# Social Protection for the Informal Economy

## OPERATIONAL LESSONS FOR DEVELOPING COUNTRIES IN AFRICA AND BEYOND

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## Abbreviations and Acronyms

| | |
|---|---|
| BEPS | Beneficios Económicos Periódicos (Pension Savings Plan for the Self-Employed) (Colombia) |
| ECOWAS | Economic Community of West African States |
| GDP | gross domestic product |
| G2P | government-to-person |
| MFI | microfinance institution |
| NPF | nonpoor formal |
| NPI | nonpoor informal |
| P2G | person-to-government |
| SMS | Short Message Service |
| SPF | Social Protection Floor (Colombia) |
| SVAT | scheme viability assessment tool |
| UNECA | United Nations Economic Commission for Africa |
| USSD | Unstructured Supplementary Service Data |
| WURI | West Africa Unique Identification for Regional Integration and Inclusion |

# Executive Summary

**The informal economy in Africa is large and diverse, and it is the main source of employment in the region.** It is projected to grow and create more jobs. The informal economy is well established in the region, but it also faces a host of development challenges. It is characterized by low human capital and productivity compared with the formal economy and is typically associated with limited access to resources such as electricity, finance, land, and public services. People who work in the informal economy are usually more susceptible to short-term shocks and the more catastrophic consequences of idiosyncratic shocks (acute short-term crises, such as illness) and covariate shocks (chronic or widespread shocks affecting entire communities). These vulnerabilities are exacerbated because these people ordinarily have limited avenues to formal financial institutions or risk mitigation instruments. Women are more likely to work in the informal economy in Africa and are therefore also more likely to experience precarious work environments.

**Despite these vulnerabilities, the informal economy, particularly in urban areas, is not covered by social assistance programs or social insurance programs.** Most social assistance programs focus on the extreme poor in rural areas and exhibit less urban penetration. The coverage of social insurance programs is usually limited to the small formal economy; an average of only 10.9 percent of the working-age population participates in contributory social insurance programs. Because people working in the informal economy are not covered by social protection programs and are often not part of other administrative systems such as tax or land and property databases, they are unobservable by government administrations. This means they are difficult to reach, as evidenced during the COVID-19 pandemic, and their changing conditions are not easily determined.

**The COVID-19 pandemic highlighted the vulnerabilities of the vast informal economy, especially in urban areas.** Social protection cash transfers provided an essential platform for delivering assistance in response to the COVID-19 shock in the Africa region. In addition to macroeconomic measures to support economic recovery, governments needed to limit the damage to livelihoods, especially in the informal economy. Many governments in the region added to their capacity to extend coverage with innovations in targeting and delivering payments by leveraging technology and using big data. In many cases, registration was carried out using mobile technology. Some governments opted to implement more direct registration processes by creating dedicated websites or relying on informal economy associations. These swift responses were success stories in their own right, but they were undertaken essentially as a response to an urgent requirement to provide much-needed support to groups that lacked social protection and to prevent them from slipping into poverty. Governments allocated significant resources, typically through external financing (US$6.1 billion in additional spending in 30 countries across Africa).





**To protect vulnerable individuals from shocks and build their resilience, governments in Africa need to expand social registries and develop and implement policies to cover the informal economy by innovative social protection programs.** Inclusive and scalable social safety net systems can help countries respond more effectively to crises. African governments need to continue to strengthen their social registries and make them more complete and dynamic, especially by extending them to cover the poor urban informal economy. They should aim to take advantage of big data by leveraging technology and complementing safety net programs with economic inclusion programs. Even then, safety nets that now cover only the poor and the extreme poor would fail to include many in the urban informal economy because individuals who are slightly more well off also reside in urban areas. These individuals and their households lack the social protection formal economy workers receive through social insurance schemes. Extending the coverage of social insurance schemes to the informal economy by simply replicating schemes that have been designed for the formal sector is challenging because the latter schemes are based on the existence of employee-employer relationships, require regular monthly contributions, and do not offer bundling options to address multiple risks in an affordable and comprehensive manner. There is an urgent need to cover those not being offered social assistance or formal social insurance by designing schemes that meet their distinctive requirements. These individuals are referred to as the **missed middle** in this report. They account for a large share of the population in most developing countries and form the lifeblood of economies, as was evident during the pandemic crisis.

**The scheme for the missed middle should address the needs of these workers, take into account their special characteristics, and leverage advancements in ID, payment, and other digital systems.** There are currently no suitable social protection instruments to respond to the needs of the missed middle. Additional efforts should therefore be undertaken to reach these groups using innovative approaches supported by technology. These steps need to respond to the distinct characteristics of the informal economy, such as low and irregular earnings and the lack of access to liquidity in the case of unemployment or health shocks. Offering a scheme that allows risks to be bundled could attract workers in the missed middle. This should be carried out alongside investments in financial awareness initiatives targeting these groups.

**Universal social insurance is a goal to which all governments should aspire as they seek to protect and promote human capital.** This report proposes a progressive approach toward this goal of universal social insurance. Packard et al. (2019) propose a risk pooling mechanism that is publicly financed through tax revenues to provide universal access to coverage against catastrophic losses. Indeed, universal access to social insurance should be the ultimate and noble goal across countries because it would allow workers to receive adequate protection against idiosyncratic shocks. However, most governments in the Africa region may not be able to finance universal social insurance because their tax revenues are significantly lower, almost half of those in developed countries. Considering this fiscal constraint, this report proposes a gradual approach whereby countries can create voluntary savings schemes that are designed for the missed middle and that are interoperable with other social protection pillars. Governments could thereby lay the foundations of social insurance schemes that would offer consumption smoothing to workers. Safe and efficiently priced voluntary saving and insurance instruments are a prerequisite for meeting the objective of risk-sharing (Packard et al. 2019). Such schemes could be scaled up to be mandatory and universal once the enabling conditions, including fiscal and administrative structure, are in place.

**The voluntary savings mechanism for the informal economy would aim to encourage savings through the flexible payment of contributions.** The missed middle would benefit from a system that allows for short-term savings that could be tapped for spells of unemployment and other short-term household shocks, as well as a long-term savings accounts for better protection in old age. An important characteristic of such a scheme would be that it would not have to rely on a formal employer-employee relationship, in contrast with formal economy social insurance schemes based on formal employment contracts. Such programs could be complemented by financial or behavioral incentives to encourage persistent savings. Subsidies and incentives may be needed to reach scale, but these would not demand significant resources from government budgets and therefore should be affordable. The scheme would have positive

spillover effects by increasing financial inclusion among the target populations and instilling a culture of saving. If the missed middle acquire savings through these social insurance schemes that they can fall back on in case of shocks, this would reduce the fiscal burden on governments. These schemes would also help governments channel timely assistance to the missed middle during shocks by providing a platform to assess needs and disburse relief. If African governments had had such schemes in place at scale, it would have been much easier and more rapid to distribute cash to informal economy entities or individuals in the wake of the COVID-19 pandemic.

## Section 1: How Did African Countries Respond to COVID-19 with Social Protection Instruments?

The COVID-19 pandemic upended the economies of the world and the Africa region. It pushed many people into poverty. It disproportionately impacted the informal economy, especially in urban areas, and highlighted the vulnerability of already vulnerable groups. To mitigate the impact of the pandemic on populations, governments across the region responded by expanding social protection programs. Extending coverage to a large informal economy that is not included in formal databases required innovations in social protection delivery systems, particularly targeting and payment systems. Many governments such as in Nigeria and South Africa used satellite-imagery-based poverty mapping systems and digital technology to identify, register, and deliver relief packages. Governments allocated significant resources to meet these urgent needs, but still could not cover everyone in the informal economy who needed assistance. This section provides a summary of how various African governments responded to COVID-19 and the challenges to response and recovery these governments faced because of the gaps in social protection coverage.

## Section 2: Not Poor and Not Formal: Who Are the Missed Middle of Social Protection?

In the wake of the COVID-19 pandemic, as governments actively revisit their social protection programs and coverage, they must develop and implement policies to cover people in the informal economy. Understanding the characteristics of households in the informal economy is the first step in identifying suitable social protection interventions. The authors of this report have developed a methodology to help policy makers group households into relevant categories depending on their ability to cope with shocks. This methodology uses household survey data and has since been applied in six countries in Africa (Benin, Kenya, Rwanda, Togo, Uganda, and Zambia). In this methodology, households below the poverty line are referred to as poor households, and they lie at one end of a spectrum. At the other end are households that are not poor and that are part of the formal economy, the nonpoor formal (NPF) households. In between these two lie the nonpoor informal (NPI) households. These households are not part of the formal economy and are therefore not covered by traditional social insurance programs. They are not poor either and are thus also not targeted by social assistance programs. These are the missed middle, and they remain largely unobservable by government administrations.

In contrast to the wealth of information that has been accumulated on the economic lives of the poor and the data available on the formal economy, relatively little is known about NPI households in developing economies. This section of the report compares and contrasts the characteristics of NPI households against the characteristics of poor and NPF households. NPI households are found to be closer to NPF households on measures of consumption and economic decisions, such as school enrollment indicators. They are closer to poor households in measures of education, employment, and wealth.

NPI households differ in their responses to economic shocks. The methodology employed in this report groups NPI households into a resilient and a nonresilient subgroup based on these responses. Households that can effectively minimize the negative consequences of a shock are labeled resilient, and those that cannot mitigate the effects of a shock are labeled nonresilient. The inability to cope with shocks can be linked to the probability that a household is able to save in voluntary saving schemes, because it is a symptom of liquidity constraints. Nonresilient households are deemed less likely to be able to put aside already scarce current resources and save for the future. These households could still be targeted by voluntary savings

programs, but would likely require more incentives, additional flexibility to save, and targeted messaging. The types of informal activities most associated with resilience are urban services such as retail, carpentry, or taxi driving, according to data collected in Zambia. But subsistence farming, typically the most common activity, also employs large numbers of resilient households.

Estimating the share of workers in the resilient NPI group and understanding their characteristics (such as resilience, occupation, consumption, education, asset ownership, and usage of mobile money) are important first steps if policy makers are to gauge the scale that may be reached by voluntary saving schemes. A precise analysis of the resources and needs of this group can also be a useful input in designing a scheme that is tailored to them.

## Section 3: What Are the Suitable Social Protection Instruments in the Informal Economy?

This section outlines the various instruments that can be used by a government to achieve its vision of universal social protection. The need for different instruments—safety nets, social insurance, and economic inclusion activities—arises because of the varying risks workers face and the varying ability of workers to cope with shocks.

A suite of social protection instruments implemented with the support of coordinated policies would lead to a more resilient and productive informal economy that puts workers on a sustainable path to better livelihoods and improved human capital development.

Most African governments have now established social safety net programs as part of broader strategies to assist the poor and protect the vulnerable. Despite this effort, many poor in the region are still not covered. To strengthen outreach, the development of strong social registries, along with ID and payment systems, is important. If such an expansion is targeted at woman-headed households, women's empowerment can be significantly increased. Such an expansion is also essential in achieving economic inclusion, a critical component of large-scale antipoverty efforts by many governments that is linked to productivity enhancement. The delivery of emergency cash benefits through the horizontal and vertical expansion of safety nets has been the most effective response in providing short-term relief. However, even if social safety nets were expanded to poor informal economy households through social registries, social assistance would not cover many in the informal economy, especially in urban areas, where many people working in the informal economy are slightly more well off.

Governments would need to establish an innovative suite of instruments to respond to the needs of the NPI economy. This group has distinct and diverse needs. Innovative social insurance plans that allow for risk pooling and consumption smoothing, as well as productivity-enhancing measures across the income spectrum should be developed to bolster the informal economy, particularly in urban areas.

Social insurance schemes for the NPI group would need to account for the irregularity of income and the need for liquidity in case of shocks. Africa's progress in digital transformation through the rapid spread of internet and mobile money usage can support the innovations needed in social protection strategies. This also creates an environment for the application of behavioral science principles to incentivize the uptake of social insurance schemes within the informal economy. The informal economy would benefit from a system that allows for short-term savings that could be tapped to meet short-term needs (for example, unemployment, health care, education, and housing), as well as long-term savings accounts for better protection in old age. These schemes need to reach scale to reduce the administrative and asset management costs among governments. Bundling the services offered by social insurance schemes and using communication to create awareness represent important tools for increasing participation. Using communication and nonmonetary incentives are considered important in building the trust of resilient NPI households that have the capacity to participate. These steps would also boost government capacities to respond to a future shock, such as the COVID-19 pandemic.

In addition to introducing these innovative social insurance schemes, governments should also focus on building resilience through productivity enhancements. Investment in human capital and skills development is an effective way to increase productivity. The provision of good-quality childcare has also been shown to raise employment and productivity among women. Access to finance is essential to building the

resilience among small firms in the informal economy because these firms are not adequately covered through formal instruments, such as wage subsidies or favorable tax policies.

## Section 4: How Can Social Protection Digital Platforms Help Countries Bridge the Coverage Gap at the Operational Level?

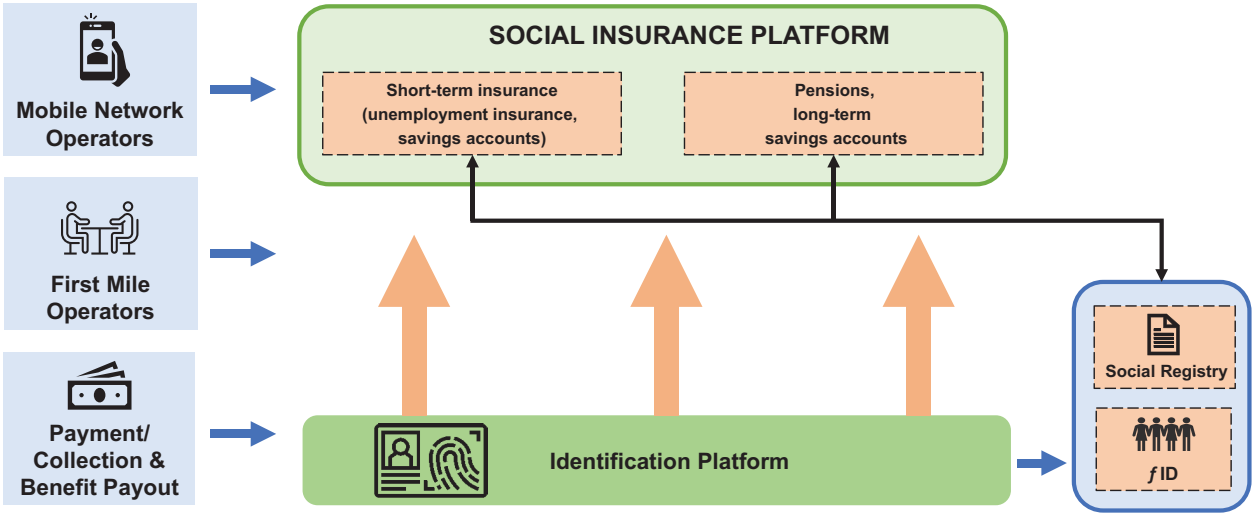
Cost-effective and rapid coverage expansion among the missed middle is possible at the operational level if digital technology can be leveraged. A trio of digital platforms—social registries, payment systems, and ID systems—facilitates the creation of an integrated system that can deliver social assistance benefits.

Social registries serve as the common entry point for the coordination of registration and eligibility processes. They are increasingly being used to assess needs across multiple social protection programs, including cash transfers, social pensions, labor and employment benefits and services, social services, emergency assistance, and in-kind assistance programs, and to deliver services beyond social protection, such as housing benefits, utility subsidies, education and training programs, subsidized health insurance, productive inclusion programs, and legal services. Social registries can also be used to assess the eligibility for incentives for workers in social insurance savings schemes. The transient nature of poverty and vulnerability in the informal economy means that linking social registries and social insurance schemes among people in the informal economy is important. This can strengthen overall social protection systems and allows governments to assess the needs of this dynamic group of households more effectively.

This section of the report presents a vision of social insurance platforms for the informal economy that are integrated with other social protection platforms. This social insurance platform is a specialized digital benefits administration platform that can be used to track individual accounts, collect contributions, accumulate savings, assign investment gains and fiscal subsidies to individuals, manage withdrawals, and update balances following withdrawals (figure ES.1). Such a social insurance platform would be part of an ecosystem that includes a social registry, identification systems, a contribution collection system, and a payments infrastructure. It could also be linked to other systems based on country-specific needs.

An integrated platform will also be able to support mobile migrant populations if the system is built on regional ID systems, such as the systems of the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Program in West Africa. An integrated platform also allows governments to reach a larger group of people with timely support if a covariate shock such as the COVID-19 pandemic strikes again.

**FIGURE ES.1. Informal economy: integrated social insurance platform**




*Source:* World Bank.

A robust payment system with links to the platform is key to delivering cost-effective and anytime/anywhere access to savings among people in the informal economy. Cash transfers currently dominate the social assistance landscape in the Africa region, but the digitalization of cash transfer payments, especially through mobile money, has been spreading rapidly. An important component of building payment infrastructure to support the integrated social insurance platform is to include both government-to-person (G2P) and person-to-government (P2G) payments to support the payment of contributions to the social insurance scheme. Focusing on payment systems to support G2P and also P2G payment mechanisms will contribute to the financial inclusion goals of the government as well.

## Section 5: How Can Countries Leverage Identification Systems?

Access to identification is helpful not only in achieving the goals of social protection, but also in improving outcomes across a wide range of sectors, such as agriculture, health care, and financial inclusion. In the delivery of social insurance, identification systems contribute to reaching those intended to be reached by helping to avoid double enrollment in a same scheme or transfers among multiple mutually exclusive schemes and by promoting the tracking of the support received by beneficiaries. Robust and reliable unique identification systems are critical to the administration of social insurance schemes that must be based on accuracy across all stages: the enrollment phase where individuals need to be assigned to unique accounts, the recordkeeping and contribution phase where contributions need to be accurately tracked and managed, and the payout and provision phase where disbursement decisions must be grounded on accurate records. The importance of robust identification becomes even more important in the administration of social insurance schemes in the informal economy wherein traditional employer-employee relationships do not exist and the lack of trust in the system is prevalent.

The number of national ID systems in Africa has grown steadily since 1960. Most Sub-Saharan African governments have introduced the foundations of ID systems, but the coverage is low. People in the informal economy, especially women, are less likely to have access to identification systems. For the effective delivery of social protection benefits and services in a country, mature digital ID platforms are essential.

## Section 6: Operationalizing a Social Insurance Scheme for the Informal Economy

This section of the report includes a discussion on potential design options for a social insurance scheme for the informal economy, the necessary institutions and systems that need to be established, the investment guidelines commensurate with the needs of the workers, the behavioral nudges that may be adopted, and the viability assessment of the scheme. These topics are all likely to arise in discussions among policy makers and practitioners who want to operationalize a scheme for the informal economy. This section does not represent a prescription on scheme design because the suitable design will vary by country. Rather, it introduces policy makers to tools, frequently asked questions, and international experience that can be useful in the design of appropriate schemes.

**Design of the scheme.** A scheme for people working in the informal economy should take into account the irregularity of the incomes of these people and build on platforms that allow implementation across a widespread mobile economy. The scheme should provide fiscal incentives, such as subsidies and matching contributions, to reach scale. This is especially relevant for the nonresilient nonpoor informal economy (NPI-NR) in which people typically have less ability to save. Scheme design should be easy to understand. A defined contribution scheme that mimics bank savings accounts has been found to be more intuitive among people in the informal economy. It also helps build trust in the scheme because the contributions made to date may be viewed by participants on their phones or in person through agents. The scheme should be designed as a combination of short-term and long-term accounts or include flexibility in making withdrawals. Adding a short-term account to the scheme renders the scheme more relevant to people in the informal economy who have short-term liquidity needs and require access to their savings. The level and frequency of contributions should be flexible. The bundling of health insurance, storm or flood insurance, or life insurance could incentivize workers to contribute to the scheme.

**Institutional arrangements.** Robust institutional arrangements with clearly defined roles and responsibilities are key to building trust in the scheme and ensure the smooth functioning of the related business processes. The scheme requires multiple channels for contribution collection (in person, through agents, mail network operators, or central offices). The development of a benefits platform is important for record-keeping. Another crucial pillar is the investment of the contributions. A treasury unit should be established to act as a clearing house between the contribution collection point and the investment unit.

**Investment of contributions.** The numerous small value transactions in a scheme for the informal economy and the flexibility requirement for withdrawals pose challenges in determining an appropriate investment strategy. Scheme architects must achieve stable real returns, but must also be able to explain any fluctuations in the returns to participants who may lack financial literacy. Participants could lose trust in the scheme if they are unable to comprehend the reason for the volatility. The investment policy should include holdings in government securities and high-quality listed instruments, such as listed equities and corporate bonds (if available), that offer the broadest diversification benefits. The recommended investment approach is linked to the quality of scheme governance.

**Viability of the scheme.** Policy makers are likely to want to understand when the schemes will become viable, that is, when the income from the scheme (the fees charged to participants or a percentage of the investment returns) would be sufficient to pay for scheme operations (staff costs, the cost of managing the integrated benefits platform). The World Bank Social Protection and Jobs team has developed the scheme viability assessment tool (SVAT) in response to the demand of governments in the Africa region to assist new or existing voluntary schemes in carrying out viability assessments. The SVAT projects the costs and revenues of the scheme for 40 years under a baseline set of assumptions. The projections help estimate the year when the scheme would break-even and the budget needed to finance the scheme in the interim. The SVAT model can be customized based on the features of the voluntary scheme and includes a scenario testing model that allows the assumptions on take-up rates, investment returns, and expected savings to be altered.

**Behavioral nudges.** In designing a scheme for the informal economy, it is helpful to map out the journey from the decision stage to savings from the perspective of the workers. This might be done by considering the bottlenecks workers might face across four distinct stages: the decision (participants make the decision to participate), the enrollment (participants complete various milestones in enrollment), the first contribution (enrolled individuals choose and pay an initial amount), and the repeated contributions (individual make repeated, consistent contributions). The bottlenecks may be structural barriers or barriers related to human behavior. While the former may be addressed by tweaking scheme design elements, the latter will require nudges to help workers overcome behavioral biases.

During the decision stage, the limited attention span of individuals who are in the process of deciding whether to save is a prominent potential barrier. The communication of clear information during rollout, a quick registration process, and the use of creative tools, such as a buddy-system, to induce social support for saving can be helpful. Addressing the challenges at the enrollment stage requires overcoming information overload and the tendency to procrastinate. Making the process as simple as possible and using tools such as bundling across existing schemes may be ways policy makers can increase participation. The stickiness of the status quo is a barrier individuals face in making a first contribution. It can be confronted through design innovations, such as autopay systems, and through effective communication nudges. Scheme design, fiscal incentives, and nudges can all support the persistence and habit formation needed to make repeated contributions.

For any new scheme that is launched, an iterative approach to learning and evaluation should be adopted. Key indicators should be monitored, and examples of innovations in other countries establishing such schemes should be sought.

## Ten takeaways

The first section of the report makes the case that governments in developing economies should focus on creating schemes for the informal economy. Subsequent sections highlight the characteristics of the people working in the informal economy and outline a

vision for an integrated benefits platform in which governments can invest today and scale up over time to cover all workers as resources become available. The last section includes a checklist for governments that are ready to introduce such a scheme. The report does not prescribe any single approach or scheme design to cover the missed middle. Instead it provides policy makers and practitioners who would like to revisit social protection after the COVID-19 pandemic with the tools, methodologies, and international experience to launch schemes for the missed middle that offer workers safe and efficient consumption smoothing.

The main messages of the report are as follows:

1. Developing countries have a large share of people working in the informal economy without any social protection (the missed middle), but many of these people have some ability to save.
2. Efforts to integrate social insurance schemes and social assistance programs through a digital platform can have positive spillover effects.
   a. Facilitating the graduation of safety net beneficiaries
   b. The creation of shock-responsive systems with a readily available database on the informal economy
   c. Increasing financial inclusion among people in the informal economy and instilling a culture of savings
3. Employing digital systems, especially mobile money, can reduce the operating costs of the schemes and make saving more accessible for the informal economy.
4. Trust in the scheme is the key to take-up.
5. Incentives and the bundling of services can boost take-up rates.
6. Scale and cost effectiveness are critical for a scheme to be viable.
7. Investing in communication strategies, using aggregators, and testing behavioral nudges are critical.
8. Keeping the design of the scheme simple increases the chance of success.
9. Pilot testing the scheme before launch is strongly recommended.
10. Setting SMART goals and monitoring key indicators will help in making adjustments for continuous improvement of the schemes.

# Introduction: Setting the Stage

## The Informal Economy in Africa: The Size, Characteristics, and Social Protection Coverage

**Informality is large and persistent in the Africa region.**[1] The economy employs many individuals, ranging from wage earners and the self-employed to domestic workers, although self-employment is a predominant characteristic. Small farmers, street vendors, small traders, porters, casual laborers, and artisans are all part of the informal economy. The size of the informal economy as a percent of gross domestic product (GDP) in Africa is the largest in the world. There exists, however, significant heterogeneity across the region. The size of the informal economy in Sub-Saharan Africa ranges from 20 percent to 35 percent of GDP in Botswana, Ethiopia, and Namibia to a high of 45 percent in Nigeria and Tanzania (figure 1). Overall, the region experienced a gradual decline in the size of the informal economy, from 43.3 percent of GDP in the 1990s to 34.6 percent in 2010–18 (Ohnsorge and Yu 2021).

**The informal economy is large and diverse.** For some, staying in the informal economy is a choice to avoid taxes, social security contributions, and labor regulations. For many, though, informality is characterized by low productivity, low capital requirements per worker, low earnings, and irregular, unpredictable income. The informal economy thrives in a context of high unemployment, underemployment, poverty, gender inequality, and precarious work. It plays a significant role in such circumstances, especially in income generation, because of the relative ease of entry and the low requirements for education, skills, technology, and capital. Most people enter the informal economy not by choice, but out of a need to survive and to have access to basic income-generating activities (ILO 2014). Perry et al. (2007) find considerable evidence that the informal economy is heterogeneous. Workers and firms that have been excluded from the formal economy are found alongside firms and workers that have opted out of formality on the basis of an implicit cost-benefit analysis. This shows that at least some informal economy actors have chosen to be in the economy, while others are excluded. The

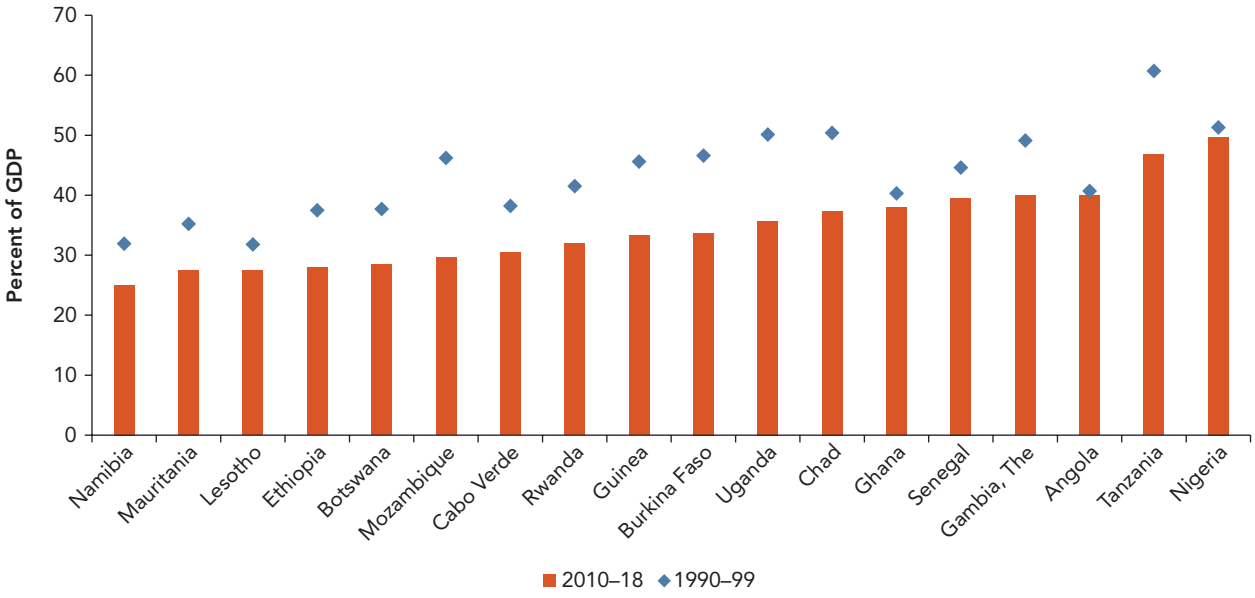
1. There are multiple definitions of informality. For the purposes of extending social protection coverage to the informal economy, the informal economy is defined as the realm of activity of those who are not registered with a social security or social insurance institution. This definition will be elaborated in section 1 where household survey data analysis is discussed.







**FIGURE 1. Output informality, selected Sub-Saharan Africa countries, 1990–2018**




*Source:* World Bank.
*Note:* Output informality is based on dynamic general equilibrium model estimates, in percent of official GDP.

*Women comprise a larger share of informal employment in the region and they are also more vulnerable.*

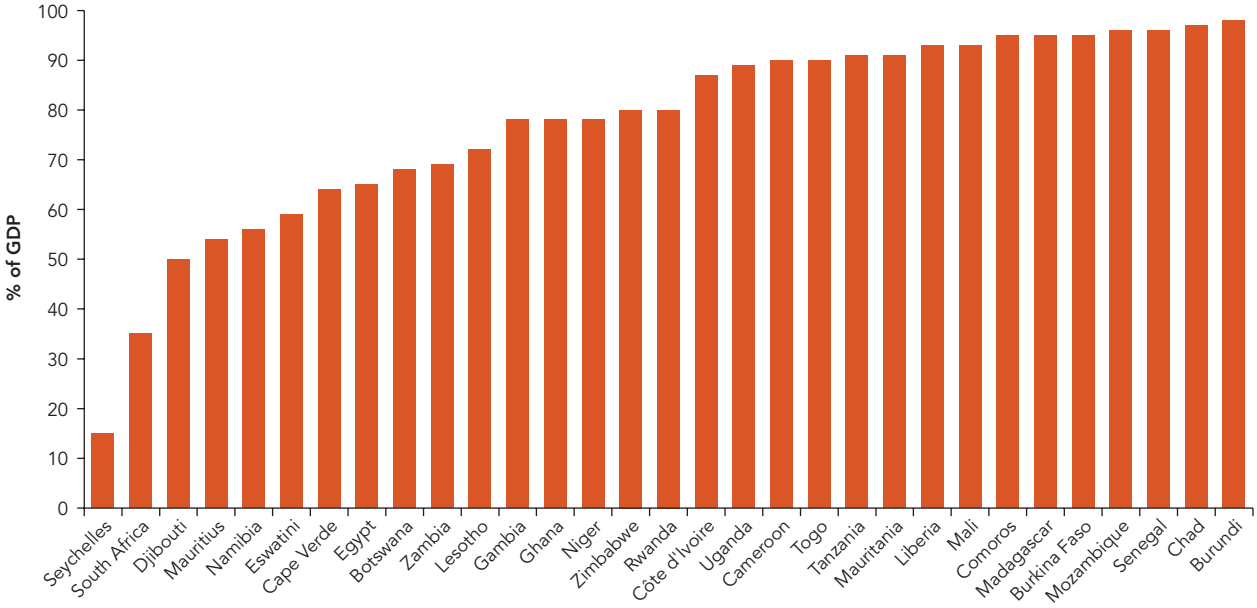
latter type of informality is frequently associated with low productivity and poorly paid low-skilled employment (La Porta and Shleifer 2014; Loayza 2018). Self-employed workers with low human capital and, hence, low productivity have an incentive to operate in the informal economy to avoid paying taxes and incurring other administrative costs (Oviedo, Thomas, and Karakurum-Özdemir 2009).

**The informal economy is the main source of employment in Africa.** Informal employment accounts for 89.2 percent of all employment, although there is heterogeneity across the region. The rate of informal economy employment ranges from 15 percent to 54 percent in Mauritius, the Seychelles, and South Africa to over 90 percent in Burkina Faso, Senegal, Tanzania, and Togo (figure 2).[2] Informal employment among youth (ages 15–24) is more common (95.8 percent) in the region relative to adults (86.6 percent). Given the higher levels of informality in the agricultural economy (98.1 percent), nonagricultural informal employment is slightly lower, but still significant; 76.8 percent of nonagricultural employment is in the informal economy. The majority (88.1 percent) of informal economy work is represented by own-account holders (ILO 2018).

**Women comprise a larger share of informal employment in the region, and they are also more vulnerable.** In the Africa region, 92.1 percent of employed women are in informal employment compared with 82.7 percent of men (ILO 2018). Moreover, relative to their men counterparts, women in the informal economy are more often found in the more vulnerable situations, for instance, as domestic workers, home-based workers, or contributing family workers. Women are often placed in the most hazardous jobs with no access to occupational health care and safety measures (ILO 2009). They tend to be concentrated in the more precarious forms of informal employment. Low productivity is often

2. Data in this section are from ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/.

**FIGURE 2.** Informal sector employment rate for Africa, 2014–19




*Source:* 2018 data of ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/.

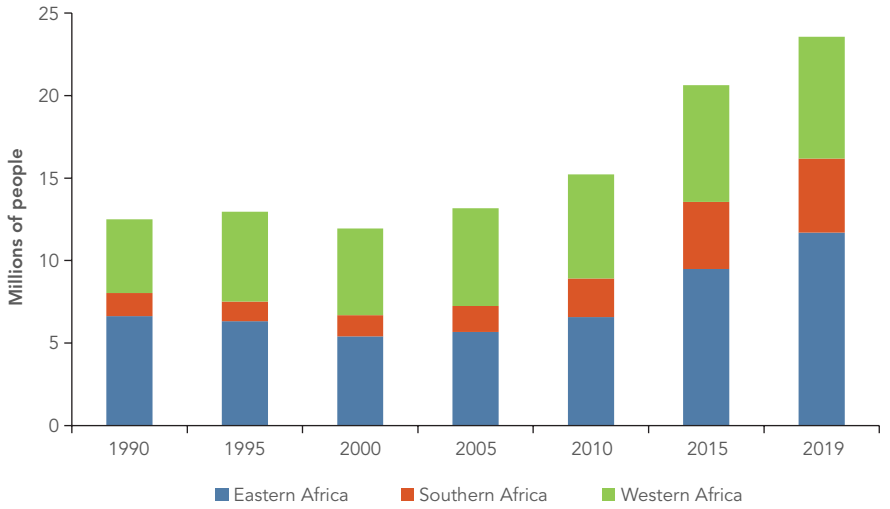
mentioned as a characteristic of informal economic units, but woman-owned businesses tend to be less likely to have access to IDs, phones, and social capital and, hence, are less observable than their men counterparts in the informal economy.

**Africa's population is projected to double by 2050, and, with most jobs expected to be created in the informal economy, the challenges in informality will likely worsen.** The population of Sub-Saharan Africa is projected to double by 2050. In the coming decade, the total population of Africa will increase from 1.3 billion in 2020 to 1.7 billion by 2030. In 2020, Africa had an estimated working-age population (ages 15–64) of 752.6 million, of which 34 percent represents youth (ages 15–24). By 2030, the working-age population in the region will have increased by 235.7 million. By 2050, the number of youth is estimated to rise to 456 million, and the working-age population overall will rise to 1.5 billion (UN DESA 2019). Four countries—Democratic Republic of Congo, Ethiopia, Nigeria, and Tanzania—will experience an increase of 90 million in the working-age population by 2030. While the expansion of the working-age population is creating opportunities for economic growth, the formal economy is not creating sufficient jobs to absorb the rising population. Although low-paying and plagued by low productivity, most jobs in the Africa region are being created in the informal economy, suggesting that the number of those people working in the informal economy will increase in the future. Rural-urban migration and greater labor force participation, especially among women, are mostly absorbed by the informal economy (Kessides 2006).

**The expanding number of migrants in the region is also characterized by informality.** Since 2000, international migration within the Africa region has increased significantly, from 13.2 million persons in 2000 to 23.6 million in

***Africa's population is projected to double by 2050, and, with most jobs expected to be created in the informal economy, the challenges in informality will likely worsen.***

**FIGURE 3. Intra-African migration, 2000–19**




*Source:* UN DESA 2019.

*The informal economy is characterized by low human capital and low productivity.*

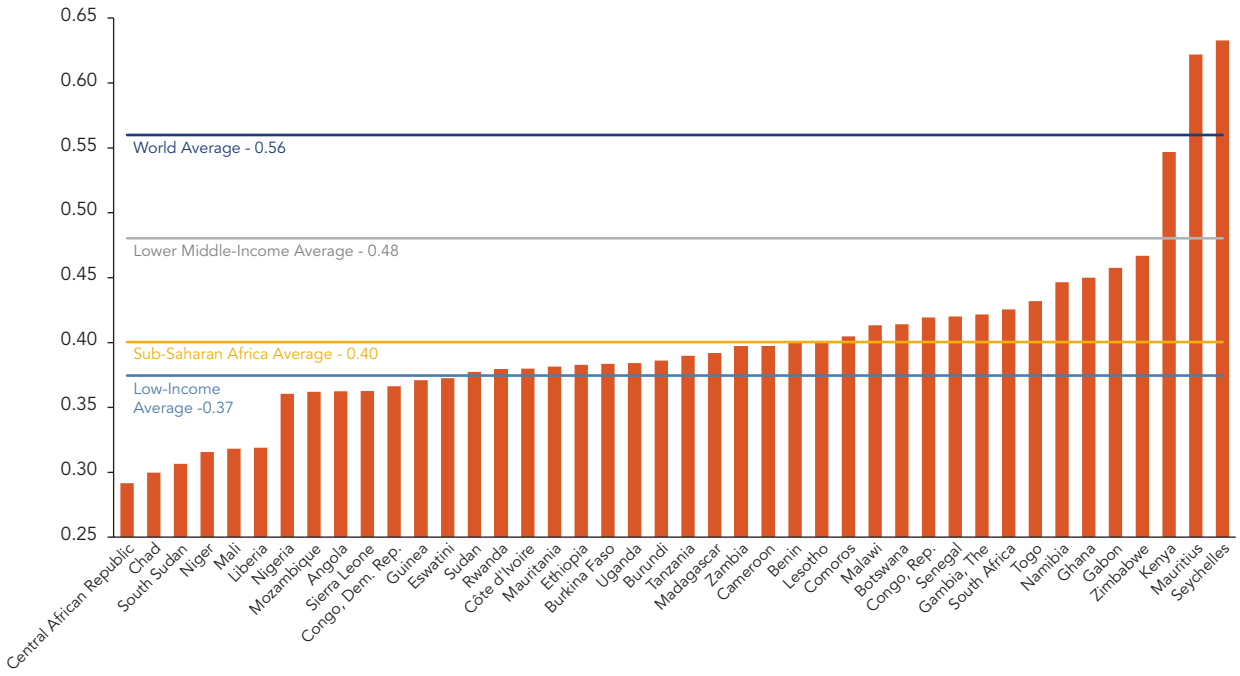
2019 (figure 3).[3] Women migrants accounted for 47.5 percent of within-Africa migration. Intraregional migration has been an important contributor to population change in some African countries, such as Equatorial Guinea (17 percent) and South Africa (7 percent). Migration corridors within Africa exist, such as those between South Sudan and Uganda as well as Ethiopia and Somalia. They are the result of large-scale displacement because of conflict. The majority of international migrants in West and Central Africa move within these subregions.[4] In West Africa, the corridor from Burkina Faso to neighboring Côte d'Ivoire constitutes the second largest in Africa overall, with about 1.3 million migrants. South Sudan produced the highest number of refugees in Africa in 2018 (2.3 million) and ranked third in the world; most of the migrants were hosted in neighboring countries, such as Uganda, the largest refugee host country in the region, with around 1.2 million refugees in the country. In 2017, the main migrant-receiving countries were South Africa (4.0 million) and Côte d'Ivoire (2.2 million) (UNCTAD 2018). A large number of migrant workers are in the low-skilled economy, including domestic work, informal trade, and agriculture (IOM 2019).

**The informal economy is characterized by low human capital and low productivity**. The human capital indicators on Sub-Saharan Africa are well below the corresponding indicators in lower-middle-income countries and the rest of the world (figure 4) (World Bank 2021a). The average human capital index for Sub-Saharan Africa is 0.4, meaning that children born in Africa will only be 40 percent as productive when they grow up relative to their productivity if they enjoyed a complete education and full health (table 1). The average

3. The term migrants within Africa refers to migrants born in the Africa region and residing outside their country of birth, but still within the region. Estimates of international migration are based on data of Trends in International Migrant Stock (dashboard), Population Division, Department of Economic and Social Affairs, United Nations, New York, http://www.un.org/en/development/desa/population/publications/migration/migrant-stock-2013.shtml.

4. Intraregional migration dominates in the subregion for several reasons, including visa-free movement among members of the Economic Community of West African States (ECOWAS), the relatively small size of many countries in the subregion, and the strong networks among the many ethnic groups scattered across the subregion. The intraregional migration within ECOWAS is mostly associated with labor mobility. Seasonal, temporary, and permanent migrant workers move largely from countries such as Mali and Niger toward Côte d'Ivoire and Ghana.

**FIGURE 4. Human capital index, select countries in Africa**




*Source:* World Bank 2021a.

**TABLE 1. Human capital index, averages by World Bank region, 2020**

| Indicator | East Asia and Pacific | Europe and Central Asia | Latin America and Caribbean | Middle East and North Africa | North America | South Asia | Sub-Saharan Africa |
|---|---|---|---|---|---|---|---|
| HCI component 1: survival | | | | | | | |
| Probability of survival to age 5 | 0.98 | 0.99 | 0.98 | 0.98 | 0.99 | 0.96 | 0.93 |
| HCI component 2: schooling | | | | | | | |
| Expected years of schooling | 11.9 | 13.1 | 12.1 | 11.6 | 13.3 | 10.8 | 8.3 |
| Harmonized test scores | 432 | 479 | 405 | 407 | 523 | 374 | 374 |
| HCI component 3: health | | | | | | | |
| Survival rate from age 15 to 60 | 0.86 | 0.90 | 0.86 | 0.91 | 0.91 | 0.84 | 0.74 |
| Share of children under 5 not stunted | 0.76 | 0.90 | 0.85 | 0.82 | — | 0.69 | 0.69 |
| Human capital index (HCI) 2020 | 0.59 | 0.69 | 0.56 | 0.57 | 0.75 | 0.48 | 0.40 |

*Source:* Calculations based on World Bank 2020c.
*Note:* The table reports averages of the index components and the overall index by World Bank region.
— = data are unavailable.

years of schooling are much lower in Africa than in any other region. This affects opportunities in the labor market. Human capital outcomes among girls are less favorable than among boys in Africa, which points to gender gaps already in younger years. This will likely affect gender equality in working life. The poor and vulnerable face disproportionately higher human capital constraints because of limited access to basic services. This is why human capital outcomes among informal households in Africa are expected to be even lower, influencing the potential of these households to be productive in the future. In

*Informality is associated with large productivity differentials, limited access to basic services and resources, and irregular and often unpredictable earnings.*

a study looking at skills development in five African countries, Adams, de Silva, and Razmara (2013) find that people working in the informal economy in Africa tend to be less highly skilled and less well educated than corresponding people in the formal economy. This limits opportunities for wage employment in the formal economy.

**Productivity differentials between the formal and informal economies are particularly large in Africa.** The value added per worker among informal firms is only 14 percent of that in formal firms in the median African country and lower than the median in other developing countries (La Porta and Shleifer 2014). The share of informal employment exceeds the share of informal output across much of the developing world. This is a reflection of the low productivity environment in which the informal economy tends to operate. This difference is, however, particularly pronounced in Africa.[5] In Africa, the informal employment share is approximately double the informal output share (World Bank 2019b).

**Informality is associated with limited access to basic services and resources.** Informality is associated with restricted access to electricity, finance, and land (Ingram, Ramachandran, and Desai 2007). This is aggravated by limited or no access to a dedicated space to operate or store supplies or to high-value markets. Steel and Snodgrass (2008) emphasize the weak access of informal actors to social services and find that the productivity differential between formal and informal firms derives mainly from unequal access to public services. The services of concern are those with a direct impact on productivity and from which formal firms benefit greatly, such as infrastructure, capital, education, health care, and social security. The lack of access to social protection and insurance amplifies these suboptimal outcomes in productivity. By insuring against income losses in the case of shocks, social insurance programs can encourage individuals and firms in the informal economy to take necessary risks and invest in new economic opportunities, thereby moving into more productive jobs. Sub-Saharan Africa also has considerably higher regulatory burdens (for example, lengthy, complicated procedures in filing taxes), which makes operating in the formal economy prohibitively expensive (Benjamin and Mbaye 2014).

**Earnings among the self-employed, who account for a majority of the actors in the informal economy, are typically irregular and often unpredictable, making financial planning a challenge**. The wage-employed in the informal economy typically have low incomes, and their employment is irregular, meaning that their incomes are also irregular. For example, seasonal workers in agriculture or construction are employed only for a certain part of the year and must rely, during the rest of the year, on the earnings thus gained. The same is true of farmers and their families who rely on the cultivation of their own land to generate income. They experience poor cash flows during the growing season and relatively larger incomes following the harvest. One central feature of informality is that the wage-employed are much less likely than their peers in the formal economy to have an employee-employer contract (Guven 2019). At the same time platform work is growing rapidly in emerging markets (McKay and Murthy 2021). While the rise of the online platform economy has supplied a semblance of an employer-employee relationship, these organizations have also failed to extend social insurance benefits to their workers, leaving even people in the urban informal economy without social protection.[6]

**The informal economy is characterized by limited financial inclusion, and savings occur through informal mechanisms.** African countries have experienced positive developments in access to financial services in recent decades. In addition to the deepening

5. This is also true of the South Asia region.
6. Uber recently gave worker status and extended social protection to its 70,000 drivers in the United Kingdom after many years of no protection for its workers (Milligan 2021).

financial economy, recent technologies, such as mobile money, have helped broaden access to financial services, including savings and payment products. Overall, access to financial services has improved in the region. The share of adults with accounts in a financial institution or through a mobile money provider rose from 23.2 percent in 2011 to 42.6 percent by 2017. Africans also rely on informal mechanisms for savings. About 60 percent of adults in Africa save money, but only 16 percent of these people use a financial institution to do so. The others rely on less secure methods, such as stuffing cash under a mattress or joining an informal savings club. One example of informal savings involves rotating savings and credit associations, which pool member deposits and disburse the entire sum to a different member each week. About 70 million unbanked adults in the region use informal groups to save, including about 40 million women (Demirgüç-Kunt et al. 2015).

**People working in the Informal economy are more susceptible to short-term shocks.** Ahmad and Aggarwal (2017) have studied the consequences of catastrophic expenditures following health shocks on the welfare of households engaged in the informal economy. They find that a sizable share of households (27 percent) engaged in the informal economy spend more on health care following shocks, a phenomenon that is associated with a trend toward greater poverty. Covariate shocks, such as floods and drought, may have a significant impact on the agricultural economy in Africa, which is largely informal. In the absence of access to formal social protection, formal financial institutions, or savings and physical assets that can be used as collateral, participants in the informal economy are forced to resort to damaging coping strategies, for example, closing down businesses, reducing food consumption, pulling children out of school, postponing life-saving health treatments. Many African countries that are at high risk of natural disasters have especially low social protection coverage. As a result, informal economy participants may turn to informal sources, including friends, relatives, or moneylenders. The lack of access to financing and credit leads to loans at higher interest rates, compromising future incomes with irreversible consequences (Guven 2019). Without social protection instruments, smaller informal economy enterprises are more likely to be forced to shut down, leading to survivor bias among informal economy firms.

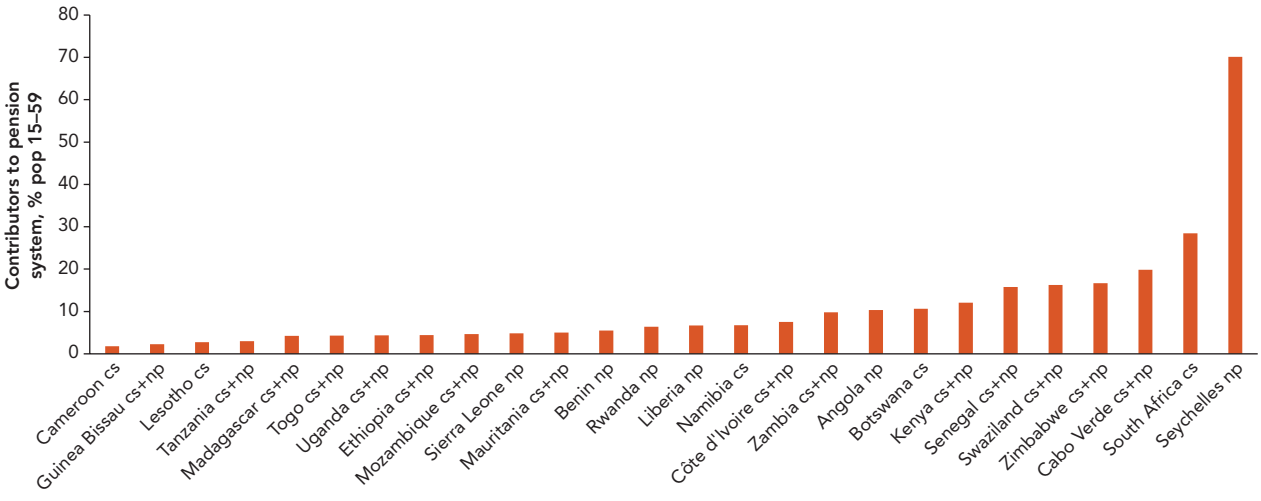
**Despite these vulnerabilities, the informal economy, particularly in urban areas, is not typically covered by social assistance programs.** In Africa, there has been a significant expansion in access to social safety net programs during the last two decades. Although more than 45 countries in the region have social assistance programs, the coverage is low, accounting for 23.5 percent of the total population and 32.0 percent of the poorest quintile.[7] Aside from the notable cases of rapidly expanding programs with significant coverage in Ethiopia, Ghana, Kenya, Senegal, and Tanzania, most social protection programs focus on the extreme poor in rural areas and are on a smaller scale, with limited to no urban penetration. These programs are also often not part of coherent systems. As a result, large segments of the population do not have access to any form of social protection and are not easily reached (Bodewig et al. 2020).

