Extending pension and savings scheme coverage to the informal sector: Kenya's Mbao Pension Plan

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Abstract The Mbao Pension Plan is a voluntary individual account savings plan to which all workers in Kenya may contribute without regard to income or age. It is designed to provide a programme that is suitable for the unique nature of the informal sector and to encourage a savings culture for those workers. The key innovation is that low-income workers can easily make small contributions at relatively low cost, considering the small contributions and small account balances. Participants can conveniently make contributions anytime and anywhere using their cell phones. This savings innovation is made possible by technological innovations that have reduced the costs of cell phones and airtime, and by the entrepreneurial innovation of mobile money. The plan is provided through private-sector businesses.

Keywords pension scheme, social protection, gaps in coverage, saving, informal sector, telecommunications, Kenya, Africa

Introduction

In Kenya, about 80 per cent of the labour force works in the informal economy (Raichura, 2008) and less than 15 per cent of the population is covered by social

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security old-age benefit programmes (Okulo, 2011).[1] At the end of June 2011, the Retirement Benefits Authority in Kenya along with the National Federation of Jua Kali Associations[2] launched an innovative programme using private-sector providers of cell phone technology for extending savings plan coverage to workers in the informal sector: the Mbao Pension Plan. This is not a social assistance cash transfer programme, but a voluntary contributory savings plan wherein individual workers choose the amount of their contributions. Albeit still in its infancy, the programme may yet offer a promising innovation for extending social protection coverage to the informal sector in Kenya and in other countries. This article considers in particular issues relating to its sustainable development in Kenya and its possible future extension to other countries in the East African Community.

Key objectives of contributory social security programmes, such as old-age pension schemes, are to provide income smoothing across the life course and insurance against the risk of longevity for workers (Barr and Diamond, 2009). Most old-age social security programmes are financed by mandatory monthly contributions paid by insured workers, with matching contributions paid by their employer. This model presupposes not only a formal employment contract but that the insured worker and employer adhere fully to the rules as regards the collection and payment of contributions to the social security system.

In countries with high levels of informal employment, social security coverage rates often remain legally restricted to those, frequently a small minority, working in the formal labour market. This coverage problem occurs in most middle- and lower-income countries. Worldwide, only 26 per cent of the working population is effectively covered[3] by social security old-age benefits programmes (ILO, 2010). In Africa as of 2010, about a third of workers were legally covered by social security old-age benefit programmes, but effective coverage was substantially lower. In sub-Saharan Africa, effective coverage by contributory programmes is about 5 per cent, while in North Africa it is about 20 per cent (ILO, 2010).

Extending social security programmes designed originally for the formal sector to the informal sector is challenging. Leaving important legal and practical

1. In 2011, GDP per capita in Kenya was USD 1,700. In 2007, an estimated 75 per cent of the population worked in agriculture, but agriculture only accounts for 24 per cent of GDP (CIA, 2012). An estimated 22 per cent of the population lives in urban areas. With a population of 43 million, life expectancy at birth in Kenya is 63 years (CIA, 2012). The percentage of the population aged 60 or older was 5 per cent in 2010, and is projected to stay at that rate through 2020 and rise slightly to 6 per cent in 2030 (ESA, 2011). The birth rate of 32 births (per 1,000 population) ranks 37th in the world. An estimated 6.3 per cent of the adult population has HIV/AIDS, which is the eleventh highest in the world. The literacy rate for the adult population is 87 per cent (CIA, 2012).

2. The informal sector is called Jua Kali in Swahili. The Jua Kali sector is not just agricultural workers, but includes artisans in carpentry and woodworking, soapstone, ceramics, textiles, leather, beekeeping, as well as small business in electronics and mechanical engineering.

3. Effective coverage refers to the number of people who are actively contributing to a social security programme.

administrative issues aside, extending coverage to the informal sector is difficult because generally these workers have low and variable cash incomes. For these reasons, they cannot make regular contributions and contribution rates that may be reasonable for the formal sector are often too high for workers in the informal sector. Also, low-income workers might not see the benefits provided by those programmes as being relevant to their needs and for addressing the multiple risks with which they are confronted across the life cycle.[4]

Alongside social security systems, financial services products are important tools to better manage risk across the life cycle. Low-income people, including many in informal employment, despite having similar needs as higher-income and formally-employed people for loans, savings instruments, and pensions, generally are not well served by banks and other financial institutions. In this sense, when it comes to accessing formal "social risk management" (Holzmann and Jørgensen, 2000) mechanisms, the poor and those working in the informal economy are very often doubly excluded. In turn, a further challenge is that traditional "informal" support systems in many countries are weakening due to changes in demographic patterns, cultural behaviour and the socio-economic context, thus leaving vulnerable populations further exposed to the impacts of downside risks.

As one response to this complex set of challenges, the development of microfinance initiatives in many countries seeks to help workers and families better manage risk. Early microfinance comprised almost exclusively microcredit for microenterprises (Rutherford, 2012), providing small loans, sometimes as small as USD 100, to low-income persons to help them start or improve a business (Women's World Banking, undated). Microfinance is now a well-established practice to help low-income persons who do not have access to banks or financial markets. Some of the loans have led to improved income and savings for poor persons, and thus to improved income security in old age.

However, micro-savings accounts and micro-pensions, which would be the savings and pensions equivalents of micro-loans, are not well established. Micro-savings accounts and micro-pensions would make it possible for low-income persons to easily, safely, and at low-cost make small contributions to savings accounts or to individual account pensions.

