COMPULSIONS FOR EXPANDING PENSION COVERAGE TO AFRICA'S NON-SALARIED WORKFORCE

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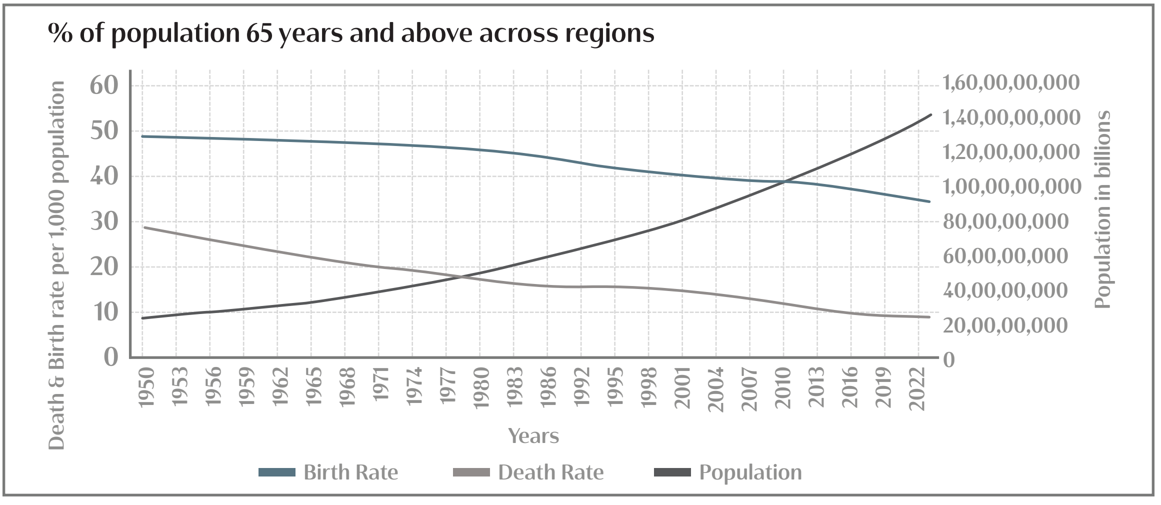
1. INITIAL CONDITIONS

1.1. Africa Demographics in Brief

As per the United Nations, Africa's population by December 2022 was estimated at 1.42 billion, or nearly 17 percent of the global population, making Africa the second largest continent after Asia by both size and population. UN projections also show that sub-Saharan Africa's population is growing three times faster than the global average and, by 2070, it will surpass Asia (David C., Sangeeta R., and Abdo S. Y. and World Bank, 2015).

This rapid population growth is an indication of Africa's demographic transition, where both mortality rates and birth rates are declining, even though the latter remains relatively high by global standards (Fig. 1). Africa's demographic transition can either become a dividend or disaster -- depending on how the demographic transition is managed. Careful planning is desirable and requires a detailed examination of labour market dynamics and financial inclusion on the continent, which may potentially curtail maximization of the benefits.

Fig. 1: Africa Demographics



Source: United Nations - Macrotrends

The concept of a demographic dividend (Bloom, Canning, and Malaney 2000; Bloom and Williamson 1998) introduced in the late 1990s identifies three demographic dividends as it describes the interplay between changes in population structure and economic growth. The first dividend is the addition of "boots" to the labour force, focusing on the labour supply effects in age structure which is realized when three things occur. First, improvements in health status, particularly child health, that increases their survival and a decline in numbers born to each family. The combination of higher child survival rates in one cohort and fewer children in the following cohorts produces a population bulge, signs of which are evident on the continent. Second, investments in health and education can be higher in cohorts after the bulge. With fewer children therefore, both families and governments have more resources per child to invest in their education and health, thus increasing human capital (Kalemli-Ozcan, Ryder, and Weil 2000; Schultz 2005). In addition, labour supply is further boosted as low fertility allows more women to join the work force (Bloom et al. 2009), which is also increasingly evident across the continent. Third, an economic environment must be fostered so that the population bulge achieves well-paying jobs instead of remaining unemployed or being forced to perform low-productivity work. Should all the three phases succeed and are well timed, an economic dividend is produced because the bulge in population secures highly productive employment opportunities thereby boosting both family and national incomes. This is where Africa is headed and requires careful planning for success.

1.2. Africa's Labour Market

As is the case in most other developing economies, Africa's labour market comprises a large informal or self-employed workforce, and a smaller, formal or salaried one. Workers are informally employed when their employment terms are not subject to national labour laws, income taxation, social protection, and entitlement to other employment benefits (ILO 2018). An informal sector worker consequently works without a contract, and without social security or health insurance, and is not a member of a labour union (World Bank, 2019). Definitions of informality, nonetheless, are many and varied. However, the informal labour market remains large in Africa and is the largest in the world. The majority (85.5%) of Africa's labour force is situated in the informal labour market performing low-productivity jobs. Such informality ranges from 40.2% in southern Africa to 92.4% in western Africa (Table 1).

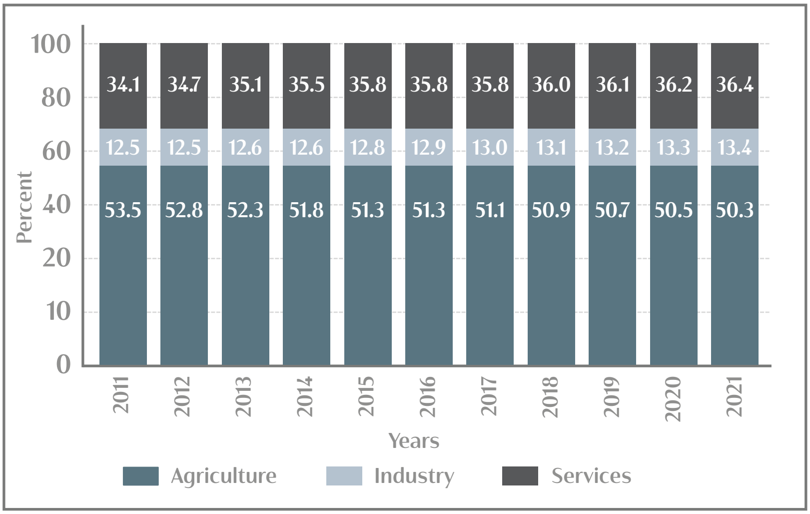
Table 1: Informal Employment in total employment across Africa (%)-

Category	Africa	Southern Africa	Northern Africa	Central Africa	Eastern Africa	Western Africa
Share of informal employment and its components in total employment	85.8	40.2	67.3	91.0	91.6	92.4

Source: ILO (2018b)

By sector, Agriculture employs more than half of the workforce, followed by services \and then by industry (Fig.2). This trend, however, has been declining (reducing from 53.5% in 2011 to 50.7% in 2019) and this decline is expected to continue. Most workers in the agricultural sector are women, who comprise 54 percent of agricultural workers, compared to men at 48 percent (ILO 2020). Since the majority of women are concentrated in informal agricultural sector jobs with low productivity that generate consistently low and seasonal incomes, they face greater decent work deficits in the labour market compared to their male counterparts (ILO, 2020).

