It's time to address the microsavings challenge, scalably

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The option to store value and to transact from a safe savings account is the foundation of financial inclusion. There is a need for developing banking models that allow poor people to save daily, as they earn money, right from their neighbourhoods and villages. This requires leveraging existing non-bank retail outlets to serve as cash transaction points acting on behalf of licensed financial institutions, and mobile operators acting as channel managers and transaction aggregators. Such schemes need to be commercially viable for all players involved, without having to rely on credit as a driver of profitability.

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First, a little history… About 20 years ago a number of us reflected on the ability of a growing (though still very small) number of successful microenterprise credit programmes to reach thousands of clients and cover their operating costs. We foresaw a day when they would need more funds than were available from the donor community, and perhaps, even from local banks. We also saw that many of our clients felt forced savings had helped them overcome financial setbacks – and kept their loan payments on time. Thus we started a long conversation about the provision of savings deposit services in addition to credit, a conversation that, until very recently, has largely stayed in the realm of conversation – not concrete action. In spite of the clear need to provide both savings and loans to low-income families, the practitioner community stayed focused on microcredit. We even changed the name of what we were doing to 'microfinance', from 'microenterprise credit', as a more inclusive terminology that would include 'the forgotten half', as Bob Vogel famously called deposit mobilization in a seminal article written 30 years ago (1984).

For most, microfinance still means the micro 'funding' of poor clients with loans

The name microfinance caught on, but not the underlying concept. For most, microfinance still means the micro 'funding' of poor clients with loans. It's still a microcredit 'movement', premised on the view that credit is a powerful path out of poverty.

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Over the past 15 year, only a handful of 200 annual participants at the Boulder Institute of Microfinance (which is directed by one of the authors) ever signed up for a course on saving mobilization strategies. Today, there's not a class or a panel in the summer programme that doesn't surface the need to take on the savings topic in a deep and serious manner in order to achieve our social objectives. What's changed?

Why is everyone talking about savings right now?

The recent credit crisis has exposed microfinance organizations to a contraction in their supply of funds as international investment funds, local banks and others initially reacted to the chaos in financial markets. Local credit unions, savings banks and other community-based financial institutions largely weathered the storm without difficulty since savings deposits are a far more stable source of funds and these institutions don't generally engage in the risky lending practices or other investment practices that caused so many problems for international banks.

Local credit unions, and savings banks largely weathered the storm without difficulty

Slowly but surely, microfinance organizations are noting that when licensed banks or credit unions make a special point of serving low-income families, they can mobilize relatively large numbers of depositors and fund significant portions of their lending portfolios. The success of BRI in Indonesia, BAAC in Thailand, credit unions in West Africa, Opportunity Bank in Malawi, Procredit Bank in the Democratic Republic of Congo, and a growing number of others are creating a steady drumbeat that deposit mobilization is a viable service for the poor. Today, Grameen Bank raises more deposits from its target group than it makes in loans.

And, providing deposit services matters. Academics are also beginning to focus on the empirical evidence surrounding the impacts of savings. *Portfolios of the Poor*, a recent book by Collins et al., documents the variety of ways in which savings can expand households' livelihoods strategies, and the variety of mechanisms poor households often use to achieve that. Two recent field studies in Kenya offer evidence that access to a savings account generates significant welfare effects on poor households, and that access to appropriate savings mechanisms can help poor farmers purchase fertilizer when they need it (Dupas and Robinson, 2008; Duflo et al., 2009).

It'll be hard

While it is quite a challenge to transform from a non-profit organization to a non-bank or bank financial intermediary, that challenge

pales by comparison to that of taking on voluntary savings deposits if you have only ever made microloans.

Over the past 30 years, most microcredit providers organized themselves as non-profits. This legal form has two distinct advantages: (1) it allows a group to receive more easily charitable donations that are a distinct advantage when starting up an activity whose profitability is either suspect or far off, and (2) it allows lenders to avoid the interest rate caps that were and continue to be relevant in many countries for bank-based loans.

The very successful microcredit model is based on a high degree of standardization and transparency about client's accounts. The systems are rigid and transaction flows are highly predictable. Internal controls are relatively easy and low cost.

When an organization takes voluntary deposits, it doesn't know how much may come in or be taken out any given day

When an organization takes voluntary deposits, it doesn't know how much may come in or be taken out through the teller window on any given day, and needs to be prepared for all cases. Internal controls are quite a bit more costly. And trust needs to run in the opposite direction to credit: in the case of savings, the bank needs to make the case to customers that their money is safe with the bank.