A micro-pension is a voluntary, defined contribution, individual account plan. Shankar and Asher (2011) explore issues relating to micro-pensions in India, one of the few countries where they have been developed. The first micro-pension in India was developed in 2006 by a mutual fund company in connection with a

4. Some countries have separate programmes with lower contribution rates for the informal sector. Efforts to extend coverage of contributory programmes to the informal sector have relied primarily on a tax being levied based on some assessment of their earnings. See Gillion et al. (2000).

bank. All participants needed to have a bank account with that bank. Shankar and Asher conclude that micro-pensions have the potential to be one of the most useful components in India's multi-tiered pension system. Micro-pensions and micro-savings plans typically are provided by microfinance institutions and are normally long-term savings products or hybrids between pension schemes and savings products. Shankar and Asher argue that micro-pensions need to offer participants the ability to make small contributions at convenient locations. For this reason, it is difficult to construct a nationwide network for the collection of contributions. They suggest that microfinance institutions could be a promising approach, with representatives meeting with clients in their home or neighbourhood. In India, microfinance clients are either served by self-help groups with a bank linkage or by microfinance institutions, which provide micro-loans.

In addition to tax-financed programmes that are important components of "social protection floors", micro-savings accounts and micro-pensions provide a way of compensating for gaps in contributory social security coverage and reducing the vulnerability of low-income persons and informal-economy workers and their families, to help them better manage risk and combat economic insecurity. In this light, the implementation and design of Kenya's Mbao Pension Plan is worthy of attention and analysis.

The rest of this article is structured as follows. The article starts by discussing an important aspect of social security infrastructure – the payment mechanisms for social security contributions and benefits, briefly comparing cash, branch banking, and mobile money, particularly in the context of developing countries. The discussion then focuses on Kenya, first discussing the penetration of mobile phones and mobile money in Kenya as a platform for making low-cost transactions for a pension or savings plan. The article next outlines the Mbao Pension Plan and analyses its potential to make a significant contribution to enhancing social protection, considers possible enhancements to the plan, and considers the extension of this plan to other countries in the East African Community. Final conclusions are then offered.

Payment mechanisms for pension programmes

Social security programmes, pension schemes, and savings schemes rely on infrastructure for the payment of contributions by workers and employers and for the payment of benefits to beneficiaries. In many countries, employers make contribution payments, including the employees' share, by check or by electronic transfers. Social security programmes often pay benefits directly into the bank account of the beneficiaries or pay the beneficiaries by check. Thus, for payments of contributions and of benefits, employers and social security programmes generally do so through the banking system, rather than making them in person and in cash, which is considerably more expensive and risky. For example, China's new pension plan for rural workers makes benefit payments into the bank account of the beneficiary (Chen and Turner, 2012).

More than half of the world's adult population, however, lacks access to banking services (Koech, 2012). In the developing world, 64 per cent of adults do not have bank accounts, compared to 17 per cent in developed countries. In developing countries, banks tend to be concentrated in high-income urban areas, while in many countries the majority of the population lives in rural areas. The majority of adults in developing countries thus only make cash transactions. For this reason, social security programmes need to develop low-cost alternative payment mechanisms, other than through traditional "brick and mortar" banking systems.

Compared to the low coverage for banking, 75 per cent of the world's adult population has access to cell phones. Worldwide cell phone subscriptions have increased from 719 million in 2000 to 6 billion in 2011. Much of the growth has occurred in the developing world, due to low-cost phones and low-cost prepaid airtime (Koech, 2012). In Africa, cell phone connectivity has gone from virtually zero in the 1990s to now more than 60 per cent of Africans having mobile phone coverage. In Africa, mobile phones are more than ten times as numerous as land line phones (Aker and Mbiti, 2010; Mbiti and Weil, 2011).

In developing countries, cell phone subscriptions often outnumber bank accounts. This is the case, in South Africa, Algeria, and Ghana, for example, where cell phone subscriptions are more than twice as numerous as bank accounts (Koech, 2012). The set up costs for establishing cell phone signals in a rural or sparsely populated region are considerably smaller than the costs of establishing a physical infrastructure of banks (Vincent and Cull, 2011).

Cell phone usage has led to the development of mobile banking. Mobile banking is offered through different types of business arrangements. Some companies offering it are banks, some are mobile phone companies, and some are partnerships between banks and mobile phone companies. Regulatory requirements in a country can determine the types of companies involved. As of 2012, 129 mobile banking programmes worldwide were operating, with many more planned for future operation.

With mobile banking, individuals can use their cell phones to make deposits and withdrawals, transfer funds and pay bills. In the developing world, mobile money provides the promise of extending banking services to many people who did not previously have easy access to those services. Mobile money is an inexpensive, easy, and safe substitute for cash transactions, transactions by check or credit card (which generally are not available options), or transactions through Western Union or post offices. It has an advantage over programmes that deal in cash in that programmes based on the physical delivery of cash are more vulnerable to fraud, theft of the cash in transit, and corruption. The cost of a transaction in cash is typically considerably higher than the cost of a cell phone transaction (Vincent and Cull, 2011).

Mobile phones in Kenya

The Mbao Pension Plan, the focus of this article, makes use of cell phone technology for payment of contributions and benefits. This section provides background concerning the mobile phone system that forms the basis of the Mbao Pension Plan.

Mobile phones are relatively inexpensive in Kenya and usage is also relatively inexpensive, with workers purchasing minutes of air time for as little as 20 Kenya Shillings (KES) (the equivalent of USD 0.25). Owing to the low cost, many poor people in Kenya own and use cell phones. The main mobile phone provider in Kenya is Safaricom with 15.2 million accounts,[5] up from 9.5 million in 2010 (The Economist, 2010). A second company, Airtel, also provides mobile phone services.