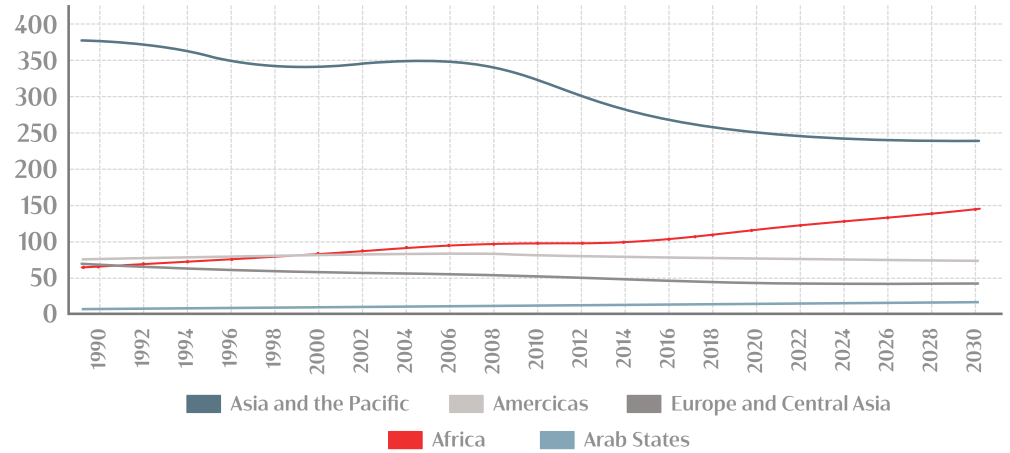
Fig. 2: Employment distribution by broad economic activity in Africa, 2011-2021



Africa suffers serious shortage of decent work. Having a job does not guarantee a decent living. In 2019, the working age population in the continent was 776 million, of whom 456 million (58.8%) were employed. Sixty-eight percent of the employed were self-employed or were contributing family workers. The proportion of women family workers compared to men is more than half (at 32.3%) compared to men at 13 percent – implying women take up more jobs in the agricultural sector and domestic work typically associated with higher levels of informality, low or no pay, poor access to social protection and inferior work conditions. This has pushed workers out of informal agriculture sector jobs, as well as jobs contributing to the family, to other forms of employment in the informal labour market. However, such workers have often moved to low-wage jobs, or to self-employment (ILO 2018b).

Africa faces another challenge that no other region of the world does - the bulging youth population. Africa's labour force is comparatively young and growing rapidly. In 2020, the youth, those aged between 15 and 24, were less than a quarter (23.6%) of the World's working-age population. However, in Africa they comprised more than a third (34.2%) of the population (ILO 2020). Clearly, the youth labour force in Africa is growing rapidly (Fig. 3).

Fig.3: Youth Labour Force by Region, 1990-2030 (millions)



Note: Fig. 3 estimates and projects the size of the youth (15-24 yrs) labour force in absolute terms (in millions).

Source: ILO modelled estimates, July 2019; based on UN population estimates and projections.

Addressing youth unemployment is therefore a key priority for the continent. Efforts are being made to deal with the challenge. These include the African Youth Charter (AYC), adopted in 2006 to respond to the need for youth empowerment and development; the Youth Decade (2009–2018) Plan of Action (YDPoA); and the African Union (AU) Agenda 2063, where its first 10-year implementation plan addresses youth employment with the aim of unleashing the potential youth bulge into a demographic dividend as recognized earlier.

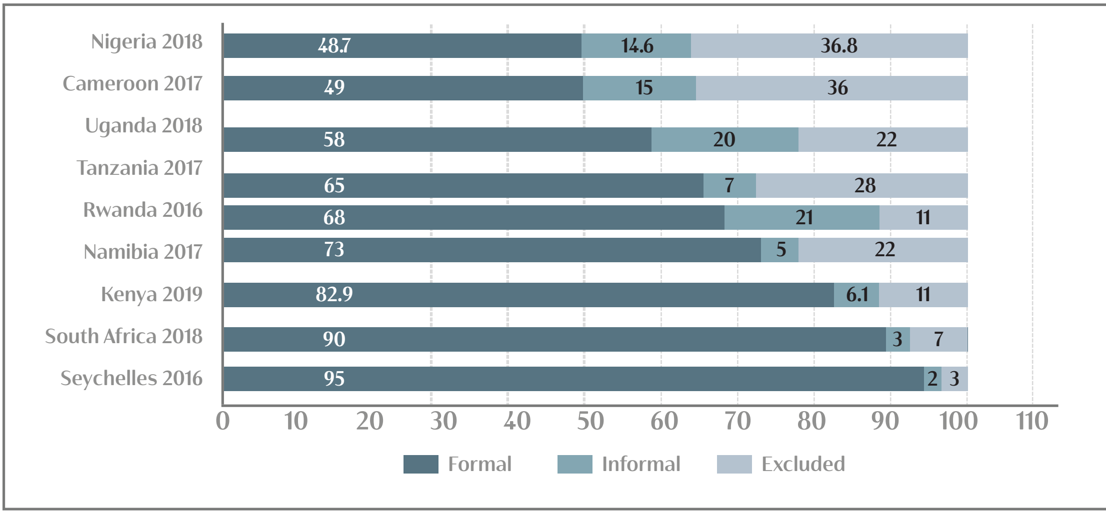
Realization of the economic dividend, however, depends on how this cohort is nurtured and prepared into securing high productivity jobs that yield high incomes. Adding to the potential economic dividend, realizable from the supply of a productive young labour force, a potential second dividend portends – that of increased savings and investments by the youth bulge cohort as it matures and saves for retirement.

1.3. Financial Inclusion

The foregoing demographic and labour market scenario existing in Africa requires deliberate policy interventions, particularly on the financial inclusion front. Aside from the potential economic dividend that may be realized from the demographic shift in Africa, there is also the possibility of increased savings and investments. This dividend is only possible where policies to promote savings are established and if the financial sector is developed enough to attract savings and convert them into productive investments.

Africa seems to be taking the right steps in this direction and is well ahead of the beginning of its demographic transition. Financial inclusion has rapidly grown across the continent, on the back of mass-scale mobile phone coverage, and the subsequent innovations and progress in the evolution of mobile phone-led financial services. This has made tremendous impact on the development of the financial sector and its ability to attract savings and channel them into productive investments. Digital financial services are already poised to attract the higher incomes of the bulging youth cohort, and to direct them into productive investments. Thus, despite the duality of the existing labour market, the efficiency gains of the financial system, designed to mobilize even the modest intermittent savings of informal sector workers, can have a huge impact on the future well-being of Africa's citizens. As the window of opportunity to carefully plan for the bulging cohort to secure high paying jobs still exists, the second dividend from the demographic transition may also be realized. Enhanced financial inclusivity may also work for improved pension inclusion which has remained low, especially among the informal sector workers.

Fig. 4: Financial inclusivity across Africa



2. OVERVIEW OF AFRICA'S PENSION SECTOR

Pension systems play a vital role in providing income in old age, and thus alleviating old age poverty. However, pensions systems in Africa are characterized by low coverage and high costs and are focussed mainly on formal sector salaried employees.

The structure of traditional pension systems in most countries across Africa consist of non-contributory and contributory pension systems. Non-contributory pension systems are social pensions financed through government taxes to provide a basic pension in old age. In some countries, social pensions equally cover persons with disabilities, survivors and orphans, among others. Social pensions can either be means-tested or universal. Contributory pension schemes on the other hand are either earnings-related or flat rate pension schemes financed through contributions from employees, employers, or both.

The information in Table 2 indicates that of 43 countries whose information was examined, 41 countries have a social pension that is either means-tested or universal in nature. Universal pension systems operate in Botswana, Lesotho, Mauritius, Namibia, Zambia, Kenya, and Seychelles, while a means-tested public pension is available in Mozambique, South Africa, and Eswatini. In most countries, the eligibility age for a social pension is 60 years and above. In exemptional circumstances, like in Mozambique, the age of eligibility is as low as 55 years (for women) whereas in Lesotho and Tanzania, the eligibility age is higher, at 70 years. Likewise, 91 percent of the 43 countries studied by us have an earnings-related contributory pension system. Others such as Botswana, Madagascar, Mauritius, and Namibia have a flat-rate contributory pension system.

