



WSBI

WHAT MAKES PRO-POOR SERVICE DELIVERY SUSTAINABLE FOR WSBI PARTNER BANKS

Working with savings banks to double the number of savings accounts for the poor
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WHAT MAKES PRO-POOR SERVICE DELIVERY SUSTAINABLE FOR WSBI PARTNER BANKS

Working with savings banks to double the number of savings accounts for the poor

Most elements of pro-poor service are now embedded in the product range of members participating in the Doubling Savings Accounts Programme and it looks possible to make them affordable, but can this be done sustainably? This paper argues sustainability is possible at the sort of balances typical of the poor but only if delivered at scale. The dramatic growth in customer numbers promised by participating members is therefore vital to success. For the three banks that participated in this initial study it turns out that the extra costs of reaching out at scale are quite low and the biggest impact on sustainability comes from spreading existing fixed costs over a larger and more active customer base.

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Context for the paper: The background to this assignment is the WSBI Programme “Working with savings banks in order to double the number of savings accounts”. This specific study relates to sharing lessons under the programme.

Participating partner banks: KPOSB Kenya, TPB Tanzania and PBU Uganda.

The author would like to thank the participating banks for their contributions in providing data and answering subsequent questions. This is a working paper and comments are not only welcomed but actively sought. An important part of the study has been to try and develop a methodology that can be applied to all projects in the programme, and banks that have not yet participated are invited to join in rolling out that methodology.



MAKING PRO-POOR SERVICE DELIVERY SUSTAINABLE—PURPOSE OF THE PAPER

This paper develops a conceptual framework for judging sustainability of the various projects supported under the WSBI Programme to double savings accounts in the hands of the poor. It uses data from three banks to draw out key issues relating to sustainability at different levels for those banks (project level, whole institution, individual outlet, etc). These results are of course in some ways particular to the banks concerned but they also have a wider relevance. After they have been addressed conceptually two templates are provided for testing the findings of this paper against the experience of a wider range of banks. These are for use by all participants in the WSBI Programme and the wider WSBI membership.

The two methodologies laid out can be applied using only basic published report and accounts data plus a few extra assumptions about staffing levels, pay rates and transaction volumes. The main outcome we at programme level need from this work is a wider consensus on the key factors determining sustainability and a way of generalising the results.

Introducing the banks who have participated so far

Throughout the rest of this paper the individual banks that participated in this initial study will not be identified and every effort has been made to present data in ways that avoids them being identified; the purpose of the paper is not to comment on them but use insights from their data to talk about issues of wider importance. Nevertheless, it is of obvious interest to readers to know something of the banks that have been involved. All are notionally postal savings banks but in all three cases the traditional postal savings business is moribund and in one case (Uganda) had to be abandoned. They do, however, represent a range of possible responses to postal savings and as such their experience is relevant to other banks participating in the WSBI Programme and indeed the wider WSBI membership.

	KENYA POST OFFICE SAVINGS BANK	TANZANIA POSTAL BANK	POSTBANK UGANDA
Total deposits	\$167 mn	\$67 mn	\$39mn
Pre-tax profit	\$1.3 mn	\$0.3 mn	\$0.1 mn
Cost-income ratio	95%	95%	99%
Number of staff	786	392	420
Number own branches	92	32	29*
Postal as % total	2%	9%	0%
	2010 audited	2010 audited	2010 audited

* plus 3 mobile units



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ABBREVIATIONS

ESBG	European Savings Banks Group
WSBI	World Savings Banks Institute

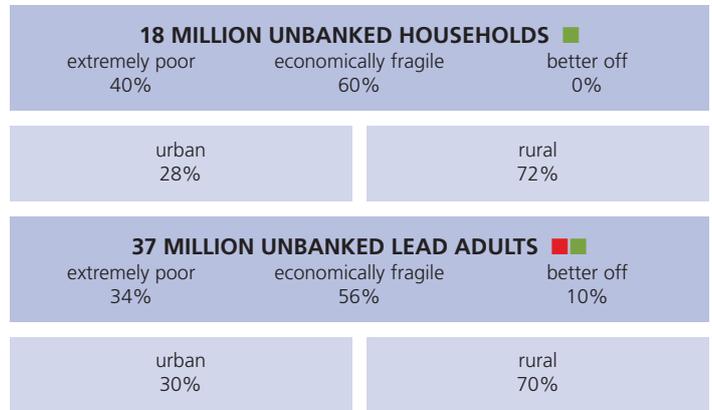
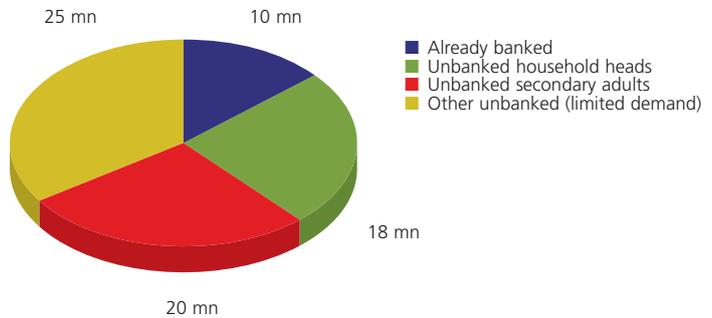
1. MAKING SMALL BALANCE SAVINGS SUSTAINABLE – A CONCEPTUAL FRAMEWORK

Servicing the mass retail financial sector has always been the main core activity of WSBI member banks and that means dealing with very many small balance savers. This showed up in early WSBI research on the access to finance agenda – see various publications under the ESBG-WSBI Perspectives series from 2004 on⁽ⁱ⁾ – and is confirmed by research done for this study. In monitoring reports for this project typically we see that at least half of active customers have accounts with balances of less than \$25. People with limited amounts of money do therefore use our partner banks. The table below puts this into the wider context of what sort of savings balances are mobilised by community groups, specialist MFIs and commercial banks in the same country as our banks participating in the WSBI Programme.

For the three East African savings banks that participated in this initial study, half of their clients have deposits with balances lower than the average savings held with village level savings and loan groups. Overall averages are however much higher because the best-off 10%-20% of a bank’s customer base can easily quadruple total deposits. Savings banks have been blending low- and high-value business like this for decades and do not try to rationalise down to just the high-value customers. All three banks make a profit, albeit a limited one and not always a robust one.

