Botswana	100.0	...	100.0	2015	65+
Lesotho	94.0	…	94.0	2015	70+
Madagascar	4.6	4.6	…	2011	60+
Malawi	2.3	2.3	…	2016	…
Mauritania	9.3	9.3	…	2002	60+
Mauritius	100.0	…	100.0	2010	63+
Mozambique	17.3	1.7	15.6	2011	60+ men | 55+ women
Namibia	98.4	…	98.4	2011	60+
South Africa	92.6	…	…	2015	60+
Swaziland (Eswatini)	86.0	…	86.0	2011	60+
Zambia	8.8	...	...	2015	55+
Zimbabwe	6.2	6.2	…	2006	60+
West Africa					
Benin	9.7	9.7	…	2009	60+
Burkina Faso	2.7	2.7	…	2015	56-63+
Cabo Verde	85.8	...	...	2015	60+
Côte d’Ivoire	7.7	7.7	…	2010	60+
Gambia	17.0	17.0	…	2015	60+
Ghana	33.3	33.3	…	2015	60+
Guinea	8.8	8.8	…	2008	55-65+
Guinea-Bissau	6.2	6.2	…	2008	60+
Mali	2.7	2.7	…	2015	58+
Niger	5.8	5.8	…	2015	60+
Nigeria	7.8	7.8	…	2015	50+
Sao Tome and Principe	52.5	52.5	…	2015	60 +
Senegal	23.5	23.5	…	2010	55+
Sierra Leone	0.9	0.9	…	2007	60+
Togo	10.9	10.9	…	2009	60+
East Africa					
Burundi	4.0	4.0	...	2015	65+ men | 60+ women
Djibouti	12.0	12.0	…	2002	60+
Ethiopia	15.3	15.3	…	2015	60+
Kenya	24.8	…	…	2015	60+
Rwanda	4.7	4.7	…	2004	60+
Seychelles	100.0	11.4	88.6	2011	63+
Tanzania	3.2	3.2	…	2008	60+
Uganda	6.6	4.5	2.1	2012	55+
Central Africa					
Cameroon	13.0	13.0	…	2015	60+
Chad	1.6	1.6	…	2008	60+
Congo	22.1	22.1	…	2011	57-65+
Democratic Republic of the Congo	15.0	15.0	…	2009	65+ men | 60+ women
Gabon	38.8	38.8	…	2010	55+

Source: ILO (2017).

Despite the low levels of pension coverage in SSA regions, pension coverage varies widely across specific countries. Data from the 2017–19 World Social Protection Report (ILO 2017) shows that coverage was highest in Botswana, Mauritius, and Seychelles, where 100 per cent of old-age pension beneficiaries were covered (Table 9). Other countries with a coverage of over 80 per cent were Cabo Verde at 86 per cent, Eswatini at 86 per cent, Lesotho at 94 per cent, Namibia at 98 per cent, and South Africa at 93 per cent. Most SSA countries had very low coverage of pension beneficiaries, with Serra Leone having the lowest at one per cent.

Most countries in SSA have contributory pension schemes, except Botswana, Eswatini, Lesotho, Mauritius, and Namibia, which have non-contributory pension schemes, while Mozambique, Seychelles, and Uganda have both contributory and non-contributory schemes. For countries running both schemes, non-contributory schemes serve a higher number of beneficiaries, except in Uganda. The adoption of contributory schemes points to the low coverage rates in SSA. SSA countries are characterized by low income levels, high levels of unemployment, high levels of informality, and intergenerational households, which limit people's enrolment in contributory pension schemes—hence the low coverage levels. As is evident from Table 9, SSA countries with non-contributory schemes have higher levels of coverage owing to the fact that pensions are financed mainly by the state. This shows that if SSA countries wish to record a substantial increase in pensions coverage, their pension policy should be geared towards a public pension which is non-contributory. Although financing non-contributory schemes can be a challenge, such schemes can be structured with some targeting (e.g., income- or means-testing) to ensure they provide a basic minimum benefit to the worst-off elderly population, alongside contributory schemes that are mainly targeted at the employed.

The statutory pensionable age also varies across countries, although for most countries the age is 60 years and above. It is notable that Burundi, Democratic Republic of the Congo, and Mozambique have different statutory pensionable ages for men and women. In Burundi and Democratic Republic of the Congo, the pensionable ages for men and women are 65+ years and 60+ years respectively, while in Mozambique they are 60+ years for men and 55+ years for women. The gender dimension is a prominent feature of pension coverage which is a major concern for SSA countries. Women tend to be less represented in the formal labour market, are mainly in less skilled jobs, receive less pay, are mostly in part-time or temporary jobs compared with men, and they tend to have discontinuous careers (Sarfati and Ghellab 2012). This is especially common in less developed countries such as SSA countries. The implication is that elderly women will tend to have low pension benefits, and some will have no pension at all in situations where contributory schemes are encouraged. Public pension schemes address such gender and income inequalities and provide solidarity across generations (Ortiz et al. 2018).

A number of SSA countries have non-contributory elderly assistance arrangements in place to complement the contributory programmes; however, their coverage is limited in most countries. The non-contributory schemes are governed by varying legal requirements and benefit levels depending on the objectives of each scheme (Table 10). The schemes are characterized by age-based eligibility, which in some cases is at variance with the statutory pensionable age. For example, Kenya has the Older Persons Cash Transfer and the Hunger Safety Net Programme, with eligible ages of 65 years and 55 years respectively, while the retirement age is 60 years. The schemes are also governed by varying legal requirements and have varying monthly benefit levels.