**The coverage of existing social insurance programs is also limited to the small formal economy in the region.** Though there is variation across the region, an average of only 10.9 percent of the working-age population participates in contributory social insurance programs. Typically, in countries with relatively higher incomes, such as the Seychelles, a higher share of the population contributes to social insurance schemes, while, in most countries in the region, these schemes receive contributions from only a small share of the working-age population. In about half the countries on which data are available, less than 6

*Despite its vulnerabilities, the informal economy, particularly in urban areas, is not typically covered by social assistance programs.*

7. The data in this section refer to 2018 and are taken from ASPIRE (Atlas of Social Protection Indicators of Resilience and Equity) (dashboard), World Bank, Washington, DC, http://datatopics.worldbank.org/aspire/.

**FIGURE 5. Coverage of contributory schemes, working-age population, ages 15–59**




*Source:* Data of Pensions: Data (dashboard), World Bank, Washington, DC, https://www.worldbank.org/en/topic/socialprotection/brief/pensions-data.
*Note:* cs = civil service pension scheme. ns = national pension scheme covering the private economy, which, in some cases, also covers public employees under an integrated scheme.

***Extending social insurance coverage is a challenge in Africa because existing schemes do not respond to the needs of the informal economy.***

percent of the working-age population contributes to a formal pension scheme. In Guinea-Bissau, Lesotho, and Tanzania, participation in the contributory pension schemes accounts for 3 percent or less than 2 percent of the working-age population (figure 5). The low average coverage of the working-age population in most countries in the region means that few elderly people will be eligible for a contributory pension benefit in the future. Despite the low coverage, African countries allocate significant resources to pensions because of the generosity of pensions. This is particularly true of public economy pension schemes. On average, countries in the region spend 1.7 percent of GDP on the provision of pensions to the elderly, although there is substantial variation across countries.[8]

**Extending social insurance coverage is a challenge in Africa because existing schemes do not respond to the needs of the informal economy.** Most countries in the region have some sort of contributory social insurance program that has been inherited from colonial times or that has been established since independence. These systems, however, have been unable to extend coverage beyond the formal economy, which comprises employees in the public economy, state enterprises, and large private companies. In these programs, participants pay contributions during their working lives in exchange for pension benefits during retirement. Existing formal economy pension schemes do not respond to the distinct needs of the diverse informal economy. Formal economy pension schemes tend to be designed based on formal employee-employer relationships, which are atypical in the informal economy. They also require regular monthly contributions, which are not suitable for people working in the informal economy who usually receive irregular incomes. Participation in formal economy social insurance schemes may not even be feasible or affordable for many of these people because their incomes are not easily observable, and contribution rates are high in many schemes.

**Current social insurance programs in the region do not cover unemployment risk and have limited capacity to respond to short-term risks as experienced during the pandemic.** Existing schemes focusing on

8. For details on formal economy social insurance schemes in the region, see Guven (2019); Schwarz (2018).

addressing old-age poverty also provide disability, work injury, sickness, and death benefits and, in most cases, survivor benefits. Countries in francophone West Africa provide family benefits on the basis of the number of children. While most people working in the formal economy in the region are also eligible for health benefits, unemployment insurance is almost nonexistent in African countries. In response to the pandemic, fewer than 10 countries in the region used social insurance schemes as a social protection response mechanism. Most of these countries introduced contribution waivers extending several months, and several provided additional pension benefits or paid sick leave to those likely to be affected by COVID-19. Only South Africa was able to provide unemployment insurance benefits through its unemployment insurance fund. While it is fortunate that these countries were able to provide some relief by relaxing social insurance rules, these measures will have an effect on the adequacy of long-term benefits for individuals or the sustainability of the schemes. The existing social insurance schemes are, by design, not meant to respond to short-term risks. Using them to address liquidity constraints or unemployment risk, as was the case during the pandemic, would compromise the objectives of these schemes. Schemes with an alternate design and financing approach are needed to provide coverage against short-term risks only or short-term and long-term risks, especially if the aim is to expand coverage to the large informal economy.

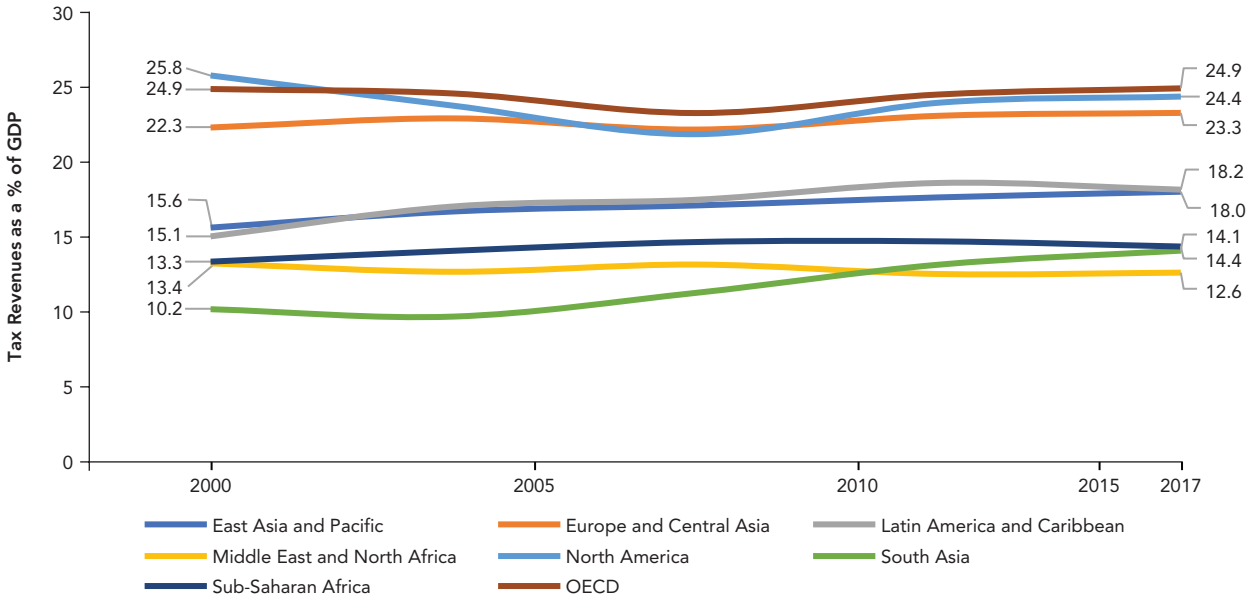
**Social protection cash transfers provided an essential platform for delivering assistance in response to the COVID-19 shock, but governments were also acutely aware of the need to develop and implement new methods to extend coverage to the informal economy.** In the aftermath of the COVID-19 pandemic, governments took measures to protect livelihoods and wages. Many governments in the region expanded their capacity to extend coverage through innovations in targeting and payments by leveraging technology and using big data. These swift responses were successful, but they were essentially a response to an urgent requirement to provide much-needed support to groups without social protection and prevent these groups from slipping into poverty. The COVID-19 pandemic highlighted the importance of social protection coverage for the informal economy because lockdowns and the drop-off in economic activity affected the informal economy in cities (Guven et al. 2020). There is thus a need to design innovative social insurance instruments for the informal economy, particularly among the nonpoor.

**This report proposes a progressive approach toward the provision of universal social insurance.** Packard et al. (2019) propose a publicly financed (through tax revenues) risk pooling mechanism to provide universal access to coverage against catastrophic losses. Indeed, universal access to social insurance should be the ultimate and noble goal across countries. However, most governments in the Africa region may not be able to finance universal social insurance because of low tax revenues (figure 6). In light of this fiscal constraint, this report proposes a gradual approach that would assist countries in laying the foundations of a social insurance scheme for the informal economy through a voluntary savings program.

**Against this background, the objective of this report is to discuss and recommend social protection instruments that are suitable for the informal economy.** Section 1 highlights the impact of COVID-19 on poverty and summarizes the social protection instruments used by governments in response to the pandemic. Section 2 introduces a framework using information on consumption, employment, and economic shocks from household surveys to help answer the question who is in the missed middle and what are the characteristics of these individuals. Section 3 provides information on suitable social protection instruments for the informal economy given the distinct characteristics of the economy and the instruments. Section 4 discusses how social insurance schemes for the informal

*This report proposes a progressive approach toward the provision of universal social insurance.*

**FIGURE 6.** Tax revenues as a share of GDP, by region, 2000–17




*Source:* 2020 data of GFS (Government Finance Statistics) (dashboard), International Monetary Fund, Washington, DC, http://data.imf.org/?sk=a0867067-d23c-4ebc-ad23-d3b015045405.

economy could be integrated with social assistance programs using digital social protection platforms to provide end-to-end social protection. Section 5 presents ways social protection systems can leverage ID systems for efficient service delivery. Section 6 takes a deep dive into social insurance schemes for the informal economy by covering viability assessment, investments of reserves, and ways behavioral economics can be used to encourage participation. Section 7 concludes with recommendations.

SECTION 1

# How Did African Countries Respond to COVID-19 with Social Protection Instruments?

## 1.1. Impact on Economic Growth and Poverty

**Sub-Saharan Africa has been hard hit by the COVID-19 pandemic, with economic activity shrinking by an estimated 3.7 percent in the region in 2020.** The resulting decline in per capita income is expected to set average living standards back by a decade or more in a quarter of Sub-Saharan African economies**.** The setbacks in Nigeria and South Africa—home to a quarter of the region's population—are expected to be particularly severe (World Bank 2021b). Furthermore, remittance inflows, a vital source of household income and foreign currency receipts, are estimated to have plummeted by 9 percent in the region (Gondwe 2020; OECD 2020; World Bank 2020b). COVID-19 is likely to weigh on growth in Sub-Saharan Africa for a long period, as the rollout of vaccines in the region is expected to lag relative to advanced economies and major emerging economies, further dampening growth.

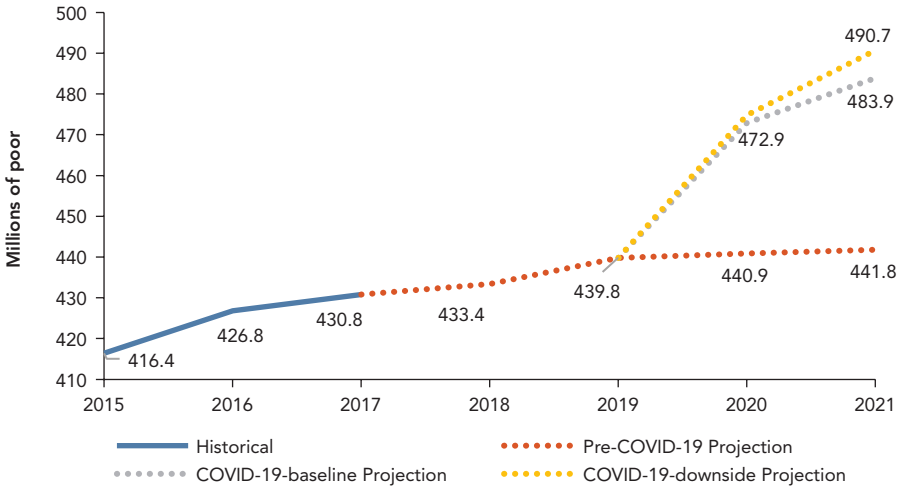
**The pandemic has unprecedented implications for poverty in the region and globally.** For the first time in 20 years, poverty is likely to increase significantly. It is estimated that the COVID-19 pandemic will have increased extreme poverty by between 88 million (baseline estimate) and 93 million people (downside estimate) in 2020. Considering those who would have otherwise escaped extreme poverty, but will not because of the pandemic (that is, 31 million in 2020), the total COVID-19–induced new poor in 2020 is estimated at between 119 million and 124 million. In the Africa region, COVID-19 is expected to reverse the gains in poverty significantly and push an additional 33 million people into poverty in 2020 and another 11 million people in 2021 (figure 7).

**COVID-19 has highlighted the vulnerability of the region's vast informal economy, particularly in urban areas.** One of the main transmission channels of the effects of COVID-19 on economic activity is the disruptions caused by the containment and mitigation measures imposed by governments and the response of citizens. Because most African economies rely on large service economies





**FIGURE 7.** Projected impact of COVID-19 on extreme poverty, 2015–21




*Source:* Lakner et al. 2021.

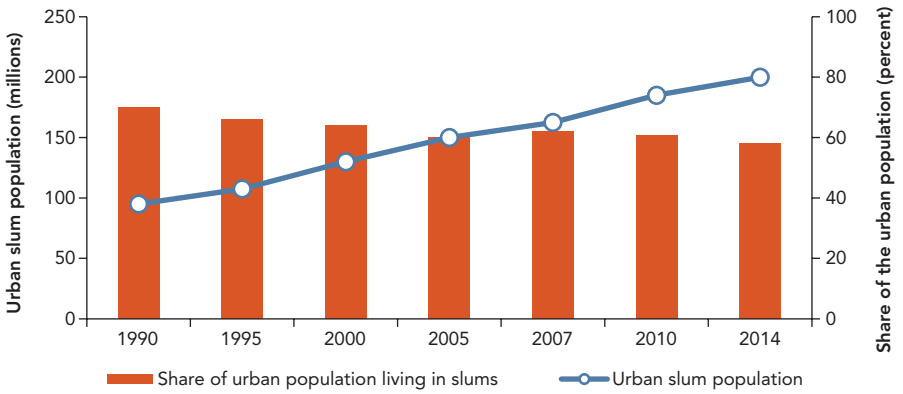
***Women in the informal economy were particularly affected by the pandemic.***

based in urban areas (especially capital cities) that are characterized by informality, urban informal economies have been hit by losses in incomes and livelihoods. This is so because these economies are involved primarily in services and trade, which are particularly vulnerable to social distancing rules in big African cities, where a large share of the economic activity takes place on the streets. This impact is amplified by the limited or lack of access to social protection in the informal economy, especially in urban Africa. With no access to social protection and meager or no savings to fall back on, many people risk slipping into poverty.

**Women in the informal economy were particularly affected by the pandemic.** People working in the informal economy, such as individuals making a living as traders selling a variety of products, from fruits to clothes, crafts, and gasoline, found their lives and livelihoods acutely impacted by COVID. Women were particularly vulnerable. About half of urban households in Africa depend on wage income, and this income is often the anchor for the riskier, entrepreneurial activities of other members of the household. More than half the owners of informal businesses in Africa are women. Women operate in low-productive jobs and have limited access to IDs, phones, and social and financial capital. Their resilience therefore tends to be less than their men counterparts (Guven and Karlen 2020). Woman-owned firms are generally smaller and have thinner capital buffers than man-owned firms. Their incomes are often a source of empowerment for the women within their households and in the broader community. These women already face challenges keeping their businesses afloat, without school or childcare options for their children. If they must reduce hours or close their businesses to look after their children, they face a double threat: not only less income, but possibly more domestic violence (Fox and Signé 2020). The COVID-19 pandemic has potentially exacerbated existing gender inequalities in economic opportunities across Sub-Saharan Africa (World Bank 2020a).

**A large share of the urban informal economy is accounted for by informal settlements or slums, exposing these areas to increased health and social risks because of a lack of access to basic services.** The term slum is often used to describe informal urban settlements that are characterized by inadequate housing and squalid living conditions. In the last decade, the share of urban populations living in slums has declined marginally, but the absolute number of people living in slums has continued to increase (figure 8). The health of people living in slums is a function not only of poverty, but also of intimately

**FIGURE 8. Urban populations living in slums in Africa**




*Source:* UN Habitat 2016.

shared physical and social environments. Lack of access to basic services also hinders the productivity of the informal economy in these settlements. The slum dwellers are at a higher risk of infection and are onward transmitters of COVID-19 (Ilesanmi, Oderinde, and Afolabi 2020).

## 1.2. Impact on Incomes

**COVID-19 had a significant impact on incomes; many households reported a reduction in labor income.** The COVID-19 pandemic affected livelihoods, particularly among people in the informal economy, but the lack of options for supporting themselves during crises is why many individuals in low-income countries could not afford to stop working. High-frequency surveys in 50 countries show a high income loss rate among households in low-income countries, but low job stoppage rates.[9] In contrast, high-income countries exhibit both low job stoppage rates and low income loss rates.

According to the COVID-19 high-frequency survey conducted in Zambia, there was a steep reduction in self-reported labor income because of COVID-19 (table 2). About 82 percent of households that had cited nonfarm business as a means of livelihood in the previous 12 months reported less income from that source (71 percent) or a total loss of that income (11 percent). Income from farming was reduced among over half of households and had disappeared entirely among 8 percent of households. About two-thirds of households

***COVID-19 had a significant impact on incomes; many households reported a reduction in labor income.***

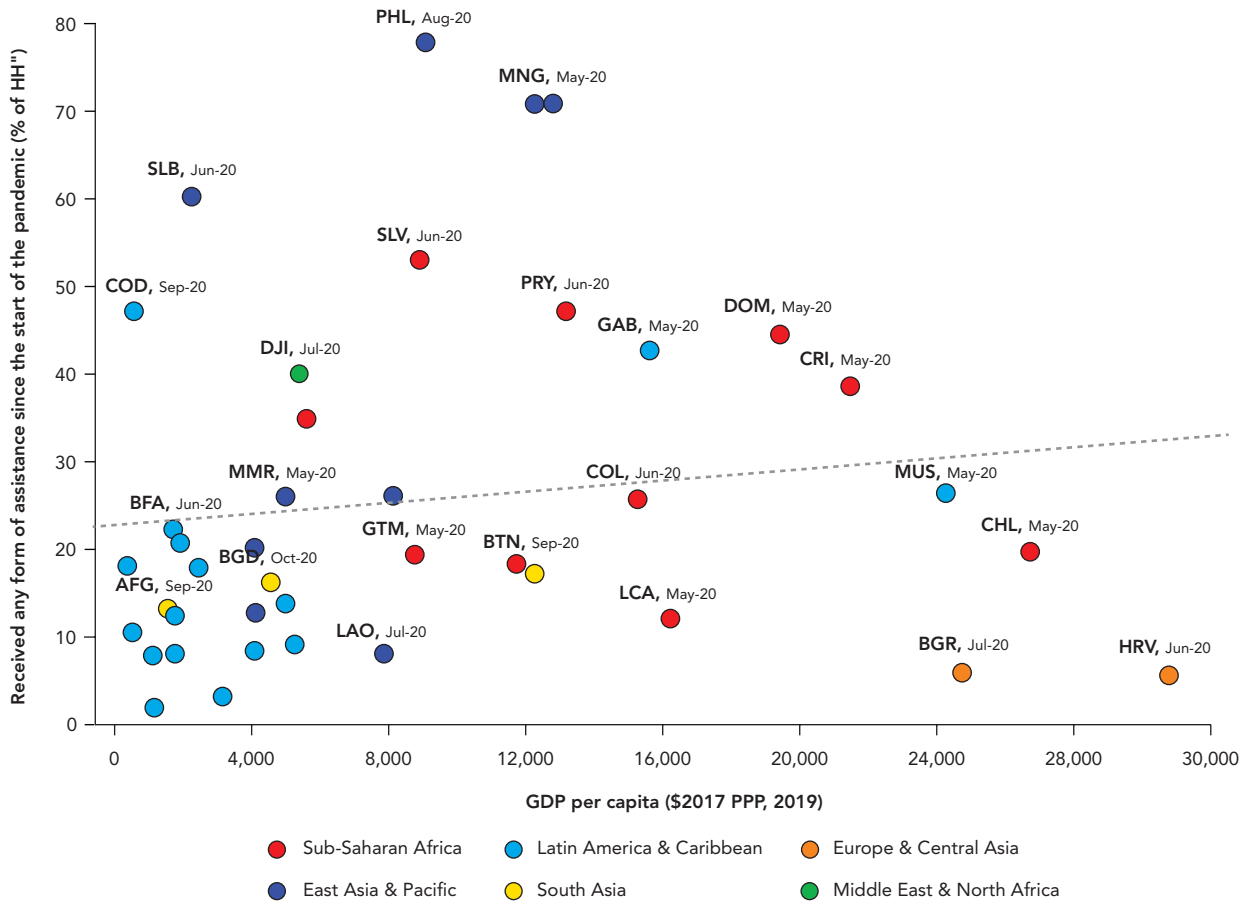
9. An inverse U-shaped relationship is found between job stoppages and GDP per capita; low- and high-income countries reported the lowest rates. For details, see "What's New," World Bank, Washington, DC, https://development-data-hub-s3-public.s3.amazonaws.com/ddhfiles/1235981/covid19whatsnewpast.pdf.

**TABLE 2. Change in income from four main household income sources since the onset of the pandemic**

| Household income source | Increased | Stayed the same | Reduced | Stopped |
|---|---|---|---|---|
| Farming, livestock, or fishing | 18% | 23% | 51% | 8% |
| Nonfarm business | 7% | 10% | 71% | 11% |
| Wage employment | 2% | 65% | 26% | 7% |
| Remittance from family in Zambia | 8% | 20% | 58% | 14% |

*Source:* Calculations based on World Bank 2020c.

**FIGURE 9. Percentage of households that received any form of government assistance vs GDP per capita**




*Source:* COVID-19 Household Monitoring Dashboard, World Bank, Washington, DC, https://www.worldbank.org/en/data/interactive/2020/11/11/covid-19-high-frequency-monitoring-dashboard.

***A recent World Bank survey concludes that jobs in urban areas are particularly affected.***

that reported wage employment as an income source had seen no change in wages since the outbreak of the pandemic, highlighting the stark contrast between people working in the formal economy and people working in the informal economy, which relies predominantly on self-employment. Domestic remittances also fell after the outbreak of the pandemic; 58 percent of remittance-receiving households reported a reduction in remittance income, and 14 percent reported that this income source had dried up (Finn and Zadel 2020).

Households in low-income countries also received less government assistance during the pandemic, adding to their vulnerability (figure 9). There is evidence of severe food insecurity in the immediate aftermath of the pandemic.[10] While these surveys do not focus on the informal economy specifically, the results would generally hold for the informal economy given the large share of informality in African countries.

**A recent World Bank survey concludes that jobs in urban areas are particularly affected.** During April–June 2020, 56.3 percent and 29.4 percent of urban respondents in Nigeria and Uganda, respectively, indicated that they had stopped working because of COVID-19, against 39.2 percent and 11.1 percent of rural respondents. Without assistance, many risk slipping into poverty. Living in informal

10. Nigeria, Malawi, Gabon, Chad, Kinshasa (Democratic Republic of Congo), and Zimbabwe showed the highest shares of households in which members had skipped meals.

settlements exposes them to increased health and social risks, hinders their productivity, and increases their exposure to idiosyncratic shocks, such as unexpected health expenses (Weber, Palacios-López, and Contreras-González 2020).

**Existing vulnerabilities in the informal economy were amplified by the pandemic.** Informal businesses are typically characterized by low productivity and low capital requirements per worker, resulting in low and irregular earnings. Woman-owned businesses tend to be even smaller and less productive. This is aggravated by a lack of access to basic services, such as water and electricity, a dedicated space to operate or store supplies, and access to high-value markets. Informal businesses are typically not connected to financial institutions to enable them to make reliable business transactions, to access credit to make productive investments, or to save to prepare for unforeseen shocks. For most, selling productive assets in case of idiosyncratic or covariant shocks, such as the COVID-19 pandemic, is typically the only means of coping. These vulnerabilities were exacerbated by the pandemic because informal firms tend to be labor intensive and more prevalent in the services economy. In the service economy in developing economies that have been hit hard by the crisis, about 72 percent of firms are informal, compared with 33 percent in manufacturing (World Bank 2020c).

## 1.3. Social Protection Response to the Pandemic

**To offset the impact of the pandemic on households, almost all countries across Africa have expanded the coverage of social protection programs through relief programs.** Of the 48 African countries, 46 introduced or expanded social protection programs after the onset of the pandemic. Governments in the region mostly responded through social assistance (86 percent), while social insurance (8 percent) and labor market programs (6 percent) were relied on significantly less. Support through social insurance included cash transfers, transfers in kind, school feeding programs, public works programs, and utility support (Gentilini et al. 2021). The small share of responses through social insurance programs was expected given the low coverage of social insurance programs in the region among formal economy employees, who account for only a small share of total employment. Moreover, existing social insurance programs are typically used for long-term savings to address old-age income security and risks related to disability, work injury, and death. These schemes do not usually provide coverage for the large informal economy.

**The pandemic underlined the increasing importance of digital social protection platforms.** While some governments expanded coverage to existing safety net beneficiaries, many looked for ways to provide emergency relief to the informal economy, particularly the urban residents who had been affected the most. However, because people in the informal economy are not included in any formal government databases, countries had to look for innovative ways to expand coverage. Governments that have social registries with notable coverage could respond more quickly**.** COVID-19 prompted innovations in social protection delivery systems, particularly targeting and payment systems. Social protection was expanded to previously unreached populations with cash transfers, notably, participants in the informal economy. Governments in Africa relied on nontraditional application and verification procedures. Many applied digital tools for beneficiary registration and payments, for the first time in many cases. They transitioned from manual paper-based applications prepandemic to digital application platforms as an emergency response: USSD-based applications in Namibia, South Africa, and Togo and web-based application portals in Benin. Mobile money emerged as the main form of payment method for emergency cash transfers (Democratic Republic of Congo, Kenya, and Togo), and existing cash

*The pandemic underlined the increasing importance of digital social protection platforms.*

*A key lesson is that the response is more cost-effective if the social protection system is built as an integrated digital ecosystem.*

transfers increased the use of mobile money (Lesotho, Malawi, and Nigeria).

**A key lesson is that the response is more cost-effective if the social protection system is built as an integrated digital ecosystem with IDs, social registries, and payment systems that rely on big data sources and operate together.** While payment systems received the most attention during the pandemic, government-to-person (G2P) payment systems alone are not a sufficient solution. The extent to which these digital application tools can be integrated into existing cash transfer programs or any other form of payments or transfers remains to be seen.

A few examples give a sense of the varied initiatives, as follows:

- **South Africa**, although its safety net programs have a large coverage, did not have a database of people working in the informal economy, and these people were greatly affected by the pandemic. The government's Special COVID-19 Social Relief of Distress Program relied on digital technology to register individuals in the informal economy. Using public announcements, the government opened a fully digital process in early May 2020 whereby applicants sent in their applications and supporting documentation via WhatsApp, SMS, USSD, or online. These data were cross-checked with existing beneficiary databases to exclude those who were already receiving social assistance benefits. By the end of May 2020, over 6 million complete applications had been received, and 3 million had been approved.
- **Namibia** benefited from the availability of mobile network operators to receive the applications of people working in the informal economy. One million applications were received in two weeks. About 60 percent were declared eligible, and benefits were paid into bank accounts within two more weeks.
- **Nigeria** has a social registry and is addressing existing beneficiaries through this system. However, because people in the informal economy are not part of the social registry, the government is using a satellite imagery–based poverty mapping system to identify the poorest urban localities for targeting. The process of identification, registration, and enrollment of beneficiaries will also largely depend on the use of technology, including cell phones. Those interested in joining the program can respond by entering a short code they receive through SMS, or they can register at specified locations. The target is to register 2 million households. As a next step, community-based targeting will be implemented to identify eligible households.
- **Democratic Republic of Congo** has no social registry and is planning to use simplified geographic targeting (based on satellite imagery and spatial analysis) to identify localities for targeting in urban areas (Kinshasa) and automated self-registration (telecommunication data and bulk SMS–robocalls) for other localities. The plan was to carry out registration in November 2020, but information is unavailable on outcomes. As a targeting filter, subscribers who used smartphones, purchased data plans, or spent more than the equivalent of US$5 on voice, data, or SMS combined were excluded.
- **Togo:** As in many countries across Africa and around the world, the lives and livelihoods of many Togolese have been affected by COVID-19. The government had to be innovative in reaching the informal economy, particularly in urban areas, which were affected the most by the confinement measures. People in the urban informal economy as a group was particularly difficult to reach because they are not registered in any government database and were typically mobile In response to the pandemic. The government built a fully digital cash transfer program by asking Togolese to register in the Novissi Program, a cash transfer program, using a USSD code. Over the period the program was active, around CFAF 11 billion were dis-

tributed to around 500,000 people (a great majority in Greater Lomé and Tchaoudjo Prefecture) under the Novissi cash transfer scheme.

- **Côte d'Ivoire:** The Côte d'Ivoire Solidarity Fund for COVID-19 also followed a three-stage targeting approach for the urban poor and vulnerable. The fund first used existing databases at sectorial ministries to identify the poor and vulnerable in urban areas. People who were currently benefiting from existing programs were filtered out. Community-based targeting was then undertaken with the support of community leaders (neighborhood chiefs), who collected information on individuals, such as name, ID, vulnerability criteria, phone, and name of the neighborhood. Finally, verification by regional administrative authorities was conducted. Beneficiaries selected during steps 1 and 2 were then invited to visit regional verification committees to conduct a control de legalité (a legal check) to ensure documents were properly filled out and procedures had been properly followed (Gentilini, Khosla, and Almenfi 2021).

**In response to the pandemic, governments in the region had to allocate significant resources to expand social assistance benefits**. The expansion of social assistance in the region took place either vertically, by increasing existing benefits, or horizontally, by extending social protection to groups that had not been covered in normal times, notably, people working in the informal economy. While this has led to a significant increase in coverage in many countries, it has also come at a cost. According to data available on 30 countries in the Africa region, governments spent an additional US$6.1 billion to extend social assistance in response to the pandemic. In most countries where data are available, this extension was financed externally. While it would be desirable for governments to continue to pay for this extension, it may be challenging to maintain this higher level of spending after the pandemic in light of shrinking fiscal resources.

**Despite the concerted efforts of governments, many people active in the informal economy report that they have not received any social assistance benefits during the pandemic.** Governments exceeded their capacity to extend social protection coverage to the informal economy as emergency cash transfers during the pandemic. This led to significant increases in coverage in many countries. However, many people remained unreached. According to high-frequency surveys conducted in 17 countries in Sub-Saharan Africa, fewer than 10 percent of those surveyed had received any form of government benefit (see figure 10).[11] This leaves a large share of impacted households that did not receive social assistance transfers although they had reported lost income.

**African governments need to consider how to address the social protection needs of the informal economy after the pandemic.** The pandemic has certainly led to a shift in thinking about social protection. Governments have realized that a robust social protection system built on a reliable delivery structure that can be scaled up if necessary would improve their capacity to respond to shocks, such as COVID-19. African governments turned to digital technologies to register citizens and deliver payments during the pandemic. There was a surge in digital payments to replace cash transfers.

**Postpandemic, a suite of instruments should be examined to address the social protection needs of the informal economy; it will be difficult for governments to return to business as usual**. While this shift in approach is anticipated, it would be unrealistic to assume that African governments will be able to maintain the expanded cash transfers,

*Postpandemic, a suite of instruments should be examined to address the social protection needs of the informal economy.*

11. The amount of assistance varied from 1.8 percent of households in Ethiopia, 7.0 percent in Nigeria, and a few exceptional cases, such as 26.0 percent in Democratic Republic of Congo and 40.0 percent in Gabon. See COVID-19 Household Monitoring Dashboard, World Bank, Washington, DC, https://www.worldbank.org/en/data/interactive/2020/11/11/covid-19-high-frequency-monitoring-dashboard.

particularly among nonpoor informal (NPI) workers, as permanent cash transfers beyond the pandemic shock. First, this may not be affordable. Second, it may not be strategically appropriate to continue to provide cash transfers to people in the informal economy who are able to work. Many of these workers are nonpoor and therefore generally self-sufficient during normal times. A viable response might involve a suite of social protection instruments (section 3). These could be designed to rely on the mutual financing of certain aspects of social protection by the government and by NPI workers.

SECTION 2

# Not Poor and Not Formal: Who Are the Missed Middle of Social Protection?

## 2.1. A Conceptual Framework to Classify Households for Social Protection

**Understanding the characteristics of informal economy households is necessary in the identification of suitable social protection interventions, including productivity-enhancing measures and other services.** This section presents data analysis carried out on six countries across Africa—Benin, Kenya, Rwanda, Togo, Uganda, and Zambia—to categorize households according to the social protection instruments and services that best fit their needs. The analysis starts from the simple classification illustrated in figure 10. At one end of the spectrum are households below the national poverty line (poor households). The level of the national poverty line identifies households that each government aspires to protect through safety net programs (even if, in practice, only a subset of the poor is actually covered). At the other end are households that are not only nonpoor, but also participating in the formal economy, that is, nonpoor formal (NPF) households. Formal households are those in which either the household heads or their spouses participate in social insurance programs through their main employment activity.[12] The group between these two is the nonpoor informal (NPI). It is comprised of people working in the informal economy who are not sufficiently poor to be targeted by safety net programs, but lack the protection people in the formal economy receive through social insurance. These households constitute the missed middle of social protection.[13]

12. To create mutually exclusive categories, the poor in the formal economy are classified as poor.
13. This paper builds on the methodology developed as part of the World Bank's engagement in the informal economy in Benin (Guven, Brodersohn, and Joubert 2018). Subsequently, social protection and jobs public expenditure reviews carried out by World Bank teams in Kenya, Uganda, and Zambia adopted a similar methodology in analyzing the informal economy. As part of this paper, additional analysis for Togo was carried out, and the Benin analysis was updated using the most recent survey data. The analysis of Rwanda household survey data was carried out jointly with the Rwanda social protection program. The presentation of this categorization here brings different pieces of work across the region together to present the analysis in a comparable way in the six African countries.







**FIGURE 10.** The missed middle of social protection


*Source:* World Bank elaboration.

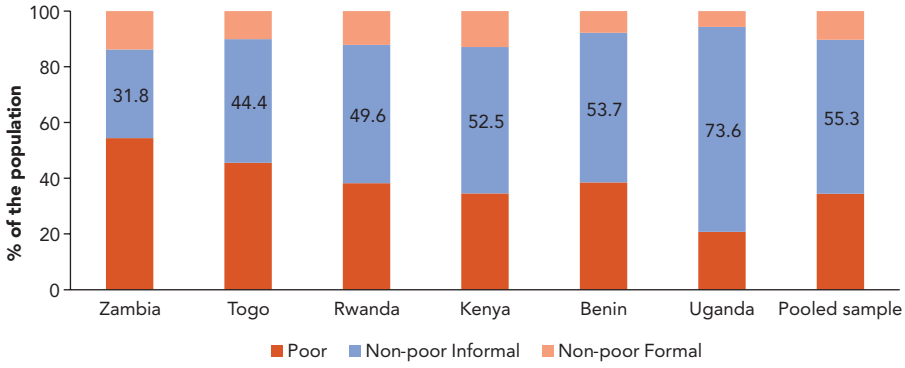
*On average, more than half the population in the six countries analyzed falls under the NPI category.*

**On average, more than half the population in the six countries analyzed falls under the NPI category (figure 11).** The downward trend in extreme poverty and the stagnation of formality rates across the continent in past decades suggest that this category is on an upward trajectory in absolute and relative terms. The highest proportions of NPI households are found in Benin, Kenya, and Uganda, where they account for more than half the population. In Rwanda, the share of the NPI is also close to 50 percent. In contrast, Zambia has a relatively large formal economy, and a high poverty rate, which means only a third of the population is neither formal nor poor. In part, the differences across countries stem from the relative levels of the national poverty lines set by the governments. For example, Togo's national poverty line is significantly higher than Benin's in purchasing power parity terms, resulting in a smaller NPI segment in Togo. Uganda's poverty line is relatively low (compared with the international poverty line), and its formal economy is small, resulting in a large NPI segment, nearly three-quarters of the population.

**The social protection needs of this large segment of NPI households are coming into focus as the magnitude and impacts of aggregate shocks, such as the COVID-19 pandemic and global warming, become clearer.** The World Bank estimates that the COVID-19 pandemic and related lockdowns pushed 34 million individuals into extreme poverty in 2020 (Lakner et al. 2021). The near absence of an administrative relationship between NPI households and governments has considerably slowed the delivery of relief from national and international sources to these groups, likely deepening the negative consequences of lockdowns on welfare and human capital among these groupd. The COVID-19 pandemic could therefore also have important implications for the size and vulnerability of these groups in the medium to long term.

**FIGURE 11.** Size of the missed middle in six countries in Africa

*% of the population living in NPI households*




*Source:* 2015 Living Conditions Monitoring Survey (Zambia), 2018 Enquête Harmonisée sur les Conditions de Vie des Ménages (Benin, Togo), 2015 Kenya Integrated Household Budget Survey, 2016 Uganda National Panel Survey.

**In the absence of systematic descriptions of NPI households, it is impossible to target, design, and evaluate social protection programs tailored to this population segment.** In contrast to the wealth of information accumulated on the economic lives of the poor (Banerjee and Duflo 2007; Ravallion 2015) and the data available on the formal economy, relatively little is known about the nonpoor in low-income countries. A burgeoning literature has sought to characterize the related concept of the middle class, motivated by the theory that a large middle class drives growth and democratic change (Banerjee and Duflo 2008; Easterly 2001; Ravallion 2010). Economists differ on the specific consumption range that would identify a middle class, and scholars in other fields have challenged as reductive the use of quantitative consumption-based criteria to analyze a multidimensional concept (Melber 2016). This paper circumvents these debates by defining the group of interest using concepts directly relevant to social protection policy: poverty (the main target of safety nets) and formality (already covered by social insurance programs).

**How should NPI populations be envisaged by policy makers?** Are most of them teetering on the edge of poverty and best targeted by the same safety nets that benefit the poor? Is there an informal middle class with similar characteristics to its formal economy counterpart: earnings well above the subsistence level and an ability to accumulate wealth over time? Such a population may need safer and more profitable instruments to transfer consumption over time. Another possibility is that the missed middle has decent earnings, but is riddled by crippling economic uncertainty, which would call for insurance products tailored to the most prevalent shocks. This section proposes a classification of households in Sub-Saharan Africa according to social protection needs. It uses widely available information from representative cross-sectional surveys to compare individuals living in NPI households with those in poor or NPF households, according to various dimensions, including consumption, human capital, occupation, assets, and resilience to shocks. Based on this information, the section arrives at a simple typology of households that can help in designing integrated social protection strategies.

## 2.2. Characteristics of Nonpoor Informal Households

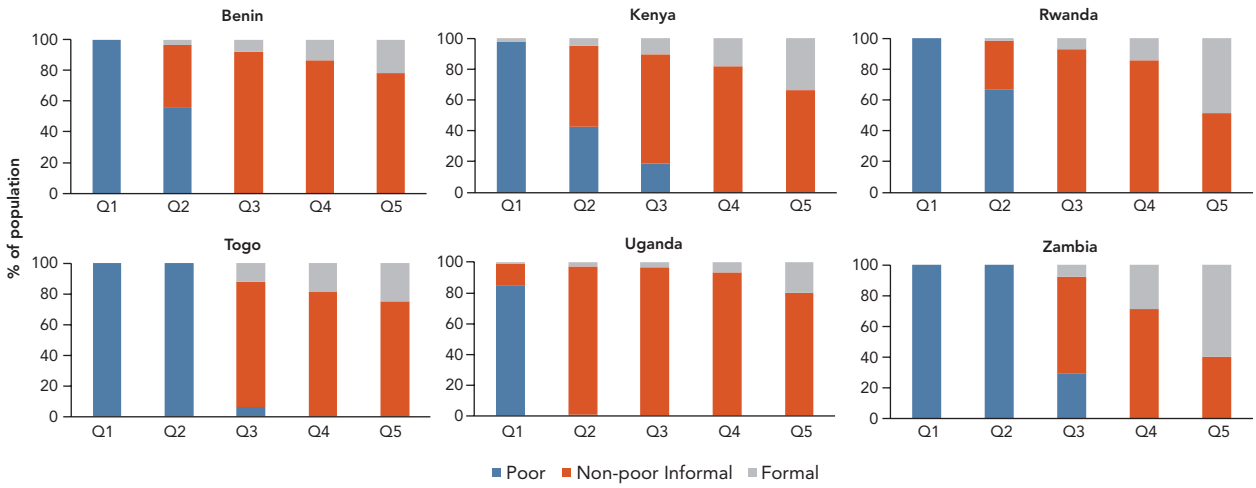
**Even though formality rates increase with household consumption, most households at the top of the consumption distribution can be classified as informal.**[14] A division of households into the three categories by quintile shows that, even among the wealthiest population (the top quintile), there are many households in which the household head and the spouse work in the informal economy.

*Most households at the top of the consumption distribution can be classified as informal.*

Figure 12 shows the quintile plot for the six countries considered. In all countries, the proportion of formal households is higher in higher consumption quintiles. However, in all countries except Zambia, a majority of households in the top quintile are informal. In Benin, Kenya, Togo, and Uganda, fewer than one household in three in the richest quintile is formal, whereas more than two in three are informal. NPI households are also the majority in consumption quintiles 3 and 4 for all countries considered. By construction, the poor are concentrated in the first two quintiles.[15] This analysis suggests that a segment of the informal economy in Sub-Saharan Africa is relatively well off and could have the ability to save and contribute to social protection programs.

14. Informal households in this chapter are those in which neither the household head nor the spouse participates in social insurance programs through their main employment activity.
15. Poverty lines can differ by region in some countries, which explains why some Ugandan households in the first consumption quintile (the bottom 20 of the distribution) are above the regionally adjusted poverty line. For the same reason, in Kenya, some households in the third quintile are below the regional poverty line, while some in the second quintile are above this line.

**FIGURE 12. Percentage of the population living in NPI households, by household consumption quintile**




*Source:* 2015 Living Conditions Monitoring Survey (Zambia), Enquête Harmonisée sur les Conditions de Vie des Ménages (Benin, Togo), 2015 Kenya Integrated Household Budget Survey, 2016 Uganda National Panel Survey.

*Among NPI households, 27.2 percent are headed by women.*

**Among NPI households, 27.2 percent are headed by women** (table 3). The ratio ranges from 17.3 percent in Benin to 30.7 percent in Kenya. Woman-headed households are systematically underrepresented among NPF households, at 14.1 percent, and thus have a weaker connection to formal social insurance relative to man-headed households. However, woman-headed households are not overrepresented among the poor in any of the sampled countries, except perhaps Kenya, where they account for 33.8 percent of poor households, versus 30.7 percent among NPI households.

**Employment variables differ markedly between NPF and NPI households (figure 13).** In all countries considered, poor and NPI households are much more likely to be rural and participate in agriculture and much less likely to include wage earners outside agriculture. In Zambia, the share of households in which one member works in a medium or large establishment (five workers or more) is 83.3 percent among NPF households versus 23.9 percent and 10.6 percent among NPI and poor households, respectively (not shown).

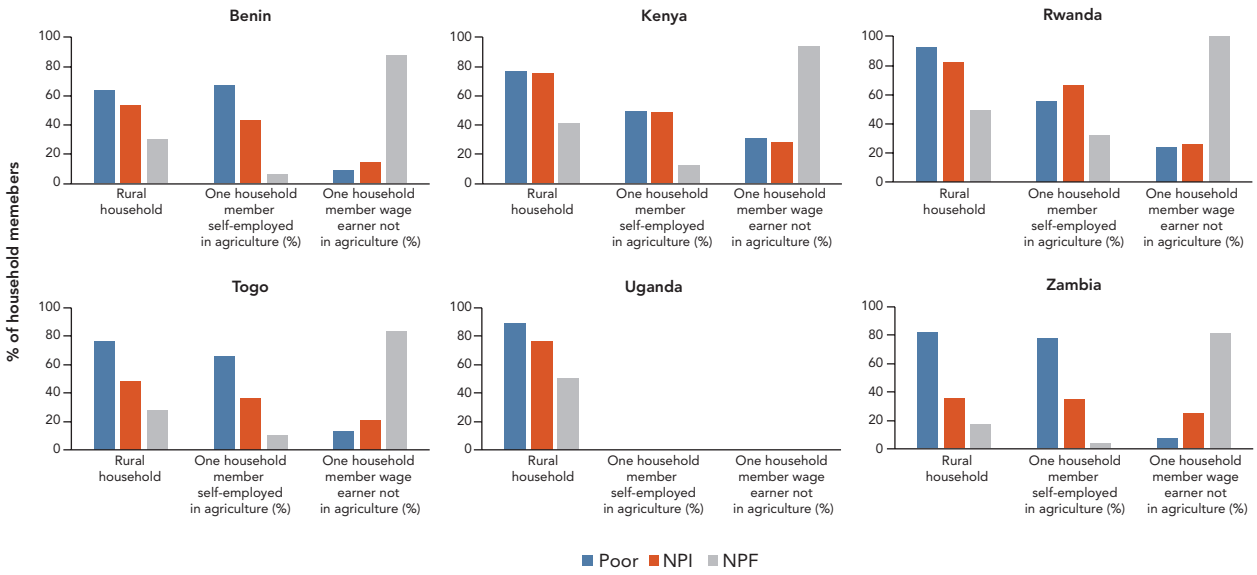
**Table 4 shows other, selected characteristics by household type using the example of Benin. Although they resemble poor households for the type of activities they engage in, NPI households are about equidistant**

**TABLE 3. Share of woman-headed poor, nonpoor informal, and nonpoor formal households**

| | Poor | Nonpoor Informal | Nonpoor Formal |
|---|---|---|---|
| BEN | 15.7% | 17.3% | 9.2% |
| KEN | 33.8% | 30.7% | 13.5% |
| RWA | 20.1% | 20.3% | 13.7% |
| TGO | 20.8% | 23.1% | 12.7% |
| UGA | 27.4% | 29.5% | 21.5% |
| ZAM | 20.4% | 21.8% | 11.2% |
| POOLED | 25.9% | 27.2% | 14.1% |

*Sources:* 2015 Living Conditions Monitoring Survey (Zambia), Enquête Harmonisée sur les Conditions de Vie des Ménages (Benin, Togo), 2015 Kenya Integrated Household Budget Survey, 2016 Uganda National Panel Survey.

**FIGURE 13. Employment in poor, NPI, and NPF households**




*Sources:* 2015 Living Conditions Monitoring Survey (Zambia), Enquête Harmonisée sur les Conditions de Vie des Ménages (Benin, Togo), 2015 Kenya Integrated Household Budget Survey, 2016 Uganda National Panel Survey.
*Note:* The second and third indicators were not available for Uganda.

**from poor and NPF households in most other economic decisions and comparable with NPF households on some.** This is true of median household consumption, but also of the number of children living at home and the share of the household budget spent on food. In Benin, the median consumption of poor households is half that of NPI households, whereas the median consumption of NPF households is 30 percent higher than that of NPI households. In terms of financial inclusion, 58.6 percent of NPI households have bank accounts (including mobile banking accounts), against 30.1 percent of poor households and 91.9 percent of NPF households. About half (50.6 percent) of NPI households use mobile banking, whereas 23.6 percent of the poor and 73.9 percent of the formal do so.[16] With regards to school enrollment indicators, NPI households are closer to NPF households than they are to poor households. Among NPI households in Benin, 82.1 percent reported that they had been hit by a shock during the previous 12 months, a share similar to the share among formal households (71.9 percent). In response to shocks, 31.5 percent of NFI households resort to negative coping strategies, closer to the shares reported by poor households (34.6 percent) than by NPF households (21.2 percent).

**On most wealth indicators, NPI households in Benin are closer to poor households than to NPF households.** They are more likely than the latter to own a house or land, but the housing amenities are much worse: only 4.9 percent of NPI households have flush toilets (compared with 20.5 percent among NPF households); 10.9 percent have piped water (NPF, 35.0 percent); and 30.3 percent have access to electricity (NPF, 65.5 percent) (see table 4). These indicators on NPI households are still significantly above the indicators on poor households. Car ownership and internet access are still largely restricted to formal households, but NPI households have caught up in terms of cellphone penetration. The majority of NPF (98.5 percent) and NPI (92.8 percent) households have cell phones. NPF households are three times more likely to have internet access (67.2 percent) compared with NPI

***On most wealth indicators, NPI households in Benin are closer to poor households than to NPF households.***

16. Financial inclusion data are available only on Benin, Rwanda, and Togo.

**TABLE 4. Selected characteristics, by household type, Benin**

| | Average, by type of household | | | Difference across types | |
|---|---|---|---|---|---|
| | P | NPI | NPF | P-NPI | NPF-NPI |
| *Consumption* | | | | | |
| Household consumption per capita (median, NPI = 1) | 0.5 | 1.0 | 1.3 | *-0.5* | *0.3* |
| *Human capital* | | | | | |
| Household head with a high school degree (%) | 0.8 | 5.2 | 39.8 | *-4.4* | *34.5* |
| School enrollment (% of children ages 7–12) | 64.4 | 83.3 | 95.4 | *-18.9* | *12.1* |
| School enrollment (% of children ages 13–18) | 45.0 | 67.4 | 80.3 | *-22.4* | *12.9* |
| *Assets* | | | | | |
| Homeowners (%) | 67.3 | 58.6 | 50.9 | *8.7* | *-7.7* |
| Landowners (%) | 50.8 | 32.8 | 10.7 | *18.0* | *-22.1* |
| Own a car (%) | 0.1 | 4.6 | 16.8 | *-4.4* | *12.3* |
| Own a bicycle (%) | 10.7 | 6.8 | 7.4 | *4.0* | *0.6* |
| Own a cellphone (%) | 82.4 | 92.8 | 98.5 | *-10.4* | *5.7* |
| Internet access (%) | 4.4 | 21.2 | 67.2 | *-16.8* | *46.0* |
| Own a TV (%) | 7.7 | 29.1 | 67.4 | *-21.4* | *38.4* |
| Access to electricity (%) | 8.6 | 30.3 | 65.5 | *-21.7* | *35.2* |
| Flushed toilets (%) | 0.1 | 4.9 | 20.5 | *-4.8* | *15.6* |
| Piped water (%) | 2.1 | 10.9 | 35.0 | *-8.8* | *24.1* |
| *Occupation* | | | | | |
| Rural household | 63.7 | 53.3 | 30.2 | *10.4* | *-23.1* |
| One household member self-employed in agriculture (%) | 67.3 | 43.0 | 6.2 | *24.2* | *-36.8* |
| One household member wage earner in agriculture (%) | 2.7 | 1.9 | 1.0 | *0.8* | *-0.9* |
| One household member wage earner not in agriculture (%) | 9.2 | 14.2 | 87.9 | *-5.0* | *73.8* |
| *Shocks* | | | | | |
| Household hit by a shock in the past 12 months | 86.4 | 82.1 | 71.9 | *4.3* | *-10.2* |
| Household resorted to negative coping strategies in the past 12 months | 34.6 | 31.5 | 21.2 | *3.2* | *-10.2* |
| *Financial inclusion* | | | | | |
| Has a bank account (including mobile banking) | 30.1 | 58.6 | 91.9 | *-28.5* | *33.4* |
| Uses mobile banking | 23.6 | 50.6 | 73.9 | *-27.0* | *23.3* |
| Participates in a tontine/ROSCA | 39.2 | 46.1 | 42.9 | *-6.9* | *-3.2* |

*Sources:* 2015 Living Conditions Monitoring Survey (Zambia), Enquête Harmonisée sur les Conditions de Vie des Ménages (Benin, Togo), 2015 Kenya Integrated Household Budget Survey, 2016 Uganda National Panel Survey.
*Note:* P = poor. NPI = nonpoor Informal. NPF = nonpoor formal. See annex C for definitions of poverty, formality, and resilience.
* = data for Zambia only. ** = data for Benin, Kenya, and Togo only.

households (21.2 percent), which is significantly above the corresponding share of poor households (4.4 percent).