The issue then is whether the small balance savings business itself can be made sustainable or does it need to be cross-subsidised by loan business or higher-value deposit business. This paper creates a framework for answering this question and more particularly how that answer might change as the small balance savings business ramps up with growth. The challenge is made all the more acute because the obvious open market space for members participating in the programme is adults in moderately and near poor households as shown below.

WSBI Programme Poorest Five Countries (72 million adults)



COMPARATIVE BALANCE DATA FOR MEMBERS PARTICIPATING IN PROGRAMME	SAVIX BENCHMARK: GROUP MEMBER SAVINGS	MEMBER DEPOSIT DATA HALF CLIENTS HOLDING LESS THAN	OVERALL AVERAGE BALANCE	MIX REGIONAL BENCHMARK: MFI / RURAL BANK	CGAP FINANCIAL ACCESS 2010: COMMERCIAL BANK AVERAGE
Burkina Faso	\$7.5	n/a	\$450	\$64 / \$99	n/a
El Salvador	n/a	\$13		n/a / n/a	\$850
Indonesia*	n/a	\$13	\$20	\$89/\$180	\$2400
Kenya	\$17	\$12	\$163	\$64 / \$99	\$1150
Lesotho	n/a	\$10	\$253	\$75 / \$99	\$1550
S. Africa	n/a	n/a	\$83	\$75 / \$99	\$9200
Tanzania	\$15	\$10	\$200	\$64 / \$99	n/a
Uganda	\$24	\$12	\$73	\$64 / \$99	\$1075
Vietnam	n/a	\$80	\$75~\$884	\$89/\$180	n/a

* Data for Indonesian project shows only balances on new pro-poor product via post offices.

The chart opposite separates out adults in the poorest five partner locations (the three countries covered by this study plus Burkina Faso and Lesotho). Those already banked are separated out from heads of unbanked households and then unbanked secondary adults (who are partners of household heads who may be banked or unbanked) and finally tertiary adults (most of whom are very young). The two main targets for the WSBI Programme in these countries are entirely unbanked households and unbanked partners of household heads – together called “lead adults”. This is not because tertiary adults have no needs, but their role in deciding how family finances are organised is very limited. What is striking is that over 60% of entirely unbanked households (some 11 million) and 55% of all unbanked lead adults (some 21 million) are somewhere above the extreme dollar a day poverty line but are living below anything that could be considered comfortable. This is a huge market, but in rural areas these are households handling no more than \$2 cash per day and in urban areas maybe twice this. The chart for better off countries in the WSBI Programme (El Salvador, Indonesia, Morocco, South Africa and Vietnam) does not look greatly different, although the poverty labels are different and young tertiary adults are a much more interesting target market.

1.1. A high-level proxy for the likelihood of sustainability being established

The Doubling Savings Accounts Programme started with a call for proposals in which WSBI members from 30 developing countries bid for access to funding under the Programme to support significant breakthrough in the number of poor accessing usable savings accounts.

That funding could be used for advice, capital investment and other expenditure support (marketing, training, etc.), but no operating subsidy was allowed. Right from the beginning it was made clear that the investments made with the funding had to be self-sustaining without recourse to further support. It was not, however, possible to ask for a fully worked out business case for each proposal, given (a) most of the bids were conceptual and involved a mixture of soft and hard one-off development costs, and (b) most if not all of the applying banks had no modern enterprise resource planning systems that allocate existing, let alone future, costs to business lines. In the absence of this a crude proxy was created for all proposals that allowed the WSBI Programme Team to advise on likely prospects for sustainability.

That proxy was a variant of the relatively well-known “Bang per Buck”, but we looked not at how much outreach a dollar of funding buys but at how many dollars of funding were needed to help create a newly served poor client. We called this “Bucks per Bang” and set a benchmark of under \$2. Our reason for doing this: any business set up by the proposed grants would have to sustain a monthly amortisation and maintenance charge of up to 6-7 US cents per client so that the original investment could be kept functioning and much more than \$2 per client would push us into double figures of US cents.¹ We then needed to add this to a generous estimate of what we would be paying for whoever was going to serve the new clients (usually postal or other agent staff but sometimes a mix of branch and agent staff). For the poorer countries we were looking for total monthly unit costs in the range 40-80 US cents and in the better off countries this could have gone as high as \$1-\$2.

BUCKS PER BANG FOR ALL PARTICIPATING MEMBERS IN PROGRAMME	TOTAL NON-TA GRANT ALLOCATION EXPECTED TO BE MADE	PROMISED INCREASE IN TOTAL CLIENTS REACHED BY NEW SERVICE	BUCKS PER BANG	CALCULATED MONTHLY RENEWAL CHARGE PER CLIENT	RENEWAL CHARGE + GUESTIMATED MONTHLY STAFF COST PER CLIENT
Burkina Faso	\$1.8 mn	1.2 mn	\$1.50	\$0.05	\$0.55
El Salvador	\$1.4 mn	100 k	\$14.00	\$0.40	\$1.40
Indonesia*	\$1.5 mn	1.0 mn	\$1.50	\$0.05	\$0.65
Kenya	\$1.8 mn	1.5 mn	\$1.20	\$0.04	\$0.71
Lesotho	\$0.2 mn	180 k	\$1.11	\$0.03	\$0.53
S. Africa	\$0.2 mn	5.7 mn	\$0.03	n/a	n/a
Tanzania	\$1.4 mn	1.2 mn	\$1.17	\$0.03	\$0.53
Uganda	\$0.8 mn	450 k	\$1.75	\$0.06	\$0.49
Vietnam	\$0.3 mn	150 k	\$2.00	\$0.07	\$0.57

* Data for Indonesian project shows only balances on new pro-poor product via post offices.

¹ We assumed an annual charge of 35%-20% for amortisation and 15% for ongoing maintenance, licensing and support. We applied this to total allocated funding even though the marketing elements would not normally carry the maintenance charge. In contrast we excluded all technical assistance from the allocation because this was thought to be more about learning how to make the investment work and once done would not need renewing.

As it happened, almost all the selected projects ended up in the 40-80 cent band, with the poorer countries generally towards the bottom and the better off ones towards the top. For the one project with expected monthly unit costs above a dollar, small country effects were at work but were offset by the second highest per capita income in the whole group. For another proposed project the amount being invested was so low that the proxy looked meaningless but sustainability was not expected to be an issue. For a third project we were tying our allocation to a larger funding line from another donor and the apparent sustainability of our grant did not carry through to the overall investment and sustainability has since been a problem.