Great organizations have got it wrong in the first attempt. Both Bancosol in Bolivia and ASA in Bangladesh had to back-track and start again when early pilots proved too disruptive to their highly regimented microcredit operations. Initially, BRI had to pull back and change its pricing structure on deposits when it was overwhelmed with strong early demand for accounts. But, in the long run, most organizations find that deposit mobilization can provide them with a stable, low-cost funding supply, in addition to providing clients with a highly valued service.

The importance of safe savings

By saving small amounts over time, poor people can invest in new businesses to improve their productivity

Savings can help poor people deal with three fundamental constraints that otherwise trap them in poverty. First, poor people find it difficult to escape poverty because they are engaged in economic activities with very little or no productivity growth. By saving small amounts over time, they can invest in new tools and businesses to improve their productivity, and can afford to search longer for more productive forms of employment. If they are able to self-finance these investments, they can fully capture the productivity gains derived, without having to share them with the bank in the form of expensive interest on loans.

Second, poor people generally face erratic income streams due to lack of stability in their employment or productive activities. Utilizing savings tools effectively allows them to eat regularly, improving

nutrition, and consistently invest in children's education, which in turn helps them be more productive over time.

Poor people ought to be able to cushion such shocks through appropriate savings and insurance products

Third, poor people face a variety of shocks that can easily overwhelm their means – and the productivity gain hard-earned over a long period of time. Often, the shock is related to ill-health or death in the family. It can also be caused by natural disasters (loss of home or crop). Poor people ought to be able to cushion such shocks through appropriate savings and insurance products.

Thus, as depicted in Figure 1, providing them with a means to save (and buy insurance) helps by (a) giving them options to increase the productivity of their labour and plan exits out of poverty, (b) maintaining their expenditure on nutrition, health and education even during hard times, and (c) helping them avoid falling back into misery as a result of unpredictable (but not entirely unforeseeable) life events.

Poor people save through a variety of informal mechanisms: cash stashes at home, leaving money with a trusted neighbour, loaning funds to relatives, participating in ROSCAs (rotating savings and credit associations) or savings groups, investing in livestock or other physical assets. This surprising diversity of savings mechanisms is in fact because none of them are very good: they are subject to substantial risk of loss or theft, and their availability and liquidity is highly correlated with the saver's own circumstances. Formal financial savings instruments can offer what these mechanisms cannot: safety, reliability, liquidity – and privacy.

The problem of distribution – from 'products to access'

Yet financial institutions, especially the larger commercial banks, find it too costly to reach out to these customers despite the strong latent demand. They do not have the business model that allows them to

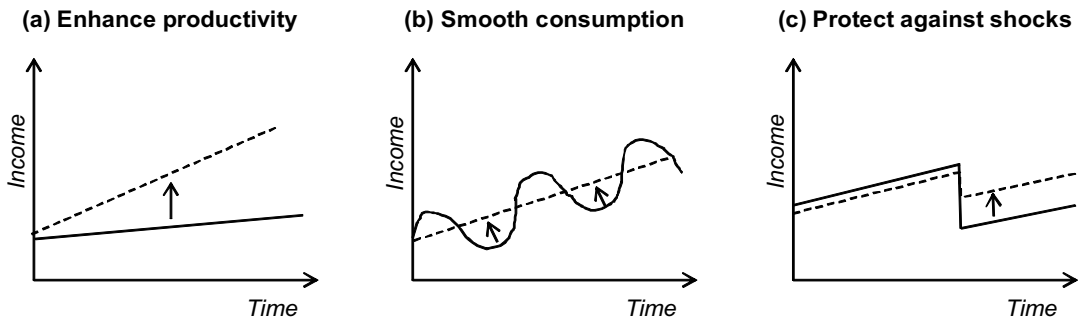

Figure 1. How savings can improve the lives of the poor.

deal with the triple whammy of low savings balances, small transaction sizes and large number of customers. Financial institutions cannot justify the roll-out of a broad-based retail infrastructure on commercial grounds, and pull back their activity to a reduced number of branches. In so doing, they pass the cost of access to customers, who need to spend time and money to travel to distant branches.

Banks need to be able to capture these savings right when and where the money is earned

In order to be useful to poor people, formal financial institutions need to be able to capture these savings 'at source', that is, right when and where the money is earned. Every time a poor person earns money there is a savings opportunity. But it can only be exploited if people are able to deposit (and withdraw) money near the places where they live and work. This presents a problem for banks: even the public banks with their impressively large branch network simply do not have the required physical presence in the territory to be within reach of everyone.

