THE EVOLUTION OF UGANDA'S PENSION SECTOR

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1. INTRODUCTION

Uganda's pension sector has evolved since independence in 1962 and has created different characteristics that define the sector, reflecting Uganda's journey so far. The focus before and just after independence in 1962 was on the workforce in formal employment. Little or no attention was paid to the population in the informal sector. Sixty years later, nothing has changed, and only limited efforts have been made towards extending pension coverage to the informal sector.

The pension reforms of 2003 were focused more on the governance, operational aspects and investment irregularities that posed an existential risk to the retirement savings of salaried pension contributors. The existence of the regulator has since greatly improved the state of corporate governance, risk management and compliance monitoring. This has resulted in exponential growth in the retirement benefits sector with over UGX19.6 trillion (US$5bn) in Assets Under Management (AUM) which accounts for 12 percent of Uganda's Gross Domestic Product (GDP). This is a growth of more than twenty times outstanding assets before the regulator was established. However, with pension coverage at 18 percent of the overall working population of roughly 17 million people, the reach of the retirement benefits sector is still very limited. The greatest need for retirement savings lies within the self-employed and informal sectors which remain untapped as most retirement offerings are focused on salaried workers.

This chapter discusses Uganda's social and economic environment and how this has impacted the overall low levels of retirement savings. It examines the potential of micro-pensions in extending retirement savings to the underserved and untapped market segments, most of which operate in the informal sector. The chapter is divided into six sections. The introduction sets the tone and foundation of the chapter. The second section profiles Uganda's population demographics with a particular focus on age distribution, workforce and gender, and their implications on the levels of retirement savings. In the third section, we provide an analysis of the trends in Uganda's economy, with a particular emphasis on financial sector development and the social welfare of Ugandan households. This puts in context the challenges faced with respect to coverage expansion of retirement savings in Uganda. This section further undertakes an in-depth analysis of the state of financial inclusion and financial literacy, and their bearing on the levels of retirement savings in Uganda. The fourth section delves into the structure of Uganda's current pension sector including its pension reform journey, and a brief analysis of Uganda's pension sector before and after the establishment of the Uganda Retirement Benefits Regulatory Authority (URBRA), the pension regulator. In the fifth section we share insights into Uganda's attempts to promoting micro-pensions, highlighting the lessons learnt so far, and how these can be leveraged to build more sustainable, impactful and inclusive micro-pension solutions. We conclude by analyzing the opportunities that micro-pensions provide in extending the pensions frontier to non-salaried workers. We show why it is critical to take a multi-pronged approach, considering the complexity of achieving voluntary micro-pension coverage among a cohort that faces unique challenges and constraints.

2. UGANDA'S POPULATION DEMOGRAPHICS

According to the Uganda Bureau of Statistics (UBOS) National Household Survey (UNHS) Report 2019-20, Uganda's total population was estimated at 40.9 million in 2020, a growth of close to 10 million people in just six years. Nearly half (45 percent) of this population is below the age of 15 years while under 3 percent are 65 years or older (See table 1). As per the UBOS, Uganda's population is projected to grow to 55 million by 2030[1].

[1] *https://www.ubos.org/wp-content/uploads/statistics/Population_Projections_2018.xlsx accessed on 13/09/2022*

Table 1: Demographic Characteristics[2]

	Census, 2014	Projections, 2020
Total Population	34.6 million	41.6 million
Total Working Age Population	16.5 million	21.4 million
Total Working Population	13.9 million	15.9 million
Distribution of Population by Age Group (million)		
0-14	16.6 (47.9%)	18.8 (45.2%)
15-64	17.2 (49.2%)	21.8 (52.3%)
65+	0.935 (2.7%)	1.045 (2.5%)
Age dependency Ratio	103%	92%
Life Expectancy at Birth	58.5 years	63.4 years
Life Expectancy at Retirement	0 Years	3 Years

Source: (UBOS, 2022), (UNDP, 2020), (UNDP, 2015)

This demographic distribution makes Uganda one of the youngest nations in the World. A similar demographic distribution is observed across Africa, with the elderly making up barely 3 percent of the total population of the Continent (see table 2). However, the population of the elderly is projected to double by 2050. Developed countries will continue to have much larger aging populations than Africa (see table 2) and will clearly face a larger old age income security challenge than is the case for Uganda or Africa more generally.

Table 2: Aging Trends 2020-2050

Region	2020	2050
Africa	3%	6%
Europe	19%	29%
Asia	9%	19%
Latin America	9%	19%
North America	16%	24%
World	9%	17%

Source: (United Nations, 2022)

[2] While the Census (2014) have been obtained from the 2014 Census Report, the projections have been obtained from the UBOS 2021 Statistical Abstract.

From a retirement savings perspective, Uganda's demographic construct presents both an opportunity and a challenge. An opportunity in the sense that Uganda can enable its young active workforce to build a strong buffer of retirement savings to ensure that their retirement needs are adequately catered for. On the other hand, a very large young population, as is the case in Uganda, where close to half of the population is below the working age, translates into a high dependency ratio. This can be a huge opportunity cost to retirement savings as incomes get used up for current consumption.

There are two possible policy options to address this challenge. One option is for Uganda to embark on an aggressive national population control strategy to curtail the population growth rate, thereby reducing the number of new births and ultimately the population burden. Several developed countries have adopted this approach by disincentivizing childbirth (the most famous being China's one child policy[3]). However, as experience has shown in these countries, the downside of this approach is an increasing aging dependency burden as most of the workforce grows old and retires without sufficient replacement by a much younger workforce. Most of these countries are now rethinking this strategy by rewarding childbirth to ensure the young workforce is large enough to sustain the needs of the retirees.

An alternative strategy is not to discourage population growth but instead leverage the large young population to enhance economic productivity. A large young population not only provides a workforce, but also a ready market for what is produced. However, this requires careful planning on the part of the national government to provide an enabling environment and the necessary support systems and infrastructure to realize the dividends of large young populations. Unfortunately, the prerequisites of this approach are absent in Uganda.

3. UGANDA'S ECONOMIC AND FINANCIAL LANDSCAPE

Uganda's economy is predominantly an agricultural economy. The farm sector contributes close to 30 percent of Uganda's export

[3] https://www.scmp.com/economy/china-economy/article/3135510/chinas-one-child-policy-what-was-it-and-what-impact-did-it accessed on 13/09/2022

earnings (BoU, 2021) and nearly a quarter of the country's GDP (UBOS, 2022). The informal sector accounts for more than fifty (50) percent of Uganda's GDP (see Table 3). Importantly, while the farm sector employs roughly 70 percent of Uganda's population, (UBOS, 2021), it accounts for just 2 percent of the formal economy (see Table 3). Therefore, any strategy focused on extending the pension frontier to the informal sector workforce needs to take into account the needs and constraints of the agricultural sector.

Table 3: Composition of the Ugandan Economy by Formality (UGX Billion), FY 2021/22

Region	Overall Economy	%	Formal Economy	%	Informal Economy	%
Total GDP at Market Prices	162,123	100%	75,391	100%	86,732	100%
Agriculture, forestry and fishing	39,028	24%	2,095	3%	36,933	43%
Industry	43,392	27%	21,570	29%	21,822	25%
Services	67,271	41%	39,294	52%	27,977	32%
Taxes on Products	12,432	8%	12,432	16%	-	

Source: (UBOS, 2022)

The high levels of informality in the Ugandan economy have also resulted in an underdeveloped financial sector as most financial transactions are undertaken outside the formal financial system. The overall financial system is just over UGX 47 trillion (US$ 13 Billion), accounting for only a third of Uganda's GDP (See table 4).