## 2.3. Exposure to Shocks, Resilience, and Ability to Contribute

**Half of NPI households (50.8 percent) across the six-country sample reported that they had experienced a significant economic shock in the previous 12 months, but that share varies considerably across countries, from 82.1 percent in Benin down to 29.5 percent in Uganda.** The set of shocks listed in the survey and their description exhibit some differences across countries, which may account for some of the variation. Overall, the high level of prevalence of shocks among NPI households suggests there is a large potential for welfare gains if social protection coverage were extended to this group.

**To characterize potential gains from social protection more closely, it is useful to distinguish between resilient NPI households that can successfully smooth consumption during shocks and nonresilient NPI**

**households that cannot accomplish this.** In the data, resilience to shocks can be assessed from the type of coping strategy employed by households faced by a shock. Some households can effectively minimize the negative consequences of a shock by drawing on their savings, borrowing, seeking help from networks, or temporarily increasing their labor supply. Households that successfully absorb a shock in this way are labeled resilient. Other households must reduce their food consumption or mitigate the immediate effects of the shock at the cost of reducing human capital or earnings potential among household members. For example, households may resort to fire selling productive assets, taking children out of school, or migrating. Households that reported these types of responses are labeled nonresilient.[17]

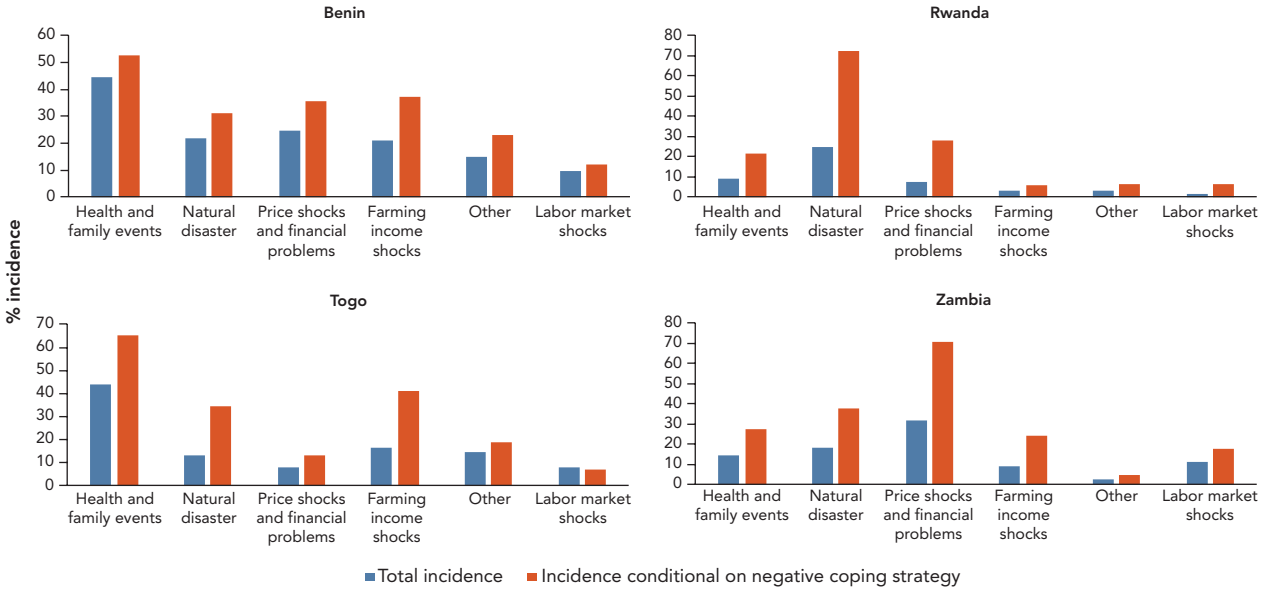
**The concept of shock resilience also captures whether households might be expected to contribute toward their own social protection.** A lack of shock resilience can be interpreted as a sign of liquidity constraints. Households that struggle to cope with shocks may be unwilling and unlikely to benefit from giving up current consumption to pay into a savings or social insurance scheme. This is especially true of long-term savings such as pensions, where benefits are received far in the future. Partially or fully subsidized contributions may therefore be necessary if nonresilient households are to be covered by social insurance programs. This could be coupled with short- to medium-term access to all or a certain share of savings to address short- to medium-term liquidity needs in response to household shocks. Conversely, insurance against immediate risks could free up resources to allow these households to contribute at least partially to long-term insurance programs such as pensions. Access to savings or insurance might increase the likelihood that these household will take calculated risks that may improve productivity.

***The most common types of shocks affecting NPI households also differ across countries.***

**The most common types of shocks affecting NPI households also differ across countries** (figure 14). In Benin and Togo, health and family events (death, serious injury, illness, divorce, and so on) are the most common types

17. Annex C provides a list of negative and positive coping strategies used to define resilience.

**FIGURE 14. Incidence of household shocks among nonresilient NPI households**




*Sources:* 2015 Living Conditions Monitoring Survey (Zambia), Enquête Harmonisée sur les Conditions de Vie des Ménages (Benin, Togo).
*Note:* Kenya and Uganda are not shown because the shock classifications are not comparable with those in the other countries.

*Man and woman headed NPI households report comparable exposures to shocks and usage of negative coping strategies.*

of shocks reported (44.6 percent and 44.0 percent of households) and the most frequently associated with negative coping (52.7 percent and 65.1 percent). In Rwanda, natural disasters (floods, storms, droughts) are the most frequent shocks (24.8 percent), accounting for 72.3 percent of instances of negative coping. In Zambia, NPI households are most exposed to financial shocks such as large variations in prices (31.9 percent), which also account for 70.7 percent of negative coping episodes. The fact that some types of shocks are often reported by the nonresilient indicates that these are shocks that are relatively more difficult to cope with (not merely that they occur more frequently). Identifying which shocks are both frequent and difficult to cope with can help focus efforts to improve resiliency rates.

**In the typology proposed here, households not affected by any shock in the last year are grouped together with households that successfully coped with a shock in the resilient group.** To the extent that shocks do not hit the same households year after year, these households may or may not turn out to be vulnerable to shocks. Further research employing repeated observations on a sample of households over longer periods would be useful in refining the distinction between resilient and nonresilient households. The typology focuses on identifying households that have shown recent signs of economic distress (the nonresilient) and therefore would struggle to make contributions to social insurance programs. Grouping the resilient and the unexposed in one category effectively identifies an upper bound on the share of the population that may be able or willing to contribute to, say, a voluntary pension program, but should not be interpreted as a guaranteed number of participants. There are many reasons why households in this group may not, in fact, be willing to contribute, despite showing no recent signs of distress. Some households may be generally exposed to shocks, but may have been lucky during the year preceding the survey, but there are other possible factors (lack of trust in institutions, preferences for other forms of savings, and so on). Operationally, this category of households might constitute a good starting pool on which to target enrollment campaigns.

**Man- and woman-headed NPI households report comparable exposures to shocks and usage of negative coping strategies** (for Togo, see table 5). While some studies find that woman-headed households in Sub-Saharan Africa tend to be relatively poorer, this does not

**TABLE 5. Selected characteristics of man- vs. woman-headed NPI households, Togo**

| | Man-headed | Woman-headed |
|---|---|---|
| HH hit by a shock in the past 12 months | 70.7% | 63.7% |
| HH resorted to negative coping strategies | 10.8% | 8.0% |
| *HH characteristics* | | |
| Age of the head | 43.9 | 44.9 |
| Head has high school degree | 9.9% | 4.3% |
| Urban | 48.3% | 62.4% |
| Food share | 48.0% | 49.4% |
| *HH owns* | | |
| Land | 28.3% | 13.1% |
| House | 52.0% | 33.5% |
| Car | 5.8% | 1.2% |
| Phone | 94.0% | 85.8% |
| TV | 47.9% | 36.9% |
| Bicycle | 17.6% | 6.9% |

*Source:* Enquête Harmonisée sur les Conditions de Vie des Ménages (Togo).

appear to translate into large differences among households above the poverty line.[18] As reported in the literature on the African population at large, women household heads are older and less well educated (Milazzo and van de Walle 2017). The largest differences are found in the ownership of durable household items. Ownership rates of cars, telephones, televisions, and bicycles are lower among woman-headed households.

**The proxy for resilience described above can be combined with other observable characteristics to identify suitable social protection instruments and target them on the appropriate populations.** For example, looking at occupation is a good way to identify groups of potential instrument users. Earnings within an occupation will exhibit a relative homogeneity in levels and volatility. In addition, professional organizations in more resilient occupations can be enrolled to help reach and register participants, provide them with information, and foster trust in a program (Guven 2019). The occupations with the largest shares and absolute numbers of resilient individuals in the case of Zambia are shown in table 6.

**In Zambia, Individuals working in informal urban services are most likely to live in resilient households.** Table 6 shows the top 10 occupations ordered by the *share* of individuals living in resilient households within each occupation. At the top of the ranking are occupations related to retail (shopkeepers, sales

***In Zambia, individuals working in informal urban services are most likely to live in resilient households.***

18. The extent to which poverty is greater among woman-headed households is debated and appears to hinge on how economies of scale are adjusted (Milazzo and van de Walle 2017; Quisumbing, Haddad, and Peña 2001).

**TABLE 6. Occupations with the most nonpoor informal resilient workers, Zambia**

| | Workers living in NPI resilient households | | Monthly household consumption | |
|---|---|---|---|---|
| | Share, % | Number | Mean | SD |
| *Occupations with largest numbers of NPI-R* | | | | |
| Subsistence crop farmers | 19 | 284,429.3 | 804.5 | 1,004.4 |
| Sales workers not elsewhere classified | 46 | 116,800.1 | 2,334.5 | 2,573.4 |
| Stall and market salespersons | 49 | 99,161.9 | 2,034.9 | 1,913.5 |
| Mixed crop growers | 28 | 85,949.4 | 1,036.8 | 1,226.8 |
| Bricklayers and related workers | 42 | 49,485.6 | 1,355.2 | 1,112.6 |
| Shopkeepers | 61 | 42,685.8 | 3,312.0 | 3,249.3 |
| Mixed crop and animal producers | 34 | 32,646.3 | 1,127.4 | 1,578.9 |
| Car, taxi, and van drivers | 48 | 30,503.2 | 2,451.9 | 1,893.5 |
| Subsistence mixed crop and livestock | 19 | 27,560.8 | 922.2 | 1,038.7 |
| Crop farm laborers | 14 | 26,661.3 | 921.5 | 1,286.1 |
| *Occupations with largest shares of NPI resilience* | | | | |
| Shopkeepers | 61.2 | 42,685.77 | 3,312.01 | 3,249.28 |
| Shop sales assistants | 54.3 | 16,211.35 | 3,084.30 | 3,165.65 |
| Carpenters and joiners | 49.1 | 21,160.48 | 1,737.66 | 2,104.87 |
| Stall and market salespersons | 48.7 | 99,161.86 | 2,034.89 | 1,913.46 |
| Hairdressers | 48.3 | 16,707.30 | 2,408.19 | 2,376.59 |
| Car, taxi, and van drivers | 47.7 | 30,503.17 | 2,451.90 | 1,893.47 |
| Sales workers not elsewhere classified | 45.9 | 116,800.11 | 2,334.53 | 2,573.37 |
| Street food salespersons | 44.6 | 21,294.33 | 1,464.64 | 1,262.09 |
| Heavy truck and lorry drivers | 44.4 | 14,078.46 | 2,899.13 | 2,744.50 |
| Bricklayers and related workers | 41.8 | 49,485.62 | 1,355.20 | 1,112.55 |

*Sources:* 2015 Living Conditions Monitoring Survey (Zambia).
*Note:* Only occupations with at least 100 observations in the survey are considered.

*The protection of the nonpoor informal economy against life-cycle risks can support welfare and prevent downward transitions into poverty.*

assistants, market salespersons) and other urban services (carpenters, hairdressers, taxi drivers, and so on). Compared with other informal employment, income from these occupations is relatively higher and less vulnerable to shocks, particularly weather shocks.

**Despite a low share of resilient households, subsistence farming is still by far the largest reservoir of resilient households in absolute number.** Among households engaged in subsistence farming, only 19 percent are resilient. However, the large number of individuals active in this occupation translates into 284,429 individuals in this category. This is an important metric if social insurance schemes seek to target occupations in which they can achieve scale most easily and keep administrative fees per affiliate to a minimum. In this case, ignoring subsistence farmers as potential contributors to a social insurance scheme only because they have a smaller share of resilient households would be a missed opportunity. More research is needed to identify subgroups among subsistence farmers that may be less exposed to risk or enjoy higher and more stable earnings based on, for example, type of crop, land characteristics, access to weather or crop insurance, and so on.

**Another way to identify which households may be able to contribute toward social insurance is to examine whether they accumulate assets and durable goods over the life cycle.** Life-cycle asset accumulation signals excess liquidity, which could signify that participation in a savings scheme might be incentive compatible. However, comprehensive data on household wealth are rarely available in Sub-Saharan Africa, and repeated cross-sections spanning a long period of time would be necessary to follow birth cohorts along the life cycle.

**Box 1 draws suggestive evidence from the durable goods owned by households that at least some segments of the informal economy do accumulate wealth over the life cycle**. It also details the limitations of this exercise. Further research in this area with better data on all forms of wealth owned by households spanning long periods would help characterize more finely these segments, which could then be targeted by contributory social protection programs.

## 2.4. Including the Nonpoor Informal Economy in an Integrated Social Protection Strategy

**The protection of the nonpoor informal economy against life-cycle risks can support welfare and prevent downward transitions into poverty.** Sub-Saharan Africa's formal economy is unlikely to grow quickly enough to absorb the large cohorts of new labor market entrants that will characterize the coming decades. Most of these individuals will work informally throughout their lives, facing multiple risks, from work injuries to old-age indigence. Most will not be poor, but they will be at risk of falling into poverty if a relevant combination of shocks occurs and exhausts their self-insurance capacities. Still, the results suggest that many will be able to put aside resources and become wealthier over the life cycle.

**To help design an integrated social protection strategy that encompasses the NPI economy, the simple household typology illustrated in figure 15 may be appropriate.** The typology may be mapped into a continuum of social protection over the distribution of income in the spirit of the proposal of Packard et al. (2019). The classification can be implemented using cross-sectional household survey data of the Living Standards Measurement Study type, though panels and repeated cross-sections would be extremely valuable in refining the analysis presented here.

**The typology shown in figure 15 distinguishes four groups (country-specific household categorization are presented in annex D).** The poor need relief from a damaging lack of resources (for example, through

## BOX 1. Do households in the informal economy accumulate wealth over the life cycle?

**The extent to which households in the informal economy accumulate wealth over the life cycle is important for social protection design, but recent evidence on the subject is scarce.** The rapid aging, declining fertility, weakening village-based solidarity, and reductions in poverty experienced in Sub-Saharan Africa in the past decades should have strengthened incentives to save for old age, at least among the more well off segments of the informal economy. It is also possible that expectations have not adjusted to these trends or that households lack the technology or ability to accumulate significant amounts of savings over long horizons. Findex evidence shows that 9.8 percent of adults in Sub-Saharan Africa declare that they save specifically for old age, but 60.0 percent report that they save in general, which could represent savings for many purposes (Demirgüç-Kunt, Klapper, and Panos 2016).

**In the absence of comprehensive data on all forms of household wealth, the analysis included the construction of a principal component index that captures the amount and type of durable goods (cars, bicycles, beds, phones, televisions, and so on) owned by each household.** Possession of these goods may be interpreted as a proxy for household wealth in the spirit of Filmer and Pritchett (2001) (see details in annex C). The analysis examines how the value of the index evolves according to the age of the household head across various types of households (poor, NPI resilient and nonresilient, and NPF) in four countries (Benin, Rwanda, Togo, and Zambia) (figure B1.1). Regressions are then used to extract age profiles for each type of household. (Annex D provides technical details on the principal component analysis and regression specifications and outputs.)

**Using one cross-section of data to examine life-cycle patterns has several important limitations.** A well-known difficulty is that life-cycle patterns cannot be isolated from cohort and time. First, if older households own more than younger households, it may be that their generation happened to be more well off, without revealing true life-cycle accumulation. Second, assets are measured at the household-level, but households do not have a well-defined life cycle. Individuals may cease to be household heads after a certain age, creating selection bias in data patterns that are ordered using the age of the household head. Third, the household groupings considered are not permanent because households can switch between formality and informality, resilience and nonresilience, and into or out of poverty. Formality is likely to be persistent, and consumption-based poverty is constant under the permanent income hypothesis if the discount rate equals the rate of return on savings. But, in practice, poverty transitions are common. Further research using panel data would be needed to determine the degree of persistence of shock resilience.

**Within these limitations, the results show indications of a higher rate of wealth accumulation and for a longer period among the resilient nonpoor relative to the poor and nonresilient informal economy households.** The profile of poor and nonresilient NPI households increases early in life, but flattens out after age 35. A possible interpretation is that these households put aside a buffer-stock of assets that can be sold or used as collateral to mitigate the effects of future shocks, but do not accumulate additional assets over the long term. In contrast, resilient NPI households have a lower starting point, but exhibit a steeper profile that continues to increase into their mid-50s, which is consistent with life-cycle savings accumulation.

**FIGURE B1.1. Estimated age profiles of a household wealth index, by type of household**

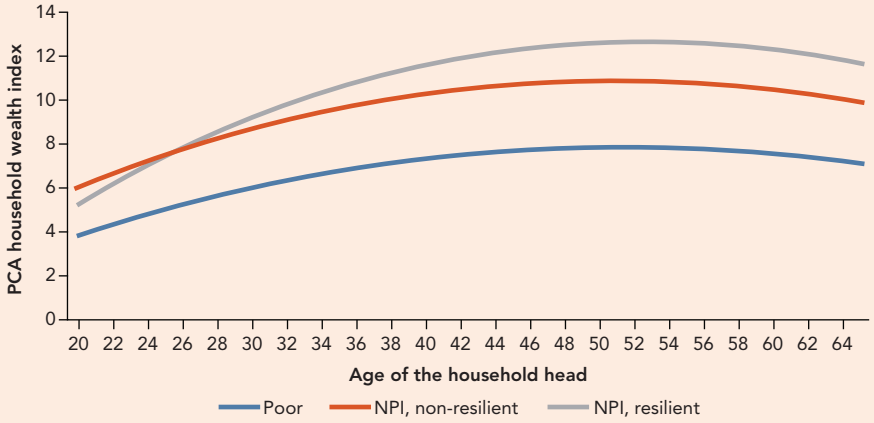
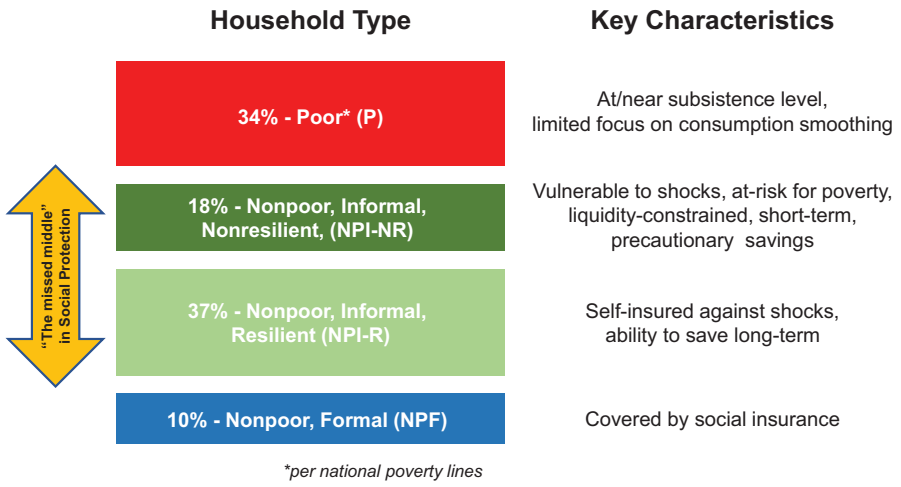


**FIGURE 15. A household typology for a continuum of social protection**




*Source:* World Bank elaboration.

*Categorizing households using household survey data can be an important first step for social protection policy makers in a country.*

transfers in cash or in kind and workfare) and help improving their earning potential (productive inclusion). Nonpoor but nonresilient informal households show signs of liquidity constraints, may not be able to afford regular contributions, and require partial or full subsidization and short-term access to savings. They may benefit from insurance, access to loans, and coverage against the main risks, which could free up resources to pay contributions. Resilient informal households, particularly those with stable employers, can be targeted by long-term savings schemes in addition to contributory health insurance. The last type of household (nonpoor formal) already benefits from typically generous and unsustainable social insurance coverage. Preventing such schemes from draining fiscal space away from other antipoverty and social protection efforts is also a crucial part of an integrated social protection strategy.

**Categorizing households in this way using household survey data, can be an important first step for social protection policy makers in a country.** The exercise, would help calibrate coverage expectations for schemes that target the informal economy. The informal resilient workers are likely to have the ability to make regular contributions, while informal, nonresilient households might be able to do so if they are given incentives. Section 6 shows how the results of such an analysis can be used to inform an appropriate scheme viability assessment using a tool recently developed by the World Bank.

SECTION 3

# What Are the Suitable Social Protection Instruments in the Informal Economy?

**Given the distinct characteristics of informal economy workers, specific social protection policies and instruments will be needed.** The policies would take into consideration the varying incomes, short-term liquidity requirements, and ability to weather shocks of these workers. The delivery of emergency cash benefits has been the most effective response in short-term relief. In future, governments should establish a suite of instruments to respond to the needs of the informal economy given the diversity of the needs of this group. In addition to the cash transfer programs that are available in almost all countries in the region, innovative social insurance plans and productivity-enhancing measures across the income spectrum should be created to bolster the informal economy, particularly in urban areas. A suite of social protection instruments implemented with the support of coordinated policies would lead to a more resilient and productive informal economy that puts workers on a sustainable path to better livelihoods and improved human capital development (figure 16).

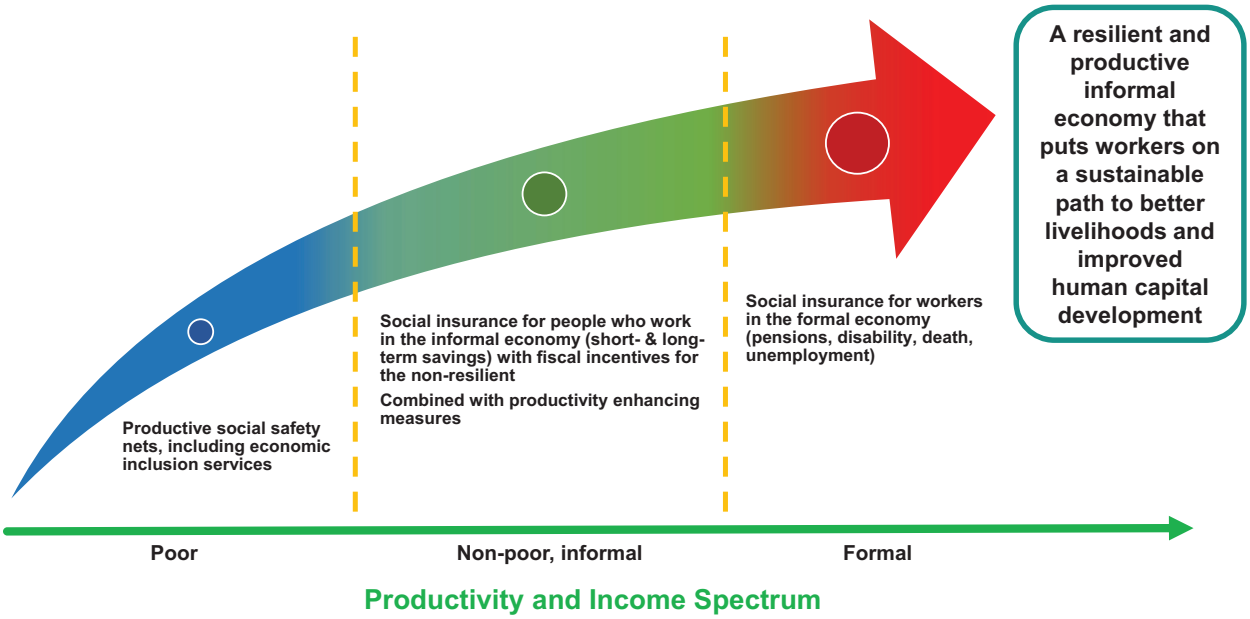
## 3.1. Social Safety Nets and Economic Inclusion Programs for the Poor Informal Economy

**Safety nets have been expanding quickly in the Africa region in the past two decades.** Most African countries have recently established social safety net programs as part of a broader strategy to assist the poor and protect the vulnerable. The objectives of safety nets differ and may range from reducing monetary poverty, food insecurity, and vulnerabilities (such as social pensions for old age, disability, exposure to natural disasters, and conflict situations) to improving access to basic services among the poor and promoting productive inclusion for the poorest. The average number of new social safety nets launched in Africa rose from 7 in 2001–09 to 14 in 2010–15 (figures 17 and 18). Almost all countries in Africa have at least one safety net program (Beegle, Coudouel, and Monsalve 2018).



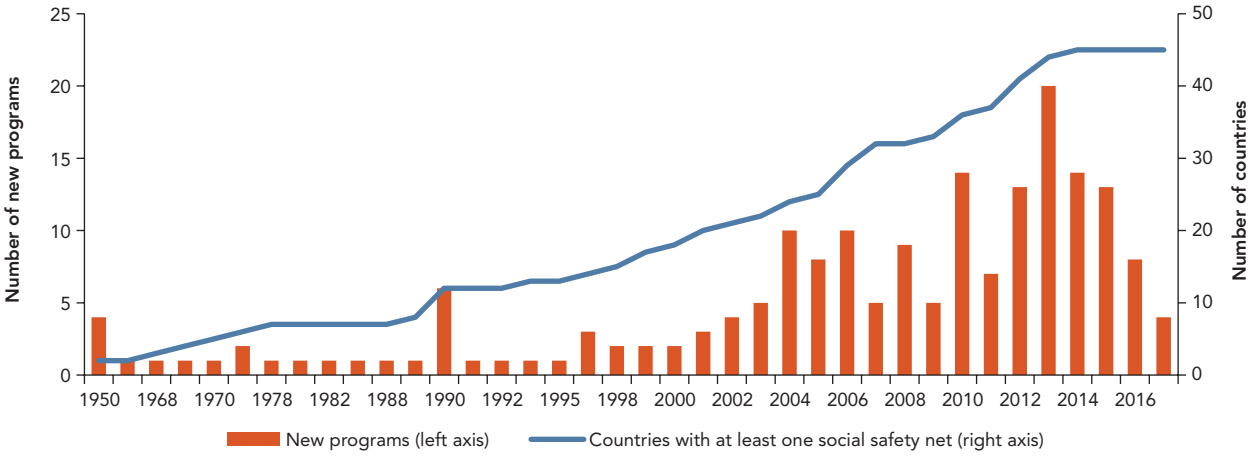


**FIGURE 16.** Social protection instruments across the income spectrum




*Source:* Guven and Karlen 2020.

**FIGURE 17.** Safety net programs launched in Africa

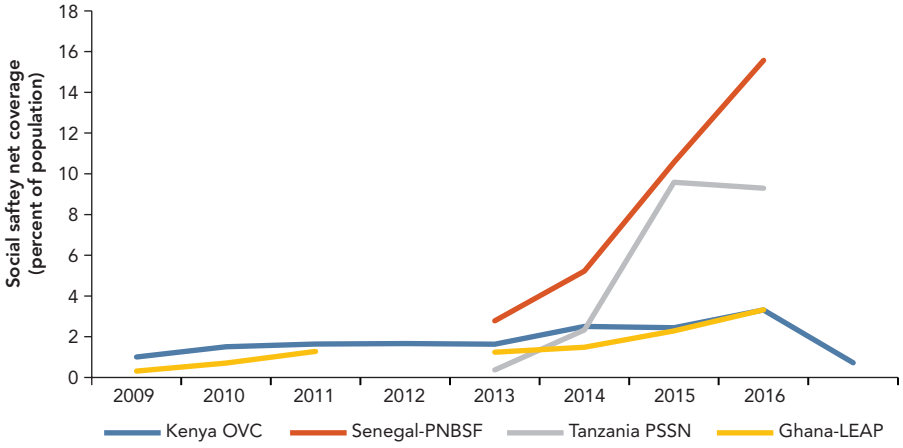



*Source:* Beegle, Coudouel, and Monsalve 2018.

**The coverage of safety net programs is still limited, however.** While the number of social safety net programs has increased rapidly across the region, the programs do not yet reach most of the poor and vulnerable. On average, 23.5 percent of the population is covered by a safety net program in African countries, and poverty rates are higher than coverage rates in most areas (figure 19).[19] Aside from the success stories of rapid expansion in the region that are unique in the developing world (such as in Ethiopia, Ghana, Kenya,

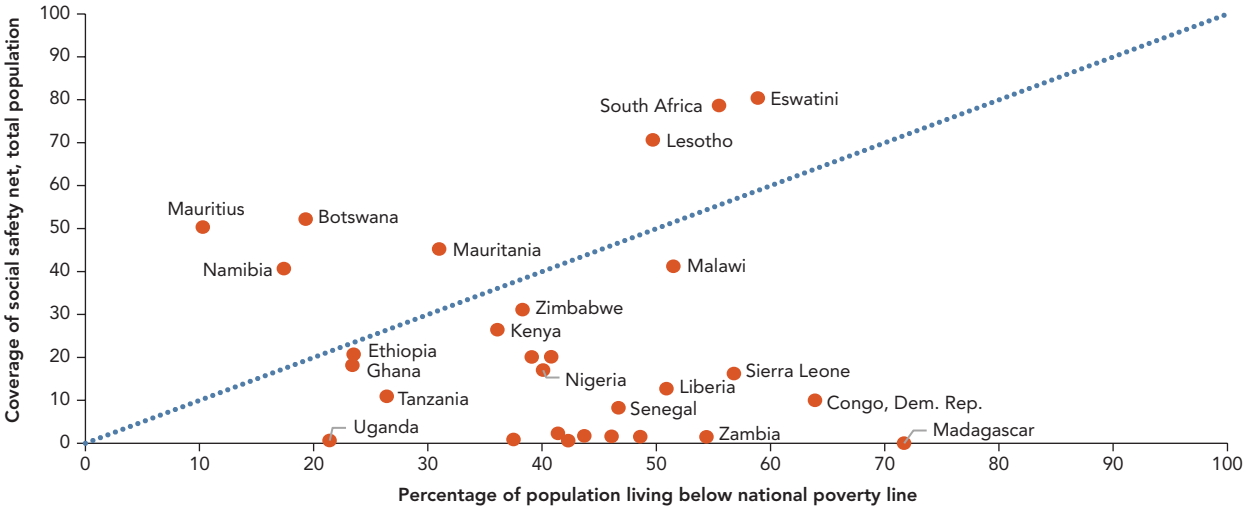
19. Coverage is 10.4 percent of the population among low-income countries in Africa, 28.2 percent of the population in lower-middle-income countries, 55.4 percent in upper-middle- and high-income countries according to 2019 data of ASPIRE (Atlas of Social Protection Indicators of Resilience and Equity) (dashboard), World Bank, Washington, DC, http://datatopics.worldbank.org/aspire/.

**FIGURE 18. Flagship programs in Africa**




*Source:* Beegle, Coudouel, and Monsalve 2018.

**FIGURE 19. Social safety net coverage and the poverty headcount ratio**




*Source:* Data of ASPIRE (Atlas of Social Protection Indicators of Resilience and Equity) (dashboard), World Bank, Washington, DC, http://datatopics.worldbank.org/aspire/.
*Note:* Based on 29 household surveys between 2010 and 2019. Coverage is the number of individuals in a given group (that is, total population or poorest quintile])who live in a household in which at least one member receives the transfer, divided by the number of individuals in the group. The poverty headcount ratio is obtained from WDI (World Development Indicators) (dashboard), World Bank, Washington, DC, https://datatopics.worldbank.org/world-development-indicators/. It corresponds to the same year as the household survey, except in Botswana, Burkina Faso, Chad, Ethiopia, Guinea, Niger, and Tanzania, where the most recent available indicator was used. The figure underestimates total social assistance coverage because household surveys do not include all programs in each country.

Senegal, and Tanzania), most social protection programs are implemented in rural areas with little or no urban penetration.

**The ability of countries to expand coverage depends on the existence and reach of a social registry for safety net programs**. For example, in Senegal, the social registry has a nationwide reach and includes 580,000 poor and vulnerable households across all regions in the country, including the 300,000 households currently receiving the Bourses de Sécurité Familiale, the regular cash transfer. The COVID-19 shock response plans in Senegal could thus immediately be implemented nationally. Countries with stronger digital infrastructure, including ID and payment systems and social registers, have generally been able to implement and disburse emergency assistance programs more rapidly than those without these assets (World Bank 2020g).

*Economic inclusion is also becoming a critical instrument in the large-scale antipoverty programs of many governments.*

**Strengthening and expanding social safety nets to woman-headed households can also help promote women's empowerment.** Evidence suggests that empowering women and girls can help increase productivity and further economic development in the region. Social protection cash transfers provided to women can increase women's bargaining power within the household. The finding that women receiving the transfers spend more on children implies that the transfer allows a woman to make choices different relative to the choices other recipients would have made, choices that are plausibly closer to women's preferences. Public works programs can create employment opportunities among women who may otherwise be outside the labor market. Many public works include quotas on women to ensure women's participation; they may also include provisions for childcare, woman-friendly working conditions, and employment close to home, features that greatly facilitate women's participation. Evaluations show that women are more likely to spend resources to benefit children, including for food, education, and health care. As a consequence, providing the transfers to women strengthens the impact of a program on future poverty reduction through greater investments in children, leading to stronger human capital outcomes (IEG 2014).

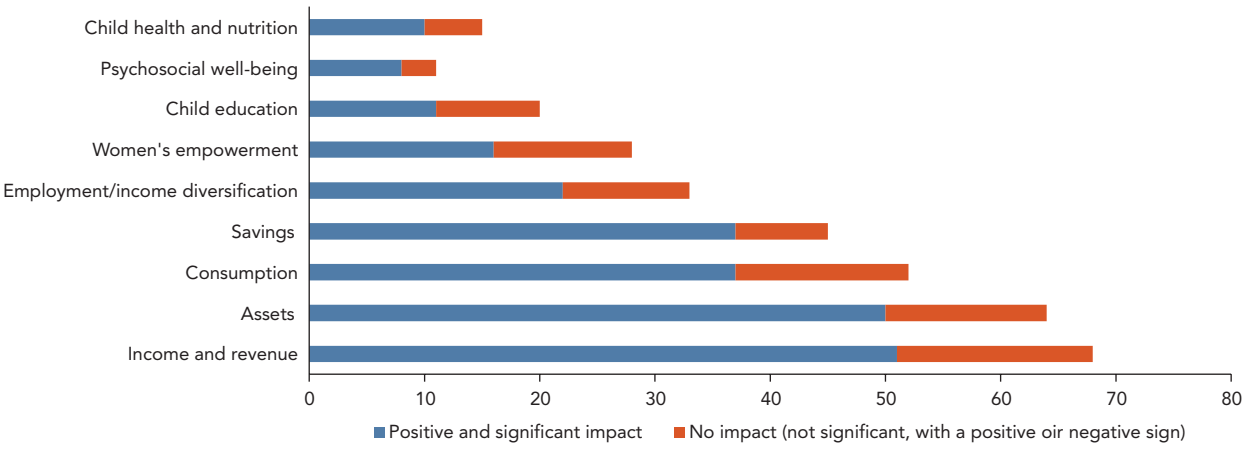
**Most safety net programs in Africa focus on the rural poor, and, as highlighted by the COVID-19 pandemic, they also need to be tailored to the vulnerability needs of the urban informal economy.** The urban informal economy accounts for a population group that is much more mobile and more difficult to reach. Cash transfers could be expanded to poor informal economy workers through innovative design elements and links to services to improve the productivity of the workers and promote economic inclusion to support them in achieving self-sufficiency in society. This graduation strategy and messaging are important from an individual and a political economy perspective. It nudges individuals toward self-sufficiency, and, from a political economy standpoint, it provides a convincing exit strategy to governments that otherwise might not be willing or able to afford cash transfers for the benefit of individuals who are able to work (Guven and Karlen 2020).

**Economic inclusion is also becoming a critical instrument in the large-scale antipoverty programs of many governments**. One of the primary means by which governments scale up economic inclusion is social safety nets, which offer an opportunity to build on cash transfers. According to a review of 219 programs across 75 countries (many in Sub-Saharan Africa and South Asia), social assistance is the entry point of 53 percent of the beneficiaries of productive inclusion programs. Economic inclusion programs typically include five or more components, most commonly transfers, skills training, coaching, market links, and access to financial services.

**The evidence on the positive impacts of economic inclusion programs is growing** (figure 20). The largest impacts are on income and revenue, assets, consumption, and savings. The coverage of the poor is still modest and spread across many programs, however, thereby diluting the impacts. Economic inclusion programs can be adapted to the realities of informality, especially among youth in urban areas. The scale-up of government programs building on safety nets has the potential to introduce economies of scale and allow for integrated approaches that may prove critical in the long-term recovery from the COVID-19 economic crisis. Digital innovations will be crucial in helping leapfrog capacity constraints and strengthen program management (Andrews et al. 2021).

**Economic inclusion programs can contribute to enhancing productivity in the poor informal economy**. For the poorest and most vulnerable, employment tends to be informal, risky, and often limited by constraints to labor supply (human capital, including education, skills, and networks) and labor demand (the

**FIGURE 20. Summary of evidence on the impact of economic inclusion programs**




*Source:* Andrews et al. 2021.

business environment, including access to finance, infrastructure, technology, and markets). Economic inclusion programs can support the informal economy in becoming more productive and profitable through business training and market access interventions as well as household-level social protection measures that include the poor and low-income informal economy workers.

**Some countries have been making progress in extending subsidized health insurance to the poor in the informal economy, but social insurance against other risks (old age, unemployment, work injury, disability, or death) is generally unavailable to the poor.** Universal health coverage, one of the Sustainable Development Goals (3.8), has been an area in which, despite the challenges, considerable progress has been made in some countries in the last decade. Developing countries in Asia (Indonesia, Thailand) boast of over 80 percent coverage rates in health insurance, and some African countries, such as in the case of Rwanda's Community Based Health Insurance, have over 75 percent coverage rates. Many of those covered under the scheme in Rwanda are among the poorest households; this has been possible because of subsidies offered by the government to these groups.

## 3.2. Social Insurance and Productivity-Enhancing Measures for the Nonpoor Informal Economy

**Even if social safety nets were expanded to poor informal economy households through social registries, social assistance would not cover many in the informal economy, especially in urban areas, because they are slightly more well off.** The urban informal economy accounts for a large share of the population in most developing countries, including in Africa, as shown in the survey data analysis on six African countries above. The COVID-19 pandemic is highlighting the challenges this group faces, with lockdowns and the drop-off in economic activity that affected the informal economy population in cities immediately. This group, the missed middle, is not sufficiently poor to be eligible for social safety net benefits, but not sufficiently well off to be part of the social insurance programs that have been mandated for the formal economy. The lack of social protection coverage among this group calls for an acceleration of efforts to establish new instruments that can help them weather shocks.

***Even if social safety nets were expanded to poor informal economy households through social registries, social assistance would not cover many in the informal economy.***

*To include the informal missed middle in social protection programs, additional efforts need to be made to reach this group using innovative approaches supported by technology.*

A failure to cover the missed middle not only harms the welfare of these households, but also lengthens the road to recovery for the economies in which this group plays a key role (Guven et al. 2020).

**Extending social protection to cover this group requires an understanding of the characteristics and vulnerabilities of these people**. The household survey data analysis above shows that the informal economy is heterogeneous and the capacity to cope with economic shocks varies across the economy. Those individuals living below the poverty line are expected to depend on safety net transfers and economic inclusion programs. Those living above the poverty line are considered nonpoor and are not eligible for safety nets. They also lack the social protection that formal economy workers receive through social insurance schemes specifically designed for the formal economy based on formal employer-employee contracts. This is why they are called the missed middle in social protection.

**To include the informal missed middle in social protection programs, additional efforts need to be made to reach this group using innovative approaches supported by technology.** These efforts must respond to the distinct characteristics of the informal economy such as low and irregular earnings, the need for access to liquidity in case of unemployment, and household-related risks, such as health shocks. Such schemes should be designed to encourage savings. However, they also should be designed to allow for flexibility in the payment of contributions given the irregular earnings. They should leverage technology given the mobility of the informal economy and the opportunity costs of visits to offices to pay contributions. Kenya's Mbao and Haba Haba informal economy savings schemes allow for payment of contributions using mobile phones. There is significant flexibility in the amount and frequency of contributions embedded in the design. Rwanda's Ejo Heza Long-Term Savings Scheme—a voluntary defined contribution scheme that is open to all Rwandans and foreigners residing in the country—allows flexibility in the level and frequency of contributions and leverages the digital infrastructure available in Rwanda. People can save as much as they want and at the desired frequency. Ejo Heza also harnesses digital technology in registration and the collection of contributions. Rwandans can register with Ejo Heza using their phones and without visiting an office. They can also make contributions remotely using mobile money from wherever they are. Colombia's Pension Savings Plan for the Self-Employed (Beneficios Económicos Periódicos, BEPS) allows for the payment of contributions in 36,000 pay points across the country.

**Informal economy social insurance schemes can leverage Africa's progress in digital transformation.** The rapid spread of the internet across the African continent has been heralded as a key driver of prosperity and a sign of the continent's technological coming of age. Today, at least a quarter of the population has internet access, a nearly 50-fold increase in internet usage since 2000. By 2030, the continent could achieve rough parity with the rest of the world when three-quarters of Africans are projected to become internet users. Africa remains the global leader in the use of mobile money. Inspired by the emergence of platforms such as Kenya's M-PESA, Africa has leapt ahead of other regions to become a center of mobile, peer-to-peer finance (Allen 2021). In 2019, the number of registered mobile money accounts reached 1.0 billion globally (table 7). Sub-Saharan Africa is the enduring epicenter of mobile money, adding over 50 million registered accounts in 2019. This was driven by strong growth in West Africa (21 million new accounts) and Central Africa (6 million new accounts), as well as steady growth in East Africa (22 million new accounts). The GSM Association forecasts that account adoption across Sub-Saharan Africa will remain strong and that the region will surpass the half billion mark by the end of 2020 (GSMA 2020). This rapid growth of digital innovation in the region would support the establishment of flexible social insurance

**TABLE 7. Mobile money accounts by region, 2019**

| Region | Registered accounts, millions | Active accounts, millions | Transaction volume, billions | Transaction value, US$, billions |
|---|---|---|---|---|
| Global | 1,039 | 372 | 37 | 690 |
| East Asia and Pacific | 158 | 60 | 4 | 79 |
| Europe and Central Asia | 20 | 7 | 0 | 4 |
| Latin America and Caribbean | 26 | 13 | 1 | 17 |
| Middle East and North Africa | 51 | 19 | 1 | 9 |
| South Asia | 315 | 91 | 7 | 125 |
| Sub-Saharan Africa | 469 | 181 | 24 | 456 |
| Eastern Africa | 249 | 102 | 17 | 293 |
| Central Africa | 48 | 20 | 2 | 30 |
| Southern Africa | 9 | 3 | 0 | 3 |
| West Africa | 163 | 56 | 5 | 130 |

*Source:* GSMA 2020.

systems that respond to the needs of the informal economy. Digital innovation also makes it easier to incorporate behavioral incentives in social insurance schemes for the informal economy to encourage savings and gradually instill a savings culture.

**The informal economy would benefit from a system that allows for short-term savings and that could be tapped to meet short-term needs (for example, unemployment, health care, education, and housing), as well as possibly a long-term savings account for better protection in old age.** Evidence suggests that the missed middle does save sometimes in the form of cash or with trusted community members or in assets such as cattle, housing, and silver or gold. These informal savings mechanisms have been around for decades. but are unobservable and therefore outside the purview of government support or regulation. These groups serve as a stopgap measure providing informal risk mitigation to the missed middle (box 2). The challenges facing these schemes can be overcome, and the missed middle can become observable if governments take on a proactive role and design schemes that meet the needs of these workers. Rwanda's Ejo Heza Long-Term Savings Scheme, for example, combines short- to medium-term aspects with long-term savings for pensions. Ejo Heza participants are allowed to withdraw 40 percent of savings above a preset level of fund balance for housing, school fees, and business investment needs. Depending on the needs in the country, these schemes could start off as short-term savings schemes with the possibility of incorporating long-term savings accounts in the future, when the conditions and the political economy are appropriate. In response to the pandemic, Pakistan is introducing a hybrid social assistance–social insurance scheme that would allow short- to medium-term withdrawals based on preset rules.

**If social insurance schemes are to be viable, they need to reach scale to minimize administrative and asset management costs**. To reach scale, such programs could be complemented by fiscal incentives, for example, budgetary contributions that match worker contributions, to promote participation and encourage sustained savings, particularly among the nonpoor, vulnerable informal economy. Rwanda's Ejo Heza scheme is providing matching contributions up to a certain level based on a means test. Colombia's BEPS scheme matches the contributions of participants by up to 20 percent. Pakistan's hybrid scheme will match the contributions of participants.

***If social insurance schemes are to be viable, they need to reach scale to minimize administrative and asset management costs.***

### BOX 2. The experience of community and village savings groups

Self-help groups, savings groups, and health groups are common in various parts of the developing world, where they play an important part in providing effective risk mitigation among households in communities. Evidence highlights their role in promoting women's economic and social empowerment (Gash 2017). Savings groups typically pool small weekly savings from members into a common fund against which members can borrow, creating opportunities for investments and women's empowerment (ECWG 2021). In many countries in Africa, a broad range of governments and nongovernmental organizations also support savings groups.

These groups also face distinct challenges to their sustainability and effectiveness (ECWG 2021). Shocks or crises often result in depletion of savings group resources because of the reduced savings and loan repayment capacity of members and because the groups increase disbursements to members and nonmembers (Walcott et al. 2021). They are often poorly administered and are subject to fraud risk (for instance, someone running away with all the collected money) or poor investment. Government support even in times of need cannot always reach them because they are remote from the government's range of vision. Smaller groups or those made up of minority populations may also lack any legal recourse if they are defrauded.

These groups have been associated with the building of resilience among their members and their households by facilitating substantial improvements in member psychosocial outcomes, such as social capital and women's empowerment (Cabot Venton, Prillaman, and Kim 2021). A study of the Evidence Consortium on Women's Groups assessing the role of savings groups during the COVID-19 pandemic finds that households in Nigeria and Uganda with a woman member who participates in a savings group coped with the crisis better than those without such members. These groups evolved to digitize their operations and use mobile money among participants. They also helped create new market opportunities and enabled women to distribute personal protective equipment, build handwashing stations, and establish community action plans to prevent the spread of COVID-19.

Savings groups are typically promoted as a graduation pathway to support recipients of national safety nets to save, improve their standards of living, build resilience, and, ultimately, transition away from dependence on public support (Jarden and Rahamatali 2018). If these groups can be linked to other government databases and if digital initiatives can be launched to make savings easier and more accessible, as elaborated in this report, then the missed middle could become more visible and building their resilience could be more effectively prioritized.

**To encourage participation, social insurance provision can be bundled with other services**. This would allow needs to be addressed that could otherwise potentially prevent informal economy workers from saving. Countries have already incorporated these accompanying services in informal economy social insurance schemes. Kenya's Haba Haba scheme provides health incentives to participants. Colombia's BEPS scheme provides health insurance and a one-off payment in the case of a hospital stay of more than five days, with proof of the stay, as well as in the case of health conditions such as cancer and HIV/AIDS. Benin's ARCH (Insurance for Building Human Capital) project aims to provide a package of services to the informal economy workers including universal health insurance, pensions for the informal economy, microcredit and training.

