What is the impact of MICROFINANCE on poor people?

A SYSTEMATIC REVIEW OF EVIDENCE FROM SUB-SAHARAN AFRICA

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STEWART R, VAN ROOYEN C, DICKSON K,
MAJORO M, DE WET T

TECHNICAL REPORT

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Authors	Ruth Stewart, EPPI-Centre, Social Science Research Unit, Institute of Education, University of London and Centre for Language and Culture, University of Johannesburg Carina van Rooyen, Department of Anthropology and Development Studies, University of Johannesburg Kelly Dickson, EPPI-Centre, Social Science Research Unit, Institute of Education, University of London Mabolaeng Majoro, Department of Anthropology and Development Studies, University of Johannesburg Thea de Wet, Department of Anthropology and Development Studies and Centre for Language and Culture, University of Johannesburg
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Contact details	Ruth Stewart Social Science Research Unit Institute of Education 18 Woburn Square London W10 5UJ United Kingdom r.stewart@ioe.ac.uk +44 207 612 6606
Institutional base	EPPI-Centre, Social Science Research Unit, Institute of Education, University of London
Review group	This group is made up of staff from the EPPI-Centre's Perspectives, Participation and Research team and members of the University of Johannesburg's Department of Anthropology and Development Studies and Centre for Language and Culture namely Ruth Stewart and Kelly Dickson from the University of London and Thea de Wet, Carina van Rooyen and Mabolaeng Majoro from the University of Johannesburg
Advisory group	As we have conducted a multi-centre rapid systematic review, we have used a virtual network to advise on this project including: an open-access twitter network that routinely shares and discusses issues around microfinance and the evidence for its impact; a Ning wiki on Impact Evaluation Social Network (http://3ieimpact.ning.com); our own methodological networks via the EPPI-Centre; and our academic peer reviewers identified for their expertise in researching microfinance and in systematic reviewing, David Roodman and Gabriel Rada respectively.
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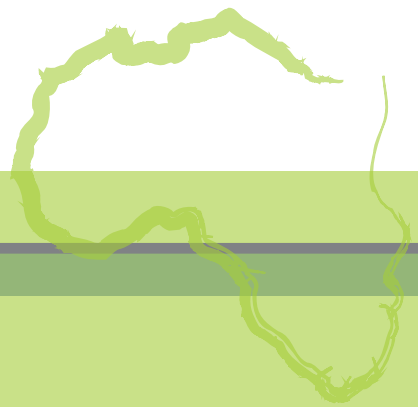

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LIST OF ABBREVIATIONS

3ie	International Initiative for Impact Evaluation
AEMI	Association of Ethiopian Microfinance Institutions
AFMIN	African Microfinance Network
AIMS	Assessing the Impact of Microenterprise Services
AMFIU	Association of Microfinance Institutions of Uganda
CGAP	Consultative Group to Assist the Poor
COWAN	Country Women's Association of Nigeria
DFID	Department for International Development
EFInA	Enhancing Financial Innovation and Access
EPPI-Centre	Evidence for Policy and Practice Information and coordinating Centre
FINCA	Foundation for International Community Assistance
FSDT	Financial Sector Deepening Trusts in Kenya and Tanzania
GHAMFIN	Ghana Microfinance Institutions Network
ILO	International Labour Organisation
INAFI	International Network of Alternative Financial Institutions
MDGs	Millennium Development Goals
MFI	microfinance institution
MIX	Microfinance Information Exchange
NGO	non-governmental organisation
PAL	Poverty Action Lab
QUIP	Qualitative Imp-Act Assessment Protocol
RCT	randomised controlled trial
RIFIDEC	Regroupement des Institutions du Système de Financement Décentralisé du Congo
SEEF	Small Enterprise Education and Promotion Network
SEF	Small Enterprise Foundation
SME	Small and medium-sized enterprise
SSA	sub-Saharan Africa
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

Background

Microfinance is a term used to describe financial services for those without access to traditional formal banking. It incorporates the provision of loans, often at interest rates of 25% or more, to individuals, groups and small businesses – i.e. micro-credit. More recently it has also been extended to include the provision of savings accounts – micro-savings – as well as insurance and money transfer services.

These interventions have been hailed by many as a solution to poverty alleviation, which allows market forces to operate, enabling the poor to invest in their futures and bring themselves out of poverty. The advocacy movement behind these initiatives is powerful and many evaluations highlight the benefits of these services. The expectations amongst donor agencies and the clients they serve are high – microfinance organisations bear names in local languages reflecting these expectations, meaning for example 'hope' and 'mustard seed'.

There is however growing concern amongst academics that these expectations are not being met. Rigorous research approaches, employing randomised trial designs, have begun to suggest that microfinance may not be the golden bullet that many had hoped. With a current expansion of microfinance services in sub-Saharan Africa, and an increased focus on how best to extend these services to the poorest of the poor, there is an imperative to establish whether micro-credit and micro-savings are helping or harming the poor people they purport to serve.

Objectives

We set out to review empirical research on the impact of microfinance (specifically micro-credit and micro-savings) on poor people in sub-Saharan Africa to enable policy-makers, donors and practitioners to understand the nature of the evidence available.

Methods

We developed a protocol for this review which was peer reviewed and published at the start of the project. During the course of the project we drew on the expertise of potential users of the review, including researchers, policy advisers and microfinance organisations, particularly seeking their input on where to search for relevant literature, on our initial findings and on how best to disseminate this work.

In order to identify all the relevant literature, we searched systematically for evaluations of micro-credit or micro-savings in sub-Saharan Africa, looking in three specialist systematic review libraries, 18 electronic online databases, the websites of 24 organisations and an online directory of books. We also contacted 23 key organisations and individuals requesting relevant evidence, conducted citation searches for two key publications and searched the reference lists of initially included papers.

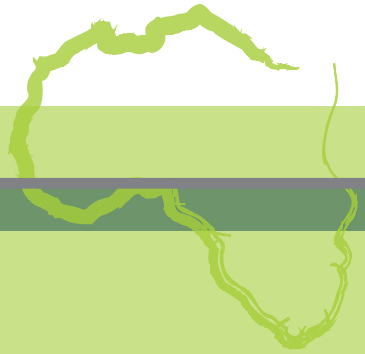
Our search results were screened in two stages: initially we were over-inclusive and then collected full texts of papers which were scrutinised in more detail by two researchers. Those papers which met our inclusion criteria were then coded by the same two researchers, working closely together, querying and discussing any uncertainties to ensure accuracy, avoid bias and maintain clarity. All relevant studies were assessed using predetermined quality criteria, and the findings of those studies judged to be of high or medium quality were extracted.

The findings of these studies were then synthesised using two approaches: identification of whether micro-credit or micro-savings were having positive, negative, varied or no effects on the lives of poor people, and narrative synthesis of qualitative findings. Lastly, we developed a causal chain to unpack how microfinance impacts on poor people and mapped the available evidence of effectiveness on to this causal chain. This enabled us to draw out recommendations for policy and practice in the region.

Details of the included studies

We identified 35 studies which compare the impact of having a loan or a savings account with not having either. The quality of these 35 varied, with 20 excluded either due to poor reporting, poor methodology or both. Eleven studies were medium quality and four high quality. These 15 studies were considered 'good enough' quality and included in the in-depth review.

The 15 studies included four randomised controlled trials, two non-randomised controlled trials and nine case



control studies. Eleven of the studies included in our in-depth review were of micro-credit interventions, two were of combined credit and savings interventions and two were of savings schemes alone. They include evaluations of microfinance programmes within Ethiopia, Ghana, Kenya, Madagascar, Malawi, Rwanda, South Africa, Tanzania (Zanzibar), Uganda and Zimbabwe, and include both rural and urban initiatives.

Synthesis results

In relation to incomes of poor people, the available evidence suggests that micro-credit has mixed impacts and that micro-savings has no impact. Both micro-credit and micro-savings have positive impacts on the levels of poor people's savings whilst they also both increase clients' expenditure and their accumulation of assets. Both micro-credit and micro-savings have a generally positive impact on the health of poor people, and on their food security and nutrition, although the effect on the latter is not observed across the board.

The evidence of the impact of micro-credit and micro-savings on education is varied, with limited evidence for positive effects and considerable evidence that micro-credit may be doing harm, negatively impacting on the education of clients' children. Micro-credit does not appear to increase child labour, so we presume children are not being taken out of school to work, but because clients have difficulties paying school expenses. There is some evidence that micro-credit is empowering women; however, this is not consistent across the reviewed studies. Both micro-credit and micro-savings have a positive impact on clients' housing. There is little evidence that micro-credit has any impact on job creation, and there are no studies measuring social cohesion. In summary, whilst both micro-credit and micro-savings have the potential to improve the lives of the poor, micro-credit in particular, also has potential for harm. Micro-savings may therefore be a safer investment for development agencies.

Having reviewed the evidence of effectiveness, we were able to develop and test a complex causal chain for how micro-credit and micro-savings impact on poor people. The logic model developed shows how some potential benefits, whilst desirable, are not essential to the cycle of increasing wealth, specifically increasing social cohesion, women's empowerment and long-term benefits, particularly investments in children.

It also shows how micro-credit and micro-savings clients can choose to spend their money in different ways. Whilst investing in the immediate future and spending consumptively with scope for productivity both have the potential for increased income, investing in the long-term future and spending on non-productive consumption do not.

Failure to increase income, which can be determined by external factors as well as how clients spend their money, can lead clients into further debt, leaving them unable to invest in their savings accounts and/or reliant on further cycles of credit. Successful increases in income, the successful repayment of loans, and the accumulation of financial wealth are all feasible, but the causal model shows how these are not always achievable.

Conclusions

1. We conclude that some people are made poorer, and not richer, by microfinance, particularly micro-credit clients. This seems to be because: they consume more instead of investing in their futures; their businesses fail to produce enough profit to pay high interest rates; their investment in other longer-term aspects of their futures is not sufficient to give a return on their investment; and because the context in which microfinance clients live is by definition fragile.
2. There is some evidence that microfinance enables poor people to be better placed to deal with shocks, but this is not universal.
3. The emphasis on reaching the 'poorest of the poor' may be flawed. There may be a need to focus more specifically on providing loans to entrepreneurs, rather than treating everyone as a potential entrepreneur.
4. Micro-savings may be a better model than micro-credit, both theoretically (because it does not require an increase in income to pay high interest rates and so implications of failure are not so high) and based on the currently available evidence. However, the evidence on micro-savings is small and further rigorous evaluation is needed.

5. The rhetoric around microfinance is problematic and damaging. 'Clients' could also be called 'borrowers' or 'savers', and 'micro-credit' might just as well be called 'micro-loans' or even 'micro-debt'. There is an obligation amongst donors and policy-makers not to falsely raise expectations with development aid in this way. The apparent failure of microfinance institutions and donors to engage with evidence of effectiveness perpetuates the problems by building expectations and obscuring the potential for harm. A growing microfinance industry may as easily be a cause for concern as one of hope.

Recommendations for policy

- Consider carefully the causal chain to ensure that the potential for both harm and good are taken into account in decisions to extend microfinance services in sub-Saharan Africa.
- Introduce greater requirements for rigorous evaluation of pilot programmes before roll-out to minimise the risks of doing harm.
- Avoid the promotion of microfinance as a means to achieve the Millennium Development Goals.

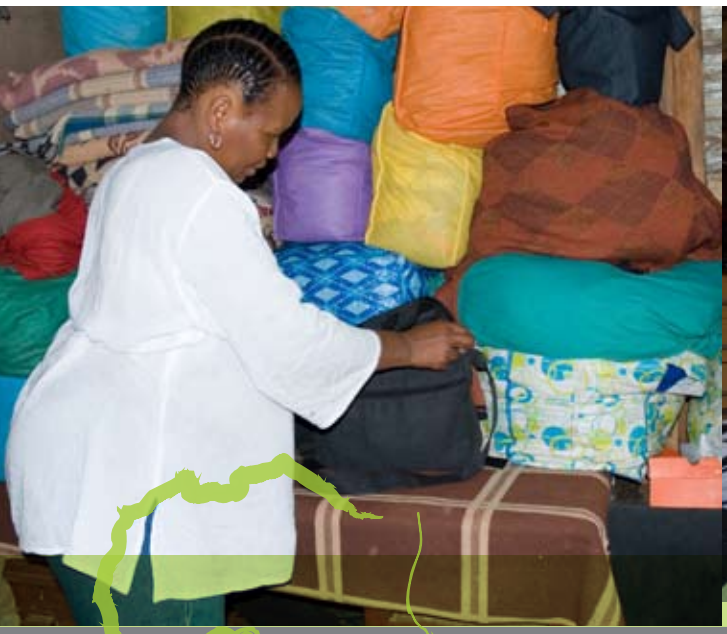
Recommendations for practice

- Be cautious about offering clients continuing loans.
- Avoid contributing to the rhetoric of the success of microfinance and instead encourage decision-making based on rigorous evidence.

Recommendations for research

- Conduct further rigorous evaluations.
- Improve consistent and detailed reporting of micro-finance interventions.
- Develop and employ greater standardisation of outcomes measured, and of measures used.
- Compare and reflect on the results of related systematic reviews when they are published in 2011
- Report rigorous outcome evaluations to existing research databases

– Undertake further systematic reviews in international development.



1. BACKGROUND

This chapter presents the policy and research contexts of microfinance, and explains the rationale and objectives of this systematic review.

1.1 Aims and rationale for the current review

Since the 1970s, and especially since the new wave of microfinance in the 1990s, microfinance has come to be seen as an important development policy and a poverty reduction tool. Some argue (e.g. Littlefield et al. 2003; World Savings Bank Institute 2010) that microfinance is a key tool to achieve the Millennium Development Goals (MDGs).[1] The assumption is that if one gives more microfinance to poor people, poverty will be reduced. But the evidence regarding such impact is challenging and controversial, partly due to the difficulties of reliable and affordable measurement, of fungibility,[2] the methodological challenge of proving causality (i.e. attribution), and because impacts are highly context-specific (Brau and Woller 2004:28; Hulme 1997; Hulme 2000; Makina and Malobola 2004:801; Sebstad and Cohen 2000). Questions regarding the impact of microfinance on the welfare and income of the poor have therefore been raised many times (e.g. Copestake 2002; Hulme and Mosley 1996; Khandker 2003; Rogaly 1996). Despite various studies, 'the question of the effectiveness and impact on the poor of [microfinance] programs is still highly in question' (Westover 2008:7). Roodman and Morduch (2009) reviewed studies on micro-credit in Bangladesh, and similarly conclude that '30 years into the microfinance movement we have little solid evidence that it improves the lives of clients in measurable ways'. Even the World Bank report Finance for all? (2007:99) indicates that 'the evidence from micro-studies of favourable impacts from direct access of the poor to credit is not especially strong.'

Recently this debate became heated when the findings of two randomised controlled trials (RCTs)[3] in the Philippines and India by the Massachusetts Institute of Technology's Jameel Poverty Action Lab (Banerjee et al. 2009; Karlan and Zinman 2010) raised questions about the impact of microfinance on improving the lives of the poor. These studies did not find a strong causal link between access to microfinances and poverty reduction for the poor. The results of these first RCTs in the field of microfinance have spawned a heated debate. Six of the biggest network organisations in microfinance – Accíon International, FINCA, Grameen Foundation, Opportunity International, Unitus,[4] and Women's World Banking – in their reluctance to accept the findings, responded by pointing to anecdotal evidence of the positive impact of microfinance, while also highlighting the weaknesses of the RCT studies. Their criticisms included the short timeframe, small sample size, and the difficulty of quantifying the impact of microfinance. Rosenberg (2010) of the Consultative Group to Assist the Poor (CGAP) reacted to these six network organisations:

> But let's be straightforward here. The main value proposition put forward on behalf of micro-credit for the last quarter century is that it helps lift people out of poverty by raising incomes and consumption, not just smoothing them. At the moment, we don't have very strong evidence that this particular proposition is true, and I don't think we should be putting out public relations material that fudges the issue or suggests that we do have such evidence.