Among the non-contributory schemes with complete data on monthly benefits, Seychelles' Old-Age Pension pays the highest benefit of US$222, followed by Mauritius's Basic Retirement Pension with a benefit of US$141. Most of the schemes have benefit levels that are below US$50, which can only cover the basic needs of the old, given that most of them are unlikely to have an alternative source of income. For example, Mozambique's Programa de Subsídio Social Basico (Basic Social

Subsidy Programme) pays the lowest monthly benefit at US$6.60, while Uganda's Senior Citizens Grant pays a monthly benefit of US$6.80. The high disparity in non-contributory pension benefits may be due to a number of factors, such as the need to have a larger proportion of the qualifying population benefit from the funds, and challenges in financing these schemes. Some of the schemes are also being piloted and thus have not been fully scaled up; hence the benefit levels on offer may not be definitive. The proportion of benefit to GDP per capita, which ranges above ten per cent in most of the schemes, is somewhat high, but this is due to the smaller sizes of these economies in per capita terms. Non-contributory programmes that are based on universal targeting cover much higher proportions of the population aged 60 years and above compared with means- or pensions-tested programmes. The non-contributory schemes in Mauritius and Namibia fully cover the targeted population. Most of these schemes are recent, with some still at the pilot stage. The oldest schemes are in Mauritius, Namibia, Seychelles, and South Africa. The features and types of mandatory old-age income security programmes are presented in Table 11. Most countries in SSA have contributory schemes that are earnings-related; most of the schemes are national social security schemes and peg contributions to the incomes of members. The schemes are for the employed, mainly in the formal sector, leaving out those in the informal sector. Only Madagascar and Namibia have contributory schemes that are flat rate; however, they combine them with an earnings-related contributory scheme and non-contributory schemes respectively. Some countries, such as Namibia, have both contributory and non-contributory schemes, while countries such as Malawi and Nigeria have individual accounts schemes. Eswatini, Gambia, Kenya, and Uganda have provident funds. Among these countries, Eswatini and Kenya also have universal non-contributory schemes, while Gambia has an earnings-related contributory scheme.

The information presented in Table 11 shows that earnings-related contributory schemes are predominant in SSA, with only a few countries having other types of scheme. The analysis in the previous section has characterized SSA countries as having very low pension coverage, thus raising the question of whether contributory schemes are the best for these countries. This means that if these countries are to increase their pension coverage, the type of scheme adopted should be reconsidered. Given the high levels of informality in the labour market, with a predominance of part-time/temporary jobs and low earnings, contributory schemes do not seem to address the pension needs of SSA countries, as large proportions of the population will be left outside such a pension system. Since the high level of informality is likely to persist for some time, SSA should consider putting in place non-contributory schemes, which should universal where possible, or means-tested due to the challenge of financing non-contributory schemes. This will address the issue of pension coverage and help to provide social assistance to the elderly, who may not have enough income to cover their basic needs. Non-contributory schemes in this case will complement existing contributory schemes rather than replacing them.

Table 10: Main features of non-contributory pension schemes in SSA

Country	Name of scheme	Year introduced	Legal requirements and characteristics of schemes				Level of benefit (monthly)			% of population 60+ covered
			Age of eligibility	Citizenship	Residency	Targeting	US$	Benefit as % of GDP per capita	Year	
Southern Africa										
Botswana	State Old Age Pension	1996	65	x	x	Universal	29.8	5.1	2013	65
Lesotho	Old Age Pension	2004	70	...	x	Universal	36.7	45.1	2015	61
Mauritius	Basic Retirement Pension	1950	60	x	x	Universal	140.5	18.2	2015	103
Mozambique	Programa de Subsídio Social Basico (Basic Social Subsidy Programme)	1992	55 women | 60 men	...	...	Means-tested	6.6	15.5	2015	24
Namibia	Old Age Pension	1949 (for specific group), 1992 (universal)	60	x	x	Universal	74.6	16.7	2015	114
	Veterans Pension	1965	55				…		2015	
South Africa	Old Age Grant	1927 (for specific group), 1944	60	x	x	Means-tested	110.1, 111.7	22.9	2015	74
	War Veterans Grant	1928	60	x	x	Means-tested	…		2015	
Swaziland (Eswatini)	Old Age Grant	2005	60	...	x	Mean-test, Pension-test	14.4	5.2	2015	77
Zambia	Social Cash Transfer Programme, Katete (pilot)	2007	60	...	...	Universal	10.8	7.8	2010	1
West Africa										
Cabo Verde	Pensao Social Minima (Minimum Social Pension)	2006	60	...	x	Pension-test	50.6	19	2015	68
Liberia	…	…	60-65	...	...	Means-tested	NA		...	

Nigeria	Ekiti State Social Security Scheme for Elderly (Ekiti state only)	2011	65	™	...	Pension-test	25.1	11.1	2014	0
Nigeria	Agba Osun Elderly Scheme (Osun state only)	2012	...	...	...	Means-tested	50.3	22.2	2015	0
East Africa										
Kenya	Older Persons Cash Transfer (pilot)	2006	65	...	...	Means-tested	19.4	17.4	2015	15
	Hunger Safety Net Programme (pilot) (Food Security)	2008	55	...	x	Universal	26		2016	
Seychelles	Old Age Pension (Social Security Fund)	1987	63	x	x	Universal	221.6	18.2	2015	88
Tanzania	Zanzibar Universal Pension Scheme	2016	70	…	…	Universal	9.2	11.6	2016	0
Uganda	Senior Citizens Grant	2011	65 (60 in Karamoja region)	...	...	Means-test, Pension-test	6.8	14.8	2015	4

Source: authors' compilation based on data from ILO (2017) and Pension Watch (2018).

Table 11: Mandatory old-age income security programmes

Country	Contributory		Non-contributory		Provident funds	Occupational persons	Individual accounts
	Flat rate	Earnings-related	Means-tested	Universal			
Southern Africa							
Angola		x					
Botswana				x			
Lesotho		x					
Madagascar	x	x					
Malawi							x
Mauritius		x					
Mozambique		x	x				
Namibia	x		x	x			
South Africa			x				
Swaziland (Eswatini)				x	x		
Zambia		x					
Zimbabwe		x					
West Africa							
Benin		x					
Burkina Faso		x					
Cabo Verde		x	x				
Côte d'Ivoire		x					
Gambia		x			x		
Ghana		x				x	
Guinea		x					
Guinea-Bissau		x					
Liberia		x					
Mali		x					
Niger		x					

Nigeria						x
Sao Tome and Principe	x					
Senegal	x					
Sierra Leone	x					
Togo	x					
East Africa						
Burundi	x					
Ethiopia	x					
Kenya			x	x		x
Rwanda	x					
Seychelles	x		x			
Sudan	x					
Tanzania	x					
Uganda				x		
Central Africa						
Cameroon	x					
Central African Republic	x					
Chad	x					
Democratic Republic of the Congo	x					
Congo	x					
Equatorial Guinea	x					
Gabon	x					

Source: SSA and ISSA (2019).