**The participation of informal economy workers in social insurance schemes could also be raised through communication and nonmonetary incentives.** Continued communication and knowledge awareness are critical to supporting the gradual growth of these schemes. Social insurance scheme administrators should thus set aside resources to finance communications and the development of strategies to encourage more participants to join the scheme, thereby supporting improvements to scale. While such schemes allow short-term access even if they are designed as long-term savings schemes, It is also important to communicate effectively to participants the advantages of consistent savings. Participants should be spurred not to withdraw savings unless there is a household emergency. For the resilient informal economy, nonmonetary incentives and the use of

digital technology to enhance the user experience and build trust are useful tools also because they allow real-time access to savings and one-click contribution payments. For the nonresilient informal economy, fiscal incentives could be combined with behavioral incentives to encourage participation and savings.

**Social insurance schemes would also have the added benefit of increasing the capacity of governments to respond to covariant shocks.** Through social insurance schemes for the informal economy, participants would have some savings to fall back on in case of idiosyncratic shocks, such as unemployment or a health-related problem in the household, or covariant shocks, such as the COVID-19 pandemic.[20] Countries would also have been more well prepared to identify and support the missed middle in response to the COVID-19 shock if they had well-functioning social insurance schemes in place for both the vulnerable and the nonvulnerable informal economy. This is because these schemes will make people working in the informal economy more visible given that they will be on the social insurance platform for the informal economy with administrative links to the social assistance system through social registries. These schemes may not be able to change the social protection landscape significantly if they do not reach scale, but, once they do reach scale, they can potentially play important role in social protection for the informal economy.

**One of the main challenges facing African countries and most developing countries is reaching the informal economy and identifying those eligible for emergency benefits during the pandemic**. If they had social insurance schemes for the informal economy in place and at scale, governments would have had an appropriate platform to deploy temporary emergency relief benefits if needed. Benefits could be deployed quickly because many social insurance schemes rely on mobile accounts. The benefits could be designed based on vulnerability because the relevant information is already available. The informal vulnerable receive fiscal incentives and subsidies to participate in these schemes through social safety nets system. Eligibility is assessed through social registries. Moreover, scheme administrators could easily undertake quick phone surveys to understand the socioeconomic impact of a particular shock on the informal economy through the social insurance platform.

**In terms of productivity-enhancing measures, human capital should be prioritized.** Low human capital outcomes in the Africa region limit the potential of Africans to become productive members of society. Deficiencies in human capital become amplified over time and eventually show up as weak labor skills. Investment in human capital is even more important post-COVID because the pandemic has likely impeded positive human capital outcomes. Countries should strengthen education, health care, social assistance, and insurance systems as well as the access to core investments for human capital development, such as safe water, broadband, and the economic and regulatory infrastructure needed to access good jobs. In moving forward with reforms, countries will have the opportunity to address the equity and coverage gaps that have been highlighted by the crisis (World Bank 2020d).

**Research findings show a strong relationship between basic skills and labor outcomes, particularly in the informal economy, despite the economy's lower average returns.** Research also indicates the benefits of targeted training programs. Business service programs have a decidedly mixed record. Yet, ongoing research is refining the knowledge on what works best. Furthermore, these programs are the most useful for small household enterprises and microenterprises, that is, those enterprises most likely to be employing the poor. It is important to pursue the development of worker training and business service programs with a view to improving the

*Social insurance schemes would also have the added benefit of increasing the capacity of governments to respond to covariant shocks.*

20. Idiosyncratic shocks affect a particular household or individual. Covariate shocks affect whole communities.

*Expanding quality childcare can yield multigenerational impacts by improving women's employment and productivity, child outcomes, family welfare, business productivity, and overall economic development.*

capacity of the vulnerable and improving the performance of the smallest firms (Benjamin et al. 2014). Digital platforms can also increase productivity by reducing transaction costs related to aggregating and moving goods and making payments. Reliable access to markets and income makes it easier for producers to invest in productivity enhancements, from purchasing inputs and machinery to hiring additional laborers (Shrader, Morawczynski, and Karlyn 2018).

**While often a government priority, programs aiming at formalizing micro- and small enterprises have not proven effective** (World Bank 2019a)**.** Increased productivity would help informal businesses move progressively closer to the formal economy, while improving worker livelihoods. Therefore, it is important to establish the necessary incentives and reform to encourage informal businesses to formalize progressively. This requires strategic partnerships. Financial inclusion should focus on facilitating access to financing instruments tailored to the needs of the urban informal economy. ID systems are critical to facilitating such access. Childcare services and mechanisms to link informal businesses with established value chains should be at the core of economic development strategies. And urban development strategies need to incorporate improved access to basic services (Guven and Karlen 2020).

**Expanding quality childcare can yield multigenerational impacts by improving women's employment and productivity, child outcomes, family welfare, business productivity, and overall economic development.** While childcare impacts all working parents, it is particularly important in the context of efforts to improve women's employment opportunities and productivity in both the formal and informal economy (box 3). A lack of affordable childcare often keeps women out of the workforce or discourages them from reentering the workforce after childbirth. It also limits the quality of employment and income-earning opportunities that women can pursue. This can have a wide range of negative impacts, including on family economic security, gender equality and empowerment, and business and economic growth. If women earn and control their own incomes, more resources tend to be channeled to support children's health and education and overall family welfare. If women exit the workforce, firms lose valuable employees, resulting in increased costs related to attrition, reduced business productivity, and the loss of the benefits of a more diverse workforce (Devercelli and Beaton-Day 2020).

**In lower-income countries where informality is widespread, COVID responses, including instruments to protect private economy firms, are likely to reach only a small portion of the productive economy.** Ensuring the availability of finance for smaller firms and their workers should be a priority because these firms and workers cannot be efficiently reached through formal instruments, such as taxation policies or wage subsidies. This is particularly important for women business owners who may be disproportionately affected because tightening liquidity exacerbates existing gender gaps in access to finance. Support could be triaged by commercial banks, microfinance institutions (MFIs), digital lending platforms, corporate supply chains, local governments, communities, and other intermediaries (World Bank 2020f).

## BOX 3. Improving human capital and empowering women through childcare services

Many families worldwide lack suitable childcare options, restricting women's employment opportunities and leaving many children in unsafe and unstimulating environments. More than 43 percent of all children worldwide—350 million children—need childcare, but do not have access to childcare. The childcare challenge disproportionately impacts families in low- and lower-middle-income countries: nearly 8 children in 10 who need care, but do not have access are in low- and lower-middle income countries. A child living in a low-income country is nearly five times less likely to have access to care than a child living in a high-income country. The COVID-19 pandemic has laid bare the deep inadequacies in the current system of childcare provision, including uneven access, poor quality, the need for public finance, poor terms of employment for the workforce, and the overall vulnerability of the economy.

In Uganda, a recent study found that 38 percent of self-employed women brought their children to work, a practice that was associated with 45 percent lower profits (Delecourt and Fitzpatrick 2021). Interviews with street traders in Ghana and South Africa reveal that women were unable to take advantage of the best times for business (early morning and evening) because this was when their children needed them most. The lack of childcare also constrains the choice of employment within the informal economy. Many women may be forced to accept even more poorly paid, insecure, and precarious types of work in the informal economy because of their need for greater flexibility (Alfers 2016). In South Africa, waste pickers cited flexibility as the reason for taking on this precarious type of work (Alfers 2016). Beyond employment, a lack of childcare also restricts participation in skills training and employment programs, which can help support more productive employment (Cho et al. 2013; Valdivia 2015) increasing the profitability of their businesses is highly relevant for poverty reduction and gender equity. This study evaluates the impacts of a BDS program serving female microentrepreneurs in Lima using an experimental design, that included two treatment groups: One received only general training (GT). A recent study in Kenya finds that childcare enables women to reduce their working hours with no negative impact on earnings and to move into formal economy jobs with fixed hours (Clark et al. 2019).

Expanding the childcare economy offers substantial employment opportunities. Estimates suggest that an expansion of the childcare workforce to meet current needs could create 43 million jobs globally. These jobs are important for the future of work, because they are much less vulnerable to automation than other employment opportunities. Expanding childcare could also create millions of small business opportunities (for more center-based and home-based service provision) that could generate income, while meeting community needs. In the context of the COVID-19 pandemic, ensuring access to childcare will be essential in enabling parents to return to work and help drive economic recovery as well as present a source of potential job creation for childcare providers. The expansion of quality childcare presents an incredible opportunity to deliver better jobs and brighter futures by improving women's employment and productivity, child outcomes, family welfare, productivity, and overall economic growth development.

### Figure B2.1. Benefits of childcare services


*Source:* Devercelli and Beaton-Day 2020.

SECTION 4

# How Can Social Protection Digital Platforms Help Countries Bridge the Coverage Gap at the Operational Level?

## 4.1. Digital Social Protection Platforms

**African countries should continue to invest in building safety net systems and developing robust social protection delivery systems.** Social protection delivery systems should rely on digital platforms. A trio of digital platforms includes ID systems, social registries, and payment systems in an integrated ecosystem to deliver social assistance benefits (figure 21). These platforms also allow the system to benefit from interoperability with other databases and utilize frontier technologies to use big data (for example, satellite data and machine learning) to make the social protection digital ecosystem bigger and better. Some African governments are already benefiting from these advanced techniques in providing immediate relief during the pandemic.

**To deliver benefits and services, all social protection programs and services rely on a delivery chain.** The main components of the delivery chain include the following: (1) assessment (outreach, intake and registration, assessment of needs and conditions), (2) enrollment (eligibility and enrollment decisions, determination of benefits and service package, notification and onboarding), (3) provision (provision of benefits or services), and (4) management (beneficiaries compliance, updating, grievances, exit decisions, notifications, and case outcomes). An awareness of these commonalities can help prevent fragmentation in social protection delivery systems and improve effectiveness and efficiency, which occurs through coordination in administration and synergies in bundling interventions (Lindert et al. 2020).

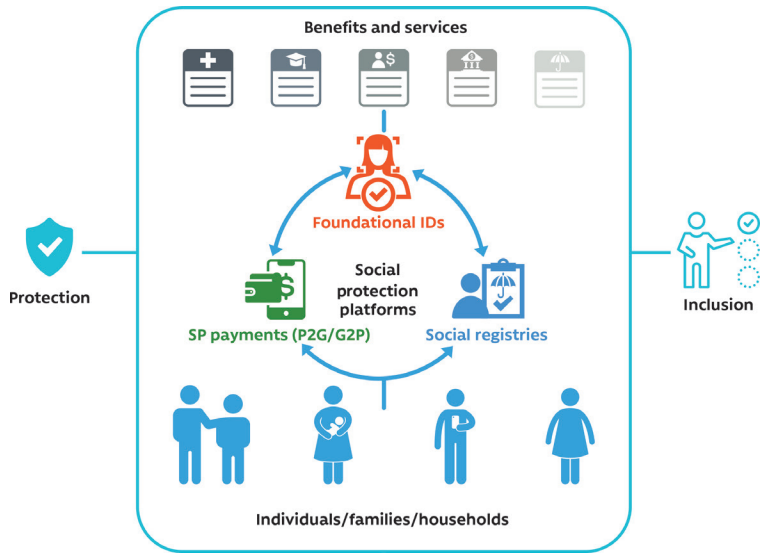
### 4.1.1. Social Registries

**Social registries are information systems that support outreach, intake, registration, and the determination of eligibility for one or more social programs along the social protection delivery chain.** Many countries offer a myriad of social programs, often with the risk of fragmentation. Social registries can serve as a common gateway for coordinating





**FIGURE 21.** Social protection digital platforms




*Source:* Lindert et al. 2020.

***Governments around the world are using social registries to support numerous social protection programs and expanding this use to other sectors.***

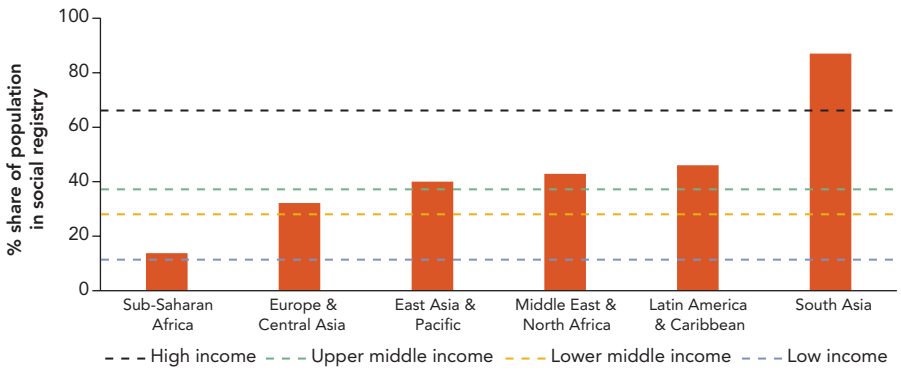
registration and eligibility processes for multiple social programs (figure 22). They have both a social policy role, as inclusion systems, and an operational role, as information systems. These digital platforms support efficiency among program administrators by avoiding the collection of the same information on the same people for different programs. Applicants can also avoid the need to provide the same information in applying for several programs (Leite et al. 2017).

**Governments around the world are using social registries to support numerous social protection programs and expanding this use to other sectors** (figure 23). Governments are using social registries for numerous programs, many of which are not strictly social

**FIGURE 22.** Social registries as integrated platforms to support social protection


*Source:* Lindert et al. 2020.

**FIGURE 23. Social registry coverage, by region**




*Source:* Lindert et al. 2020.
*Note:* Number of countries: Sub-Saharan Africa (24), Europe and Central Asia (5), East Asia and Pacific (3), Middle East and North Africa (9), Latin America and Caribbean (16), South Asia (1)

protection. Examples within social protection include cash transfers, social pensions, labor and employment benefits and services, social services, emergency assistance, and in-kind assistance programs. Examples outside social protection illustrate the power of social registers as a digital platform for a whole-of-government approach. They include housing benefits, utility subsidies, education and training programs (such as needs-based scholarships or training vouchers), subsidized health insurance, productive inclusion programs, and legal services (such as court waivers or pro bono legal support) (Lindert et al. 2020).

**While there has been progress on social registries in the region, fewer than one-third of African countries have established social registries.** Of the 48 countries in Africa, 15 have social registries that are operated as digital platforms.[21] Several of these social registries are beneficiary registries (for instance, Kenya, South Africa, and Uganda). Most of the social registries in the region are not yet dynamic and mainly rely on census surveys to populate the registry. Several countries have comprehensive databases of the results of proxy-means tests that represent good sources of data for the identification and delivery of cash benefits (for example, Benin, Guinea, and Liberia), but have not yet been developed into digital social registry platforms. About 10 countries in the region have started building social registries, but these are at various stages of development. Guinea, Sierra Leone, and Zambia are using open-source solutions to establish management information systems for the delivery of emergency cash transfers. This is expected to leapfrog the effort to construct social registries.[22] Although

*While there has been progress on social registries in the region, fewer than one-third of African countries have established social registries.*

21. Cabo Verde, Ghana, Kenya, Lesotho, Mali, Mauritania, Mauritius, Niger, Nigeria, Senegal, Sierra Leone, South Africa, Tanzania, and Uganda.

22. To assist countries in delivering emergency cash transfers to safety net beneficiaries and to vulnerable informal economy workers in response to the COVID-19 pandemic, the Africa team of World Bank Social Protection and Jobs developed a CORE management information system (CORE MIS). Access to an affordable, good-quality digital platform is critical to the success of complex, large-scale social protection projects in response to the COVID-19 crisis. However, given the limited local technical resources and the time requirements for the development of such systems, many governments are experiencing delays as they wrestle with managing data and human resources. The CORE MIS is expected to meet the needs of governments that are responding to the pandemic through social protection programs, but that do not have the internal or local capacity to develop an MIS system in such a short time that is tailored to the complexity of a rapid response program. The CORE MIS was developed to respond to the emergency needs of the governments during the pandemic, including responding to the requirement to make digital payments consistent with social distancing measures. The idea of the application is to serve as a backbone structure for governments (and users in general) to customize and build on to create bigger and better automated delivery systems; thus the name CORE. Four countries in the region (Guinea, Sierra Leone, Uganda, and Zambia) will use a CORE MIS to support the delivery of cash transfers.

*Social insurance schemes for the informal economy would need to be administered based on a specialized digital benefits administration platform.*

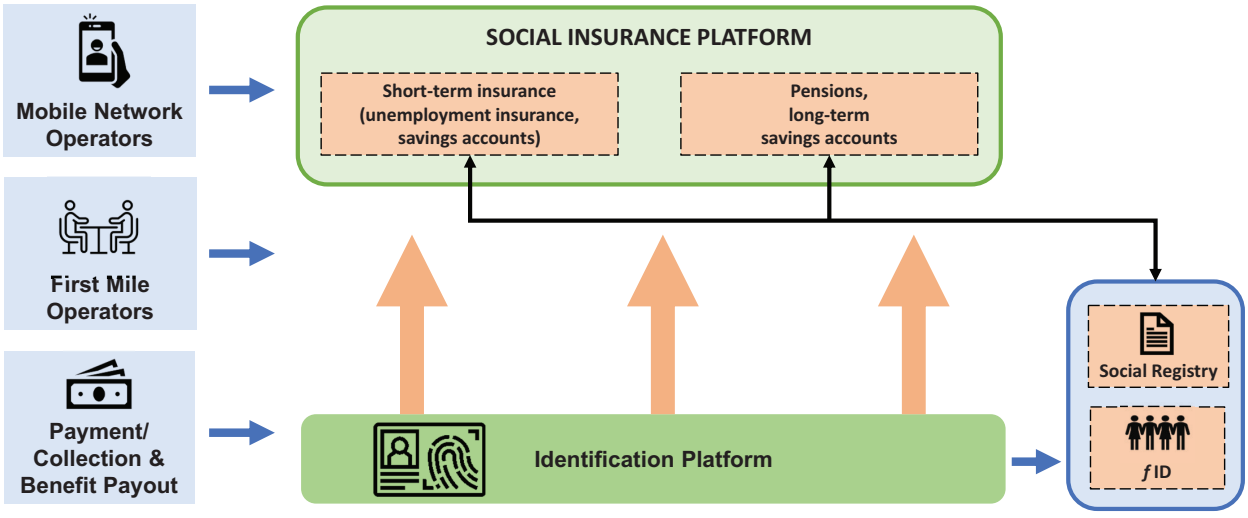
there are several prominent exceptions, social registries that could facilitate the rapid expansion of cash transfers are often small in scale in Africa, compared with other regions, limiting the usefulness of these systems in identifying additional households requiring support during the COVID-19 shock (Bodewig et al. 2020).

## 4.2. Informal Economy: Digital Social Insurance Platforms

**Social insurance schemes for the informal economy would need to be administered based on a specialized digital benefits administration platform.** This is because these schemes would need to track individual accounts, including the collection of contributions, accumulated savings, investment returns, fiscal subsidies where appropriate, withdrawals, and remaining balances following each withdrawal. Figure 24 presents a conceptual diagram of a benefits platform that acts as the backbone for the administration of a social insurance scheme in the informal economy. The social insurance platform would be part of an ecosystem that includes a social registry, identification systems, a contribution collection system, and a payments infrastructure. The platform could also be linked to other systems based on a country-specific design and needs.

**Ideally, a social insurance administration platform would rely on a national or foundational ID system**. Similar to a social assistance scheme, the national or foundational ID would be the main entry point for the identification of any individual registering with the social insurance scheme. The ID number would serve as a common key for all participants. A special layer of services (or interfaces) would be built on top of the national ID database to service the benefits platform. The benefits platform could thus be used to identify individuals entering the social insurance scheme, paying contributions, or receiving benefits from a program as well as assign fiscal subsidies and incentives based on assessments through the social registry. The benefits platform would thereby contain accurate and up-to-date information on beneficiaries and other participants, including at least name, date of birth, mobile phone number, national ID number (or alternative), bank account information, and group name (if part of a group). The administrator could choose to have additional information in the account

**FIGURE 24.** Informal economy: integrated social insurance platform




*Source:* World Bank.

based on needs or rules. Household socioeconomic information would be requested and entered for those informal economy workers who apply for fiscal incentives and whose eligibility for the incentives is assessed through the social registry. The social registry would thus be dynamic and include information on nonpoor informal economy workers who apply for fiscal subsidies as part of a social insurance scheme.

**Social insurance programs could be designed as regional programs to support migrant workers across national borders.** Migrants constitute a large population across the region. Social insurance programs could improve efficiency and support labor mobility and the portability of benefits, including across borders, if they are built on regional foundational identification systems, such as the ones supported by the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Program in West Africa**.** Regional IDs are particularly important for including migrant workers in social insurance programs in the informal economy. Regional ID systems, such as the one supported by the WURI Program would allow for the use of regional benefit platforms built on top of regional ID systems in providing crossborder benefits and service delivery to advance human capital and financial inclusion outcomes in the region. The WURI Program launched an innovation challenge to encourage African youth to propose ways to support regional portable benefits platforms to which individuals could contribute from any location. The interest and results were encouraging (box 4).

**A social insurance digital platform would interface with the social registry established to administer the social safety net system**. This interoperability between the social insurance benefits platform and the social registry would allow informal economy workers and their households to be identified that are eligible for fiscal subsidies through the

***Social insurance programs could be designed as regional programs to support migrant workers across national borders.***

### BOX 4. The WURI Program innovation challenge

The WURI West Africa Prize of the Mission Billion Challenge, powered by the Massachusetts Institute of Technology's MIT Solve, asked innovators how governments could more effectively facilitate social protection programs that cover informal work across borders, based on regionally interoperable foundational identification platforms. Solutions were proposed by 208 teams in 37 countries, mainly in Sub-Saharan Africa, to facilitate crossborder contributions to and payments from social insurance programs, such as pensions and savings accounts. The WURI West Africa Prize is also supported by the Rapid Social Response Program and the Disruptive Technologies for Development Initiative.

In October 2020, the World Bank announced the winners of the WURI West Africa Prize, supported by the West Africa Unique Identification for Regional Integration and Inclusion (WURI) Program, which facilitates access to services through foundational identification platforms, and by the Identification for Development Initiative. The WURI Program aims to benefit 100 million people in Benin, Burkina Faso, Côte d'Ivoire, Guinea, Niger, and Togo, irrespective of nationality or legal status

Naa Sika, the first prize winner, from Ghana, is a microsavings platform that enables informal economy workers, such as women traders, to access digital wallets and fee-free savings accounts. Tonti+, the second prize winner, from Benin, is a digitized informal savings group that enables motorcycle taxi drivers to pool savings and credit through daily contributions. Both solutions address ways to incentivize the enrollment and participation of informal economy workers in social insurance programs. A panel of high-level judges selected the winners to receive cash prizes from the Identification for Development Initiative and the mentorship of Google Developers Experts. Honorable mention went to Universal Social Protection Wallet, a solution from Kenya, and NaYa Limited, a solution from Cameroon. The other finalists included Micro Pensions for Retirement Resilience (Ghana), MiKashBoks (Sierra Leone), and Townpay (Senegal).

*Source:* Snyder 2020.

*The interoperability between the social insurance platform and the social registry would help expand social registries and help keep them dynamic to increase the capacity of governments to respond to shocks.*

social insurance scheme. Most countries in the Africa region determine eligibility for safety net benefits based on a proxy-means test as a targeting mechanism.[23] A proxy-means test allows for the establishment of various thresholds for different programs and services based on the poverty levels of households. A specific threshold might thus be determined for eligibility for fiscal subsidies among vulnerable informal economy households to encourage their participation in the social insurance scheme for the informal economy. This is currently the approach in the case of the Ejo Heza scheme in Rwanda, where the Ubudehe (income) categories are used to assess the extent of matching benefits an individual receives as an incentive; the lower Ubudehe categories receive a higher rate of matching benefits. The pilot hybrid social assistance–social insurance scheme being developed in Pakistan is another example of the blurring of lines between social assistance and social insurance. Social safety net beneficiaries in Pakistan who graduate out of the program following a recertification would be allowed to enroll in the hybrid savings scheme and would receive matching contributions if they save.

**The interoperability between the social insurance platform and the social registry would help expand social registries and help keep them dynamic to increase the capacity of governments to respond to shocks.** The social registries in most African countries are static because they rely on census sweeps to populate the registry. A census sweep is costly and takes time to administer. As a result, countries that employ a census sweep approach typically have up-to-date data only in the first few years after the survey. Because these surveys cannot be repeated frequently, information in the social registry becomes outdated. Static social registries exist in other regions beyond Africa. In Latin America, for example, many countries still do not have dynamic social registries although Latin America has been the pioneer in building social registries. Latin American countries, similar to countries in other regions, has experienced challenges in expanding coverage to the vulnerable informal economy in response to the pandemic.

**The critical role of dynamic social registries with up-to-date information in times of shocks has been highlighted by the pandemic**. While a social insurance benefits platform would rely on a social registry to identify those informal economy workers who are eligible for fiscal subsidies (for example, matching contributions, other insurance products such as crop insurance, and life insurance), this mechanism would also support an expansion of the social registries and an effort to make the registry dynamic. Through this mechanism, a social registry would contain information about vulnerable informal economy workers, a group that has not typically been included in social registries. The link between the social insurance platform and the social registry would allow the social registry to be nourished with data on informal economy workers irrespective of whether the workers are eligible for fiscal incentives through a social insurance scheme. Furthermore, because the social insurance platform would require the eligibility of the informal economy workers for fiscal incentives to be reassessed, the information in the social registry on the informal economy workers would need to be refreshed continuously. This would enable the government to use this informal economy database to deploy emergency payments if needed in case of a shock because it would include information about the characteristics and the vulnerability of the workers. The interoperability between social insurance digital platform and social registries would clearly function more effectively if there is a robust foundational ID system in the country.

23. A proxy-means test is a targeting mechanism based on a statistical model that estimates the relationship between poverty and a series of observable variables (or proxies) measured in a standardized way. Under the proxy-means test methodology, indicators in multiple areas are assigned weights according to a model, and the score is used to determine eligibility for program benefits.

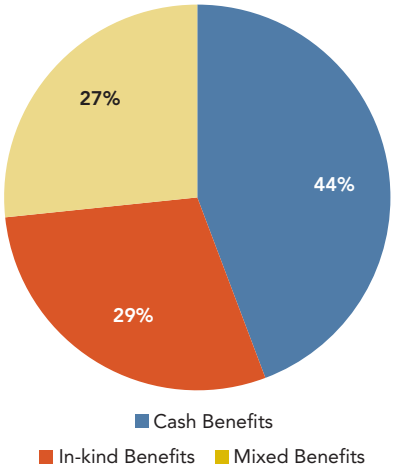
## 4.3. Payment Systems: Government to Person and Person to Government

**The provision of payments through G2P payment systems is a key stage in the social protection delivery chain.** The quality of the mechanism used to deliver payments to beneficiaries in a social assistance program has a direct bearing on the program's success or failure. The entire program can be undermined if payments do not reach the correct people at the proper time, in the proper place and in the correct form, in an efficient manner, and in the correct amount. A well-designed and well-implemented social protection payment delivery mechanism can deliver cash or near-cash transfers efficiently. The Inter-Agency Social Protection Assessment tool embodies three criteria for the assessment of the quality of social payment delivery mechanisms: (1) accessibility (cost of access, appropriateness, rights, and dignity), (2) robustness (reliability, governance, and security), and (3) integration (financial inclusion and coordination) (ISPA 2017).

**Cash transfers constitute an important share of social assistance benefits in Africa.** Governments provide social assistance benefits in cash and in kind. However, cash transfers account for 44 percent of total social assistance benefits in the region, followed by mixed benefits, at 29 percent, and in-kind benefits, at 27 percent (figure 25). Payment systems play a critical role in delivering these G2P cash payments to beneficiaries in a timely, transparent, reliable, and cost-effective way.

**The digitalization of cash payments has been growing globally and in the Africa region**. According to World Bank Global Payments Systems Surveys (2012, 2016, and 2018), the use of electronic instruments for cash transfer payments increased globally from 2012 to 2018 except in high-income countries that had started from a high base (figure 26). In Sub-Saharan Africa, the use of electronic instruments for the payment of cash transfers rose significantly, from 20 percent in 2012 to 71 percent in 2018. If designed correctly, digital payment methods can be associated with efficiency gains, in addition to promoting transparency and client satisfaction. Lindert et al. (2020), for instance, suggest that the use of a swipe card and agent banking to transfer social payments in the Bolsa Família social welfare program to over 12.4 million beneficiaries across Brazil has reduced the administrative costs from 14.7 percent to 2.4 percent of the total grant value. In Mexico, shifting to digital payments has saved the government nearly US$1.3 billion each year on its spending on wages, pensions, and social welfare (Radcliffe 2017). In South Africa, according to the Consultative Group to Assist the Poor (CGAP 2011), the administrative costs of delivering social transfers for the South African Social Security Agency were cut by 54 percent when the payments were rerouted through commercial bank accounts accessible through debit cards (Iazzolino 2018).

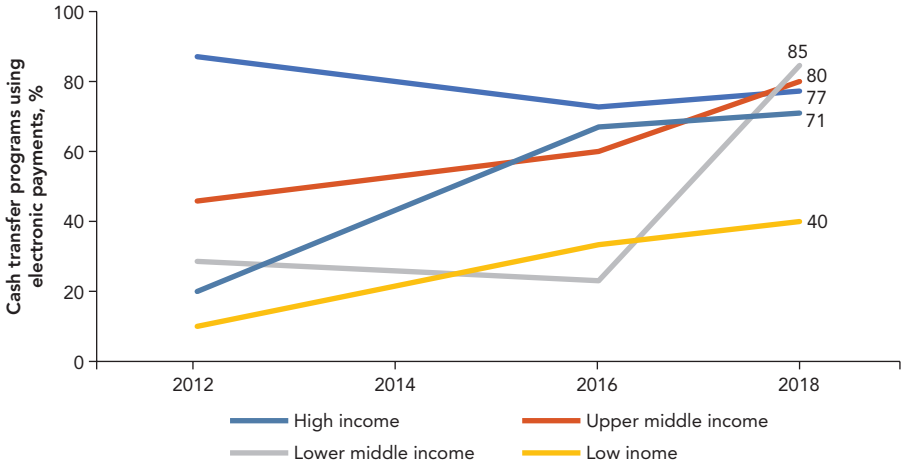
**FIGURE 25. Share of cash benefits in total social assistance, Africa**




*Source:* ASPIRE (Atlas of Social Protection Indicators of Resilience and Equity) (dashboard), World Bank, Washington, DC, http://datatopics.worldbank.org/aspire/.
*Note:* Based on program-level administrative data from 46 countries in the ASPIRE database from 2010 to 2019 and prior to the onset of the COVID-19 crisis. Cash benefits include unconditional cash transfers, conditional cash transfers, noncontributory social pensions, and public works programs. They do not include targeted subsidies or fee waivers. In-kind benefits include food distribution and other in-kind support, in addition to school feeding and take home programs. Mixed benefits include targeted subsidies, fee waivers, and other miscellaneous transfers as well as social care services.

***The provision of payments through G2P payment systems is a key stage in the social protection delivery chain.***

**FIGURE 26.** Cash transfer programs using electronic instruments, by income group




*Source:* World Bank Global Payments Systems Surveys 2012, 2016, 2018.
*Note:* 22 high-income countries; 15 upper-middle-income countries; 13 lower-middle-income countries; 5 low-income countries; 14 Sub-Saharan African countries.

*An appropriately designed social protection payment system can potentially serve as an entry point for financial inclusion and access to a range of financial services.*

**An appropriately designed social protection payment system can potentially serve as an entry point for financial inclusion and access to a range of financial services** (box 5). Financial inclusion is a policy goal. It involves extending financial services to all citizens by ensuring that services are accessible, affordable, and appropriate. Increasing numbers of policy makers in a large number of countries recognize that financial inclusion is an important ingredient in economic and social development. A transaction account created for the purposes of G2P payment of social cash transfers holds funds and allows transfers to be made to the account and from the account. Transaction accounts include bank accounts and nontraditional accounts, such as prepaid cards provided by banks and mobile money accounts offered by mobile network operators. Transaction accounts simplify payment receipt and can help increase a social protection program's level of integration and financial inclusion potential (ISPA 2017).

**The infrastructure developed for G2P social cash transfer payments would also support person-to-government (P2G) payments.** The social insurance schemes for the informal economy discussed in this paper would involve G2P payments in the form of the withdrawal of savings for short-term needs. Eventually, at exit from the system when the beneficiary reaches a certain age, the majority of transactions will involve P2G payments. The flexibility in the payment of contributions to the social insurance scheme would encourage numerous P2G transactions. An appropriately designed payment infrastructure for G2P payments would also support P2G payments as a way to pay contributions to the social insurance scheme for the purposes of savings.

**Mobile money emerged as the preferred payment method for COVID-19 emergency cash transfers in Sub-Saharan Africa.**[24] According to Gronbach (2021), an analysis of payment systems in national cash transfer schemes reveals that few programs in

24. As the pandemic hit, the Central Bank of West African States issued a directive to waive mobile money transaction fees in its member countries. Central banks and individual mobile network operators in various other African countries followed suit, including Democratic Republic of Congo, Guinea, Kenya, Lesotho, Malawi, and Tanzania. In addition to reducing or waiving transaction fees, several countries and mobile network operators raised daily transaction limits, simplified account opening requirements, and increased account balance limits to promote the adoption and use of mobile payments (GSMA 2020).

Sub-Saharan Africa had adopted mobile money as a payment instrument prior to the pandemic. Instead, most large, well-established schemes had opted for a payment model based on bank accounts and payment cards, in some cases in combination with biometric verification. In response to the pandemic, however, governments across the continent called for a rapid shift toward digital payment methods both for everyday transactions and for social cash transfers because of lockdown measures. Overall, more than half of all new cash transfers launched in response to the pandemic used mobile money as their main payment instrument. In addition, existing cash transfer programs in Eswatini, Lesotho, Malawi, and Nigeria increased the use of mobile payments during the pandemic, thus accelerating the ongoing digitalization of cash transfers in these countries (Gronbach 2021).

## BOX 5. Financial inclusion

**Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs.** This is to ensure transactions, payments, savings, credit and insurance delivered in a responsible and sustainable way. Being able to have access to a transaction account is a first step toward broader financial inclusion since a transaction account allows people to store money and send and receive payments. A transaction account serves as a gateway to other financial services (World Bank 2018a).

**Access to affordable financial services is critical for poverty reduction and economic growth.** At the macro level, countries with deeper, more developed financial systems can allocate capital and risks more efficiently and consequently enjoy higher economic growth and larger reductions in poverty and income inequality. At the micro level, financial inclusion—access to and use of basic financial services—can reduce poverty, increase resilience, and improve the lives of the poor, women in particular. The channels include facilitating daily financial transactions, such as government transfers and other public services, sending money home, paying a utility bill, or receiving wages, instead of using cash which is less efficient, riskier, and requires face-to-face interaction. Financial services help boost earning capacity by enabling investments in education, health, housing, and businesses and smooth consumption and bolster resilience to shocks such as disease, job loss or a weak harvest through remittances and basic savings, lending, and insurance products (Pazarbasioglu et al. 2020). Financial services allow people to build resilience by helping them prepare for shocks, deal with shocks if they occur, and recover afterwards; financial services help people take advantage of opportunities in a broad sense (CGAP 2019).

**African countries have experienced positive developments in access to financial services in recent decades**. In many African countries, with the deepening of the financial economy, more financial services, especially credit, are now being provided to individuals and enterprises. Recent technologies, such as mobile money, have helped broaden access to financial services, including savings and payment products. Overall, the access to financial services improved in the region from 2011 to 2017. The share of adults with accounts through either financial institutions or mobile money providers rose from 23.2 percent to 42.6 percent. However, more than two-thirds of adults still do not have accounts at formal financial institutions. Moreover, the financial systems of many African countries are still underdeveloped relative to other developing economies, even though most of these countries have undergone extensive financial economy reforms. Indicators of the use of financial products and services by individuals and enterprises in the region show that many challenges remain to building a more financially inclusive financial economy in Africa (Demirgüç-Kunt and Klapper 2012; Demirgüç-Kunt, Klapper, and Singer 2017). Financial technologies (fintech) have the potential to disrupt the status quo and enhance financial inclusion in developing countries. Fintech's ability to reduce information asymmetries and transactional costs, and foster wide outreach, makes it a potent weapon for fostering financial inclusion (Mothobi, Gillwald, and Aguera 2020).

Financial exclusion and the expansion of social insurance to the unserved segments of the population, such as informal economy workers, are closely linked. The efforts undertaken and innovations realized in improving financial inclusion can also be beneficial in extending social protection coverage to the informal economy. Technological advances such as mobile money and digital payment transactions can be used to support the expansion of social protection coverage. Efforts to expand social protection coverage to the informal economy would likewise contribute to financial inclusion (Guven 2019).

SECTION 5

# How Can Countries Leverage Identification Systems?

## 5.1. Identification Systems and Social Protection

**Access to identification is crucial to improving access to services across a wide variety of sectors and ultimately empowering individuals to achieve their full potential.** In social protection, identification plays a particular role as one of three key platforms in social protection delivery systems**.** In addition to social protection payment systems (both G2P and P2G) and social registries, foundational identification platforms enable the delivery of social protection services in the digital economy (Lindert et al. 2020). Concretely, the World Bank's sourcebook on social protection delivery systems identifies the following four ways in which identification is important for social protection delivery systems: (1) ensure uniqueness, that is, ensuring that one individual is registered and receives benefits from a program only once; (2) meet the know your customer requirements set by the financial services regulator and payment service providers; (3) authenticate the identity of a recipient during a payment transaction; and (4) foster interoperability across different databases and thereby improve targeting accuracy and benefit and service delivery (Lindert et al. 2020). Generally, identification therefore contributes to reaching those intended to be reached, avoiding double enrollment in the same scheme or transfers from multiple, mutually exclusive schemes, and accountably tracking the support received by beneficiaries.

## 5.2. Identification, Social Insurance, and Informality

**Contributory social protection schemes have to manage the contributions of individual beneficiaries accurately and accountably over long periods of time.** Figure 27 shows that social insurance administrations generally follow three steps.[25] First, an enrollment decision is made that confirms the eligibility of an individual for insurance coverage and on-boards the individual into the social insurance scheme, including the opening of

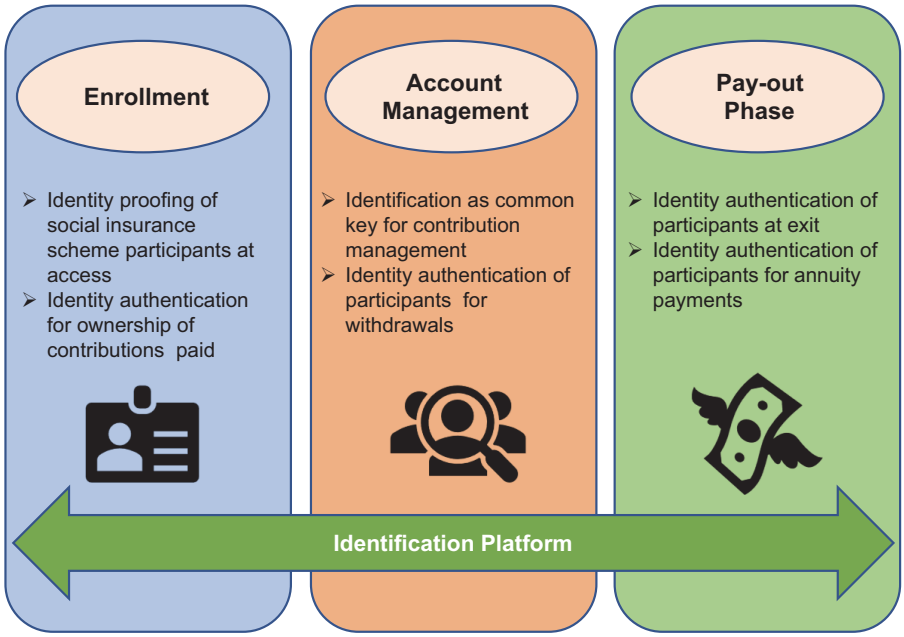
25. For a more in-depth discussion of the delivery chain of social protection programs, see Lindert et al. (2020).







**FIGURE 27.** Social insurance administration




*Source:* World Bank.

***Robust and reliable unique identification is critical to administering social insurance schemes.***

records and potentially a financial account. Second, throughout the phase during which the beneficiary provides contributions, the provider needs to keep accurate records and manage contribution payments. This stage may also involve withdrawals if the social insurance scheme rules allow for withdrawals. Third, in providing a payout, the correct amounts corresponding to the contributions made by the beneficiary and others need to be provided to the beneficiary. Depending on the type of insurance, this process can span a short period or multiple decades, include multiple payouts (annuities) and contribution phases, and beneficiaries can leave and reenter insurance schemes.

**Robust and reliable unique identification is critical to administering social insurance schemes.** In the enrollment phase, individuals need to be uniquely assigned one record or account to avoid confusion with other beneficiary accounts or the assignment of multiple records or accounts to one individual. Throughout the recordkeeping and contribution phase, the contributions of individual beneficiaries need to be accurately tracked and managed, and contributions need to be attributable to individual beneficiaries. During the payout and provision stage, providers need to make disbursement decisions based on an accurate record of the contributions and coverage of individual beneficiaries. Disbursements need to be tracked to beneficiaries and terminated where necessary (for example, in the case of pensions, at the moment of a beneficiary's passing). The identification system that a scheme relies on therefore needs to be up to date with birth and death records.

**The absence of robust identification not only makes administering a social insurance scheme more costly and challenging, but also risks undermining trust in the system.** If a beneficiary cannot be uniquely identified at enrollment, the beneficiary might become associated with multiple accounts, or multiple beneficiaries might be associated with one single account. Contributions might not be attributed correctly to beneficiaries, leading to an inaccurate contribution balance and making correct payouts challenging. The lack of unique identification therefore risks introducing

inaccuracies and complicating insurance scheme administration, generating incorrect payouts and increasing administration cost, which would lower benefits. Such challenges would also risk undermining trust in the system. Given that insurance schemes depend critically on trust, this could put the entire system at risk.

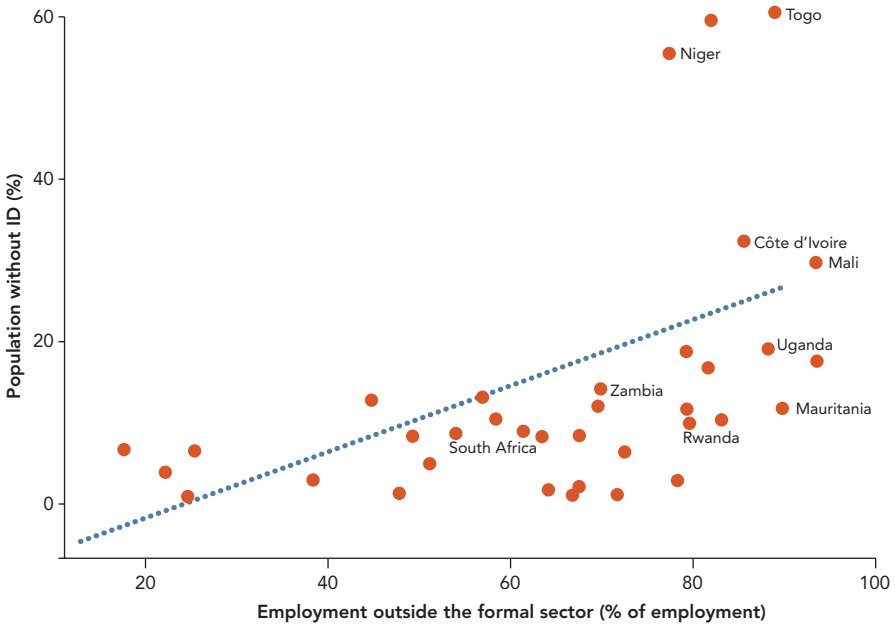
**Robust unique identification is all the more important in the informal economy where there is often no formal employer-employee relationship.** Historically, the identification function in social insurance schemes more broadly and pensions in particular has been taken on by the employer, who is able to enroll an individual through human resource administration and reliably collect and monitor contributions through payroll management. While there are challenges in this model in formal economy insurance schemes as well (for example, because beneficiaries receive transfers long after the end of their employment period), relying on employers is often entirely impossible in the informal economy because informal economy workers often lack defined employment relationships, frequently change employer, are self-employed, or tend to be highly mobile, making tracking them difficult.

**As a result, informal economy schemes must rely on a country's existing ID systems to ensure the unique identification of beneficiaries, which us associated with additional challenges.** Even well-developed ID systems often do not reach the full coverage of a population.[26] Coverage tends to be lowest in countries that have high levels of informality, including in most of Sub-Saharan Africa (figure 28). Low coverage is due in part to the high costs for individuals, which often include not only payments for the identity credential itself, but also the transaction costs associated with obtaining the credential. If documents are required to obtain an identity

*Informal economy schemes must rely on a country's existing ID systems to ensure the unique identification of beneficiaries.*

26. In the G-7, for example, an average of 8 percent of the population do not possess any form of proof of identity, according to 2018 data of ID4D (Identification For Development) (dashboard), World Bank, Washington, DC, https://id4d.worldbank.org/.

**FIGURE 28.** Informality and identification




*Source:* Calculations based on data of ID4D (Identification For Development) (dashboard), World Bank, Washington, DC, https://id4d.worldbank.org/; 2020 data of ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/.

*Sub-Saharan Africa significantly lags other regions in the coverage of identification and civil registration systems.*

credential, for example, a birth certificate proving nationality to obtain a national ID card, this can add further bureaucratic hurdles and transaction costs. Overall, such costs tend to represent obstacles, particularly for the poorest and most vulnerable, who also disproportionately work in the informal economy. In addition to low coverage, existing ID systems tend to be fragmented, that is, numerous, low-coverage identity credentials coexist. Fragmented environments tend to lack interoperability with existing ID systems. As a result, obtaining the required information from various sources can be a problem (for instance, obtaining death records from a civil registry).

## 5.3. The State of Identification in Africa

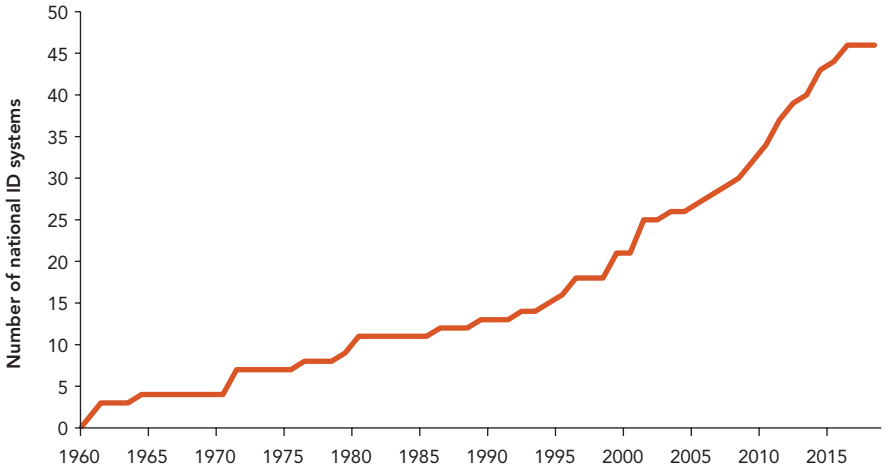
**Most Sub-Saharan African countries have some form of national ID and civil registration system.** Although coverage varies widely among countries, most countries in Sub-Saharan Africa have national ID systems. The number of national ID systems on the African continent has grown steadily since 1960 (figure 29). A few countries, such as Democratic Republic of Congo and Liberia, lack national ID systems entirely, but are in the process of establishing them (World Bank 2017).

**However, Sub-Saharan Africa significantly lags other regions in the coverage of identification and civil registration systems.** Almost a third of the Sub-Saharan African population ages 15 or more did not have their respective country's national ID (figure 30). In the Middle East and North Africa as well as in South Asia, the regions with the next-lowest coverage of identification, have significantly higher coverage. There, only 6.9 percent and 6.8 percent of the population do not have access to national IDs, respectively. Similarly, birth registration remains weakest in Sub-Saharan Africa compared with other regions. Sub-Saharan African nations have achieved an average coverage of less than 60 percent of their civil registration systems (World Bank 2019c).

**Significant discrepancies exist between urban and rural areas in the coverage of identification and civil registration in Sub-Saharan Africa.** In rural areas of the region, about half the population is registered in the respective country's civil registration system. In urban areas, the coverage is roughly 15 percentage points higher. Similarly, urban residents have a significantly greater likelihood of having a national ID than rural residents (World Bank 2019c).

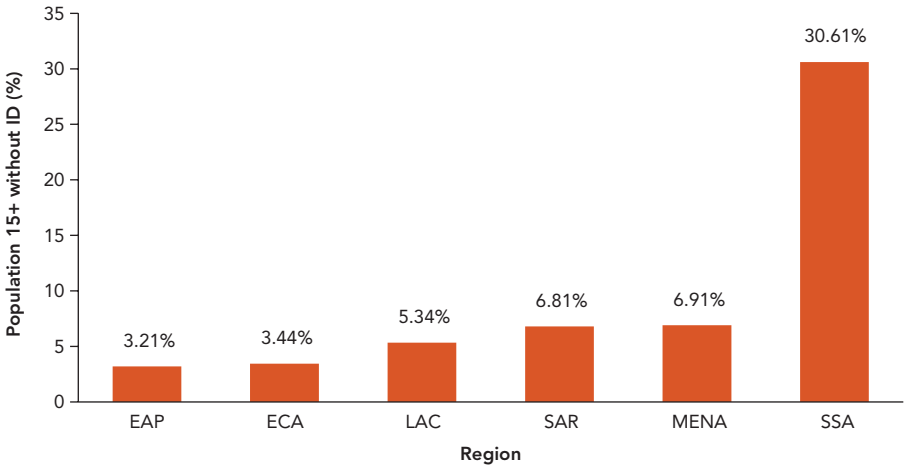
**Women and individuals with lower educational attainment are less likely to be covered by identification systems** (World Bank

**FIGURE 29. Number of national ID systems, Africa, 1960–2017**




*Source:* Data of ID4D (Identification For Development) (dashboard), World Bank, Washington, DC, https://id4d.worldbank.org/.