This debate between researchers and practitioners continues to rage on blogsites (e.g. Banerjee, Duflo and Karlan 2009; Easterly 2010) and in the media (e.g. Boston Globe (Bennett 2009), The Economist (2009), Financial Times (Hartford 2009), The Seattle Times (Helms 2010), New York Times (MacFarquhar 2010)). And a new book by Hanlon, Barrientos and Hulme (2010), Just give money to

1 Yunus (2006) even claims that credit is a human right.

2 This refers to the inability to tie particular funds to particular expenditure and changes in well-being.

3 RCTs are seen by many as the gold-standard methodology for assessing impact. In RCTs, steps are taken to remove potential biases and isolate the true impact of the specific intervention (such as microfinance services). These primarily include randomisation to intervention (i.e. those who receive the service) and control (i.e. comparison) groups, the collection of data before and after the intervention is implemented, and careful consideration of sample size to ensure sufficient evidence to conclude on impact. Copestake et al. (2009), for example, argue that RCTs are the best way to measure the impact of microfinance programmes and improve product design. But RCTs require forward planning, with the intervention delivered as part of the study – rather than retrospective evaluation of an existing programme. Furthermore, long-term outcomes are expensive to follow up, and there can be ethical concerns about withholding interventions from the control group. See Odell (2010) for the debate on the use of RCTs as evaluation tools in development; and see Deaton (2009) for a critique of the move in development economics to RCTs and quantification.

4 In July 2010 Unitus announced its suspension of financing microfinance to redirect its finances to a broader array of social ventures.

the poor, complicates the debate by calling for cash transfers, rather than credit, directly to the poor. There is clearly a need for rigorous systematic reviews of the evidence of the impact of microfinance on the poor.

Further, while many of the first institutions offering microfinance were not-for-profit local NGOs driven by a development paradigm, microfinance is now a global industry driven by a commercial for-profit paradigm (Brau and Woller 2004:3; CGAP website; Robinson 1995). One aspect of the commercialisation of the microfinance industry is its formalisation, i.e. microfinance institutions (MFIs) transforming themselves into banks and turning to banks for funds (Matin et al. 1999:20) – also called 'upscaling' MFIs (Copestake 2007:1721). The other aspect of more commercial microfinance is that commercial financial institutions – like banks – are entering the fray; Copestake (2007:1721) refers to this as 'downscaling' commercial financial institutions. In the context of the commercialisation (both the turn towards profitability by MFIs and the entrance of private financial institutions into the microfinance field), concerns about mission drift are rife in the industry. While a double-bottom line of financial sustainability and social impact seems acceptable to most, there is a fear amongst those whom Morduch (2000) calls the welfarists,[5] that in the context of commercialisation, financial sustainability will become the measure of success.[6] This debate on what entails success in the microfinance industry also makes a systematic review of the evidence of the impact of microfinance timely.

And in the latter half of 2010 the microfinance industry made news for negative reasons.[7] By October of that year regulation of the microfinance industry through the Microfinance Institutions Ordinance 2010 in Andhra Pradesh, India elicited much debate. The concerns of this ordinance were high interest rates of between 27 and 30 percent charged by MFIs,[8] the practice of multiple lending, splitting self-help groups to form joint liability groups, and coercive collection tactics that were blamed for the suicides by borrowers (Kazmin 2010; Reddy 2010). This Indian microfinance crisis followed on microloan repayment crises in Morocco, Bosnia, Nicaragua and Pakistan in the previous two years (Kazmin 2010). Then in late November 2010 the father of the microfinance industry, Muhammad Yunus, and other Grameen Bank officials, were accused by a Danish documentary film maker of 'siphoning' money (provided by Norway, Sweden and Germany) from the Grameen Bank to another company (Heinemann 2010).[9] News headlines like 'Microfinance: Small loan, big snag' (Kazmin 2010), 'Big trouble for microfinance' (The Economist 2 December 2010), and 'Woes of Grameen borrowers' (Chowdhury 2010) did not help the reputation of the micro -finance industry.

With the micro-credit movement having its origin in Asia in the 1970s, much has been written about its thinking, practices and impacts there. In contrast, there is relatively little known about microfinance in sub-Saharan Africa (SSA) to where the micro-credit movement spread in the 1980s, and where it became stronger in the 1990s.[10] SSA is the poorest region in the world, according to the new multidimensional poverty index developed by Oxford University (Alkire and Santos 2010) featured in the UNDP's 2010 Human Development Report. With microfinances aiming to serve the poor, SSA is an important region to consider when reviewing the impact of microfinance. Honohan and Beck (2007:26) report that enterprises in SSA complain more about lack of finance than in other regions.[11] Further, SSA typically 'disappears' in the wealth of

5 Morduch coined the phrase 'microfinance schism' to refer to the division between welfarists and institutionists. Welfarists are described as those who believe that the social goal of microfinance is prime, even if it means financial dependency for MFIs, while institutionists believe that the social goal of poverty reduction can only be achieved by financially self-sufficient MFIs.

6 In the late 1990s, the financial sustainability paradigm was already dominant within major donor agencies (Mayoux 1999:959). Mayoux refers to a detailed articulation of this paradigm by Otero and Rhyne (1994).

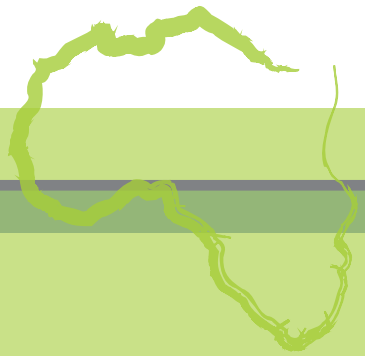
7 Some 'positive' news – for some, but also much debated – was the initial public offering in India of Swayam Krishi Sangham (SKS) securities. SKS is an MFI that was initially (in the late 1990s) modelled as a self-help group of farmers, but was changed to a for-profit company in 2006.

8 This was especially a concern in the light of reports of high salaries being paid to executives of these MFIs, salaries higher than those paid to executives of commercial banks (Kazmin 2010).

9 See the Grameen Bank's response in denying this allegation (Grameen Bank 2010).

10 While the microfinance movement spread late to SSA, mutual models of monetary help have a long history in Africa; for example, the Susu system originates in the 1900s (Nanor 2008:62). And the first credit union in SSA was formed in Ghana by Catholic missionaries in 1955 (Nanor 2008:62).

11 In SSA the ratio of private credit to GDP is 18 percent, while it is 30 percent in South Asia. For low-income countries in SSA it is 11 percent compared to 21 percent for low-income countries in the rest of the world (Honohan and Beck 2007:27).



data on microfinance from Asia and Latin America, making a focus on SSA important for what it might reveal in comparison to other regions. For one, 'it is well known that, on average, African finance performs well below that of other regions' – it is seen as both more shallow and informal[12] when compared to other regions (Honohan and Beck 2007:25–26). And lessons from the worldwide and Asian literature may not be transferable to SSA, where the context is different. There is more coherence in SSA in terms of development levels of the populations and traditional financial pooling practices, and issues related to bonding social capital might be different, as well as a wider context of poorly developed formal financial services that makes alternatives and their impacts crucial to study. Of course, financial systems in SSA are also diverse, but Honohan and Beck (2007:5–7) find sufficient similarities of underlying economic conditions in terms of scale, informality, governance and shocks to be able to identify the 'distinctive needs' of Africa. Another motivation for focusing our systematic review on SSA is that the region is a key recipient of development aid from many developed countries, including the UK's Department for International Development (DFID). In fact, SSA is the only region in the world where donor funding outstrips private portfolio funding (Honohan and Beck 2007:29). Regarding microfinance, DFID – together with the World Bank – is in the process of developing a new capacity building fund for microfinance in Africa, called MICFAC. And with a focus on 'value for money' by the donors and needing to know which is the more appropriate interventions, learning about the impact of microfinance in SSA is important for development aid policy.

Regarding impact studies on microfinance in SSA using comparative study designs, we were initially aware of only one RCT on the impact of micro-savings that had been completed so far (Dupas and Robinson 2008). The Poverty Action Lab is currently involved in two further impact studies for the Microfinance and Health Protection Initiative: one in Benin, and the other a village savings and loans programme in Ghana. There is also a larger body of impact studies employing non-comparison evaluation designs – both non-experimental[13] and quasi-experimental[14] in nature. And yet no systematic review has been undertaken that brings together all these studies, and assesses the nature of the evidence of the impact of microfinance on the poor in SSA.

Given this paucity, the particular nature of MFIs in SSA, and the policy and practical need to understand the impact of microfinances on the poor people they seek to serve, there is an urgent need to map out the literature assessing microfinance across SSA, and to synthesise the available evidence of impact. Thus, this review aims to inform aid policy in the region, and guide future research in this area.

1.2 Definitional and conceptual issues

This section will explore the definitional and conceptual issues surrounding microfinance and poverty. In the simplest terms, the idea is that micro-credit and micro-savings allow the poor to invest their money in the future, increase their incomes and 'lift themselves out of poverty'. This simple causal chain is represented in Figure 1.1.[15] We will be unpacking this chain in this review, and will be developing a more complex evidence-based understanding of how microfinance may (or may not) have positive impacts on the poor.

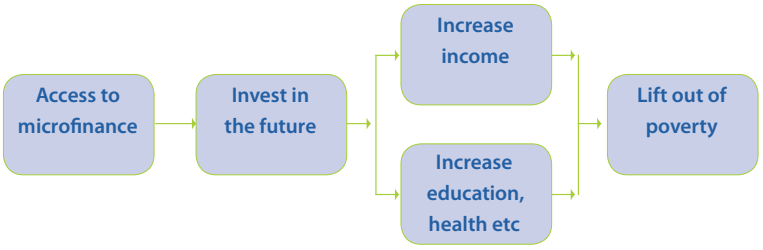
12 Only around 20 percent of adults in SSA have an account at a formal or semi-formal financial institution (Honohan and Beck 2007:26). And the diversity of microfinance types – in terms of technology applied, organisational structure, degree of formality and regulation, and clientele – seems to be wider than in other regions (Honohan and Beck 2007:163).

13 In non-experimental studies, the intervention is not delivered as part of a study, but a 'natural' or 'real-world' intervention is evaluated. The retrospective nature of non-experimental studies makes collecting baseline data unlikely, if not impossible. Comparison groups are not always used and, where they are, the lack of randomisation to intervention and control groups means that results may be influenced by the types of people who do or don't tend to access the intervention.

14 In quasi-experimental studies, steps are taken to enable measurement before and after the intervention, and a control group is approximated – for example, by using 'interrupted time series designs' with some groups receiving interventions earlier than others – but a full randomised control design is not implemented.

15 Mayoux (1999) indicates how for some such a casual chain is a 'virtuous upward spiral' of increased economic empowerment, improved well-being and social/political/legal empowerment.

Figure 1.1 A simple causal chain from microfinance to poverty alleviation



1.2.1 What is microfinance?

The term 'micro-credit' was first coined in the 1970s to indicate the provision of loans to the poor to establish income-generating projects, while the term 'microfinance' has come to be used since the late 1990s to indicate the so-called second revolution in credit theory and policy that are customer-centred rather than product-centred (Elahi and Rahman 2006:477). But the terms 'micro-credit' and 'microfinance' tend to be used interchangeably to indicate the range of financial services offered specifically to poor, low-income households and micro-enterprises (CGAP website 2010; Brau and Woller 2004:3). Microfinance principally encompasses micro-credit, micro-savings, micro-insurance and money transfers for the poor.[16] Micro-credit, which is part of microfinance, is the practice of delivering small, collateral-free loans to usually unsalaried borrowers or members of cooperatives who otherwise cannot get access to credit (CGAP website 2010; Hossain 2002:79). And while non-financial services such as education, vocational training and technical assistance might be crucial to improve the impact of microfinance services, they are not the focus of this review.

Like anyone else, poor people need an array of financial services to help them deal with a range of short- to long-term consumption needs and the ups and downs of income and expenses, to make use of opportunities, and to cope with vulnerabilities and emergencies. The needs of the poor for financial services have been categorised into three groups, namely life-cycle needs that can be anticipated (like marriage, burial and education), unanticipated emergencies (like sickness, loss of employment, death of a breadwinner, floods), and opportunities (like investing in a new business or buying land) (Matin et al. 1999:7–8).[17]

The spectrum of financial services available to meet these needs includes investment (savings), lending (credit services), insurance (risk management) and money transfers. But the poor's access to formal financial services is limited, and the services available do not acknowledge the diverse requirements of the poor (Matin et al. 1999:3). Instead poor people tend to juggle financial relationships with various financial institutions – and with friends and family – to have the flexibility and reliability they need (Collins and Morduch 2010:23). They depend on various types of formal and informal community funding, credit unions, moneylenders, co-operatives, self-help groups and associations (like accumulating savings and credit associations, rotating savings and credit associations, burial societies), and financial NGOs. And with commercial financial institutions considering ways in which to provide financial services to the poor in a profitable manner, microfinance services are now provided by a whole spectrum of role players. To categorise the various financial institutions, Matin et al. (1999:5) created a three-by-three matrix, with one axis comprising the financial service components (savings, credit and insurance) and the other axis the providers (informal, formal, and semi-formal providers). Rutherford (1996) based his categorisation on the type of service as well as whether it is owned and managed by the users themselves or other providers, while Staschen's typology (1999:7–8) is based on the source of funds. The reality then is a mix of financial services accessed by poor people from a variety of service providers, depending on local knowledge, history, context and need (Matin et al. 1999:9).

1.2.2 Outcome variables of the impact of microfinance on the poor

Once poor people do access financial services, the question of outcome arises. One of the crucial debates in microfinance is expressed by Brau and Woller (2004) as the trade-off between financial self-sufficiency and sustainability, the depth of outreach, and the social welfare of service recipients. Roodman (2010) refers to the latter as

16 Of late, housing finance for the poor, micro-leasing, micro-franchising and other financial services for the poor have been added to the broad grouping of microfinances.

17 4 Matin et al. (1999:6) refer to the role of financial services in meeting these needs as a protective role (to help cope with risks) and a promotional role (to provide a return).

'judging microfinance by whether it reduces poverty, increases freedom, builds industries'.

With the one goal of microfinance seen as reducing poverty, changes in income levels of individuals and households are many times used as a measure of the impact of microfinance (Johnson and Rogaly, quoted in Makina and Malobola 2004:802). But Wright (1999) highlights why income levels cannot be the only measure: increasing income does not per se mean that poverty is reduced, as it depends on what the income is used for. Further, the long-held conceptualisation of poverty and who the poor are has changed. For example, in the 1950s to 1970s, during the era of agricultural credit to small-scale and marginal (male) farmers, poverty was defined as lack of income and vulnerability to income fluctuations, but in the 1980s up to the mid-1990s, the poor were defined as mostly female micro-entrepreneurs who should be empowered. And more recently, the poor are diverse vulnerable households with complex livelihoods (Matin et al. 1999:4). The outcomes used to measure the impact of microfinance on the poor also then have to take into account these changed conceptualisations of poverty and who the poor are.

Studies of the impact of microfinance on the poor will then have to consider different outcome variables. These could include increased consumption, income stability and income growth, reduced inequalities, health and education outcomes, nutrition improvements, employment levels, empowerment indicators, reduced vulnerability to shocks, strengthened social networks, and strengthened local economic and social development, and can vary according to who has been reached by these microfinance services (e.g. women, the poorest). Kabeer (2003:110) refers to such dimensions of impact as cognitive, behavioural, material, relational and institutional changes. Brau and Woller (2004:26) and Kabeer (2003) further highlight that impact studies should not only look at individual and/or household-level impacts, but also look at impacts on community, economy and national levels.

1.3 Research background

At the time of writing no systematic reviews on the impact of microfinance have yet been completed. Other reviews are underway: The first is funded by DFID but the protocol is not yet published.[18] The second is funded by 3ie (Vaessen et al. 2009) and has a worldwide scope, focusing on the impact of micro-credit (excluding savings and other financial services), and on outcomes relating to empowerment (Personal communication 3ie, 2010). Our review looks more broadly at microfinance services, including both credit and savings, take a more holistic view of evidence (with consideration of non-trial impact studies and qualitative data, and impacts beyond just income-related outcomes). Furthermore, we have focused specifically within the geographical scope of sub-Saharan Africa. We look forward to the publication of the DFID-funded and 3ie reviews in the hope that together these three systematic reviews will shed considerable light on the debates raging in the world of microfinance. One further review is currently being undertaken by colleagues in Nigeria, focusing on economic evaluations of microfinance for the prevention of HIV risk and HIV infection (Ezedunukwe and Okwundu 2010). We have exchanged information on included trials and papers with the lead author.