1.2. The marginal impact on the overall sustainability of participating members

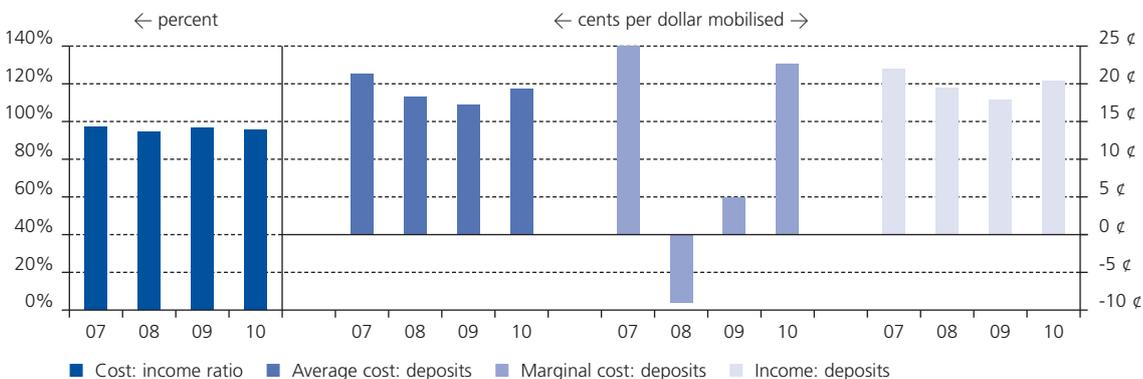
Implicit in the crude proxy described in the previous section is that the projects were only trying to create sustainable mobilisation of small balance savings; they were not institutional strengthening projects aimed at addressing problems of overall member level profitability.

Most WSBI developing country members are profitable, albeit not always very strongly so.² This was reflected in the mix of members who ended up being selected – about a third were and are solidly profitable, another third have high cost-income ratios and although generally breaking even occasionally slip into small losses, and for the other third the position is ambiguous (one was a start-up, one was fully integrated into the postal service and the other was in the process of corporatizing and establishing itself outside the postal service).

The three members chosen for this initial study were selected because they capture the middle ground of the spectrum described above. All three have persistently high cost-income ratios and two of the three have had a loss-making year within the Programme span. All three could not therefore afford to cross-subsidise small balance savings mobilisation. It is too early for projects set up for them to have a measurable impact on audited results but it is clear that they must become self-sustaining, at least at the margin, and ideally they need to create a positive contribution to covering overheads, there by reducing overall cost-income ratios.

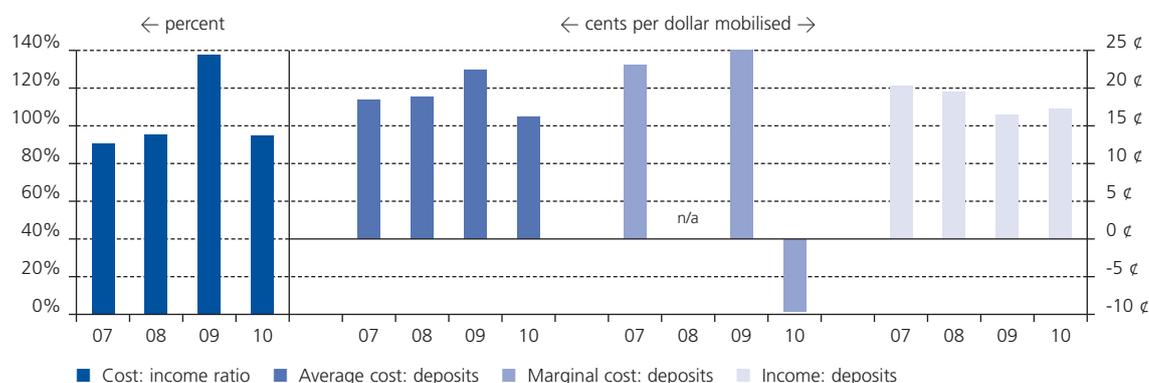
Cost-income is not, of itself, a very informative indicator of sustainability, as it mixes up how well costs are being managed with how well the balance sheet was managed in the past,³ how well it is being managed now⁴ and also how well income is being extracted from the productive parts of the balance sheet. The charts below give a four-year history in the run-up to implementation of the projects at these three members. They are all indicators that can be created from published reports and accounts. They start with the overall cost-income ratio and then follow with indicators that look at cost efficiency, balance sheet efficiency and finally income variability.

Bank 1 – Facing falling income yields in 2008 the bank had to cut costs in absolute terms while still growing its balance sheet (so the marginal cost to marginal deposits ratio turned strongly negative) and it kept costs growth much slower than deposit growth in 2009 as yields fell further but then as income yields recovered in 2010 the bank let cost growth accelerate sharply.

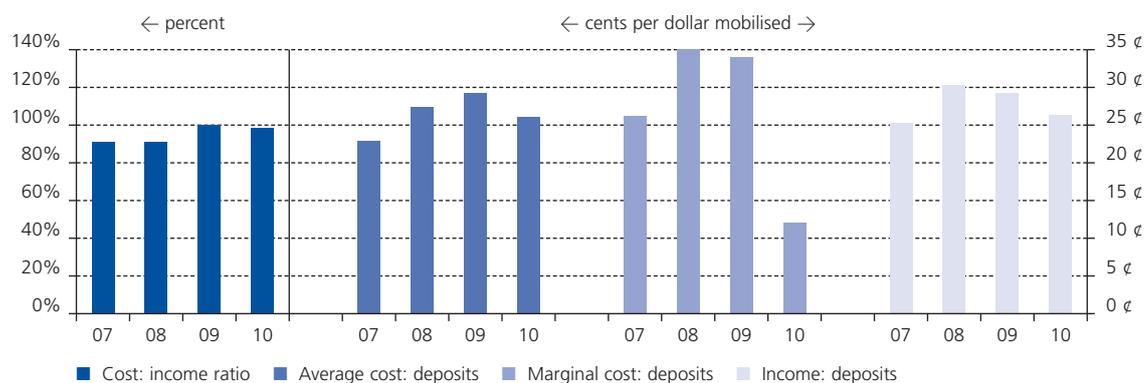


2 The movement tends to be left out of the overt misdirection of resources characterising lending in poorly governed economies because too many losers have to be created to build up a large enough pool of funds to be worth misdirecting.
 3 What proportion of deposits mobilised are deployed in income earning assets?
 4 Are new deposits turning into new earning assets?