**FIGURE 30. Coverage of IDs, by region**




*Source:* World Bank 2019c.

2019c). In Sub-Saharan Africa, an average of 36 percent of women do not have national IDs, compared with fewer than 30 percent of men. In low-income countries, most of which are in Sub-Saharan Africa, women are 11.1 percent less likely to have access to national ID documents. The gender gap is particularly pronounced among women in rural areas and women with low educational attainment. Low levels of education are a predictor of a lack of identification regardless of sex. Adults with only a primary education are much less likely than adults with a secondary education or higher to have an ID at any age.

**Although no data are available on the overlap between ID coverage and informality, it stands to reason that informal economy workers are less likely to have access to identification.** Informal employment tends to be significantly higher in rural areas in West Africa and higher among women than men (ILO 2018). Living in rural areas and being a woman are predictors of a lack of identification. Informal employment is strongly correlated with educational attainment. Informality decreases in likelihood as educational attainment increases. Overall, it is therefore likely that ID coverage is higher among formal economy workers.

**Data protection and privacy provisions are often rudimentary, but are increasingly being established.** According to the United Nations Conference on Trade and Development, 28 African countries currently dispose of data protection and privacy legislation, whereas 9 have draft legislation, and another 13 do not have any form of legislation.[27] Overall, however, West Africa appears to be further advanced than other parts of Africa. The majority of the member states of the Economic Community of West African States (ECOWAS) have adopted legal instruments for data protection and cybersecurity. Only 4 of the 16 countries do not have law on data protection or cybersecurity.[28] In the East African Community, meanwhile, only Kenya possesses data protection and privacy legislation.[29]

*Data protection and privacy provisions are often rudimentary, but are increasingly being established.*

27. See Data Protection and Privacy Legislation Worldwide (dashboard), United Nations Conference on Trade and Development, Geneva, https://unctad.org/page/data-protection-and-privacy-legislation-worldwide.
28. The 16 countries include 15 ECOWAS member states and Morocco.
29. See Data Protection and Privacy Legislation Worldwide (dashboard), United Nations Conference on Trade and Development, Geneva, https://unctad.org/page/data-protection-and-privacy-legislation-worldwide.

**Reforming identification systems has received the renewed attention of governments and international organizations in recent years.** In part buoyed by the successes of India's Aadhaar Program and driven by Sustainable Development Goal 16.9 of the 2030 Agenda for Sustainable Development aiming to provide a legal identity for all, a number of initiatives have been launched to reform and strengthen identification systems. Annex A provides an overview of some of the current initiatives. Numerous existing initiatives aim to support plans for a common market, deepened trade, and a more frictionless digital economy in Africa, for example, in the context of the signing of the African Continental Free Trade Agreement.

SECTION 6

# Operationalizing a Social Insurance Scheme for the Informal Economy

**Social protection and labor systems, policies, and programs help individuals and societies manage risk and volatility and protect them from poverty and destitution through instruments that improve resilience, equity, and opportunity.** Millions of unorganized, informal economy workers in the developing world lack these instruments because they are excluded from formal social insurance systems. With changing social structures, the growing incidence of shocks, and the acceleration in aging populations, the exclusion of informal economy workers from social protection systems means that they are forced to resort to costly coping strategies. This not only hurts individual welfare, but a country's ability to bounce back from crises.

**Expanding social protection coverage, responsiveness, and adaptability are also important in facilitating a resilient, inclusive recovery.** Countries with robust social protection systems have been in a better position to respond to COVID-19 (World Bank 2021b). Policy makers in developing countries are therefore looking for new instruments and approaches to expand social protection coverage to informal economy workers. The high rates of informality mean that the task is challenging. The limited tax revenues (partly because of low-income tax capacity) further constrains the ability of governments to expand coverage by solely providing social assistance transfers to the informal economy. One approach to extending social protection coverage to the informal economy is through social insurance savings and related schemes. Such schemes could be designed to allow short- to medium-term withdrawals or provide a combination of short-term savings for short-term liquidity needs and long-term savings to contribute to old-age income security. Recent innovations in ID, digital, and payments space have opened doors for new, cost-effective approaches to expanding coverage through voluntary social insurance schemes (box 6).

## 6.1. Addressing the Challenges in the Informal Economy[30]

**It is important to consider the distinct characteristics of the informal economy in designing a relevant social insurance scheme.**

30. This subsection draws and builds on Guven (2019).







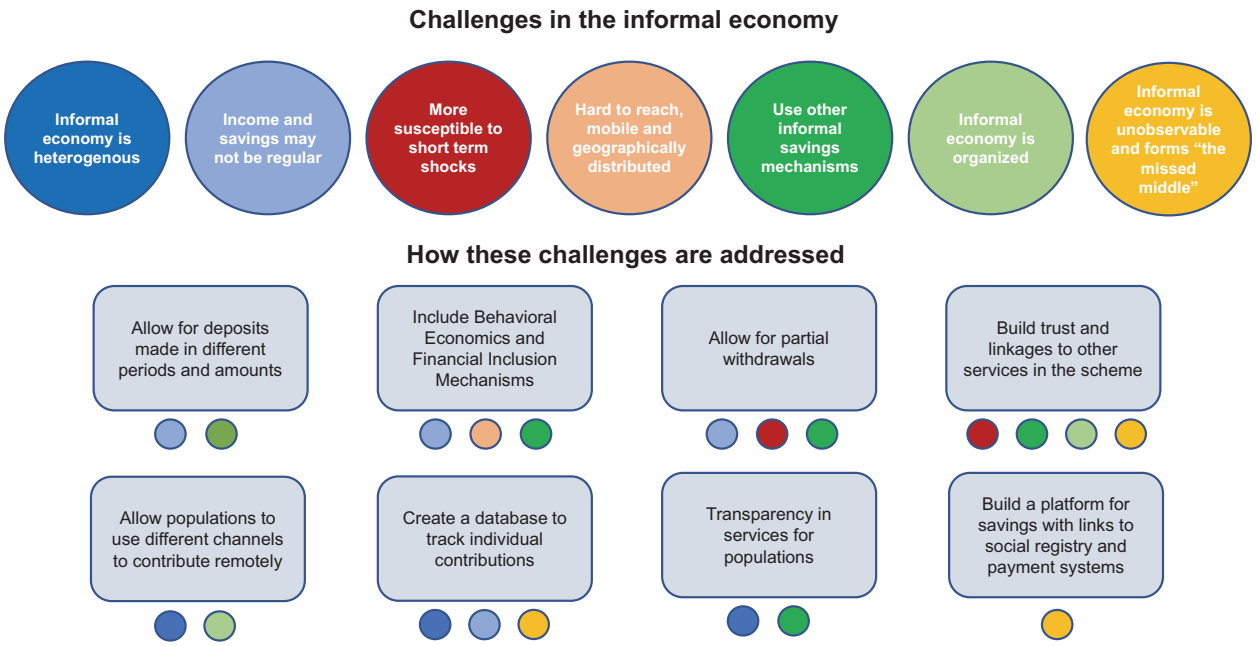
### BOX 6. Protection offered by social insurance schemes through risk pooling and consumption smoothing

**Social insurance schemes for the formal sector tend to include elements of both risk pooling and consumption smoothing in the design.** Social insurance schemes (such as in health care, pensions, and unemployment) have a strong focus on risk pooling because this allows resources to be redistributed among the covered population. It also ensures a minimum level of protection for all, for example, through the use of minimum pensions in defined benefit schemes, guaranteed returns in defined contribution schemes, and mandatory coverage under national health insurance. Comprehensive protection to all members in society would require risk pooling and consumption-smoothing elements because there are always likely to be some workers (women, those with lower incomes, and seasonal workers) who, because of the nature of their jobs or social and economic conditions, are unable to mitigate risk through consumption smoothing alone. The multipillar pension framework proposed by the World Bank in the 1990s was motivated by the assessment that countries should create schemes that provide risk pooling, smoothing, and insurance, but this should be carried out through separate schemes instead of one (monopillar) scheme.

**Countries should aim to create a social insurance landscape for the informal sector that allows them to offer not only consumption smoothing, but also some risk pooling to these workers.** Risk pooling continues to be a defining feature of formal social insurance schemes. The allure of risk pooling is likely to be greater among people working in the informal economy given their limited capacity to save and contribute regularly. Along with the size of the informal economy, this also makes risk pooling for the informal economy expensive in developing countries. Social pensions are a case in point. Tax revenues from the formal sector are used to provide benefits to those who are at risk of falling into poverty during old age, but if more individuals depend on social pensions then the cost to the economy is higher. A balance between risk pooling and consumption smoothing is therefore important and should be determined based on a country's financing ability. If a voluntary savings scheme is designed as a traditional defined contribution scheme, it would only address consumption smoothing in the informal sector. Additional schemes or tweaks in the defined contribution design would be needed to offer risk pooling in the informal sector. India's Atal Pension Yojana scheme, which targets the informal sector, includes both risk pooling and consumption-smoothing elements by offering a scheme that provides a guaranteed pension income to beneficiaries (and surviving spouses), as long as individuals stick to the contribution schedule between ages 18 and 40. A beneficiary who survives only 5 years after retirement and someone who survives 15 years after retirement would both receive the guaranteed benefit, and the government would be responsible for ensuring that payments are made to those eligible. Offering risk pooling elements for the informal sector is highly desirable, but would require government financing, imposing some mandates on contributions and the political will to prioritize coverage against idiosyncratic risks in the informal sector.

While the specifics of the characteristics would need to be studied in each context to design the appropriate scheme for each country, the same characteristics broadly apply in almost all contexts. Figure 31 presents the typical characteristics of informal economy workers and provides a summary of how these characteristics may be addressed in designing and operationalizing a social insurance scheme for these workers. Overall, five main principles need to be addressed, as follows: (1) administrative costs need to be minimized through reliance on technology, (2) the viability of the scheme should be monitored regularly through viability assessments and key performance indicators, (3) the savings of informal economy workers should be professionally managed to optimize returns and to minimize asset management costs, (4) behavioral economics should be employed to improve uptake and ensure steady contributions, and (5) scheme administrators should continuously invest in communications to increase awareness, participation, and savings. While these principles apply to all social insurance schemes, they are particularly important in building trust and encouraging people to contribute in the schemes given the multiple

**FIGURE 31. Addressing the challenges in the informal economy**




*Source:* Guven 2019.

constraints on saving among this group. To manage expectations, clearly communicating what people may expect to receive as a benefit depending on what they contribute is essential. By leveraging stakeholders, such as informal economy associations and MFIs, the institutional structure relied on to manage the scheme should have the capacity to identify informal economy workers who are able to save.

**The design of the informal economy social insurance scheme and the institutional structure should reflect the characteristics of the informal economy.** This is important from the perspective of improving the chance of success, including the key characteristic that the informal economy typically lacks, that is, clear employer-employee relationships. To respond to this and other characteristics, policy makers would benefit from an examination of several elements.

*Voluntary scheme.* It is not realistic to mandate that a social insurance scheme be implemented in the informal economy. This assertion is justified by two main considerations. The first one relates to the level of incomes in the informal economy. While some informal economy workers may have sufficient incomes to defer consumption and save, others face competing demands on their incomes today, such as buying food, paying for children's education, caring for family members, housing, health care costs, and so on. So, even if a scheme is designed as mandatory, some informal economy workers may not be able to contribute if these pressing and frequent demands arise. Some may not have sufficient savings to fall back on in the case of unexpected events that impact incomes.

The second consideration relates to the challenges involved in implementing a mandatory scheme efficiently. Because informal economy workers are typically spread widely around a country, including in rural areas, experience shows that obliging the entire informal economy to contribute to a social insurance scheme does not produce any relevant impact. This is especially so because of the typical gaps in national identification systems and the absence of robust know your customer procedures to verify the identities of individuals.

***The design of the informal economy social insurance scheme and the institutional structure should reflect the characteristics of the informal economy.***

*Fiscal incentives should be costed out to assess the fiscal burden on the government.*

*Fiscal incentives.* Reaching scale in a voluntary social insurance scheme without subsidies and other incentives may be a challenge. To encourage participation, the government might decide to make matching contributions. In this case, a matching contribution scheme refers to the amount paid by the government as a subsidy relative to each unit paid by the contribution. This is particularly important for the nonpoor, nonresilient informal economy that may not be able to contribute meaningfully unless the contributions are matched or certain risks are addressed through private insurance. If countries have the financial resources to subsidize a voluntary social insurance scheme, they can use systems established through social safety net programs to identify and target the poor who would benefit from subsidies to help save for old age. Social registries are increasingly used to support the implementation of safety net systems in Africa. If countries have robust targeting mechanisms supported by social registries, these systems can be used to identify low-income individuals who would receive subsidies. In response to COVID, assessing poverty and vulnerability is being enhanced using big data and artificial intelligence. Those participants able to defer consumption for the sake of pension savings are a relatively more well off segment of the informal economy. While a matching contribution may attract informal economy workers who would not contribute at all without the government subsidy, it is important to institute policies so that the majority of the subsidy does not benefit the more well off segment of the informal economy. This is particularly important in Africa, where governments are still grappling with high rates of poverty and vulnerability, including in the informal economy.

**These fiscal incentives should be costed out to assess the fiscal burden on the government.** The state of matching contributions in the scheme needs to be regularly evaluated for impact and fiscal affordability by governments to make adjustments during implementation. After three years of implementation of matching contributions for participants, Rwanda's Ejo Heza scheme is undertaking viability assessments as a basis for deciding whether to extend these subsidies for three additional years. These fiscal incentives do not create contingent liabilities, unlike a pay-as-you-go defined benefit scheme, because governments decide whether to continue with subsidies depending on the progress and impact.

**A review of the international experience with matching contributions for pensions finds that including a matching contribution increases savings plan participation and beneficiary contributions.** The impact is found to be less significant relative to the impact of nonfinancial approaches. Conditional on participation, a higher matching rate has only a small effect on savings plan contributions. By contrast, the matching threshold has a substantial impact, probably because it serves as a natural reference point if individuals are deciding how much to save, and it may be viewed as advice from the savings program sponsor on how much to save. Other behavioral approaches to changing savings plan outcomes—including automatic enrollment, simplification, planning aids, reminders, and commitment features—potentially have a much greater impact on savings outcomes than do financial incentives and often at a much lower cost (Hinz et al. 2013).

*Administrative links to the social assistance system.* One of the most important challenges presented by a large, vibrant, diverse informal economy is the unobservability of the associated market activity. The near absence of an administrative relationship between government institutions and the people working in the informal economy makes outreach and policies targeted on these people challenging for governments. Voluntary savings schemes for the informal economy would help create this missing administrative relationship by bringing people in the informal economy onto a structured platform to which the government has access, thereby making these people visible. This effect could be enhance by linking the social insurance platform

for the informal economy with the social assistance system at the operational level.

*Defined contribution scheme.* There are two main options in the structure of a voluntary social insurance scheme: a defined benefit scheme or a defined contribution scheme (box 7). Defined contribution schemes are by design fully funded because individuals simply receive accumulated contributions and the interest earned, minus the costs at the time of withdrawal or retirement. In a defined benefit scheme, contributors are promised a pension payment based on a predetermined benefit formula when they reach the age of pension eligibility. The benefit formula is based on earnings history, years of contributions, and the age of the contributors rather than directly on the contributions and the investment returns achieved by the pension authority.

Defined benefit schemes can also be fully funded if the contributions being requested are actuarially fair. It is much more difficult to implement a fully funded defined benefit scheme for the informal economy because this requires individuals to pay the mandatory contributions. Defined benefit plans are typically more suitable in the formal economy, where there are clear employee-employer relationships and where predefined contributions are based on regular earnings. However, as shown in the case of the Atal Pension Yojana scheme and the Pradhan Mantri Shram Yogi Maandhan scheme in India, this can be implemented, and at least some groups of informal economy workers find the features of a defined benefit scheme attractive (knowing the benefit amount and having a contribution schedule to stick to) (Mitchell and Mukherjee 2017). The scheme must ensure that the contribution schedule that is established and the investment returns beneficiaries will earn will be sufficient to pay the promised benefit amount. India's schemes seem to have addressed the financial risk by promising a small benefit amount today, though the value may have eroded significantly at the time of payout because of inflation.

**In a defined contribution scheme, benefits are based on accumulated contributions and investment income, net of expenses, meaning that the benefit to be paid out is a direct result of the savings that have been**

***In a defined contribution scheme, the benefit to be paid out is a direct result of the savings that have been accumulated.***

## BOX 7. Design features of social insurance schemes

*Benefit design.* The general architecture is usually a defined benefit or a defined contribution, or a hybrid. Defined benefit schemes generally have an accrual rate and provide a pension benefit from retirement age until death. A defined benefit is often formulated as follows:

[number of years of qualifying public service employment] * [an accrual rate] * [the pensionable wage base] (B5.1)

Defined-contribution schemes largely mimic bank accounts. Individual pay contributions into the scheme (voluntary or mandatory) that go into a fund that accrues interest, dividends, and capital gains. Benefits are computed based on the accumulated funds at retirement. The payout phase for a defined-contribution scheme can be a lump sum, phased withdrawal, annuity, or some combination thereof.

*Financing social insurance benefits* may be unfunded, partially funded, or fully funded.

Unfunded schemes are those that have no contributions or reserve fund and pay benefits out of current tax revenues. Reserve funds have been established at a provincial level though these have no legal liabilities for financing civil service pensions.

Partially funded schemes generally have contributions and a reserve fund, but the amount of the reserve fund can only partially finance the promised pensions of individual members at any one time. Partially funded defined-benefit schemes are often referred to as pay-as-you-go because a portion of current contributions are used to pay current benefits.

Fully funded schemes have accumulated assets backing all benefit payouts. Generally, fully funded schemes are defined contribution schemes.

**accumulated.** There are several reasons why defined contribution schemes are more suitable for voluntary savings schemes in the informal economy. First, defined contribution schemes are more intuitive for informal economy workers. Because the contributions are kept in individual accounts on which actual contributions and investment returns are recorded, a defined contribution plan mimics bank savings accounts. Second, these schemes build trust and encourage the payment of voluntary contributions more easily because participants can see how much savings they have at any time. Third, defined contribution schemes can be crafted so as not to require the regular payment of predetermined contribution amounts. As a result, participants may make contributions at any time, and whatever contributions they make will be added to the relevant individual accounts.

Of the seven countries analyzed in this report, only India has defined benefit elements in its scheme (see annex A). There are benefits and challenges associated with including a defined benefit relative to the inclusion of a defined contribution elements in the design of a scheme for the informal sector (table 8). Governments should test various design elements in the pilot stage and choose a design that appeals to the target group in the country and that fulfills the objective of the scheme.

*A combination of short-term and long-term savings accounts.* Depending on country context, social insurance schemes in the informal economy can start off solely as short-term schemes or they could be designed as long-term savings schemes. The former is more pertinent if the short-term risks of the informal economy are more pressing and a majority of informal economy workers may not be

**TABLE 8. Potential pros and cons of including a defined benefit versus a defined contribution in schemes**

| **Defined benefit elements**<br>*Those guaranteeing a benefit (flat or formula based) once an individual meets eligibility criteria* | **Defined contribution elements**<br>*Those only giving contributions, plus investment returns at the end of the accumulation phase* |
|---|---|
| ***Benefits*** | |
| A guaranteed amount (especially a flat amount) on retirement is likely to be more easily understood by workers in informal economy thereby improving uptake. | Workers with irregular savings would find it easier to save in a defined contribution scheme. |
| Trust in the scheme is likely to be greater if it is clear what workers will get at the end of accumulation phase. | A defined contribution scheme mimics a bank account so workers can track their savings and returns, thereby promoting trust. |
| Eligibility criteria, to the extent reasonable, could in fact promote discipline in savings. | Government liability is nil as long as no minimum pension or guaranteed return is promised. |
| Governments can ensure adequacy such that at least those who join have reasonable income security. | |
| ***Challenges*** | |
| Individuals with irregular earnings might find it harder to stick to the schedule. | Workers might undersave if they are allowed to choose the amount of savings on their own. This would hurt benefit adequacy. |
| Transaction costs to rejoin the scheme (payment of dues for example) will be higher and could dissuade workers from saving. | The benefit of compounding may not be intuitive to workers. |
| If benefits are too generous and contributions heavily subsidized, then the government or scheme administrator would need to finance the funding gap, which could be large given the size of the informal sector in developing economies. | No penalty for not saving might lead to complacency among workers. |

*Source:* World Bank elaboration.

able to save long term. It is important to start off these schemes as short term instead of waiting to ensure that the informal economy's ability to save long term improves. Long-term aspects can be incorporated as the ability to save and the capacity to defer consumption improves.

**Even if the informal economy scheme is designed as long term with the objective of contributing to old-age income security, a combination of long-term and short-term savings accounts should be considered.** This is because a pension scheme savings account is, by nature, a long-term savings account. Informal economy workers need to save for 15–20 years to be eligible for pension benefits when they reach the eligibility age.

**Experience in countries in Africa and interviews with informal economy representatives indicate that a short-term savings account would make the social insurance scheme more attractive to informal economy workers.** There are several reasons for this. First, a voluntary social insurance scheme needs to build trust, and knowing they have short-term access to their savings may help build this trust among the workers. This is substantiated by evidence in Ghana. When the informal economy pension scheme was first established, participants had the option of gaining access to 50 percent of their accounts six months after they had started making contributions. On the day contributors were allowed to access their savings, they typically withdrew the short-term savings account. However, they returned the savings into the account the next day. This appeared to be the way the participants tested whether they could actually access the savings. Second, the social insurance scheme could be made more attractive by allowing the informal economy workers to use the short-term savings account as collateral for various financial transactions, including obtaining credit from MFIs, thereby making it easier for them to access financing. Third, the short-term savings accounts could be used by informal economy workers following idiosyncratic or covariate shocks.

*Level of contributions and frequency of payments.* Because most informal economy workers do not have regular incomes, the frequency of the payment of contributions should be flexible. For example, some informal economy workers, such as seasonal workers and agricultural producers, receive earnings only once a year, and the social insurance scheme might require the payment of contributions at least once a year to respond to this circumstance. However, more frequent payments, including weekly payments, should also be allowed, thereby taking into account cost considerations. While the amount of the contributions to a social insurance scheme ought to be flexible, an annual minimum payment might be necessary to ensure the viability of the scheme.

*Integration or bundling with other services.* The voluntary nature of an informal economy social insurance scheme means that, in the design of the scheme, there must be an emphasis on features aimed at attracting participants and encouraging them to make contributions. One possible synergy that might support this goal involves health insurance. Health care expenses generally account for a large share of household spending, particularly in the case of unexpected health events. In the absence of health insurance, informal economy workers may prefer to set aside resources for health expenses. Interviews with informal economy representatives during focus group analysis in Benin indicate that, if they have access to health insurance, people can be encouraged also to save for old age.

**Policy makers should therefore examine the possibility of combining health insurance and the savings scheme into a package of services and of designing the informal economy social insurance scheme by building on synergies between these services**. Government providers may also benefit on the operational side from these synergies. For instance, if individuals are participating in both, collecting contributions for health and savings scheme at the same time would be more efficient. If a government is considering adopting

***Experience indicates that a short-term savings account would make the social insurance scheme more attractive to informal economy workers.***

*Social insurance schemes could benefit from the related incentives created among informal economy workers to participate and pay contributions.*

a health insurance scheme, it might do so by building on the synergy by automatically enrolling people who are in the informal economy savings scheme in the health insurance scheme as well. This automatic enrollment could be accomplished through mobile phones and using the national identification system. The automatic enrollment could be designed with an opt-out capability so that those people who do not wish to contribute to the savings scheme could opt out, including over their mobile phones.

**Contributors to the informal economy social insurance scheme could likewise be offered priority access to financing through MFIs.** The short-term savings accounts in the social insurance scheme could be used as collateral. Based on clear memorandums, MFIs may be granted access to certain data on their clients through the information technology platform of the social insurance scheme to evaluate the creditworthiness of their clients for microfinancing. Where possible, the information technology platforms of MFIs could be made interoperable with the information technology platform of the social insurance scheme. The social insurance scheme for the informal economy could thus benefit from the knowledge base of MFIs on the informal economy during outreach (see below). If the MFIs are able to indicate to potential customers that the chances of obtaining loans would increase if they contribute to the informal economy social insurance scheme, thereby gaining the capacity to use the short-term savings account as collateral, this might encourage some informal economy workers to participate in the social insurance scheme.

**The synergies with health and financing services are merely examples showing that social insurance schemes could benefit from the related incentives created among informal economy workers to participate and pay contributions**. The range of other services that might be used to influence participation in the informal economy social insurance schemes is wide. It might include crop insurance, occupational training, life insurance, education benefits, and so on. People value short-term benefits. Bundling short-term benefits could thus create a response to long-term savings triggered by short-term benefits. What might make sense would depend on the country context. The key is in bundling effectively with metrics that make sense and help members feel they are getting these benefits as an addition to the core product without extra charge. Additional research is needed to determine the priority requirements of informal economy actors so that appropriate incentives can be designed.

*Withdrawals from the scheme.* If the savings scheme is designed as a short-term savings scheme, then people would have access to savings in the case of short-term shocks. The rules around withdrawals should be determined in advance and communicated to scheme participants. Kenya's Mbao scheme allows access to accumulated savings after six months of contributions. If a scheme provides matching contributions, it would be important to ensure that withdrawals of matching contributions are restricted. Matching contributions might thus be available if participants save a certain amount or for a certain period or both. Although designed as a long-term savings scheme, Rwanda's Ejo Heza, which provides matching contributions, allows withdrawals before retirement age for education and housing if the savings have reached a predetermined threshold.

**Under long-term savings schemes, benefit payments could be available in the medium term if individuals have reached the eligibility age after making contributions for a number of years.** Such rules should be established at the outset. They might include, for instance, the age of eligibility, the minimum contributions required, government subsidies, and the rights of inheritance over the account balance in case of death. These design features will depend on the country context and preferences. Communicating the rules of the payout phase to the public is also essential during the launch of the social insurance scheme for the informal economy.

**The benefit will be strictly linked to the amount of the contributions paid, plus the returns on the investment of the contributions, minus the costs to the scheme administrator**. Benefit calculators could be designed and used to show potential participants what they may be able to expect to receive based on their projected contributions. The payout options might include a lump-sum payment at the age of eligibility or the provision of term annuities for, say, 5 or 10 years, or lifelong annuities. A term or lifelong annuity might be encouraged over lump sum withdrawals as there is a risk that the lump sum might be spent quickly, defeating the purpose of contributing to poverty reduction in old age. A lifetime annuity will contribute more effectively to income security throughout life, but, because savings from this group are likely to be low, a term annuity for this group would offer more substantial value and be less costly to administer than a life annuity. Designing annuities is complex and costly . For the payout stage, governments in developing economies often therefore adopt a middle ground between the lump sum and annuities by offering a scheduled withdrawal option, whereby the implementing institution chooses the years of payout and simply divides the fund balance by the number of years to calculate the yearly payout amount.

**The procedures for resolving the rights to account balances in the case of the death or disability of a contributor or the death of a beneficiary should be established and communicated to the public**. In the case of a disability whereby a participant can no longer work and therefore cannot contribute, the participant should be given the option to withdraw savings in advance of the eligibility age. Participants would have to identify beneficiary survivors whose rights are to be recognized to collect the balance in the individual account in the case of death.

**A new informal economy scheme—defined contribution or defined benefit—would require resources to finance activities before the schemes reach scale and accumulate sufficient reserves and returns to be able to self-finance the cost of running the scheme.** In the initial years, the costs would be high because the scheme managers would need to invest in communication and awareness building and try out different approaches to help build a savings habit among informal economy workers who face challenges in capabilities, opportunities, and motivation. There also exists software and hardware costs to set up individual accounts for a defined contribution scheme with real-time access to funds, a call center where staff could answer questions, and other operating costs to run the scheme. These features make the scheme attractive and also help build trust, but resources are needed to pay for them, at least in the initial years.

**The magnitude of the resources needed to finance the scheme in its initial years will depend on various factors.** A national scheme could leverage in-house information technology capabilities for software (as in the case of Rwanda). If a country has an ecosystem of interoperable ID and payment systems, this would allow any new scheme to link data from various sources seamlessly and cost-effectively. While leveraging existing resources can reduce costs relative to starting from scratch, the viability of these schemes rests largely on how quickly they can reach scale. Informal economy workers face distinct challenges. Inculcating a savings habit would require that the structural barriers they face be overcome and behavioral approaches applied to nudge the workers to save. This requires spending on communication and awareness building to attract new members and ensure other members are saving persistently. Some governments may decide to use fiscal incentives such as matching contributions or one-time transfers to attract savers.

**The costs likely to be incurred by the scheme should be estimated and projected over time, along with expected revenues and income for the scheme.** Such an analysis will help policy makers and practitioners assess the viability of the scheme. Specifically, the outputs that would be of interest to stakeholders are likely to represent the break-even point of the scheme under reasonable

***The costs likely to be incurred by the scheme should be estimated and projected over time, along with expected revenues and income for the scheme.***

assumptions, the cumulative net cost or resources needed to finance the scheme until it breaks even, any implicit liability taken on by the scheme (if, for example, the scheme guarantees a benefit amount) and the assets accumulated by the scheme over time.

## 6.2. Institutional Arrangements

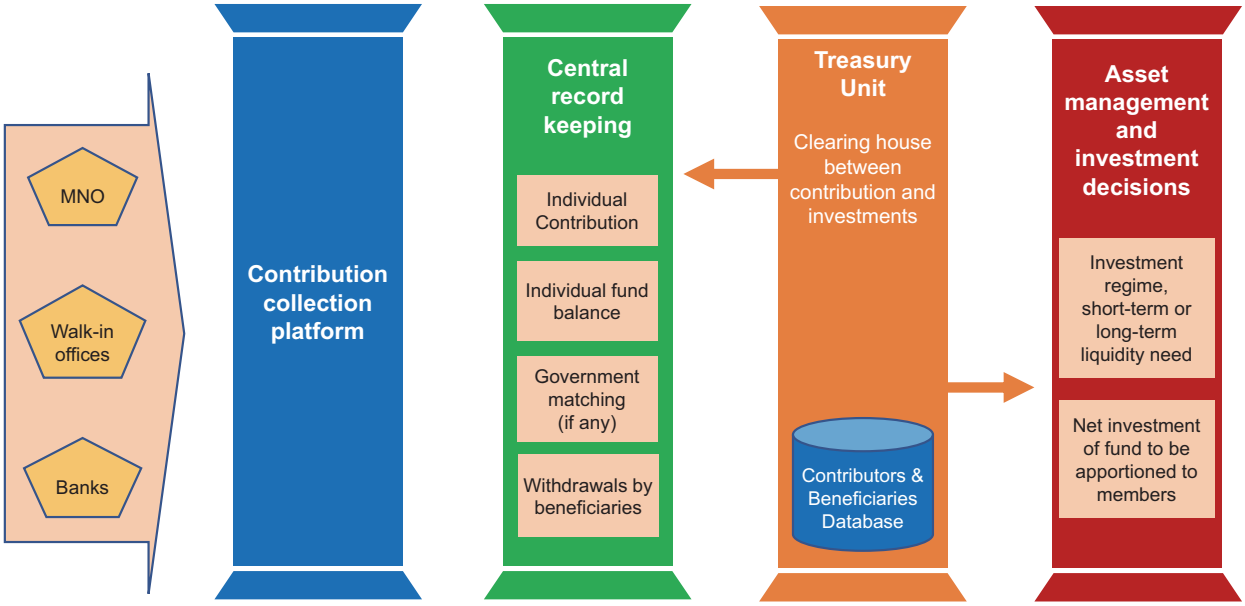
*Institutional arrangements for the voluntary defined contribution scheme are key to building trust in the scheme.*

**Institutional arrangements for the voluntary defined contribution scheme are key to building trust in the scheme and ensure smooth functioning of the related business processes.** The identity of the appropriate administrator of a voluntary scheme would depend on the country context and might range from the current social insurance administrator in the formal economy to a private economy operator or any other institution with the appropriate capacity (Guven 2019). In countries where there is a formal economy defined contribution scheme administered by a social security institution, a case could be made to have the formal social security scheme also manage the contributions and records of the voluntary scheme for efficiency. It is important, however, for the voluntary scheme to have separate features, incentives, and cost structures to attract informal economy workers to save. Unless separate databases between voluntary and mandatory scheme members are maintained in such an arrangement, there is a risk that the cost-effectiveness of the voluntary scheme will not be achieved.[31] Governments can also benefit from the experience and the infrastructure of financial economy institutions in the implementation of social insurance schemes for the informal economy.

The main elements of the institutional design of a voluntary defined contribution savings scheme for informal economy workers include the following: (1) a contribution collection mechanism, (2) a recordkeeping infrastructure, (3) procedures for the investment of contributions, and (4) a treasury unit (figure 32). This could be customized based on country context and the stakeholders involved.

31. This is proving to be the case for the Haba Haba scheme, which is managed by the National Social Security Fund in Kenya because the records include both voluntary and mandatory scheme members.

**FIGURE 32.** Institutional design of an informal economy savings scheme




*Source:* World Bank.

### 6.2.1. Contribution Collection

**A diverse informal economy requires a social insurance scheme to provide various mechanisms for the payment of contributions.** The administrator of the social insurance scheme for the informal economy should allow scheme participants to make contributions over various channels. Channels that might be used include banks, nonbank institutions (such as MFIs and cooperatives), convenience stores, mobile wallets, USSD, web page applications, or an application that could be developed specifically for the scheme. While not all participants belong to specific groups (for instance, associations or cooperatives) and must interact with the scheme as individuals, contribution collection through groups could be an option in some cases whereby groups would be allowed to collect and transfer contributions to the scheme on behalf of their members. However, to build trust, even if contributions are made as a group, the scheme should adopt basic rules of transparency, for example by facilitating the access of participants to the information on their individual accounts.

**Communication with scheme participants throughout the contribution payment process is an element that should be thought through carefully.** Because workers in the diverse informal economy exhibit varying levels of education and varying levels of financial literacy, the contribution collection process should be as straightforward as possible and respond to the needs of those with the lowest financial literacy. A human-centered design should be adopted such that the interactive systems (for instance, mobile wallets) are developed in a way that would respond to the requirements of the participants and rely on behavioral approaches. Access to balances could be allowed as a way to build trust, but also to encourage people to save because people would be motivated to contribute if they see their account balances grow with additional contributions. Any possible fees should be reflected in the individual's account balances. The approach could include sending SMS text messages as reminders for the payment of contributions. Standing orders could be provided as an option among scheme participants to ensure the consistency of savings.

### 6.2.2. Recordkeeping

**The benefits platform is to be developed as the core of the informal economy social insurance scheme benefits delivery infrastructure.** Its primary purpose would be to handle core recordkeeping. Based on the platform, the scheme administrator would able to manage records associated with identifying the amount of contributions to the scheme and related returns and fees. Ideally, the information on each participant stored on the platform would be updated based on an algorithm that periodically calculates the returns on earnings on individual savings net of commissions and fees charged to the individual accounts. This would ensure that individual account balances are up-to-date. The benefits platform should be able to keep track of withdrawals as well as fiscal subsidies if applicable.

Similarly, the benefits platform would manage monetary transactions through a system integrated with mobile money network operators, banks, and other first mile financial institutions. This monetary outlet would facilitate any financial interactions with the scheme administrator and mobile network operators, banks, or any other monetary exchange channel that is created.

### 6.2.3. Treasury Unit

To support the adequate control of the funds flowing into and out of a social insurance scheme, a treasury unit should be established and put in charge of monitoring and balancing all transactions of the investment unit. The recordkeeping unit would also interact with the treasury unit in charge of receiving funds from mobile network operators or MFIs to ensure proper control over the funds flowing

***Communication with scheme participants throughout the contribution payment process is an element that should be thought through carefully.***

*The policy maker faces the dual challenge of achieving a consistent long-term real return on the scheme investment and communicating any drop in real returns to scheme participants who have low financial literacy.*

into and eventually out of the office of the social insurance administrator. This allows investments to be optimized and moderates the effect of potentially unnecessary transactions performed by the Investment unit.

## 6.3. Investment and Governance

**The unique characteristics of Informal economy workers mean that savings applications designed for these workers face major challenges in embodying the most appropriate asset investment strategy.** These schemes are invariably small, at least to start with, and involve numerous small value transactions. They may include a short-term savings component and a longer-term component. The participants in these schemes may be particularly unaware of financial matters. Controlling costs for these schemes can therefore be a challenge. Designing the most appropriate investment approach for these offerings that enables a positive real return over time to participants requires careful consideration.

**The ideal investment approach will depend on the goals of the scheme.** Specifically, will the scheme be designed solely for retirement purposes, or will it allow withdrawals to help individuals meet shorter-term needs (unemployment, health care expenses, and so on)? Except for the Atal Pension Yojana and the Pradhan Mantri Shram Yogi Maandhan scheme in India, all informal economy schemes covered in this report offer some level of short-term liquidity. The Mbao scheme in Kenya allows partial withdrawals three years after the first contribution (Guven and Brodersohn 2019). The various informal economy schemes in Ghana have generally offered a structure consisting of 50 percent long-term savings and 50 percent shorter-term savings (Guven and Brodersohn 2019).[32] The People's Pension Trust, one of the informal economy schemes in Ghana, has seen withdrawal rates of only 16 percent–18 percent despite allowing access to up to 50 percent of accounts to participants, and this trend has not increased materially during the COVID-19 crisis.[33] Rwanda's Ejo Heza scheme allows up to 40 percent of scheme balances in excess of RF 4 million to be available for withdrawal. Ultimately, if an approach allowing access to savings in the short term is chosen, it will have implications for the ideal investing approach because a portion of the portfolio will have to accommodate the short-term liquidity needs built into the design.

**In designing investment guidelines for informal economy schemes, the policy maker faces the dual challenge of achieving a consistent long-term real return on the scheme investment (to make it attractive for informal economy workers) and communicating any drop in real returns to scheme participants who have low financial literacy**. Schemes for the informal economy have to offer asset preservation, but also sufficient and stable growth to offset inflation. Pension funds in emerging markets often focus heavily on government debt instruments as part of the investment approach. A recent paper on pension investments in the East Africa market shows a higher than expected rate of interest for government debt (World Bank 2019d). In the East African case, this led to a crowding out of other investment classes. In situations such as this one, where government debt (bonds) yields a higher real return than investment in other asset classes, it makes sense to invest in these government securities, at least while the disproportionate returns are achievable. Care should be taken to ensure that schemes acquire securities with the most appropriate maturities and monitor changes in yield rates carefully.

32. This is similar to the sidecar approach adopted by the National Employment Savings Trust in the United Kingdom. It involves diverting a set amount of funds into a short-term account first and moving it to longer-term savings only once the short-term needs are met.
33. See the People's Pension Trust website, at https://www.drkfoundation.org/organization/peoples-pension-trust/.

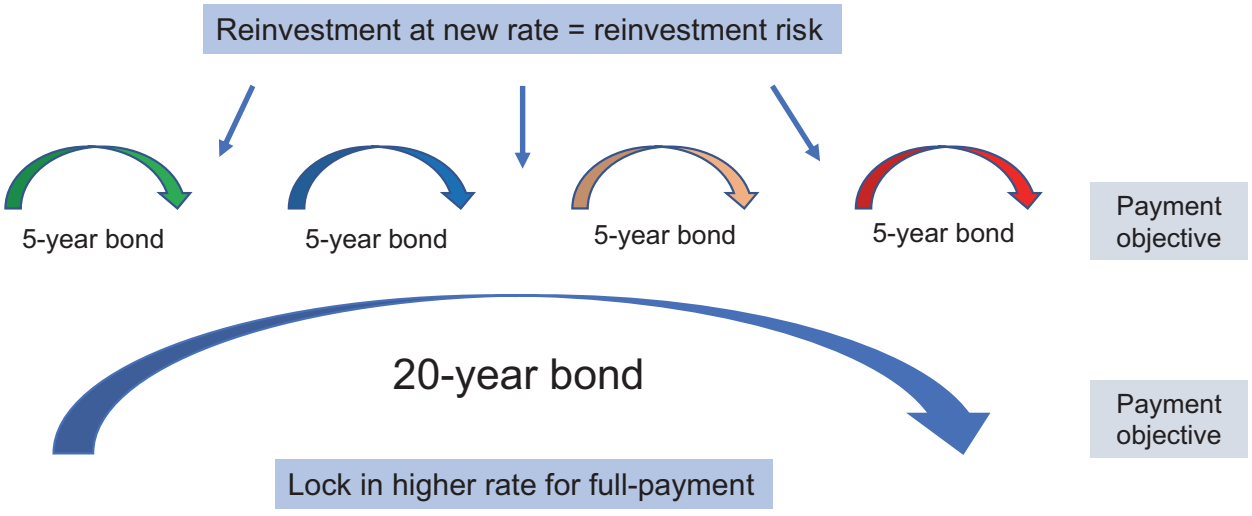
**Even if a scheme invests largely in government debt because of the predictability of returns or because this is an attractive option (as in the case of East Africa), the appropriate mix of government debt from a maturity standpoint is not straightforward.** Informal economy schemes that allow short-term access to funds should invest in securities with maturities roughly in line with the expected withdrawal rates of the scheme participants. For their longer-term liabilities, schemes should shift to the longer end of the existing government debt yield curve. Investment decisions will also be influenced by the shape of the yield curve and the characteristics of the primary and secondary markets for government debt. In terms of the yield curve shape, if short-dated securities offer almost as much yield as longer-dated securities, it is often tempting for the investment decision-maker to stay shorter term in duration entirely. The typical case, however, is that longer-dated securities provide more yield. This situation presents the risk that short-term securities, whenever they mature, may not be able to be replaced by securities with an equivalent yield. This reinvestment rate risk is illustrated in figure 33. The investor in this case would need to make a balanced judgment when faced with such a quandary. One consideration will be whether the longer-term securities are widely issued and easily available on the primary market. The investor would also need to consider if there is a vibrant secondary market that could allow future selling at a reasonable transaction cost if the need arose.

**The high real return on government debt in some countries makes it a good investment for some schemes, but, in the long run, it is likely that government debt alone would not yield an adequate net real return**. Government securities are expected to form a substantial core of the investment portfolio of informal economy schemes, but there will be a need to diversify to continue enjoying a substantive net real return.[34] In general, though, informal economy schemes should not be the first to invest in new asset classes or to take undiversified positions or stakes in major unlisted investments because these are typically the most prone to political involvement and often less beneficial for members. The members of these schemes will be among the least financially literate and may struggle

***The high real return on government debt in some countries makes it a good investment for some schemes, but, in the long run, government debt alone likely would not yield an adequate return.***

34. The net real return is the nominal return, minus inflation, minus the administrative costs to manage the assets.

**FIGURE 33. Stylistic description of a reinvestment risk**




*Source:* World Bank 2019c.

*To deliver long-term net real returns, informal economy schemes should supplement their holdings of government securities with high-quality listed instruments.*

to have an effective voice as part of fund governance. So, it is critical that these funds take a relatively more conservative approach.

**To deliver the long-term net real returns required by these participants, informal economy schemes should supplement their holdings of government securities with high-quality listed instruments that offer the broadest diversification benefits**. Schemes could invest in listed equities and corporate bonds if liquid local markets exist for such securities. Many markets, especially in Africa, suffer from a lack of liquidity and a lack of significant trading (Hearn and Piesse 2020). Policy makers should take into account the financial landscape of the country and limit or exclude such investments altogether if the risk they pose to the scheme outweighs the diversification benefits. They may want to consider collective investment scheme instruments, such as mutual funds, if available in their market, but only if these are well regulated and reasonably liquid.

**In countries in which government debt, bank deposits, and possibly real estate are the only viable investment options, schemes should focus on optimizing within that limited solution set.** Schemes may be able to include a small portion of local government debt if helpful for diversification purposes and at similar levels of risk. In the case of bank deposits, they may be able to ladder holdings in a way that optimizes the interest earned while providing needed liquidity.[35] In the case of real estate, they may be able to introduce a small mandate into the portfolio, but must be absolutely focused on ensuring needed liquidity and good governance given the risk to both of these factors posed by this asset class. If permitted by the pension investment regulation, schemes can supplement limited local options with well-regulated investments in similar securities issued in other countries. These might be countries within the same subregion (such as West Africa) or on a broader global basis. Even a relatively small portion of the portfolio could allow for much broader portfolio diversification.

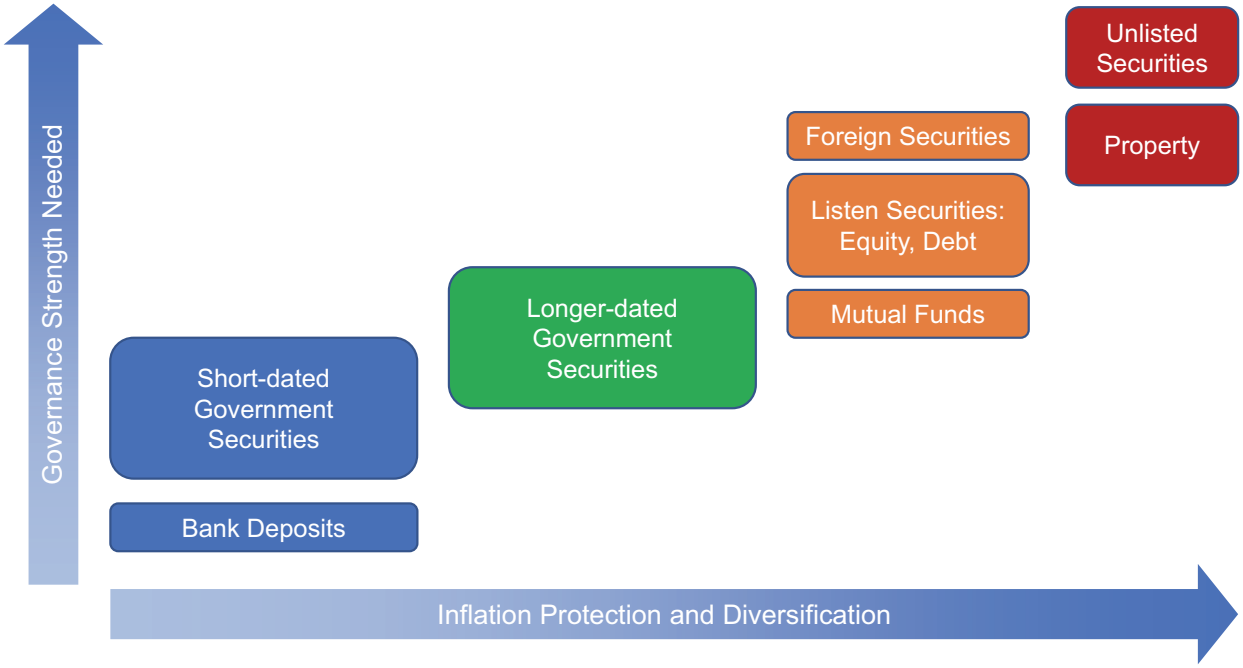
**The recommended investment approach for informal economy schemes is strongly linked to the quality of the governance of the scheme.** A scheme with strong governance, capable trustees with financial expertise, and minimal political interference can more safely diversify into additional asset classes. If trustees are less experienced, they may disproportionately favor areas of investment that they know, such as real estate, and avoid areas with which they are not as familiar, such as capital markets (World Bank 2019d). For example, in East Africa, numerous schemes in the past have had an unduly high exposure to real estate investments, as high as 70 percent of a portfolio (World Bank 2019d). Real estate may in fact be a helpful diversifier in small proportions for a scheme given the ability of real estate to retain value on a real basis, thereby providing protection against inflation, but it is an especially illiquid asset and more prone to political influence than other areas. Figure 34 shows the investment vehicle choices against the governance strength needed to manage them prudently.

**An aspect of governance that trustees should also pay attention to is their responsibility to oversee the environmental, social, and governance characteristics of their investment portfolio and activities.**[36] These three areas have been receiving the attention of many pension investors and regulators recently who are interested in improving the climate and the societal and corporate

35. This approach would segment bank deposits into successively longer time deposit tranches that would conceivably earn more interest for the longer tenors.

36. Environmental, social, and governance activities represent a broad field that is growing in importance in investment, with increasing attention from pension supervisors globally. The environmental encompasses areas of concern related to climate change. The social includes areas of desired societal impact. Governance pertains to the oversight of the investment vehicles or, more directly, of the companies they invest in, to include topics such as diversity of management and board composition, internal controls, and other best practices.

**FIGURE 34. Investment vehicle choices depending on governance capacity**




*Source:* World Bank 2019c.

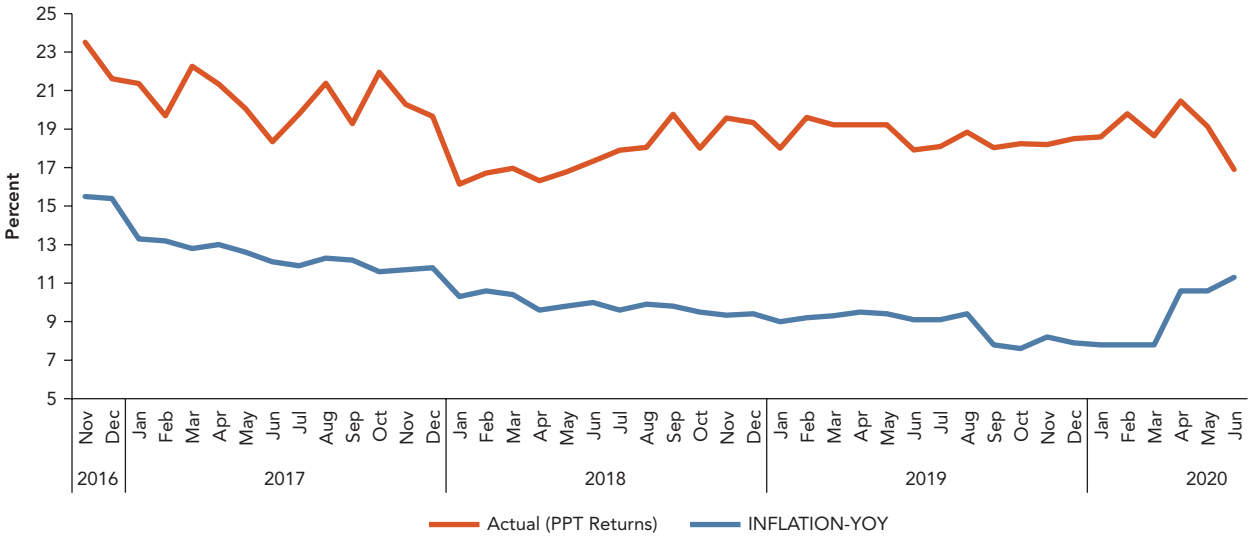
behavior outcomes of their portfolios. For an informal economy scheme, they should look to ensure that their external investment managers and service providers are fulfilling positive market leadership roles in these areas. A pension fund for informal economy workers might not be in a position to pioneer new environmental, social, and governance activities given their relatively smaller size and simple remit, but they should aim to fulfill all local regulatory guidelines. If environmental, social, and governance–oriented products are available on the market at reasonable cost, trustees might consider using one or more of these vehicles in their funds.