Hulme (2000:81–84) identifies three main elements of a conceptual framework (whether implicit or explicit) of impact assessments: (1) models of impact chains, which reveal the assumptions regarding transmission mechanisms from intervention to impact;[19] (2) units/levels of assessment, like the individual, household, community, business, institution; and (3) types of impacts, ranging from economic and social to political impacts, measured by an array of variables.

Various methodologies for monitoring, implementation and conducting impact assessment of microfinance have been developed, such as CGAP's poverty assessment tool, USAID's AIMS (assessing the impact of microenterprise services) tools, social performance assessment, internal learning systems, the Small Enterprise Foundation (SEF)'s participatory wealth ranking, MicroSave Africa's

18 Whilst the timeframe for this review is slightly different from ours, we have liaised with the lead author of this review, sharing our protocol and our included literature.

19 Hulme (2000:82) identifies two schools of thought regarding which links in a causal chain are focused on, namely an intermediary school (which focus on the performance and success of the MFI), and an intended beneficiary school (which focus on the impact of the intervention on the clients).

participatory methodology, and the Qualitative Imp-Act Assessment Protocol (QUIP) (see Copestake et al. 2002; Wright and Copestake 2004). Hulme (2000:84–87) identifies three broad methodological approaches to study the impact of microfinance:

1. the scientific method, in which control groups are used during surveys to produce statistically valid results on impact (i.e. RCTs and quasi-experimental research designs);
2. the humanities tradition, which makes use of mainly qualitative methods, and does not try to 'prove' impact in terms of statistical probability, but rather interpret plausibility; and
3. participatory learning and action, which use various participatory qualitative research tools to enable intended beneficiaries to identify their own indicators, monitor change and evaluate causality.

These assessment tools have been used to two main ends (Hulme 1997):

- to prove impact, which donors tend to be preoccupied with, and which tend to make use of the scientific method; and
- to improve practice, which tends to be what practitioners are concerned with, and which makes more use of the last two methodological approaches mentioned above to show outputs and outcomes.[20]

He further observed that most impact assessments have been about proving the direct impact by measuring and attributing. Mayoux (2001) urged that impact assessments move on to be part of learning processes within and between programmes, between programmes and donors, and between microfinance users. Makina and Malobola (2004:803) highlight that new developments in impact assessments have indeed fostered a greater emphasis on improving practice by monitoring and learning from impact to improve management and design better-fit products, i.e. organisational learning and social performance management. Copestake (2000), Brau and Woller (2004:7) and Mayoux and Chambers (2005) show the increased emphasis on integrated impact assessment, where financial self-sufficiency and sustainability, and poverty alleviation and social welfare are both given equal weighting in performance assessment. The depth and detail of qualitative research are combined with the statistical robustness of survey research, and Mayoux and Chambers (2005) urge for these to be participatory. Whilst we have identified some such studies by MFIs on organisational learning and performance, we have focused on those findings which relate to the impact of microfinance on poor people.

While there are a number of literature reviews on the impact of micro-credit and of micro-savings (e.g. Brau and Woller 2004; Devaney 2006; Karlan 2008; Matin et al. 1999; Woller 2003), these are not focused on SSA. Odell's (2010) survey of impact assessment studies that were published between 2005 and 2010[21] includes what was thought to be the only RCT done thus far in SSA,[22] by Dupas and Robinson (2008) on micro-savings in Kenya.[23] We were pleased to find additional RCTs of which have not yet been discussed in these debates in the course of completing our review (all our included studies are described in Appendix 4.1).

There is a large body of impact studies in SSA though, employing non-comparison evaluation designs. These include studies in Ghana, Kenya, Malawi, Rwanda, South Africa, Uganda, Zambia and Zimbabwe (Afrane 2002; Barnes et al. 1999; Buckley 1997; Copestake et al. 2001; Johnson 2004; Mosley and Hulme 1998; Pretes 2002). These studies tend to be focused on micro-credit, and less on savings,[24] insurances or transfers, partly due to the newness of the latter (Devaney 2006:4).[25] There also seems to be more research on rural microfinance than urban financial services to the poor. Much of the research is on informal and semi-formal financial services; there seems to be hardly any work on the impact of formal financial

20 Brau and Woller (2004:6–7) refer to these two as a welfarist paradigm and an institutionist paradigm.

21 This is an update of the study by Goldberg (2005) for the Grameen Foundation on the impact of microfinance.

22 Devaney (2006:4) indicates the in-depth technical and high financial cost requirements of extensive impact studies (such as RCTs); this might partly explain why not many of them have been done in Africa yet.

23 Whilst Odell's survey also includes an RCT on consumer credit (credit to any user, rich or poor) in South Africa, this is not per se about micro-credit (credit to poor people).

24 The CGAP website refers to savings as the 'forgotten half of microfinance'.

25 This is also true of impact studies of microfinance elsewhere in the world (CGAP).

services on the poor in sub-Saharan Africa, again probably due to their newness.[26]

1.3.1 Impacts of microfinance in general

The impact of microfinance is not a simplistic debate on whether it is transformative or ruinous; it is much more complex. Thus far literature reviews of empirical research on the impact of microfinance on the poor found controversial (and inconclusive) findings. Makina and Malobola (2004) classify such findings into a three-fold typology:

1. Those studies that find beneficial socio-economic impacts, such as income stability and growth, reduced income inequality, reduced vulnerability, employment, nutrition and health improvements, school attendance, strengthened social networks, and women's empowerment (e.g. Afrane 2002; Barnes 1996; Barnes and Keogh 1999; Beck et al. 2004; Hietalahti and Linden 2006; Hossain and Knight 2008; Khandker 2001; Schuler et al. 1997; UNICEF 1997; Wright 2000);

2. Those studies that allude to negative impacts, such as the exploitation of women, unchanged poverty levels, increased income inequality, increased workloads, high interest rates and loan repayment, creating dependencies, and creating barriers to sustainable local economic and social development (e.g. Adams and Von Pischke 1992; Bateman and Chang 2009; Buckley 1997; Copestake 2002; Goetz and Sen Gupta 1996; Kabeer 1998; Rogaly 1996);

3. Those studies that show mixed impacts. For example, benefits for the poor but not for the poorest (e.g. Copestake et al. 2001; Hulme and Mosley 1996; Morduch 1998; Mosley and Hulme 1998; Zaman 2001); or helping the poor to better manage the money they have (Rutherford 1996:2) but not directly or sufficiently increasing income, empowering women, etc. (e.g. Husain et al. 2010; Mayoux 1999; Rahman 1998). Karnani (2007) argues that money spent on microfinances could be better used for other interventions, like supporting large labour-intensive industries for job creation.[27] And there is literature that argues that a single intervention (like microfinance) is much less effective as an anti-poverty resource than simultaneous efforts that combine microfinance, health, education, etc. (Lipton 1996).

1.3.2 Reliability of evidence

The methodological rigour of various impact studies done in SSA varies considerably. Westover (2008) in general indicates the lack of stringent, rigorous impact studies, with many impact studies done by MFIs themselves that

26 DFID has funded another, as yet unpublished systematic review of the impact of formal financial services on the poor.

27 Morduch (quoted in Ogden 2008) also ponders that we still don't know whether money could be spend more effectively on, for example, health and water, rather than on microfinance.

are case- and locale-specific, and qualitative in nature.[28] They also tend to rely heavily on anecdotal evidence. And we take note of Cotler and Woodruff (2008) referring to Armendariz de Aghion and Morduch's (2005) review of impact studies that those with the largest methodological flaws tend to find the strongest positive impacts of microfinance (Bateman 2010).

1.4 Objectives

Our objectives were to review empirical research on the impact of microfinance (specifically micro-credit and micro-savings) on poor people in SSA to enable policy-makers, donors, practitioners, and the general public to understand the nature of the evidence available. We have identified, and synthesised where possible, the available evidence to achieve the following objectives:

1. Identify what studies have been done in SSA on the impact of microfinance on poor people.
2. Synthesise what these studies tell us about:
   a. The impact of microfinance on the incomes of the poor
   b. The impact of microfinance on wider poverty/ wealth of the poor
   c. The impact of microfinance on other non-financial outcomes for the poor.

The volume and nature of the evidence is varied and complex, making multiple regression analysis problematic. However, we have been advised to consider the causal chain by which micro-credit and micro-savings impact on poor people and to relate the available evidence of impact to this chain. We have therefore added the following to our objectives:

3. To use the understanding we have gained from the literature on micro-credit and micro-savings in SSA to propose a causal chain for how these interventions impact on the poor.
4. To map the available evidence of impact on to this causal chain to enable us to draw conclusions about the impact of microfinance in the region.

28 For Westover, rigorous studies mean quantitative RCTs; we do not agree that only these kinds of studies are rigorous, as will be discussed in Section 2 of this report.

2. METHODS USED IN THE REVIEW

2.1 .User involvement

2.1.1 Approach and rationale

We have engaged with potential users of this review in a number of ways including:

- circulating our review protocol for feedback specifically from DFID and selected peer reviewers
- circulating our protocol more broadly to interested academics, providers and members of the public via Twitter and via a Ning wiki on impact evaluation
- writing to key organisations working in microfinance in sub-Saharan Africa telling them about our research and asking if they know of any relevant literature (see Appendix 2.5 for list of organisations contacted)
- specifically inviting feedback on our draft report from two peer reviewers, from our funders and from other leading academics in the field
- disseminating our final review.

The international scope of this review and the tight deadlines set by our funders made it unrealistic to convene a traditional research advisory group. However, by using a creative approach which combined traditional routes for peer feedback (academic peer review), with snowballing across our own networks, and additionally exploiting new social media – drawing on Twitter and a Ning wiki – we have been able to ensure broad user involvement within the time available to us.

We have incorporated the perspectives of four groups of potential users into this project:

- Those who make policy decisions related to microfinance services in SSA (the main audience for this review), specifically within DFID, who have commissioned this work
- Those who provide microfinance services in SSA in order that our review is relevant and our findings available to them
- Those who research microfinance services in SSA, in order to ensure that our review includes all of the relevant research literature, and that our findings form part of the accumulating evidence in the region
- Those who use microfinance services in SSA, in order to understand why they access microfinance services and how they use them.

We identified and selected individuals and organisations in the following ways:

- We liaised with DFID's policy lead and asked for recommendations of other individuals who may have an interest in this review.
- Prior to the start of this project, Carina van Rooyen attended the Africa – Middle East Regional Micro-Credit Summit in April 2010 in Nairobi, Kenya.
- Prof Thea de Wet attended a day-long seminar in Johannesburg called Local economies: Consumption, enterprise, insurance, indebtedness and gambling in perspective.
- We looked for individuals and organisations which provide and/or research microfinance services in SSA from amongst the authors' networks. These included:
  - Prof Deborah James of the London School of Economics[29]
  - Stan Stavenuiter and Jeroen Horsten of the Evaluation Unit – Investment and Mission Review of Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V. (FMO), also known as the Netherlands Development Finance Company[30]
  - The National Credit Regulator, South Africa
  - The Small Enterprise Foundation (SEF), a South African MFI
  - Micro-Enterprise Alliance, a membership association of African organisations and individuals working in the field of micro-enterprise development
  - Khula Enterprise Finance, a financial organisation in South Africa working with small and medium-sized businesses
  - The Finmark Trust, a non-profit organisation operating in southern Africa whose purpose is to make financial markets work for the poor

29 Professor James is involved in an ESRC-funded research project, Investing, engaging in enterprise, gambling and getting into debt: Popular economies and citizen expectations in South Africa, run from the Anthropology Department at the London School of Economics, and with collaboration from WISER at Wits University, the Universities of Leiden and Pretoria, and PLAAS at University of the Western Cape.

30 FMO is the Netherlands' development bank established to work with and through the private sector, in order to stimulate sustainable economic and social development. About half of their investments are in the financial sector, as they view access to finance and development of the financial sector as key to development. They support SME-lending, microfinance and, since about five years, also consumer finance institutions. (http://www.fmo.nl)

- Enhancing Financial Innovation and Access (EFInA), Nigeria
- Financial Sector Deepening Trusts in Kenya and Tanzania (FSDT)
- Marang Financial Services, South Africa
- Savings and Cooperative League of South Africa
- Community Microfinance Network, South Africa
- Africap Investment Company, South Africa
- FINCA, Washington
- PRIDE, Uganda
- Association of Microfinance Institutions of Uganda (AMFIU)
- Association of Ethiopian Microfinance Institutions (AEMI)
- Ghana Microfinance Institutions Network (GHAMFIN)
- Africa Microfinance Network (AFMIN)
- International Network of Alternative Financial Institutions (INAFI), Senegal
- Association of Microfinance Institutions of Zambia
- Country Women's Association of Nigeria (COWAN)
- Malawi Microfinance Network
- Regroupement des Institutions du Système de Financement Décentralisé du Congo (RIFIDEC)
- Association of Microfinance Institutions, Kenya
- Financial Sector Deepening Trusts in Kenya (FSDK).

In the course of conducting the review, we identified three related systematic reviews, including another funded by DFID, one commissioned by 3ie, and one Cochrane Review. Whilst all three are currently still underway, we have been in touch with all three review teams to share our list of included studies and discuss overlap in our reviews.

We identified two individuals, one with topic expertise (David Roodman) and another with methodological expertise (Gabriel Rada), to formally peer review our protocol and draft report. They have been offered an honorarium for their time.

We also gathered the perspectives of the users of microfinance services in the region via a recently completed study on poverty and livelihoods in Johannesburg (De Wet et al. 2008). These perspectives have helped us interpret the findings of this review.

Consideration of users' views was incorporated to the study team's decisions when we:

- finalised our search strategy, deciding exactly where to look for literature for the review and which terms to use
- revised our protocol following peer review
- selected studies for inclusion in the review
- refined our initial findings and conclusions from the review
- decided how best to disseminate our review.

We comment on the fruitfulness of our user involvement in section 3.1 of our results.

2.2 Identifying studies

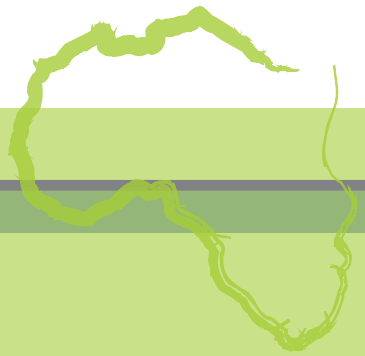
2.2.1 Defining relevant studies: inclusion and exclusion criteria

Studies have been included and excluded from our review according to the following criteria (see Appendix 2.1).

Region: We included research conducted in sub-Saharan African countries, defined as including Mauritania, Chad, Niger and Sudan and all African countries south of these, thus excluding the following north African countries: Tunisia, Libya, Morocco, Egypt and Western Sahara. Research that included countries from both sub-Saharan Africa AND non-sub-Saharan African countries were included in the review if it was possible to identify the impacts of the interventions in sub-Saharan Africa.

Study design: We included only impact evaluations which set out to measure ææthe outcomes, results or effects of receiving microfinance compared to not receiving microfinance. Studies which had no comparison group were excluded.[31] Studies drawing on both quantitative and qualitative data were included. Relevant reviews were not included, but their reference lists were searched and relevant studies included in our review.

31 Whilst we included in our study only studies which had a comparison group which did not receive microfinance, we also identified those studies which met all other inclusion criteria but did not have a comparison group which did not receive microfinance. These are listed in Appendix 3.1.



Intervention: We included only microfinance interventions, defined as including micro-savings and/or micro-credit services. Whilst insurance and money transfers are also considered part of microfinance, they are recent activities and are not considered 'core' activities of microfinance for the purposes of this review. We included services owned or managed by service users or by others. Studies of consumer credit (but not specifically micro-credit) were excluded. We included services provided by the full range of providers, including formal, informal and semi-formal institutions.

Population: We focused on impacts on poor people, namely those who are recipients of the services of MFIs.

Outcomes: We included all outcomes measured in impact studies of microfinance as laid out in our coding tool (Appendix 2.4). These included both financial and non-financial outcomes.

Language: We anticipated identifying literature in English as we only had the capacity to search in English. However, we had scope to access papers in English, Dutch, German, Portuguese, French, Spanish, Afrikaans, Zulu and Sotho languages, and did not exclude any relevant papers which we identified in these languages.