Bank 2 – Undertaking a major change programme against a volatile market background, the bank saw its cost to deposit ratio pushed up by restructuring costs just as legislative intervention undermined a major element of its income yield; the cost-income ratio surged as a result, but by 2010 the change programme had sharply improved cost ratios (although the cost-income ratio remains stubbornly high because of a permanent loss of some elements of income).

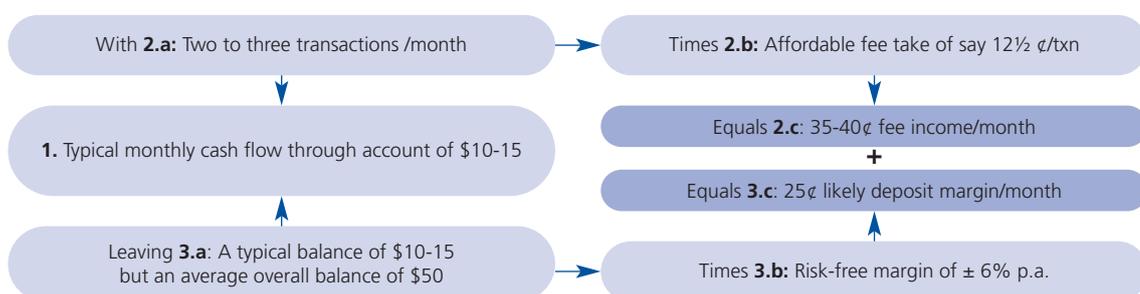


Bank 3 – After a sharp retrenchment in the middle of the decade, the bank began a period of rapid business expansion, including growing the branch network leading to continuous upward pressure on costs such that the marginal cost to deposit ratio was above the historical average cost ratio and dragging it inexorably upwards. For a while this was covered by rising average yields but that stopped in 2009 and the cost-income ratio rose to 100%.



This gives some pointers as to what sort of marginal cost-income ratio new mobilisation of small balance savings has to achieve if the banks are to see it as a part of a sustainable overall business mix. Given all of the banks wanted to get their overall cost-income ratio down below 80%, the new small balance business must eventually have a marginal cost-income ratio of no more than this. It is possible to combine this requirement with work already done on renewal charges for the investment to be made (see above) and with other work done on the likely affordability envelope around the fee-generating potential of small balance savings.⁽⁶⁾ This then allows us to calculate the sustainable unit cost of servicing a transaction over a small balance account, which is done below in a schematic format.

Total affordable yield to the bank



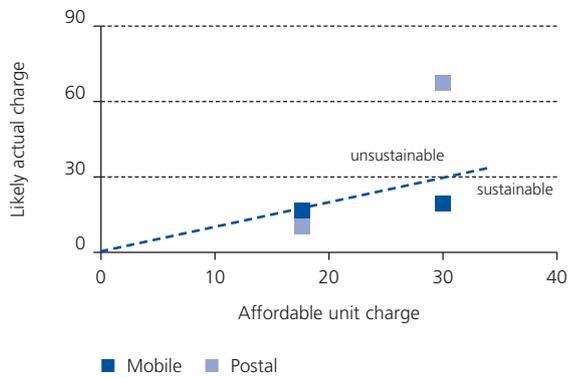
For two of the members participating in this study the likely cash flow through a usable pro-poor account is expected to be very low (barely \$10-15 per month) and the typical balance differs little from this. Ultimately, we would hope to get five transactions per month from accounts like this, but that is a long-term goal for when micro banking is firmly established in the customers' mind. A more realistic goal for the projects would be two to three transactions a month. The likely make-up of this sort of transaction flow is one and a half transfer-related transactions every month, each with two parts (the transfer itself and the cash in or out that almost always precedes or follows it) and a separate cash deposit or withdrawal every month.

The affordable fee income is therefore likely to be low. At rural levels of income this will almost certainly average no more than about 40 US cents per month. To this needs to be added net interest and the 80:20 maxim applies (i.e. the last 20% of customers quadruple total savings mobilised), so the average balance to which interest can be applied is not \$10-15 but somewhere closer to \$50. At a 6% interest margin this adds about 25 cents per month to the affordable fee income.

On this basis, in the two less well off countries, the maximum allowable marginal cost per new small balance account would be around 50 US cents per month (60-65 cents times 80%) from which the renewal charge (already calculated – see above) of between 3 cents and 6 cents needs deducting. Overall, therefore, no more than about 18 cents per transaction is left to pay for whoever is going to service the customer. For the third member 1½-2 times these numbers looks feasible (i.e. a much more generous 30 cents looks possible) as household cash flows and therefore income generating potential is higher.

All three members were looking primarily to agency models as their route to reaching small-balance savers. The feasible limits on what can be paid for transaction processing can then be compared with typical postal and mobile-money agent charges per transaction in the scatter chart opposite. This clearly illustrates the tensions in these projects. In both of the poorer countries non-postal agencies are a challenge because mobile money has raised charges right up to what can be afforded. For one of them, however, revivifying the postal agency really does look feasible. In the better off country the reverse applies (non-postal is feasible but until very recently postal looked impossible).

Likely minimal agent charges



All three projects are actually following paths driven by these findings even though the analysis has only been formalised now. This was because enough was clear to know what was, and what was not, likely to work. Now more is known, this is a perfectly valid and relatively easy approach for any member to use in project design. The affordability envelope has been calculated for all ten participating members and is relatively easy to replicate for any country (see the already cited paper on usability in a mass retail context).

This approach also opens up powerful insights into the resources that can be sustainably deployed to mobilise pro-poor savings. The allowable marginal costs per new account calculated above can be divided by the expected average deposit to give a budget for how much incremental cost can be incurred for every dollar likely to be raised. For the three members participating in this study that budget limit is just 10-11 cents annually on the dollar. This is a real challenge for banks that have in the past sometimes all spent at least an extra 20 cents for every extra dollar mobilised (although these overall historic ratios include costs of lending newly mobilised savings in two cases). Clearly, different resource configurations are needed compared to the traditional mix of own branches and low productivity postal representation. This is explored next.