**The dynamic approach to investment adopted in some informal economy schemes in Ghana has led to real returns as high as 8 percent.** My Own Pension, a joint venture of United Pension Trustees and MTN Ghana, has grown to almost 400,000 members in two years of existence (Invest in Ghana 2020). The scheme falls under the Tier 3 pension regulation in Ghana and has attracted informal economy workers as well as participants in the formal economy. When the scheme began, it employed an investment approach concentrated in government securities, but also invested in local corporate bonds and a small amount in equities. During 2020, as the pandemic stressed the world economy, the focus on government securities rose from the 63 percent in 2019 to 70 percent (the limit for these holdings as provided by the National Pensions Regulatory Authority). The remaining 30 percent of investments are in local government debt securities, fixed deposits, cash, and a small remaining amount in corporate bonds. Over the life of the scheme, the real return was 8 percent (Invest in Ghana 2020). The People's Pension Trust, another informal scheme in Ghana, has been able to demonstrate nominal returns in excess of 18 percent and a real return of 8 percent (figure 35). With an average cost in Ghana of 2.5 percent, this would yield net real returns of more than 5 percent.

**The topic of cost control is a critical one for schemes to keep high asset management and administrative costs from eroding the real returns earned by the schemes.**

***The dynamic approach to investment adopted in some informal economy schemes in Ghana has led to real returns as high as 8 percent.***

**FIGURE 35. Nominal interest rate at People Pensions Trust compared to inflation over time**




*Source:* Bank of Ghana.

***Schemes should focus on firms capable and willing to deliver the core aspect of the investment mandate without additional costly features.***

Administrative costs are typically the largest burden among schemes, especially in earlier years when the scheme has not yet reached scale. Keeping administrative costs low is important in quickly getting to scale and having the best chance of long-term viability. Schemes can leverage cost-effective technology, such as mobile money platforms, to keep costs down and allow access to the ubiquitous mobile phone presence in most markets (Heale and Martiniello 2018). In addition to dealing with administrative costs, schemes will also need to control asset management and related investment costs tightly. Typically, these schemes will need to hire external financial firms to handle the investment and custodial duties related to the portfolio. In Ghana, for example, approved trustees may charge up to 1.33 percent of assets under management per year, while pension fund managers and custodians may charge an additional 0.56 percent and 0.28 percent of assets under management, respectively. Together with a regulatory levy of 0.33 percent, this creates an automatic 2.5 percent headwind that the fund must overcome each year, together with the impact of inflation, to deliver a meaningful real return.

**Schemes should focus on firms capable and willing to deliver the core aspect of the investment mandate without additional costly features.** In some markets, the scheme may be able to utilize multiclient funds invested in line with an index, an especially low-cost approach.[37] However, no matter which market the scheme is involved in, it should focus on financial partners who are willing to keep asset management costs low. The scheme managers should agree with their providers on an Investment policy that gives adequate latitude for the providers to deliver the required exposure without an overbearing need for frequent transactions. For example, a scheme could set rebalancing triggers so that it will not have to rebalance the portfolio excessively frequently. This is an instance of what should be a largely hands off and relatively lower-cost approach.

37. This type of approach may be referred to as passive investing or as index fund investing. In this approach, the investment manager invests in a comprehensive group or basket of securities according to a published index of these securities. This approach usually involves minimal transactions within the fund or account given that the index typically follows market capitalization or debt issuance trends.

**The mechanics of managing investments is also a critical area for the focus of providers early in the life of a new scheme.** A strong approach in this area will deliver cost efficiency and possibly increased trust by allowing better real-time access for participants interested in their scheme balances. The Ejo Heza Long-Term Savings Scheme in Rwanda has operationalized this by using a unitization approach that allows a daily recalculation of net asset values for the portfolio (Guven 2019). Because of this, every scheme member can log in and see the value of their own portfolio on a daily basis. This type of immediacy helps build trust in the scheme and may incentivize further participation. Although daily unitization is an aspirational goal, it is a lofty target; many formal economy schemes globally have not yet been able to implement this approach. It is still helpful for a scheme to establish a robust monthly investment process that can allow participants a regular window into the accumulated value of their savings portfolio.

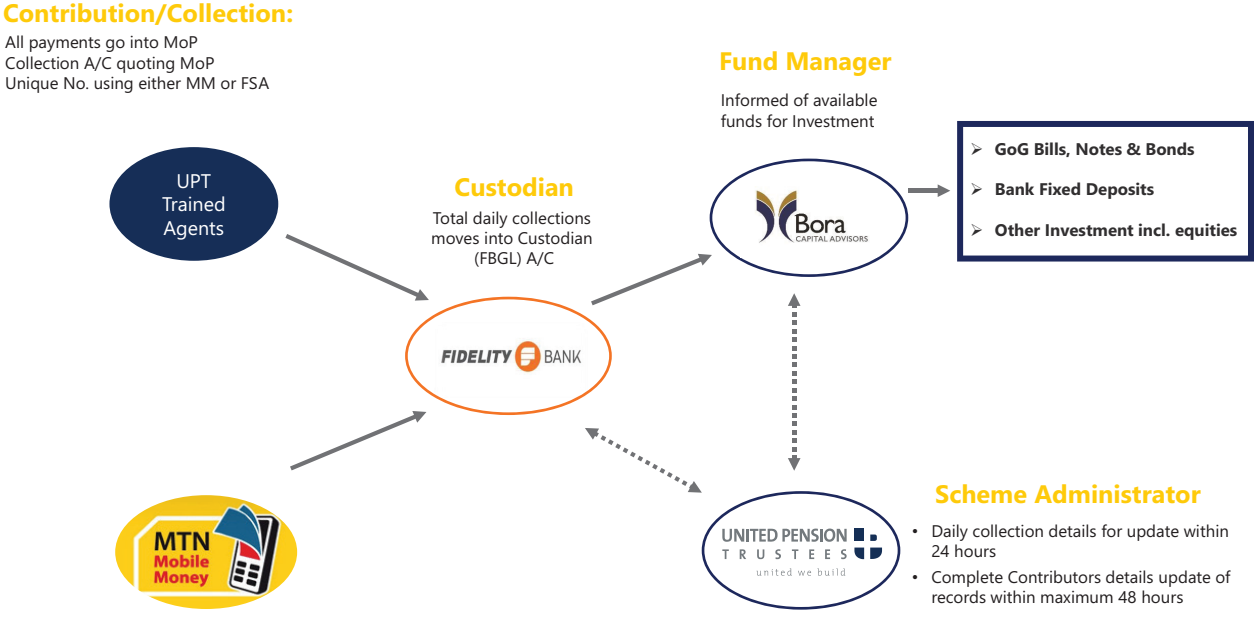
**An effective management of these schemes would require the adoption of a governance approach whereby scheme responsibilities and controls are shared across stakeholders who partner with each other, provide timely updates, and are well regulated.** An example of an effective governance arrangement is the My Own Pension scheme in Ghana (figure 36) (Invest in Ghana 2020). It involves both United Pension Trustee agents and agents of the MTN subsidiary in Ghana. Most contributions come from the mobile money platform maintained by MTN, the largest mobile provider in Ghana, and are then routed to a custodian account at Fidelity Bank. Fidelity Bank then informs Bora Capital Advisors, the fund manager, of the availability of funds for investment. This separation of responsibilities and controls not only allows for effective management, but also helps build trust in the system.

## 6.4. Informal Economy Social Insurance Scheme Viability Assessment

**Policy makers and practitioners who are considering launching voluntary defined contribution schemes are interested in**

***Effective scheme management shares scheme responsibilities and controls with stakeholders who partner with each other, provide timely updates, and are well regulated.***

**FIGURE 36. Governance arrangement of My Own Pension Scheme in Ghana**




*Source:* World Bank.

*The World Bank Social Protection and Jobs team has developed a Scheme Viability Assessment Tool (SVAT) to assist new and existing voluntary schemes in carrying out a viability assessment.*

**knowing when the scheme would become financially viable**. From the perspective of the countries introducing these schemes, it is important to understand when the revenues into the scheme might begin to pay for the expenses of operating such a scheme. The answers depend in large part on how fast the scheme reaches scale, the level of contributions, the incentives that are offered, and the operational and asset management costs of the scheme.

**Viability assessments, especially of newer schemes, are sensitive to the assumptions on costs, take-up rates, contribution density, average contribution amount, and macroeconomic factors.** Managers of schemes that have been launched or those on which pilot schemes have been run can share insights from the data collected to inform the assumptions of the assessment. If an assessment is to be carried out for a new scheme, modelers can depend on other quantitative and qualitative data sources to inform the assumptions. For example, household survey data and savings modules in poverty surveys can be used to inform coverage estimates and the ability to save among the target group. Qualitative data collected through focus group discussions with members and stakeholders can also be a useful source of information. If the scheme design has already been determined, then the surveys can be useful to pilot-test features that can help increase take-up rates. This approach has been used in Pakistan, where policy makers are considering a hybrid social assistance–social insurance scheme with short-term withdrawals.

**The World Bank social protection and jobs team has developed a scheme viability assessment tool (SVAT) to assist new and existing voluntary schemes in carrying out a viability assessment.** The SVAT was developed **i**n response to demand by governments in the Africa region. The current version of the tool can be used for schemes that have a defined contribution design with or without matching contributions. The model projects expenditures and potential revenues of the scheme over a period of 40 years to find the break-even point for the scheme. The SVAT uses baseline data from the scheme (if one exists) or survey data (if a new scheme is being designed) to inform its assumptions of coverage and savings. If a new scheme is being modeled, the expenditures benchmark is the operational costs (for instance, the cost to set up an administration platform, salary costs, and so on) against similar schemes. The main outputs from the SVAT include expected assets under management, the break-even year, and the cumulative cost to finance the scheme until it breaks even. The SVAT model can be customized by the government or scheme designers based on the design and data availability. The baseline assumptions in the SVAT are determined based on a collaborative approach between the World Bank team and the architects of the scheme in the country so that they are not only more well understood, but also take into account the country context.[38] The SVAT includes a scenario testing module that allows the user to change the assumptions or parameters in the model and see the effect on key outputs, such as the break-even year and the cost of financing the scheme.

**The methodology and outputs from a viability assessment carried out using the SVAT are outlined using a stylistic example of a new voluntary defined contribution scheme in a country in West Africa.** In the example, the government of the stylistic country—called Panacea—is assumed to have decided to create a voluntary defined contribution scheme through which participant savings would be recorded in individual accounts. The benefit eligibly age is 60, and no early

38. For example, software costs may be less in one country than in another if there already exists a defined contribution scheme for formal economy workers. If the social security institution is managing both the formal economy scheme and this new scheme, staff costs may be shared and so can office space, and so on.

**TABLE 9. Main parameters of the Informal Economy Social Insurance Scheme, Panacea**

| | |
|---|---|
| **Contributions** | Voluntary, and there are no transaction costs borne by the user to pay contributions |
| **Minimum contribution period** | 15 years for a life annuity |
| **Retirement age** | Minimum 60 years of age; maximum 70 years of age |
| **Payout, withdrawal** | Contributors qualifying for a life annuity (15 years of contributions and 60 years age minimum) will be able to exchange their savings for the service of a life annuity, calculated on an actuarial basis<br><br>Contributors who do not qualify for a life annuity can withdraw their savings, along with interest, as lump sum |

withdrawals are allowed (table 9).[39] No such scheme exists for informal economy workers in Panacea, so administrative data that would provide insights on the experience of the scheme cannot be used to inform the assessment. Instead, other sources of data must be used to project revenues and expenditures in the scheme.

**The SVAT projects the costs of implementing the scheme and the expected revenues for a period of 40 years.** These projections help estimate the financial break-even point and the budget necessary to finance the scheme until it breaks even. The financial break-even point is defined as the year from which the project is financially self-sufficient, that is, the income of the scheme earned through transaction charges or a percentage of the returns is sufficient to cover the expenditures of the scheme, such as staff costs, communication expenses, and so on. The more quickly the scheme reaches scale or the greater the savings in the scheme, the earlier would be the break-even year. If the scheme also finances fiscal incentives, such as matching contributions, then the expenditures on the scheme would rise. The budget necessary to finance the scheme would vary based on the assumptions and design, but the results of the assessment can help inform the decision of policy makers or the sponsors of the scheme.

### 6.4.1. The SVAT Revenue Module

**The revenues of the scheme are typically made up of either transaction costs the scheme charges its members or a percentage of the assets under management that the schemes uses to finance itself.** To estimate revenues, the SVAT first projects the number of active contributors (scale), followed by the average contribution amounts (inflows). These data, along with assumptions made on investment returns, give projections on the assets under management. In the case of the informal economy social insurance scheme in Panacea, the scheme is assumed not to charge any transaction costs to members, but instead keeps 1 percent of the assets under management as revenue for the scheme. The greater the deduction from the assets under management to finance the scheme, the lower will be the returns passed on to scheme participants. If individuals feel they are not getting a good return form the scheme, this could reduce their desire to save and affect the revenues of the scheme. There is a delicate balance between trying to finance the costs of the scheme aggressively relative to keeping returns attractive for members, especially in the early years of the scheme.

*The SVAT projects the costs of implementing the scheme and the expected revenues for a period of 40 years.*

39. For simplicity, the assumption is that there are no early withdrawals in the example, but the SVAT can be used to model schemes that have an early withdrawal feature, but this would require making an assumption on withdrawal rates if relevant administrative data are unavailable.

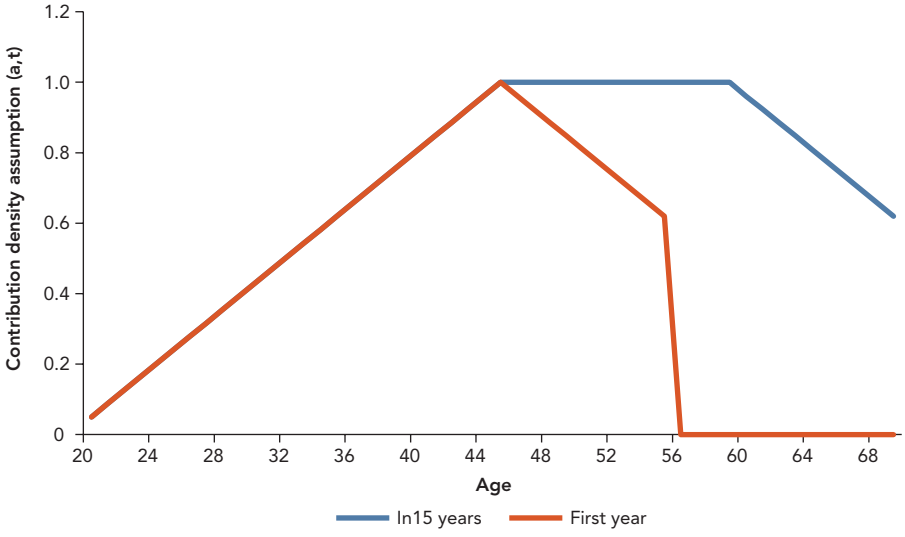
*The first step in calculating the revenues is to project the count of the active contributors to the scheme.*

**The first step in calculating the revenues is to project the count of the active contributors to the scheme.** Panacea is a lower-middle-income country in West Africa with a labor force (ages 20–60) of six million as of 2021. Labor force survey estimates on Panacea suggest that 94 percent of the labor force works in the informal economy. Among all those in the informal economy, not all have an ability to save in a long-term savings scheme. The methodology described in section 3 is therefore used to estimate the share of informal economy workers who are resilient. This turns out to be 33 percent of the informal economy population, and, according to the classification, these individuals are deemed to be most likely to save. The scheme rules do not exclude informal economy workers who are nonpoor nonresilient or poor, but, given the lower likelihood that these people will be able to save consistently without fiscal incentives, the viability assessment assumes they will not participate in the scheme. The assessment therefore serves as a conservative estimate of viability.

**The target population is thus two million in the baseline year.** The objective of the scheme would be to at least reach the target population with information on the scheme and convince them to join the scheme. This would be a gradual process for a new scheme. So, the outreach rate is assumed to start at 10 percent in the baseline year, 2021, and grow linearly, reaching 90 percent of the target population by 2029. Even though the target population is likely to have a higher ability to save, not all will join the scheme. Some might have behavioral biases, while others could have trust issues with the scheme. Behavioral nudges can help increase take-up rates. In the model, two-thirds of those whom the scheme reaches are assumed join the scheme and start contributing. However, even those who start contributing may not save persistently because of irregularity in incomes or behavioral biases. Because this is a voluntary scheme, this must be taken into account by applying a contribution density distribution to the counts. The contribution density varies by age and time and has been assumed based on evidence from similar schemes that contribution rises with age (figure 37).

**To summarize, the number of contributors in Panacea is calculated and projected over time using equation 1**. The results are plotted as a count output (figure 38). In the first decade, the counts increase at a more rapid rate because the outreach rate is growing rapidly

**FIGURE 37. Contribution density distribution assumption**

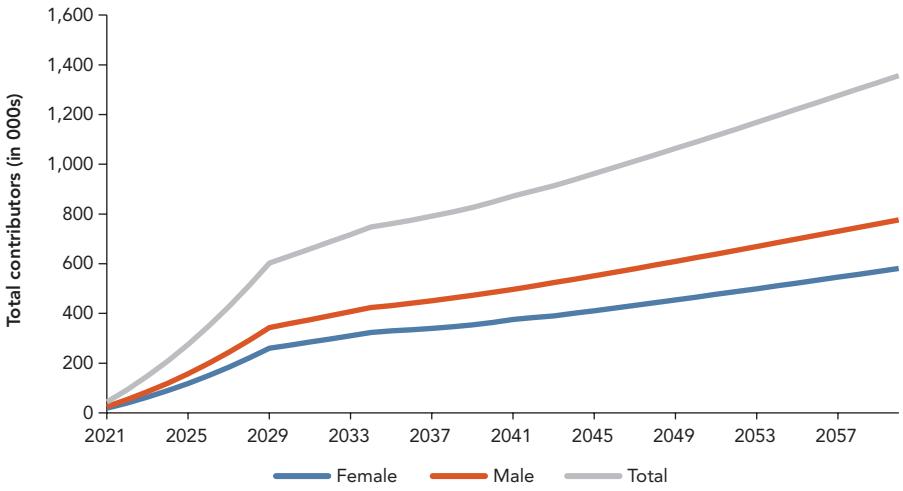



*Note:* Contribution density distributions vary between years 0 and 15 and stay the same after year 15. This is because the scheme rules require a minimum of 15 years of contributions.

**Equation 1. Number of contributors in the SVAT model for Panacea**

Number of active contributors (a,g,t) = Labor force ages 20–60 (a,g,t)
* Percentage in informal sector * Percentage of informal sector nonvulnerable
* Outreach rate * Take-up rate * Contribution density (a,t)

**FIGURE 38. Output from SVAT showing total contributors, 1,000s**



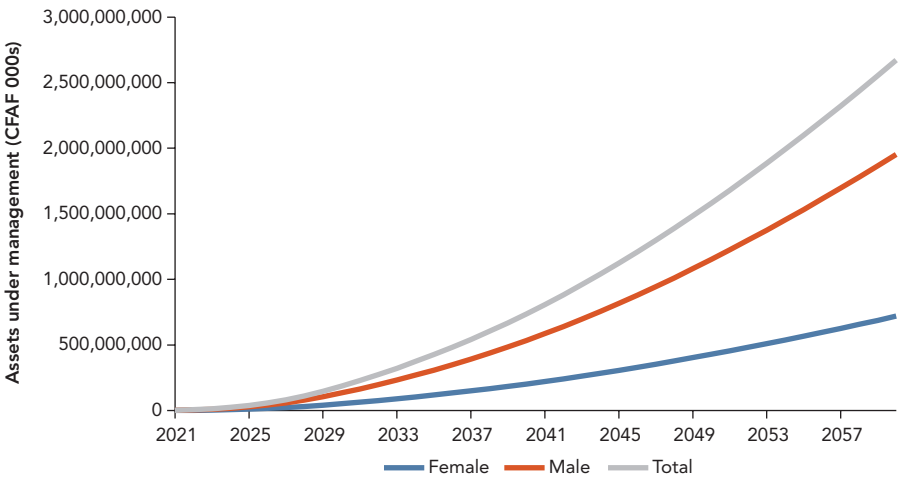

from 10 percent to 90 percent. After the first decade, the numbers continue to grow driven by population growth in Panacea.

**The next step in the revenue module is to estimate the average contributions by age and sex and over time.** For a new scheme such as the one in Panacea, there exists no savings data to inform the distribution of savings. So, it is necessary to rely on labor force surveys, along with the results of a targeted sample survey. One of the questions asked in the latter was on the share of consumption respondents would be willing to set aside for a voluntary defined contribution savings scheme. The responses from the sample survey along with experience from similar schemes show that resilient informal economy workers would be willing to save, on average, up to 10 percent of their current consumption in exchange for benefits in old age through this scheme. The analysis applied the 10 percent to the consumption distribution of the informal resilient group from the labor force survey to obtain the annual contribution by age and gender in the baseline year, 2021. The analysis assumes that the annual savings will grow in line with inflation over time.

**The count of active contributors and average contributions are multiplied to obtain cohort balances.** Investment returns are applied to cohort balances each year, and assets under management are calculated on a year-to-year basis (figure 39). The investment return assumption is a crucial one because it not only dictates how quickly cohort balances will grow, but also impacts the viability of the scheme. A well-managed scheme that produces stable and positive real returns will see the assets under management grow more rapidly than GDP per capita. The scheme can then set aside some of the assets under management to cover at least part of scheme expenses without compromising the attractiveness of the scheme to members. The assumptions on Panacea translate to approximately a 5 percent annual nominal return

*The count of active contributors and average contributions are multiplied to obtain cohort balances.*

**FIGURE 39. Output from SVAT showing assets under management**




applied to individual balances. Given the inflation rate of 2 percent in the country, this is equivalent to a 3 percent real return (table 10).

**There are four main outputs from the revenue module.** These include the projections of the contributor count (1,000s), average contributions (local currency unit), total contributions collected, assets under management, and revenue to the scheme over a period of 40 years. The revenue of the scheme is the income or inflow that is required to manage the scheme on behalf of members. In the case of Panacea, the income of the scheme each year is a 1 percent deduction from the assets under management (see table 9). If the scheme has other income sources, for example, fees charged to members or transfers from the government or sponsors, these will also be modeled as part of the revenues of the scheme. The year in which the revenue exceeds the expenditures of the scheme is the year when breakeven is attained and the scheme becomes viable.

### 6.4.2. SVAT Expenditure Module

**The expenditure module projects the expenditures related to the operation, administration, and marketing of the scheme.** The expenditure or costs that the scheme incurs can be broadly split into fixed, variable, and recurring costs; recurring indicates once in a decade. The costs that a scheme would incur is also influenced by the available technologies and building blocks the scheme can

**TABLE 10. Macro assumptions for the scheme in Panacea**

| Macro indicators for the scheme in Panacea | Value, % |
|---|---|
| a. Nominal investment return not adjusted for inflation (assumed based on discussions with counterparts and a financial services action plan) | 6 |
| b. Scheme's proposed deduction from assets under management to help pay for expenditures | 1 |
| c. Net nominal return for participants (a – b) | 5 |
| d. Inflation rate (International Monetary Fund Article IV assumption) | 2 |
| e. Net real return (c – d) | 3 |

leverage. For instance, if an informal economy scheme is being launched by a formal social security institution (as in the case of Haba Haba and Ejo Heza), the rent costs, information technology costs, and staff costs could be shared, at least in the initial years. Cost sharing, centralizing the data, and managing investments have economies of scale, but an accurate assessment of the viability of informal economy schemes requires the allocation of costs to the scheme.

**The fixed costs of the scheme include the salary costs and hardware and software costs.** The relatively lower income among informal economy workers and their liquidity needs mean that a scheme managing their contributions requires a lean and cost-effective administration. High fixed and variable costs in such schemes would adversely affect the viability of the schemes. Effective administration is, however, also important to ensure that the savings of these workers are protected and prudently managed. In the example of the new scheme in Panacea, seven key departments are therefore considered—finance, marketing, audit, risk, information technology, operations, and human resources–legal—that would need to be instituted. Each of these departments would be led by a director who would report to the chief operating officer or the chief administrative officer who would report to the chief executive officer (see annex C). Overall, a staff of 45 people would be needed to set up the new scheme in Panacea.[40] The salaries and benefits of the staff would vary depending on the grade. Other fixed costs assumed for the scheme in Panacea are the procurement costs for hardware and software. Governments that can leverage existing information technology infrastructure can reduce these costs and hasten the viability of the scheme for the informal economy.[41]

**The variable costs of the scheme include operating costs, marketing costs, and the fees associated with collecting contributions and managing assets.** The operating costs include maintenance costs for information technology and software, office supplies, and rent. The marketing costs account for the largest proportion of costs incurred by the scheme and are modeled as marketing acquisition costs and marketing outreach costs. Acquisition costs are modeled as costs incurred to attract a new member and are modeled on a per person per year basis. Marketing outreach costs are costs incurred on existing members to foster persistent contributions. The experience with voluntary schemes for informal economy workers shows that awareness-building initiatives are needed to attract members and subsequent nudges—such as text reminders or prizes to individuals who consistently meet their saving goals—are needed to ensure that existing members develop a savings habit. The acquisition costs and outreach costs per person would likely vary from scheme to scheme. In the case of Panacea, an acquisition cost of US$10 per prospective member per year and US$20 for every existing member is assumed. The scheme is also likely to incur costs associated with asset management, unless asset management is done in-house. The scheme in Panacea is assumed to incur an asset management fee of 0.5 percent of assets per year. Depending on how contributions are collected, a cost could be incurred if, for instance, the mobile money operator charges a fee. Schemes could negotiate these costs, especially if they are government-sponsored schemes. For the scheme in Panacea, a 0.10 percent cost is assumed for collecting contributions, and this is to be borne by the scheme. If there exists other costs, for example, regulatory fees as in the case of Ghana, these would need to be included in the model. Schemes would also need to budget for the recurring expenditure associated with revamping hardware and software (every 10–15 years).

*The fixed costs of the scheme include the salary costs and hardware and software costs.*

40. The 45 core staff members would be made up of 21 professional staff, 7 support staff, 8 senior staff, 6 directors, 1 chief operating officer, 1 chief administrative officer, and 1 chief executive officer. Different salary levels are assumed for each staff category.

41. Some countries, such as India and Kenya, have attempted to do so by using the infrastructure created for a defined contribution scheme for civil servants in launching schemes for the informal economy.

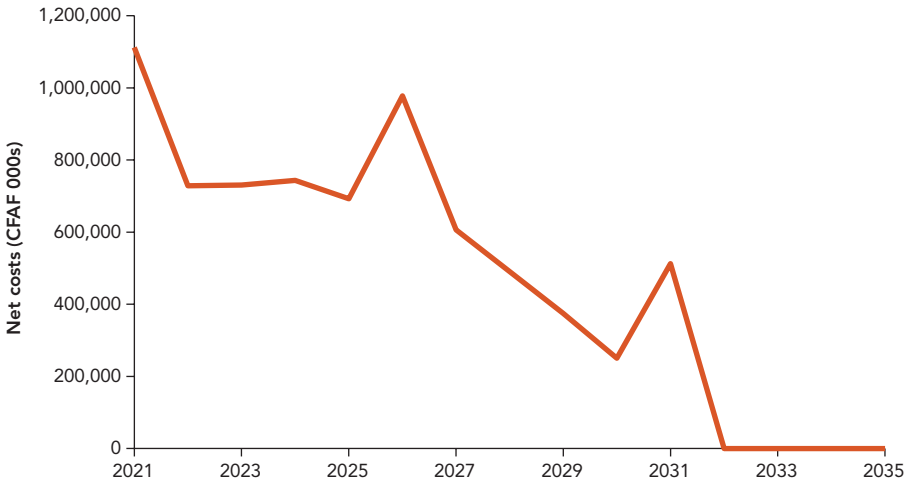
*Under the baseline assumptions, the scheme in Panacea is expected to break even in 12 years and would have to cover a cumulative cost of 7.2 billion (local currency units).*

**The scheme will break even in the year when the revenue of the scheme exceeds the expenditures.** The total revenue and expenditures of a voluntary scheme can be projected using the SVAT model developed by the World Bank. These projections are sensitive to the supporting assumptions, and there exists a clear trade-off between the viability, scale, and attractiveness of the scheme. The higher the number of members and the greater their savings, the sooner the scheme will become viable. If a scheme deducts a higher share of the assets to finance expenditures, it would achieve viability sooner, but would do so at the expense of lower returns credited to members. The balance is therefore delicate that scheme architects have to strike between pushing for financial viability versus achieving social viability. Given the benefits of promoting savings among informal economy workers, policy makers might consider bearing the costs of the scheme until it reaches the break-even point. The SVAT model can be a useful tool for policy makers in estimating the cumulative cost they might need to bear if they are to help finance the scheme until it becomes self-sustainable.

**Under the baseline assumptions, the scheme in Panacea is expected to break even in 12 years and would have to cover a cumulative cost of 7.2 billion (local currency units).** Figure 40 shows the net costs (income, minus expenditures) that the scheme in Panacea would incur over time. As the scheme grows, its coverage and assets relative to the net costs would decline over time as revenues outpace expenditures. In 12 years, the scheme revenues through deductions from the assets under management would be sufficient to finance scheme expenditures. There are expected to be blips in net costs every five years because of the recurring cost the scheme is assumed to incur to update information technology systems. If the government of Panacea were to offer matching contributions in hopes of boosting take-up rates, the SVAT model could also model this change and provide an estimate of costs depending on the rules of matching. Let's assume that the matching contribution by the government in Panacea is 20 percent of year-end savings in the individual account. With about 44,000 contributors in year 1 and average annual savings of US$70, the cost of matching contributions would be US$616,000 in year 1.[42]

42. Offering matching contributions can have an endogenous effect on increasing uptake and therefore costs. The level of matching and the type of matching (on registration, on reaching x dollars of savings, or a matching as in the case of Panacea) will alter costs. The impact of matching on take-up rates is not an issue the SVAT model can answer. An impact evaluation would be needed to assess this feature.

**FIGURE 40. Output from SVAT showing net costs over time (the first 15 years)**



**The SVAT model can be customized based on the features of the voluntary scheme being modeled. It also includes a scenario testing module that allows users to change assumptions and compare outputs under various scenarios.** This report uses a stylistic example for a new scheme in a country in West Africa to present the assumptions, methodology, and outputs of the SVAT model. There may, however, be different features of the voluntary scheme, such as minimum contributions to be eligible for matching and different rules for fund withdrawal. In some cases, policy makers might use this tool to assess the viability of a scheme they are planning to launch, while, in others, they might be interested in assessing the viability of an ongoing scheme. The SVAT model in its current form can be customized for new or existing schemes and schemes with matching contributions. Future versions of the model will aim to include other features, based on client needs. SVAT can also model schemes that are designed to rely on short- to medium-term savings with withdrawals. However, it is difficult to predict people's withdrawal schedules based on risks; so, informed assumptions would be needed based on experience.

## 6.5. Learning, Monitoring, and Evaluation

**Governments that are designing these schemes at a national level should carry out a feasibility study first, followed by a pilot test and then adjustments based on the results, prior to scale-up.** For a new scheme being set up, a feasibility study is recommended as the first step. This might include a situation analysis, stakeholder consultations, an assessment of the demand for such a scheme among informal economy workers, and an assessment of the enabling environment. If the study finds that a voluntary savings scheme is indeed feasible given the country context, the findings from this study could inform the design, parameters, and rules of the scheme. Once a set of rules are narrowed down, a pilot test, preferably a randomized control trial, should be carried out, and the treatment arms should test the different hypothesis formed during the feasibility study. The randomized control trial should not only test the intervention (for example, an incentive such as matching contributions, flexibility in contributions, withdrawal rules, and so on), but also the delivery mechanisms (such as contributions in person or through mobile money or an agent) and how the benefits of the scheme are understood by the target beneficiaries.

**In designing the pilot test, governments can borrow from the rich and growing literature on behavioral approaches that are being tried out and from the experiences in other countries, as summarized in this note** (box 8). The design of the schemes and the testing modality adopted would vary by country, but the process should aim to be based on evidence (a rigorous randomized control trial), driven by context (validation through fieldwork and the inclusion of relevant stakeholders), iterative (retesting and revalidation of hypotheses), interdisciplinary (relying on social and data science), and scalable. Data—quantitative or qualitative—should be looked at because there may be valuable pieces of information in the data. Surveys of various populations and focus group discussions can provide a nuanced understanding of features that would attract medium- or long-term savings from informal economy workers. For example, focus group analysis with the members of an informal agricultural worker association indicated that they would be willing to save if they had access to health care. The focus group analysis also showed that the informal economy workers would save if their association advised them to do so, indicating the importance of these associations in the decision-making of their members. Analyzing household surveys can help understand vulnerabilities across the broad group of informal economy workers and is typically associated with zero cost.

*Governments that are designing these schemes at a national level should carry out a feasibility study first, followed by a pilot test and then adjustments based on the results, prior to scale-up.*

### BOX 8. Extending coverage to the informal economy through existing social insurance arrangements

Countries in the developing world had hoped that social insurance coverage would expand once their economies grew and formalized, as had happened in the developed world. When faced with high and persistent rates of formality even as the economies grew, many countries made changes to their social security systems allowing for voluntary contributions by the self-employed into the formal social security scheme (the National Pension System in India, Article 39 and 40 of the Social Security Fund in Thailand, and the National Social Security Fund in Kenya). Individuals who made these voluntary contributions were usually subject to the same rules as the formal economy (regular payment of contributions and high vesting period), but did not have employer contributions or any incentive from the government. The digital platforms of these social security schemes were designed with a view to the formal economy, so the interface was not easy to navigate for an individual, let alone an informal economy worker who faces access and financial literacy issues. Furthermore, formal social security institutions had little to no incentive to engage in any awareness-building or communication campaigns to increase the take-up rates in the voluntary scheme. These challenges are partly responsible for the poor take-up rates found in voluntary schemes that retained the features of formal social security.

**Few schemes have been designed primarily for the informal economy, but they are showing promising signs of progress and provide important lessons**. The last decade has witnessed the launch of new schemes in developing countries that are focused primarily on expanding coverage to the informal economy. The Atal Pension Yojana in India, the Ejo Heza scheme in Rwanda, the Mbao scheme in Kenya, and the People's Pension Trust in Ghana are some cases in point. The design and features of these schemes differ from those of the formal economy and are more likely to consider the needs of the informal economy and incorporate incentives to attract the informal economy members. (See annex A for details on various schemes in several countries.) The common design feature in these schemes is that enrollment is voluntary, but there exists variation in design (contributory defined benefit for the Atal Pension Yojana, defined contribution for Ejo Heza, Mbao, and People's Pension Trust) and rules around ease of access to funds, retirement ages, and minimum contributions required. The schemes also differ in approaches and the incentives used to attract informal economy workers to save. In Rwanda, the Ejo Heza scheme adopts a decentralized approach with coverage targets set at the district and at local levels, while in India the Atal Pension Yojana scheme offers the scheme solely through banks in the hope of using the vast network of public economy and regional banks to reach the informal economy and ensure persistency by providing financial incentives to banks. Schemes in Colombia, India, Rwanda, and Thailand have two features in common: they have all been set up by the national government and all of them offer some form of matching such as in the first year of registration (as in India), or on reaching certain savings level (Rwanda and Thailand), or at the time of retirement (Colombia). The impact of matching contributions on take-up or the persistency of people in the informal economy to save remains to determine empirically. While anecdotal evidence suggests that providing matching does positively influence take-up rates, evidence from Rwanda shows that few people in fact are eligible for matching. While coverage is about 18 percent of the working-age population in the Rwanda Ejo Heza scheme, individual contributions are about RF 9 billion, the government expenditure on matching is only RF 425 million (~US$425,000). The relatively low matching expenditure by the government occurs because the individuals eligible for the matching contributions (poorer households) do not save sufficiently to meet the eligibility criteria. The limited interoperability between social assistance and the social insurance scheme, an area the Ejo Heza scheme is focusing on, currently leads to delays in assessing the Ubudehe category of households.

**A key element of the learning and evaluation process is redefining and rediagnosing as more information becomes available**. New information could become available during focus group or stakeholder discussions or during the evaluation of the results of the pilot test. Adopting an iterative process in the design every time new information is made available can be time- and resource-consuming. However, it is important to take time to re-evaluate and course correct at this stage so that the scheme, when rolled out, caters to the needs of the informal economy and is able to meet the stated goals. The ubiquity of mobile phones in developing economies has made rediagnosing more cost-effective because evaluators can use text messages or phone calls for follow-up.

**Once the architects of the scheme feel comfortable with the parameters and rules of the scheme, these can be fed as assumptions into the SVAT model to assess the viability of the scheme.** The different scenarios in the SVAT model could be used to obtain an overview of how changes in the parameters or exogenous changes (such as macroeconomic factors) could influence scheme viability.

**After a scheme is launched, it is important to monitor key indicators and evaluate the scheme at different points in time.** In the early years of a scheme, frequent monitoring of key indicators is advised (monthly or quarterly), and a thorough evaluation is recommended (once a year). Key monitoring indicators include indicators on savings, compliance, investments, and user experience. These should be disaggregated, for example by broad age-groups, sex, or districts, so that a nuanced evaluation is possible. Evaluation should not be limited to an assessment of the scheme's finances, but should also look at whether the scheme is able to meet the stated objectives. In the early years of the scheme, it is likely that policy and institutional support would be needed, but regular evaluations may facilitate objective assessments and lead to concrete recommendations.

**While the approaches used to expand coverage among informal economy workers differs from one country to another, the principles behind them are largely similar.** All the schemes leverage the latest advancements in ID, digital, and financial technology to make it easier to identify, nudge, or incentivize informal economy workers to save. (See annex A for a detailed summary of country experiences.) The diversity across countries means that a cookie-cutter approach to expanding coverage among informal economy workers is unlikely to be successful. Country context matters, not only the fiscal resources available, but also the enabling factors, levels of financial literacy, trust in institutions, and culture of savings.

## 6.6. Behavioral Approaches to Encourage Participation

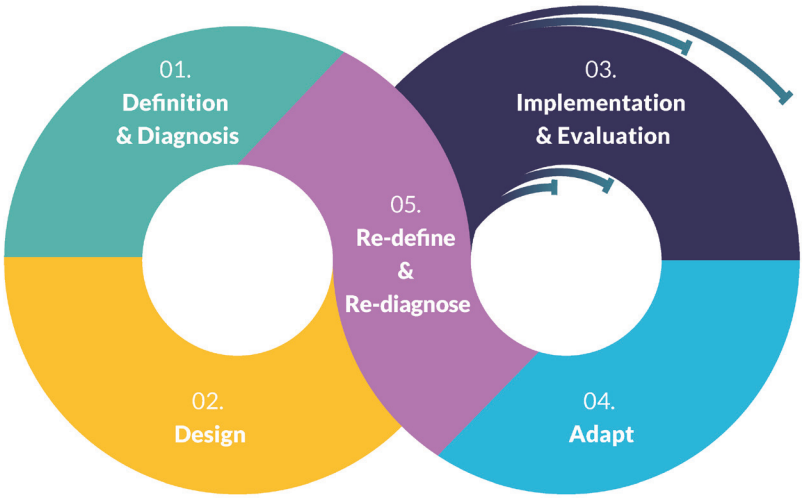
### 6.6.1. Understanding the Bottlenecks from the Perspective of an Informal Economy Worker

**From the perspective of an informal economy worker, participation in a social insurance scheme can be challenged by structural and behavioral barriers**. Structural barriers are those related to the presence of, access to, and information about services. Does the scheme exist? Can it be used by informal economy workers? Have efforts been made for these workers to know about and learn how to use the service? These barriers can be addressed by focusing on the design of the scheme, by promoting financial literacy, and through information campaigns (figure 41). However, even if these structural barriers are addressed, if complimentary actions to promote and encourage the decisions and actions of the workers are not in place, they might fail to benefit from the program. These barriers are more prevalent in the case of voluntary schemes where access does not necessarily guarantee action, uptake and repeated engagement by intended beneficiaries. For informal economy scheme administrators to achieve scale and sustainability, understanding and targeting behavioral barriers to participation and saving behaviors would be crucial.

**The journey toward building resilience can be broken down into four stages: decision, enrollment, first contribution, and repeated contribution** (figure 42). Each stage is subject to both structural and behavioral barriers, some of which are often more pronounced among informal economy workers. The challenges in the different stages can arise from the individual's own biases, institutional challenges, or those of other stakeholders and service providers involved along the journey. Once initial barriers for one-time decisions

*The journey toward building resilience can be broken down into four stages: decision, enrollment, first contribution, and repeated contribution.*

**FIGURE 41.** Approach to a behaviorally informed trial




*Source:* Hernandez, Karver, and Negre 2019.

*Behavioral challenges in each stage can be grouped under three main areas: capability, opportunity, and motivation.*

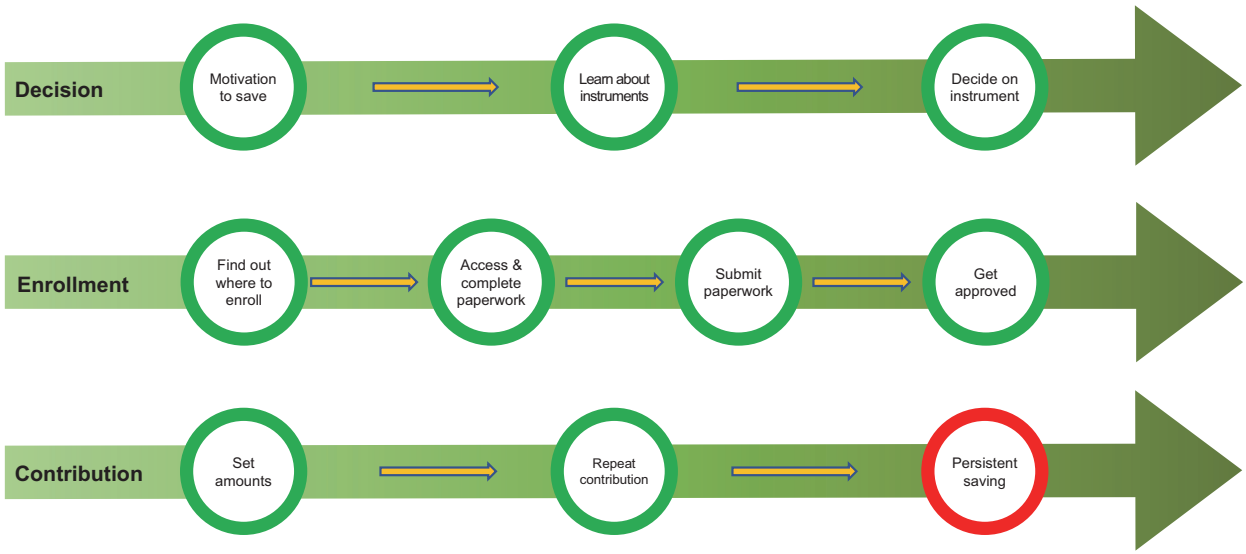
and actions are bridged, different and repeated bottlenecks are likely to emerge on the individual side to consistently contribute.

- **Decision stage –** The decision to engage with an instrument is not instantaneous; individuals must first form the intention to save, identify sources of information on savings instruments, and learn about possible instruments before deciding on one.
- **Enrollment stage** – Once individuals decide to move forward with participating in a scheme, various milestones in enrollment need to be passed. Individuals must identify where (and how) to enroll, access, and complete documentation, submit documentation, and ultimately obtain approval to participate in the scheme.
- **First contribution –** Once enrolled, individuals must choose a contribution amount and commit to it. Individuals must evaluate the resources at their disposal and decide how much to contribute to the instrument and commit to the amount.
- **Repeated contributions –** The initial contribution must be repeated, and contributions must be consistent over time before habit formation can take place (purposefully illustrated in Figure 42 as a large gap between the establishment of a consistent contribution and building a savings habit).

**Behavioral challenges in each stage can be grouped under three main areas: capability, opportunity, and motivation.**[43] Capabilities encompass the needed knowledge and skills to engage in the desired behavior: in this case, to save and do so repeatedly. Opportunity includes factors such as physical and social resources, mostly those that are not controlled by the individual, but that will facilitate the behavior. Motivation is not only the intention to act, but the reasons that direct the individual to act, the goals, the ability to make decisions, the emotions, the habits, the identity, and other related mental processes. The subsections that follow discusses the most commonly found behavioral bottlenecks at each stage using this grouping and suggest possible solutions based on experiences from existing schemes as well as evidence from literature comprising experimental and quasi-experimental interventions.

43. This classification draws on the COM-B model of Michie et al. (2011).

**FIGURE 42. Journey toward resilience among workers in the informal economy**




*Source:* Karver et al. 2021.

### *6.6.1.1. Bottlenecks and potential solutions at the Decision stage*

**Addressing challenges in the decision stage involves confronting limited attention in the first node and the complexity of information in the remaining nodes.** Human attention is a limited resource (DellaVigna 2009). Saving today to build resilience for a future that may be years or decades away is not likely to be top of mind (Karlan et al. 2017). Not only does processing complex financial information tax one's attention, but how and how much information is provided can also affect a persons' decision-making capacity. For example, a laboratory study and an intervention in Tanzania found that increasing the number of features of digital savings products led participants to make a suboptimal choice (Busara Centre 2017); and that although having more choices engaged the participants on using mobile money, it often resulted in cognitive overload and suboptimal product choices (Pillai and Owsley 2017). Optimizing information dissemination to the target population and understanding how information might be received can lead to a first step toward resilience. Policy makers should consider not only the policy features, but also how these are communicated and presented to the intended beneficiaries -from the type of materials to the moment of exposure, when and how are they more likely to help capture attention; the messages and the messengers who are more likely to resonate with the target population, and how the content of information and communication addresses the questions and the information needs people might have when making decisions.

**Social relations, prevailing social and cultural norms, and other social environment cues also play a role in influencing decisions**. Research on social norms shows that individuals observe the behavior of those around them as a cue on how to act. For example, Pillai and Owsley (2017) find that the implications of social influence are striking: Learning about the savings balances of slightly better savers via SMS was enough to motivate people to increase their savings by up to 11 percent. Moreover, adding messages to communications that describe a current norm—for example, the number of individuals who have taken up a savings product—can encourage behavior that aligns with that norm (Reno, Cialdini, and Kallgren 1993). Because savings schemes for informal economy workers are

***Addressing challenges in the decision stage involves confronting limited attention in the first node and the complexity of information in the remaining nodes.***

relatively new, communications highlighting a low number of participants at the outset may not be motivating and can even backfire (Cialdini et al. 2006). In this case of a burgeoning norm, new research suggests that presenting the behavior as an upward trend—that is, increasingly more people are starting to show this behavior—can be effective in spurring change (Mortensen et al. 2019; Sparkman and Walton 2017). Encouraging social sharing, for example by using digital tools to encourage easy and rapid referrals, can also create social opportunities to promote engagement. In a field experiment in Pakistan aimed at improving the uptake of a digital wallet, customers who received text messages framing referrals as a norm helped significantly increase customer referral (Datta and Desai 2018).

*Research has shown that individuals tend to prefer immediate rewards over larger future benefits.*

**Research has shown that individuals tend to prefer immediate rewards over larger future benefits.**[44] Thinking about financial health in the future can be stressful, especially if the factors that determine one's future, such as a steady income, may be uncertain. Applying principles and design elements of games (known as gamification) to financial services can help address many of the bottlenecks that discourage individuals from making the first big leap toward building resilience. Gamifying personal finance has been found to reduce stress and build confidence in one's own ability to form a new habit and select the right tools to build resilience and are easier to implement as mobile phone penetration and apps become more common place.[45] Recent experiences in South Africa through Absa Bank highlight the potential impact of gamification in terms of increasing savings balances, awareness, confidence, and trust in financial institutions. To incentivize and facilitate the use by customers of digital channels, Absa piloted two banking-related games—Shesha games (quick games)—to target a specific customer segment. In addition to the remarkable uptake of the game (14 and 15 respectively), which may reflect a level of interest of the customer base in learning, the change in cell phone banking activities of those who played the game was significant and persistent (Koning 2015).

**Making the future more salient and tangible can help focus attention on resilience and strengthen the intention to act.** It can be difficult to set aside resources now for our future selves, especially if that future self is decades away. Experiments exposing participants to an image of themselves that has been digitally rendered to look older led them to forgo immediate financial rewards for later ones (Hershfield et al. 2011). A large-scale field experiment in Mexico found that a similar aging photo filter significantly increased the number of individuals who made a one-time contribution to their pension account and raised the average amount contributed in that month (Fertig, Lefkowitz, and Fishbane 2015). Making retirement more vivid is also a useful way of decreasing the perceived distance between now and retirement (Hershfield et al. 2011). For example, a study by Ideas42 in Mexico prepared a brief list of questions around how the individuals imagine themselves in their retired life, increasing intent to act toward creating such a life through saving for retirement (Fertig, Lefkowitz, and Fishbane 2015). Annex E, table E.1 summarizes the bottlenecks and potential solutions in the decision stage.