2.2.2 Identification of potential studies: search strategy

We conducted searches in the following ways:

A. We searched specialist sources for published systematic reviews, protocols for ongoing reviews, and trials:
   1. Cochrane Collaboration Library (including DARE for trials)
   2. Campbell Collaboration Library
   3. EPPI-Centre Library

B. We searched online bibliographic databases:
1. Psycinfo (the Psychological Information Database)
2. Science Citation Index – Expanded (via EBSCO platform)
3. Social Science Citation Index (via EBSCO)
4. Arts and Humanities Citation Index (via EBSCO)
5. Conference Proceedings Citation Index – Science (via EBSCO)
6. JOLIS (the database of 14 World Bank and International Monetary Fund libraries)
7. IDEAS Economics and Finance Research
8. British Library for Development Studies
9. African Journals Online
10. ELDIS (an online library of development literature provided by the Institute of Development Studies, Sussex, UK)
11. Worldwide Political Science Abstracts
12. ECONLIT (Database of economic literature)
13. Chemonics (http://www.chemonics.com/projects/finalreports.aspx)
14. WHO library database (WHOLIS)
15. Research4Development (DFID site)
16. Social Assistance in Developing Countries Database (version 5)
17. International Bibliography of the Social Sciences (via CSA)
18. Sociological Abstracts (via CSA)

C. We searched for books via Google books

D. We undertook citation searches of the following key papers evaluating the impact of microfinance: Dupas and Robinson (2008) and Pronyk et al. (2008).

E. We emailed James Hargreaves (co-author of the Pronyk study) on 28 July 2010 to ask for linked papers.

F. We searched for references on a range of key websites (see Appendix 2.3 for details).

G. We checked the reference lists of included papers as they were identified.

H. We tracked the Poverty Action Lab's impact studies of microfinance, and the published reviews on the website of 3ie.

I. We attended and collected papers at the Africa and Middle East Regional Micro-Credit Summit 2010.

Searches of these sources were limited to studies conducted since 1990. Brau and Woller (2004:4) argue that before the mid-1990s, academic journals published very few articles on microfinance, but the publication of peer-reviewed articles on the topic has since increased.

We used the EPPI-Centre's specialist software, EPPI-Reviewer (version 4), to keep track of and code studies found during the review.

2.2.3 Screening studies: applying inclusion and exclusion criteria

We applied our inclusion and exclusion criteria in two rounds.

FIRST ROUND OF SCREENING ON TITLE AND ABSTRACT

Initially, all search results were screened on title and abstract. This initial screening process was done by only one researcher. To minimise the risk of missing any relevant papers, we were over-inclusive in this round of screening – applying only the inclusion/exclusion criteria on region and intervention (see Appendix 2.1). Due to time constraints, much of the initial searching and screening was conducted at the same time, i.e. search results were screened online and only those meeting our inclusion criteria on region and intervention were entered into EPPI-Reviewer.

SECOND ROUND OF SCREENING ON FULL TEXTS

Full texts of all likely material for inclusion were then sought and a second round of screening conducted. Full texts of any papers in languages other than English, which had been included in our first round of screening, were sought and screened in this second round by a native speaker. Unfortunately, full texts in any language which could not be obtained in the timeframe of the study had to be excluded.

In this second round of screening, we applied our inclusion/exclusion criteria on region, intervention, population, study design and outcomes (see Appendix 2.1). The first 10% of the full texts were screened by two researchers independently and our decisions compared. In all cases we were in 100% agreement in our screening decisions. We therefore divided the remaining papers between us and continued to screen the remaining papers alone, i.e. without double screening. If either researcher was at all uncertain, we discussed the paper and reached a decision together.

As we screened, we also checked reference lists for relevant papers, which were then sought online. If they were not excluded on abstract (and we included all papers if at all uncertain), the full text was then collected and screened again.

2.3 Describing studies

2.3.1 Which studies did we describe?

All included papers were initially coded according to country, intervention and study design. This literature is described in our initial map of the evidence from sub-Saharan Africa which evaluates the impact of micro-credit and micro-savings on the poor. Those impact evaluations which had no control group were excluded from this map – the citations are however, listed in Appendix 3.1.

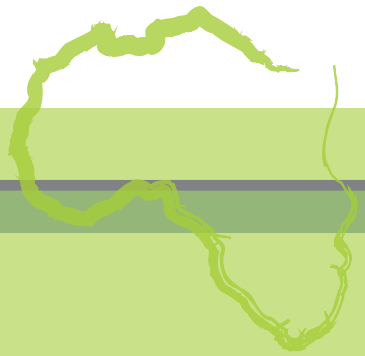
A subset of this evidence was then selected for inclusion in our in-depth review based on quality criteria (see 2.4 below). All studies in the in-depth review were then coded using a detailed coding framework.

2.3.2 Developing our coding framework

We developed an initial coding sheet (as published in our protocol). This was applied to a sample of ten papers by two reviewers and discussed. We then adapted the coding sheet and applied it to a further sample of papers. This was then amended a third time before being entered on to our specialist software, EPPI-Reviewer 4, to allow recording of our coding to take place.

Our final coding framework is included in Appendix 2.4. It enabled us to characterise each microfinance intervention being evaluated according to whether it includes micro-credit or micro-savings, and whether these are provided in partnership with micro-insurance, money transfers and/or other non-financial services such as education and training. The provider of the microfinance intervention and the recipients were also described, as well as the country or region in which the intervention was offered, and the setting (i.e. in an urban or rural environment).

The study itself was described in detail including the intervention and comparison groups, how they were selected and matched, and any drop out from the two



groups. The data collection, analysis and consideration of potential biases by the authors were also noted.

For those studies which met our quality standards (see 2.4 below), data on outcomes measured and the findings reported were also extracted. The outcomes assessed were described in relation to income and wealth, as well as non-financial outcomes, specifically health, nutrition, food security, job creation, social cohesion, empowerment and education (see codes in Appendix 2.4).

2.3.3 Applying our coding framework

Having finalised our codes, papers were no longer double coded by two researchers independently. Instead, coding took place simultaneously with two researchers working together in the same room, enabling them to continuously discuss and clarify any uncertainties over the use of the coding sheet, or definitions of terms.

As we came across papers describing the same evaluations, we grouped them as 'linked papers'. We deliberately extracted information on the name of the microfinance intervention and on the country to help us with this process of identifying linked or 'sister' papers.

It is worth noting that when extracting findings from the studies, we focused on the findings reflected in the data and analysis reported, and not the conclusions drawn by the authors (which were not always consistent with their own findings).

2.4 Assessing the quality of studies

In assessing the quality of studies we drew heavily on EPPI-Centre methods. Our assessment of quality may be judged too lenient by systematic review experts (although perhaps too stringent by others), but our intention was to be able to learn the most we could from the available evidence in sub-Saharan Africa – we therefore adopted an approach of 'good enough' quality, and included those studies of both medium and high quality in the review.

Whilst some may argue that even the low quality studies should be included in this review and their findings weighted, we took the decision to exclude them entirely. This was in line with EPPI-Centre review methods, and is based on the judgement that the findings of poor quality research can unduly bias research syntheses. Where we did not trust the quality of a study, it was therefore excluded from the review.

Judgements about the quality of studies were made using the following standards (also apparent within our coding tool in Appendix 2.4). In each case the study was assumed to be of high quality unless it failed on any of the criteria below.

2.4.1 Completeness of reporting

We judged it necessary for authors to describe the microfinance intervention, describe the study participants, describe their data collection and analysis, and report consideration of confounding factors.[32]

- If study authors failed to report more than one of these key elements, it was automatically rated as poor on the basis of lack of information, and excluded from the in-depth review.
- If the study was judged to be of medium quality, but the study authors also failed to describe the study participants, the study was judged to be poor overall and excluded from the in-depth review.

2.4.2 Flawed assumptions within the study design

If the logic of assumptions inherent within the study design appeared flawed, leaving us unconvinced that what was being measured was actually the impact of microfinance, the study was judged to be of poor quality, and excluded from the in-depth review.

2.4.3 Concerns about the intervention

We considered two elements of the study where concerns about the acceptability and integrity of the intervention needed to be accounted for by the study authors: drop-out from the study, and the consistent delivery of the intervention. We sought reassurance that the same intervention was provided to all participants consistently over time and that the authors had considered whether additional unintentional interventions were introduced during the study period which might have influenced the outcomes.

32 Whilst ideally we would have contacted authors to request this missing information, the tight timescale of this review made this impossible.

- If the authors failed to report and explain drop-out from the intervention and comparison groups, the study was included in the in-depth review, but was judged to be of medium quality.
- If the authors did not provide assurance that the same intervention was provided to all participants consistently over time and that no additional unintentional interventions were introduced during the study period, the study was included in the in-depth review, but was judged to be of medium quality.

2.4.4 Inappropriate analysis

We judged the appropriateness of the choice of analysis methods and sought assurance that the authors had taken steps to ensure that their analysis was trustworthy, reliable and valid.[33]

- If the study used inappropriate analysis methods, for example, conducting a qualitative study of a small sample, but then analysing the data using statistical tests and reporting these as generalisable results, then the study was judged to be of poor quality and excluded from the in-depth review.
- If the authors provided little assurance that their analysis was trustworthy, reliable or valid, the study was included in the in-depth review, but judged to be of medium quality.

2.4.5 Insufficient consideration of confounding factors

We considered two stages at which the authors would be expected to control for confounding factors: at the point of allocating or identifying participants for the intervention group and the comparison group, and at the point of analysing data from these two groups.

- If a study reported no consideration of confounding factors at the sampling stage, and no consideration of confounding factors in the analysis, it was judged to be of poor quality and excluded from the in-depth review.
- If a study did not consider confounding factors at the sampling stage but took steps to account for their influence in the analysis, the study was judged to be of medium quality and included in the in-depth review.

33 Conducting higher quality analyses ourselves using the reported data was not possible – the data were not available in any detail, and time constraints made it impossible to request access.

2.4.6 Findings not apparent

If the study's findings were not apparent in the reported data or analysis the study was judged to be of poor quality and excluded from the in-depth review.

2.5 Methods for synthesis

2.5.1 Overall approach to and process of synthesis

Whilst we initially hoped to be able to conduct basic meta-analysis of findings from studies included in our in-depth review, we decided against this for the following reasons:

- Interventions were complex and varied, in scope, nature and over time
- The level of detail in the reporting of interventions and impacts was varied and often incomplete with a wide variety of publication types included in the review (from PhD theses to institutional reports)
- Many different outcomes were considered
- Measurements were not consistent within outcomes.

Instead we therefore conducted a thematic narrative synthesis, grouping outcomes into broad themes using a pre-prepared framework (see our coding framework in Appendix 2.4 for more detail of this framework). We then drew together findings within this framework and reported them qualitatively, including summary tables of direction of effects.

Given our decision not to conduct statistical meta-analysis, we have not contacted study authors for missing data or replaced any missing data.

2.5.2 Selection of studies for synthesis

Studies which were rated medium or high quality following our quality appraisal were included in our synthesis of findings.

Studies were first sorted into the matrix below. We then focused on synthesising findings of:

- comparative outcome evaluations which measured the impact of microfinance on the incomes of the poor (i.e. cells 1 and 4 below).
- comparative outcome evaluations which measured the impact of microfinance on the poverty/wealth of the poor more broadly (i.e. cells 1, 2 , 4 and 5 below).

- comparative outcome evaluations which measure the impact of microfinance on other non-financial outcomes for the poor, by synthesising findings from cells 3 and 6 below.

Studies from cell 7 were identified and are listed in Appendix 3.1, although they have not been included in this review.

Table 2.1 A broad framework for synthesis of findings

Study design	Assessing impact on the incomes of the poor	Assessing impact on the other wealth indicators for the poor	Assessing impact on other outcomes for the poor
Randomised controlled trials	1	2	3
Other comparative outcome evaluations	4	5	6
Non-comparative outcome evaluations	7		

2.5.3 Process used to combine/synthesise data

As described above, we had intended to combine, using statistical meta-analyses, the results of those interventions where all of the following statements are true:

- The intervention evaluated incorporates the same dimensions of microfinance (i.e. micro-credit or micro-savings or both).
- The study design for evaluating impact is the same (i.e. case-control study, or controlled trial).
- The quality of the study is rated as medium or high in our quality appraisal (see above).

However, having seen how varied the included studies were in terms of intervention, study design, reporting, outcomes and measurements, we decided instead to conduct qualitative narrative synthesis using a matrix, to describe the nature and direction of effects.

Whilst the findings of high and medium quality studies have been synthesised together, as all have been judged to be 'good enough', the findings from high quality studies have been indicated in our tables of the directions of effect using an asterisk, and the difference between these and the findings of the medium quality studies reflected in the findings and discussion sections.

The medium quality studies include one randomised controlled trial, one controlled trial and nine case controls. For the purpose of this review, we do not distinguish between these studies in terms of their study design. Instead, having assessed the quality of these using explicit standardised criteria, and judged them all to be 'good enough', their findings are reported alongside one another.

Similarly, the size and nature of the interventions is described and discussed, but these characteristics are not used to distinguish between studies in terms of quality or in relation to the synthesis. We do, however, differentiate between micro-credit and micro-savings interventions throughout our synthesis.

2.6 Deriving conclusions and implications

The review team met in late September to synthesise findings and discuss the implications for policy, practice and research. This conversation continued via email and Skype.

Emerging findings were circulated to our funders and collaborators in October. In addition, we contacted the authors of related systematic reviews (Duvendack et al. Personal communication 2010; Ezedunukwe and Okwundu 2010; Vaessen et al. 2009) to share search results and emerging findings.

The review was sent for formal peer review to DfID and our two peer reviewers in November.

The review team then met in early December, following formal peer review, to decide our final conclusions and implications, and write the final report.

2.7 Quality assurance of our methods

Our review processes, including our electronic search string, inclusion and exclusion criteria, coding sheets and

synthesis, were all piloted initially and discussed amongst the team before these tools were finalised.

As mentioned above, we also took steps to reduce researcher-bias and ensure that we included all the relevant literature in our review. This included initially over-including studies based on title and abstract until we were able to meet, apply and discuss our application of inclusion/exclusion criteria in detail. Having discussed and tested the criteria on a sample of full texts and achieved 100% agreement, two researchers then continued to screen papers separately but simultaneously (sitting together in the same room), enabling queries and uncertainties to be discussed there and then. Any disagreements were resolved through discussion.

The coding of included papers was done in a similar manner with a sample coded independently and discussed. Once both researchers were confident that they shared their understanding of terminology and of the coding framework, the remaining coding was conducted by two members of the review group working separately and simultaneously, with scope for discussion of any queries or uncertainties as they arose. Any papers which proved 'difficult' were read by both researchers and the consensus achieved on the coding through discussion. All studies included in the in-depth review were read by both researchers and the extracted findings agreed.

Lastly, emerging findings were shared with other researchers, our funders and peer reviewers to elicit their views and ensure the quality of this review.

3. RESULTS

3.1 Results of our user involvement

We received valuable feedback on our draft protocol from our peer reviewers and funders, allowing us to make amendments to the scope and methodology of this review. We were encouraged, for example, to include studies of micro-savings as well as micro-credit, and to include both financial and non-financial outcomes. We were given suggestions of different and additional sources to search for literature, as well as information about specific studies to consider. We were also encouraged to develop and test a causal chain in order to explore how micro-credit and micro-savings impact on the poor. Further feedback on a draft of this report encouraged us to justify some of our decisions more clearly, add some analyses, and highlight pertinent issues in our discussion.

Of the different ways in which we engaged potential users of this review, we received most detailed feedback from the DFID policy lead and from our nominated peer reviewers, who were paid for their input. We were disappointed that the Ning wiki was not very active and therefore an unproductive source of feedback. We did have a number of responses to our tweets regarding our work on Twitter, however, these were generally offering encouragement, rather than inputting specific advice.

Other potential sources of specific information and/or literature for inclusion in the review were not immediately productive, for example, Carina van Rooyen's attendance at the Africa and Middle East Microfinance Summit did not lead to identification of any relevant literature. However, engagements such as these with those working within the sector enhanced our understanding of the policy and practice settings, as well as the research environment.