Table 4: Composition of Uganda's Financial Sector by Assets[4] (UGX Billion)-2020

Asset Class	UGX (Billion)	US$ (Billion)	% of GDP
Banking	40,779	10.97	28%
Insurance	1,310	0.35	0.90%
Capital/Securities Markets	675	0.18	0.50%
Total	47,031	12.65	33%

Source: Industry Reports and Statistics from Bank of Uganda (www.bou.or.ug), the Insurance Regulatory Authority (www.ira.go.ug) and Capital Markets Authority (www.cmauganda.co.ug).

[4] Government securities and pension assets is excluded because they are component of the assets and liabilities of the banking sector respectively

Despite an underdeveloped financial sector, the pension sector in Uganda has witnessed tremendous growth, with retirement assets increasing from UGX 5 trillion (US$1.9 billion) to over UGX 20 trillion (US$5.2 billion)[5] over the last 7 years. To a large extent, this performance has been driven by the dominant National Social Security Fund (NSSF) which manages over 80 percent of Uganda's total pension sector assets[6]. This growth is on account of the mandatory pension contributions requirement of 15 percent of labour force earnings[7]. It is important to note that a major share of these pension assets belong to a small proportion of the labour force that earns in excess of UGX 25 million (~US$ 6,800) per annum and accounts for just about 3 percent of Uganda's households. Nine in every 10 Ugandan households earn less than UGX 10 million (~US$ 2700) per annum (UBOS, 2021). This reflects the high levels of income inequality with a large informal workforce.

Table 5: Annual Household Incomes Categories in Uganda

Household Annual Income Groupings(UGX)	No. of Households	Cumulative Percent
Less than 1 Million	178,000	2%
1 Million-Less than 5 Million	1,121,400	15%
5 Million-Less than 10 Million	6,728,400	90%
10 Million-Less than 15 Million	356,000	94%
15 Million-Less than 20 Million	178,000	96%
20 Million-Less than 25 Million	80,100	97%
25 Million and Above	291,100	100%
Total	**8,933,000**	

Source: (UBOS, 2021)

3.1. The State of Financial Inclusion and Financial Literacy

Over the last seven years, Uganda has registered tremendous progress towards financial inclusion with over 6 out of every 10 adults now having access to a formal financial services account

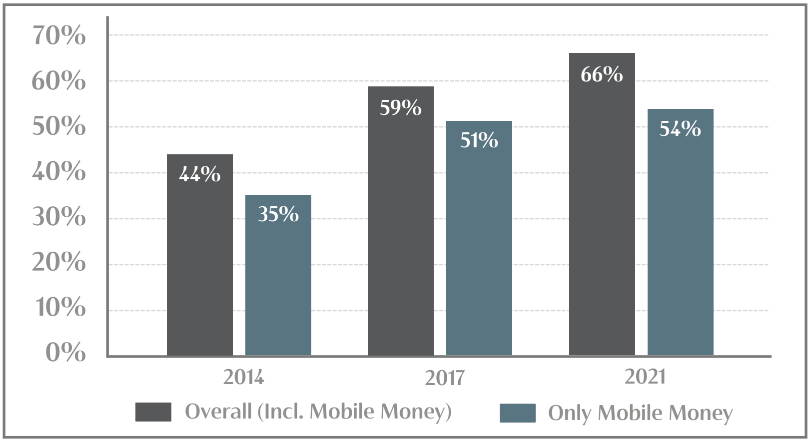
[5] Retirement Benefits Industry Performance Reports accessed from REPORTS – URBRA

[6] Retirement Benefits Industry Performance Reports accessed from REPORTS – URBRA

[7] The employee contributes 5 percent whilst the employer contributes 10 percent.

(See Figure 1). This growth has been driven by the increased adoption and uptake of mobile money services (See Figure 1).

Figure 1: Trends in Formal Financial Inclusion



Source: Data (worldbank.org) accessed on 19/09/2022

Although digital payments have achieved exponential growth, the majority of Uganda's adult population is yet to adopt formal financial services such as financial savings (See table 6), formal credit, investments and insurance (BoU, 2021).

Table 6: Savings Mechanisms-(Percent of Respondents)[8]

Saving Mechanism	Percent
VSLA or Community Savings Group	43.9
Savings Box / Secret Place	42.3
Mobile Money	18.5
Buying Animals	22.7
Savings & Credit Cooperative Organizations (SACCOs)	16.6
Savings/fixed deposit account in a commercial bank	10.5
Buying land	7.1

Source: (BoU, 2021)

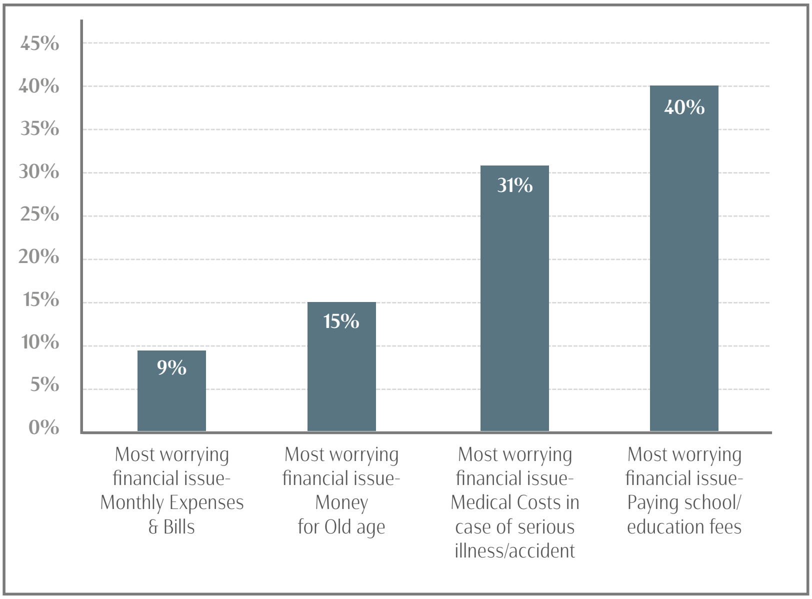
Furthermore, according to The World Bank Findex Data, just about 3 out of every 10 Ugandan adults avail credit from formal financial

[8] These are multiple responses hence they do not add up to 100 percent.

institutions. The corresponding number for savings is even lower, with less than 2 in every 10 adults saving with a formal financial institution.

According to The World Bank data, the predominant financial concerns of most Ugandans are linked to education and health costs (See figure 2) while retirement savings are at the bottom of the list.