In most African countries, contributory pension schemes are separate for public and private sector employees. The schemes are characterised by fixed contribution rates, vesting policies and requirements on governance structures. These characteristics are typical of a pension system that targets formal sector workers. Thus, it can be observed that pension systems in most countries in Africa seems to favour workers in the formal sector to the exclusion of those in the informal sector who are left to rely on informal arrangements including their own lifetime savings, or on family resources. Further evidence from examining information on pension systems in most countries in Africa points to a pension system that covers mostly civil servants, public sector employees and a minority of high-income private sector employees.

The contributions-based pension schemes in most African countries are either based on defined benefits (DB) or defined contributions (DC). Defined benefits are usually pay-as-you-go schemes where benefits are guaranteed upon retirement, whereas defined contribution schemes are those where members contribute solely, or alongside their employers, at a predetermined contribution rate. The period from late 2000s has seen sweeping reforms in pension systems across Africa where a large number of privately managed, employer-based pension schemes have emerged. These reforms have resulted in a shift from defined benefit to defined contribution pension systems in most countries.

Therefore, it can be deduced that most counties in Africa do not have meaningful pension and social security systems that comprehensively cover the informal sector workers. In instances where benefits are offered to formal sector workers, they are provided either by public sector pension schemes, national (usually mandatory) schemes covering private and/ or public sector workers, voluntary occupational schemes managed by employers other than the government, and individual or personal pension schemes.

Table 2: Structure of traditional pension systems in Africa

Country	Non-contributory				Contributory		Occupational Retirement Schemes Voluntary = V Mandatory = M	Personal Retirement Schemes Voluntary = V Mandatory = M
	Social Pension	Means-tested	Universal	Age of Eligibility	Earnings-related	Flat rate		
Southern Africa								
Angola					x			
Botswana	x		x	65		x	V	
Lesotho	x		x	70	x			
Madagascar	x				x	x		
Malawi								
Mauritius	x		x	60	x	x		
Mozambique		x		55-wom-en, 60-men	x			
Namibia	x		x	60	x	x	V	V
South Africa	x	x		60			V	V
Eswatini	x	x		60	x			
Zambia	x		x	60	x		V	
Zimbabwe	x				x		V	
West Africa								
Benin	x				x			
Burkina Faso	x				x			
Cabo Verde	x	x		60	x			
Côte d'Ivoire	x				x			
Gambia	x				x			

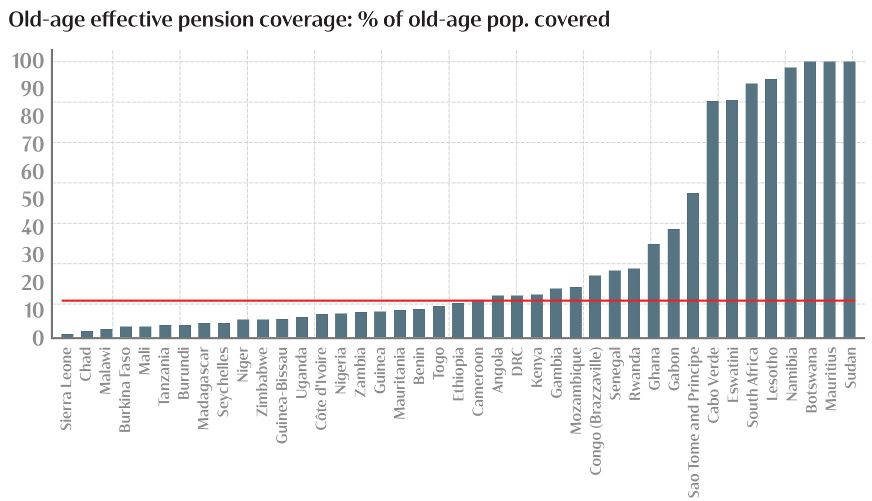
Country	Non-contributory				Contributory		Occupational Retirement Schemes Voluntary = V Mandatory = M	Personal Retirement Schemes Voluntary = V Mandatory = M
	Social Pension	Means-tested	Universal	Age of Eligibility	Earnings-related	Flat rate		
Ghana	x				x			
Guinea	x				x			
Guinea-Bissau					x			
Liberia	x	x		60-65	x			
Mali	x				x			
Niger	x				x			
Nigeria	x	x		65	x		M	
Sao Tome and Principe	x				x			
Senegal	x				x			
Sierra Leone	x				x			
Togo	x				x			
East Africa								
Burundi	x				x			
Ethiopia	x				x			
Kenya	x	x	x	65	x		V	V
Rwanda	x				x			
Seychelles	x		x	63	x			
Sudan	x				x			
Tanzania	x			70	x			
Uganda	x			60-65				
Central Africa								
Cameroon	x				x			
Central African Republic	x				x			
Chad	x				x			
Democratic Rep. of Congo	x				x			
Congo (Brazza-ville)	x				x			
Equatorial Guinea	x				x			
Gabon	x				x			

Source: Compilation from Nyang'oro and Njenga, (2022); Guven (2019); Stewart and Yermo (2009)

2.1. Current Pension Coverage

Low pension coverage across Africa continues to pose the greatest challenge for policy makers, pension regulators and pension stakeholders. Barely 15 percent of the working age population in Africa are covered by a formal pension arrangement. The overall pension coverage continues to pose dismal numbers as the majority of the working age population continues to be left out of existing pension arrangements. This scenario is equally grim for excluded informal sector workers who potentially face a significant old age poverty risk. This is despite the continued evolution and development of modern pension systems over the past century. As such, one issue which is yet to be resolved is how to extend such structured pensions arrangement to informal sector workers.

Figure 5: Coverage of Pension Schemes for the Old-age Population in Africa



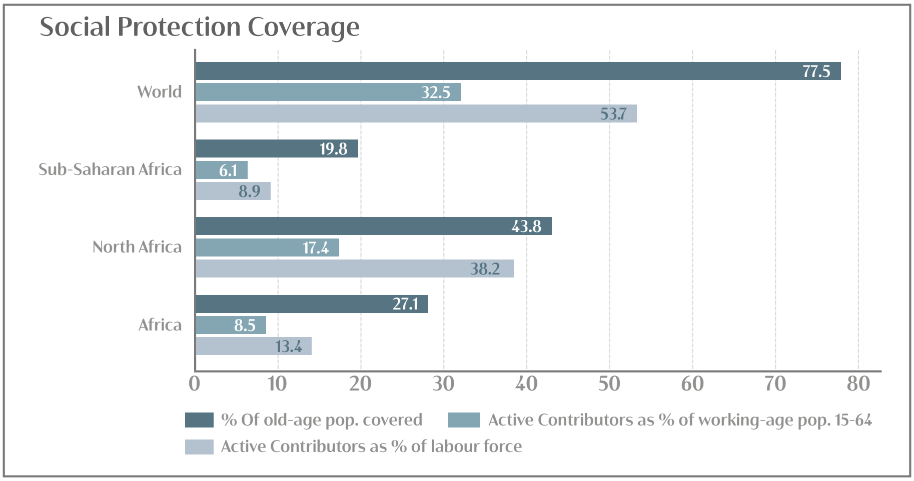
Source: Nyang'oro and Njenga (2022)

Notwithstanding, the structure and design of pension systems in Africa, coverage of contributory pension schemes across the region remains dismal. The average pension coverage among the elderly (those aged 60 and above), and as indicated in

Figure 5, is 12 percent. However, the coverage rate varies across countries. While Mauritius, Sudan and Botswana provide a social or contributory pension to 100 percent of their elderly, barely 0.0 percent of the elderly in Sierra Leone are eligible for pension benefits.