### *6.6.1.2. Bottlenecks and potential solutions at the Enrollment stage*

**Addressing challenges at the enrollment stage requires overcoming information overload and the tendency to procrastinate.** Information overload, whereby large and often complex information sets are provided that complicate choice, overwhelms potential beneficiaries and ultimately discourages action (see annex E, table E.2). This

44. See Thaler and Shefrin (1981); O'Donoghue and Rabin (1999); Federick et al. (2002); Brunnermeier and Parker (2005); Karlsson et al. (2012); O'Donoghue and Rabin (2015).
45. A useful summary of the benefits of applying gamification to personal finance can be found at https://www.cgap.org/blog/lets-gamify-empower-customer.

bottleneck can be addressed by clarifying eligibility requirements in simple terms and clearly outlining steps to successful participation to smoothen the journey along the enrollment stage (Madrian and Dennis 2001). The manual aspects of enrollment also require substantial time and effort from the standpoint of potential savers, which can lead to the abandonment of the objective to join a scheme. Advancements on the digital and payments front, specifically, the use of mobile money, can help individuals save with the click of a button, as long as these processes are simple and easy to follow. The reach and cost-effectiveness of mobile money in African countries is also why schemes in Ghana, Kenya, and Rwanda use them as foundational features.[46]

**Hassle factors during the enrollment stage can get in the way of fulfilling one's objective to contribute.** The various steps in enrollment might seem trivial to potential beneficiaries, but they can impact behavior in a meaningful way: Each added step or documentation requirement presents an opportunity to drop out of the journey. Simplifying the enrollment process can be attempted by reducing the number of requirements or using bulk registrations. Countries that have foundational and unique IDs (such as the Aadhaar unique identity in India or the national identity card in Rwanda) can leverage these advancements to make enrollment easier for informal economy workers by requiring consent and then populating the necessary information from the ID database. Feasible automatic enrollment has been found to be more successful than opt-ins. Blumenstock, Callen, and Ghani (2016) find that automatically enrolling employees in Afghanistan in a mobile savings program and deducting 5 percent of their monthly salary for savings increased the likelihood of saving by 40 percentage points compared with those who had to opt in. Digital platforms that facilitate independent work (such as Cabify, Task Rabbit, and Gojek) also offer an opportunity for simplifying enrollment.[47]

**Motivation to complete enrollment processes can also be suppressed because of low trust in actors and the threat of conforming to stereotypes.** A mistrust of the public or private institutions offering these schemes because of negative personal experience, historical exclusion, or limited previous interaction could be a contributing factor in inaction by an informal economy worker. Information presentation and dissemination can play a substantial role in overcoming this mistrust. For example, by identifying role models or providing visual examples on how the engagement happens with the various agents and instruments (Guiso, Sapienza, and Zingales 2008). Stereotype threat, that is, the risk of conforming to a social group's negative stereotypes (Carr and Steele 2010), and the accompanying perception of having access to or deserving a service can also be addressed through information dissemination. Communication strategies that apply language, visuals, and framing that may resonate with the target population and support motivation in the enrollment process can be of help (Bhargava and Manoli 2015).[48]

*Hassle factors during the enrollment stage can get in the way of fulfilling one's objective to contribute.*

### *6.6.1.3. Bottlenecks and potential solutions at the First Contribution stage*

**Addressing the challenges to contributing to a pension or savings scheme requires overcoming a tendency to stick with has**

46. Scheme administrators should partner with mobile money operators and negotiate transaction rates so that savings from informal economy workers are not eroded. The transaction rates vary by country. In Rwanda, the Ejo Heza scheme was able to obtain a waiver from mobile money operators for the first few years of the roll-out of the scheme. The argument used by the government was that once the scheme reaches scale, the mobile operators would have a much broader base of customers.
47. One field study with cab drivers in Peru found that sending push notifications to drivers via Cabify while offering an opportunity to enroll in automatic savings programs was an effective strategy for encouraging independent workers to participate in formal savings systems (Bernal et al. 2020).
48. Ribar (2014) provides a thorough summary of studies addressing stigma in public program take-up.

*Communicating savings norms can strengthen both social and physical opportunity.*

**been done before in terms of savings (i.e. the status quo)**. Information overload and multiple choices make users more likely to stick with the most predictable and least costly option in terms of effort, which is often the status quo (see annex E, table E.3). Even if a choice is made, a suboptimal plan or a lower than desired contribution amount could be selected if cues are not designed correctly, or choices not framed appropriately. Authorities have tried to overcome this barrier in defined formal economy contribution schemes, such as the National Employment Savings Trust in the United Kingdom and 401(k) plans in the United States, by enrolling individuals for default contribution rates that are optimal for the average user. As with the choice to enroll, a limited number of options also leads to more efficient decisions on the part of potential beneficiaries (Madrian and Dennis 2001; Iyengar, Jiang, and Huberman 2004; Carroll et al. 2009; Beshears et al. 2013). For example, the key difference in design between the Atal Pension Yojana launched by the Indian government in 2015 and the newly launched Pradhan Mantri Shram Yogi Maandhan (launched in 2020) was that the former included five defined benefit plan options, while the latter has only one option.

**Communicating savings norms can strengthen both social and physical opportunity.** The social context can also affect the choice of how much to save. Interventions testing the impact of social comparison messages that contrast an individual's savings with that of peers have proven effective in some contexts. For example, a field experiment testing different behaviorally informed text messages in Tanzania showed that communicating how much supersavers contributed to a mobile savings account increased balances by 11 percent relative to a control SMS reminder (Busara Centre 2017). However, understanding the social context is important. Beshears et al. (2013) find that disseminating information to employees in the United States about the share of their peers contributing at least 6 percent to a pension plan reduced savings levels, perhaps driven by feelings of discouragement from upward social comparisons (see discussion on social norms publicizing).

**Similar to hassles in the enrollment process, multiple steps required in making contributions can also lead to procrastination or inaction despite intentions among members to save.** These steps may include physical actions, such as traveling to a branch with limited opening hours and mailing forms, or digital actions, such as logging into an account and navigating a series of questions online. Automating processes and reducing manual steps can maximize the likelihood of contributing to a plan. Integrating contribution collection with existing and commonly used methods of payments can increase the probability of individuals contributing.

**Increasing the probability of the first contribution also requires addressing loss aversion from the standpoint of potential savers**. The decision to follow through with the first contribution requires incurring an immediate cost: letting go of part of current consumption. This loss of liquidity, already constrained among informal economy workers, can overshadow perceived future gains even if the gains will be substantial because of the compounding effect of returns on savings. Hesitancy can be overcome by allowing flexible contributions that are sensitive to the expected peaks and troughs of liquidity, for example, seasonal contributions among agricultural workers. A contribution schedule with gradual increases over time can also smooth the feelings of loss and support the management of finances (Karlan et al. 2017; Thaler and Benartzi 2004). Communications can also help counter feelings of loss by highlighting benefits related to personal values. A field experiment in Mexico showed that messaging linking retirement contributions to the future financial security of the account holder's household significantly increased the likelihood of contributions and steady amounts, an effect that persisted months later even in the absence of new messages (Goda et al. 2019).

#### *6.6.1.4. Bottlenecks and potential solutions at the Repeated Contribution stage*

**Addressing challenges to capability in the final stage of the journey toward resilience requires confronting attention failures**. While intentions to save might seem solidified at this stage of the journey, beneficiaries might forget to follow through with consistent contributions (see annex E, table E.4). This is particularly relevant for workers in the informal economy who do not have an employer-employee arrangement that could be used to deduct contributions via payroll. This bottleneck can be addressed by looking for ways that contribution collection can be automated once consent has been obtained, for example, by using the growing platform economy to collect a small share of the week's earning. Sending timely reminders to make contributions when beneficiaries have the fewest liquidity constraints can induce greater contributions (Karlan et al. 2017). Meanwhile, providing tangible methods that enable the tracking and management of contributions can support habit formation (Thaler and Benartzi 2004; Akbas et al. 2016).

**The experience of existing schemes and the results of pilot studies show that persistency with contributions is a significant challenge and is particularly sensitive to time-inconsistent preferences.** Participants might agree at the outset that they need to save for the future, but their preferences might change. Participants might continue to put off making repeat contributions in the near future, deferring until a later date, when they still may not contribute. Scheme design, fiscal incentives, and nudges can all support persistence and habit formation. For example, physically partitioning accounts to align with personal savings goal, such as education, health care, and property acquisition, can sustain motivation and reduce the likelihood of spending the separated savings (Cheema and Soman 2008; Soman and Cheema 2011). This can also take the form of optional commitment devices whereby beneficiaries set achievable goals (and the related consequences of inaction) themselves (Ashraf, Karlan, and Yin 2006; Roll et al. 2020). Unique features like redesigning pension contribution account statements that show tangible information about number of weeks left before retiring have also proven to increase repeated payments, as per a study done by Colpensions in Colombia (IDB 2018).

***Addressing challenges to capability in the final stage of the journey toward resilience requires confronting attention failures.***

# SECTION 7

# Conclusions

The ***overarching goals*** of the World Bank's social protection and labor strategy are to help improve resilience, equity, and opportunity among people in low- and middle-income countries. Social protection and labor programs directly improve ***resilience*** by helping people insure against drops in well-being associated with shocks and ***equity*** by reducing poverty and destitution and promoting equality of opportunity. But these policies also promote ***opportunity*** by building human capital, assets, and access to jobs and by freeing households to make productive investments because of their greater sense of security (World Bank Social Protection Strategy 2012–22). These goals are achieved by deploying social protection instruments across the life cycle and the income spectrum, recognizing that any individual social protection instrument may not be sufficient to achieve a specific goal, and a suite of instruments that come together in a coherent and integrated social protection system may be needed to render a social protection system effective.

**Universal social protection is seen as key to achieving these goals**. The Global Partnership for Universal Social Protection announced at the United Nations General Assembly in 2016 brought together development partners (International Labour Organization and World Bank) and world leaders to reinforce their commitment to universal social protection, an initiative that is supported by a large number of multilateral and bilateral partners globally (World Bank 2016). The aim of the initiative is for countries to reach all poor and vulnerable groups through a variety of measures to ensure that nobody lacks access to key forms of support when these are needed.

**Universal social protection should be the ultimate objective of countries.** How countries achieve universal social protection is determined by their unique circumstances and enabling conditions, highlighting that universal social protection can realistically be achieved over time through a progressive expansion. For each country, this progressive expansion will be defined by the enabling conditions, including fiscal space and administrative capacity.

**The COVID-19 pandemic has highlighted that, despite efforts to achieve universal social protection, significant gaps remain.** Social protection played a critical role in responding to COVID-19, but the pandemic underlined gaps in resilience. The pandemic exposed the vulnerability of a large share of workers in developing countries, those working in the informal economy. These groups do

*Developing countries have a large share of workers in the informal economy without any social protection (the missed middle), but many of these people have some ability to save.*

not receive social protection through social insurance schemes that rely on formal employer-employee arrangements nor from social assistance programs, making them invisible and impossible to reach when shocks hit.

**Universal access to social protection would allow these workers to mitigate risk efficiently.** Yet, most developing countries have limited fiscal resources to finance universal basic social insurance because their tax revenues are relatively low. A progressive approach to achieving universal social insurance by laying the foundations of a social insurance scheme for the informal economy is therefore needed. A good way to start could be to offer a voluntary scheme to informal economy workers to allow them access to services and a means to save. Subsidies and incentives may be needed to reach scale, but these would not demand significant resources from the government budget and therefore should be affordable. An important characteristic of such a scheme should be that it does not rely on formal employer-employee relationships, in contrast with formal economy social insurance schemes that are based on formal employment contracts. As these countries grow and their fiscal and administrative capacity increases, the voluntary schemes could be scaled up to provide universal access to all.

**The objective of this report is to provide policy makers and practitioners with a practical guide to designing and implementing voluntary savings schemes for the informal economy.** This could be achieved by leveraging existing investments in social protection and creating interoperable systems so that investments made in these schemes today can be the foundation for universal social protection in the future**.** The design of the scheme, the mandate on coverage, the amount of incentives, the institutional structure, and governance arrangements will depend on the unique circumstances of each country. They depend not only on the enabling environment, but also on the social contract as well as the political economy in social policy. This report discusses the various options available to countries, along with country experiences, but does not recommend a one-size-fits-all approach in designing and implementing these schemes. The findings of this report can, however, be summarized into 10 takeaways that policy makers and practitioners might consider in designing such schemes, as follows:

1. **Developing countries have a large share of workers in the informal economy without any social protection (the missed middle), but many of these people have some ability to save.** The informal economy is the main source of employment in Sub-Saharan Africa, accounting for approximately 89.2 percent of all jobs (80.8 percent in urban areas versus 90.1 percent in rural areas). Africa's growing population and limited capacity in formal economy job markets to absorb all new entrants imply that the role of the informal economy as the backbone of economies may be expected to continue into the foreseeable future. The protection of the nonpoor informal economy against life-cycle risks can generate greater welfare and prevent downward transitions into poverty. Most of these workers, while not poor, are at risk of becoming poor if shocks hit and exhaust their self-insurance capacities. The analysis in this report suggests that many of these people will be able to put aside resources and become wealthier over the life cycle.

   Countries can adopt a simple household typology to help design an integrated social protection strategy that encompasses the nonpoor informal economy. The four groups of the typology as outlined in this report are as follows: (a) the *poor* who need relief from a damaging lack of resources (for example, through transfers in cash or in kind or workfare) and need help improving their earnings potential (productive inclusion); (b) *nonpoor but nonresilient informal households* that show signs of liquidity constraints, may not be able to afford regular savings, and are likely

to require partial or full subsidization, along with short-term access to savings; (c) *nonpoor but resilient informal households,* particularly those with stable employers (for example, as household help or as gig economy workers), can be targeted by long-term saving schemes; (d) *formal households* that already have mandatory social insurance as part of their employer-employee arrangements that affords them coverage against idiosyncratic risks. The design of the scheme, the coverage, and the savings expectations will depend on the availability of social protection instruments for each of these four groups, their size, and their ability to save. A household-level analysis can therefore be a useful starting point for countries launching these schemes (see section 2).

2. **Efforts to integrate social insurance and social assistance programs through a digital platform can have positive spillover benefits.** A suite of social protection productivity-enhancing measures need to be developed to provide a continuum of coverage across the income spectrum. To create a continuum of protection, the gaps in coverage need to be filled by launching schemes that meet the needs of the informal economy, and interoperable systems need to be created among existing social protection systems through digital platforms that leverage technology toward a coherent social protection system. This can not only help build resilience, but also has numerous positive spillover effects, as follows:

    - ***Facilitating the graduation of safety net beneficiaries.*** The dynamic nature of poverty and the challenges in expanding social assistance schemes mean that countries need to find ways to support beneficiaries who graduate out of social assistance. A savings scheme that allows beneficiaries to save, with incentives offered by the government, would promote resiliency and reduce the risk of falling into poverty. This has been the motivation behind the scheme under the Pakistan CRISP Project.

    - ***The creation of shock-responsive systems with a readily available database on the informal economy.*** The lockdowns and resulting loss in incomes because of the COVID-19 pandemic saw countries rushing to find innovative ways to identify, reach, and help informal economy workers. Tools such as the geospatial mapping of urban slums and the use of mobile phone data to reach these workers were being adopted as countries looked for solutions. If African governments had had voluntary savings schemes targeting the informal economy in place and at scale, it would have been much easier and more rapid to deploy cash to the informal economy. The growing prevalence of shocks—climate related, natural, or man-made—mean that countries should be prepared. Setting up these schemes could provide an avenue to reach informal economy workers, and, during covariate shocks such as COVID-19, also use the platform to share public-safety information with this group (for instance, handwashing and social distancing guidance during COVID-19).

    - ***Increasing financial inclusion among informal economy workers and instilling a culture of savings.*** The voluntary schemes currently in place and those being designed are almost all built on digital systems for registration, contributions, and withdrawals. The expansion of these schemes would therefore also strengthen financial inclusion, which is a key enabler in reducing poverty and boosting prosperity. Furthermore, the awareness campaigns carried out by these schemes contribute to improving financial literacy and instilling a culture of savings among workers. If informal economy groups

*Efforts to Integrate social insurance and social assistance programs through a digital platform can have positive spillover benefits.*

*Employing digital systems, especially mobile money, can reduce the operating costs of the schemes and make saving more accessible for the informal economy.*

save through these regulated social insurance schemes and have access to them when faced with a significant shock, this reduces the fiscal burden on governments and allows some households to smooth consumption over the lifetime.

3. **Employing digital systems, especially mobile money, can reduce the operating costs of the schemes and make saving more accessible for the informal economy.** Throughout Sub-Saharan Africa, innovation is transforming how people conduct financial transactions and live their lives. Mobile phones and the availability of new digital technologies are at the forefront of this change (Klapper et al. 2019). According to the Global Findex database, the share of adults with an account at a financial institution rose by 4 percentage points in 2014–17, while the share with a mobile money account nearly doubled, to 21 percent, during the same period. The financial technology innovations that build on digital systems will allow countries in the region to leapfrog development. These efforts would need to be complemented with continued investments in digital infrastructure, the creation of appropriate regulatory environments for testing and establishing new business models, and a focus on improving access and ease of use. Countries that can harness these innovations in their savings schemes for the informal economy will not only witness lower transaction costs, thereby improving the viability of these schemes, but also reduce some of the behavioral barriers to saving that informal economy workers face (see section 5). Together, these steps would improve the chances that voluntary saving schemes will attain scale and become viable.

4. **Trust in the scheme is the key to take-up.** Informal economy workers across Sub-Saharan Africa and South Asia have been saving at the community level. There exists a myriad of savings and loan clubs (for example, the Susu in West Africa, savings and credit cooperative societies in East Africa, and rotating credit and savings associations ), which offer an effective risk mitigation strategy for these workers in the absence of any state support or regulated platform for saving. These clubs meet the needs of the workers because the clubs are willing to collect small and frequent contributions and are trusted by the community. However, they do not offer economies of scale in most instances, and there exists a risk that savings will be lost or receive little or no interest. The voluntary savings schemes discussed in this report have design features that would allow for small and frequent savings. Moreover, an important element is how these schemes could garner trust. Governments would need to learn who is trusted by informal economy workers. In some cases, a nationwide scheme would evoke a sense of security in these countries (for example, the Atal Pension Yojana in India, which was launched by Prime Minister Narendra Modi in 2015 and the Ejo Heza Long-Term Savings Scheme launched at the national level in Rwanda by President Paul Kagame), while, in others, working with local leaders would assuage concerns informal economy workers might have about their savings being stolen or inaccessible. A common experience in all countries is that working with informal economy associations (such as boda-boda drivers, handicraft associations, and women's groups) helps increase uptake and persistency because the leaders of these associations are well regarded and trusted. Trust could also be developed by ensuring real-time access to funds and making resources available for individuals to reach out should they have questions. Rwanda's Ejo Heza scheme established two call centers that operate 24/7 and where prospective and current members can call with any questions they might have. Individuals can also look at their savings on a daily basis. Adopting such measures early on allows for trust in a scheme to be built up and could

encourage workers to advocate for the scheme with their families, friends, and peers.

5. **Incentives and the bundling of services can boost take-up rates.** Pilot studies and lessons learned from emerging schemes have shown that fiscal and behavioral incentives can have an impact on take-up rates. Rigorous impact evaluations in this area (planned in Liberia and Pakistan) would be needed to ascertain which incentive works.[49] The heterogeneity among informal economy workers and prevailing cultural norms around saving mean that an incentive that works in one context might not have the same impact in another context. Common fiscal incentives include matching contributions (in the case of schemes in Colombia, India, Rwanda, and Thailand). Aside from fiscal incentives, the bundling of services and products can also be an incentive to boost take-up rates. Understanding the services that informal economy workers desire would be a first step. Life insurance and funeral insurance, for example, were found to be highly desired in the pilot study for Ejo Heza and were therefore offered as coverage, free of charge, if individuals save in the scheme. Other products that could be desirable among workers in some contexts could be subsidized health insurance or weather insurance to attract agricultural workers to save.

6. **Scale and cost effectiveness are critical for a scheme to be viable.** The target population of these schemes is primarily informal economy workers who tend to have lower and irregular incomes, compared with workers in the formal economy. For these schemes to be viable, the revenues collected by managing the funds in the scheme should be equal to the operating costs of the scheme. These schemes could generate revenue by taking a percentage of the interest earned from investments or imposing a transaction fee on members, which could be used to pay for the costs of managing the scheme and for communication expenses. Voluntary savings schemes for the informal economy need to be not only financially viable, but also socially viable. If they impose high transaction costs or withdraw a significant portion of the investment returns, the scheme will be less attractive for informal economy workers. This could reduce take-up rates and pose a challenge for the viability of the scheme. Countries and scheme architects should therefore aim to (a) carry out a viability analysis to test what the break-even point would be under a reasonable set of assumptions; (b) finance any shortfall, in the first few years, through external sources (for instance, governed funding and sponsorship), instead of passing on the cost to members; (c) review the cost structure and viability of the scheme every year to assess whether the current rate of increase in members is sufficient to sustain the scheme.

   The viability of the schemes could also be impacted if there exists a too many schemes in a country, thereby fragmenting the target market (informal economy workers with some ability to save). While some competition among schemes may be desirable, too many schemes will only worsen the probability of any single scheme being viable. Regulators and policy makers therefore have a role to play in monitoring schemes. The fees charged by regulators also need to be reasonable.

7. **Invest in communication strategies, use aggregators, and test behavioral nudges.** An effective communication strategy that encompasses visual and verbal communication is important. A clear articulation of scheme rules and registration and saving procedures is also important. Leaders in the community who are respected and

*Scale and cost effectiveness are critical for a scheme to be viable.*

*Invest in communication strategies, use aggregators, and test behavioral nudges.*

49. Impact evaluations of voluntary savings schemes for the informal economy are planned in Pakistan under the CRISP Project and in Liberia under ongoing technical work to assess the feasibility of such schemes with a focus on women.

*Keep the design of the scheme simple.*

*Pilot test the scheme before launching.*

trusted should be engaged early on in spreading the word about the scheme. Visual communication through pamphlets in the local language and graphic presentations explaining the benefits of the scheme and the incentives can be used to garner interest. These schemes require continued investments in awareness building because of the distinct characteristics of the schemes (voluntary and designed for informal economy workers). Innovative ways to remind individuals to save and doing so in a cost-effective manner are crucial.

Behavioral nudges have been shown to have an impact on savings in some cases. There is a need to collect more evidence in this area, especially as it relates to informal economy workers. A recent Inter-American Development Bank study finds that sending personalized text reminders to BEPS affiliates in Colombia had a positive impact on the amount of savings. The group that received the most messages saved the most, and the most effective messages were those that proposed savings goals. The study also notes that these interventions do not always work in every context, so it is important for countries to test cost-effective nudges and implement those that show promising results. Reliance on aggregators or informal economy associations has also been found to be useful in helping scale up schemes and ensuring the persistency of savings. The Haba Haba scheme in Kenya and the numerous pension plans in Ghana follow the aggregator model to scaling up by targeting groups of workers (taxi drivers, vegetable sellers, and cocoa farmers, for example) in their communication efforts.

8. **Keep the design of the scheme simple.** A simple design whose features are easy to understand are more likely to be able to be scaled up. Many countries therefore opt for a defined contribution design. First, because defined contribution schemes mimic bank savings accounts, they are more intuitive for informal economy workers. Second, these schemes build trust and encourage the payment of voluntary contributions more easily because participants can see how much savings they have at any time. Third, defined contribution schemes can be crafted so as not to require the regular payment of predetermined contribution amounts. As a result, participants may make contributions at any time, and whatever contributions they make will be added to the relevant individual accounts. While defined contribution schemes are the norm in many countries, India and Thailand offer an alternate design whereby they promise a guaranteed pension on reaching retirement age provided individuals stick to a contribution schedule. In the case of the Atal Pension Yojana scheme in India, early withdrawals are not allowed. Mitchell and Mukherjee (2017) finds that prospective policyholders value the inability to access the assets until a particular age. While the design of the Atal Pension Yojana is not a defined contribution scheme, the scheme is still simple to explain because individuals can choose their desired pension amount (among five options), and all they need to do thereafter is pay the contributions each year based on this choice. The Pradhan Mantri Shram Yogi Maandhan, which was launched in 2020, simplified the design of the Atal Pension Yojana by only offering one pension amount (Rs 3000 at the time of retirement). Behavioral evaluations also conclude that, if people are provided with too many options, this has a negative impact on participation and savings.

9. **Pilot test the scheme before launching.** The urgency of providing social protection coverage to informal economy workers is acutely felt in many developing countries. The advantage of rolling out voluntary schemes with limited fiscal incentives is that they provide an avenue to save, but do not create an implicit liability for the state or the sponsor, unlike the defined benefit pension schemes or defined contribution schemes with guaranteed

pensions, which are the norm in the formal private economy. However, the risk with voluntary schemes is related to scalability and viability. Because the viability of the schemes is directly proportional to the number of people who join, the amount they save, and the costs of the scheme, policy makers can obtain some estimate of viability by pilot testing these schemes under different conditions (for example, choosing a random sample of districts, different design features, or different communication modalities). The results of the pilot test can be used to inform national scale-up and also manage the expectations of coverage expansion that is possible through voluntary schemes alone.

10. **Set SMART goals and monitor key indicators.** To assess progress against objectives, policy makers and scheme architects should set up SMART goals for the scheme (specific, measurable, achievable, realistic, and timely) and review them on a regular basis. These goals would change as the scheme grows from a new scheme to a mature stage, but, by keeping them SMART, policy makers will be in a better position to assess the scheme, make course corrections as needed, and increase the trust in the scheme. While the goal setting can take place every few years, key indictors should be monitored on a more regular basis (a quarterly review is recommended in the initial years). The indicators to be monitored would vary depending on the design and objectives of the scheme, but can be broadly grouped into five main categories, as follows: (a) coverage and persistency, (b) savings capacity, (c) investments, (d) data and service quality, and (e) withdrawals and other benefits.

***Set SMART goals and monitor key indicators.***

# Annexes

## Annex A. Country Examples

### Rwanda

#### *Snapshot of Social Insurance in the country*

**Demographics**

| Working-age population (20-60) | Informal economy workers (estimates) | Number of elderly (60+) in 2021 | Number of elderly (60+) in 2060 |
|---|---|---|---|
| 5.8 million | 4.7 million | 0.66 million | 3.4 million |

*Sources:* ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/; UN DESA 2019.

**Existing schemes**

Social insurance schemes for the formal economy in Rwanda include pensions, occupational hazard insurance, medical insurance, and maternity leave benefits insurance. Social insurance schemes for the self-employed or informal economy include the Ejo Heza Long-Term Savings Scheme, community-based health insurance and occupational pension schemes.[50]

**Design of pension schemes and coverage**

The Rwanda Social Security Board pension scheme for the formal (public and private) economy is an integrated defined benefit scheme. The Ejo Heza Long-Term Savings Scheme targeting the informal economy is a defined contribution scheme with differentiated matching contributions provided by the government based on the Ubudehe categories.[51]

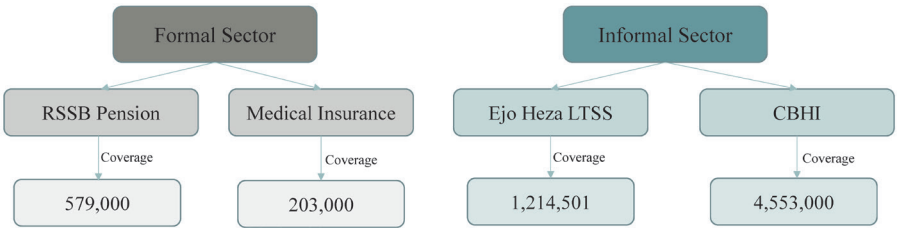
50. Source: Rwanda Social Security Board information manual
51. Ubudehe categories are a community-based targeting criterion used for safety net programs follow the community-based targeting. The Ubudehe criteria rank all households in the country in 4 categories: category 1 being the poorest.







*Coverage of Formal and Informal Economy Schemes*




### Details of pension scheme(s) designed primarily for the informal economy

The Ejo Heza Long-Term Savings Scheme sponsored by the government of Rwanda and established under Law 29/2017 (https://www.ejoheza.gov.rw/) is a voluntary defined contribution scheme launched in 2018 that is open to all Rwandans and any foreigners residing in Rwanda, though it is designed primarily for the informal economy.

### Governance arrangements

The Rwanda Social Security Board administers and the Central Bank of Rwanda regulates the Ejo Heza Long-Term Savings Scheme. KCB Bank Rwanda Limited is the custodian of the Ejo Heza scheme. The Rwanda National Investment Trust Limited is the fund manager. Ejo Heza savings are unitized by the fund manager. The fund manager computes and declares a daily net asset value of the Ejo Heza fund. Subscribers are easily able to access the current value of their savings. Access to Finance Rwanda sponsored the Ejo Heza Long-Term Savings Scheme at the time of its launch in 2018. MINECOFIN provides the matching contribution for the scheme, which is scheduled to expire in 2021.

**Main statistics of the Ejo Heza Long-Term Savings Scheme, March 2021**

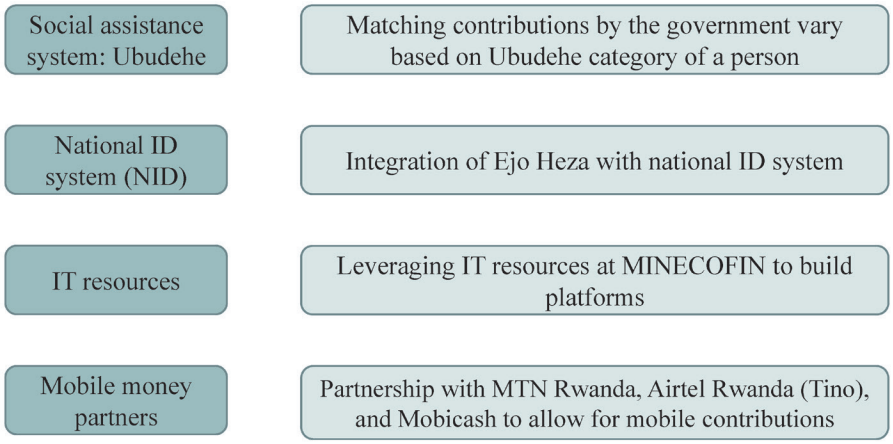
| | |
|---|---|
| Number of active contributors | 1.3 million (45% women) |
| Assets under management (% of GDP) | RF 13.6 billion (0.13% of GDP) |
| Average contribution | RF 10,585 (~US$11.00) |
| Average annual contribution by men | RF 11,541 |
| Average annual contribution by women | RF 9,749 |

### Scheme design of the Ejo Heza Long-Term Savings Scheme: voluntary defined contribution with withdrawals under select conditions

- **ID system**: National ID -linked and digital individual accounts
- **Coverage:** Open to all Rwandans but a focus on the informal economy
- **Retirement age:** No mandatory retirement age (individuals can retire at any age over 55)
- **Contributions:** The amount and frequency of contributions depend on the member's capacity to pay but an annual minimum is needed to qualify for matching contributions
- **Channels:**
  - **Incentives:** Means tested fiscal incentives including government matching contributions and free life insurance and funeral insurance covers (Matching contributions up to US$18.00; US$1,250 annual life insurance coverage); based on Ubudehe category.

  - **Early access/withdrawal rules:** Early access to accumulated savings before retirement is allowed if at least RF 4 million in savings. Withdrawals limited to 40 percent beyond RF 4 million for housing, education or to serve as collateral for loans.
- **Retirement payout type:** Pensions provided as a monthly income on retirement, amount of pension based on funds accumulated

#### The foundational blocks on which the Ejo Heza system builds




#### Unique features of the Ejo Heza scheme

The Ejo Heza Long-Term Savings Scheme focuses on registrations by leveraging the local administration structure up to the village level to mobilize people to enroll in the scheme. The district, economy, cell and village leaders have been trained to lead in the mobilization of people supported by district coordinators designated within the Ejo Heza scheme. A dedicated national toll-free helpline and call centers to provide information and handle members' complaints and a combination of online and in person agent network to help with registration. The scheme focuses on building trust between the people and the leaders implementing the scheme through various mechanisms like performance contracts that build accountability.

## Kenya

### *Snapshot of Social Insurance in the country*

#### Demographics

| Working-age population (20–60) | Informal economy workers (estimates) | Number of elderly (60+) in 2021 | Number of elderly (60+) in 2060 |
|---|---|---|---|
| 24.7 million | 15.05 million | 2.2 million | 13.2 million |

*Sources:* ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/; UN DESA 2019.

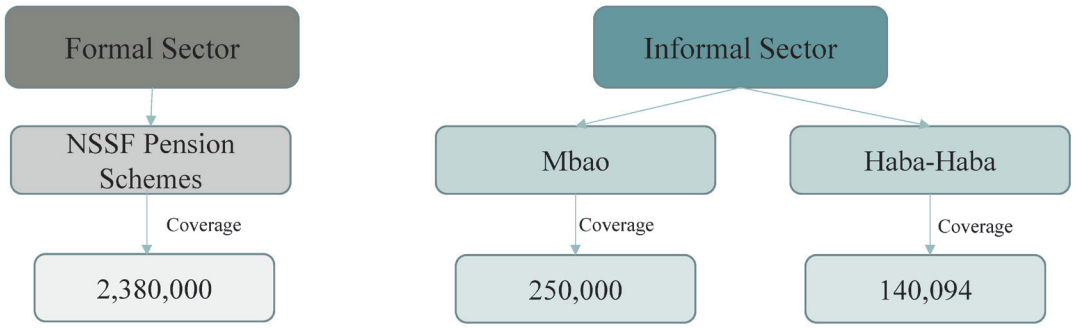
#### Existing schemes

Pension schemes for the public economy in Kenya is the Civil Service Pension Scheme, and County Government's Retirement Scheme. Pension scheme for the private economy include a Provident Fund administered by the National Social Security Fund. Social insurance schemes for the self-employed or informal economy include the Mbao scheme and Haba Haba scheme.

### Design of pension schemes and coverage

The Kenyan pension scheme for the public economy was an unfunded defined benefit scheme until 2020 when contributions began to be collected. The mandatory scheme for private economy is a provident fund scheme managed by the National Social Security Fund. There are also occupational pensions funds in Kenya as well, regulated by the Retirement Benefits Authority. The design of Mbao and Haba Haba scheme is voluntary defined contribution.

*Coverage of Formal and Informal Economy Schemes*




### Details of Pension Scheme(s) designed primarily for the informal economy

The Mbao scheme, that was launched in 2010, is a voluntary pension scheme designed for informal economy workers. The National Social Security Fund also launched a scheme for informal economy and gig workers in 2020 called the Haba Haba scheme.

### Governance arrangements for Mbao scheme

The Retirement Benefits Authority is the regulator of the Mbao scheme, and Eagle Africa is the admin of the scheme. Kenya Commercial Bank Limited Central is the custodian of the scheme and Coop-Trust Investment Services manages the funds. Regulator fees are charged at 2 percent of assets under management, subject to a maximum K Sh 5 million per scheme. The scheme also has a sponsor, Mbao Secretariat, which acts as the central coordinating body between various stakeholders.

### Main statistics of Mbao scheme as of 2020

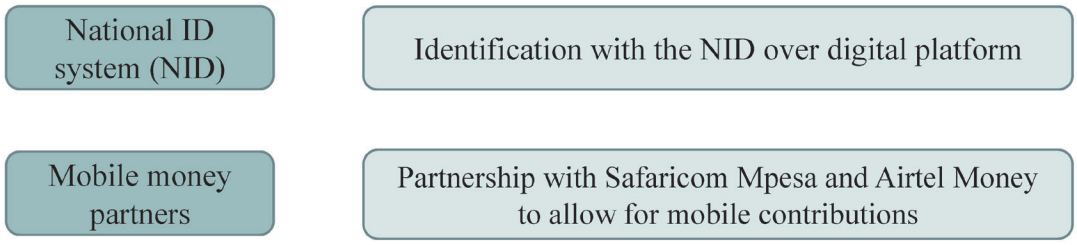
| | |
|---|---|
| Number of registered contributors | 250,000 |
| Number of active contributors | 92,927 |
| Assets under management (as % of GDP) | K Sh 163.6 million (0.015% of GDP) |
| Average contribution | K Sh 212 (US$1.93) |

### Scheme design of Mbao: Voluntary defined contribution with withdrawals under select conditions

- **ID system:** National ID linked and digital individual accounts
- **Retirement age:** No mandatory retirement age (55+)

- **Contributions:** The frequency of contributions depends on the member's capacity to pay but a minimum contribution at K Sh 20 a day is required. However, there is no penalty for not meeting this minimum contribution
- **Channels:** Channels through which contributions can be made include mobile money payments, linked to national ID numbers—anytime anywhere
- **Incentives:** Funeral benefits are available to members as an optional additional rider and mortgage lending is available through savings in Mbao without any down payment (pension backed mortgage). There is no matching contribution by the government.
- **Early access/withdrawal rules:** Option for early access to the accumulated savings before retirement up to 100 percent after 3 years of contributing is available
- **Retirement payout type:** Pensions provided as a lumpsum withdrawal based on funds accumulated by member

### Foundational blocks which Mbao system builds on




### Unique features of the scheme

Mbao is particularly well suited to the informal-economy as it caters to those with low and variable incomes, offering these workers the opportunity to save regularly for retirement. Members can make such small contributions toward pension saving without the risk of penalties. The Mbao has also made it possible for an informal economy worker to save anytime anywhere by partnering with mobile money operators. Although this is a retirement fund, it works like a provident fund and offers savings that can be used for other personal or covariate shocks. The scheme has helped increase financial literacy by raising awareness of the importance of saving for the future to ensure income smoothing across the lifecycle. This includes education regarding the importance of insuring against longevity risks (Kabare 2018).

### Governance arrangements for Haba Haba scheme

The Retirement Benefits Authority regulates and the NSSF administers the Haba Haba scheme. Kenya Commercial Bank Limited is the custodian of the scheme, and Invest Funds manages the funds of the scheme.

### Main statistics of Haba Haba scheme as of 2020

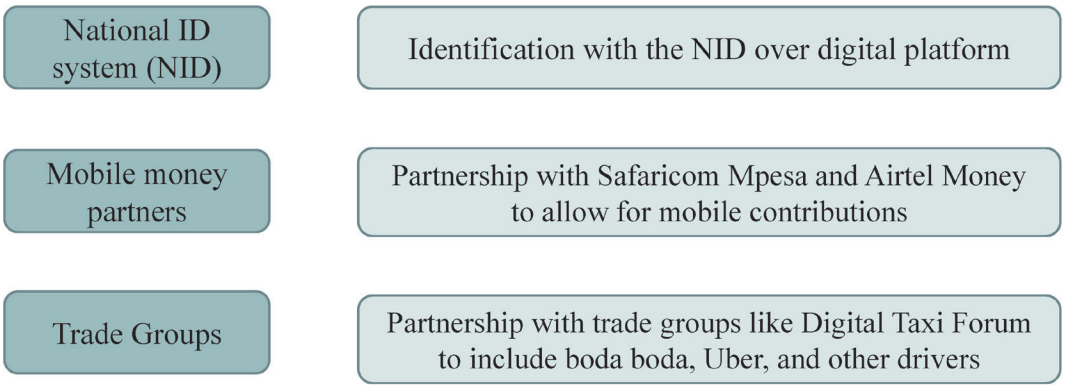
| | |
|---|---|
| Number of registered contributors | 140,094 |
| Number of active contributors | 14,249 (30% women) |
| Average contribution | KES 9000 (US$82.95) |

### Scheme design of Haba Haba: Voluntary defined contribution with withdrawals under select conditions

- **ID system**: National ID -linked and digital individual accounts
- **Retirement age:** Retirement age is 50

- **Contributions**: The frequency of contributions depends on the member's capacity to pay but a minimum contribution at K Sh 25 a day or K Sh 750 a month is required
- **Channels:** Channels through which contributions can be made include banks and mobile money payments, linked to national ID numbers
- **Early access/withdrawal rules:** Option for early access to the accumulated savings before retirement up to 50 percent after minimum of 5 years of contributing is available to the members
- **Retirement payout type:** The payout at time of retirement is a lump sum benefit viz equal to accumulation of funds in the individual account of the member

**Foundational blocks which Haba Haba system builds on**




**Unique features of the scheme**

Haba Haba caters to the needs of the informal economy workers by making contributions and other benefits easily accessible through mobile phones and by helpline service that can be accessed by dialing *303#. It collaborated with Proto Energy, NHIF, KCB, and Safaricom as value addition and to provide an attractive package that addresses the needs of prospective, present and future National Social Security Fund members in the informal economy, especially the gig workers.[52] The scheme also aims at financial inclusion through public-private partnerships and partnerships with associations like market vendors to increase its awareness and coverage. The National Social Security Fund estimates that there are about 60,000 taxi drivers, 500,000 matatu vehicles (considering that there is a driver and a conductor there are 1,000,000 potential members in the economy), 1,300,000 motor cyclists, 8,000,000 market vendors, 100,000 fishermen and fish vendors who can be potential savers in the Haba Haba scheme.

52. The partnership with Proto Energy us being envisioned as one where Proto Energy would provide gas at a cheaper rate for fuel of the cars and boda-bodas leading to savings of up to K Sh 381 or more in a day. This savings could be used to pay a minimum of K Sh 25 per day for the National Social Security Fund; K Sh 20 per day on NHIF; buy data bundles at K Sh 35; pay membership fees to the Digital Taxi Forum at K Sh 10 a day; or pay for medical insurance, personal accident cover, permanent disability and funeral expenses at K Sh 10 a day.

## India

### *Snapshot of Social Insurance in the country*

#### Demographics

| Working-age population (20–60) | Informal economy workers, estimates | Number of elderly (60+), 2021 | Number of elderly (60+), 2060 |
|---|---|---|---|
| 753.3 million | 321.4 million | 139.6 million | 386.9 million |

*Sources:* ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/; UN DESA 2019.

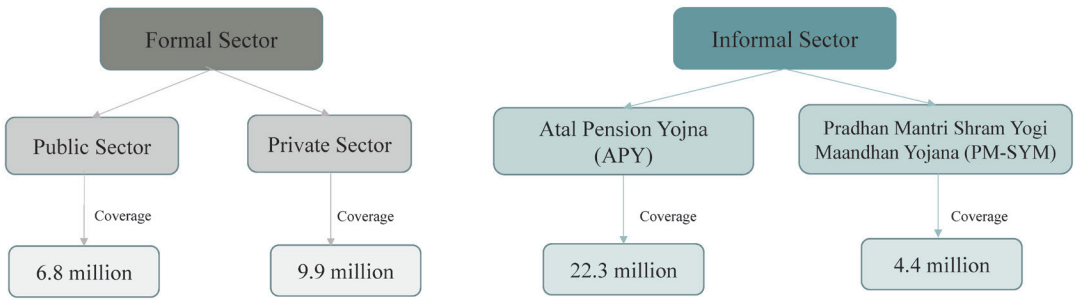
#### Existing schemes

Social Insurance schemes that exist for formal economy include a defined benefit scheme for public economy workers who were hired pre 2004 (Old Civil Service Pension Scheme), a defined contribution scheme for the public economy hired after 2004 (National Pension Scheme); a PF scheme for the private economy called General Provident Fund; a defined benefit scheme for formal private economy workers the employee pension scheme. Social insurance schemes that are targeted to self-employed or informal economy include the Atal Pension Yojana, the Pradhan Mantri Shram Yogi Maandhan, and National Pension System Lite or Swavlambam. Health insurance schemes for informal economy include the Rashtriya Swasthya Bima Yojana, Aam Aadmi Bima Yojana.

#### Design of pension schemes and coverage

The public economy pension scheme pre-2004 is defined benefit scheme in design. Those hired post 2004 are in a defined contribution scheme. The private economy pension scheme is a defined benefit scheme for low-income employees, those earning less than Rs 15,000. The Atal Pension Yojana and the Pradhan Mantri Shram Yogi Maandhan are contributory defined benefit schemes for low-income earners or informal economy workers.

### *Coverage of Formal and Informal Economy Workers*




#### Details of Pension Scheme(s) designed primarily for the informal economy

The Atal Pension Yojana and the Pradhan Mantri Shram Yogi Maandhan, launched in 2015 and 2020, respectively, are both pension schemes designed for the informal economy workers or self-employed people. The Pradhan Mantri Shram Yogi Maandhan was specifically built to cater to informal economy workers who earn less than Rs 15,000 per month. It covers an indicative list of 127 professions of informal economy including street vendors, head loaders, domestic workers, agricultural workers, home-based workers.

### Governance arrangements

The Atal Pension Yojana is regulated by the Pension Regulatory Board and the Pradhan Mantri Shram Yogi Maandhan is administered by Life Insurance Corporation.

### Main statistics of the Atal Pension Yojana as of 2020

| | |
|---|---|
| Number of active contributors | 34.5 million |
| Assets under management (% of GDP) | Rs 4.17 trillion (ET 2020) |

### Scheme design of the Atal Pension Yojana: defined benefit scheme with guaranteed pension amounts

- **ID system:** Linked with the Aadhar Card
- **Retirement age:** Retirement age under the scheme is 60
- **Contributions**: Contribution rate lies between Rs 42 to Rs 1,454, depending on age of individual and category of pension chosen. There are penalties for delayed payments. They vary from Rs 1 to Rs 10 per month, depending on the committed contribution amount. Accounts are deactivated after 12 months of missed payments and are closed after 24 months of missed payments
- **Channels:** Contributions are only collected through banks. One has to be between the age of 18-40 to enroll.
- **Early access/withdrawal rules:** Withdrawals before retirement are not allowed for any accumulated funds
- **Incentives:** Co-contribution from the government is 50 percent of the member contributions up to a maximum of Rs 1,000 per year for five years for all accounts opened in 2015
- **Retirement payout type:** The payout after retirement is defined and not contingent upon funds accumulated. It is dependent upon contribution amount and tenure of contributions

### Unique features of the scheme

The scheme provides incentives to the banks to open new accounts for workers in the informal economy so that the infrastructure for pensions is built. There is also a 24*7 helpline which guides the workers with registration, withdrawals, and other processes.

### Main statistics of Pradhan Mantri Shram Yogi Maandhan

| | |
|---|---|
| Number of active contributors | 4.5 million |

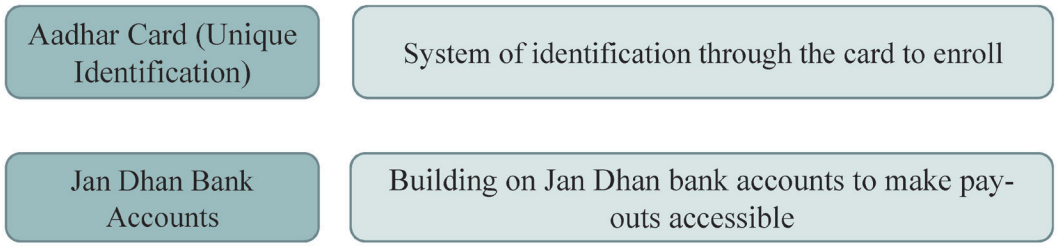
### Scheme design of Pradhan Mantri Shram Yogi Maandhan: defined benefit scheme

- **ID system:** Linked with the Aadhar Card
- **Coverage:** Workers who earn less than Rs 15,000 per year
- **Retirement age:** The retirement age is 60
- **Contributions**: The scheme mandates a minimum amount and also mandates contribution collection through banks. Contribution rate lies between Rs 55 to Rs 400 depending on age of individual
- **Channels:** Contributions are only collected through banks
- **Incentives:** Government matches the matching contribution without any restrictions
- **Retirement payout type:** Payout after retirement is fixed under the defined benefit at Rs 3,000 per month. In case of the death of the subscriber, there is provision for spouse to receive Rs 1,500 (US$20) per month till his/her death

### Unique features of the scheme

The scheme heavily builds on the 40 million Jan Dhan accounts to facilitate enrollments and withdrawals for the informal economy workers.

### Foundational blocks: Atal Pension Yojana and Pradhan Mantri Shram Yogi Maandhan system




## Nigeria

### *Snapshot of Social Insurance in the country*

### Demographics

| Working-age population (20–60) | Informal economy workers (estimates) | Number of elderly (60+) in 2021 | Number of elderly (60+) in 2060 |
|---|---|---|---|
| 63.1 million | 57.08 million | 9.3 million | 34.5 million |

*Sources:* ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/; UN DESA 2019.

### Existing schemes

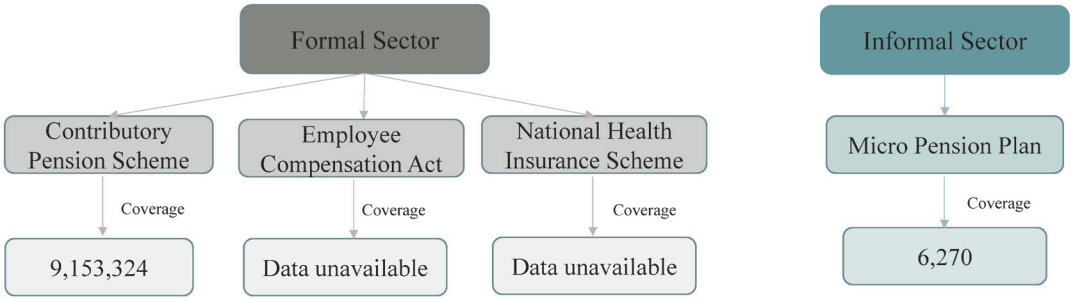
Social insurance schemes for the formal economy include a mandatory Defined Contribution Scheme based on individual accounts called Contributory Pension Scheme, an occupational hazard insurance called Employee Compensation Act[53], and a medical insurance scheme, the National Health Insurance Scheme. Defined Benefit schemes exist for some categories of federal public economy employees—certain judiciary officers, military and security personnel. There also exists a social insurance scheme for people in the informal economy or the self-employed, the Micro Pension Plan.