Figure 2: Financial Issues Ugandans Worry About



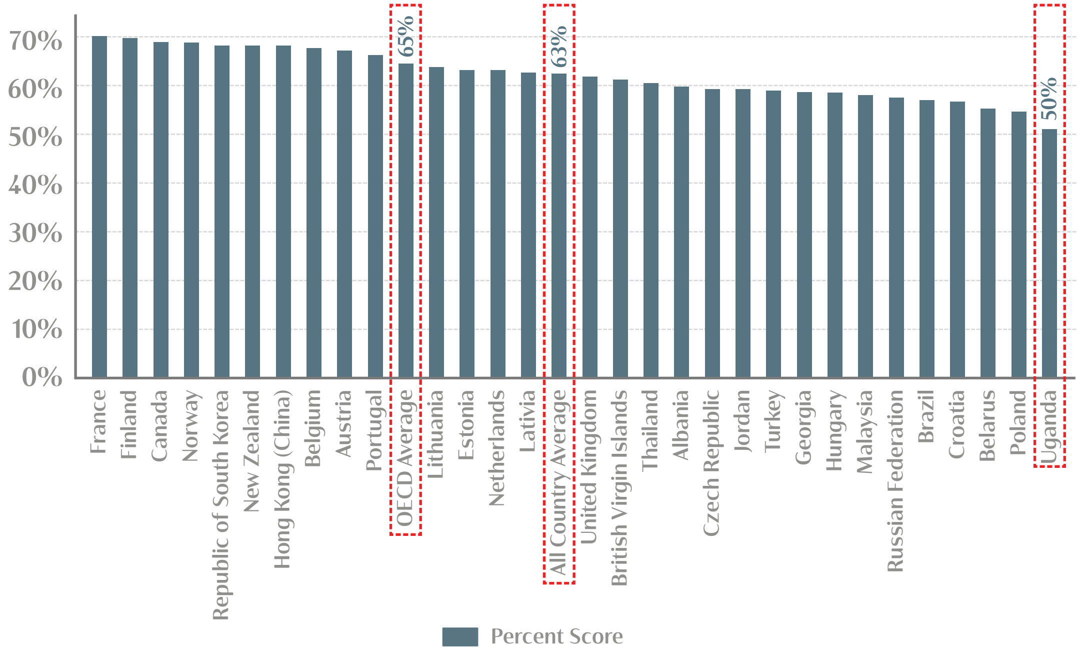
Source: Data (worldbank.org) accessed on 19/09/2022

The low level of active utilization of formal financial services is partly explained by the low levels of financial capability[9]. The national average financial capability score[10] stands at just above 50 percent (50.4 Percent) (BoU, 2021) which is way below the Organization for Economic Co-operation and Development (OECD) average (OECD, 2016) (See figure 3).

9 Being financially capable encompasses having the appropriate financial knowledge, the right attitudes, and the good financial behaviour to facilitate effective financial decision making

10 The score was computed using the OECD methodology as a sum of the scores on; financial knowledge (7 points), financial behaviour (9 points) and financial attitudes (5 points). The findings are normalized to 100 for ease of interpretation.

Figure 3: A Cross-Country Comparison of Financial Capability Scores



Source: (OECD, 2016)

The financial capability score results show that Ugandans score highest on financial knowledge and lowest on financial attitudes. This is a very critical finding because attitudes are more difficult to change than knowledge levels. The latter just requires exposure to new knowledge while the former requires dealing with much more complex and ingrained attitudes. This also implies that financial inclusion strategies will require more than developing appropriate financial products. It will need an intensive financial literacy strategy that goes beyond awareness and education to include attitudinal and behavioral change strategies.

4. STRUCTURE OF UGANDA'S RETIREMENT BENEFITS SECTOR

The retirement benefits structure in Uganda mirrors the policies adopted, as well as the historical influence of our colonial past.

Market-based social protection policies were introduced with the gradual collapse of traditional social protection practices. These new policies were focused on rewarding civil servants who remained loyal to the colonial government (World Bank, 2019). The bulk of the employees who benefited from the policies were whites, whose benefits were guaranteed by statute even after independence.

This gave birth to non-contributory defined benefit pension schemes designed to cover white employees working in the colonial government. These schemes were gradually extended to Africans working for colonial governments, but they excluded women who were employed on short-term government contracts. The effect of this policy was that the rest of the citizenry remained uncovered, including the casual and agricultural workers employed in white-owned plantations.

Uganda's retirement benefits sector has, however, evolved since independence in 1962 and has created different characteristics that define the sector, reflecting Uganda's journey to-date. Today, Uganda has a diverse retirement benefits structure. This includes a mixture of cash transfer programs, national mandatory schemes, occupational retirement schemes and individual retirement savings plans. The differences in these plans can be explained by the political and social history of Uganda.

Uganda has historically had a Defined Benefit (DB) arrangement for the public service and a Defined Contribution (DC) arrangement for employees in the private sector, as also for some semi-autonomous public sector institutions. The focus of pension policy before and just after independence was the workforce in formal employment. Little or no attention was, and until this date is, paid to the workforce in the informal sector. This is fairly understandable since the informal sector is opaque, making it very difficult to plan adequately for the workers in that sector, from both a public and private sector perspective.

4.1. National Social Security Policy

Social security benefits are engrained within the national constitution with the following key objectives in the constitution devoted to social security (MoGLSD, 2015):

- **Objective VII:** *"The State shall make reasonable provision for the welfare and maintenance of the aged".*
- **Objective XIV (b):** *"All Ugandans shall enjoy rights and opportunities and access to education, health services, clean and safe water, work, decent shelter, adequate clothing, food security and pension and retirement benefits"*

In its Vision 2040, the government of Uganda envisions a Universal Pension for every citizen aged 65 years and above (NPA, 2013). The government subsequently developed a National Social Protection Policy (NSSP) in 2015 to actualize this vision. The NSSP has two pillars as outlined below (MoGLSD, 2019).

i. **Pillar 1, Social Security:** This covers protective and preventive interventions to mitigate income shocks on account of retirement, ill-health, unemployment, old age, disability or disasters. The social security pillar has two components:

   a) **Direct Income Support** – non-contributory cash and in-kind fiscal transfers that provide relief from deprivation to vulnerable groups through programmes such as Senior Citizen Grants and the Public Works Scheme, and

   b) **Social Insurance/Contributory Schemes** – contributory schemes targeting the working population that seek to mitigate shocks arising from ill-health, retirement and disability through programmes such as the National Social Security Fund, the Public Service Pensions Scheme and health insurance.

ii. **Pillar 2, Social Care and Support Services:** This involves providing care, support, protection and empowerment to vulnerable individuals who are unable to fully care for themselves.

Table 7 provides a summary of the various social security programs under Pillar 1.

Table 7: Social Protection Programs Under Pillar 1

Social Security Arrangements	Total No. of Members
Direct-Income Support (Tier 1)	
Senior Citizens Grants as at Dec, 2021	332,793
Social Insurance (Tier 2): National Mandatory Schemes	
National Social Security Fund as at June, 2021	Registered Members: 2,150,721
Active Members: 1,105,471	
Social Insurance (Tier 3): Mandatory Employer-based Pension Schemes	
Public Service Pension Scheme as at Dec, 2020	410,000
Armed Forces Pension Scheme	-
Parliamentary Pension Scheme as at June, 2021	1,199
Makerere University Retirement Benefits Scheme as at June, 2021	5,983
Social Insurance (Tier 4): Supplementary Voluntary Occupational Schemes	
Voluntary Segregated Occupational Schemes as at Dec, 2021	28,293
Umbrella Schemes as at Dec, 2021	19,945
Social Insurance (Tier 5): Supplementary Voluntary Individual Schemes	
Supplementary Voluntary Individual Schemes as at June, 2021	1,589
Total Coverage excl. SAGE	2,617,730
Coverage Ratio	18%
Ratio of Active Members to Working Population	9.89%

Source: Uganda Retirement Benefits Regulatory Authority (URBRA)

4.2. Social Protection Programs

The various social protection programs (MoGLSD, 2015) in Uganda are discussed below.