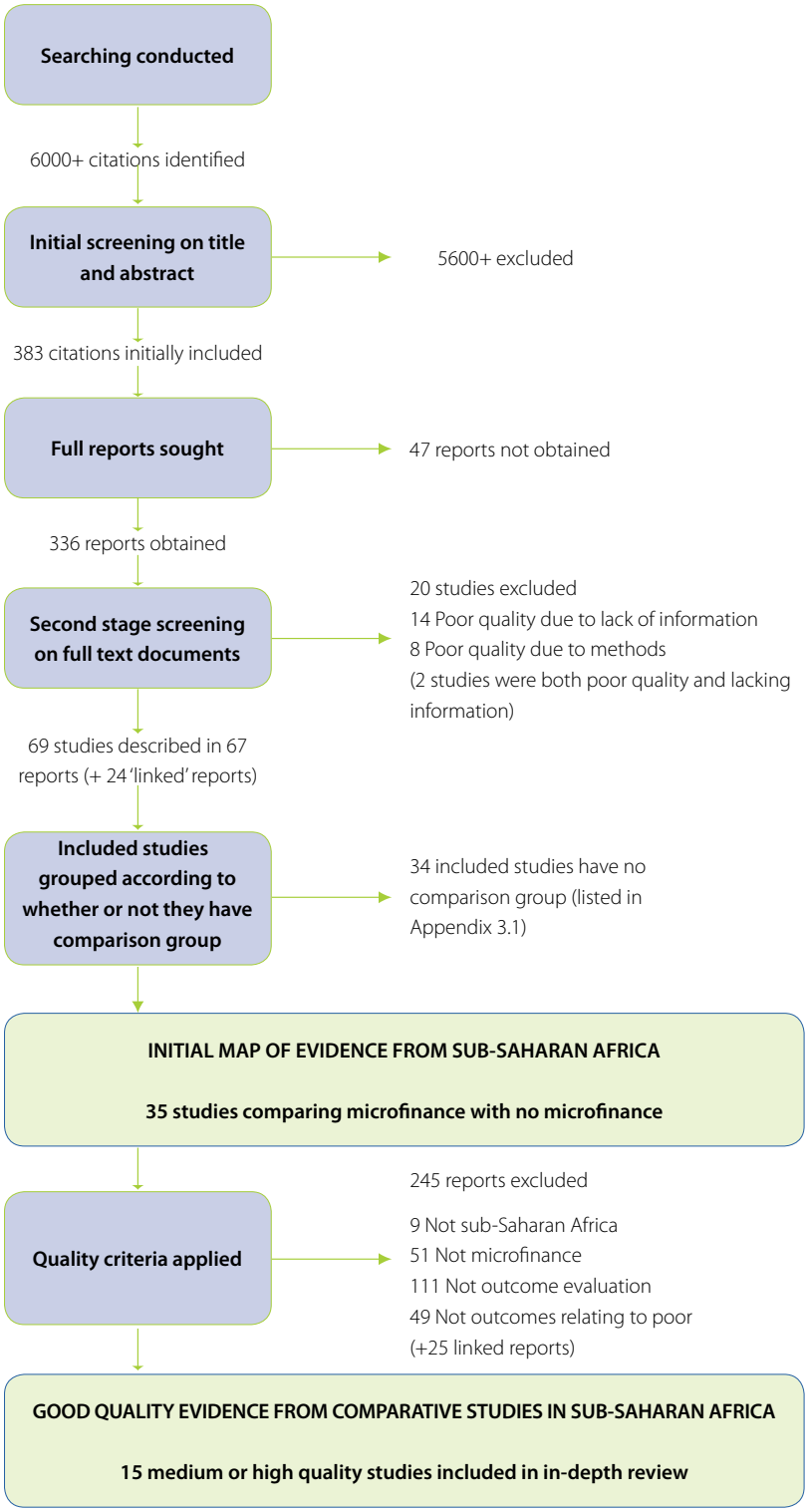
As a research team, we will continue the discussions and debates which have helped us to finalise this report, engaging with academics and policy-makers through publications and online discussions, and at conferences.

3.2 Studies included from searching and screening

We searched systematically for evaluations of micro-credit or micro-savings in sub-Saharan Africa, looking in three specialist systematic review libraries, 18 electronic online databases, the websites of 24 organisations, and an online directory of books. We also contacted 23 key organisations and individuals requesting relevant evidence, conducted citation searches for two key publications, and searched the reference lists of included papers.

Our searches provided over 6,000 hits. These were reduced to 383 'probably relevant' reports based on their abstracts. The full texts of these 383 reports were sought, and 336 were collected and screened for a second time. By this process of elimination we were able to identify 69 studies on sub-Saharan Africa which evaluate the impact of micro-credit and/or micro-savings on the poor clients whom they purport to serve. A summary of our search and screening results is illustrated in Figure 3.1.

Figure 3.1: Filtering of papers from searching to map to synthesis



3.2 Details of included studies

3.2.1 Description of the 35 studies included in the initial map

We identified 35 studies which compare the impact of having a loan or a savings account with not having either.

These included studies from 14 sub-Saharan African countries, namely Cameroon, Ethiopia, Ghana, Kenya, Ivory Coast, Madagascar, Malawi, Nigeria, Rwanda, South Africa, Tanzania, Uganda, Zambia and Zimbabwe. One study also included data from Haiti.

Of these 35 studies, 33 evaluated the impact of micro-credit, 2 evaluated the impact of micro-savings, and 3 assessed combined savings and credit interventions. Four studies also included substantial additional interventions such as life-skills training and gender empower -ment workshops.

The quality of these 35 varied, with 20 excluded on the basis of lack of information and/or due to poor quality methods. Eleven studies were medium quality and four high quality. These 15 studies were considered 'good enough' quality and included in the in-depth review.

3.2.2 Description of the 15 studies included in the in-depth review

We focused on the findings from within 15 studies, including 4 randomised controlled trials, 2 non-randomised controlled trials and 9 case-control studies. Eleven of the studies included in our in-depth review were of micro-credit interventions, two were of combined credit and savings interventions, and two were of savings schemes alone. They include evaluations of programmes within Ethiopia, Ghana, Kenya, Madagascar, Malawi, Rwanda, South Africa, Tanzania (Zanzibar), Uganda and Zimbabwe. Ten studies were in rural settings, two in urban settings, and three combined both rural and urban settings. Additional information on these 15 studies is provided in section 4.1 and Appendices 4.1.1 – 4.1.3.

Of these 15 studies, four were judged to be of high quality, and eleven of medium quality. It would be wrong, however, to assume that the four high quality studies were the randomised controlled trials. Indeed one of the RCTs (Ashraf et al. 2008) was judged to be of medium quality due to the lack of information on the participants, and on the consistent delivery of the intervention.[34] The high quality studies, as judged by our criteria (see 2.4) were the RCTs about micro-savings in Kenya (Dupas and Robinson 2008) and in Uganda (Ssewamala et al. 2010), the trial of micro-credit in South Africa (Pronyk et al. 2008), and one of the two controlled trials – by Barnes and colleagues in Uganda (2001a). The remaining ten studies were all medium quality case-control studies.

34 Another of the four included RCTs (Pronyk et al. 2008) has recently been challenged over its methodology, specifically the appropriate-ness of the comparison group, and whether or not it warrants the label 'randomised controlled trial'. We have not used 'randomisation' as a specific criterion for high quality, but rather taken into account the steps taken to minimise bias. In this review, this study therefore retains its status as a high quality evaluation. This decision is discussed further in section 5.4.

4. SYNTHESIS RESULTS

4.1 Further details of studies included in the synthesis

4.1.1 Interventions

Fifteen very different interventions were evaluated in the included literature; these are described below.

Two were of randomised controlled trials of micro-savings interventions, the first with adults in Kenya (Dupas and Robinson 2008), and the second with AIDS-orphaned young people in Uganda (Ssewamala et al. 2010). Whilst the adults in Kenya were offered interest-free savings accounts with considerable withdrawal charges, and additional access to credit, the young people in Uganda received, in addition to their savings accounts, support and incentives to save money towards their secondary education.

Two studies evaluated combined savings and credit programmes. Barnes and colleagues (2001a) evaluated three combined programmes in Uganda focusing on women, all of which had the following characteristics: the formation of a group consisting of individual members, each of whom owns and operates a business that produces at least a weekly cash flow; the entire group's guarantee of the loan made to each member of the group; the use of an interest rate that supports the administrative costs of the MFI; a mandatory savings requirement; and a mandatory weekly group meeting for loan repayment. A similar model was evaluated in Zanzibar, Tanzania (Brannen 2010), based on Care International's Village Savings and Loan Associations, with members of groups each responsible for contributing to the savings, as well as being able to withdraw loans from their shared resource. Groups also contribute to a social welfare fund and an education fund, which are used to the mutual benefit of members.

The remaining eleven studies included in our in-depth review assessed the impact of micro-credit on the poor. Two were trials of complex programmes which included micro-credit as one element of the interventions. Pronyk and colleagues (2008) conducted what was called the IMAGE trial, which incorporated micro-credit with gender and HIV awareness training, and community mobilisation support for women in South Africa. In contrast, Ashraf and colleagues (2008) evaluated a combination of support for smallholder farmers about how to switch to export crops, with in-kind credit, as part of a programme known as DrumNet.

Nine further evaluations, all of less complex micro-credit programmes, varied in key characteristics. Two incorporate in-kind loans, as well as cash: in Rwanda, 30 families received micro-credit, partly in the form of goats (Lacalle et al. 2008), whilst Shimamura and Lastarria-Cornhiel (2009) evaluate an agricultural credit programme in Malawi which offers clients seasonal loans in the form of mostly seeds and/or fertiliser, as well as cash loans.

Four further studies focus on specific microfinance programmes. Adjei and colleagues (2009) assess impacts on rural and urban clients (mostly women) of the Sinapi Aba Trust in Ghana, which provides small loans for business development, whilst a study in Madagascar evaluates the ADéFi credit scheme, which specifically targets micro-enterprises with small loans (Gubert and Roubaud 2005). A third included study explores the WISDOM Microfinance Institution's impact on clients' coping capacity in drought and food insecure conditions in Ethiopia (Doocy et al. 2005). WISDOM uses a group lending model with groups generally consisting of six to eight members. Initial collateral is not necessary, but once members have received a loan they are required to open a savings account

which then functions as collateral and cannot be accessed unless loan repayment is complete (Doocy et al. 2005). Fourthly, in an almost parallel evaluation to the study of combined micro-credit and savings in Uganda (Barnes et al. 2001a), Barnes and colleagues (2001b) evaluate the Zambuko Trust in Zimbabwe. Zambuko is an NGO which offers loans to micro-enterprises, as well as training in business practices and administration, and provides ongoing business support services.

Two further studies focus first on a population of interest and investigate their access to micro-credit: Wakoko (2004) focuses on women in Uganda and investigates their use of a range of financial services, including formal and informal lenders, and individual and group micro-credit services. Nanor's study of rural Ghana (2008) focuses on four regions served by NGO-backed rural banks offering individual and group credit.

Lastly, Lakwo's thesis (2006) focuses on rural married women with access to micro-credit via a village banking model in Uganda.

4.1.2 Outcomes

As well as evaluating this variety of interventions, the included studies explore impacts on a wide range of outcomes.

Table 4.1 Studies in in-depth review, by study design and type of outcome

For each study, first author and date of publication of the main paper is given. Full citations and linked papers are listed in section 7.2.

Study design	Assessing impact on the incomes of the poor	Assessing impact on the other wealth indicators for the poor	Assessing impact on other outcomes for the poor
Randomised controlled trials	Ashraf (2008) Dupas (2008)*	Dupas (2008)* Pronyk (2008)* Ssewamala (2010)*	Dupas (2008)* Pronyk (2008)* Ssewamala (2010)*
Other comparative outcome evaluations	Barnes (2001b) Gubert (2005) Nanor (2008)	Adjei (2009) Barnes (2001a)* Barnes (2001b) Brannen (2010) Lacalle (2008) Lakwo (2006) Nanor (2008)	Adjei (2009) Barnes (2001a)* Barnes (2001b) Brannen (2010) Doocy (2005) Gubert (2005) Lacalle (2008) Lakwo (2006) Nanor (2008) Shimamura (2009) Wakoko (2004)

* Denotes high quality study. All other listed studies are rated as medium quality.

4.2 Synthesis of evidence of effectiveness

Below, we first summarise the directions of effect (i.e. positive and negative impacts) specifically in relation to clients' incomes, savings, expenditure and accumulation of assets, as well as other wealth indicators measured in the included studies. We then report our narrative synthesis of the impact of micro-credit and micro-savings on individual-, household- and business-level wealth. Further details are available in Appendices 4.1.1–4.1.3.

Table 4.2 Overview of directions of effect of micro-credit and micro-savings on income

Assessing impact on the incomes of the poor	Intervention	Outcome	Direction of impact
Ashraf (2008)	Micro-credit plus Drumnet	Business-level income	+ (but not attributable to micro-credit)
Barnes (2001b)	Micro-credit	Household-level income	+
Dupas (2008)*	Micro-savings	Business-level income	no impact identified
Gubert (2005)	Micro-credit	Business-level income	+
Nanor (2008)	Micro-credit	Household- and business-level income	+ in two districts - in two districts - in all four districts over time

* Denotes high quality study. All other listed studies are rated as medium quality.

4.2.1 Comparative outcome evaluations which measured the impact of micro-credit and micro-savings on the incomes of the poor

- Five good quality studies explored the impact of micro-credit and/or micro-savings on income. All but one of these were judged to be of medium, rather than high quality.
- As illustrated in Table 4.2, the available evidence suggests that micro-credit has mixed impacts on the incomes of poor people. The one study of micro-savings (also the only high quality study of the five) finds no impact on income.
- One study, which considers business income, finds a negative impact over time, even for those businesses which have increased income initially, suggesting that the longer business owners are micro-credit clients, the more likely their businesses are to fail (see Table 4.2).
- No studies assessed the impact of micro-credit or micro-savings on the individual incomes of poor people, while there is some evidence for impacts on household and business income.
- Although there are data from two studies to support the hypothesis that farmers receiving micro-credit diversify the crops they grow (Barnes et al. 2001a; Barnes et al. 2001b), only one of these studies found that this increase in the number of crops grown translated into greater business income (Barnes et al. 2001a).
- One study suggests that client businesses performed better than those of the control group, although this was not statistically significant (Gubert and Roubaud 2005).
- One study found that the longer a client stayed in a credit scheme, the worse their business profit became (Nanor 2008). This highlights the need to better understand how micro-credit might enable increased business profits.
- We have failed to find a consistent positive link between micro-credit or savings and increased income. This is evident from two studies. The first of these explores the impact of micro-credit directly on household income and provides inconsistent evidence, with clients' household income significantly higher than that of non-clients within two of the four districts examined, but significantly lower in the other two (Nanor 2008). The second found that a combined agricultural business development and credit programme in Kenya increased farmers' income from export crops, but this could not be attributed to the micro-credit element of the intervention (Ashraf et al. 2008).
- One high quality study of micro-savings found that client women invest more in their businesses, but there is no evidence that these investments led to greater profit levels (Dupas and Robinson 2008).

4.2.2 Comparative outcome evaluations which measured the impact of micro-credit and micro-savings on the wealth of the poor more broadly

Ten good quality studies explored the impact of micro-credit and/or micro-savings on broader aspects of wealth, including savings and expenditure. The impacts are summarised in Tables 4.3–4.5.

The available evidence suggests that both micro-credit and micro-savings have positive impacts on the levels of poor people's savings (Table 4.3). This is true for the three high quality studies and the one medium quality study reviewed.

Similarly, the evidence summarised in Table 4.4 shows that micro-credit and micro-savings increase both expenditure and the accumulation of assets. It is worth noting however, that the two high quality studies which consider these outcomes are perhaps less positive than the five medium quality studies.

It is worth noting that with regard to expenditure and the accumulation of assets, two studies found that households accumulated more assets initially, but this did not continue over time (see Table 4.4).

Table 4.5 suggests largely positive effects of micro-credit and micro-savings on other indicators of wealth, although not all studies found any impact, either positive or negative. The results of the three high quality studies which considered these outcomes are no different from the medium quality studies (i.e. largely positive, but inconclusive).