1.3. Sustainability at the level of new outlets

A lot of work has been done to model specific individual solutions that could be deployed in different circumstances such as new branches, mini-branches, mobile units, single teller kiosks and various types of agencies. The models are self-balancing and based on a break-even analysis that looks at what assumptions have to be made about key business drivers to ensure the necessary investment pays back in time for its renewal. These key assumptions relate to:

- the cost of investing in each type of outlet, the number of customers it must attract,
- the transactions it will process for them,
- the fee-take on those transactions,
- and the costs of processing.

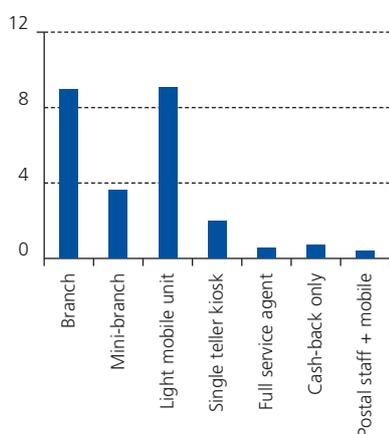
A critical distinction not surprisingly emerges between the modelling of banks' own outlets and agency networks. The former have virtually no variable costs, whereas almost all agency network costs are variable:

The models only target break-even plus a very modest cushion to ensure this is generally achieved (i.e. a cost-income ratio of 95%), so what is shown below constitutes the very minimum of what needs to be achieved. Their most important use is to expose any irreconcilable tensions in balancing affordability and sustainability for different types of outlets. The key results shown below are the number of customers required to achieve payback on the investment required, costs as a percentage of deposits mobilised after three years and the required productivity (transactions per teller hour) for banks' own outlets.

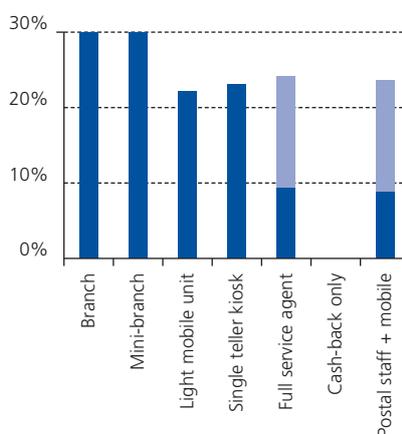
COST MIX FOR OWN OUTLETS		COST MIX FOR AGENCY NETWORKS	
FIXED COSTS	VARIABLE/SEMI-VARIABLE	FIXED COSTS	VARIABLE/SEMI-VARIABLE
Up-front investment	Some telecoms	Investment made	Agent charges
Location rental	Core IT systems	Supervisor with motorbike	Core IT systems
Staff deployed	Stationary		Ongoing marketing
Security/Cash/Transport	Ongoing marketing		
Typically 85%-90%	Typically 10%-15%	Typically 15%	Typically 85%

Required customer numbers

(per thousand clients)

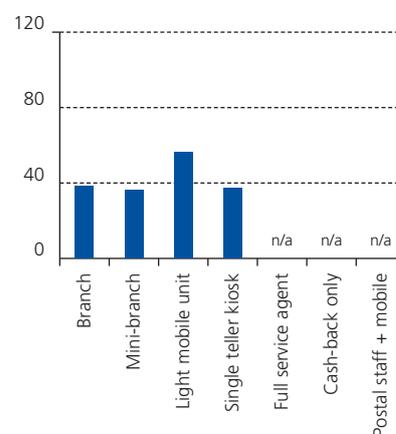


Cost as a percentage of deposits



Implicit teller productivity

(transactions per teller hour)



■ Bank cost ■ Agent charges

Interestingly, amortising the up-front investment costs is never the main issue in determining sustainability. Obviously, one must not over-invest, but containing operating costs is by far the bigger challenge. Regarding this, four really striking conclusions emerge from the results shown above:

- payback on any of the outlet types is virtually impossible within the pure rural affordability envelope while business is still primarily cash-based, so the fee rates assumed in this modelling had to be about 1½ times rates assumed earlier in the paper (effectively blending rural and poorer urban affordability);
- at these fee rates the agent model can work in small peri-urban trading centres and large villages with populations of at least 3,000 and total catchments⁵ of twice this, while banks’ own outlets (branches, mini-branches kiosks, etc.) only work down to the level of small towns (populations of at least 10,000);
- even though the agent model introduces more variability in costs, it is so finely balanced in East Africa on cash-in/out (because of what mobile money operators charge and pay) that the slightest change in assumptions on business volume and mix or tariff scan quickly destroy chances of payback;
- this is because the agent model is not costless for the bank to run, with own costs (IT, control, marketing, etc.) adding another half on top of what is covered under agent remuneration.⁶

These results are being factored into a separate study on how to improve proximity with a sustainable mix of own outlets and agency arrangements, but it does look as if nothing is possible beyond small towns except through the agency model, and this does not work for genuinely rural households.

To achieve significant rural outreach, the way the bank is accessed has to be purely digital (not over any form of counter) and this must be in partnership with someone else who handles agent control and agent level marketing within the revenue sharing arrangement they agree with the bank. This is quite a fundamental finding, because most projects were premised on expanding rural outreach and the pure bank-agency model does not now, of itself, seem to do this sustainably.

1.4. Pricing to achieve both affordability and sustainability

The previous section looked at the marginal outlet and how sustainability depends on the sort of outlet being invested in. That is an important part of, but not the whole answer to, what a pro-poor breakthrough should add to a savings bank’s overall business. This is because many savings banks have capacity within their existing resourcing to handle more clients without having to expand infrastructure or increase staffing. This section looks at what could be done to pricing if a bank adds business to its existing network, through agents and via partnership without aiming to change overall profitability. It is based on real data for one of the banks participating in the study, but the approach is easily replicated and a template is attached to allow any bank to try this sort of calculation.

The starting point is the standard analysis of cost of delivery for banking services by platform. This has already been addressed in the Comparative Review⁽ⁱⁱⁱ⁾ that looked at the obstacles to significant breakthrough in pro-poor outreach and was taken further in the already cited paper on usability in a mass retail context (see reference ii at the end of the paper). The sources cited in these papers^(iv) looked at various ways of fully allocating costs – central, regional and local overheads as well as variable and semi-variable local costs – to get a comprehensive estimate of what each transaction costs to process. At an overall level these are a useful guide and the various studies suggest the following progression of the cost to supply a typical banking transaction depending on the platform used.