4.2.1. Direct Income Support Programs

Over the last seven years, Uganda has witnessed a decline in direct support programs as several government initiatives targeting the most vulnerable were phased out (MoGLSD, 2019). Today, the main active direct support programs are the Senior Citizens' Grant (SCG) and the third phase of the Northern Uganda Social Action Fund (NUSAF3) (MoGLSD, 2019). Overall, only one percent of the population in Uganda were in receipt of direct income support in 2018-19 (MoGLSD, 2019). In comparison, coverage of similar programs in Kenya was estimated at 9 percent of the total population in 2017 (MoGLSD, 2019).

The Government's commitment to direct support social protection programs is still very low, even when supplementary donor funding is factored in (MoGLSD, 2019). By the end of FY 2018-19 both government and donor spending for direct support programs stood at just UGX 149.4 billion (roughly US$ 40 million), which translates into just 0.14 percent of GDP (MoGLSD, 2019). This is low in comparison to other developing countries.

- *Social Assistance Grant for Empowerment (SAGE)*

One of the objectives of the National Development Plan 2010-11 – 2014-15 was to *"expand social protection measures to reduce vulnerability and enhance the productivity of the human resource of the country."* From 2010 to 2015, the government, through the Expanding Social Protection (ESP) Programme, initiated a cash transfer pilot program, known as Social Assistance Grants for Empowerment (SAGE) which was divided into two Schemes: A Senior Citizens' Grant (SCG), and a Vulnerable Families Grant (VFG). Both Schemes include an extension of social security coverage to the informal economy.

The SCG is a universal pension system that pays UGX 25,000 (US$ 7) per month, every two months[11]. It started out as a pilot program covering a few select districts over two phases between 2010 and 2020. Over the two phases, the program reached over 200,000 beneficiaries across 55 districts[12].

The scheme was gradually rolled out to all districts in the country in 2018, just before the end of the second pilot phase, targeting all persons aged 80 years and above. The qualifying age would gradually be reduced to 65 years within 3 years from the roll out

[11] *https://socialprotection.go.ug/what-we-do/ accessed on 20/09/2022*

[12] *https://socialprotection.go.ug/press-releases/# accessed on 20/09/2022*

of the program[13]. Within that period, the program aims to reach a total of 358,420 older persons across the country. Considering a population of over one million persons aged 65 years and above today, the planned outreach of the program will be less than 50 percent of Uganda's elderly.

4.2.2. Social Insurance/Contributory Social Security Programs

- *The Public Service Pension Scheme (PSPS)*

This scheme was established in 1946 by the colonial administration to cater to the retirement and social security needs of employees in the Public Service[14]. The Public Service Pension Scheme (PSPS) is a non-contributory, defined benefit (DB) pay-as-you-go retirement scheme financed directly by tax revenues from the Government's Consolidated Fund. Civil servants can retire at the early age of 45, or after 20 years of service, with a minimum vesting period of 10 years of service (MoGLSD, 2019). However, in either case, the compulsory retirement age is 60 years (MoGLSD, 2019).

Public servants include traditional civil servants in government ministries, departments and agencies, police and prisons services, local government employees, and teachers. As of end of 2021, there were an estimated 410,000 active civil servants and 85,000 public sector pensioners[15]. Considering that the PSPS is an unfunded pension scheme, meeting the pension obligations has been, and continues to be a challenge for the government, resulting in an accumulation of pension arrears of over UGX 1.2 trillion (US$ 320 million)[16]. Systemic reforms to move the PSPS from an unfunded scheme to a contributions-based provision are ongoing and will aim to ensure that this program is sustainable.

- *Mandatory Social Security Schemes*

Besides the Public Service Pension Scheme, there are other mandatory retirement benefit schemes covering the parliament, the Army and the formal private sector. The National Social

[13] 60 years and above in Karamoja due to the extreme poverty and reduced life expectancy in the region

[14] Pensions Act 0f 1946 CAP286

[15] Various Ministry of Public Service Reports

[16] Pension arrears increase to Shs1 trillion | Monitor

Security Fund (NSSF), which is the largest of these schemes, focuses on the formal private sector. The Government established the NSSF through the National Social Security Fund Act, 1985 to provide a mandatory platform for salaried workers outside the public service, and aged between 16 and 54 years, to save for their retirement. Employers[17] are mandated to contribute 10 percent of each employee's wages to the NSSF, while employees contribute 5 percent of their incomes. Employers are required by law to transfer the total 15 percent contribution to the NSSF every month. No maximum or minimum earning levels apply for contribution purposes. Contributions to the NSSF, along with the accrued investment returns, are paid out as a lump sum benefit to workers at age 55.

Voluntary participation in NSSF is also possible following the recent amendment to the NSSF Act that required employers, irrespective the number of employees, to contribute to NSSF. The Fund today has a membership of 2.1 million subscribers, with an active[18] membership rate of 51.4%. Notwithstanding the active membership rate, the Fund plays an important role in the provision of old age income security. The NSSF provides the following benefits to its members:

i. Old age benefits S19(1)(a) in the form of a lump sum payment at age 55;

ii. Withdrawal benefit S19(1)(b) - early withdrawal at age 50, for subscribers who have been unemployed for one year;

iii. Invalidity benefits S19(1)(c);

iv. Emigration grant (19(1)(d) – lump sum benefits paid out on account of permanent emigration from Uganda; and

v. Death benefits (survivors' benefits (S19(1(e).

17 Eligible employer was employing more than 5-employees. This has since changed following the enactment of the NSSF amendment Act 2021

18 Active membership is defined by 6-contributions in a year

The core mandate of the Board of Trustees of NSSF may be summarized as "efficient collection of contributions, prudent investment of contributions, and prompt payment of benefits". The Fund is regulated and supervised by the Uganda Retirement Benefits Regulatory Authority (URBRA).

- *Voluntary Social Security Programs*

Most of the voluntary social security programs in Uganda are occupational schemes regulated by the URBRA. There are currently 50 voluntary occupational schemes established by employers for the benefit of their employees in addition to the NSSF contributions, and 12 Umbrella Schemes covering 200 participating employers, established to accommodate in-house schemes that opt to operate under an umbrella.

Most of these schemes are defined contribution (DC) arrangements with varying levels of voluntary contributions from employers and employees – unlike the predefined mandatory contributions to NSSF. However, owing to high statutory contributions to NSSF, coupled with a lack of tax incentives for employers and employees who wish to participate in a voluntary pension scheme, most employers are not motivated to establish voluntary, in-house scheme for employees.

In addition to the occupational social security schemes focused on the formal sector, URBRA has licensed 2 voluntary schemes focused on the informal sector – the Mazima Voluntary Retirement Benefits Scheme and the Kampala City Traders Association (KACITA) Retirement Benefits Scheme.