Table 4.3 Overview of directions of effect of micro-credit and micro-savings on the level of poor people's savings

Assessing impact on the incomes of the poor	Intervention	Outcomes	Direction of impact
Adjei (2009)	Micro-credit	Individual savings	+ (mostly involuntary savings)
Barnes (2001a)*	Micro-credit, micro-savings plus other	Individual savings	+
Dupas (2008)*	Micro-savings	Individual savings	+ (but varied)
Ssewamala (2010)*	Micro-savings plus other	Individual savings	+

* Denotes high quality study. All other listed studies are rated as medium quality.

Table 4.4 Overview of directions of effect of micro-credit and micro-savings on the level of poor people's expenditure and asset accumulation

Assessing impact on the incomes of the poor	Intervention	Outcomes	Direction of impact
Adjei (2009)	Micro-credit	Household accumulation of assets	+ (but no association with length of time in micro-credit programme)
Barnes (2001a)*	Micro-credit, micro-savings plus other	Household accumulation of assets	+ (but not significant, and a small number of clients had to sell assets to make loan repayments)
Barnes (2001b)	Micro-credit	Business accumulation of assets	+
Brannen (2010)	Micro-credit, micro-savings	Household accumulation of assets	+ (not over time)
Dupas (2008)*	Micro-savings	Individual-level expenditure	No effect
		Business accumulation of assets	Mixed results
Lacalle (2008)	Micro-credit	Household accumulation of assets	+
Nanor (2008)	Micro-credit	Household level of expenditure	+ (but varied)

* Denotes high quality study. All other listed studies are rated as medium quality.

Table 4.5 Overview of directions of effect of micro-credit and micro-savings on other indicators of wealth

Assessing impact on the incomes of the poor	Intervention	Outcomes	Direction of impact
Barnes (2001a)*	Micro-credit, micro-savings plus other	Remittances and gifts Diversity of income sources Starting a new substitute business Investing in land for cultivation	+ Varied, mostly + + +
Barnes (2001b)	Micro-credit	Remittances and gifts	No effect
Brannen (2010)	Micro-credit, micro-savings	Diversity of income sources	+
Dupas (2008)*	Micro-savings	Investing in land for cultivation	+ (not significant)
Lacalle (2008)	Micro-credit	Household/family economic status	+ (self-reported)
Lakwo (2006)	Micro-credit	Individual economic well-being	No effect
Nanor (2008)	Micro-credit	Household poverty level	No effect
Pronyk (2008)*	Micro-credit plus gender and HIV awareness training and community mobilisation support	Household economic well-being	+

* Denotes high quality study. All other listed studies are rated as medium quality.

The results of our narrative synthesis of evidence are presented below.

INDIVIDUAL WEALTH

- No studies assessed the impact of micro-credit or micro-savings on the individuals' accumulation of assets.
- Whilst a study in Ghana suggested that micro-credit influenced the amount of savings deposits made by participants, this is likely to be a function of the credit system which requires borrowers to have at least 10% of loan amounts in the form of savings deposits before a loan will be approved (Adjei and Arun 2009). What is surprising, however, is that the length of time that individuals had been with the programme was negatively associated with savings. Although not statistically significant, this suggests that the longer people are enrolled in a credit programme, the less they save.
- There is some evidence that micro-savings for women have a significant impact on their individual expenditure. The data from a high quality randomised controlled trial in Kenya suggests that food expenditures and private expenditures increased significantly for client women, who also managed to save more than controls (Dupas and Robinson 2008).
- Another high quality trial of micro-savings for AIDS-orphaned young people in Uganda found that those with savings accounts had a significant increase in their attitudes to saving money over time, compared to a decrease in attitudes to savings amongst controls (Ssewamala et al. 2010).
- Barnes and colleagues' study of combined micro-credit and micro-savings programmes in Uganda (also judged to be of high quality), showed that clients were significantly more likely than non-clients to have increased their level of savings in the last two years, but clients preferred to keep their non-mandatory savings elsewhere than in the bank account (2001a).

HOUSEHOLD WEALTH

- A trial in Zimbabwe found that over the two years following departure from a micro-credit programme, clients had diversified their income sources, potentially providing the households with greater income security (Barnes et al. 2001b), but there is no evidence that household income increases per se. Furthermore, the greater diversification of income sources was not observed for the poorest households (Barnes et al. 2001b).
- One study found that continuing participation in micro-credit has a negative impact on household poverty: 'Significantly more continuing clients and departing clients than non-clients fell into poverty during the assessment period' (Barnes et al. 2001b:60).
- The Ghanaian study suggests that client households have greater expenditure on non-food items than

non-client households (Nanor 2008). This finding is consistent with a study of micro-credit in Rwanda, which found credit clients purchased significantly more clothing, footwear and soap than non-clients (Lacalle et al. 2008).

- There is evidence from Uganda (a high quality study) and Tanzania (Zanzibar) that micro-credit clients invest more in household assets such as mattresses, radios, stoves and beds (Barnes et al. 2001a; Brannen 2010). The data from Tanzania suggests that this investing in household assets is especially true of male clients, although it is also significant amongst female borrowers.
- Data from one study of women borrowers in Ghana suggests that participation in a micro-credit programme is significantly associated with the purchase of a refrigerator, and also sewing machines. Length of time within the credit programme, however, was not a significant factor in the consumption of these household items (Adjei and Arun 2009).
- There are data from one study which suggest that client households are more likely to provide remittances and gifts than non-clients. However, a second study finds no such effect; in the higher quality study by Barnes and colleagues in Uganda, client households were slightly more likely to provide remittances and gifts (and with higher amounts) to non-household members (2001a). In a parallel study in Zimbabwe (judged to be of medium quality and on micro-credit), after controlling for a number of initial differences, there was no significant difference between gifts given by clients and non-clients (Barnes et al. 2001b:78).
- No studies assessed the impact of micro-credit and microfinance on the level of household savings.

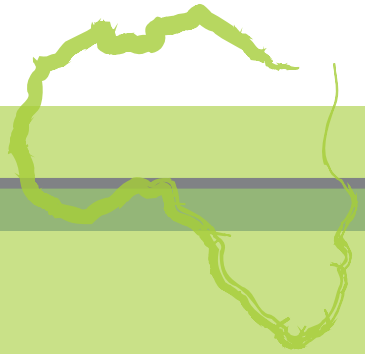
BUSINESS WEALTH

- As noted above, data from a high quality study in Uganda suggest that micro-credit clients are more likely have more diverse sources of income than non-clients, although this is not true for the poorest households (Barnes et al. 2001a).
- According to two high quality studies, clients are more likely to invest in land for cultivation: Kenyan savings clients and Ugandan credit clients invest more money in land for cultivation (Dupas and Robinson 2008; Barnes et al. 2001a), and in Uganda they also increase both the number of crops they grow and their income from crop production (Barnes et al. 2001a).
- There is mixed evidence on whether micro-credit and micro-savings lead to greater investment in business assets: two studies (one of high quality – Barnes et al. 2001a) show that credit clients are more likely to have added new products or services to their current business (Barnes et al. 2001a), started a new business (a substitute enterprise, not a second enterprise) (Barnes et al. 2001a), and become involved in more 'income generating activities' (Brannen 2010). However, a further two studies (neither of high quality) suggest otherwise: in Zimbabwe, participating in a micro-credit programme did not have an impact on the value of fixed assets in clients' businesses (Barnes et al. 2001b), and in Madagascar, micro-credit did not provide client businesses with a spurt of growth; in fact, although not statistically significant, the relative performance of clients' businesses was worse than those of the control group (Gubert and Roubaud 2005).

GENERAL WEALTH OUTCOMES

There is also some evidence for a general improvement in economic status for micro-credit clients in Rwanda (Lacalle et al. 2008); however, this is self-reported data about families' economic situation, and may be a direct function of being given credit in the form of livestock, which the authors report as particularly popular among the intervention group. More convincing is the evidence from a high quality study in South Africa which reports a clear pattern of improvement across all nine indicators of economic well-being, including household asset value, ability to repay debts and ability to meet basic household needs (Pronyk et al. 2008).

This is contradicted by data from Uganda, which reveal that micro-credit and micro-savings had not improved the well-being status of clients relative to that of non-clients, and that clients who had participated for more than three years saw very negligible value addition to their well-being status (Lakwo 2006). While clients made insignificant gains in financial and human assets, non-clients gained in natural and physical assets (Lakwo 2006). Nanor's study in Ghana also found no statistically significant difference between micro-



credit programme households and non-programme households when comparing them on a poverty line (2008).

4.2.3 Comparative outcome evaluations which measure the impact of micro-credit and micro-savings on other non-financial outcomes for the poor

In addition to the wealth indicators explored above, we have extracted findings from 14 good quality studies relating to the health, food security and education of clients and their families, as well as exploring the evidence for the empowerment of women, social cohesion, improved housing and job creation. An overview of the directions of effect reported is presented in Tables 4.6–4.11 below, followed by a summary of our narrative synthesis of findings for each outcome category. As before, the evidence from the four studies included in the review which are judged to be high quality is highlighted, and any differences between their findings and those from medium quality studies is noted.

HEALTH

The available evidence from both high and medium quality studies suggests that both micro-credit and micro-savings have a generally positive impact on the health of poor people (Table 4.6).

Table 4.6 Overview of directions of effect of micro-credit and micro-savings on health

Main paper	Intervention	Direction of effect
Adjei (2009)	Micro-credit	+
Barnes (2001b)	Micro-credit	+ (in terms of range of income sources to smooth health shocks)
Brannen (2010)	Micro-credit and micro-savings	+
Doocy (2005)	Micro-credit	Varied
Dupas (2008)*	Micro-savings	+
Lacalle (2008)	Micro-credit	+
Pronyk (2008)*	Micro-credit plus IMAGE	+ (but not attributed to micro-credit element of the programme)
Ssewamala (2010)*	Micro-savings	+

* Denotes high quality study. All other listed studies are rated as medium quality.

There is some evidence that micro-credit increases investment in health care in terms of health insurance (Lacalle et al. 2008) and expenditure on health care itself (Adjei and Arun 2009; Brannen 2010; Dupas and Robinson 2008 – note that only Dupas and Robinson's is a high quality study, whilst only Adjei and Arun's finding is statistically significant). They also find that length of time within the programme does not affect health expenditure (Adjei and Arun 2009).

Micro-credit may also improve the health of the children of clients in terms of (a) protective behaviours – sleeping under a mosquito net (Brannen 2010) – and (b) nutritional status – for families in particularly stressed environments (Doocy et al. 2005). However, Doocy and colleagues' findings are only significant for some of the geographical areas investigated. Perhaps more significant is their finding that established and new borrowers have better nourished children than non-borrowing community controls, suggesting that borrowers are quite different from non-borrowers. It is worth noting that Doocy et al. (2005) do find that it is largely the female clients (and not male clients) who invest in their children's nutrition.

Whilst the IMAGE trial in South Africa found significant improvements in sexual health and women's empowerment for intervention participants, the intervention they received included far more than just micro-credit, with considerable investment in gender and HIV awareness training (Pronyk et al. 2008). A trial of the impact on savings accounts on the risk-taking sexual health behaviours of AIDS orphans in Uganda (Ssewamala et al. 2010) however, did find significant improvements for the young savers due to the micro-savings intervention itself. Relative to the boys and girls in the control group who showed an increased approval of risky sexual behaviours over the course of the study, those in the intervention group showed either unchanged attitudes (in girls) or a significant decrease in approval of such behaviours (in boys). Thus both boys and girls benefited from the intervention, but in different ways and girls to a lesser extent. We judged both trials to be of high quality.

Lastly, Barnes and colleagues' (2001b) study of the Zambuko Trust in Zimbabwe suggests that participation

in the credit programme benefited HIV-affected households by leading to more varied, and therefore more secure, sources of income. However, the evidence for this is not entirely convincing due to the methodology of the study.

FOOD SECURITY AND NUTRITION

The evidence (including that from one high quality study) suggests that micro-credit and micro-savings have a positive impact on food security and nutrition, although this is not true across the board (see Table 4.7).

Table 4.7 Overview of directions of effect of micro-credit and micro-savings on food security and nutrition

Main paper	Intervention	Direction of effect
Barnes (2001b)	Micro-credit	+
Brannen (2010)	Micro-credit and micro-savings	+
Doocy (2005)	Micro-credit	No effect
Dupas (2008)*	Micro-savings	+
Lacalle (2008)	Micro-credit	+
Nanor (2008)	Micro-credit	Varied
Shimamura (2009)	Micro-credit	+ (only in specific instances)

* Denotes high quality study. All other listed studies are rated as medium quality.

Data on the impact on food security and nutrition suggest that neither participation in a combined micro-savings and micro-credit programme (Brannen 2010), nor participation in a credit-only programme (Doocy et al. 2005), has any effect on meal quantity. Evidence from Tanzania (Brannen 2010) and Rwanda (Lacalle et al. 2008) does suggest that participation in the Village Savings and Credit Association and the Red Cross credit programme respectively is associated with a significant positive increase in meal quality, with an increase in consumption of meat in both countries and fish in Zanzibar. Participation in the Zambuko Trust in Zimbabwe also had a positive impact on consumption of nutritious food (meat, chicken or fish, milk) in extremely poor client households compared to non-clients and those who had left the programme (Barnes et al. 2001b).

There is a suggestion from the high quality RCT of micro-savings in Kenya that increased food quality is due to increased food expenditures, which increased significantly for client women (Dupas and Robinson 2008).

This is contrasted with data from Ethiopia (Doocy et al. 2005) and Ghana (Nanor 2008), which show little significant difference in household diet and food security. Differences in current receipt of food aid and length of time receiving food were not significant between three comparison groups (Doocy et al. 2005). Further analysis of data from Ethiopia indicates that female client households were more successful in maintaining quality diets than households of male clients or community controls (Doocy et al. 2005).

This is supported in part by data from Malawi, which show that access to credit of adult female household members improves 0–6 year old girls' (but not boys') long-term nutrition as measured by height for age (Shimamura and Lastarria-Cornhiel 2009). This is not the case for measures of short-term nutrition and does not apply to male household credit recipients.

Doocy and colleagues' study about coping mechanisms with regard to food in Ethiopia shows few significant differences in the use of coping mechanisms between established clients, incoming clients and community controls (2005). Prevalence of consumption of seed crop was similar among established clients and community controls at 17.1% and 19.2% respectively, while incoming clients had a significantly lower rate of seed crop consumption at 11.4% (Doocy et al. 2005). There was a significant difference in the reported consumption and sale of small animals between the three client groups: 37.7% of established clients as compared to 28.5% of incoming clients, and 30.7% of community controls reported above-normal consumption or sale of small animals (Doocy et al. 2005).

EDUCATION

The available evidence on the impact of micro-credit and micro-savings on education is varied, with limited evidence for positive impact (see Table 4.8).

There is considerable evidence that micro-credit may be doing harm by negatively impacting on the education of clients' children (see Table 4.8).

This evidence does not vary significantly across the high and medium quality studies: of the two high quality studies which consider education as an outcome, one finds positive effects (Ssewamala et al. 2010) and the other negative (Barnes et al. 2001a) (see Table 4.8).

Table 4.8 Overview of directions of effect of micro-credit and micro-savings on education

Main paper	Intervention	Direction of effect
Adjei (2009)	Micro-credit	+
Barnes (2001a)*	Micro-credit and micro-savings plus other	-
Barnes (2001b)	Micro-credit	+ (boys) - (girls, especially for continuing clients
Brannen (2010)	Micro-credit and micro-savings	No effect
Gubert (2005)	Micro-credit	No effect on enrolment
Lacalle (2008)	Micro-credit	+
Nanor (2008)	Micro-credit	Mixed (+ in some districts, – in others)
Shimamura (2009)	Micro-credit	- for primary No effect for secondary
Ssewamala (2010)*	Micro-savings	+

*Denotes high quality study. All other listed studies are rated as medium quality.

Savings provision to AIDS-orphaned young people in Uganda has been shown to increase their intention to attend secondary schooling, and their certainty that these plans will come to fruition (Ssewamala et al. 2010 – a high quality study). These young people also did significantly better in Uganda's Primary Leaving Examinations than the control group.

The evidence for micro-credit's impact on school enrolment is contradictory, suggesting some positive and some negative impacts:

There are two studies which show that participation in credit programmes increases a household's expenditure on children's education (Adjei and Arun 2009; Lacalle et al. 2008). Two studies find no such effect (Brannen 2010; Gubert and Roubaud 2005).

One study finds mixed results with varied positive and negative impacts on expenditure on education depending on the region (Nanor 2008).