The airtime for mobile phone service is mostly prepaid in Kenya, as in other parts of Africa and the developing world (Koech, 2012). For example, in Tunisia, when mobile phones were first introduced, companies required subscribers to have a bank account as a form of assurance of payment for phone services. The invention of prepaid phone cards allowed mobile phone companies to provide services to people without bank accounts or regular income (Delarue, 2013).

Mobile money: M-Pesa

Mobile phone companies in Kenya have established mobile money systems. These provide an inexpensive alternative to banks, and provide the transactions infrastructure for the Mbao Pension Plan – only 24 per cent of Kenyans have bank accounts, but 75 per cent of the adult population has mobile phones (Koech, 2012).

With mobile money, a mobile phone user gives cash to an agent of the mobile phone company. The agent typically is a retail store. The use of existing retail stores reduces the cost. The agent serves as a branch bank office, collecting and disbursing cash. The member can use his or her cell phone to transfer money to another account to pay bills. The system functions much like a bank, though officially it is not considered to be a bank as it is mainly regulated by the Communications

5. With a population of 43 million in 2012 and a population over age 15 of 25 million (CIA, 2012), 60 per cent of those over age 15 have cell phones through Safaricom, a Vodafone affiliate.

Commission of Kenya, the regulator for mobile telephone companies. However, mobile money transactions are regulated by the Central Bank of Kenya.

The Safaricom mobile money system is called M-Pesa.[6] Launched in March 2007, M-Pesa was originally designed in trials so that microfinance borrowers could more conveniently receive and repay loans. The cost savings compared to dealing in cash permitted microfinance lenders to offer loans at lower rates. However, it was quickly extended to serve as a general money transfer service. Within eight months of its launch, M-Pesa had registered 1.1 million Kenyans (Safaricom, 2007) and is considered by some to be the most successful mobile money service in the developing world (Jack and Suri, 2011).

Mobile money was first adopted primarily by higher income persons. The early advertising focused on the message, "send money home", offering a means to send remittances to parents (Mas and Ng'weno, 2010). Its adoption has since become widespread among lower-income persons as well (Jack and Suri, 2011). By 2008, a survey found that 43 per cent of households used M-Pesa, and by 2009 it was nearly 70 per cent. That survey also found that early adopters tended to be male, but that a year later adopters were more evenly split between the genders.

In developing countries such as Kenya, the transfer of money from one location to another can be done in various ways. Before M-Pesa, some bus companies provided money transfer services, as well as the post office, banks, and Western Union. Informal money transfers were also done through friends travelling to other parts of the country. Within a two-year span, however, M-Pesa became the dominant form of formal money transfer in Kenya (Mbiti and Weil, 2011). One study found that the success of M-Pesa has been due to its speed, reliability, safety, large network of outlets, and its low price relative to its competitors (Morawczynski, 2009).

A key feature of mobile money for pensions, savings schemes and other transactions is its convenience. Safaricom had over 27,900 agents across Kenya in 2010, compared to 840 bank branch offices (The Economist, 2010). Many small grocery stores, gas stations, cooperatives and courier services have become agents who work exclusively with Safaricom. By the end of 2012, it had 70,000 agents and this number is likely to expand further. Saraficom through M-Pesa currently transfers money each year equivalent to 11 per cent of the GDP of Kenya (The

6. M stands for mobile and Pesa means money in Swahili. Similar mobile money successes in other countries include GCash and Smart Money in the Philippines, Wizzit and M-Pesa in South Africa, and M-Paisa (a version of M-Pesa) in Afghanistan and India (Koech, 2012). Vodacom also offers M-Pesa in Tanzania. Nearly all mobile phone companies in Africa have replicated M-Pesa and are now offering mobile money services, making Africa a leader in the developing world in electronic money transfers (Mwiti, 2012).

Economist, 2010). One of the uses of M-Pesa is to purchase Safaricom airtime. Users of M-Pesa are assigned an electronic money account that is connected with their phone number. It is accessed through a subscriber identity module (SIM), which is a memory chip in the phone. New users of M-Pesa need to get a new SIM card, which Safaricom provides for free.

Users of M-Pesa exchange cash for "e-float," which is the credit to their account. It can be used to transfer money to other people, make payments, or later be exchanged back for cash. The "e-float" does not pay interest. All e-float is backed 100 per cent by deposits at three commercial banks in Kenya.[7]

Each mobile money platform has a PAYBILL number into which contributions are made by members. The user goes to an M-Pesa agent and gives that person the cash that he or she wants to have added to their account and shows an identification card. The documentation provided by the national identification card satisfies the Know Your Client requirements. The agent records the person's telephone number and cash deposit in a book. Then the agent enters the customer's phone number and contribution amount into his or her cell phone. The customer waits to receive a text message confirming that the money has been transferred to their account. The wait is about a minute, but can be longer during periods of peak usage. The instant recording of deposits and confirmation of receipt provide a form of protection for users to assure that their money has been safely deposited. Deposits are made free of charge, but a fee is charged for withdrawals or transfers.

The potential for using M-Pesa to facilitate savings was recognized early in its development. At the end of 2008, before the start of the Mbao Pension Plan, 75 per cent of M-Pesa users reported saving in their M-Pesa account, with 21 per cent saying it was their most important form of savings, even though it pays no interest (Jack and Suri, 2011). To provide a means of savings that pays interest, Safaricom and Equity bank have joined together to permit use of M-Pesa for savings through an interest bearing savings account. The new product is called M-Kesho. M-Kesho is a micro-savings account. There are no fees for opening an M-Kesho account, no periodic fees, and no minimum balance. The interest rate varies from 0.5 per cent to 3.0 per cent per year, reaching 3.0 per cent when account balances reach KES 10,000 (approx. USD 125) (Mbiti and Weil, 2011). One study has found that use of M-Pesa for savings reduced the use of "secret hiding places" for savings (Mbiti and Weil, 2011). It should be noted, however, that the interest rate on these accounts is far lower than the rate of inflation.[8]

7. Safaricom donates the interest earned on those accounts to charity, thus avoiding being regulated as a bank.

8. The inflation rate in 2011 was 14 per cent.

The Mbao Pension Plan

A micro-pension plan or savings scheme designed for low-income participants

The combination of widespread cellular phone use and the ability to transfer money instantaneously, safely, and inexpensively are having widespread effects on the organization of economic activity and on risk management and mitigation (Mbiti and Weil, 2011). In particular, they may provide the basis for a new approach to extending pension systems to persons in rural areas and the informal sector.