4.3. The Social Security Regulatory Landscape

Uganda's social security sector has a dual regulatory structure with the direct support programs and the public service pension scheme falling directly under the purview of government, while other mandatory and voluntary social security programs are regulated by the Uganda Retirement Benefits Regulatory Authority (URBRA). Prior to URBRA's establishment as a statutory pension regulator in 2011, Uganda's pension sector was characterized by a history of mismanagement of members' contributions, lack of transparency and accountability, and poor investment decisions, worsened by limited investment options. While there was a mirror of governance structures, the sector had failed to adopt best governance practices and principles.

In the process, there was willful negligence and corruption, conflict of interest in investment decisions, as well as fraud and misappropriation of funds. The unfunded public service retirement benefit scheme also faced a significant fiscal sustainability risk. As a result of poor governance, Uganda's pension sector suffered low public confidence and credibility.

URBRA was established by an Act of Parliament in 2011 to regulate and supervise the establishment, management and operation of retirement benefits schemes in Uganda, and protect the interests of their members and beneficiaries. The primary objectives that informed the establishment of URBRA were the following: (a) improve the scope and efficiency of the retirement benefits sector; (b) protect members' benefits, their interests, and those of their beneficiaries; (c) ensure stability and integrity of the retirement benefits sector, and of the financial sector more generally; (d) ensure adequate, affordable and sustainable pensions for the retiring Ugandan labour force; and (e) enable long term savings mobilization to facilitate long term economic growth and transformation.

URBRA has since set out a robust supervisory framework which ensures that the retirement benefits sector is run by experienced and professional firms and personnel. This has greatly enhanced the professionalism and public confidence in the sector. The sector now has five licensed custodian banks, six licensed professional fund managers and twelve professional scheme administrators. There is also a buffer of trained boards of trustees with clear understanding of their fiduciary responsibilities and a robust framework to scrutinize those that qualify to serve as trustees. There are well-defined governance and investment regulations that guide and inform any scheme investments or governance requirements.

5. UGANDA'S ATTEMPTS ON MICRO-PENSIONS

There is a shared concern about the country's emerging old age poverty crisis and the government of Uganda is fully committed to support broad-based thrift and self-help as a way to ensure a financially secure and dignified retirement for citizens. There is also consensus that without an urgent and effective policy, regulatory and business response to broad-based pension coverage, poverty among the future elderly in Uganda could emerge as the dominant cause for increased poverty levels and lead to severe fiscal and social stress for the nation. With the ever-expanding informal sector, low coverage of the self-employed and informal sector workers has become a crucial policy issue for the retirement benefits sector.

Efforts have been made by different stakeholders to find a lasting solution to this prevailing challenge. Against this backdrop, in early 2016, URBRA licensed Mazima and the Kampala City Traders Association (KACITA) as pilot schemes to encourage and enable voluntary retirement savings by low-income informal sector workers. The Mazima Voluntary Individual Retirement Benefits Scheme (MVIRBS) and the KACITA Retirements Benefits Scheme are already operational and offer a voluntary, market-linked long-term savings option. In a recent development, the NSSF Act has been amended to allow voluntary registrations in order to expand the reach of NSSF beyond salaried workers. NSSF can now register individual self-employed members, unlike in the past, where registration was limited through employers only.

Mazima Voluntary Individual Retirement Benefits Scheme

MVIRBS was licensed in 2016 and permitted to offer a market-linked Defined Contribution (DC) retirement savings product to Ugandan citizens and especially to low income excluded non-salaried workers. MVIRBS was established as a not-for-profit, irrevocable Trust, where accrued contributions are invested as per the asset allocation benchmark stated in the Trust Deed.

MVIRBS offers a flexible savings schedule with no penalties for contribution interruptions. Any citizen can join the MVIRBS with a registration fee of UGX10,000 (US$2.9). Subscribers are allowed to save as little as UGX2,000 a day or UGX10,000 per week with no upper limit on contributions. Although the recommended withdrawal age is 50 years, the scheme permits early withdrawals after one year from the initial contribution.

The MVIRBS does not constitute a "pension" product in the conventional sense – perhaps because a conventional, illiquid, long-term retirement saving product based on regular voluntary contributions by persons with irregular incomes would be difficult to market. The MVIRBS is based on a one-year lock-in. It thereafter allows full liquidity where members are permitted to withdraw a part or all of their retirement savings.

Equally importantly, instead of providing a monthly pension at retirement to smoothen consumption, the Scheme proposes to pay out terminal accumulations as a lump sum at age 55. As a result, even if a member were to maintain contributions to MVIRBS (without premature withdrawals) until retirement, she would remain exposed to longevity risk and could fall into poverty as soon as her savings pool was exhausted.

Source: (FSDU, 2017)

To further understand the dynamics of voluntary savings, URBRA, with technical support from the World Bank and Financial Sector Deepening Uganda (FSDU), undertook extensive feasibility studies[19] to develop a scalable and sustainable strategy for extending voluntary pension coverage to Uganda's informal sector workers. These studies helped assess the demand for retirement savings products among non-salaried workers and simultaneously evaluated the supply-side building blocks necessary for implementing a secure, affordable and inclusive micro-pension solution for excluded and underserved segments.

These studies clearly indicate that Uganda enjoys a strong and unique demographic advantage as the majority of Ugandans still have multiple decades at hand to accumulate meaningful savings for their old age. Analysis undertaken with FSD Uganda's support also indicates that if just 10 percent of the presently excluded informal sector workers begin saving US$1 a day for their old age, they could collectively generate aggregate long-term savings of US$2.5 billion within the next 5 years, and over US$7 billion within a decade. This could in turn have a powerful positive impact on infrastructure development, economic growth and employment.

Secondly, the studies also confirmed that Uganda already has a conducive legal and regulatory environment for comprehensive micro-pension inclusion along with an expanding digital financial services ecosystem and infrastructure.

Importantly, Uganda's digital national ID is well placed to enable electronic KYC and serve as a unique identifier for issuance of portable individual pension accounts. The existing outreach and service delivery capacity of micro-finance institutions, banks, SACCOs, savings groups or VSLAs, mobile network operators, NGOs and community-based organisations can also be harnessed into delivering retirement literacy, an integrated pension and insurance solution, and providing ongoing services to excluded citizens.

[16] The World Bank and FSDU engaged a team of micro-pension experts from pinBox Solutions and Callund Consulting to undertake these studies.

Some of key challenges identified by URBRA for rolling out a viable and sustainable micro-pension scheme and recommendations[20] for the same include:

i. **Fragmented Ecosystem:** Although the necessary digital financial services (DFS) ecosystem and infrastructure (digital national ID, digital payments, nation-wide outreach through third-party channels, well-regulated pension funds and insurers, etc.) already exists, this ecosystem is fragmented and does not automatically come together to enable citizens to save for their old age. There is therefore a need to adopt a strategy that integrates this ecosystem and make it interoperable, so that it can provide citizens, including those in remote rural locations, an easy and convenient, single-window interface for opening and operating a portable micro-pension account.

ii. **Transaction Costs:** A large section of the potential micro-pension target population in Uganda faces modest, intermittent (and often seasonal) incomes and may be able to only afford tiny irregular contributions. Micro-savings and small account balances will be highly sensitive to transaction costs. An inclusive micro-pension arrangement would therefore need to be both flexible (where contributions can be linked to income flows) and affordable to ensure that transaction costs and fees do not erode the value of micro-pension savings.

iii. **Commercial Viability and Sustainability:** The traditional sales and distribution models of pension funds and insurers could make the disaggregated demand for pension and insurance solutions from lower income individuals unviable. There is therefore the need for a mechanism that can help aggregate the latent retail demand so as to make the micro-pension proposition commercially viable and sustainable for pension intermediaries.