Perhaps most concerning are two studies which show reduced education amongst micro-credit clients: data from Malawi which show that micro-credit significantly decreases primary school attendance amongst borrowers' children, leading to a repetition of primary grades in young boys and delayed or lack of enrolment for young girls (Shimamura and Lastarria-Cornhiel 2009). In Uganda, a high quality study found that client households were significantly more likely than non-client households to have been unable to pay school charges for one or more household members for at least one term during the previous two years, hence children had to drop out of school (Barnes et al. 2001a). 'The data suggest that a small core of client households experienced financial hardship that kept school-aged children from returning for further education' (Barnes et al. 2001a:65).

Data suggest that the length of time within the credit programme fails to increase positive impacts on expenditure on education (Adjei and Arun 2009), and worse still, decreases children's enrolment: one study finds that that on-going borrowing reduces children's enrolment in school, with the proportion of the household's girls aged 6 to 16 in school decreasing more for continuing clients than for departing clients and non-clients (Barnes et al. 2001b).

The impacts are also different for girls and boys: data from Zimbabwe suggest participation in micro-credit has a positive impact on the proportion of the household's boys aged 6–16 actually enrolled in school (Barnes et al. 2001b), whilst data from the same study shows no such effect for girls.

EMPOWERMENT

There is some evidence that micro-credit is empowering women, but this is not consistent across the reviewed studies, including the mixed results from the one high quality study which considered women's empowerment as an outcome (see Table 4.9).

Table 4.9 Overview of directions of effect of micro-credit on empowerment

Main paper	Intervention	Direction of effect
Barnes (2001b)	Micro-credit	+ (but varied)
Lakwo (2006)	Micro-credit	+
Pronyk (2008)*	Micro-credit plus IMAGE	Mixed
Wakoko (2004)	Micro-credit plus other	No effect

* Denotes high quality study. All other listed studies are rated as medium quality.

We found no studies on the impact of micro-savings on empowerment.

Three studies of the impact of micro-credit on empowerment, particularly women's empowerment, are inconclusive. This is largely due to the difficulties of isolating the impacts of micro-credit within complex interventions.

There is some data from Uganda which suggest that micro-credit contributes to a women's decision-making power; however, the author notes that this is a symptom of status within the household and control in their farming businesses as much as an impact of micro-credit (Wakoko 2004).

Similarly the data from the IMAGE trial in South Africa found a marked improvement in intervention women's ability to negotiate safe sexual practices and avoid intimate partner violence (Pronyk et al. 2008). However, this is likely to be due to other aspects of the intervention and cannot be attributed to the micro-credit alone. And analysis of micro-credit alone, versus IMAGE, versus control (in Kim et al. 2009) found non-consistency of effect of micro-credit alone on these empowerment variables.

Findings from Zimbabwe are also inconclusive: whilst there is no indication that participation in Zambuko led to greater control over the earnings from the business, for both married men and women there was more consultation and joint decision making with the spouse (Barnes et al. 2001b).

We found only one study, on the impact of a rural micro-credit programme in Uganda, which found significantly greater empowerment among women taking part in the programme (Lakwo 2006). This included evidence of women borrowers gaining financial management skills, owning bank accounts, gaining greater mobility outside their homes and taking pride in contributing to household income. Women also gained ownership of some selected household assets more commonly owned by men, mainly poultry, beds with mattresses, and their micro-enterprises. Although this study was judged to be of medium, rather than high quality, arguably it is the most thorough investigation of the role of micro-credit in women's empowerment.

HOUSING

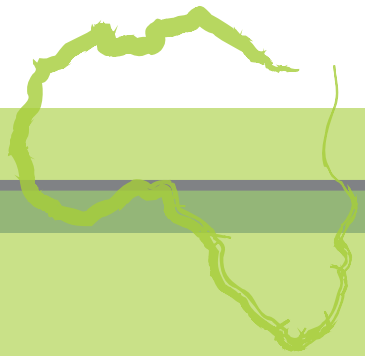
There is evidence that micro-credit and micro-savings have a positive impact on clients' housing (see Table 4.10). This is consistent across the two medium quality studies and the one high quality one.

Table 4.10 Overview of directions of effect of micro-credit and micro-savings on clients' housing

Main paper	Intervention	Direction of effect
Barnes (2001a)*	Micro-credit and micro-savings plus other	+
Brannen (2010)	Micro-credit and micro-savings	+
Lacalle (2008)	Micro-credit	+

* Denotes high quality study. All other listed studies are rated as medium quality.

Data on housing is limited, but all three studies included in this in-depth review suggest positive impacts of micro-credit and micro-savings on housing. Village Savings and Loan Association participants in Zanzibar are more likely to own their own home and make investments in the quality of their home than control groups (Brannen 2010). In Rwanda, credit recipients were found to have made more improvements to their homes than non-credit clients (Lacalle et al. 2008). The high quality study by Barnes and colleagues (2001a) also found that a greater proportion of client households, compared to non-client households, became owners of the place in which they resided, and that client households were more likely to have increased the number of rental units owned than non-client households.



JOB CREATION

There is little evidence that micro-credit has any impact on job creation – both studies are medium quality (see Table 4.11).

Table 4.11 Overview of directions of effect of micro-credit job creation

Main paper	Intervention	Direction of effect
Barnes (2001b)	Micro-credit	No effect
Gubert (2005)	Micro-credit	+ (but reduces over time in programme)

Only two studies reported impacts of micro-credit on job creation: no studies of micro-savings considered job creation as an outcome.

There is very little data within the review on the impact of micro-credit or savings on job creation. Gubert and Roubaud (2005) found that in 2001, the impact of micro-credit on employment was positive and significant, but by 2004, while positive, it was not statistically significant. Data from Zimbabwe also showed that micro-credit had no impact on employment levels in businesses (Barnes et al. 2001b). In both cases, political unrest and economic crises may have played a role in these results.

SOCIAL COHESION

There is no evidence for the impact of micro-credit or micro-savings on social cohesion: the included studies do not consider this outcome.

OTHER NON-WEALTH OUTCOMES

Evidence from one study found that micro-credit did not result in a significant increase in child labour, indeed it reduced child participation in household chores. This was despite the finding within the same study that children of credit clients are less likely to attend school (Shimamura and Lastarria-Cornhiel 2009). Although there was an increase amongst credit clients' children's involvement in agricultural production (mostly tobacco production), this was not significant and the authors say this may be due to a measurement error – the survey was conducted after the harvest season.

4.2.4 A summary of the evidence of effectiveness

The available evidence suggests that micro-credit has mixed impacts on the incomes of poor people. Micro-savings alone appears to have no impact. Both micro-credit and micro-savings have positive impacts on the levels of poor people's savings, whilst they also both increase clients' expenditure and their accumulation of assets.

The available evidence suggests that both micro-credit and micro-savings have a generally positive impact on the health of poor people, and on their food security and nutrition, although the effect on the latter is not observed across the board. In contrast, the evidence on the impact of micro-credit and micro-savings on education is varied, with limited evidence for positive effects and considerable evidence that micro-credit may be doing harm, negatively impacting on the education of clients' children. Having said this, micro-credit does not appear to increase child labour.

There is some evidence that micro-credit is empowering women, but this is not consistent across the reviewed studies. Both micro-credit and micro-savings have a positive impact on clients' housing. However, there is little evidence that micro-credit has any impact on job creation, and no studies measured social cohesion.


4.2.5 Reflecting on these findings in relation to the quality of the evidence of effectiveness

Contrasting the direction of effects identified from the four high quality and eleven medium quality studies within this review, we found no notable difference in the evidence about the impacts of micro-credit and micro-savings on the levels of poor people's savings, on general measures of wealth, on health, education, empowerment, housing or job creation.

In relation to the impact of micro-credit and micro-savings on the incomes of the poor and their accumulation of assets, the evidence from the high quality studies is less positive than the evidence from medium quality studies, i.e. if you considered only the highest quality evidence, you would conclude that these interventions reduce the incomes of the poor and reduce their accumulation of assets. In contrast, the evidence about their impact on food security and nutrition is more positive, i.e. if you considered only the highest quality evidence, you would conclude that these interventions have a positive impact on food security and nutrition, whilst consideration of the broader medium quality evidence suggests mixed impacts. It is worth noting that the findings across all 15 reviewed studies were varied for all three of these outcomes.

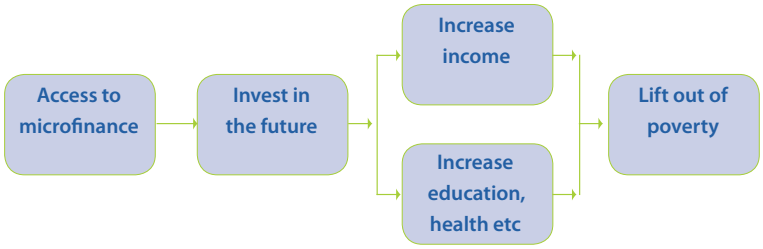
4.3 A proposed causal chain for how micro-credit and micro-savings impact on poor people

Having reviewed the evidence of effectiveness of micro-credit and micro-savings in sub-Saharan Africa, we turned our attention to exploring the causal chain, to try to unpack how and why microfinance impacts on the poor in the ways reported above. Below, we present a simple starting point and describe how we have developed this in to a complex causal chain. We then map the available evidence of impact on to this causal chain to try to explain what might be happening.

4.3.1 A simple starting point

In the background to this review, we proposed a simple causal chain for the way micro-credit and micro-savings might impact on the poor. This is represented in Figure 4.1.

Figure 4.1 A simple causal chain from micro-credit and micro-savings to poverty alleviation



The evidence of impact identified in this review has revealed a much more complex picture, exposing both positive and negative impacts, and highlighting key aspects of this causal chain which must be addressed if microfinance, particularly micro-credit, is to serve the poor.

4.3.2 A complex causal chain (without the evidence of effectiveness)

First we constructed a more complex causal chain in order to understand better how micro-credit and micro-savings might impact on clients (see Figure 4.3). We have represented the interventions in red, the change in behaviour in blue, the outputs in orange and the outcomes in green.

As we understand from the extensive literature we have reviewed, both micro-credit and micro-savings interventions aim to enable clients to spend their money differently.[35] When given to groups, and to women, there is a hope that these interventions will increase social cohesion and also empower women. We have identified two ways in which people spend their money differently. They invest in the future and they also have higher consumptive spending. Their investments can include spending on business or other productive assets such as land, or they can involve investing in education, health, nutrition or housing. Consumptive spending can also include spending on nutrition, housing or other assets.

These investments have direct impacts on clients' capabilities, their scope to deal with shocks and their ability to earn. Greater business and productive assets,

35 In theory they could also choose not to spend, but instead to save this money. In practice, we have found evidence that micro-credit clients do not do this voluntarily. Some micro-savings clients do save, and in due course, choose to spend this money differently.

greater training or education, and less risk of adverse events, can all contribute to increased income. For micro-savings clients, this increased income can enable them to spend more and to spend in different ways, and of course to save more. Crucially, for micro-credit clients, this increased income is necessary for them to repay their original loans, and the often extremely high interest on those loans. Once those loans are repaid, micro-credit clients are also able to save more and to spend more and spend differently.

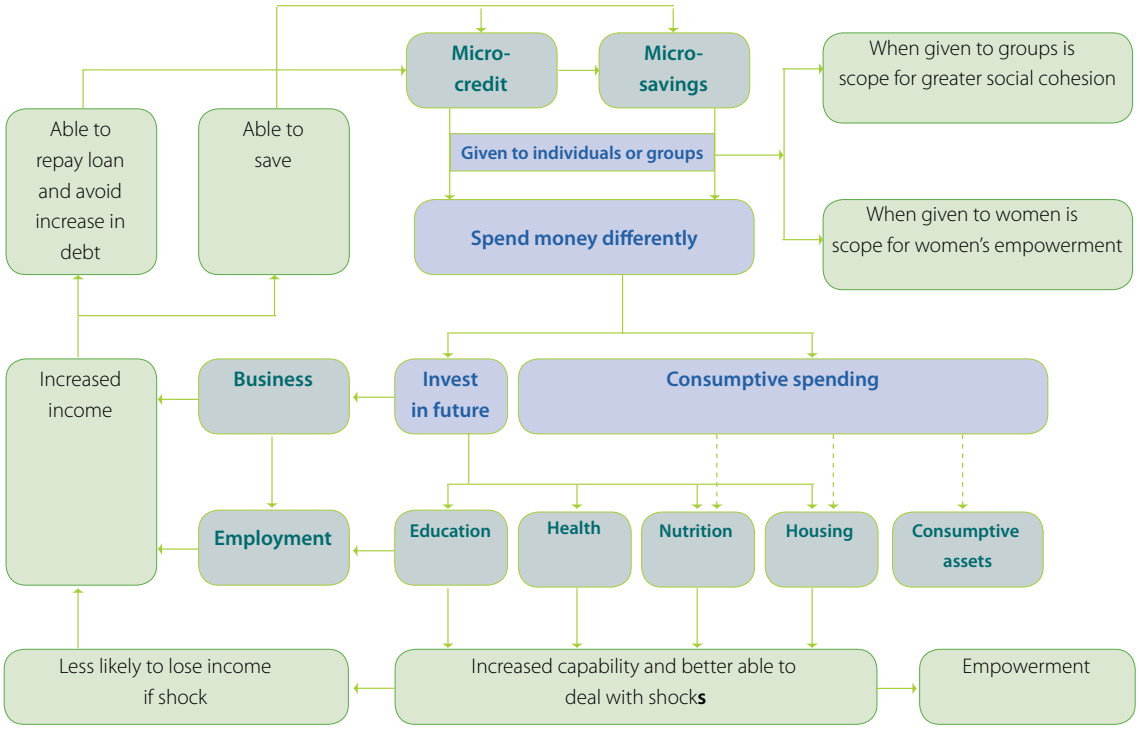
4.3.3 A complex causal chain (with the evidence of effectiveness)

Next we returned to our evidence of effectiveness and applied it to this complex causal chain, considering how our in-depth review findings could shed further light on how micro-credit and micro-savings work.

We know that both micro-credit and micro-savings lead people to spend more and to accumulate more assets. We also know that they both have a generally positive impact on the health of poor people, on their food security and sometimes their nutrition, and on their housing.

We have no evidence relating to impacts on social cohesion and limited evidence in relation to empowerment. There is no evidence that micro-savings leads to an increase in income, although micro-credit can do so. And there is

Figure 4.2 A complex causal chain for how micro-credit and micro-savings impact on poor people



evidence that micro-credit in particular leads to a reduction, and not an increase, in the number of clients' children enrolled in school.

Lastly, whilst the evidence suggests that businesses can benefit from micro-credit, we have also found that the longer clients remain within a micro-credit scheme, the less likely their business is to succeed.

Given this varied evidence, we realised that our complex causal chain in Figure 4.2 makes assumptions that outputs will lead to positive outcomes, enabling clients to increase their income. We therefore developed a further causal chain to take into account the scope for micro-credit and micro-savings to cause harm as well as do good, and our evidence for which processes appear to have negative outcomes. As a result we developed Figure 4.3.

EXPLAINING FIGURE 4.3

In Figure 4.3 we represent, as before, how micro-credit and micro-savings enable people to spend their money differently. The process of lending to groups and to women has the scope to lead to greater social cohesion and empowerment, although the evidence is either not available or not conclusive on these outcomes. Also represented in the top right, is the potential for long-term benefits (for example, increased children's education). It should be noted that the evidence of effectiveness for all three of these potential outcomes is limited. Furthermore, none of these three potential outcomes enables any increase in income, therefore are inconsequential with regards clients' ability to repay their loans or invest in their savings accounts.