Coverage of the elderly through contributory pension schemes is not expected to improve. Though there is variation across the region, an average of only 8.5 percent of the working-age population is participating in contributory pension schemes. Typically, in countries with relatively higher incomes, such as Mauritius and the Seychelles, a higher share of the population contributes to pension schemes, while, in most countries in the region, pension schemes receive contributions from only a small share of the working-age population. In more than half the countries on which data are available, less than 6 percent of the working-age population contribute to a formal pension scheme. In Ethiopia, Guinea-Bissau, and Tanzania, participation in a contributory pension scheme accounts for less than 2 percent of the working-age population. The low average coverage of the working-age population in most countries in the region means that very few future elderly would be eligible for a contributions-based pension benefit in the future.

Figure 6: Size of the pension coverage gap



Source: ILO (2021)

Africa has a working population (those aged between 15 and 64 years) of around 788 million, of whom less than 15 percent are covered by a formal pension arrangement. If we consider active contributors, barely 8.5 percent of the working-age population across Africa is covered by formal pension arrangements. This figure is lower for sub-Saharan Africa at 6.1 percent as compared to North Africa at 17.4 percent. The pension coverage of the labour force equally varies when we compare sub-Saharan Africa and North Africa at 8.9 percent and 38.2 percent respectively as shown in figure 6.

These statistics paint a grim picture of the huge pension coverage gap facing Africa with over 700 million non-salaried individuals across the continent excluded from any formal pension arrangements. Most of them are young workers in the informal sector which constitutes up to 85 percent of all forms of employment in Africa. These informal sector workers include young, economically active farmers, domestic help, mechanics, street venders, artisans, taxi drivers, small shopkeepers, MSME employees, gig-workers, fishermen and other self-employed individuals.

Without any meaningful policy intervention, this excluded population in Africa will face the grim prospect of living in extreme poverty for over 20 years after they are too old to work due to rising life expectancy, modest intermittent incomes, tiny lifetime savings, a breakdown in joint family support and pension exclusion. This scenario may be worse for women who are more vulnerable to old-age poverty because they live longer than men but suffer lower incomes in comparable occupations and a shorter working life with frequent employment interruptions. Due to differences in life expectancy, women in Africa are more than twice as likely as their male counterparts to be living alone in their old age.

The foregoing analysis brings out the underlying problem of low pension coverage that continues to plague Africa, mainly due the design and rigidity of existing pension systems and the informality of labour markets. Importantly, as Africa is expected to witness the highest growth among its elderly population, fiscal interventions such as tax-funded social pensions is unlikely to be a sustainable policy option. African nations should therefore urgently build and implement more inclusive, contributions-based pension systems that are tailored to the unique needs and constraints of informal sector workers.

Select Case Studies: Implementation of Micro-pension programs for Informal Workers

Some countries in Africa have attempted to solve the pension exclusion problem by introducing pension programs for informal sector workers who bear the greatest burden of pension exclusion. Ghana and Kenya were among the first countries in Africa to introduce initiatives aimed at extending pension coverage to informal sector workers. Several other countries, including Benin, Côte d'Ivoire, Mali, Nigeria, Rwanda, Senegal, Sierra Leone, Uganda, Zambia, and Zimbabwe have since followed suit with initiatives aimed at providing pension benefits to their informal sector workers.

Encouraging micro-pension innovations with in-built mechanisms to optimally harness the demographic dividend, and to effectively target informal sector workers in high productivity jobs with higher incomes, is critical. Mass-scale micro-pension coverage will ensure meaningful contributions and a dignified retirement for the future elderly. This would in turn generate a potentially large pool of new long-term retirement savings that could help fund infrastructure, economic development, and growth across the continent.

Our studies clearly show that several African nations already have the necessary public infrastructure and pre-conditions for implementing micro pension systems at scale. These include:

- A conducive legal and regulatory framework for voluntary pension coverage expansion;
- A dedicated and highly committed pension regulator;
- A range of well-regulated retirement savings options including innovative micro-pension schemes;
- A national digital ID that can serve as a unique identifier for unique and portable individual pension accounts and also facilitate easy, digital KYC;
- Widespread mobile phone penetration and retail digital payments adoption, along with a rapidly expanding digital financial services footprint; and
- A large network of community-based organisations capable of implementing mass-scale public awareness programs to encourage voluntary participation and disciplined retirement savings.

This section encapsulates the experiences of some select countries, including Benin, Ghana, Kenya, Rwanda, and Uganda -- that have successfully implemented micro-pension programs and deployed initiatives aimed at extending pension coverage to the informal sector. Interestingly, each of these countries have followed a different path in terms of system design and implementation even though they all targeted informal sector workers in their respective countries.

Case-study: Kenya

The informal sector pension scheme in Kenya, christened as the Mbao Pension Plan, was launched in 2011 and sponsored by the *Jua Kali* Federation. “Mbao” is a slang term in Kenya and means twenty Kenyan Shillings. The scheme received a lot of support initially from the pension sector regulator, the Retirement Benefits Authority. It was designed to encourage savings for retirement among informal sector workers. The scheme was characterised by ease of payments as it leveraged on the existing Mpesa and Airtel money mobile phone-based payments platforms managed by Safaricom and Airtel, respectively. The scheme allowed flexible contributions with a low minimum saving of US$0.20 per day. The scheme also permitted early withdrawals with a three-year lock-in after the first contribution. The Mbao experienced some challenges. For example, the Scheme was unable to achieve adequate voluntary participation which was necessary for sustainability -- in terms of covering administrative costs without depleting member benefits.

Following from the lessons learnt in implementing Mbao, the government of Kenya, through the National Treasury and Economic Planning Ministry, recently launched a new scheme targeted at informal sector workers known as the Kenya National Entrepreneurs Savings Trust (KNEST). The government covers the administrative costs and allows members to accumulate both long-term as well as short term savings under KNEST. The government has also announced a 50 percent matching co-contribution -- of one Kenyan Shillings for every two Shillings saved by a subscriber -- capped at a maximum of Kenya Shillings 6,000 per annum. In parallel, the government has also introduced the "Hustler Fund" in a bid to provide credit to micro, small and medium enterprises (MSMEs) that employ the majority of informal sector workers and provide livelihoods for the self-employed. The Hustler Fund is expected to enable MSMEs to grow, create more jobs and be more sustainable. Five percent (5%) of all credit applied for and accessed under the Hustler Fund is challenged to the KNEST account of the individual. Of the 5 percent mandatory deduction from each loan, 70 percent flows to retirement savings account of the individual, while the remaining 30 percent flows to the person's liquid savings account. In the long-term, this initiative will push the frontier of pension inclusion in Kenya. Other pension sector players have not been left behind.

There have been other notable initiatives by pension sector players in the public and private sector aimed at extending pension coverage to the informal sector workers. Some of the initiatives include the *Haba-Haba* scheme introduced by National Social Security Fund (NSSF), *Mobikeza* introduced by Octagon Financial Services, and the *Fahari Pension Plan* introduced by Zamara Financial Services. The Fahari Pension Plan is based on the pinBox-WhatsApp pensionTech Platform and is designed to easily mobilize informal sector workers into pension arrangements that suit their circumstances.