[20] *Unpublished URBRA report on the Implementation Blueprint for an Inclusive, Secure, Affordable, and Sustainable National Micro-Pension Scheme for Uganda*

iv. **Liquidity Constraints:** Most Ugandans use a combination of savings and emergency loans to pay for lifecycle risks and emergencies. This imposes a significant liquidity pressure on long-term retirement savings and could make an illiquid pension product unattractive for most informal sector workers. A micro-pension solution for Uganda should therefore be layered with appropriate short-term saving and insurance products to address liquidity needs for emergencies, mitigate the impact of income interruptions and lifecycle risks, and support the preservation of retirement savings.

v. **Frequent Migration**: Most informal sector workers face frequent changes in jobs and locations and will need a portable micro-pension account that moves with a subscriber regardless of where she works or lives over time.

vi. **Universal Access**: The majority of excluded and underserved citizens live in remote rural locations and will need a simple, secure, low cost and easy way to open a micro-pension account, directly transfer periodic savings to regulated pension funds and conveniently obtain information and services without any risk of fraud or errors.

vii. **Financial Illiteracy and Low Public Confidence**: With modest financial literacy and limited experience of modern finance, there is a need to combine an effective and segmented retirement literacy campaign with a simple and attractive product proposition, and an intuitive and easy, single-window user interface. Credible and well-respected financial institutions and retail service delivery partners are essential to generate public confidence to motivate mass-scale voluntary enrolments in the proposed micro-pension program.

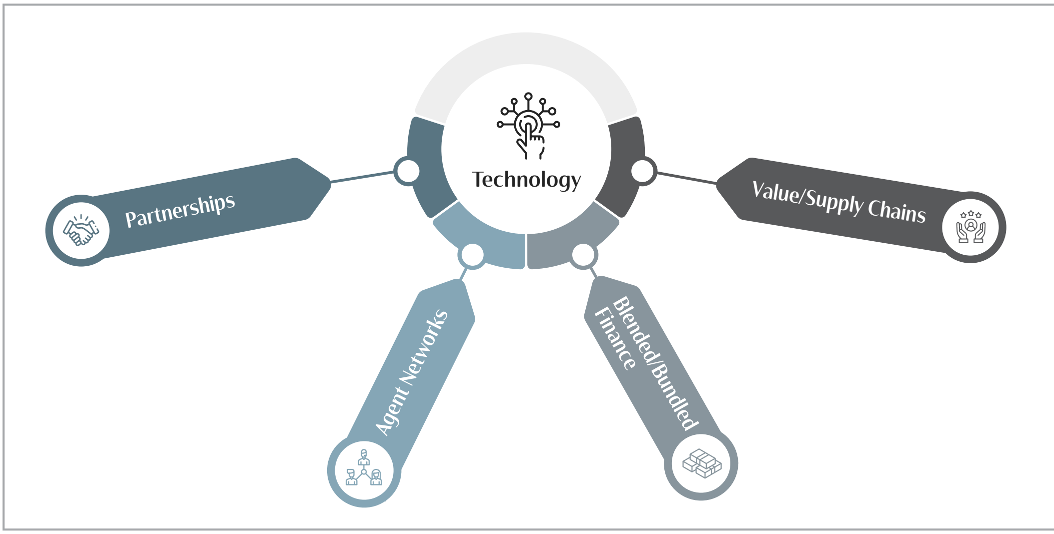
6. EXTENDING THE MICRO-PENSION FRONTIER TO THE INFORMAL SECTOR

Cracking the puzzle of extending pensions to the informal sector will require rethinking the pensions model as we know it. It will take a segmented and multi-pronged approach considering the complexity and heterogeneity of the informal labour market. Many potential micro-pension subscribers live in remote, rural areas and have modest, irregular and unpredictable incomes. Also, informal establishments are usually small and operate as sole entities which further exacerbates the challenges and costs of reaching out to them.

The cost of reaching out to and servicing low-income individuals in remote locations with modest contributions will probably be more (and certainly no less than) the cost of targeting higher-income persons in larger cities who can afford higher savings. High-income customers would deliver higher revenues and profits for finance firms while these institutions would probably struggle to even recover their expenses while targeting low-income individuals. This makes informal workers a potentially loss-making customer segment and explains why they have not been a preferred target segment for the pension industry.

To address these challenges, and in view of the recommendations from previous feasibility studies, we believe there are 5 building blocks (see figure 4) that drive a more sustainable, profitable and rewarding approach to extending micro-pensions to the informal sector. These building blocks are Technology, Agent Networks, Value/Supply Chains, Blended/Bundled Finance and Partnerships. Technology is the most critical, as it brings together all other building blocks and ensures that each building block reinforces the other to deliver high value at the lowest possible cost.

Figure 4: The 5 Building Blocks of Extending Micro-Pensions to the Informal Sector



6.1. Technology

Technology is critical to address access challenges, especially since most micro-pension target customers may be located in remote areas. Reaching such a market segment becomes very costly and unprofitable for the traditional distribution model of financial services that relies on agents and/ or brick and mortar branches. The cost of running branches far exceeds the potential revenue from the micro-pension target market. As a result, pension funds do not bother extending their services to remote areas and focus instead on the higher income segments in urban areas with much higher and predictable levels of income.

Roughly 70 percent of Ugandans own a mobile phone (NITA-U, 2018). The near universal mobile phone coverage, and broad-based adoption of other digital tools and apps have now made it possible to reach remote market segments at a much lower unit cost, which can further reduce as the size of the market increases. It is now easy for citizens to remotely access a range of services that they would have earlier received only at a physical branch. High mobile penetration also creates the foundation for a digital micro-pension program in Uganda. For citizens without a mobile, field staff of trusted aggregators can be equipped with smartphones or tablets that they can use to on-board and serve customers. Commercial banks in Uganda are already leveraging these capabilities to extend financial services to previously underserved market segments in the informal sector. Today, customers can be on-boarded and can complete their credit or savings transactions on their mobile phone in under a minute. This is a process that would have taken days to complete in the traditional approach to financial transactions.

Today, individuals in Uganda can use mobiles to save as little as UGX 50 (US$ 0.01) and borrow as little as UGX 3000 (US$ 0.8) -- which would be unimaginable in the traditional approach as the cost of getting to the bank branch would far exceed the value of these savings or loans. As a result, at the end of 2020, a total of 4.7 million loans valued at UGX 435 billion (US$ 116 million) had been issued through the MoKash platform[21][22]. Over 2.5 million customers had saved nearly UGX 16 billion (US$ 4.3 million) on the same platform[23].

The Mazima Voluntary Individual Retirement Benefits Scheme (MVIRBS) has also partnered with MTN Mobile Money[24] to distribute and deliver its micro-pension product by leveraging the mobile phone and mobile digital wallets.