Financial access is fundamentally a problem of distribution. It needs systems that are accessible from every neighbourhood and every village and that can efficiently handle a large volume of daily, low-value savings transactions. It is hard to reconcile these two requirements – ubiquity and low cost – if that requires building new infrastructure. Instead, the opportunity is to leverage existing retail outlets that already exist in every village and in every neighbourhood. These stores can be marshalled to the benefit of both banks and their customers.

The opportunity of leveraging retail networks

Customers transacting at non-bank retail outlets need to know that the bank is behind those transactions

Customers transacting at non-bank retail outlets need to do so with the full certainty that the bank is standing behind those transactions. If customer, retail store and bank are all linked by a common, secure technology platform, all transactions can be authorized and recorded by the bank in real time. In this case, neither the customer nor the bank need ever have any exposure on the retail outlet. Any cash exchange between the customer and the retail store is offset by an immediate, opposite transfer of value between their bank accounts. Therefore, the agent's cash is always his own – he never holds any public monies. In a deposit, the retail outlet is in effect 'buying' the customer's cash with a bank transfer. This is purely a spot transaction, and there is no credit-risk exposure to any party, as long as the bank checks in real time that the store does in fact have sufficient bank balance to fund its purchase of cash from the customer, and the bank instantly affects the transfer of value between the two accounts.

These are the building blocks of a banking correspondent model: a collection of retail stores and a technology-based, real-time security infrastructure.

There is then the business question of how to structure this within a workable, scalable distribution channel. Managing the channel entails a broad array of activities: identifying, screening and signing up eligible retail outlets; installing and maintaining the transactional devices; training the staff at the store; providing the necessary store signage and maintaining ongoing delivery of promotional materials; providing a phone-based support hotline for the store's staff; remote monitoring and in-person supervision of the activities of the retail outlet etc. These are challenging tasks as they have to be done at the same time across a large number of geographically dispersed outlets. The logistical challenge is compounded as the number of outlets grows.

To address this issue, retailers build their distribution channels under a hierarchically layered structure. This allows support functions to be performed and information to flow up and down the channel in a faster and more controlled way. This is particularly important for cash management functions. The full potential of correspondent banking will be realized only when banks are able to tap into existing distribution channels – not just into existing retail stores.

Enter the mobile operators

Mobile operators can be set up as a business correspondent for banks

In many developing countries today there are not many structured distribution channels of any size. The postal service is typically a potentially valuable channel, but infrastructure neglect, weak human resource practices and under-management of postal networks often makes it very difficult to partner with. Some of the larger networks are controlled by mobile operators, who have built them to distribute their airtime products into the mass market. By setting up the mobile operator as a business correspondent for banks, there is an opportunity to engage mobile operators' distribution channel and to put that at the service of banks.

Beyond this narrow role, mobile operators ought to be allowed to run the payment and account management platforms on behalf of banks, leveraging their experience with handling low-value, high-volume prepaid platforms. The products can remain in the realm of the banks under appropriate subcontracting agreements with mobile operators.

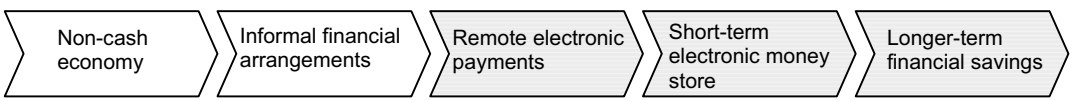

Figure 2. A stylized 'ladder' of financial inclusion

Moreover, if the need for banks' prudential regulation is caused fundamentally by the lack of transparency of their assets (which consist to a large degree of hard-to-value loans to companies and individuals), it ought to be possible to create special licences for mobile operators (or other non-bank players) to operate mobile payment and banking schemes, as long as they: (1) invest the totality of deposits received from the public in low-risk liabilities issued by the government or regulated banks, (2) maintain a high ratio of liquid assets, and (3) submit themselves to supervision on technical and operational risks.

Ensuring public trust in the system

This more complex system must be set within a contractual framework that protects the interests of banks and their customers

The model expounded here represents a fragmentation of the value chain, enabling a specialization of roles. Where before customer and bank interacted directly within the banks' premises, now there are multiple additional value chain players: the retailer (e.g. mobile operator, acting as correspondent), one or more intermediary distributors, the actual shop owners. This more complex – but at the same time much more scalable – ecosystem needs to be tied together within a contractual framework that binds the parties in ways that serve and protect the interests of banks and their customers – as well as the banks' supervisor. Yet the contracting must accommodate the scalable, modular nature of the channel.