Table 12: Total public pension spending

	Contributory/earnings-related schemes			Social pensions		Total spending	
		National scheme	Civil servants				
Country/territory	Recent year	% GDP	% GDP	Recent year	% GDP	Recent year	% GDP
Southern Africa							
Angola	2016	0.7				2016	0.7
Botswana	2016		1.1	2015	0.3	2015-16	1.4
Lesotho				2014	1.3		1.3
Madagascar	2014		1.4			2014	1.4
Malawi	2015		1.2			2015	1.2
Mauritius				2019	3.8	2019	3.8
Mozambique	2010	0.1	1.7			2010	1.8
Namibia	2018		2.0	2015	1.2	2015-18	3.1
South Africa	2015		2.1	2015	1.3	2015	3.4
Swaziland (Eswatini)	2015	0.2	1.6	2012	0.3	2012-15	2.1
Zambia	2012		0.9			2012	0.9
Zimbabwe	2017	0.6	1.7			2017	2.4
West Africa							
Benin	2016	0.4	0.0			2016	0.4
Burkina Faso	2009	0.2	0.4			2009	0.7
Cabo Verde	2013	0.1	1.8	2015	0.9	2013-15	2.8
Côte d'Ivoire	2016	0.5	0.6			2016	1.1
Gambia	2006		0.4			2006	0.4
Ghana	2016	0.8				2016	0.8
Guinea-Bissau	2014	0.6	0.2			2014	0.8
Liberia	2014	0.2				2014	0.2
Mali	2010	0.7	0.9			2010	1.6
Niger	2006	0.3	0.4			2006	0.7

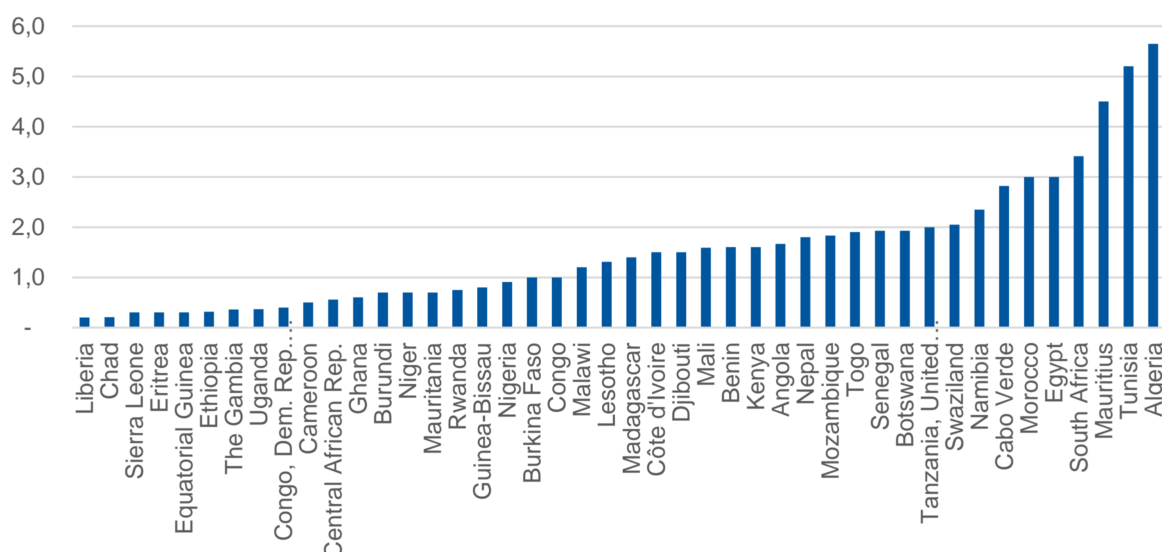
Senegal	2017		0.7			2017	0.7
Sierra Leone	2014	0.3				2014	0.3
Togo	2016	0.6	0.8			2016	1.4
East Africa							
Burundi	2008	0.7				2008	0.7
Ethiopia	2014	0.0	0.3			2014	0.3
Kenya	2015		0.8	2013	0.8	2013-15	1.6
Rwanda	2018	0.3				2018	0.3
Seychelles	2016	0.8				2016	0.8
Tanzania	2013	0.8	1.2			2013	2.0
Uganda	2017	0.3	0.4	2017	0.1	2017	0.7
Central Africa							
Cameroon	2017		0.8			2017	0.8
Gabon	2015	0.8	0.6			2015	1.4

Source: World Bank (2019a).

A number of SSA countries have both national schemes and civil servant schemes. Civil servant schemes are dedicated to employees in the public sector. In terms of total public spending, the proportion of pension spending to GDP is minimal irrespective of the type of scheme considered (Table 12). Expenditure on contributory schemes as a percentage of GDP is low, with the highest proportions of about two per cent recorded only in Namibia and South Africa in the civil servant scheme. All national schemes record expenditures of less than one per cent of GDP. For social pensions, the highest expenditure ratio is 3.8 per cent in Mauritius. Overall, total pension spending is less than four per cent of GDP. The highest total pension spends as a proportion of GDP are in Mauritius at 3.8 per cent, South Africa at 3.4 per cent, and Namibia at 3.1 per cent. The low levels of spending on pension schemes may be due to the low levels of income in these economies and the prominence given to old-age support. The problem is that low expenditure levels are reflected in low levels of benefit, which then means that even for the few who benefit from pension schemes, the benefits may do little to cover their basic needs, and hence their living standards are not very different from those who are not covered by the schemes.

Available data on public social protection expenditure on pensions for persons above statutory pensionable age shows a variance across countries (Figure 3). Higher proportions of expenditure on pensions are evident in the North African countries of Algeria and Tunisia. SSA countries still fare very poorly, with most of them recording social protection expenditures below two per cent of GDP.

Figure 3: Public social protection expenditure on pensions and other benefits, excluding health, for persons above statutory pensionable age (% of GDP)



Source: authors' illustration based on data from ILO (2017).

7 Case studies on pension funds and their development

To better understand the dynamics in the pension systems and the reform process, we now consider case studies of pension systems in three countries; Chile, South Africa, and the Netherlands. Chile was among the first countries to introduce a social insurance scheme, and it was also among the very first to reform its pension system. South Africa has an advanced pension system compared with most countries in the SSA region. South Africa has also initiated a number of reforms to expand its pension system to cover most of the elderly population. The Netherlands

is among the countries with the best-performing pension systems in the world, and it has made several reforms to its pension sector. Drawing from the experiences of these three countries, we identify lessons that can be learnt from best practice and challenges in the process of reforming a pension system. From these, we draw inferences in terms of what SSA countries should do to improve their pension systems.