Case-study: Rwanda

The informal sector scheme in Rwanda is called *Ejo-Heza* Long Term Savings Scheme (LTSS). Ejo Heza LTSS is administered by the Rwanda Social Security Board (RSSB) which is also the administrator for the existing formal sector pension scheme. Ejo Heza LTSS was launched after the passage of a new legislation that allowed the creation of this old-age savings scheme in 2017. It is a voluntary defined contribution (DC) scheme that allows participation from residents of Rwanda -- both locals and foreigners. The scheme equally allows junior accounts for children aged 16 years and below. It allows employers to open accounts for their employees including domestic workers. Contribution amounts to the scheme and the frequency of the same is flexible and based on the savings capacity of individual members. Upon reaching the age of eligibility, the scheme will provide monthly pension payments to retired members.

The Government of Rwanda provides a means-tested fiscal incentives package for the first three years after joining. The incentives include matching contributions linked to the income classification of each member, as well as a life insurance and a funeral insurance policy. The insurance incentives are only available to citizens above 16 years with permanent national identification registration. Member accounts are linked to the national identification number issued by the National Identification

Authority (NIDA) and both accounts and benefits are fully portable across jobs, locations, and service providers. Contributions are permitted using a mobile wallet, debit or credit card, or a bank accounts. Members enjoy easy single-window access to services through a nationwide network of thousands of branches and agents and offices of banks, cooperatives, savings and credit cooperative societies, MFIs, mobile money service providers, and so forth. A simple and transparent web and toll-free telephone-based helpline mechanism has been established that provides easy access to information and complaints resolution support to members. Rwanda's Ejo Heza digital micro-pension scheme was formally rolled out in December 2018 and has since achieved over 3 million voluntary enrolments (roughly 50% of the informal workforce). A little over half of these voluntary micro-pension subscribers are women.

Case-study: Uganda

In early 2016, the Uganda Retirement Benefits Regulatory Authority (URBRA) licensed two voluntary micro-pension schemes targeting low-income informal sector workers. These schemes were the Mazima voluntary individual retirement benefits scheme and the Kampala City Traders Association Uganda Provident Fund Scheme. Both schemes allowed flexible contribution amounts and frequency. Withdrawals from the schemes were permitted after a one-year lock-in. Specifically, the Mazima scheme allowed a minimum contribution of US$0.9 and permitted contribution through Airtel Money and MTN mobile money. Direct cash deposits were also accepted. Subscriptions under the Mazima Scheme reached 720 by 2019. In 2017, URBRA commissioned a study to review the structure and performance of the two micro-pension schemes and make suitable recommendations. The study established that some of the challenges experienced during the implementation of the schemes included a suboptimal administration platform that was limiting the Schemes' ability to reach a large base of potential subscribers in a cost-effective manner. Also, the products and services offered were found to be limited -- hence low participation rates were realized. As such, the study recommended a centralized administrative arrangement, effective outreach programs, and a variety of products to enable the schemes to realize higher participation rates.

Case-study: Ghana

The Government of Ghana has implemented the Social Security and National Insurance Trust (SSNIT) which is the main micro-pension for informal sector workers. The SSNIT was launched in 2005 and achieved a membership of 100,000 by 2012 and 155,000 by 2019. The SSNIT Scheme was designed to provide both short- and long-term savings accounts. The Scheme allows contributions of any amount which can be contributed frequently according to a member's ability. Contributions are divided equally and deposited into short-term and long-term savings accounts. Withdrawals of accumulated savings in the short-term savings account are permitted after five months of joining the Scheme. Short-term savings can also be used as collateral to access credit from financial institutions. This scheme has faced a challenge of high administrative costs after the ownership shifted in 2012 to the National Trust Holding Company and prompted by regulatory changes caused by the passage of the National Pension Act, 2008. Equally, Ghana has witnessed other initiatives driven by commercial providers who operate in the market, but scale continues to be an issue.

Case-study: Benin

The Government of Benin launched the Insurance for Strengthening Human Capital Program (ARCH). This program is managed by the National Social Protection Agency with four components -- universal health insurance, pension for informal sector, microcredit, and training. The four services are offered as a package by leveraging synergies among them. The scheme is a voluntary defined contribution (DC) plan and contributions are collected through mobile networks as a primary method.

Table 3: Informal Sector Pension Schemes Experience in Selected Countries in Africa

Country	Pension scheme	Administrator	Regulator	Short-term savings, % of total	Use of savings as collateral	Mobile technology	Members enrolled	Subsidies
Ghana	The SSNIT Informal Sector Pension Scheme	Publicly run, initially piloted by SSNIT, then transferred to the National Trust Holding Company (semi-public)	National Pension Regulatory Authority (NPRA) (as of 2018)	50%	No	No mobile technology was used	155,000	No subsidies
	Other initiatives	Privately run, United Pension Trustees (UPT), the People's Pension Trust (PPT), and the Daakye Pension Trust	National Pension Regulatory Authority (NPRA)	50%	No	Mobile money, wallet accounts, short message service reminders, standing order	UPT 17,000; PPT 160,000	Fiscal incentives
Kenya	Mbao Pension Scheme	Privately run by Eagle Africa, launched in 2008 by the National Federation of Jua Kali	The Retirement Benefits Authority	100% can be withdrawn after first 3 years of contributions	No	Mobile money accounts: Safaricom's M-PESA and Airtel's Airtel Money	76,000	No subsides
	Kenya National Entrepreneurs Savings Trust (KNEST)	National informal sector pensions public limited company	The Retirement Benefits Authority	30%	No	Mobile money accounts: Safaricom's M-PESA and Airtel's Airtel Money	NA	Matching contributions,
	Other private sector initiatives	Mobikeza: Octagon Africa Fahari Pension Plan: Zamara Haba na Haba: NSSF Kenya	The Retirement Benefits Authority	No	No	Mobile money accounts: Safaricom's M-PESA and Airtel's Airtel Money	NA	No subsides
Uganda	Mazima Retirement Plan	Privately run Mazima	Uganda Retirement Benefits Regulatory Authority (URBRA)	100% can be withdrawn after first year of contributions	No	Save through mobile money networks: Airtel and MTN	1,000	No subsides
	KACITA Provident Fund Scheme	Privately run Kacita	Uganda Retirement Benefits Regulatory Authority (URBRA)	NA	No	Save through mobile money networks: Airtel and MTN	NA	No subsides
Rwanda	Ejo Heza Long-Term Savings Scheme (LTSS)	Rwanda Social Security Board (RSSB)	Government of Rwanda (Ministry of Finance)	No	Yes, 40%	Save through mobile money: MTN, AirtelTigo, MobiCash	Over 3 million since the pilot rollout in October 2018	Means-tested fiscal incentives including a matching co-contribution, life and funeral insurance cover
Benin	ARCH	The National Social Protection Agency	TBD	TBD	TBD	TBD	TBD	TBD

Note: TBD = to be determined. Source: Author and Guven, 2019

3. CRITICAL CONSIDERATIONS IN DESIGNING MICRO-PENSIONS FOR THE INFORMAL SECTOR

The experiences with implementing micro-pension schemes from the selected countries provide important lessons that can be examined by other countries in Africa looking to extend pension coverage to their informal sector workforce. Any effort to establish a scheme for the informal sector workers must be cognizant of the unique and heterogeneous nature of this segment characterised by low irregular incomes/ earnings, susceptibility to short term income shocks, high labour mobility, and access challenges. The design of a micro-pension system must also be inclusive and provide adequate, affordable, sustainable, and robust retirement benefits to informal sector workers.