The most efficient and effective way of doing so is by allowing a set of cascading or back-to-back contracts between each layer, whereby a contract between the parties higher on the chain governs the contracts that can be implemented at lower levels of the chain. For instance, the 'first' contract, that between the bank and the retailer, can specify things such as: minimum eligibility requirements for stores to be signed up as a correspondent by the retailer; terms of data privacy, confidentiality and disclosure that stores must abide by, and which must be reflected in contracts that the retailer enters into, directly or indirectly, with stores; the retailer must demonstrate to the bank that it has in place a process for training store staff on 'know your customer' (KYC) procedures and for appropriately monitoring that they are followed; and the right of the bank supervisor to request any information and to physically inspect the retailer or any party that the retailer enters into contracts with, including the stores etc. Thus, by appropriately specifying a set of minimum requirements on a bank–retailer contract, the banking regulator can retain full visibility of and supervisory control over financial institutions' entire channels.

Ensuring commercial viability

This structure will only work if each player has a clear financial incentive to participate

This channel structure will work only if each player in the value chain has a clear financial incentive to participate and actively promote the service – in other words, it must be commercially viable. Viability requires that the channel work at low unit cost and that it aggregate a large volume of transactions. It is doubtful that savings alone can pay for such a channel; the opportunity is for savings to ride on a transactional channel that derives volume from other sources such as domestic person-to-person remittances, government payments to welfare recipients, bill payments, electronic airtime top-ups, etc. Banks must develop these transaction pools in order to make the business case work for all value chain players, from the retailer down to the stores.

We envision that routine payments (rather than credit, as has been traditionally done) can make low-value savings profitable for banks. For this to be the case, each transaction would need to be chargeable to customers. Experience elsewhere shows that customers are ready to pay small fees for remote electronic transactions, which are otherwise more costly to undertake through informal channels. Moreover, if transaction pricing and the corresponding cost structure was such that each transaction was profitable on a stand-alone basis, customer profitability could always be assumed. This would make possible a true mass-market approach, with no incentive for providers to deny service based on minimum balances or intensity of use. This is the magic behind the rapid penetration of prepaid airtime into low-income markets: a card bought is profit booked, regardless of who bought the prepaid card. This reinforces the central importance of making transaction costs vanishingly small, so that we can really commoditize (and hence democratize) basic savings products.

Ensuring customer relevance

The test of scale is ultimately whether customers are going to use it. That is a function of the overall need that the new service targets and the relative quality of the new service relative to the available alternatives (in terms of convenience, availability, reliability and price).

The ability to undertake remote payments locally is a key objective for financial access

Ensuring that poor people have low-cost ways of transacting is essential, so that they can be served profitably by a range of financial service providers. The ability to undertake remote payments in the vicinity is therefore a key objective for financial access. The parties that poor people use to manage their finances (whether financial service providers, relatives or informal players) will not always be physically close, hence, they need to be able to transact with them remotely, right from their village or neighbourhood. This requires a widely

deployed infrastructure that lets customers establish their identity and safely send or receive money.

In order to ensure that the remote payments capability can help people manage their financial lives, a second objective of financial access is the availability of the most basic form of financial service: safe storage of value. In the first instance, 'safe' means that there is a low probability of loss of value due to theft, mismanagement or fraud. But we extend this to include the notion that the value stored is uncorrelated to the livelihood risks of savers.

We see a natural progression from payments to financial services. Financial inclusion is a journey. It needs to be dealt with through a variety of products and institutions.

What role for bank branches and MFIs?

So far we have discussed the creation of a new ubiquitous and highly scalable transactional channel for financial institutions, based on use of (1) existing stores; (2) secure technology with real-time transaction authorization by the bank; and (3) cascading contracts from the bank all the way down to the stores, with the whole chain of contracts strongly governed by a master contract between the bank and the store under the purview of banking regulations. But it must be emphasized that this new retail channel does *not* make bank branches obsolete. What this leads to is two parallel banking channels, an indirect retail channel based on handling cash transactions and a direct banking channel based on bank branches. The latter could then be focused on a more personal customer service, financial education and product cross-selling to customers. By shifting the bulk of cash transactions outside of branches and closer to people's doorstep, branches could then be used for more valuable promotional and selling activities that directly drive more meaningful financial inclusion. Branchless banking is really about unbundling the branch channel rather than making it redundant.

This new retail channel does *not* make bank branches obsolete

MFIs in many countries have made a critical contribution by addressing customer segments and locating their branches in places that larger commercial banks were neglecting. But on the whole they have had to do so in a vertically integrated fashion, at a small scale, without interconnecting into national payment systems. While banks went for scale, MFIs went for reach. The high cost of operating small MFIs, the desire to avoid the burden of regulation, and in many cases the ready availability of external funding for credit activities led many MFIs to neglect deposit mobilization.