7.1 Pension system in Chile

Chile was among the first countries to introduce a social insurance scheme and to make wide-ranging reforms to the pension system. Its social insurance scheme was introduced in 1924, making it the first nation in the Americas to do so (Williamson 2005). Chile has a well-developed pension system comprising a multipillar structure with public and private provision, a mandatory or quasi-mandatory private pillar, and a zero public pillar providing basic benefits (Rocha et al. 2010). The initial coverage was low but increased over time, reaching about 70 per cent of the labour force by the 1970s (Williamson 2005). The scheme comprised several separate PAYG-DB plans for different occupations, with each having its own eligibility and benefit levels.

The Chilean social security scheme became insolvent in the 1970s, occasioned by factors such as the early pension eligibility of some workers, high inflation rates (which had an impact on the assets of pension funds), high contribution evasion rates, and a drastic fall in the number of contributors in relation to beneficiaries (Williamson 2005). To address these challenges, reforms were instituted in 1981 to shift from the PAYG-DB model to a funded DC model with individual accounts, giving workers an opportunity to convert their pension assets into retirement pensions upon reaching retirement age. The old social security system was closed to new workers following the implementation of the pension reform in 1981 (Rocha et al. 2010). Workers were given the option of retiring early if they had sufficient assets in their retirement accounts, or else of purchasing an annuity that would provide a lifetime benefit. Alternatively, they could take phased withdrawals that provided a larger monthly pension based on their life expectancy at the time the annuity was purchased. In the event the retirement account was exhausted, the individual would shift to a lower government-subsidized guaranteed minimum pension (Williamson 2005).

Prior to 2004, the basic choice of payout options was lifetime phased withdrawals, fixed real life annuities, and a combination of temporary lifetime phased withdrawals and deferred life annuities, which were later changed to combine a minimum pension fixed real annuity with either a phased withdrawal or a variable annuity following reforms in 2004 (Rocha et al. 2010). The amendments made in 2004 changed the treatment of the average real wage to exclude periods where an individual did not contribute, and raised the specified pension income from 50 per cent of the average real earnings over the previous ten years and 110 per cent of the old minimum pension to 70 and 150 per cent respectively. Further amendments in 2008 replaced the minimum pension requirement with an 80 per cent of maximum pension with solidarity support requirement (Rocha et al. 2010). The individual accounts system was overhauled to incorporate groups who had not previously been covered. Workers were also given leeway and flexibility regarding the choice of pension fund management companies. Voluntary individual contributions by workers were allowed, the requirement for employers to contribute to employees' accounts was removed, and participation was made voluntary for the self-employed (Kritzer 2008). Further reforms saw a new basic solidarity pension to cover pensioners without adequate balances to purchase a life annuity above the solidarity pension level introduced in 2008. Any annuity payments below the basic solidarity pension level would be topped up by the government, and a pension supplement was provided to those in the lowest 60 per cent of the income distribution. The new universal pension covered uninsured workers, mainly in the informal labour market.

The Chilean private pillar came under open pension funds managed by dedicated pension fund managers. It was a DC with a contribution rate of ten per cent, and an additional 2.1 per cent of salaries to cover group term life and disability insurance and the operating costs and profit margins of fund administrators (Rocha et al. 2010). The second pillar generated considerable flows of long-term savings into pension funds (Rocha et al. 2010). While the reforms worked well for formal sector workers, informal sector workers and short-term or part-time workers were unable to contribute enough to provide for the guaranteed minimum pension or be eligible for the government-subsidized guaranteed minimum pension, which widened the contribution gap (Sojo 2014).

The reforms led to investment capital increasing, thus leading to economic growth. The investment restrictions were eased over time, allowing pension fund management companies to diversify their portfolios into foreign assets, thus reducing the impact on the domestic financial market and providing higher rates of return (Kritzer 2008). However, returns remained low, occasioned by low replacement rates and high direct profits to the administrators and insurers, thus calling into question the contributory system in Chile (Sojo 2014). The pension burden on the government gradually declined to an average of 4.8 per cent between 1990 and 1998 and was projected to decline further to 4.3 per cent between 1999 and 2037 (Williamson 2005).

While the reforms benefited the economy, they also increased inequality and reduced economic security for the most vulnerable (Williamson 2005). The primary objective of the pension system—providing income security in old age—was also not fully met due to low pension levels, and it was very costly in fiscal terms, as the government had to ensure that the basic pension income was achieved (Sojo 2014). This meant that the pensions received did not reflect the savings made by individuals over time.

7.2 Pension system in South Africa

The South African social pension system is among the oldest in Africa. South Africa is credited with being the first country in Africa to introduce a social pension that covered older people with no social insurance (ILO 2021). The pension system is based on three pillars: a non-contributory means-tested pension system offered as a South African Social Security Agency grant; insurance-based employee and company pensions and provident funds offered to the employed; and private pensions and insurance arrangements. The Older Persons Grant was introduced in 1928 and covers the population aged 60 years and above. It is a means-tested non-contributory scheme financed by tax contributions, and it covers those with income and assets below a certain threshold (Barrientos 2002). The private pensions are either occupational (mandatory) DC plans established by the private sector or DB plans established by the public sector (IOPS 2009). There are also occupational (voluntary) private pensions, mainly retirement annuities offered by insurance companies.

The coverage of the Older Persons Grant is 100 per cent in some regions. It provides a monthly payment of ZAR1,500 (US$112) for those aged 60–75 years and ZAR1,520 (US$114) for those aged above 75 years. It is paid to citizens, permanent residents, and refugees with legal status, with women qualifying at 60 and men at 65 (Barrientos 2002; ILO 2021). The pension benefit is inflation-adjusted and governed by the Pension Funds Act of 1956 (Barrientos 2002; IOPS 2009).

The basic universal pension benefit was initially set up for Whites, but it was later extended to Coloured and African people following the establishment of occupational pension plans (Barrientos 2002; Devereux 2007). The cost of the social pension increased when payments were equalized across race groups in 1994 and a drive to reach all eligible citizens raised the coverage to 80 per cent (Devereux 2007). Efforts to improve pension savings were made using pension-related

tax expenditures (PTEs), which involved tax deductions on pension contributions, deferred tax on growth in pension funds, and provided preferential tax treatment on exit from the fund (Redonda and Axelson 2021). However, the use of PTEs proved costly, as this was the largest component of tax expenditures, accounting for 35 per cent of total tax expenditures in 2016 (Redonda and Axelson 2021). This led to the introduction of reforms to the pension system in 2016, which aimed to simplify and harmonize the pension system and improve the fairness of the retirement system.