Transaction cost indicator by supply channel

\$1	40¢	30¢	20¢	15¢	10¢	5¢	0¢
Full-cost banking branch							
ATM							
Banks’ own agents							
Call-centre							
Mobile wallet							
Mobile banking /							
Batch electronic							

⁵ Encompassing people living within a radius of about 2-3 km around an outlet.

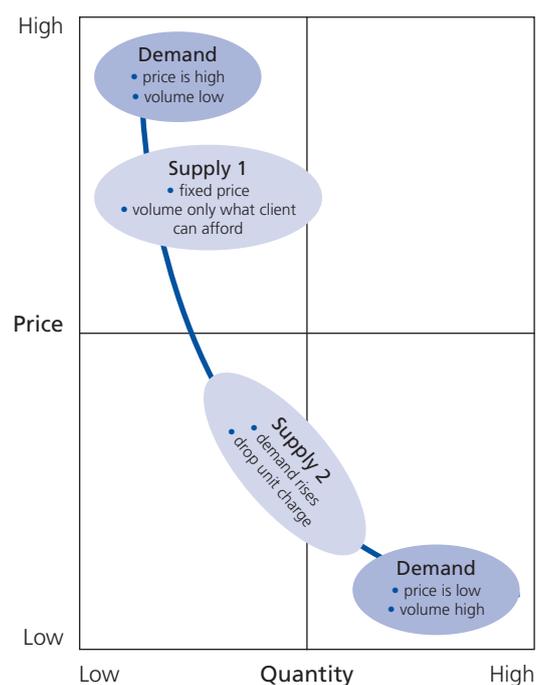
⁶ Even though the control mechanism assumed here is only one employee with a motorbike for fifteen outlets.

Given, however, that banking is an industry typified by high fixed-costs, particularly for legacy banks with a long history like savings banks, it is important to remember that overall costs can be averaged down by spreading them over a bigger deposit base provided fixed overheads are not allowed to grow. In all three banks in this study fixed central and control overheads outweigh the direct (semi-variable) cost of processing depositor operations by about three to one. Typically, less than 10% of this overhead relates to IT costs (although for one of the members it was closer to 15%). The larger part by far comprises branch management, branch premises, head office, etc. All these are essentially fixed and just as they fall only very slowly as business volumes decline, there is no reason why they need to grow just because a bank is regaining the active customer base for which it was designed.⁷ So for the purposes of these three projects at least we could target lower branch transaction costs for extra business than the average costs shown above.

The outlet level modelling in the previous section had marginal costs of just 20-25 US cents per transaction, but this depended on high levels of continuous teller productivity. Teller and systems productivity turn out to be very important determinants of sustainability and the difference between potential and actual productivity is huge. The technical limit of the card and PoS systems invested in under the WSBI Programme is about 50 transactions an hour or virtually one per available teller minute.⁸ This is never sustained for eight hours of the working day, but a transaction every two minutes (with personal time taken between transactions) is both possible and being demonstrated by individual tellers employed by one of the members participating in this study. This, however, contrasts markedly with total teller hours divided by actual transaction volumes at all three members in the study. These averages range from 6 to 7½ minutes and at a typical (i.e. median) branch can be up to 10 minutes per transaction.

Put bluntly, these transaction processing times suggest that between two-thirds and three-quarters of teller time is on average not being spent serving the customer. This is not an argument for making tellers redundant, but it is an argument for taking risks with pricing to push a bank's supply curve out towards the elastic end of the demand curve (where every percentage point cut in pricing brings more than a percent growth in business volumes). This is really difficult to accept because it challenges commercial instinct, but dropping prices can sometimes increase revenue and for a bank with high fixed costs and underused resources the extra business volume should also help cut the unit cost of supply.

This is actually fundamental to the Mass Retail Banking model developed in the already cited paper on usability in a mass retail context. The chart below illustrates this schematically. The demand curve in the chart is classically downward sloping – the quantity demanded rises as prices fall. The top, steeply downward sloping end is where the three banks covered by this study are almost certainly currently located. They essentially offer a flat supply curve for their basic savings products (i.e. “We’ll process almost all the transactions you want for the price on our tariff”). At this point in the demand curve (in fact, anywhere along the upper half) raising prices has typically resulted in lower business volumes but as stabilised revenues against other downward pressures. The reverse is true along the bottom half of the demand curve and this is where a savings bank should ideally be. An appropriate supply curve for the bottom, rightmost end of the demand curve should slope slightly downward because higher volumes should be spreading fixed costs thinner and thinner. This could be characterised as saying, “If you bring us lots of (admittedly smaller) transactions, we’ll charge lower unit prices but take more revenue overall for the greater service provided.” This has the benefit of encouraging the customer to do more with the bank and allows the bank to test whether there is a bigger market for small balance business without letting go entirely of higher value business. This sort of tiered pricing (rising with the value of the transaction processed) is well established in East Africa and becoming more and more of a feature of mobile money there.



⁷ About 1-2 million for the three banks in this study.

⁸ After allowing for teller personal down time (toilet breaks, eating, etc.) of ten minutes in the hour.

To make this more real in the banking context, the tables below show the current situation and a possible pricing alternative for one of the members participating in this study.

The member promised to use Programme funds to rebuild a real customer base equal to the whole recorded customer base at the start of the project but whereas only a quarter of the recorded base were non-dormant the target base was to be all active – i.e. this meant targeting a fourfold increase in useably served people in a country where 90% of non-users count as poor.

The starting tariff was a classic African postal savings bank tariff, still with a monthly ledger fee and an extra ledger fee for dormant accounts and even an additional fee when account balances dropped below a given threshold.

Equally unsurprising, the IT system was processing so many ledger, dormancy and low balance fees that it too could be said to be barely 10-20% deployed on processing genuine customer transactions (as opposed to transactions the bank does for its own benefit with customer accounts).

With such huge underused potential it is possible to think about a pricing strategy that could bring so much extra business that staff and IT systems start working twice, three times, even four times faster and still not end up being pushed beyond their technical limits. Even just getting branch teller staff to work twice as fast would allow half the target customer base to use the branch once every month for one over the counter transaction. At the same time the other half of the target customer base could be using an agent network but still run off PoS connections to the same core IT systems.