Considering the small ticket size of contributions and low margins expected in a micro-pensions business, a critical mass of customers and transactions on the technology platform are essential to achieve economies of scale and ensure sustainability of the micro-pensions business. It may not be viable for each standalone micro-pension provider to build its own proprietary administration capacity. Instead, the industry should adopt a “shared infrastructure” business model. In this model, all micro-pension schemes could be administered by a central micro-

[21] The MoKash Platform is partnership between MTN- the leading Mobile Telecommunications Company in Uganda and NCBA Bank

[22] https://mbu.ug/2021/04/15/mtn-mokash-how-the-platform-has-boosted-unbanked-customers-finances/ accessed on 21/09/2022

[23] ibid

[24] MTN Mobile Money is a fully-owned subsidiary of MTN, the leading Mobile Telecommunications Company in Uganda.

pension administration platform. Individual schemes could pay a fee for using this administration platform and avoid high front-end capital investments in technology. This could make micro-pensions commercially viable and sustainable for pension funds. This would also allow for competition in the market and a diversity of options for customers -- which are critical to optimise the value to the customer while keeping the costs as low as possible.

6.2. Agent Networks

While technology can clearly be a game changer in increasing access, the low prevailing levels of digital and financial literacy, and low adoption of digital financial services could be a challenge in deploying a fully digital micro-pension solution at scale.

Research has demonstrated that agent networks have played a major role in driving the adoption of digital financial services (Emilio Hernandez, 2022). In the absence of some human interaction, especially in the earlier years of the program, there may be doubts about the safety of money, especially since there have been several incidences of digital fraud due to which a number of ordinary Ugandans have lost their savings. Therefore, to bridge this digital divide, especially among the population in the informal economy, it is critical to build an agent network. An agent network would help link citizens to the digital micro-pension platform, facilitating both on-boarding and service delivery through and on the platform. An agent network can also serve as an effective tool for retail delivery of both digital and financial literacy. Regular interactions between trusted agents and micro-pension subscribers would also gradually help build public confidence in the digital ecosystem, as well as in digital financial transactions.

It may however be expensive for individual pension funds to set up and operate a proprietary (or tied) agent network. It may be desirable for micro-pension providers to instead leverage the existing outreach of agent networks set up for mobile money and banking services, and trusted community based organisations. Micro-pension providers can enter into partnerships with banks, MNOs and micro-finance institutions to leverage their agent networks to deliver and distribute micro-pension services alongside other complementary financial services. This is also line with the "shared infrastructure" strategy recommended for micro-pension administration.

6.3. Value/Supply Chains Approach

One of the major barriers to extending micro-pensions to the informal sector is the low and irregular income streams of customers in this market segment. It is near impossible to build a sustainable and profitable micro-pension business with such high levels of informality. There must be some semblance of predictability in the income streams of the customers to ensure that the scheme optimizes the returns on the investment of the scheme funds. In addition to predictability of the income streams, there must be a clear potential for growth of incomes since that is the only sure way of beating inflation, which is the biggest threat to a meaningful retirement outcome for citizens.

A value chain and/ or supply chain approach to delivering micro-pensions can address this challenge of income irregularity and uncertain growth potential. In this approach, the micro-pension provider targets customers who are already part of, and receiving an income through the value chain/supply chain. The value chain/ supply chain could offer the micro-pension product as part of a wider range of income and value-added services they are already delivering. In this case, micro-pension contributions can be deducted from the incomes earned in the value/supply chain – as is the case in most formal occupational pension schemes.

The value of this approach lies in the certainty of the income streams and the potential for growth of those income streams. Once a customer is plugged into a value chain or supply chain, they have a stable market for their products. This prompts them to focus on the quality and quantity of their product, resulting in higher levels of productivity and further opportunities for income growth.

Unfortunately, there are not many such well-organized value and supply chains to offer this proposition to micro-pension providers. In the absence of organized value/supply chains, they have to be organized by one of the lead value/supply chain actors. In most cases, this would be either the micro-pension technology platform, or the off-taker of the main products of the value/supply chain. The value/supply chain is organized around a core product upon which other products such as micro-pensions are layered. Examples of such business models include TruTrade which operates in Kenya and Uganda. It focuses on digitizing agricultural value chains and facilitating trade in those value chains. A similar approach is being taken by pinBox in India by connecting famers to digital micro-pensions through Farmer Producer Organizations (FPOs).

6.4. Blended/Bundled Finance

Blended/ bundled finance is another strategy for extending micro-pensions to the informal sector. This strategy works in two ways. First, an entity (usually the government or a development partner) provides matching contributions to encourage voluntary retirement savings by target beneficiaries. Such co-contributions or transfers not only encourage voluntary savings, but also augment the usually meagre savings of low-income segments. However, this strategy would be plagued by the uncertainties that come with development assistance. The only sure way would be to integrate this benefit within the government budgetary framework and the national social protection policy. A centrally administered digital micro-pension system with unique, national-ID linked individual accounts would enable targeted conditional transfers or incentives and also mitigate the risk of multiple accounts or leakages.

However, with the on-going fiscal challenges of paying pension arrears within the Public Service Pension Scheme, and the limited coverage of the SAGE program, it is unlikely that the Ugandan government can take on the additional burden of making fiscal transfers for micro-pensions to the informal sector in the short to medium term. The government of Rwanda has taken this route and developed a national micro-pension scheme targeted at the underserved population segments. In this scheme, the government matches the savings of the contributors, up to a specified annual ceiling, for a limited number of years.

The second option is where the micro-pension product is embedded within an already existing product and is offered as a benefit or a complimentary product. A case in point is where a micro-pension product is embedded within a credit product, where the credit customers are able to receive a pensions product alongside the loans they will have received from a credit provider, such as a micro-finance institution (MFI). In this case, the cost of delivering the micro-pension product is shared with the cost of delivering loans, thereby reducing the unit cost of each product. This cost could be borne by credit providers as an investment cost to acquire and retain more customers, or it could be passed on to customers. This approach may be appealing to MFIs as it could help them build long-term loyalty and relationships with credit clients, and also generate new fee income from micro-pension distribution and service delivery.

Either way, the customer stands to benefit in terms of easy and low-cost access to a regulated micro-pension product. Micro-pension providers can leverage the networks, infrastructure and outreach of credit providers to extend micro-pensions to previously underserved market segments. In Uganda, the micro-pension providers can also target the vast number of community-based savings and credit collectives to extend micro-pensions to the informal sector. Such collectives are entrenched within Uganda’s informal economy as the main source of finance.

6.5. Partnerships

The building blocks discussed so far are interdependent, requiring a collaborative approach to deliver micro-pensions to the informal sector. Therefore, building stable and sustainable partnerships with a range of ecosystem players is key to achieving mass-market voluntary coverage with micro-pensions. The various actors need to identify those areas where the shared value far exceeds the individual value. These are the areas that are prime for collaboration and partnerships because there is mutual benefit in working together, than separately. As highlighted above, these areas include digital administration and delivery infrastructure, agent networks, and third-party sales and distribution. In these areas, the various actors can agree on shared services while they focus on building greater value in their unique product offerings and in optimizing investment returns for subscribers.

7. CONCLUSION

Uganda is already making efforts to implement an inclusive retirement benefits regime with clear intentions of expanding coverage to excluded segments. A strong legal and regulatory framework is already in place to ensure protection of retirement savings and benefits. The pension sector has consistently delivered higher-than-inflation investment returns for the last ten years. The focus on governance, prudent investments and digital financial infrastructure are also yielding tangible results. Thus, the foundation for a more inclusive, secure and affordable digital pension arrangement in Uganda are clearly in place already and can be leveraged to expand coverage to the vast, excluded informal sector workforce.