Among other areas, the reforms harmonized the bases and application thresholds for different PTEs. Employers were allowed to make unlimited contributions to pension funds, and their contributions were considered a fringe benefit for employees, thereby reducing the tax liability (Redonda and Axelson 2021). Employee contributions were harmonized across three funds—pension funds, provident funds, and retirement annuity funds—and overall tax deductible on employees' contributions was capped at ZAR350,000. The reforms led to increases in the number of those contributing to pension funds and the average value of contributions (Redonda and Axelson 2021). However, the change was not uniform across the population, as the number of contributors increased more among high-income groups, who also contributed much larger amounts (Redonda and Axelson 2021).

7.3 Pension system in the Netherlands

The Netherlands' pension system is a three-pillar system comprising a government-provided basic pension called the Algemene Ouderdomswet (AOW), (semi-)obligatory occupational pensions, and a supplementary voluntary pension that is unrelated to industry, firm, or job type. The first pillar, the AOW, is compulsory and provides all citizens with a lifelong pension from the date of retirement. The AOW benefit level depends on the amount of time the recipient has resided in the Netherlands. Financing is from contributions from earnings at a maximum rate of 18.25 per cent, with additional funding from public resources where contributions cannot cover costs (Central Government 2008). Additional national assistance is given to persons with reduced AOW pensions to enable them to receive as much as people with full AOW pensions (Central Government 2008).

The second pillar can be an industry-wide, company, or occupational pension fund where benefits are dependent on individual contributions. It is designed as a final-pay DB contract, average-pay DB contract, or individual DC contract. Only some salaried workers participate in this second pillar, which leaves out the self-employed. The third pillar involves voluntary pension participation, making participation relatively small.

The financial position of pension funds deteriorated following the collapse of the equity markets in 2000–02. This led to the introduction of conditional indexation to absorb financial shocks, and final-pay DB plans were transformed into average-pay DB plans. These changes reduced risk-sharing between the active and retired generations. Pension contracts were restructured from traditional DB plans to conditional DB plans following the growth in pension liabilities as pension funds matured, the increased burden of DBs led to low coverage ratios, and there was an overhaul of pension fund regulations into a new framework of pension supervision in 2007 through a new Pensions Act (Westerhout et al. 2021). An objective framework for the assessment of solvency and risks related to pension benefits was also introduced, which gave room for pension funds to include more options for members. Further changes to the pension system have seen pension plans evolve towards DC plans since 2004. These changes were occasioned by the erosion of risk-bearing capacity and stakeholders' concerns about the unsustainability of DB plans as pension funds mature and population ageing sets in, meaning that pension entitlements grow faster than contributions.

The pension scheme in the Netherlands has an average replacement rate of over 97 per cent, which is above the OECD rate of 53 per cent (Westerhout et al. 2021). Pension assets as a ratio of GDP are among the highest in the world. Between 2012 and 2022, the age at which people start to receive AOW benefits gradually increased from 65 years to 67 years and three months. The rules governing the increase of the AOW eligibility age have recently been modified (Westerhout et al. 2021). The Dutch pension system is designed to allow the redistribution of income by education, gender, and age due to uniformity in pricing (Westerhout et al. 2021). Pensions are paid out on an annuity basis, as lump sum payouts are prohibited. The average-pay DB contract enables intergenerational risk-sharing, and hence has a welfare-increasing effect (Westerhout et al. 2021).

The inadequate financial position of some pension funds resulted in cuts to nominal pensions in 2013. Further reforms saw changes to the supervisory framework in 2015 to address abrupt nominal cuts and facilitate recovery from the inadequate financial position. Further reforms are in the pipeline to make the pension scheme in the Netherlands more efficient and robust.

7.4 Lessons from the case studies

The case studies show that pension reform is not a one-off activity but a continuous process to realize better outcomes. Some reforms, although they have beneficial intentions, may result in unexpected negative impacts, such as widening the income gap between rich and poor, and increasing fiscal constraints, hence making them unsustainable. Most pension schemes in SSA are characterized by low participation rates and limited assets under management, and in some cases they face management challenges, thus calling for reform to make them more viable and meet their main objective of providing income security in old age. The lessons from the case studies that can be considered with regard to reforming pension funds in SSA countries include the following:

- Having in place a mix of universal non-contributory social pension schemes that cover everyone (to cater for low-income earners and the unemployed) together with a contributory scheme for the employed is important for pension development. The non-contributory scheme should provide basic coverage for everybody, thus addressing the income needs and livelihoods of the poor, while the contributory scheme should be for those who aim to enhance their pension benefits in future. The non-contributory scheme can be means-tested and financed by tax contributions for those who do not meet a given income threshold as set by regulations.
- Pension funds can be made attractive if the benefits that come with the funds are enhanced through the bundling of other products with pensions to encourage participation and long-term savings. Contributory pension schemes that are designed to include additional group insurance cover for life, disability, and operating costs can lead to increased flows of long-term savings into pension funds.
- The form in which pension fund benefits are paid can affect the sustainability of the funds and the extent to which the benefits meet the core objective of providing incomes to the elderly. Pension benefits should mainly be based on annuity rather than lump sum withdrawals, to ensure the sustainability of the funds and also to guarantee a given minimum income to the beneficiaries. Due to the deterioration of real benefits accessed over time, pension benefits should be indexed to prices to protect against the erosion of purchasing power.
- Countries can increase contributions and grow their pension funds by providing incentives for pension fund contributions through the provision of favourable tax considerations, especially for employer contributions and in accessing benefits. While incentives in this sense seem to benefit those who have an income during their working life—mostly those

in the formal sector—it will enhance the growth of contributions and hence assets under management, and thus the overall growth of the pension sector.

8 Challenges to pension fund development in SSA

The pension systems in SSA have evolved over time, albeit at a much slower rate compared with other regions. The progress in the pension sector has not had any tangible effect on most economies in SSA, pointing to the need to introduce reforms to enhance growth in the pension sector. While early reforms in the pension sector focused on a move from a universal pension system to a contributory system through individual retirement savings instruments, this structure of reform is not beneficial for SSA countries. This paper points to pension systems in SSA that are at different developmental stages, as evidenced by coverage and assets under management. The International Labour Organization notes that a social protection system should meet certain conditions to be considered as strengthened: it should have universal coverage, have adequate benefit levels, have a comprehensive range of benefits, be sustainably financed, and have inclusive provisions (ILO 2021). Pensions, as one of the social protection mechanisms, should meet these requirements. One aspect that is evident is that pension penetration and coverage rates are very low in most SSA countries, and pension benefits are low for those who are covered, thus calling for measures to strengthen the pension systems in SSA. These observations point to the issues facing the pension systems in SSA countries, which if addressed can the propel growth of the pension systems. A number of challenges that emerge and should be considered for the growth and development of pension systems in SSA are as follows:

- *Pension participation rates in SSA countries are generally low, coupled with high levels of informality.* There are countries with almost universal coverage, such as Botswana and Mauritius, but these are just a small fraction of SSA countries. Countries with universal coverage mainly have tax-funded non-contributory social schemes (e.g., Botswana, Lesotho, Namibia, and Zanzibar), or have both contributory and non-contributory schemes (e.g., South Africa) (ILO 2018). Most pension participants are employed in the public sector, although the private sector also offers occupational pension schemes, leaving out the majority who are mainly in the informal sector. Among the factors contributing to low pension participation rates are high levels of unemployment among the working-aged and high levels of informality in SSA countries. Informality is a structural issue of the economy and may take time to address; thus, deliberate attempts are necessary to ensure the inclusion of the unemployed and those in the informal sector in the pension system. This can be achieved by putting in place a universal non-contributory pension scheme that meets the needs of this segment of the population.
- *Contribution rates among pension participants tend to be very low, especially in situations of mandatory pensions.* Low contributions are mainly due to low earnings, which limits the amount contributed as a proportion of earnings, but they can also be due to a lack of proper information about the benefit of making adequate contributions for future pension withdrawals. This limits overall savings and benefit levels upon retirement, which may not be able to guarantee income security in old age. Low contributions, together with low participation rates, imply that the pension systems in SSA countries are not able to mobilize the considerable savings that could be used to support economic activities. One way of increasing contributions is by having incentives such as a matching contributions, or some guaranteed insurance cover if a certain level of contribution is reached by a member in a given period (as is the case with the Ejo Heza scheme in Rwanda). Such incentives are likely to act as motivators for members to save more for old age.

- *Pension coverage tends to be very low in SSA countries, with a pension coverage of 19.8 per cent against a world average of 77.5 per cent (ILO 2021).* The number of old-age pension beneficiaries is very low, especially in countries where there is no universal pension coverage. This can be attributed to low pension participation rates and low returns from pension assets. At the same time, the real returns tend to be very low, resulting in low benefit levels. The implication is that very few elderly people receive pension benefits, which may not guarantee them income security. With high poverty levels, the elderly are left struggling to meet their basic needs at retirement. Given the high levels of informality in SSA countries, participation rates can only be increased by the adoption of universal non-contributory pension schemes. Since financing universal non-contributory pensions can be a challenge due to the high fiscal costs, the implementation of such schemes should be gradual and targeted. It is also possible to target a higher age of eligibility in these schemes in the initial period, then gradually reducing the eligible age towards the national retirement age over time, as a way to address financial shortages while ensuring the needs of the most elderly are met.
- *The regulatory environment of the pension sector in SSA is very restrictive*. Despite the pension reforms that have been initiated in a number of SSA countries, the regulatory environment in most countries is not very supportive of pension sector development. First, most pension policies do not guarantee universal pension systems, and hence most people are left out of the pension system. Second, the regulations specify asset classes and the proportions of investment that pension funds should hold in those asset classes. Although this regulation is meant to safeguard pension contributions, it limits the extent to which pension funds can diversify their investments and the returns that pension funds generate, especially in jurisdictions where such regulations are not flexible. In some SSA countries, the regulations do not allow pension funds to invest in infrastructure projects or foreign countries (AfDB 2018). One major reason for restricting investment to specific assets is to limit the exposure of pension funds to risk in certain investments. However, these risks can be diversified by raising limits on the foreign investment of pension funds (AfDB 2021). With a well-structured legal and regulatory framework, the management of pensions will be streamlined and the costs of administration minimized, especially for private pensions.
- *Most SSA countries have a problem meeting the financing requirements for pensions, especially if non-contributory schemes are adopted.* One of the major factors that has affected the growth of pensions in SSA is pensions financing. With low participation rates and coverage, a universal pension system is more appropriate in SSA countries, although financing is a challenge. Most public pensions are financed by revenues and thus cause fiscal constraints, since revenues generated in SSA are not enough to cover budgetary needs. The way around this has been the introduction of contributory pension schemes, but this has not encouraged pensions uptake due to low income levels and informality in most SSA countries. Contributory schemes have not been successful in Latin America, leading to a reversal of pension reforms in most of these countries.

References

AfDB (2018). 'African Economic Outlook 2018'. Abidjan: AfDB. www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Economic_Outlook_2018_-_EN.pdf (accessed 16 August 2022).

AfDB (2021). 'Africa Long-Term Finance Initiative: Annual Report 2020'. Abidjan: AfDB. Available at: https://altf.afdb.org/sites/default/files/2021-11/Africa%20Long-Term%20Finance%20Initiative%20-%202020%20Annual%20Report.pdf (accessed 2 August 2022).

Alfers, L., F. Galvani, E. Grapsa, F. Juergens, and A. Sevilla (2021). 'Older Informal Workers in the COVID-19 Crisis'. Policy Insights 5. Manchester: WIEGO. Available at: www.wiego.org/sites/default/files/resources/file/PolicyInsights5.pdf (accessed 2 August 2022).

Alonso, J., A. Arellano, and D. Tuesta (2016). 'Factors That Impact on Pension Fund Investments in Infrastructure Under the Current Global Financial Regulation'. Working Paper 16/19. Madrid: BBVA Research. Available at: www.bbvaresearch.com/wp-content/uploads/2016/11/WP_16-19.pdf (accessed 16 August 2022).

Amaglobeli, D., E. Dabla-Norris, and V. Gaspar (2020). 'Getting Older but Not Poorer: As Societies Age Worldwide, Pensions and Public Policies Must Adapt'. *Finance & Development* (March): 31–34.

Arezki, R., and A. Sy (2016). 'Financing Africa's Infrastructure Deficit: From Development Banking to Long-Term Investing'. Global Views 2. Washington, DC: Brookings Institution.

Baker McKenzie (2021). 'New Dynamics: Shifting Patterns in Africa's Infrastructure Funding'. Available at: www.bakermckenzie.com/-/media/files/insight/publications/2021/04/new-dynamics_africa_report_update.pdf?la=en (accessed 2 August 2022).

Barrientos, A. (2002). 'Comparing Pension Schemes in Chile, Singapore, Brazil and South Africa'. Discussion Paper 67. Manchester: IDPM.

Bloom, D.E., and R. McKinnon (2013). 'The Design and Implementation of Public Pension Systems in Developing Countries: Issues and Options'. Policy Paper 59. Bonn: IZA.