Going a step beyond M-Kesho, at the end of June 2011, the Retirement Benefits Authority in Kenya, which is the retirement benefits sector regulator in Kenya, with the National Federation of Jua Kali Associations and the participation of private-sector providers launched an innovative programme for extending pension and savings scheme coverage to the informal sector: the Mbao Pension Plan. The Mbao Pension Plan is a voluntary individual account savings plan provided through private-sector businesses. The government bears a small cost through a loss of tax revenue on the savings and through the cost of the regulator, the Retirement Benefits Authority.

Mbao is Swahili slang for 20 shillings, and the name of the plan refers to the minimum contribution of 20 shillings (approx. USD 0.25).[9] It is a micro-pension or savings scheme in that it provides a plan where low-income workers can make small contributions at flexible intervals of their choosing.[10] Since it is designed and marketed as a pension plan, the goal is to encourage retirement savings, but it can also be used for savings for other purposes. Experience in India has suggested that small, convenient, and frequent pay-ins make it easier to save (Rutherford, 2012). It is designed primarily for low-income workers who are not participating in social security, and thus is a substitute for social security, but can also be used as a complement to social security by workers who are covered by such programmes. Table 1 presents a number of facts about the Mbao Pension Plan.

Workers must pay KES 100 to register with the Mbao Pension Plan, and must fill out a registration form and present ID documentation. The forms are sent to the fund administrator's office. The user needs a national photo identification card to establish an account. However, this registration procedure will change in the

9. Mbao is pronounced similarly to the English word "pound" but dropping the last two syllables. It derives from the Kenyan pound having been the equivalent of KES 20.

10. While it is popularly known as the Mbao Pension Plan, its official name is the Blue MSMEs Jua Kali Individual Retirement Benefit Scheme. Blue represents the colour of the KES 20 note, while MSMEs (medium and small micro enterprises) represent the informal sector.

Table 1. *Facts about the Mbao Pension Plan, 2012 (end of year)*

Item	Fact
Minimum allowable contribution	KES 20 a day
Target minimum weekly contribution	KES 500 a month
Maximum tax deductible contribution	KES 20,000 a month
Maximum allowable contribution	KES 140,000 a day
Average contribution per contribution transaction	KES 180
Number of members	38,000
Amount saved	KES 37 million
Registration fee for participation (one-time fee)	KES 100
Fees on contributions	KES 3 for a contribution up to KES 49
Fee on minimum contribution of 20 KES	KES 3, or 15%
Fees on assets	Waived for first three years of the plan; thereafter, 0.95% per year

Note: KES is Kenyan shillings. KES 100 = approx. USD 1.25 in 2012.
Sources: Developed by authors.

near future as the administrator is updating the platform to cater for full electronic registration using the phone.

Though the Mbao Pension Plan is barely over a year old, as of November 2012 it had 38,000 members who have saved KES 37 million (USD 463,000). By the end of December 2012, that amount had increased to KES 41 million. While voluntary savings programmes often have limited impact, and many people may not participate, the early experience with the Mbao Pension Plan suggests that it is an appealing programme to some people.

Contributions

The minimum contribution to the Mbao Pension Plan of KES 20 a day largely appeals to the lowest income earners, such as hawkers, who foresee for themselves a decent retirement. Scheme members commit to contributing at least KES 100 a week and KES 500 a month, but contributions are not mandatory, and no penalty is charged for not contributing. Contributions of KES 500 a month (KES 6,000 a year) would be roughly equal to USD 75 a year. The Mbao Pension Plan does not have a maximum contribution, but the mobile phone companies will not handle contributions of more than KES 140,000 a day, which is the daily maximum remittance. For all pensions in Kenya, the maximum tax deductible contribution is KES 20,000 a month. Contributions are made only by members, with no matching contributions by employers or the government. Though the system is designed with its low minimum contribution to be a system that informal-sector workers can use, all workers may participate.

With Safaricom, the fee for a contribution of KES 20 is KES 3, which is the set fee for transfers between KES 10 to KES 49. This ensures that all low-income members are subsidized by those making larger contributions, who pay higher fees. In addition, Safaricom charges the Mbao Pension Plan a fee of KES 2. The fee rises in steps with higher contributions, but as a per cent of contributions it falls. Safaricom's market competitor, Airtel, charges workers a 10 per cent fee for small contributions. If contributions are withdrawn in the first year, a penalty is levied, but after that no penalty or fee is charged for withdrawals.

The key innovation of the Mbao Pension Plan is that low-income workers can easily make small contributions at relatively low cost, considering the plan is dealing with small contributions. Workers can conveniently contribute anytime and anywhere using their cell phones. This innovation is made possible by the technological innovations that have reduced the costs of cell phones and have reduced the costs of airtime, and by the entrepreneurial innovations of pre-paid phone cards and mobile money.