SCENARIOS:	1/. CURRENT - CHARGING FOR NON-USE AND UNDEREMPLOYED STAFF / IT SYSTEMS			2/. WSBI-GATES MODEL CHARGING ONLY FOR USE AND STAFF/IT FULLY DEPLOYED		
	BRANCH DEPOSIT PRODUCTS	TRADITIONAL POSTAL SAVINGS	INDIVIDUAL LOANS	BRANCH DEPOSIT PRODUCTS	NEW POSTAL / AGENCY BUSINESS	INDIVIDUAL LOANS
Non-dormant customers	285.000	15.000	25.000	600.000	600.000	37.000
Required teller time / txn	02 minutes		01 minutes	1.1 minutes		01 minutes
Available teller time / txn	08 minutes		05 minutes	2.1 minutes		2.0 minutes
Number of counter txn	159 k/month	1 k/month	25 k/month	600 k/month	600 k/month	25 k/month
Number of electronic txn	24 k/month	zero	3 k/month	625 k/month	600 k/month	3 k/month
Av. OTC deposit fee / txn *	negl.	negl.	US 125 cents	US 6 cents	US 6 cents	US 125 cents
Av. E-transaction fee / txn	US 44 cents			US 5 cents	US 3 cents	
Net Revenue (\$000/month)	381	124	216	343	148	314
Direct staff cost	-88	-1	-46	-88	0	-48
Agent commissions	-24			-38		
E-transfer messaging				-13	-26	
IT system charges	-28	-24	-2	-28	-54	-1
Revenue net of cost	265	74	169	213	30	265
to supply				508		
less branch overheads			← NB - fixed overheads →			
		-85%	MUST NOT CHANGE		-85%	
Net HO overheads*		-6%			-6%	
Pre-tax profit			46	46		

Note the lack of any obvious price for actually serving the customer. In fact, 75-80% of total fee income could be described as charging for not doing business! Not surprisingly, with three-quarters of the customer base dormant, tellers were working with stretched transaction processes and a lot of waiting time. Overall, there was about 7½ minutes of potentially available teller time for transactions that can be processed easily within a minute or two on a modern card/PoS system. This means the starting point was teller time only 20% deployed at on actively serving the customer at peak productivity.

Moreover, all of the active customer base could supplement the cash business they do with the bank with one extra mobile transaction a month again without overloading the core IT systems. All this could be done and all costs covered at a tariff just about within the affordability envelope and cheaper even than mobile money in that country.

This is not to say that pricing is the only factor driving demand in such environments, and it is not to say the bank should be this aggressive in its pricing strategy but it does suggest that it could take more risks with pricing basic savings and money transmission services alongside other business-building initiatives such as awareness campaigns, expanding distribution networks and new lending drives. The lower part of the table on the previous page showed that the move to affordable transaction based pricing can all be done while leaving profit unchanged even though all ledger fees are abandoned.

This is a mind game to illustrate the leverage that can be extracted from underutilised resources, but no chief executive could or should make such a dramatic change in pricing without a lot more detailed planning. That planning can be funded under the WSBI Programme and one conclusion of this paper is that a participating member needs to make a bold move like this to show that the elastic (bottom-right) end of the demand curve can be opened up. The power of the example shown above is that there is nothing in the bank's existing profitability that cannot be mathematically rebuilt around a tariff that unambiguously works for the rural poor. The average fee per over-the-counter (OTC) transaction is just 6-7 US cents, well within the 10-15-cent affordability envelope in the poorer two countries so far modelled. Moreover, the add-on transfer business is assumed to be given away at pure marginal cost and also well inside the affordability envelope. As already indicated the bank concerned does not have to be this aggressive in its pricing strategy, but at such affordable pricing the chances of opening up the elastic end of the demand curve, where lower pricing starts to add to revenue because it stimulates so much extra demand, looks possible.

1.5. Key messages from the work already done

Three really powerful messages arise from the conceptual work described so far and these are probably general to all members participating in the WSBI Programme and indeed beyond that to WSBI's wider developing country membership:

- The amount that can be spent at the margin on servicing extra small balance truly rural deposits is very low, probably only about 10 US cents annually per dollar mobilised, but higher amounts (closer to 15 cents per dollar mobilised) look possible in larger rural centres, peri-urban locations and towns.
- The bank-agency model is important to reaching out beyond towns, but it is a very finely balanced business model that probably cannot be made to work in a truly rural context. However, it should be workable in the middle ground described above (larger rural, peri-urban and urban).⁹
- Where a bank has seen its active customer slip into dormancy there is often spare capacity that would allow a bold move on pricing to at least make it affordable for the middle ground and this is still a big market and most of the unbanked in these locations still count as poor or near poor according to international definitions.

⁹ This has the additional advantage of allowing a savings bank to broaden its outreach significantly (getting closer to half a country instead of barely a quarter – see our upcoming paper on proximity) without immediately trying to tackle the most acute problems that go with lack of access in remote rural areas where poor access to banking is compounded by poor access to educational and health services, raising challenges of literacy and morbidity/mortality.

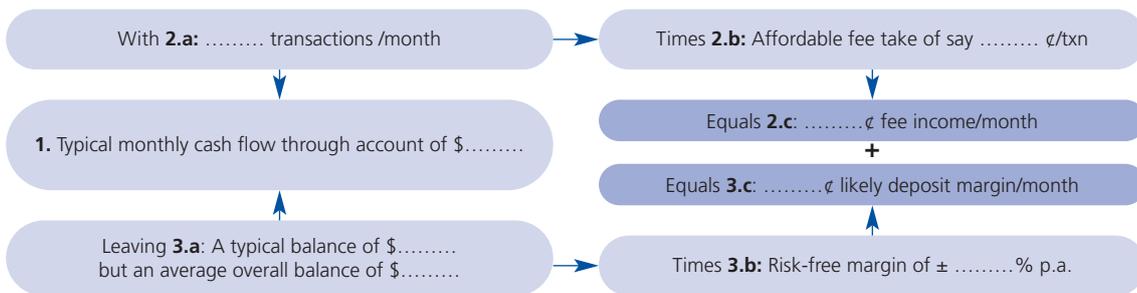
TEMPLATE 1 WORKING WITHIN THE AFFORDABILITY ENVELOPE

The affordability envelope for basic payments and savings services in rural markets has been calculated for all ten participating members in the WSBI Programme in the already cited paper on usability in a mass retail context, and the methodology is explained there. The results are summarised below:

COUNTRIES COVERED BY WSBI PROGRAMME	GROUP 1: TANZANIA / UGANDA	GROUP 2: BURKINA FASO, KENYA AND LESOTHO	GROUP 4: MOROCCO, S. AFRICA AND VIETNAM
Typical rural household monthly cash flow	\$40 - \$50	\$55 - \$70	± \$150
Likely amount of cash financially manipulated	\$10 - \$15	± \$25	± \$100
Likely limit on what is being paid for this	60 - 75 US¢	\$1.25 - \$1.50	not clear but ± \$2 - \$3
Affordability envelope – cost to user / transaction	12.5 - 15 US¢	25 - 30 US¢	40 - 60 US¢

* Group 3 comprises El Salvador and Indonesia and these lie somewhere between Groups 2 and 4.