Casey, B.H., and R. McKinnon (2009). 'Social Pensions and Policy Learning: The Case of Southern Africa'. *International Social Security Review* 62(4): 81–102. https://doi.org/10.1111/j.1468-246X.2009.01347.x

Central Government (2008). 'The Old Age Pension System in the Netherlands'. The Hague: Ministry of Social Affairs and Employment.

Commonwealth Secretariat (2014). 'Pension Funds and Private Equity: Unlocking Africa's Potential'. London: Commonwealth Secretariat.

Devereux, S. (2007). 'Social Pensions in Southern Africa in the Twentieth Century'. *Journal of Southern African Studies* 33(3): 539–60. https://doi.org/10.1080/03057070701475542

Dorfman, M. (2015). 'Pension Patterns in Sub-Saharan Africa'. Social Protection and Labor Discussion Paper 1503. Washington, DC: World Bank.

Durán-Valverde, F., J.F. Pacheco-Jiménez, T. Muzaffar, and H. Elizondo-Barboza (2019). 'Measuring Financing Gaps in Social Protection for Achieving SDG Target 1.3: Global Estimates and Strategies for Developing Countries'. Extension of Social Security Working Paper 73. Geneva: ILO.

Enache, C., L.R. Miloş, and M.C. Miloş (2015). 'Pension Reform and Capital Market Development in Central and Eastern European Countries'. *Economic Research/Ekonomska Istraživanja* 28(1): 75–84. https://doi.org/10.1080/1331677X.2015.1022388

Ezeh, A.C., G. Chepngeno, A.Z. Kasiira, and Z. Woubalem (2006). 'The Situation of Older People in Poor Urban Settings: The Case of Nairobi, Kenya'. In National Research Council (ed.), *Aging in Sub-Saharan Africa: Recommendations for Furthering Research*. Washington, DC: National Academies Press. Available at: www.nap.edu/catalog/11708.html (accessed 2 August 2022).

FinAccess (2021). '2021 FinAccess Household Survey'. Nairobi: Central Bank of Kenya, Kenya National Bureau of Statistics, and FSD Kenya.

Gill, I.S., T. Packard, and J. Yermo (2004). *Keeping the Promise of Social Security in Latin America*. Stanford: Stanford University Press.

Guven, M. (2019). 'Extending Pension Coverage to the Informal Sector in Africa'. Social Protection and Jobs Discussion Paper 1933. Washington, DC: World Bank.

Guven, M.U., and P.G. Leite (2016). 'Benefits and Costs of Social Pensions in Sub-Saharan Africa'. Social Protection and Labor Discussion Paper 1607. Washington, DC: World Bank. Available at: http://documents.worldbank.org/curated/en/325281469593828257/Benefits-and-costs-of-social-pensions-in-Sub-Saharan-Africa (accessed 2 August 2022).

ICA (2018). 'Infrastructure Financing Trends in Africa 2017'. Abidjan: AfDB.

ILO (2010a). 'World Social Security Report 2010–11: Providing Coverage in Times of Crisis and Beyond'. Geneva: ILO.

ILO (2010b). 'Yaounde Tripartite Declaration on the Implementation of the Social Protection Floor'. Second African Decent Work Programme 2010: Building a Social Protection Floor with the Global Jobs Pact, 6–8 October 2010, Palais des Congrès, Yaounde, Cameroon. Geneva: ILO. Available at: www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/documents/publication/wcms_181374.pdf (accessed 16 August 2022).

ILO (2017). 'World Social Protection Report 2017–19: Universal Social Protection to Achieve the Sustainable Development Goals'. Geneva: ILO.

ILO (2018). 'Social Protection for Older Persons: Policy Trends and Statistics 2017–19'. Social Protection Policy Paper 17. Geneva: ILO.

ILO (2021). 'World Social Protection Report 2020–22: Social Protection at the Crossroads—in Pursuit Of a Better Future'. Geneva: ILO.

ILOSTAT (2022). 'Data: Free and Open Access to Labour Statistics'. Available at: https://ilostat.ilo.org/data/ (accessed 18 August 2022).

IOPS (2009). 'IOPS Country Profiles: South Africa'. Paris: IOPS.

Irving, J. (2020). 'How the COVID-19 Crisis Is Impacting African Pension Fund Approaches to Portfolio Management'. Washington, DC: World Bank. Available at: www.ifc.org/wps/wcm/connect/61e14b0d-b283-4f8f-8d17-4bce3f54d4a1/African+pension+funds_FINAL-10-9-20.pdf?MOD=AJPERES&CVID=nkeOGIJ (accessed 16 August 2022).

Juergens, F., and F. Galvani (2020). 'Why Social Pensions? Achieving Income Security for All in Older Age'. London: HelpAge International.

Juvonen, K., A. Kumar, B.H. Ayed, and A.O. Marin (2019). 'Unleashing the Potential of Institutional Investors in Africa'. Working Paper 325. Abidjan: AfDB.

Kabare, K. (2018). 'The Mbao Pension Plan: Savings for the Informal Sector'. Working Paper. Nairobi: Development Pathways.

Kakwani, N., and K. Subbarao (2005). 'Ageing and Poverty in Africa and the Role of Social Pensions'. International Poverty Centre Working Paper 8. New York: United Nations Development Programme.

Kritzer, B.E. (2008). 'Chile's Next Generation Pension Reform'. *Social Security Bulletin* 68(2): 69–84.

Mercer (2021). 'Mercer CFA Institute Global Pensions Index 2020'. Melbourne: Mercer. Available at: www.mercer.com/globalpensionindex (accessed 16 August 2022).

NBFIRA (2014–16). 'Annual Statistical Bulletins'. Available at: https://www.nbfira.org.bw/document-category/statistical-bulletin (accessed 23 August 2022).

OECD (2017). 'Pensions at a Glance 2017: OECD and G20 Indicators'. Paris: OECD. http://dx.doi.org/10.1787/pension_glance-2017-en

OECD (2021). 'Pension Markets in Focus 2021'. Paris: OECD. Available at: www.oecd.org/finance/pensionmarketsinfocus.htm (accessed 17 August 2022).

Ortiz, I., F. Durán-Valverde, S. Urban, V. Wodsak, and Z. Yu (2018). 'Reversing Pension Privatizations: Rebuilding Public Pension Systems in Eastern Europe and Latin America'. In I. Ortiz, F. Durán-Valverde, S. Urban, and V. Wodsak (eds), *Reversing Pension Privatizations: Rebuilding Public Pension Systems in Eastern Europe and Latin America*. Geneva: ILO.