Specifically, the design should embody the following key building blocks.

3.1. Appropriate Legal Framework

The legal framework governing traditional contributory pension schemes have in most instances proven to be inadequate. Extension of pension coverage to informal sector workers would thus require a specific legal framework that is flexible and versatile to the needs of informal sector workers. The legal and governance framework should also have adequate consumer protection measures to ensure that the rights of members are safeguarded to enhance their confidence and trust. Consumer protection is particularly important given the bundling of products and the use of technology in the collection of contributions and payment of benefits. In addition, the legal framework should define the pension design for the informal sector, regardless of whether participation is mandatory or voluntary.

3.2. Bundling Micro-pensions with Other Products

Development of pension products for informal sector workers cannot turn a blind eye to the fact that these workers need a range of integrated financial services. Informal sector workers would prefer products that provide liquidity for short term financial needs and emergencies, life and health insurance, a facility to save for a house, along with a retirement savings solution for old-age income security. Once informal workers are protected against income shocks and are able to meet immediate financial needs, savings for retirement become more affordable and can be adequately protected against premature withdrawals to serve their intended role. Bundling of products can make saving for retirement more attractive and responsive to the lifecycle needs of informal sector workers. It should however be noted that bundling of insurance, investment and insurance products may create regulatory challenges especially in jurisdictions where banking, insurance, securities markets and pensions are regulated by distinct, different regulators.

3.3. Central Administration and Management System for Cost-efficiency

Small-value contributions by informal sector workers are often highly sensitive to fees and charges. However, efficient administration, recordkeeping and delivery of micro-pension schemes can be expensive. Micro-pension providers therefore need to be able to provide easy access, high quality services and optimum retirement outcomes at a modest all-in cost to ensure that fees and charges do not erode the value of contributions and accumulated savings over the long-term. Achieving this balance is often difficult for micro-pension providers.

In this regard, a micro-pension system based on central recordkeeping and administration, where the administration platform serves as a shared infrastructure for multiple micro-pension providers, should be considered. This helps multiple micro-pension providers share the cost of administration and in turn helps lower program management fees and charges for subscribers. Importantly, a centralised administration architecture that serves as a national clearing house for micro-pensions can provide several important benefits to subscribers, regulators, policymakers, and other stakeholders – seamless account portability, individual choice, targeted incentives, optimum retirement benefits, low transactions costs, high governance standards, centralised compliance monitoring, uniform services quality and subscriber protection. A national-level, central micro-pension administration and record-keeping platform can be supported by the government and could serve as a specialized Informal Sector Micro-Pension Administrator to effectively manage micro-contributions and provide seamless high-quality services and information to members.

3.4. Leveraging Technology for Micro-pensions

Any conceptualization of micro-pension should not overlook the central role of modern information and communication technologies. Modern technologies are very critical in several aspects from contributions collection and reconciliation, prompt commutation with members, and timely and sustained pay-out of benefits. A secure digital micro-pension framework requires robust technology with safeguards to ensure the integrity and protection of members' data. A modern ICT platform can help achieve efficiency and transparency and drive down administrative costs while guaranteeing anytime access regardless of location. Thus, a simple, transparent, efficient mobile-phone based, or web-based mechanism is required, together with a toll-free helpline providing information and resolving complaints to support members.

3.5. Fiscal Incentives to Jumpstart Voluntary Micro-pension Enrolments

Fiscal incentives and other appropriate support from the government are essential ingredients for achieving mass-scale voluntary micro-pension coverage. Succeeding at scale would equally need a high level of commitment from key stakeholders including mobile network operators, as witnessed in the case of the Kenya Mbao Pension Plan. In Rwanda, under Ejo Heza LTSS, the government provides a means-tested fiscal incentives package for the first three years to encourage both mass-scale voluntary enrolments and sustained contributions. The government also allows parents to open and contribute to the LTSS accounts of their children below age 16. Employers can also open accounts for their employees including domestic workers. In Mexico, reforms undertaken in the pension sector allowed specialized informal sector pension schemes to offer fiscal benefit packages, inheritance of retirement benefits savings, flexibility in contributions – with no minimum savings required. Fiscal incentives do not have to be permanent. They could be both time bound and capped (as is the case with the Kenya KNEST and Ejo Heza LTSS) to jumpstart enrolments and help achieve early scale to make a scheme more sustainable.

3.6. Importance of Flexibility and Simplicity of Micro-pension Products

Process friction and rigid product rules are key reasons for the low voluntary micro-pension coverage achieved to date. Most pension schemes have complicated product and vesting rules, cumbersome KYC processes and documentation formalities. Also, informal sector workers may face uncertain and volatile income flows and are unable to comply with strict, predetermined periodic contributions. Informal sector pension schemes therefore need to offer a degree of financial flexibility with low or no minimum deposit requirements as in Mexico to encourage membership. Informal sector workers being majorly vulnerable groups of society, it is prudent for their pension arrangements to cover periods of unemployment, for emergency spending, or for other life essentials, such as housing. A micro-pension scheme should therefore allow for withdrawals in specific circumstances. For example, in Australia, early withdrawals from superannuation funds are permitted in limited exceptional circumstances on compassionate grounds, or in cases of severe financial hardship. However, this flexibility needs to be balanced with the risk of leakage of retirement savings.

3.7. Adequate Risk Management and Mitigation Framework

Miro-pension schemes targeting informal sector workers should have a robust risk management and mitigation framework given the complexity of the informal sector and the fact that most of the services would be outsourced giving rise to outsourcing risks. Apart from registered service providers, an informal sector micro-pension scheme will utilize the services of telecommunication companies and probably a common administrator (as proposed above) for collection of contributions, payout of benefits, and communication to members. Inherent in these services are risks that need to be properly mitigated against.

3.8. Training and Education Programs

The uniqueness of the informal sector labour force requires that they be continuously sensitized and educated on issues pertaining to the development of the sector including reforms being undertaken. They need to be made aware of their own rights and obligations, to help build trust and public confidence in the programme being implemented.

3.9. Participation and Categorization of Workers

Most jurisdictions that have introduced micro-pension products have opted for voluntary participation. This is due to the obvious difficulties in enforcing compulsory participation and contributions compliance by individual workers. It therefore largely becomes an act of moral suasion to encourage them to enrol in the available pension arrangements. However, it is always difficult to know where to stop with acts of persuasion which may as well not be cost effective in the long run. Therefore, other strategies such as auto-enrolment could be considered as this would introduce some elements of compulsion, as in the case of Rwanda's Ejo Heza LTSS which is open to all Rwandees and foreigners working in Rwanda. The informal sector workers therefore need to be categorized to enable autoenrollment.

3.10. Stakeholder Collaboration

The final and equally important building block in the design of a micro-pension system is stakeholder collaboration and cooperation. Developing and implementing a micro-pension system targeting voluntary participation and optimum savings by millions of informal sector workers would require all hands on deck: the government, financial sector regulators, financial service providers, pension sector stakeholders, community-based organisations, mobile phone operators, digital payment providers, the national ID agency, development partners, non-governmental organizations and research institutions. A formal mechanism should be set up to foster collaborative actions by a range of such stakeholders towards a common, shared goal of comprehensive pension inclusion.

4. ROLE OF TECHNOLOGY

Extension of pension coverage to informal sector workers who are largely excluded in the formal pension arrangement is closely linked to financial inclusion. Consequently, technological advances, such as mobile wallets and digital payments, would be critical in the efforts to extend pension coverage to this segment of the labour force.