The current average contribution is KES 180 (Kwena, 2012). A survey found that 42 per cent of the informal-sector workers participating in the Mbao Pension Plan earned less than KES 6,000 (approx. USD 75) a month (Anami, 2012). Thus, the system is serving the needs of substantial numbers of low-income persons. The fact that members can make such small contributions towards pension saving has helped to demystify the notion that saving for pensions is only for people with disposable income. It further confirms longstanding arguments made in the financial services literature concerning the needs of low-income persons for financial services.

Investment and savings aspects for participants

To prepare for the launch and to encourage participation in the Mbao Pension Plan and other pension schemes in Kenya, in June 2009, the Government amended the Retirement Benefits Act to allow retirement benefit scheme members to assign up to 60 per cent of their accumulated pension or savings accounts to access mortgage facilities. This enables the mortgage financier to lend up to 115 per cent of the property value, with the additional lending going to finance the initial fees which consist of the government tax in the form of stamp duty, valuation fees, and legal fees. Mortgage lending in Kenya without this backing generally requires a down payment of 10 per cent of the purchase price of the house. When members use their Mbao Pension Plan for this purpose, they cannot make a withdrawal from the plan until the mortgage is paid off.

The pension-backed mortgage serves as a key incentive to saving through a pension or savings scheme rather than through other saving vehicles like bank accounts, cooperative societies, insurance products and investment groups. Members therefore understand the importance of accumulating substantive reserves in their pension or savings scheme in order to qualify for a mortgage. This programme provides an immediate, tangible benefit to workers for participating in a pension or savings scheme. The house is the first form of guarantee of the mortgage. If an individual loses his or her job and defaults on his or her mortgage, but the value of their house exceeds the amount remaining on the mortgage, the house is sold but the individual does not lose any of his or her pension or savings account. The worker would lose part of his or her pension or savings account only if the price of the house had fallen below the value of the mortgage.

Contributions to the Mbao Pension Plan are taxed under the same tax regime as contributions to other pension schemes in Kenya. That is the EET tax regime, where contributions are tax deductible, investment earnings are tax exempt, and benefits are taxable. However, lump-sum payments in Kenya of up to KES 600,000 per year are tax exempt, so most payments from the Mbao Pension Plan will be tax exempt. Most workers in the informal sector pay no income taxes, so they do not benefit from the preferential tax treatment.

Policy-makers in Kenya are considering whether low-income participants should receive a subsidy to encourage their participation and to increase the amount in small accounts. A complication in doing this may be that participation in the Mbao Pension Plan is not limited to low-income participants. A subsidy for participants would need to be structured so that it only went to low-income participants not benefiting from a tax subsidy because they did not pay taxes.

The Mbao Pension Plan as of the end of 2012 was invested entirely in interest bearing assets, with more than a third (37.8 per cent) in Kenyan government bonds, and another third (37.0 per cent) in fixed-term bank deposits. The remainder is in corporate bonds (15.6 per cent) and cash (9.6 per cent). As of this writing, the rate of return for 2012 had not been declared.

By way of international comparison, like in Kenya, rural workers and farmers in China do not pay income tax, so in both countries workers do not have a tax incentive for participating in the pension system. The lack of a tax incentive may explain in part the matching contribution in China. In China, subsidies are used to encourage participation in the National Rural Pension System, where participation also is voluntary. The subsidy, which is provided by the government, varies across regions, but the minimum subsidy is a flat 30 Chinese Yuan (CNY) a year, where the minimum contribution is CNY 100 a year (approx. USD 16), with nearly half of participants making the minimum contribution (Dorfman et al., 2013).

Benefit payments

Individual savings in the Mbao Pension Plan can only be drawn down as a lump-sum payment, and in this respect the Mbao Pension Plan is similar to a provident fund. A lump-sum withdrawal can be made at any age, after a year of participation in the plan. Upon death of the account holder, the plan makes a lump-sum payment to the designated beneficiary. Members can access their account balance using their mobile phone. Clearly, with the plan having only been in existence for little more than a year it is too early to assess the level of benefits that it will ultimately provide.

Kenya's social security programme, the National Social Security Fund, is also a provident fund, providing benefits as a lump sum. However, the Kenyan government as of 2013 is considering converting it to a social security fund, providing periodic benefits. Kenya could also consider offering periodic benefits through the Mbao Pension Plan.

Design features that are different to those of a traditional pension plan

Rutherford (2012) argues that micro-pension plans will not look, at least at first, like miniature versions of developed country private pension plans, and work best if they are medium-term savings commitment devices. Since formal employment and formal retirement are rare in the informal sector, an expanded view is needed as to how a micro-pension best functions.

Besides its innovative payment mechanism, several aspects of the Mbao Pension Plan differ from a traditional pension plan. The feature that the total amount can be withdrawn after one year without penalty makes it more like a savings plan than a pension plan. However, the requirement that the worker cannot access the money so long as he or she is using it as security for a mortgage means that some workers in old age might not be able to access it. While it is possible that both these features might be modified in some way in the future to strengthen the pension aspects of the plan, the Mbao Pension Plan may be viewed as an innovative hybrid savings arrangement that is structured to meet the needs of informal-sector workers.

Financial services infrastructure

The Mbao Pension Plan is officially registered with the Kenya Revenue Authority (tax authority), because it receives preferential tax treatment as a pension plan, and with the Retirement Benefits Authority, which is the pension regulator.

The financial services infrastructure for the Mbao Pension Plan involves several private-sector companies. The trustee and custodian for the Mbao Pension Plan is KCB Group (Kenya Commercial Bank), which is a well-known and widely trusted bank. (KCB allows its customers to transfer money from their accounts to M-Pesa, which can be then transferred to the Mbao Pension Plan.) The custodian holds the funds while the fund manager makes the decisions as to how they are invested. Individual participants do not decide how their funds are invested. By law in Kenya, the sponsor of the plan, which is the Kenya National Jua Kali Co-operative Society, must be different from the trustee. All pension schemes must have a sponsor who establishes them before appointing trustees and other service providers to manage the scheme funds. The sponsor has to make the declaration of a "trust deed" for a retirement benefits scheme to be established. The sponsor also ensures efficient administration of the scheme by appointing service providers like fund manager, trustee and custodian.