Pension Watch (2018). 'HelpAge International Social Pension Database'. Version 18 March 2018. Available at: www.pension-watch.net/about-social-pensions/ (accessed 2 August 2022).

Pension Watch (2022). 'Visualisation: Adequacy of Social Pensions'. Available at: www.pension-watch.net/pensions/social-pensions-database/visualisation-adequacy-of-social-pensions/ (accessed 2 August 2022).

PIA (2020). 'Annual Report 2020'. Lusaka: PIA.

RBA (2015). 'Retirement Benefits Industry Performance Report for June – December 2014'. Available at: www.rba.go.ke/download/industry_brief_december_2014/ (accessed 18 August 2022).

RBA (2017). 'Retirement Benefits Industry Report for the Year 2016'. Available at: www.rba.go.ke/download/retirement-benefits-industry-report-for-2016/ (accessed 18 August 2022).

RBA (2019). 'Retirement Benefits Industry Report for December 2018'. Available at: www.rba.go.ke/download/retirement-benefits-industry-report-for-december-2018/ (accessed 18 August 2022).

RBA (2021). 'Retirement Benefits Industry Report for December 2020'. Available at: www.rba.go.ke/download/industry-report-december-2020/ (accessed 18 August 2022).

RBA (2022). 'Retirement Benefits Industry Report for December 2021'. Available at: www.rba.go.ke/download-industry-report-december-2021/ (accessed 18 August 2022).

Redonda, A., and C. Axelson (2021). 'Assessing Pension-Related Tax Expenditures in South Africa: Evidence from the 2016 Retirement Reform'. Working Paper 54/2021. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2021/992-1

RisCura (2020). 'BrightAfrica Report 2019'. Available at: www.riscura.com/wp-content/uploads/2021/03/Bright_Africa_Report_2019.pdf (accessed 2 August 2022).

Rocha, R., D. Vittas, and H.P. Rudolph (2010). 'The Payout Phase of Pension Systems: A Comparison of Five Countries'. Policy Research Working Paper 5288. Washington, DC: World Bank, Non-Bank Financial Institutions Group.

Sanusi, K.A., and F.M. Kapingura (2021). 'Pension Funds as Fuel for Overall Investment Level and Economic Growth: An Empirical Insight from South African Economy'. *Cogent Business & Management* 8(1): 1935661. https://doi.org/10.1080/23311975.2021.1935661

Sarfati, H., and Y. Ghellab (2012). 'The Political Economy of Pension Reforms in Times of Global Crisis: State Unilateralism or Social Dialogue?' Working Paper 37. Geneva: ILO.

Sojo, A. (2014). 'The Chilean System of Contributory Pensions as Locus of Rivalry and of a New Social Compact'. Social Policy Series 211. Santiago: Economic Commission for Latin America and the Caribbean.

SSA and ISSA (2019). 'Social Security Programs Throughout the World: Africa 2019'. SSA Publication 13-11803. Baltimore: SSA. Available at: www.ssa.gov/policy/docs/progdesc/ssptw/2018-2019/africa/index.html (accessed 16 August 2022).

Stewart, F., and J. Yermo (2009). 'Pensions in Africa'. Working Paper on Insurance and Private Pensions 30. Paris: OECD. https://doi.org/10.1787/227444006716

Suzuki, T., K. Miyaki, and J.T. Pace (2016). 'Infrastructure Financing Trends: What Are the Current Trends in Emerging Market Infrastructure Spending?' EMCompass 5. Washington, DC: World Bank Group. Available at: http://documents.worldbank.org/curated/en/193791468197952709/Infrastructure-financing-trends-what-are-the-current-trends-in-emerging-market-infrastructure-spending (accessed 18 August 2022).

Sy, A.N.R. (2017). 'Leveraging African Pension Funds for Financing Infrastructure Development'. Washington, DC: Brookings Institution.

United Nations (2016). 'Sub-Saharan Africa's Growing Population of Older Persons'. Population Facts 2016/1. New York: United Nations, Population Division.

United Nations (2019a). 'Financing for Sustainable Development Report 2019'. New York: United Nations, Inter-agency Task Force on Financing for Development. Available at: https://developmentfinance.un.org/fsdr2019 (accessed 2 August 2022).

United Nations (2019b). 'World Population Prospects 2019'. Available at: https://population.un.org/wpp/ (accessed 26 May 2022).

United Nations (2020). 'World Population Aging 2020 Highlights: Living Arrangements of Older Persons'. New York: United Nations, Population Division.

United Nations (2021). 'Financing for Sustainable Development Report 2021'. New York: United Nations, Inter-agency Task Force on Financing for Development. Available at: https://developmentfinance.un.org/fsdr2021 (accessed 2 August 2022).

United Nations (2022). 'SDG Indicators Database'. Available at: https://unstats.un.org/sdgs/dataportal (accessed 18 August 2022).

URBRA (2021). 'Retirement Benefits Sector Report 2020'. Kampala: URBRA. Available at: http://urbra.go.ug/download/retirement-benefits-sector-report-2020-full-version/?wpdmdl=1916&refresh=61eec31b6d7e71643037467 (accessed 2 August 2022).

Westerhout, E., E. Ponds, and P. Zwaneveld (2021). 'Completing Dutch Pension Reform'. Background Document. The Hague: CPB Netherlands Bureau of Economic Policy Analysis.

Williamson, J.B. (2005). 'An Update on Chile's Experience with Partial Privatization and Individual Accounts'. Discussion Paper 2005-19. Washington, DC: AARP Public Policy Institute.

World Bank (2008). 'The World Bank Pension Conceptual Framework'. World Bank Pension Reform Primer Series. Washington, DC: World Bank. Available at: https://openknowledge.worldbank.org/handle/10986/11139 (accessed 2 August 2022).

World Bank (2018). 'The State of Social Safety Nets 2018'. Washington, DC: World Bank.

World Bank (2019a). 'Pensions Expenditure Database 2019'. Available at: www.worldbank.org/en/topic/socialprotection/brief/pensions-data (accessed 22 August 2022).

World Bank (2019b). 'World Development Report 2019: The Changing Nature of Work'. Washington, DC: World Bank. https://doi.org/10.1596/978-1-4648-1328-3

Zhao, Z., and C. Sutcliffe (2021). 'What Determines the Asset Allocation of Defined Benefit Pension Funds?' *Applied Economics* 53(36): 4178–91. https://doi.org/10.1080/00036846.2021.1897512