There is opportunity for MFIs to leverage the payments infrastructure described earlier. If they channel all customer payments (whether

There is opportunity for MFIs to leverage the payments infrastructure

MFIs would need to upgrade their MIS to handle real-time accounting securely

on savings or other products) through a common payment infrastructure, they can avoid some of the costliest activities they are currently saddled with: cash distributions, collections and liquidity management. This would allow them to focus their activities on the truly customer-facing aspects where they have the most to contribute: understanding their customers' needs, structuring products that match those needs, and accompanying the customer with financial education and general customer service.

Yet a fundamental challenge remains: for MFIs to be able to leverage such a payments infrastructure, they will need to upgrade their management information systems (MIS) to handle real-time accounting in a secure and robust manner. MIS have been the bane of the sector, partly because given their small size many MFIs have not seen the business case for evolving towards bigger, costlier, more complex back-office systems. But the opportunity to connect into scalable front-end channels (retail stores, mobile phones) may be the justification that MFIs have been waiting for in order to upgrade their systems.

Moreover, as transactional channel management gets centralized into national technology-enabled retail platforms, it is likely that MFIs' back-office capability will also get centralized to some degree into MIS hosting environments operated by third parties. This will bring back scalability in the operation of MIS platforms, while allowing MFIs to 'buy' back-office services as well as front-end transactional platforms on a one-stop basis.

The big picture... and the experience to date

Summing up, we have analysed the development of a system capable of delivering microsavings services to all, profitably. The trick is to balance the requirements for *granularity* (ubiquitous service points) and *economies of scale* (low unit costs). This is in principle possible by combining three key elements:

Retail distribution channels + Real-time technologies + Volume of transactions

Distribution channels (existing retail stores) and technology (mobile phone- or card-based systems permitting real time authorization of transactions) together help reduce the unit capital cost per outlet. Technologies permitting electronic processing of transactions and volume of transactions (remittances, bill collections, welfare payments) together help reduce the unit operating cost per transaction.

Realizing this vision is premised on three key aspects: structuring the right collaborative business models across the various players,

truly understanding customer drivers of value and usage triggers, and establishing the appropriate enabling regulatory environment that protects customers' trust while not unduly inhibiting innovation. The technologies exist today and are actively being used in different environments.

Some countries have already made big strides in making this happen

Some countries have already made big strides in making this happen. The Brazilian correspondent banking model that has evolved over the last 10 years is based on the idea that banks should work through retail chains to offer their customers more convenient payment (and, to a lesser extent, banking) services. The very successful M-PESA service in Kenya has shown how eagerly customers take up a mobile wallet/payments service that is able to offer ubiquity, convenience and trust. The mobile money deployments in Philippines and, more recently, in Zambia and Uganda have shown good take-up and usage within a much more targeted customer proposition.

From 'microenterprise credit' to 'financial access'

The past 20 years have seen the emphasis shift from microenterprise credit to microcredit to microfinance and finally, onto the concept of financial access. We started our collective lives rooted squarely in the development finance paradigm that suggested that poor people lacked financial resources, financial literacy and the skills necessary to succeed. In this paradigm, credit was a 'productive input' that encouraged investment in nascent businesses, produced greater income and helped generated employment.

Savings play a central role by protecting families who are pulling themselves out of poverty from falling right back in

Today, we understand that poor families are sophisticated administrators of a number of mostly informal financial tools. We realize that we can improve on those tools if we listen to clients, understand their financial requirements and design products that are easy to use, affordable and safe. We know we can generate important contributions to the well-being of families by helping them organize their financial lives far more efficiently than previously possible. This comprehensive understanding of the role of microfinance suggests that it – and savings especially – may play an even more central role than we thought in assisting families who are pulling themselves out of poverty by protecting them from falling right back in when something inevitably goes wrong.

Economic development requires the economic inclusion of the general population, including those who live on less than US$2 a day. Economic inclusion requires financial inclusion. The poor must be connected to the national economy through financial systems if they are to fully contribute to and participate in economic growth.

If you have any doubts, just imagine your life without a savings account, health insurance, a pension arrangement, credit cards, education, housing and car loans, and a bank account. Just how easy would it be for you to arrange the things that are most important for you and your family's goals? How would you build your assets?

Poor families want most of the same things; they just don't have particularly great tools to accomplish these same goals. Safe, accessible savings deposits are a tool they need. We have a historic opportunity to make deposit accounts available through technology driven, agent banking models that can dramatically lower the cost structure of reaching poor families where they live and work.

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