Know-Your-Customer (KYC) credentials that enable clear member identification is also critical in the operation of schemes that target informal sector workers. As a result, governments in certain jurisdictions like Rwanda, Kenya and Uganda have embarked on ambitious efforts to develop a digital ID system for citizens. A digital national ID is a valuable public infrastructure as it can enable financial institutions to verify and digitally complete necessary KYC formalities for new clients.

Traditionally, much of the innovation that uses technology and digitalization was related to banking and payments. Lately, technology has been playing an increasing role in retail lending, crowdfunding, insurance, financial analysis, securities trading, and portfolio management. Some important technology-based innovations in the pensions sector have also been observed although they are still at a nascent and experimental stage, and largely limited to only certain areas of pension service providers' activities, and their interactions with supervisors. This cautious approach to the take-up of innovative technologies in the private pension sector could be explained by a large variety and complexity of pension arrangements and the optionality embedded in pensions. Moreover, pension markets tend to be highly regulated in most jurisdictions with highly controlled and standardized products and fees.

Innovations occurring in the financial sector, including private pensions, have become an area of increased supervisory attention. In this regard, in a growing number of jurisdictions, regulatory and supervisory authorities have adopted a dual approach towards innovation. On the one hand, they aim to support innovation and Fintech solutions through innovation hubs or regulatory sandboxes that offer a secure framework for testing innovative ideas and products. Secondly, they closely monitor and subsequently address any emerging risks involved with FinTech -- for the financial sector and its consumers.

In several jurisdictions, it has been observed that pension supervisory authorities, working closely with other stakeholders, are at the forefront of innovation and have initiated innovative use of technology in the private pension sector. Such actions include the creation of mobile applications and interactive pension platforms, information storage or centralized pension databases, e-pension infrastructure systems and financial ecosystems. Their aim is to further strengthen and simplify private pension systems, enhance the protection of members and their retirement savings, eliminate deficiencies in commercial practices, enhance governance and transparency, and improve the quality of and access to information and services. In an increasingly digital world, pension supervisors have also started testing the use of innovative technologies for supervisory purposes. At this early stage of development, innovative technologies primarily serve to gather more and better information and develop new analytical solutions. Such data enables more efficient supervisory oversight, involving risk monitoring and management, through analysis of accurate and real-time information.

A survey and desk research of selected members' experiences conducted by the International Organization of Pension Supervisors (IOPS) in 2018 indicated that new digital technologies are being exploited to increase pension coverage; to engage individuals with private pensions and encourage voluntary retirement savings; and to improve administration and operational efficiency of pension services. Some of the observed benefits of technology in extending pension coverage are outlined below.

4.1. Engaging Subscribers and Encouraging Voluntary Retirement Savings

In most jurisdictions, pension funds and administrators are providing online services through mobile applications or web platforms to enhance their services and engagement with members. Most mobile apps and online platforms include pension calculators. The main purpose of these e-tools is to provide key pension information digitally to savers, which ultimately brings significant cost savings to plans and participants. These tools enable subscribers to make secure digital contributions (through e-banking or mobile payment services), evaluate investment options, switch between pension schemes, receive updates and information – each of which improve member confidence and encourage voluntary retirement savings.

4.2. Improving Administration, Operational Efficiency, and Pension Services

Innovative technologies have the potential to simplify and improve the efficiency of administrative procedures, reduce administrative costs, and offer higher quality services and experiences for the users. For instance, in Mauritius, pension service providers use investment management and administrative software to enable information sharing between stakeholders, web-based investment portfolio analysis platforms, and online platforms for transacting in mutual funds or collective investment funds.

Using Technology in Investments and Robo-advice

Technology has also been used in some jurisdictions in investment processes and for providing automated advice. The asset management industry both in the US and Europe has been testing a variety of blockchain initiatives to enhance efficiency, for example in index data processing and sharing, tracking and analysis of transactions, and organization of data for reporting. The industry is also at the early stages of implementing artificial intelligence (AI) to support the investment decisions of asset managers. AI-based software robotic technology, also known as 'robo-advisers', are being applied as an investment tool, providing financial advice and aiding more efficient investment portfolio allocation. Such platforms offer automated, online, and relatively low-cost services, accessible to more people. Most of the investment portfolios currently compiled by robo-advisers are made of Exchange-Traded Funds (ETFs) due to their lower fees. The operation of robo-advice is based on digital technologies such as intelligent algorithms, big data, and machine learning.

4.3. Using Technology in Regulation and Supervision

Innovative or new technologies are also being applied in pension regulation and supervision to facilitate the interaction between the supervised entities and financial regulators or supervisors.

Technologies are expected to ultimately automate the reporting and monitoring of compliance exceptions, and thus reduce the cost of compliance for both regulators and regulated entities.

5. AFRICAN PENSION SUPERVISORS ASSOCIATION

The idea of an African Pension Supervisors Association was mooted by African nations who are members of the International Organization of Pension Supervisors (IOPS) during IOPS side meetings. IOPS, being a global organization for pension regulators and supervisors, is focussed on improving the quality and effectiveness of the supervision of private pension systems throughout the world, thereby enhancing their development and operational efficiency, and allowing for the provision of a secure source of retirement income in as many countries as possible. As IOPS has a global mandate, it was observed that only limited time was available to discuss more region-specific issues in detail during IOPS meetings. Also, several common challenges faced by nations across the African continent were not necessarily experienced by other pension jurisdictions outside the continent.

The foregoing scenario ignited the need for a forum where pension regulators from African nations could discuss their specific issues in more detail, and simultaneously learn from each other's experiences and perspectives in addressing their challenges. Such discourse for the Continent mirrors what other regions where IOPS draws its membership from had already done. A case in point being Latin America which has established a regional association of IOPS members.

The African Pension Supervisors' Association (APSA) is a membership-based association that brings together pension regulators and supervisors from across Africa to examine issues of common interest. The goal of the Association is to provide a platform for collaboration, co-operation and exchange of information and ideas to better supervise, regulate and grow the pension sector in the continent. The Association, as a nascent body, is presently spearheaded by an Interim Committee appointed from among the founding member countries, to oversee its institutionalization and formalization. The Association already has a Secretariat that is hosted by the Retirement Benefits Authority of Kenya, following a decision of the Interim Committee during a meeting held at Kigali, Rwanda in July 2022.

The initial membership of APSA comprises of six founding member countries – Kenya, Nigeria, Rwanda, South Africa, Uganda, and Zambia. Other countries that have already joined the Association include Botswana, Egypt, Mauritius, and Ghana. There is a clear indication that the APSA membership will continue to expand as several other countries have expressed keen interest to join the Association.

The Association is expected to foster collaborative efforts and evidence-led actions by member countries to enable them to deliver on their commitment towards a more secure and dignified financial future for their citizens. The collaboration provides the impetus needed to unlock the potential of the pension sector across the continent. Equally, through the network, countries would be better placed to tackle common problems and find solutions to challenges that are unique to Africa. Some of the notable challenges faced by nearly all African nations include strategies to provide more optimum investment returns on retirement savings, and to expand pension coverage to the 86 percent of Africa's workers situated in the informal labour market. The Association is poised to accelerate the pace of pension reforms for greater economic development across Africa. This will include harnessing the opportunities available through FinTech. The network equally plays a key role in safeguarding offshore pensions investments against risks related to cross-border transactions.

A key initiative of the Association is the annual Africa Pension Supervisor Forum that brings together pension supervisory bodies from across the continent, along with pension sector practitioners and other domain experts. To date, three annual forums have been held including the inaugural forum hosted by the RBA in Nairobi, Kenya in September 2019. The second forum was held virtually in September 2020 (due to the advent of COVID-19). The third forum was hosted by the Central Bank of Rwanda in Kigali, Rwanda in July 2022. Each of these annual meetings were supported by Financial Sector Deepening (FSD) Africa.