Now apply your best idea as to what the affordability envelope means for dealing with rural households in your country:



Having identified the total **expected income per household served** \$..... (from above) multiply this by your **target cost-income ratio** % and then divide the result by the **average overall balance** \$..... (also from opposite). This will give you your **affordable/sustainable cost to deposit ratio**:%. How does this compare with your last year's actual results?

That comparison with actual results is calculated as follows: **Change in total costs between last year and the year before** \$ million divided by **Change in total deposits between last year and the year before** \$ million to give **historical marginal costs to marginal deposit mobilisation ratio**: %.

TEMPLATE 2

PRICING FOR AFFORDABILITY AND SUSTAINABILITY

This template allows a bank to gather the data needed for the WSBI Programme Team to see how far the bank could recreate its existing profitability from a higher volume/lower fee mix of business.

The starting point is to take report and accounts data and separate out cost of sale from overheads as follows:

- Start** **Total operating cost** excluding bad debt charge (take from reported P&L)
- 1** Split **Staff Costs** between tellers/loan officers/others pro-rata to shares implicit in teller/loan-officer numbers times average pay
- 2** Identify full **IT Platform Costs** (IT depreciation/licensing/ other IT costs including staff) and **Agency Charges Paid**
- 3a** Deduct teller/loan-officer staff costs, IT platform costs and agency charges from total operating cost to get **Total Overhead**
- 3b** Ideally, separate Head Office Overheads from Branch Overheads (total overhead - (Head Office costs - IT platform costs))

By this stage total operating costs should ideally be split as follows:

4	COUNTER SERVICES		RETAIL LENDING STAFF COST (BRANCH ONLY)	IT COST (RETAIL)	OVERHEADS		TOTAL OPERATING COST OF BANK
	BRANCH	AGENCY			BRANCH	H-OFFICE	
(\$ mn)	from 1 above	from 2 above	from 1 above	from 2 above	from 3 above	from 3 above	from annual report/accounts

The next stage is to take report and accounts income data and separate out deposit and loan income as follows:

- 5** Calculate **Risk Free Investment Yield** (interest on government bonds / interbank loans and divide by average balance invested)
- 6** Calculate **Deposit Margin** (multiply average balance on customer deposits by risk free yield and deduct deposit interest paid)
- 7** Calculate **Retail Loan Margin** (multiply average retail lending balance by risk free yield and deduct this from loan interest)
- 8a** Split fees and commission income into **Deposit Fees, Retail Loan Fees, Other Branch Counter Operation Fees*** and other fees
- 8b** Ideally, split deposit fees into **ATM/E-transaction fees** and **Other Deposit Fees** (usually by residual)

* Such as Western Union, tax collection, bill payments, etc

By this stage total bank operating income should be split as follows:

9a	INCOME FROM COUNTER OPERATIONS				RETAIL LENDING INCOME		OTHER (ASCRIBE TO HEAD OFFICE)	TOTAL NET OPERATING INCOME
	DEPOSIT MARGIN	ATM/ E-OPS FEES	OTHER FEES		RETAIL LOAN MARGIN	RETAIL LOAN FEES		
			DEPOSITS	OTHER				
	(\$ mn)	from 6 above	from 8 above	from 8 above	from 8 above	from 7 above		

Sometimes, where a bank already has a functioning agency network (usually a postal network), the income from deposit operations can be split between postal savings business and other savings business:

9b	INCOME FROM COUNTER OPERATIONS				RETAIL LENDING INCOME		OTHER (ASCRIBE TO HEAD OFFICE)	TOTAL NET OPERATING INCOME
	DEPOSIT MARGIN	ATM/ E-OPS FEES	OTHER FEES		RETAIL LOAN MARGIN	RETAIL LOAN FEES		
			DEPOSITS	OTHER				
	(\$ mn)	Postal: Other:	Assume all branch	Postal: Other:	Assume all branch	Assume all branch		

The final stage of data gathering involves the numbers of staff and customers involved and the volume of transactions being processed:

10	TELLER STAFF NUMBERS	LOAN OFFICER NUMBERS	ACTIVE* DEPOSIT CUSTOMERS	NUMBER OF DEPOSIT OPERATIONS	OTHER OVER THE COUNTER OPERATIONS	NUMBER OF RETAIL LOAN OPERATIONS
				BRANCH	POSTAL	
			ATM/E-OPS FEES			

* Please explain your definition of active. The one preferred at Programme level is the average of (a) numbers of customers active in the first six months of the year in question and (b) any active in the second six months of the year. Alternatively, we can work with the average number of non-dormant customers at the beginning and end of the year in question.

Please now submit your data as summarised in steps 4, 9a or 9b and 10 above (ideally with your workings) to the WSBI Programme Team (Weselina.Angelow@savings-banks.com or Lisa.Stahl@savings-banks.com) together with a copy of your latest report and accounts. At the same time please describe the sort of remote access business model (postal, other agency, with or without mobile, etc.). The data will then be put into a Microsoft Excel spreadsheet in a form similar to that shown on page 14 of this paper but adapted to your bank's circumstances and proposed business model and then returned to you as the basis for further discussion.

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- (i) Access to finance - What does it mean and how do savings banks foster access", [www.wsbi.org/uploadedFiles/Publications_and_Research_\(ESBG_only\)/Perspectives%2049.pdf](http://www.wsbi.org/uploadedFiles/Publications_and_Research_(ESBG_only)/Perspectives%2049.pdf);
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- (iv) The two latest references that have been used as the basis of discussion of cost to supply in the working paper "Mass retail banking: How savings banks in Africa, Asia and Latin America can provide usable services to the poor Paper referenced above", are:
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