It is, however, also clear that achieving nation-wide voluntary micro-pension coverage and sustained savings discipline by millions of young informal sector workers with irregular incomes will be challenging. Achieving meaningful coverage and savings outcomes will require a multi-stakeholder approach involving both financial and non-financial stakeholders. The challenges of dealing with low and intermittent contributions, coupled with high administration infrastructure and sales costs cannot be overcome by individual micro-pension providers, and will need a collaborative, industry-level effort.

The experience of the MAZIMA and KACITA micro-pension pilots also provide valuable insights to the unique needs and constraints of the informal sector workforce. The experiences of both schemes which targeted individuals with low financial and retirement literacy clearly suggest the need for simple products and processes, and a high level of transparency and governance. Also, pension products for informal sector workers need to be flexible in terms contributions frequency and amounts. Combining pensions with liquid micro-savings and micro-insurance may also be necessary to help address liquidity needs for emergencies and mitigate lifecycle risks of subscribers. A focus on insurance bundling is especially important as many informal sector workers are either uninsured or under-insured because of access, affordability or knowledge constraints, and therefore tend to use past savings for risk management.

Secondly, we need a simple, seamless and secure account activation process that ensures full KYC and AML compliance, and fraud-prevention requirements at minimum cost. In circumstances where commissions are paid to agents, it is important that the commission structure does not incentivize mis-selling of the product. The digital process architecture design and governance of the micro-pension scheme must eliminate opportunities for fraud and help improve public confidence.

Uganda is already moving in this direction, first by providing an enabling legal and regulatory framework for the development and distribution of micro-pension offerings to the largely unserved informal sector. The requisite digital infrastructure is also in place. What remains is to optimize it to reach the most remote customers at the lowest possible cost. This will partly be addressed by the current plans to build a National Retail Payments Switch that will enable real-time interoperability of retail payments across different digital payment platforms.

All this will not be possible without the collective and unified collaboration among the different actors in the pensions sector. The Uganda Retirement Benefits Regulatory Authority plans to spearhead this effort to ensure that the desired aspirations of an all-inclusive pensions sector are realized.

REFERENCES

Allianz. (2020). Allianz Global Pension Report 2020: The Silver Swan. Munich, Germany: Allianz. Retrieved from https://www.allianz.com/content/dam/onemarketing/azcom/Allianz_com/economic-research/publications/specials/en/2020/mai/Allianz_Global_Pension_Report_2020.pdf

BoU. (2021). Financial Capability Survey (FCS) 2020. Kampala, Uganda: Bank of Uganda (BoU). Retrieved from https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/PaymentSystems/Financial-Capability-Survey-2020-Report.pdf

BoU. (2021). 2021 Statistical Abstract. Kampala, Uganda: Bank of Uganda (BoU). Retrieved from https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/publications/Statistical_Abstract/2021/2021-Bank-of-Uganda-Statistical-Abstract.pdf

Emilio Hernandez, C. B. (2022). Agent Networks at the Last Mile:Implications for Financial Service Providers. Washington DC, USA: Consultative Group to Assist the Poor (CGAP). Retrieved from https://www.cgap.org/sites/default/files/publications/slidedeck/CGAP_Channel_DFS_Providers_Sep%2020_Final-.pdf

FSDU. (2017). Feasibility Study for a Micro-Pension Market in Uganda. Kampala, Uganda: Unpublished.

Khondoker A. Mottaleb, F. A. (2021). Projecting food demand in 2030: Can Uganda attain the zero hunger goal?,. (D. P. Bradley, Ed.) Science Direct, 28, 1140-1163. Retrieved from https://www.sciencedirect.com/science/article/pii/S2352550921002268

MoGLSD. (2015). National Social Protection Policy: Income Security and Degnified Lives for All. Kampala, Uganda: Ministry of Gender, Labour and Social Development. Retrieved from http://socialprotection.go.ug/wp-content/uploads/2016/07/National-Social-Protection-Policy-uganda.pdf

MoGLSD. (2019). Social Protection Review 2019. Kampala, Uganda: Ministry of Gender, Labour and Social Development. Retrieved from https://socialprotection.go.ug/esp-studies-publication/#

NITA-U. (2018). National Information Technology Survey 2017/18 Report. Kampala, Uganda: National Information Technology Authority. Retrieved from https://archive.nita.go.ug/sites/default/files/publications/National%20IT%20Survey%20April%2010th.pdf

NPA. (2013). Uganda Vision 2040. Kampala, Uganda: National Planning Authority. Retrieved from http://www.npa.go.ug/wp-content/uploads/2021/02/VISION-2040.pdf

OECD. (2016). OECD/INFE International Survey of Adult Financial Literacy Competencies. Paris. France: Organisation for Economic Co-operation and Development (OECD). Retrieved 12 5, 2022, from https://www.oecd.org/daf/fin/financial-education/OECD-INFE-International-Survey-of-Adult-Financial-Literacy-Competencies.pdf

UBOS. (2022). Key Economic Inidcators: 125th Issue Q3 FY 2021/22 (Jan-Mar 2022). Kampala, Uganda: Uganda Bureau of Statistics (UBOS). Retrieved from https://www.ubos.org/wp-content/uploads/publications/07_2022KEI_125th_Issue_Q3_2021-22_-(Jan-Mar).pdf

UBOS. (2022). Preliminary Annual Gross Domestic Product 2021/2022 Highlights. Kampala, Uganda: Uganda Bureau of Statistics (UBOS). Retrieved from https://www.ubos.org/wp-content/uploads/publications/06_2022AGDP_Press_Release_and_Tables_June_2022.pdf

UBOS. (2021). Uganda National Household Survey Report 2019/20. Kampala: Uganda Bureau of Statistics (UBOS). Retrieved from https://www.ubos.org/wp-content/uploads/publications/09_2021Uganda-National-Survey-Report-2019-2020.pdf

UBOS. (2022). 2021 Statistical Abstract. Kampala: Uganda Bureau of Statistics (UBOS). Retrieved from https://www.ubos.org/wp-content/uploads/publications/01_20222021_Statistical_Abstract.pdf

UNDP. (2020). Human Development Report 2020: The next frontier .Human development and the Anthropocene. New York, USA: United Nations Development Programme (UNDP). Retrieved from https://www.undp.org/sites/g/files/zskgke326/files/migration/ug/undp-ug-HDR-2020.pdf

UNDP. (2015). Human Development Report 2015: Work for Human Development. New York, USA.: United Nations Development Programme (UNDP). Retrieved from https://hdr.undp.org/system/files/documents/2015humandevelopmentreportpdf_1.pdf

United Nations. (2022). World Population Prospects 2022, Online Edition. New York, U.S.A: United Nations, Department of Economic and Social Affairs, Population Division. Retrieved December 8th, 2022, from https://population.un.org/wpp/Download/Files/1_Indicators%20(Standard)/EXCEL_FILES/2_Population/WPP2022_POP_F02_2_POPULATION_5-YEAR_AGE_GROUPS_MALE.xlsx

World Bank. (2019). Pension Systems in East Africa : A Deep Dive. Washington D.C.: World Bank. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/33497/Pension-Systems-in-East-Africa-A-Deep-Dive.pdf?sequence=1&isAllowed=y