The fund manager, Co-op Trust Investment Services, carries out the investment decisions of the trustee. The fund administrator, Eagle Africa Insurance Brokers, handles the registration of new members and also keeps records for the scheme. The fund administrator is mandated with the responsibility of all administrative affairs of the retirement benefits scheme; ensuring that the scheme is run in accordance with the trust deed and rules and that the scheme is run within the law. Safaricom M-Pesa and Airtel Money are the mobile money transfer platforms. Other mobile services are expected to participate in the future.

Regulation

The Retirement Benefits Authority (RBA) has regulatory responsibility over the Mbao Pension Plan. RBA licenses all service providers of pension schemes in Kenya. The division of responsibility among different private-sector service providers concerning pensions ensures that there is a Chinese wall between them, thus giving an element of insurance against financial fraud. Fraud is a criminal offence subject to prosecution. If fraud were to occur, RBA, through its risk profiling process, would identify the lapses in the scheme management. Once the lapses are ascertained, RBA will immediately remove the trustees from office and appoint an interim administrator to take over the scheme management. If the interim administrator can prove that the fraud was caused by service providers, RBA can withdraw their licenses, in addition to instituting a legal (prosecution) process. If it is established that service providers colluded with trustees, then the trustees can be made to pay back any losses, in addition to being prosecuted.

Fees

For the first three years of operation of the Mbao Pension Plan, all the service providers except the two mobile phone companies have agreed to waive their fees. After the first three years, it is anticipated that the total fees charged by those service providers will be 95 basis points, or 0.95 per cent of assets per year. Those fees are 0.35 per cent for custody, 0.3 per cent for administration, and 0.3 per cent for the fund manager (Kwena, 2012). Because the expenses of managing a large investment account are similar to those for a small account, the system in Kenya of charging all accounts the same percentage fee in effect causes large accounts to subsidize small accounts in terms of fees paid. In addition to these fees, fees are charged by the mobile phone companies. The fees charged on contributions imply that relatively short duration participation is less advantageous than longer-term participation. A fee of 1 per cent of assets per year charged over the history of a person's participation in a pension fund will reduce the benefit at retirement by about 20 per cent, compared to the hypothetical benchmark of no fees (Whitehouse, 2000).

To place the level of fees in perspective, they can be compared with trends in fees in the United States. To understand trends in mutual fund fees, the Investment Company Institute (ICI) has combined major fund fees in a single measure. ICI created such a measure by adding a fund's annual expense ratio to an estimate of the annualized cost that investors pay for one-time sales charges. By this measure, mutual fund fees that investors pay have trended downward since 1980. In 1980, investors in stock funds on average paid fees of 2.32 per cent of fund assets; by 2006, that figure had fallen to 1.07 per cent of fund assets. Fees paid on bond funds have declined by a similar amount (Investment Company Institute, 2007). By comparison, Shankar and Asher (2011) find asset management fees in India ranging from 1.75 per cent to 2.5 per cent for the relatively new micro-pensions.

Marketing

Marketing the Mbao Pension Plan includes both informing participants about its availability and explaining the advantages of using it. The Retirement Benefits Authority has taken an active role in marketing the Mbao Pension Plan with information featuring prominently on its website.[11] The endorsement of the plan by this governmental authority is designed to encourage trust in the plan as a safe way to save.

11. See <http://www.rba.go.ke>.

The issue of trust by workers has been viewed as important to the success of the Mbao Pension Plan. This issue has been important in part because of an infamous Ponzi scheme in Kenya, where many people lost money.[12] To instil trust in the Mbao Pension Plan, the KCB bank was chosen as corporate trustee due to its solid roots in the country and the region.

Another benefit to participants in the Mbao Pension Plan is that they have the opportunity to learn about savings and retirement issues through training provided by the service providers. The government regulator sponsored training on the Mbao Pension Plan for two champions (opinion leaders) from each of the 47 counties across the country during the launch of the scheme. These champions were equipped with knowledge on the scheme and went back to their respective counties to share this knowledge with their members.

Why do people voluntarily contribute to the Mbao Pension Plan?

Much of the economic literature on participation in voluntary pension and savings plans is based on the assumption that people generally need an economic incentive to do so. For this reason, pension plans in most countries receive favourable tax treatment. Because favourable tax treatment is often not sufficient, there has been increasing interest in the use of matching contributions to encourage contributions (Hinz et al., 2013). Even matching contributions have proven to be a relatively weak incentive, but automatic enrolment in voluntary pension schemes has proved to be fairly effective (Madrian, 2013).

The puzzle raised by the participation in the Mbao Pension Plan is that for many participants, none of these incentives apply. They do not have a tax incentive, they do not have matching contributions, and they are not enrolled through automatic enrolment. The ability to use the account as security for a mortgage may be an incentive for some people.

Much of the research on reasons why people participate in voluntary savings plans is based on experience in high-income countries, where people already are participating in a social security programme (Madrian, 2013). One finding that may be relevant from that research is that changes that make it simpler or easier to participate may play a role in encouraging voluntary participation. Delarue (2013) argues that a lesson from behavioural economics (Thaler and Sunstein, 2009) is that one approach to encouraging informal-sector workers' participation is to make it as easy as possible to do so. In Kenya, many of the participants in the Mbao

12. A Ponzi scheme is a fraudulent investment scheme where investors are paid a return from their own investments or the investments of later investors.