Aside from its annual Forum meetings, the APSA is expected to run some planned initiatives on pension coverage expansion in member countries. Specifically, the Association will facilitate and coordinate regional research, knowledge management and capacity building initiatives including the following.

i. Targeted capacity building conferences, workshops, and forums for relevant pension industry stakeholders;

ii. Research and publishing on topical issues relevant to the pensions industry;

iii. Initiatives aimed at increasing retirement literacy and designing behavioural interventions to help expand pension coverage, especially among informal sector workers;

iv. Peer-to-peer learning among pension supervisors, including but not limited to bilateral knowledge exchange programs amongst different regulators; and

v. Auxiliary initiatives around development of centralized data repositories to address data challenges -- a key issue for the pension industry in Africa.

6. RATIONALE AND BENEFITS OF A REPLICABLE DIGITAL MICRO-PENSION MODEL FOR AFRICAN STATES

Over 700 million young informal sector workers across Africa are excluded from formal pension and social protection arrangements and face the grim prospect of living in extreme poverty for over 20 years after they are too old to work. Without an urgent and effective policy, regulatory and business response to pension exclusion, poverty among the Africa's future elderly will become the dominant cause of increased poverty across the Continent. The only sustainable policy option for African nations therefore is to (a) build inclusive mechanisms that provide citizens with secure and convenient access to simple, affordable and well-regulated micro-pension products, and (b) put sustained energy into achieving population-wide retirement literacy to encourage young, excluded citizens to voluntarily set aside a part of their incomes for their old age.

In parallel, countries would need to build on modern developments in ID, IT, behavioural economics, and the deep links being forged through financial inclusion initiatives to enable excluded informal sector workers to save for their old age. If even African nations achieve modest pension coverage among informal sector workers, it could generate billions of dollars in new, long-term savings which could in turn fuel economic growth, infrastructure development and employment across the Continent.

It is not surprising therefore that several countries in Africa are actively contemplating or implementing new, contributions-led micro-pension programs aimed at achieving broad based social protection to reduce vulnerability in old age for their huge informal sector workforce. Over time, and if micro-pension systems design and implementation is based on sound principles, this could help reduce future budgetary pressures by increasing self-provision, contribute to economic growth by increasing aggregate long-term savings, and provide greater depth and liquidity to capital markets.

As African nations evaluate alternative pension reform and inclusion proposals, it should be feasible for them to draw upon the enormous knowledge and experience that has evolved internationally in the field of pension system design and implementation. However, lessons from the experiences with pension reforms by OECD countries are not easy to directly apply in the context of most developing countries. For example, unlike OECD countries, most African States have predominantly informal labour markets, a large young workforce with modest intermittent incomes, low banking and formal finance utilization, low financial literacy, a limited potential impact of tax incentives on voluntary coverage, and administrative constraints with forcing participation and sustained pension contributions over multiple decades.

Equally importantly, African nations are also remarkably similar to each other in terms of demography, incomes, economic strength, labour markets, history, culture, legal and political structures, and governance. Hence lessons from both success and failure in micro-pension policy and system design as well as implementation may be highly portable from one country to another within Africa. For example, the drafting of pensions legislation by Tanzania could greatly benefit from a study of the texts of pension legislation of Rwanda.

Against this backdrop, it is feasible to imagine a replicable, Africa-specific, digital micro-pension model that can be adopted by multiple African nations. Each country need not then initiate micro-pension inclusion from scratch. Instead, countries could simply adopt, or adapt an Africa micro-pension model, albeit with necessary modifications, to achieve more comprehensive pension inclusion.

REFERENCES

Bloom, D. E., and J. G. Williamson. 1998. “Demographic Transitions and Economic Miracles in Emerging Asia.” World Bank Economic Review 12 (3): 419–55.

Bloom, D. E., D. Canning, and P. Malaney. 2000. “Demographic Change and Economic Growth in Asia.” Population and Development Review 26 (supplement): 257–90.

Bloom, D. E., D. Canning, G. Fink, and J. E. Finlay. 2009. “Fertility, Female Labor Force Participation, and the Demographic Dividend.” Journal of Economic Growth 14 (2): 79–101.

David Canning, Sangeeta Raja, and Abdo S. Yazbeck. 2015. “Africa's Demographic Transition: Dividend or Disaster?” A co-publication of Agence Française de Développement (afd) and the World Bank.

Guven, M. (2019) Extending Pension Coverage to the Informal Sector in Africa, Social Protection and Jobs, Discussion Paper No. 1933, World Bank, Washington, DC.

Holzmann, R and Hinz, R. (2005). “Old Age Income Support in the 21st Century: An International Perspective on Pension Systems and Reform”. World Bank, Washington, DC.

Hu, Y. and F. Stewart (2009), “Pension Coverage and Informal Sector Workers: International Experiences”, OECD Working Papers on Insurance and Private Pensions, No. 31, OECD.

ILO (2018) Social Protection for Older Persons: Policy Trends and Statistics 2017-19. Social Protection Policy Paper No. 17. Geneva.

ILO (2021) World Social Protection Report 2020-22. Social Protection at Cross Roads – In Pursuit of A Better Future. Geneva.

International Labor Office (ILO). 2018. “Women and men in the informal economy: a statistical picture,” 3rd edition, Geneva.

International Labor Office (ILO). 2020. “Report on employment in Africa (Re-Africa): Tackling the youth unemployment challenge,” Geneva.

Juan R. de Laiglesia (2011). Coverage Gap in Social Protection: What Role for Institutional Innovations? international conference on Social Cohesion and Development Paris 20-21 January 2011

Kalemli-Ozcan, S. 2003. “A Stochastic Model of Mortality, Fertility, and Human Capital Investment.” Journal of Development Economics 70 (1): 103–18.

Kwena, R and Turner, J.A., (2013) Extending Pension and Savings Scheme Coverage to the Informal Sector: Kenya's Mbao Pension Plan, International Social Security Review, Vol. 66, 2/2013.

OECD (2018b). G20 Policy Guide. Digitisation and informality: Harnessing digital financial inclusion for individuals and MSMEs in the informal economy.

OECD (2018c). G20/OECD INFE Policy Guidance on Digitalisation and Financial Literacy. Organisation for Economic Co-operation and Development publication.

Retirement Benefits Authority, (2017), Review of the MBAO Pension Scheme and Design of Effective Administrative System Solutions: Review Report Prepared by pinBox Solutions, jointly with Callund Consulting and the microPension Foundation, and funded by world Bank through the National Treasury, Kenya, RBA, Nairobi.

Schultz, T. P. 2005. "Productive Benefits of Health: Evidence from Low-Income Countries." In Health and Economic Growth: Findings and Policy Implications, edited by G. Lopez-Casasnovas, B. Riveras, and L. Currais. Cambridge, MA: MIT Press.

Stewart, F. and J. Yermo (2009), "Pensions in Africa", OECD Working Papers on Insurance and Private Pensions, No. 30, OECD publishing, © OECD. doi:10.1787/227444006716

World Bank (2019) World Development Report 2019: Changing Nature of Work, World Bank, Washington, DC.

Xaba, Jantjie, Pat Horn, and Shirin Motala. 2002. "The Informal Sector in Sub-Saharan Africa." Working Paper on the Informal Economy, Employment Sector 2002/10, International Labor Office, Geneva.