### Design of pension schemes and coverage

Both public economy and private economy pension schemes, are defined contribution in design with same rules. Contribution rates are 8 percent of monthly emoluments for the employee and 10 percent of monthly emoluments for the employer. The Micro Pension Plan is also a defined contribution scheme.

53. The National Social Insurance Trust Fund (NSITF) implements the Employee Compensation Act, which provides for employees who were injured, disabled, or died during the course of their employment

*Coverage of Formal and Informal Economy Workers*




**Details of Pension Scheme(s) designed primarily for informal economy**

The Micro Pension Plan, implemented in 2019, expanded the coverage of the Contributory Pension Scheme to the informal economy workers, the self-employed persons, and those working in organizations with less than three employees. In implementing this initiative, the informal economy has been segmented into three broad categories. The low-income earners, the high-income earners and the SMEs.

**Governance arrangements for the Micro Pension Plan**

The National Pension Commission (PenCom) is the regulator and the supervisor of the Micro Pension Plan. The pension schemes are administered by the Pension Fund Administrators (PFA).

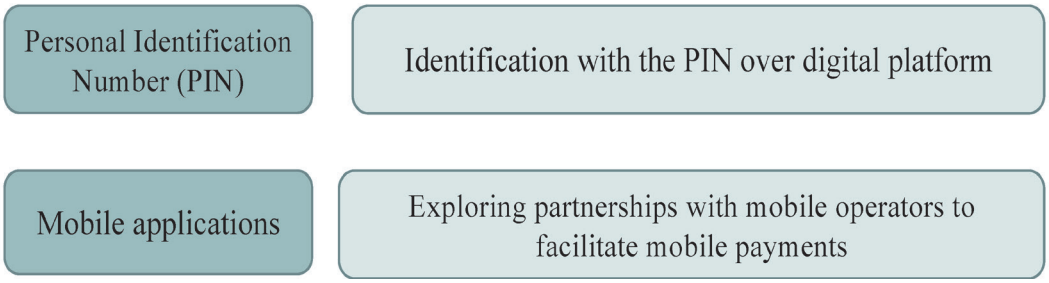
**Details of the Micro Pension Plan as of 2020**

| | |
|---|---|
| Number of registered contributors | 64,464 |
| Number of active contributors | 6,270 |
| Assets under management (as % of GDP) | N 89.69 million (0.000052% of GDP) |
| Average contribution | N 1,430 (US$35) |

**Scheme design of the Micro Pension Plan: Voluntary defined contribution withdrawals split into contingent and savings portion in the ratio 40:60**

- **ID system**: National ID–linked and digital individual accounts
- **Retirement age:** No mandatory retirement age for contributors but members can access savings from the age of 50 years or earlier upon requesting for health or other emergency grounds
- **Contributions:** The frequency of contributions is voluntary and depends on the member's capacity to pay either daily, weekly, or monthly
- **Channels:** Channels through which contributions can be made include banks and online payments
- **Early access/withdrawal rules:** Option for early access to the accumulated funds is allowed for up to 40 per-cent of savings from the contingent funds account
- **Retirement payout type:** Pensions pay out after retirement are through a scheduled withdrawal or through a purchase of life annuity
- **Fees borne**: Members bear the pension fund administration fees

**Foundational blocks which the Micro Pension Plan system builds on**




**Unique features of the scheme**

The innovative segregation of two accounts—the Retirement Fund and the Contingent Fund—addresses the volatility of informal economy workers' incomes and also serves as a savings fund in case of personal or covariate shocks. Each of the categories of informal economy workers—low-income earners, the high-income earners and the SMEs—is to be targeted with appropriate pension products and sensitization programs that meet their peculiarities. The PenCom has commenced the sensitization of service providers and relevant regulators as well as the targeted workers in the informal economy with a view of creating the enabling environment and buy-in. Leveraging informal economy networks like unions and established community associations to build trust and plan outreach is another key feature.

## Ghana

### *Snapshot of Social Insurance in the country*

**Demographics**

| Working-age population (20–60) | Informal economy workers (estimates) | Number of elderly (60+) in 2021 | Number of elderly (60+) in 2060 |
|---|---|---|---|
| 14.7 million | 7.9 million | 1.6 million | 6.8 million |

*Sources:* ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/; UN DESA 2019.

**Existing schemes**

Social insurance schemes that exist for the formal public and private economy in Ghana include the Basic National Social Security Scheme first tier, the occupational pension scheme second tier, CAP 30, and maternity benefits schemes. Social insurance schemes that exist for the informal economy workers and self-employed persons include 19 personal pension schemes and 11 group personal pension schemes.[54] National Health Insurance Scheme also exists for all; the mandatory tier 2 contributors do not pay for premiums to access the services. Generally,

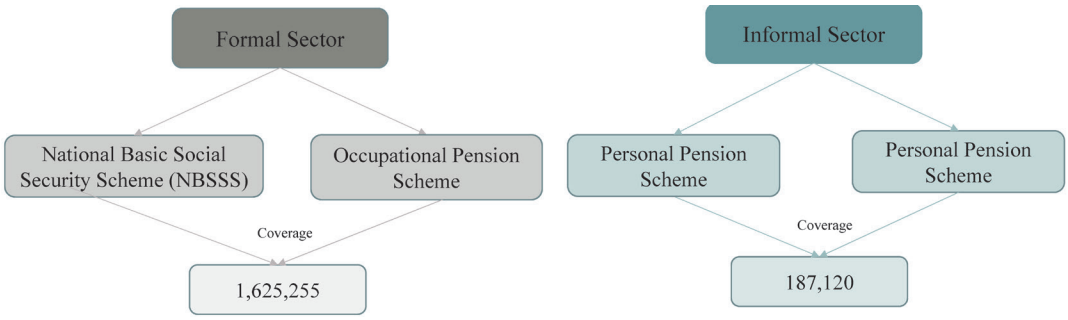
54. The 19 personal pension plans are Axis Pension Plan, Enterprise Personal Pension Scheme, Secure Pension Personal Pension Scheme, Cocoa Abrabopa, Daakye Personal Pension Scheme, Prestige Personal Pension Scheme, Qftl Personal Pension Scheme, Pentrust Personal Pension Plan, Mariner Personal Pension Scheme, My Ideal Personal Pension Scheme, Tuc-Uniwa Personal Pension Scheme, People's Pension Trust Personal Pension Scheme, Best Pension Fund, Nbc Gold Plan , First Merit Personal Pension Scheme , Empamsie Fund, My Own Pension Scheme, Pensions Alliance Enidaso Scheme, and Axis Micro Pension Scheme. The 11 registered group pension plans are Guta Group Personal Pension Scheme, Secure Group Personal Pension Scheme, Stallion Group Personal Pension Scheme, United Investment Trust, Live After Retirement, Gentrust Alternative Pension Scheme, Ghaba Group Pension Scheme, Gnat Provident Fund, Coalition Of Concerned Teachers Ghana Tier 3 Pension Scheme, Nagrat Excellence Tier 3 Pension Scheme, and Cocoa Farmers Pension Scheme.

people above the retirement are also covered without premium. Informal economy contributors are not subsidized.

### Design of pension schemes and coverage

Ghana operates a multipillar three-tier pension system that combines the features of both defined benefit and defined contribution plans. The mandatory Basic National Social Security Scheme is a defined benefit scheme, while the occupational (work-based) pension schemes are defined contribution schemes managed by licensed trustees. A voluntary fully funded and privately managed provident fund and personal pension scheme and a voluntary group personal pension scheme are defined contribution schemes.

### *Coverage of people in the formal and informal economy*




### Governance arrangements for formal economy social insurance schemes

The National Pensions Regulatory Authority, the regulator, regulates and supervises both the public and private pension schemes in the country. It also approves and licenses trustees (both corporate and individual) and in addition monitors pension fund managers, custodians, and other service providers operating under private pension schemes. The Social Security and National Insurance Trust is the administrator of the defined benefit scheme; a scheme is required to appoint a custodian, and it can appoint several fund managers. The authority regulates the pensions industry, including the voluntary schemes.

There is a total regulatory fee of 2.5 percent per year, out of which the regulator receives 0.33 percent; the trustees receive a maximum of 1.33 percent; the custodian, 0.28 percent; and the pension fund manager, 0.56 percent.

### Details of pension scheme(s) designed primarily for informal economy

The implementation of Pensions Act (Act 766) in 2010 introduced pension schemes for the informal or the self-employed economy by adding a third tier to the two-tier system of the Social Security and National Insurance Trust. The personal pension schemes and the group personal pension schemes were thus implemented to include the informal economy.

- Personal pension schemes are those where individuals who are self-employed can contact a trustee to join the scheme
- Group personal pension scheme are usually those where trade associations or identifiable groups in the informal economy come together to establish a scheme which is often limited to members of that group, for example, the Tailors Association. Membership is voluntary and contribution rates are not fixed but mutually agreed between the group and the administrators of the scheme.

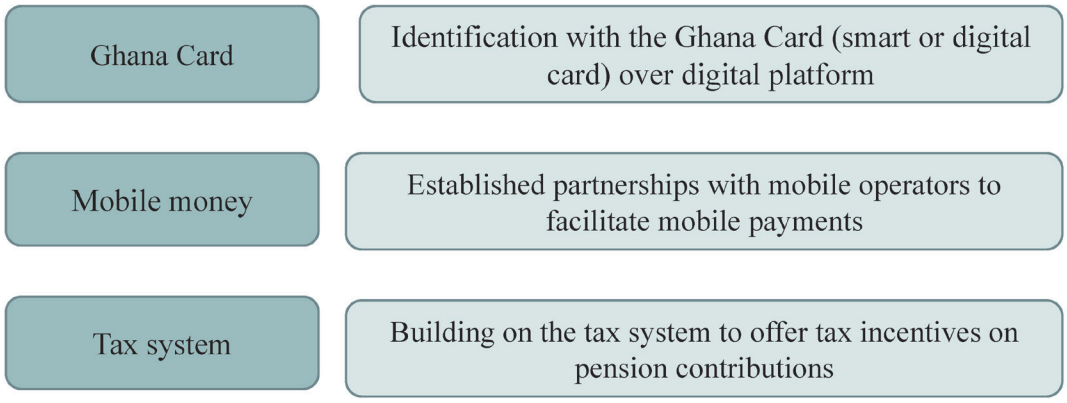
### Main statistics of the personal and group personal pension schemes

| | |
|---|---|
| Number of registered contributors | 432,720 |
| Number of active contributors | 432,720 |
| Assets under management (as % of GDP) | GHS 273.6 million (0.07% of GDP) |
| Average contribution | GHS 291.8 |

### Scheme design of the personal and group personal pension schemes: voluntary defined contribution with withdrawals under certain conditions

- **ID system**: National ID (Ghana Card)-linked and digital individual accounts
- **Retirement age:** Retirement age is 60+, but 55 if the worker is working under hazardous conditions (this is mostly applicable to mandatory schemes)
- **Contributions:** The amount and frequency of contributions depend on the member's capacity to pay but contributions are capped at 35 percent of income, and are tax-free
- **Channels:** The channels through which contributions can be made include banks and mobile money to expand coverage to majority of the informal economy
- There are no co-contributions by the government
- **Early access/withdrawal rules:** Option for early access to the savings portion of the accumulated fund after 5 years of contribution. The percentage split between savings account and retirement account depends on the individual scheme
- **Retirement payout type:** Pensions pay out after retirement is dependent on the accrued benefit in the retirement account but the law allows for the amount in the retirement account to be used in purchasing an annuity spread over 15 years, and the remaining balance is paid as lumpsum
- **Incentives:** The members get incapacity benefits if they are identified by a medical officer
- **Fees borne:** Members bear the regulatory fees which is up to 2.5 percent per annum

### Foundational blocks which the personal and group personal pension schemes build on




### Unique features of the scheme

The design of the Personal and Group personal pension schemes closely caters to the needs of the informal economy workers as they allow for voluntary contributions through various channels and also allows for early withdrawals from the savings account. The Group personal pension schemes leverage trade associations and identifiable groups to build trust and expand pension coverage to informal economy workers. Taking such trade groups

in the design of the scheme has allowed for groups to provide matching contributions to all contributing members. For example, the Cocoa Board offers matching contributions made by cocoa farmers in the group personal pension scheme for cocoa farmers. Many personal pension schemes are offering life insurance benefits as an incentive to attract members.

## Thailand

### *Snapshot of Social Insurance in the country*

#### Demographics

| Working-age population (20–60) | Informal economy workers (estimates) | Number of elderly (60+) in 2021 | Number of elderly (60+) in 2060 |
|---|---|---|---|
| 40.4 million | 25.9 million | 13.4 million | 23.8 million |

*Sources:* ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/; UN DESA 2019.

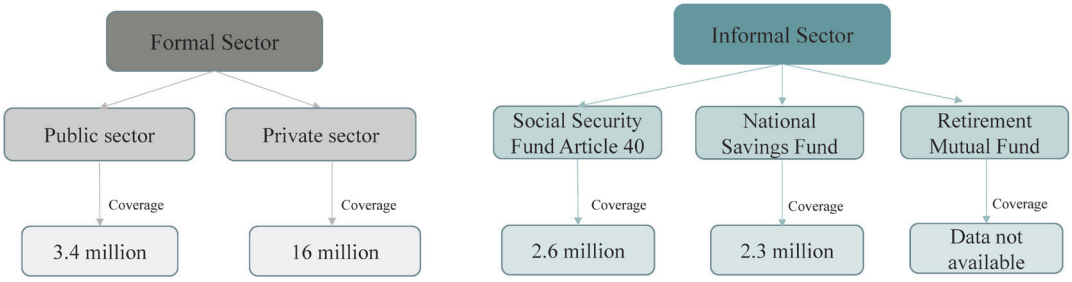
#### Existing schemes

Social insurance schemes that exist for the public and private economy include pension schemes, such as the Old Civil Service Pension scheme, Social Security Fund Article 33 and 39, Provident Fund, Retirement Mutual Fund, health insurance, workers injury, maternity and sickness schemes. Social Insurance schemes that exist for self-employed or informal economy include pension schemes called Social Security Fund Article 40, National Savings Fund, Retirement Mutual Fund, and the Universal Health Insurance scheme.

#### Design of pension schemes and coverage

Pension scheme for the public economy workers hired post 1997 is a hybrid scheme—a defined benefit, plus a general provident fund which is defined contribution in design. Mandatory pension schemes for the private economy is a defined benefit scheme managed by the Social Security Office.

### *Coverage of people in the formal and informal economy*




#### Governance arrangements for formal economy social insurance schemes

The Social Security Office (SSO) regulates the Social Security Fund. The Funds are administered by tripartite committees consisting of representatives of employers, employees and government appointed by Minister of Labour. The Labor Ministry is the Custodian or the Trustee of the schemes.

### Details of Pension Scheme(s) designed primarily for informal economy

Article 40 of the Social Security Fund that was launched in 1999, the National Savings Fund launched in 2011, and the Retirement Mutual Fund are the social insurance pension schemes designed for the informal economy and self-employed persons in Thailand.

### Main statistics of Social Security Fund Article 40 as of 2020

| | |
|---|---|
| Number of registered contributors | 3.24 million |
| Number of active contributors | 2.6 million |
| Assets under management (as % of GDP) | B 8,152 million (0.05% of GDP) |

### Scheme design of Social Security Fund Article 40: Voluntary defined contribution with withdrawals under select conditions

- **Contributions:** Individuals can pay B 70, B 100, or B 300 per month and the government match varies under each bracket.
- **Channels:** Contributions are calculated through the channel of banks. SSO has recently started accepting contribution from by deducting from savings accounts on every 20$^{th}$ of the month, with a 5-baht fee. Few more channels include ATMs and internet application.
- **Retirement age:** The retirement age is 55.
- **Incentives:** The insured persons under Article 40 would be eligible to 3 types of benefits including maternity, invalidity and death. Additional benefits include support on hospitalization, funeral-assisting compensation, and child-support.
- **Early access/withdrawal rules:** Withdrawals before retirement are not allowed.
- **Retirement payout type:** Payout after retirement is through a lumpsum payment.

### Unique features of the scheme

The recent acceptance of contribution payment from savings account under Article 40 enables facilitating payments with less time and traveling costs. The automatic deduction also addresses the memory failure behavior of participants and ensures that repeated contributions are made. The SSF has integrated big data and decision support system to improve efficiency and reduce costs for the government.

### Main statistics of National Savings Fund

| | |
|---|---|
| Number of registered contributors | 2.3 million |
| Number of active contributors | 1.3 million (45% women) |
| Average contribution | B 2,739 (~US$88.24) |

### Scheme design of National Savings Fund: Voluntary defined contribution with withdrawals under select conditions

- **Contributions:** Contribution rate is capped at B 600, B 960, or B 1,200 based on age
- **Channels**: Channels through which contributions can be calculated are banks.
- **Retirement age:** Retirement age is 60
- **Early access/withdrawal rules:** Withdrawals before retirement age are not allowed, unless in case of death of severe disability

- **Retirement payout type:** The amount of pension is equal to total savings in member accounts divided by 240 (20*12 months) is the payout after retirement. If pensioners die before age 80, the government pays outstanding amount as lump sum to survivors. If pensioners live beyond age 80, they can register for old age allowance (social pension).

#### Unique features of the scheme

The National Savings Fund scheme was designed to allow small contributions, which were generally more suited to the income volatility that the informal economy faced.

## Colombia

### *Snapshot of Social Insurance in the country*

#### Demographics

| Working-age population (20–60) | Informal economy workers (estimates) | Number of elderly (60+) in 2021 | Number of elderly (60+) in 2060 |
|---|---|---|---|
| 28.6 million | 17.7 million | 6.6 million | 18.08 million |

*Sources:* ILOSTAT (dashboard), International Labour Organization, Geneva, https://ilostat.ilo.org/; UN DESA 2019.

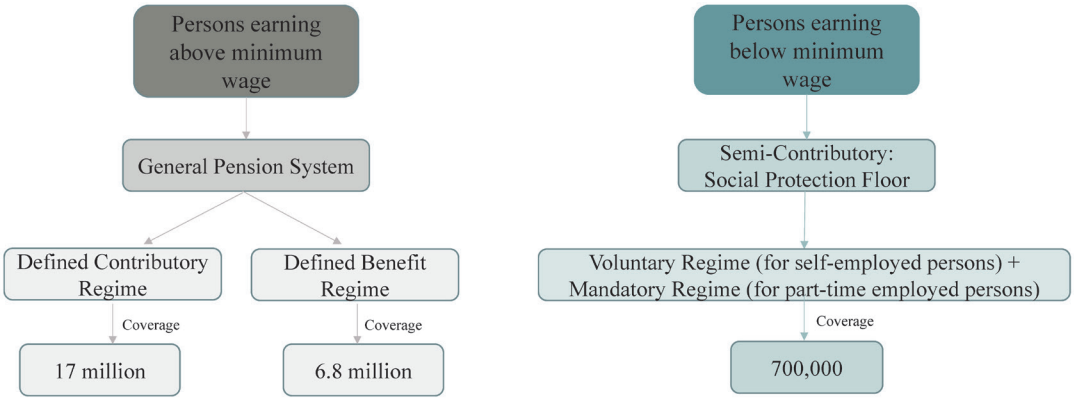
#### Existing schemes

The workers in Colombia earning above the minimum wage (henceforth referred to as formal sector workers) are covered by the General Pension System that comprises a defined benefit scheme administered by Colpensiones (a public provider) and a defined contribution scheme, which is currently offered by four private Administradora de Fondos de Pensiones y de Cesantias (Proteccion, Scandia, Porvenir, Colfondos). In 2018, Colpensiones launched the Social Protection Floor (SPF) to provide comprehensive social insurance coverage to those earning less than the minimum wage (henceforth referred to as informal sector). The SPF is a bundled package including three social insurance benefits/programs namely Inclusive Insurance, subsidized Health Insurance and the BEPS scheme (savings for old age). There exists a fully noncontributory social pension scheme for the elderly and it covered about 1.7 million people as of 2021.

#### Design of pension schemes and coverage

The General Pension System consists of a defined benefit scheme and a defined contribution scheme and is extended to those earning more than the minimum wage, that is, 48 percent of employed population. Contributor coverage as of 2020 was about 17 million in the defined contribution scheme and 6.8 million in the defined benefit scheme. Individuals earning less than the minimum wage can save for retirement under the BEPS program which is part of the SPF. The bundled SPF is targeted at the 52 percent of employed population earning less than minimum wage. Contributor coverage under the BEPS program of SPF is 700,000.

### *Coverage of people in the formal and informal economies*




#### Details of Pension Scheme(s) designed primarily for informal economy

The SPF was introduced in 2018 to provide a bundled package of social insurance programs to workers earning less than the minimum wage or largely informal sector workers. The SPF has three components bundled together: Inclusive insurance, subsidized health insurance, and periodic economic benefits (beneficios ecónomicos periódicos). The contributions into the SPF differ based on employment type: there is a voluntary contribution regime for the self-employed and a mandatory contribution regime for the part time workers.[55]

#### Governance arrangements for social insurance schemes

The Social Security Office (SSO) regulates and administers the social insurance Colombia Pension Administrator, COLPENSIONS is the Regulator and Administrator of all defined benefit and defined contribution schemes in Colombia. It is also the fund manager of the scheme. The Inclusive Insurance which is part of the SPF has been contracted out to an insurance company. The subsidized Health insurance is funded by the Ministry of Health.

#### Main statistics of the social protection floor

| | |
|---|---|
| Number of registered contributors | 1,500,000 |
| Number of active contributors | 700,000 (67% women) |

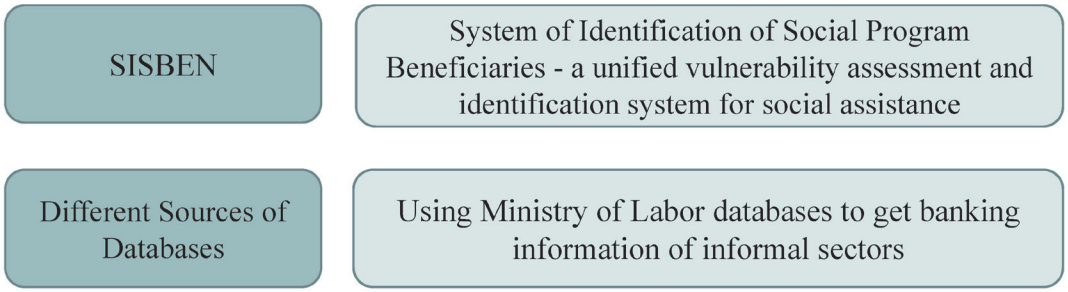
#### Scheme design of Social Protection Floor

- **Retirement age**: The retirement age is 62 years for men and 57 for women
- **Coverage:** Informal sector workers who earn below the minimum wage, and those workers who are employed part-time and earn less than minimum wage
- **Contributions:** The scheme is voluntary for the self-employed and mandatory for part time workers. For those employed part-time and earning less than minimum wage, the employers have to contribute 15 percent of their salary, from which 14 percent goes to BEPS and 1 percent goes to inclusive insurance. For the self-employed, any voluntary contributions they make are split between BEPS and inclusive insurance in a similar way. A matching contribution equivalent to 20 percent of total funds accumulated in BEPS is provided by the government, at the time of retirement.

55. Part time workers are those who earn less than minimum wage but they still have an employer-employee relationship for e.g. a gardener, care taker who works only 2 days a week. Estimates suggest that of the 52 percent of employed population who earn less than MW and hence eligible for SPF, about 80 percent fall under the voluntary regime and rest under the mandatory regime.

- **Channels:** Eligible individuals can go to any kiosk and make a contribution to the SPF, which is linked to the Health Insurance database. Once they make the first contribution, they are automatically registered in the system. Contributions can be made through 36,000 terminals across the country in 1,100 municipalities. Especially for the self-employed workers, once they make contribution, they are automatically registered to subsidized health insurance and periodic economic benefit (BEPS).
- **Incentives:** The SPF being a bundled social insurance program is unique and meets multiple needs of informal sector workers making it attractive. Inclusive insurance which is one of the three benefits provides lump sum benefits for the following contingencies: (i) one-off payment to those who can demonstrate that they were hospitalized for more than 5 days (not able to work); (ii) one-off payment to those with illnesses such as cancer, HIV Aids, other chronic illnesses specified. A subsidized and contributory health insurance is the second of the three benefits. All those registered but do not contribute still have access to the subsidized health insurance. Lastly, under the BEPS scheme there is a 20 percent government contribution on savings at the time of retirement age.
- **Retirement payout:** When retirement age is reached, workers are allowed to combine their pension contributions and SPF savings.

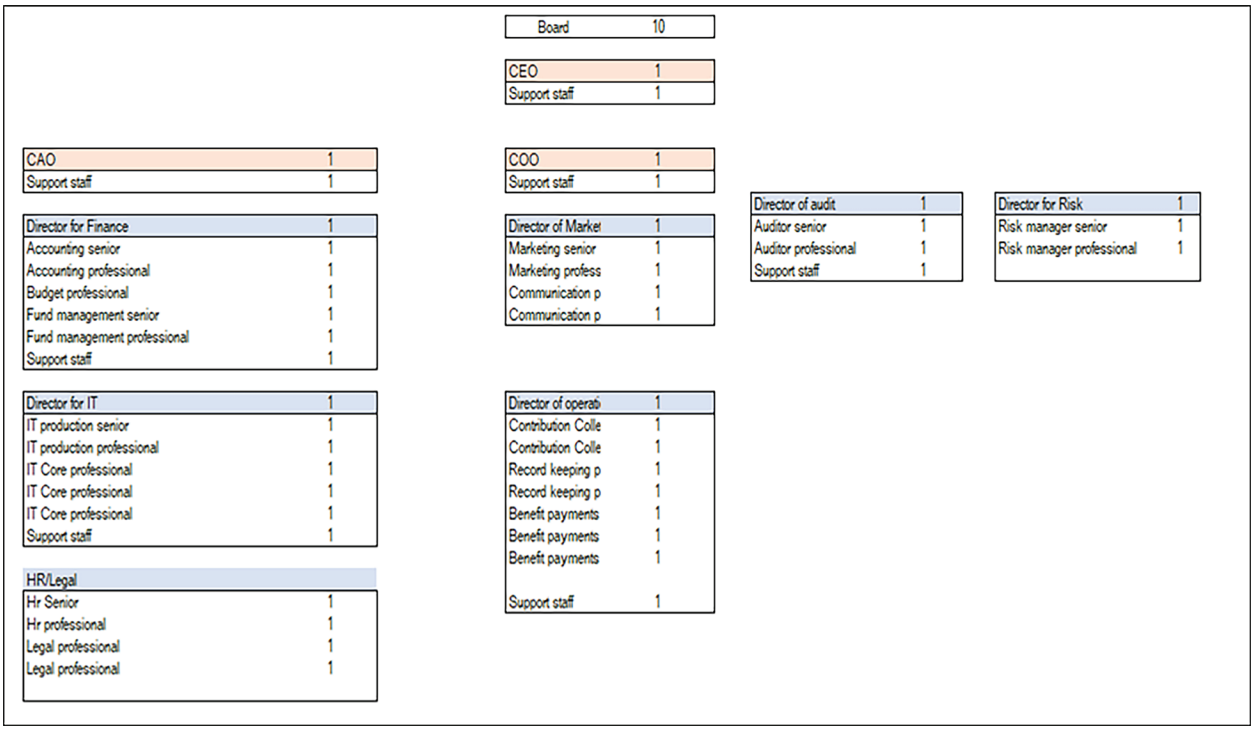
### Foundational blocks on which the Social Protection Floor system builds




### Unique features of the scheme

The scheme uses many behavioral science principles that serve as incentives to increase contributions—notably the power of bundling products for this segment of workers. The lottery feature of the scheme, that mandates achieving target savings requirement, also provides a unique incentive to attract workers. The feature increased the savings of the participants by 18 percent in the year 2019. The bundling of three components of insurance, especially the inclusive insurance, acts as an incentive to contributors, and also allows enrollment in all three components by linking databases. The scheme has also been exploring the use of blockchain technology to drive the back-office work effectively. The decentralized system of allowing contributions from terminals and municipalities across the country also enables making contributions easier for the informal economy. The scheme uses different sources of databases from different ministries to crosscheck the data and ensure registrations through them. They also use health insurance database and SPF data for registration channels and for matching contributions.

# Annex B. Assumed Staff Mapping for the New Scheme in Panacea



# Annex C. Data and Empirical Definitions, Section 2

## Datasets

The analysis presented in section 2 employs data from the following representative surveys.

| | | |
|---|---|---|
| Benin | Enquête Harmonisée sur les Conditions de Vie des Ménages | EHCVM 2018 |
| Togo | Enquête Harmonisée sur les Conditions de Vie des Ménages | EHCVM 2018 |
| Rwanda | Enquête Intégrale sur les Conditions de Vie des Ménages | EICV 2016 |
| Zambia | Living Conditions Monitoring Survey | LCMS 2015 |
| Uganda | Uganda National Panel Survey | UNPS 2015 |
| Kenya | Kenya Integrated Household Budget Survey | KIHBS 2015 |

## Formality

Our concept of formality captures whether a household is covered by social protection programs. Therefore, it considers the type of employment held by both the household head and his or her spouse(s) as their main activity and whether social insurance benefits are attached to their jobs. For all country cases, except for Rwanda, all workers who report being entitled to social security, pension or paid leave benefits through their employer are considered formal.

For Rwanda, the Enquête Intégrale sur les Conditions de Vie des Ménages 2016 (round 5) does not contain information about formal social insurance participation, but the previous wave (Enquête Intégrale sur les Conditions de Vie des Ménages 2013, round 4) does. The 2013 survey is used to identify the categories of workers and occupations where formality is high, namely, (1) public economy employees with either a permanent or temporary contract, (2) workers with a permanent contract among the following groups: managers and professionals, technical professionals, clerical workers, domestic workers, and workers with secondary education. We use these categories as our definition of formality in the 2016 data. Comparing both measures in the 2013 data yields only 5 percent of misclassified workers relative to the direct measurement of participation in formal social insurance.

## Resilience

Resilience to shocks is defined as the capacity of a household to absorb external economic shocks without resorting to negative coping strategies. The datasets we employ all contain information on the economic shocks experienced by respondent households in the past 12 months, except for the Kenya Integrated Household Budget Survey which elicits shocks experienced in the past 5 years. In addition, survey respondents chose from a list of ways the household coped with the shock. For each survey, we identify coping strategies as "negative" if they entailed a reduction of food consumption or expenditures or compromised the household's members earning potential (e.g. fire selling productive assets or livestock, or taking children out of school). Household who experienced a shock and resorted to negative coping strategies are identified as nonresilient. Households who either did not experience a shock or coped using other strategies (mobilizing savings, increasing labor supply, securing help from family or friend networks or from the government) are deemed resilient. Table C.1 shows the classification of coping strategies for Zambia. Similar groupings were applied in other countries.

## TABLE C.1. Typology of coping strategies, Zambia

| Negative short-term coping | Negative long-term coping | Shocks Absorbed | | | | |
|---|---|---|---|---|---|---|
| | | Rising labor supply | Savings/Insurance<br>Borrowing | Help from government /NGO | Help from networks | Others |
| Reducing number of meals or food-in-take | Sold animals | Grew / sold additional / other crops | Spent savings | Sought/got help from government | Received/ asked for gifts/ assistance from relatives/ friends/other persons | Reduced non-food expenses |
| Substituting ordinary meals with mangoes | Sold assets | Worked more hours | Use insurance | Sought/obtained help from ngo/ international organization | Got help from religious organization | Working on ' food-for-work or work-for-assets' program |
| Eating wild foods only | Sold farm land | Started business | Borrowed money from relatives/ friends/other persons | Govt cash transfer | Sought refuge with neighbours | No response |
| Bought cheaper food | Went elsewhere /migrated to work | Petty vending | Borrowed from money lender | | Sought spiritual help | Other |
| Bought less food | Sent children to work/sell | Piece work on farms belonging to other households | Borrowed from bank/ other financial institution/employer | | Remittances from other households/ persons | 'Did nothing' |
| | Pulling children out of school | Other piece work | | | | |
| | Begging from the streets | | | | | |
| | Sent children to relatives or friends | | | | | |
| | Travelled/ migrated to seek health care | | | | | |

### Poverty

Poverty status is defined according to each country's national (or, when available, subnational) poverty line. All households under the poverty line are considered poor even if are covered by formal social protection programs. That is, we classify Poor and Formal households as Poor, rather than Formal

### Wealth profiles

In the absence of direct measurements of household wealth, we construct an asset index using principal component analysis, in the spirit of Filmer and Pritchett (2001). Principal component analysis is a factor analysis method used to reduce the dimensionality of a group of variables. It identifies the linear combination of variables that explains the most variability of these variables. In our analysis, we extract from the first component a score that we use as an index computed for each household.

The principal component analysis index is built from indicators that equal one if the household declares having at least one unit of a given item, zero otherwise. The surveys enumerate four categories of household items: (1) general items such as beds, televisions, or cellular phones, (2) kitchen/household items such as braziers, stoves, irons, (3) tools and machines such as sewing machines, axes or generators, and (4) vehicles such as bicycles or cars.

To produce the type-specific age profiles presented in box 1, the analysis regressed the asset index over a quadratic function of age interacted with household types. A separate principal component analysis index is estimated for each country in the sample and the regression includes country fixed effects. The coefficients multiplying the age*group interactions are then used to predict the age profiles presented in box C.1 below.[56]

56. The reference age category is 20 so that group dummies capture differences in initial wealth at age 20.

**BOX C.1. Age profiles**

| Variables | Principal component analysis index |
|---|---|
| P | 3.879*** |
| | (0.254) |
| NPI-NR | 6.013*** |
| | (0.781) |
| NPI-R | 5.261*** |
| | (0.425) |
| NPF | 10.800*** |
| | (0.991) |
| Age*P | 0.255*** |
| | (0.0221) |
| Age*NPI-NR | 0.309*** |
| | (0.0705) |
| Age*NPI-R | 0.451*** |
| | (0.0350) |
| Age*NPF | 1.079*** |
| | (0.0875) |
| Age2*P | −0.00407*** |
| | (0.000408) |
| Age2*NPI-NR | −0.0049*** |
| | (0.00136) |
| Age2*NPI-R | −0.00684*** |
| | (0.000691) |
| Age2*NPF | −0.0199*** |
| | (0.00172) |
| Country Fixed Effects | Y |
| Observations | 33,382 |
| R-squared | 0.425 |

**TABLE C.2. Household categories in six African countries**

| | | P | NPI-NR | NPI-R | NPF |
|---|---|---|---|---|---|
| Benin | All | 38.5 | 16.9 | 36.8 | 7.8 |
| | Man-headed | 38.6 | 17.0 | 35.9 | 8.4 |
| | Woman-headed | 37.7 | 16.4 | 41.4 | 4.5 |
| Kenya* | All | 34.5 | 32.9 | 19.7 | 12.9 |
| | Man-headed | 32.5 | 30.9 | 20.8 | 15.9 |
| | Woman-headed | 39.5 | 37.7 | 16.9 | 5.9 |
| Rwanda | All | 38.2 | 11.2 | 38.4 | 12.2 |
| | Man-headed | 37.9 | 10.9 | 38.2 | 13.0 |
| | Woman-headed | 39.5 | 12.8 | 39.0 | 8.6 |
| Togo | All | 45.5 | 4.5 | 39.9 | 10.1 |
| | Man-headed | 45.6 | 4.7 | 38.5 | 11.2 |
| | Woman-headed | 45.2 | 3.9 | 44.8 | 6.1 |
| Uganda | All | 20.7 | 10.4 | 63.1 | 5.7 |
| | Man-headed | 21.1 | 10.7 | 61.9 | 6.3 |
| | Woman-headed | 19.8 | 9.7 | 66.2 | 4.3 |
| Zambia | All | 54.4 | 5.7 | 26.1 | 13.8 |
| | Man-headed | 53.8 | 5.5 | 25.4 | 15.3 |
| | Woman-headed | 56.7 | 6.6 | 28.8 | 7.9 |
| All | All | 34.4 | 18.2 | 37.1 | 10.3 |
| | Man-headed | 34.2 | 17.1 | 36.8 | 11.9 |
| | Woman-headed | 35.1 | 21.3 | 37.9 | 5.7 |

*The Kenyan survey considers shocks in the past 5 years, instead of 12 months for the other countries

P: Poor, NPI: nonpoor informal, NR: nonresilient, R: resilient, NPF: nonpoor formal

# Annex D. Additional Tables and Figures

**TABLE D.1. Legal and institutional frameworks for data protection, cybersecurity, and identification in ECOWAS member states**

| | LEGAL INSTRUMENT | | | | INSTITUTIONAL ARRANGEMENT | | | |
|---|---|---|---|---|---|---|---|---|
| ECOWAS Member State | Data Protection | Cyber-security | National Identification | Foundational Identification | Data Protection | Cyber-security | National Identification | Foundational Identification |
| Benin | Law *2009, 2017* | Law *2017* | Law *2017* | Law *2017* | HADP *Autonomous* | ANSSI *Presidency* | ANIP *Presidency* | ANIP *Presidency* |
| Burkina Faso | Law *2004* | Law *2008* | Decree *2001* | × | CIL *Autonomous* | ANSSI *PMO* | ONI *Ministry* | × |
| Cabo Verde | Law *2001* | Law *2005, 2016* | Law *2014* | × | CNDP *Autonomous* | NNC *Autonomous* | NOSi *Autonomous* | × |
| Côte d'Ivoire | Law *2013* | Law *2013* | Law *1998* | *[Bill]* | ARTCI *PMO* | ARTCI *PMO* | ONECI *Ministry* | × |
| Gambia, The | × | × | × | × | × | × | × | × |
| Ghana | Law *2012* | *[Bill]* | Law *2006, 2008* | × | DPC *Autonomous* | NCSC | NIA | × |
| Guinea | Law *2016* | Law *2016* | × | × | × | ANSSI *Ministry* | × | × |
| Guinea-Bissau | × | × | Law *1992, 2010* | × | × | × | × | × |
| Liberia | × | × | Law *2011* | × | × | × | NIR *Autonomous* | × |
| Mali | Law *2013* | Law *2019* | Law *2006* | × | APDP *Autonomous* | × | CTDEC *Ministry* | × |
| Morocco† | Law *2009* | Law *2003* | Law *2007* | *[Bill]* | CNDP *Autonomous* | DGSSI *Ministry* | DGSN *Ministry* | × |
| Niger | Law *2017, 2019* | Law *2019* | Law *2019* | × | HAPDP *Ministry* | × | DGPN & GN *Ministry* | × |
| Nigeria | *[Bill]* | Law *2007, 2015* | Law *2017* | × | × | NITDA *Ministry* | NIMC *Autonomous* | NIMC *Autonomous* |
| Senegal | Law *2008* | Law *2008* | Law *2012, 2017* | × | CDP *Autonomous* | × | DAF *Ministry* | × |
| Sierra Leone | × | × | × | × | × | × | × | × |
| Togo | Law *2019* | Law *2018* | Decree *2003* | *Law 2020* | IPDCP‡ *Autonomous* | ANCy *PMO* | DGDN *Ministry* | ANID *Autonomous* |

*Source:* Based on World Bank. 2020. West Africa Unique Identification for Regional Integration and Inclusion (WURI) Program Phase 2. Project Appraisal Document (PAD)

† While Morocco's ECOWAS membership has been approved in principle, it has not acceded to full membership status.

‡ Recently created, this institution is not yet fully operational.

× Connotes the absence of formal instrument or institution.

### Initiatives on Identification Systems in Africa

The African Union's Digital Transformation Strategy (2020–30) plays an important role in informing the dialogue on the digital common market (African Union 2020). It recognizes digital identification as one of five crosscutting themes of the strategy and holds that a standards-based digital ID promote regional integration in support of the African Continental Free Trade Agreement by enabling a trusted flow of data across borders. It provides 10 policy recommendations to ensure inclusion, security, privacy, and data ownership in digital identity systems and to support the interoperability and neutrality of digital identity systems.

Spearheaded by the United Nations Economic Commission for Africa (UNECA) and in cooperation with the African Union Commission, a Center of Excellence on Digital Identity, Trade and Economy has been established as an on-demand source of technical advice for countries on the digital ID and digital economy with the objective of harmonizing identity-related standards across member states, supporting data protection and privacy regulations, facilitating investments in infrastructure, and developing capacity and skills among key stakeholders (UNECA 2019). The board of the Center of Excellence is cochaired by President Paul Kagame of Rwanda and Prime Minister Abiy Ahmed of Ethiopia.

Article 8 of the East African Community's common market protocol commits the six member states to establish a common system for issuing national identification documents to their nationals that would be the basis for identifying the citizens of the partner states within the community (EAC 2009). One step toward this goal has been the establishment of the National Corridor Integration Projects, through which Kenya, Rwanda, and Uganda began recognizing each other's national ID cards as valid travel documents in 2014.

The Africa Program on Accelerated Improvement of Civil Registration and Vital Statistics aims to reform and improve civil registration and vital statistics systems on the continent (UNECA 2017). It is managed by a regional civil registration and vital statistics core group, led by UNECA, in partnership with the African Union Commission, the African Development Bank, the Secretariat of the African Symposium on Statistical Development, the United Nations Children's Fund, the World Health Organization, the United Nations High Commissioner for Refugees, the United Nations Population Fund, the INDEPTH Network, Plan International, and PARIS21. The secretariat of the program is based at the African Center for Statistics at UNECA.

Smart Africa aims to accelerate socioeconomic development through information and communication technologies. It aims to implement the Smart Africa Manifesto, which was originally adopted by seven African heads of state in 2013 and subsequently endorsed by all heads of state and government of the African Union in 2014. Partners include the International Telecommunication Union, the World Bank, the African Development Bank, UNECA, the GSM Association, the Internet Corporation for Assigned Names and Numbers, and the private economy. One of its initiatives has been the development of the Smart Africa Digital Identity Blueprint, which proposes a governance structure and technical framework based on aligned decision-making processes and the mutual recognition of respective ID systems according to standards and rules. The blueprint was supported by a working group that included Rwanda, Tunisia, the World Bank, the Omidyar Network, UNECA, the World Economic Forum, and several private companies.

In 2014, the Economic Community of West African States (ECOWAS) formally adopted the decision to deploy the ECOWAS national biometric identity card. The card provides a harmonized design for biometric national ID cards across the region to promote free movement and facilitate trade within the region.

In recent years, the World Bank has provided increasing support to identification systems in Africa. In addition to the Identification for Development (ID4D) initiative, which provides technical assistance and global knowledge to help countries reform and strengthen identification systems, the World Bank has recently begun providing financial assistance to the modernization of identification systems across Africa.[57] In Morocco, the World Bank is providing support to the government in the design and implementation of the National Population Registry. In Nigeria, the

57. See ID4D (Identification For Development) (dashboard), World Bank, Washington, DC, https://id4d.worldbank.org/.

World Bank is cofinancing, together with the European Investment Bank and Agence Française de Développement the provision of unique ID numbers to the population issued through a robust and inclusive ID system. Furthermore, as part of the West Africa Unique Identification for Regional Integration and Inclusion (WURI) program, the largest World Bank financing for identification to date, six West African countries (Benin, Burkina Faso, Côte d'Ivoire, Guinea, Niger, and Togo) are aiming to put in place regionally interoperable foundational ID systems.

**A trend that can be observed is the implementation of foundational ID systems, which are broader in scope than traditional national ID systems.**[58] Among ECOWAS member states, Benin and Togo are the most advanced in this endeavor. Benin created a legal basis for foundational identification in 2017 and has since carried out the Recensement Administratif à Vocation d'Identification de la Population and assigned a unique identifier to more than 10 million individuals (Benin 2019). Togo has recently passed a law with the same objective. Similarly, Burkina Faso is aiming at the creation of a unique identifier for everyone physically in the country.

58. Definitions of foundational ID systems vary. Whereas some definitions include national ID systems as a form of foundational identification (for example, see World Bank. 2018b), others limit foundational identification to answering the question of whether a person is who he or she claims to be regardless of nationality, citizenship, or any other prerequisite (for instance, see World Bank 2020e). The present analysis relies on this latter view for a more nuanced discussion.

# Annex E. Matrices of Behavioral Bottlenecks and Solutions

**TABLE E.1. Potential bottlenecks and solutions in the decision stage**

| Behavioral challenge | Potential barriers faced by beneficiaries | Potential solutions |
|---|---|---|
| **Capability** | *Limited attention:* Without clear cues and messages, saving for future or an unexpected event is not at the top of mind among individuals. | *Information dissemination*<br>• Distribute clear, concise, and actionable communications<br>• Deliver communication via channels widely used by the target population (SMS, community gathering)<br>• Harness digital technology to make communication quick and cost effective |
| | *Complexity of information and offerings: Too many products or poorly framed information can be overwhelming and reduce the likelihood of action or result in suboptimal choices.* | *Information dissemination*<br>• Design the scheme features with simplicity in mind<br>• Simplify information on the scheme by clearly and concretely outlining costs and benefits |
| **Opportunity** | *Lack of salient savings behavior:* Given a lack of social norms around saving via public programs, individuals in the informal economy may not consider the programs as an option to help them build resilience. | *Information dissemination*<br>• Encourage referrals and make the referral process easy<br>• Implement a buddy-system approach to induce social support for saving<br>• Use communications to highlight upward trends in desirable norms rather than showing how many people currently engage in the behavior |
| **Motivation** | *Uncertainty or overoptimism:* The future brings uncertainty, which can feel stressful. To cope, we may become overconfident about our future finances. | *Program and tool design*<br>• Reduce stress and improve confidence by harnessing strategies such as gamification to ease people into saving |
| | *Present bias:* Preferences for immediate rewards (even if smaller) over future benefits can discourage potential users from forming an initial intention to build resilience. | *Program and tool design*<br>• Make saving for the future rewarding with immediate nonmonetary or small monetary rewards such as lotteries or improved credit scores<br>• Information dissemination<br>• Foster a connection to the future self by prompting potential users to envision their future |

**TABLE E.2. Potential bottlenecks and solutions in the enrollment stage**

| Behavioral challenge | Potential barriers faced by beneficiary | Potential solutions |
|---|---|---|
| **Capability** | *Delayed action:* Complex processes with multiple decisions or steps increase the probability of procrastination | *Program and tool design*<br>• Some form of automatic enrollment if feasible<br>• If auto-enrollment is not possible, prompt individuals to make an explicit choice to sign up<br>• Facilitate planning by encouraging individuals to set aside time to enroll |
| | *Information overload:* A large quantity of information or choices can quickly become overwhelming and discourages action | *Information dissemination*<br>• Clarify eligibility requirements<br>• Clearly frame steps<br>• Apply auto-enrollment or some link to other government programs |
| **Opportunity** | *Hassle factors:* Too many steps in enrollment; required documents that are not easily available to those in the informal economy | *Program and tool design*<br>• Make the enrollment process as simple as possible<br>• Bundle enrollment with existing universal processes<br>• Use digital platforms commonly used by independent workers |
| **Motivation** | *Lack of trust:* Mistrust stemming from negative personal experience, historical exclusion, or limited interaction | *Information dissemination*<br>• Identify role models to engage publicly and educate about savings programs and tools<br>• Collaborate with those who are trusted by the target group (for example, community heads, religious leaders, heads of informal economy associations) |
| | *Stereotype threat:* Stereotypes about the informal economy can discourage participation in financial programs and tools | *Information dissemination*<br>• Ensure all communications utilize language, visuals, and framing that resonate with the target population |

**TABLE E.3. Potential bottlenecks and solutions in the first contribution stage**

| Behavioral challenge | Potential barriers faced by beneficiary | Potential solutions |
|---|---|---|
| **Capability** | *Sticking with the status quo:* Overload of information and options makes users more likely to stick with the status quo | *Program and tool design*<br>• If feasible, set default plans and contribution rates that are optimal for the user<br>• Suggest higher savings rates as an anchor<br>• Simplify the number of investment and plan options if applicable |
| **Opportunity** | *Conforming to social norms:* The choice of how much and how often to save is often influenced by beliefs about what peers are doing | *Information dissemination*<br>• Use communications to describe positive savings behaviors of peers<br>• Compare savings behaviors of an individual with those of a relatable, high-performing peer group<br>• Use caution in selecting the comparison group to ensure the target behavior feels achievable |
| | *Complexities and hassles in the contribution process:* Numerous physical or digital steps to complete a contribution discourage action | *Program and tool design*<br>• Minimize the number of steps and channels a user must engage with to complete a deposit<br>*Information dissemination*<br>• Communications that simplify the process by providing clear action steps facilitate follow-through |
| **Motivation** | *Loss aversion:* Deciding to save requires forgoing current consumption | *Program and tool design*<br>• Allow flexible contributions that can increase and decrease along with cash flows to lessen feelings of losing liquidity<br>• Enable plans and contribution increases to take effect over time<br>• Create an automatic contribution system so participant does not feel the loss each time |

**TABLE E.4. Potential bottlenecks and solutions in the repeat contribution stage**

| Behavioral challenge | Potential barriers faced by beneficiaries | Potential solutions |
|---|---|---|
| **Capability** | *Memory failure:* Despite intentions to save, users may forget to follow through with consistent contributions | *Program and tool design*<br>• Send timely reminders to contribute when participant is most able to save (for example, after a harvest or when they are cash rich)<br>• Provide tangible methods that enable users to keep track of and remember to make contributions<br>• Remove the need to remember by making contributions automatic |
| **Motivation** | *Time inconsistent preferences:* Users may agree now to save in the future, but, when the moment to make a contribution arrives, their preferences may have changed | *Program and tool design*<br>• Partition accounts to align with personal savings goals, such as education, health care, purchasing a home, and so on.<br>• Offer optional commitment devices whereby participants can set their own goals and the consequences for not reaching the goals |

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