Pension Plan are not participating in social security and presumably do not have any other financial savings. The feature of the Mbao Pension Plan that workers can easily make small contributions may be the key feature, combined with their desire to have some financial savings.

Possible future changes to the Mbao Pension Plan

The Mbao Pension Plan is new, and it is likely to undergo changes as experience with it develops. The Women's World Banking (2003) recommends that micro-pensions develop first as a hybrid between micro-savings plans and micro-pensions as a step toward building capacity for micro-pensions. This section discusses possible changes to the plan as it develops that would strengthen the plan and provide greater options for participants.

The financing options could be changed in various ways. The plan could allow employer contributions to worker's accounts, offering a low-cost option to employers for providing pensions. The plan could be changed to allow workers to borrow from it, providing liquidity and an added benefit of participating, while maintaining the account (Rutherford, 2012).

A government subsidy through a matching contribution could be provided for workers who do not receive a subsidy through the tax system because they do not pay income taxes. Such government expenditure could be justified because the government would otherwise be incurring tax expenditure through lost tax revenue if these workers had benefited from a tax preference. Matching contributions are provided for voluntary government social security pension programmes in China (Dorfman et al., 2013), India (Palacios and Sane, 2013) and Thailand (Wiener, 2013). In India, one pension programme offered for a four-year period a matching contribution for workers who made contributions under a certain small amount (Shankar and Asher, 2011). While studies in the United States have found only a limited effect of matching contributions on increased participation (Madrian, 2013), the effect could be more substantial in Kenya where workers do not also have a social security pension and are not also receiving a financial incentive through a tax subsidy.

Also, the benefit options could be changed so as to allow other benefit payment options than lump-sum payments, including phased or periodic withdrawals or partial withdrawals, or the purchase of an annuity when the accumulated account balance had reached at least a threshold level. An alternative could be that an annuity would be offered for a fixed term, such as ten years (Rutherford, 2012). These options would provide participants greater flexibility in risk management.

The option of withdrawal of funds after one year could be modified so that funds could only be withdrawn after five or ten years, or before a set age only for particular purposes, such as education or medical expenses. These changes would move the plan toward being a pension plan rather than a savings plan. One option would be to start on a trial basis offering a savings plan that could not be withdrawn for five years.

Finally, continued efforts at financial education may lead to increased participation as the target population better understands the need for accumulating financial savings for retirement, and better understands the advantages of participating in the Mbao Pension Plan.

Mbao Pension Plan in the East African Community

Kenya is a member of the East African Community (EAC), along with Burundi, Rwanda, Tanzania and Uganda. The combined mobile phone subscriptions in Kenya, Rwanda, Tanzania and Uganda are 42.3 million, which is three times the number of bank account holders. More than USD 1 billion is transferred monthly through M-Pesa in these countries (Mwiti, 2012). In addition, in 2009 another mobile phone company Zain launched a service called Zap that allows customers in Kenya, Tanzania and Uganda to transfer money (Vincent and Cull, 2011).

The widespread usage of mobile phones facilitates the extension of mobile money systems and the Mbao Pension Plan in East Africa. For example, the use of M-Pesa and the Mbao Pension Plan in Tanzania could extend banking services and pension and savings scheme coverage to many people in the informal sector. By comparison, one study found that 9 per cent of adults in Tanzania had a bank account (FinScope, 2008). To extend the mobile money and the Mbao Pension Plan, countries need to have supportive legislation that permits mobile phone companies to provide these services.

The East African Community is attempting to encourage greater economic cooperation among the member states, including fostering cross border movement of workers. To do so, it needs to develop pension arrangements that do not hinder job change. That goal could be reached by extending M-Pesa and the Mbao Pension Plan to the other four countries of the EAC. As well as providing a pension plan that is suited to the needs of the informal sector, the Mbao Pension Plan is suitable for the needs of mobile workers. Having a defined contribution plan with immediate vesting of contributions would facilitate cross border movement of workers. Workers could even continue contributing to the Mbao Pension Plan in their home country, so long as they maintained an M-Pesa account in their home country. Alternatively, they could establish a Mbao Pension Plan in their new country of residence. In either case, job-changing workers would not suffer a loss of pension rights, and they would continue to have the opportunity to contribute to a pension plan.

Conclusions

Low-income people around the world generally are not served by banks and other financial institutions, yet they often have the same needs as higher-income people for loans, savings instruments, and pensions. Microfinance is a well-established practice to help low-income persons who do not have access to banks or financial markets, providing small loans to low-income persons to help them start or improve a business. Micro-savings accounts and micro-pensions, which would be the savings and pensions equivalents of micro-loans, are not well developed. Micro-savings accounts and micro-pensions would make it possible for low-income persons to easily, safely, and at low-cost make small contributions to savings accounts or to individual account pensions.

The Mbao Pension Plan is an innovative plan that seeks to tailor a savings product particularly to marginal population groups and contribute to their improved social and economic security while also supporting the further development of the financial services and communication sectors. The Mbao Pension Plan might have a longer-term role in social protection strategies as a "stepping stone" to encourage a movement towards greater formality in working relationships/practices, and thus be supportive of greater inclusion in formal social security programmes. Given that the Mbao Pension Plan is barely over a year old, it is too early to be able to assess its long-term impact on savings for retirement and elderly well-being, and its extension to other countries remains to be seen. However, in spite of its short history, it may be viewed as an interesting experiment that merits attention as to its future development.

Bibliography

Aker, J.; Mbiti, I. 2010. "Mobile phones and economic development in Africa", in *Journal of Economic Perspectives*, Vol. 24, No. 3.

Anami, L. 2012. "Domestic workers top Mbao pension uptake", in *Standard Digital*, 2 August.

Barr, N.; Diamond, P. 2009. "Reforming pensions: Principles, analytical errors and policy directions", in *International Social Security Review*, Vol. 62, No. 2.

Chen, T.; Turner, J. A. 2012. E*xtending pension coverage to rural workers in China*. [S. l.], Pension Policy Center (unpublished).

CIA. 2012. "Kenya", in *The World Factbook*. Washington, DC, Central Intelligence Agency.

Delarue, A. 2013. "Using prepaid contributions to cover mobile workers in Cape Verde and Tunisia", in R. P. Hinz et al. (eds.), *Matching contributions for pensions: A review of international experience*. Washington, DC, World Bank.

Dorfman, M. C. et al. 2013. "China's pension schemes for rural and urban residents", in R. P. Hinz et al. (eds.), *Matching contributions for pensions: A review of international experience*. Washington, DC, World Bank.

Economist. 2010. "Out of thin air: The behind-the-scenes logistics of Kenya's mobile money miracle", in *The Economist*, 10 June.

ESA. 2011. *World population prospects: The 2010 revision. Volume 1: Comprehensive tables*. New York, NY, United Nations Department of Economic and Social Affairs – Population Division.

FinScope. 2008 *FinScope in Africa*. Johannesburg, FinMark Trust.

Gillion, C. et al. 2000. *Social security pensions: Development and reform*. Geneva, International Labour Office.

Hinz, R. P. et al. (eds.). 2013. *Matching contributions for pensions: A review of international experience.* Washington, DC, World Bank.

Holzmann, R.; Jørgensen, S. 2000. *Social risk management: A new conceptual framework for social protection, and beyond* (Social protection discussion paper, No. 6). Washington, DC, Word Bank.

ILO. 2010. *Providing coverage in times of crisis and beyond* (World social security report, 2010/11). Geneva, International Labour Office.

Investment Company Institute. 2007. *2007 Investment Company fact book*. Washington, DC.

Jack, W.; Suri, T. 2011. *Mobile money: The economics of M-Pesa* (NBER working paper, No. 16721). Cambridge, MA, National Bureau of Economic Research.

Koech, J. 2012. "Bringing banking to the masses, one phone at a time", in *Economic Letter*, Vol. 7, No. 11.

Kwena, R. M. 2012. *Extending pension coverage to the informal sector* (Conference paper, EAC Training Workshop for Pension Experts, Arusha, 2-3 October). Arusha, East African Community.

Madrian, B. C. 2013. "Matching contributions and savings outcomes: A behavioral economics perspective", in R. P. Hinz et al. (eds.), *Matching contributions for pensions: A review of international experience*. Washington, DC, World Bank.

Mas, I.; Ng'weno, A. 2010. *Three keys to M-Pesa's success: Branding, channel management and pricing*. Seattle, WA, Bill & Melinda Gates Foundation.

Mbiti, I.; Weil, D. T. 2011. *Mobile banking: The impact of M-Pesa in Kenya* (NBER working paper, No. 17129). Cambridge, MA, National Bureau of Economic Research.

Morawczynski, O. 2009. "Exploring the usage and impact of "transformational" mobile financial services: The case of M-PESA in Kenya", in *Journal of Eastern African Studies*, Vol. 3, No. 3.

Mwiti, N. 2012. "The power and reach of M-Pesa", in *Afritorial*, 18 April.

Okulo, L. 2011. "RBA launches Sh20 pension scheme for informal sector", in *The Star*, 29 June. http://www.the-star.co.ke/news/article-58905/rba-launches-sh20-pension-scheme-informal-sector.

Palacios, R.; Sane, R. 2013. "Learning from the early experience of India's matching defined contribution scheme", in R. P. Hinz et al. (eds.), *Matching contributions for pensions: A review of international experience*. Washington, DC, World Bank.

Raichura, S. K. 2008. *Analytical review of the pension system in Kenya* (Conference paper, "Pension Development in Africa – Opportunities and Challenges", Conference of the OECD/IOPS Global Forum on Private Pensions, Mombasa, 30-31 October). Paris, Organisation for Economic Co-operation and Development.

Rutherford, S. 2012. "Micropensions: Old age security for the poor?", in *Pension & Development Network*, 12 April.

Safaricom. 2007. "M-Pesa update", in *Press Releases*, 7 December.

Shankar, S.; Asher, M. 2011. "Micro-pensions in India: Issues and challenges", in *International Social Security Review*, Vol. 64, No. 2.

Thaler, R. H.; Sunstein, C. R. 2009. *Nudge: Improving decisions about health, wealth, and happiness*. New York, NY, Penguin Books.

Vincent, K.; Cull, T. 2011. "Cell phones, electronic delivery systems and social cash transfers: Recent evidence and experiences from Africa", in *International Social Security Review*, Vol. 64, No. 1.

Whitehouse, E. 2000. *Paying for pensions: An international comparison of administrative charges in funded retirement-income systems* (Occasional paper, No. 13). London, Financial Services Authority. http://ideas.repec.org/p/pra/mprapa/14171.html.

Wiener, M. 2013. "Thailand's matching defined contribution programs for the informal sector", in R. P. Hinz et al. (eds.), *Matching contributions for pensions: A review of international experience*. Washington, DC, World Bank.

Women's World Banking. 2003. "Asset building for old age security: A case for hybrid, long-term savings micropension products", in *What Works*, Vol. 1, No. 4.

Women's World Banking. Undated. "What is microfinance?", in *Frequently Asked Questions*. <http://www.swwb.org/faq> (accessed on 07.02.2013).