Coming back to how people spend their money, we have now grouped the ways in which clients spend their money differently into four different categories:

1. **Investing in the immediate future** through businesses, other productive assets (such as land), adult education and training, and workers' health and nutrition. We know from the evidence of effectiveness, and therefore theorise, that these investments have the potential to increase income.
2. **Consumptive spending with scope for productivity** through adding to their housing, and gaining assets which retain value, such as refrigerators, sewing machines or houses themselves. Again, we know from the evidence that clients do invest in these types of assets.
3. **Investing in the long-term future,** such as children's education or their health and nutrition. The evidence suggests that clients make decisions which improve children's health and nutrition, but not their education. Whilst in theory, these investments have long-term benefits, the logic modelled in Figure 4.3 shows how this does not increase clients' ability to repay their loans.
4. **Consumptive spending which is non-productive** (sometimes referred to as consumptive smoothing), such as wedding or funeral expenses, or the accumulation of household items such as soap. The evidence suggests that clients do increase their expenditure on these types of items and as the logic shows, such expenditures leave clients in debt.[36]

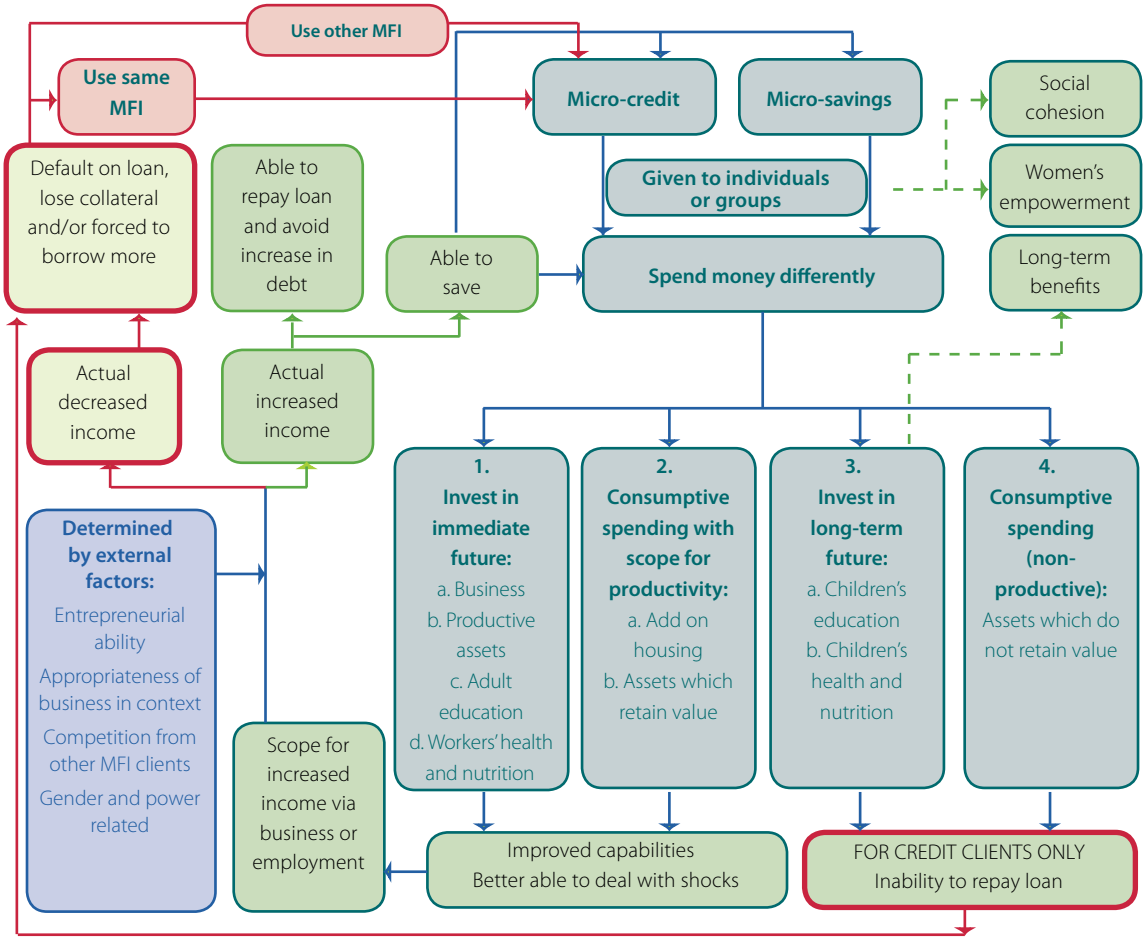
36 Whilst we acknowledge that some non-productive spending may over time indirectly increase the wealth of a household (for example, paying a dowry can mean a member of the household leaves, meaning less food requirements), this is indirect. Such spending does not enable micro-credit clients to repay their loans and is likely to contribute to clients defaulting on loans, as Figure 4.3 suggests.

Whilst the first two areas of expenditure listed above hold the potential for micro-credit and micro-savings clients to increase their incomes, we have highlighted how other 'external' factors still play a role in determining whether or not this occurs. These are theoretical rather than evidenced, and include the entrepreneurial ability of the clients, the appropriateness of their business in the context in which they live and work, the degree of competition from other MFI clients, and gender and power relations. Of course, the negative impacts of increased competition may damage the local economy as such competition also affects other small enterprises (not only clients' businesses).

In the top left-hand side of Figure 4.3 we clearly indicate how, if micro-credit clients in particular fail to increase their incomes, then they will default on their loans, lose their collateral (and that of their fellow group members if they are in group lending schemes), and be forced to borrow again. This second loan might be from the same lender or, if they are unable to get further credit from that lender, from a second MFI. The model we present here clearly shows how, if micro-credit fails to increase clients' incomes (and there are plenty of opportunities for this failure to occur), then the number of MFIs is likely to increase. The proliferation of MFIs may therefore be a symptom of the failure of micro-credit and not its success.

There is the potential for clients to remain in a cycle of borrowing or saving, investing in the future, increasing income, repaying loans and borrowing or saving again. There is potential for these repeating cycles to provide benefits such as improved health and empowerment. However, the potential for clients to fail to increase their income sufficiently to pay off a loan, whether due to clients' decisions or other external factors, is ever present. Such failure means micro-credit and micro-savings can lead to greater poverty rather than its alleviation. As early as the 1960s, when Brother Waddelove inaugurated the credit union movement to provide loans to the poor in Zimbabwe, he acknowledged 'Credit is like a fire: it is useful to cook your sadza but if you are careless, it will burn your hut' (Brother Waddelove in Raftopoulos and Lacoste 2001:35).

Figure 4.3 A complex causal chain for how micro-credit and micro-savings impact on poor people, amended to account for evidence of effectiveness.



5. DISCUSSION

5.1 Summary of findings from evidence of impact

In relation to the income of poor people, the available evidence suggests that micro-credit has mixed impacts and that micro-savings on its own appears to have no impact. Both micro-credit and micro-savings have positive impacts on the levels of poor people's savings, whilst they also both increase clients' expenditure and their accumulation of assets.

The available evidence suggests that both micro-credit and micro-savings have a generally positive impact on the health of poor people, and on their food security and nutrition, although the effect on the latter is not observed across the board. In contrast, the evidence of the impact of micro-credit and micro-savings on education is varied with limited evidence for positive effects and considerable evidence that micro-credit may be doing harm, negatively impacting on the education of clients' children. Having said this, micro-credit does not appear to increase child labour.

There is some evidence that micro-credit is empowering women, but this is not consistent across the reviewed studies. Both micro-credit and micro-savings have a positive impact on clients' housing. However, there is little evidence that micro-credit has any impact on job creation, and no studies measured social cohesion.

In summary, whilst both micro-credit and micro-savings have the potential to improve the lives of the poor, micro-credit in particular, also has potential for harm.

5.2 Summary of the causal chain for how micro-credit and micro-savings impact on poor people

Having reviewed the evidence of effectiveness, we were able to develop and test a complex causal chain for the way micro-credit and micro-savings impact on poor people. The logic model developed shows how some potential benefits, whilst desirable, are not essential to the cycle of increasing financial wealth, specifically increasing social cohesion, women's empowerment and long-term benefits, particular investments in children.

It also shows how micro-credit and micro-savings clients can choose to spend their money in different ways. Whilst investing in the immediate future and spending consumptively with scope for productivity both have the potential for increased income, investing in the long-term future and spending on non-productive consumption do not.

Failure to increase income, something which can be determined by external factors, as well as the ways in which clients spend their money, can lead clients into further debt, leaving them unable to invest in their savings accounts and/or reliant on further cycles of micro-credit. Successful increases in income, the successful repayment of loans, and the accumulation of financial wealth are all feasible, but the causal model shows how these are not always achievable. This model correlates to what Mayoux (1999:977) referred to as 'virtuous spirals' and 'vicious constraints'.

5.3 Reflecting on the quality of the studies included in this review

From the outset, we knew that microfinance is a complex and diverse intervention, yet we were still surprised to discover the extent of this variety, with almost no consistency within the included studies, either in the interventions evaluated or in the outcomes measured. This variety made it difficult to conduct a synthesis of the available evidence. The outcomes which some micro-credit and micro-savings initiatives aim to achieve are also fundamentally difficult to define and measure – for example, empowerment. The study in our review which considered empowerment in the most thorough and thoughtful way, was a PhD thesis (Lakwo 2006), but although they are valuable, the succinct, standard approaches to measuring outcomes commonly sought by systematic reviewers do not yet appear to be available for outcomes such as these.

The interventions themselves were also reported to varying degrees of detail. In particular, we noted the lack of descriptions of the consistency of the interventions over time and the unavailability of information about other potentially contaminating microfinance programmes in the study areas. Data on drop-out, from both the interventions and the studies, were often missing.

We found relatively few evaluations of traditional self-help models of micro-credit and savings where the community saves and borrows from the same 'pot'. This is inconsistent with the microfinance profile in sub-Saharan Africa (Mosley and Rock 2004:468; Honohan and Beck 2007:166). However, given that the current trend is for microfinance not to be informal community-grown initiatives, but more formal NGO (including private-sector) and government-driven development and commercial programmes, perhaps it is not surprising that evaluations of their programmes dominate the evidence. If there were more studies on informal mutual forms of microfinance (which might also be more savings oriented), we might have had evidence regarding microfinance's impact on social cohesion.

In the available literature, there is a strong rhetoric around microfinance as a positive development initiative. Not the least being Muhammad Yunnus's 2006 Nobel Peace Prize, and the description of access to credit as a human right. We found the positive rhetoric having a negative impact on the quality of evidence. Some authors even argued clearly for rigorous evaluation using comparative study designs, and then dismissed the need for such rigour when research is for the purpose of advocacy; Makina and Malobola (2004) comment on the use of the scientific method to show impact, and continue that for the purpose of advocacy, methodology need not be scientific.

Despite these issues, the evidence from sub-Saharan Africa was stronger than we had expected. When we embarked on this review, we had expected to find no RCTs which we, or our peer reviewers, were not already aware of. We were pleasantly surprised and pleased that our extensive searching strategy identified 'new' trials, as well as other high quality non-randomised trials and other controlled trials and case-control studies. We were also pleased to find studies which considered not only the impacts on current clients but also those who had left microfinance programmes.

We did find two randomised controlled trials of credit which we excluded with some hesitation, given the paucity of such rigorous analysis in the region. However, the first focused not on micro-credit, but more broadly on consumer credit, and it proved impossible to isolate the impacts of micro-credit alone (Karlan and Zinman 2010). The other explored the impact of broadening the availability of micro-credit to poorer clients (Fernald et al. 2008). However, this latter study measured the impact, not of receiving credit, but of the credit provider being asked to offer credit. Given the difficulties with identifying from the data the actual impact of receiving credit, this trial was excluded from our review.

5.4 Reflecting on the strengths and limitations of this review

We believed that our approach to systematic reviewing has balanced rigour and realism, as we have sought to make the most of the available evidence in the region to inform decision making whilst maintaining quality standards.

Our search strategy included traditional database searching, which was matched in effort by contacting organisations and authors to collect relevant literature. As evident in Appendix 4.1.1, the studies included in the in-depth review came from a wide range of sources, suggesting that our efforts were worthwhile. Some studies were only found from searching reference lists of other relevant papers, highlighting the importance of investing time in this method, even though it often occurs later in the systematic review process than is ideal for collecting and including these additional papers.

We were limited by the timeline set by our funders to deliver this review in a very short period. Whilst an organised and co-ordinated approach has made this achievable, there was literature which we were unable to obtain in the time available. This is fairly standard in systematic reviewing, but none-the-less disappointing.

Whilst we originally planned to read, code and extract relevant data from reports in London and Johannesburg independently and then compare our results online, we found that working together, literally in one room for a period of several days, we were able to discuss, query and confirm any uncertainties as we worked through the papers. This approach not only made the review possible, and gave us confidence in our findings, but also allowed the team to learn enormous amounts from one another, including the methodology of systematic reviewing and also the topic area.

DISCUSSION

The benefits of working in an international collaborative and multi-disciplinary team cannot be exaggerated. Furthermore, we found the involvement of an experienced systematic reviewer crucial to the delivery of this project, whilst a topic expert added considerable additional value. This review was also strengthened by the availability of the latest version of the EPPI-Centre's EPPI-Reviewer software. As one of the first teams to use the software, we were able to benefit from quick responses from the software developers and request particular features for our use.

Whilst our pragmatic approach brought specific advantages to this review, there were also weaknesses in our review methodology. Our quality criteria, whilst explicit and specific, were not as refined as those used by some systematic reviews. For example, the IMAGE trial (Pronyk et al. 2008) has been challenged regarding the selection of the control villages, and by some is no longer considered a 'randomised' trial (Development Finance 2010). Nonetheless, under our criteria it remains a high quality study. We also synthesised evidence from all included study designs together, including randomised controlled trials, controlled trials and case-control studies. We made some reference to the different study types, but did not distinguish between them in our findings. We similarly included all relevant studies which we judged to be 'good enough', including those of medium and high quality. We did reflect on whether the findings of the four high quality studies differed significantly from those which were judged to be 'medium' quality, but did not conduct separate analyses on these.

Other limitations relate closely to the quality of the reporting of the available evidence. Studies were excluded from the review if they failed to report basic information, such as who the research participants were or how the data were collected and analysed. Whilst this only resulted in twelve out of 69 potentially relevant studies being excluded, this was still unfortunate. Had we had more time, we would have contacted authors for more information before excluding these studies, but this was not possible in the timeframe of this review.

Similarly, limited reporting within the included studies reduced our ability to analyse the significance of some of the subtler distinctions between the micro-credit and micro-savings interventions evaluated. For example, we were not able to consistently extract data on how long participants had been engaged in micro-credit or micro-savings programmes, or on the exact points at which data were collected. The size of the microfinance programmes, and the number of research participants were also hard to identify with confidence from many of the papers. If this review had been larger in budget and timeframe, it may have been possible to write to authors to request this information.

We acknowledge that the included evidence from 15 studies does not fully reflect the profile of micro-credit and micro-savings across sub-Saharan Africa. The majority of the included studies were in rural settings, although they did incorporate a wide range of providers and of different lending and savings models. Most of the evidence also related to micro-credit, with only limited evidence relating to micro-savings. Having said this, the evidence on savings was from two very high quality RCTs. These imbalances are indicative of gaps in the evidence base, rather than a limitation of this review per se. We advise careful consideration of this reviewed evidence when applying it to specific contexts.

We were pleased to be able to consider papers for this review in a range of languages. We do note, however, that the majority of papers were in English and the studies based in Commonwealth countries. This may be because we only searched for papers using English search terms. However, several of the databases and journals which we searched index non-English papers using English titles and keywords, and we did identify a number of papers in other languages, some of which were excluded because they did not meet our inclusion criteria. Searching only in English may still have limited the pool of identified papers which we screened for inclusion.

Deciding the scope of this review was a challenge, with contradictory advice from peer reviewers about which interventions to include (for example, whether to include micro-savings or even micro-insurance and money transfers) and about the regional focus. We aimed to balance the requests from those whom we hope will make use of this review, the preferences of our funders and the practicalities of delivering a high quality review to time

and budget. By broadening the scope from the initially commissioned review on the impact of micro-credit on the incomes of the poor, we hope to have delivered a more meaningful product. We also believe that there are clear reasons for focusing the review on evidence from sub-Saharan Africa. We have sought to complement, and not duplicate, related reviews within the DFID 2009 funding round, which include a review of the worldwide evidence of the impacts of microfinance, and a review of the impact of formal banking initiatives.

Lastly, in all we are aware of three overlapping systematic reviews of the impacts of microfinance: a Cochrane review (Ezedunukwe and Okwundu 2010), a 3ie-funded review (Vaessen et al. 2009) and another DFID-funded review being undertaken by colleagues at the University of East Anglia, UK. We await publication of their findings with interest. Whilst we are currently unable to discuss our findings in their light, we hope to do so when preparing future publications based on this review.

5.5 Discussing our findings

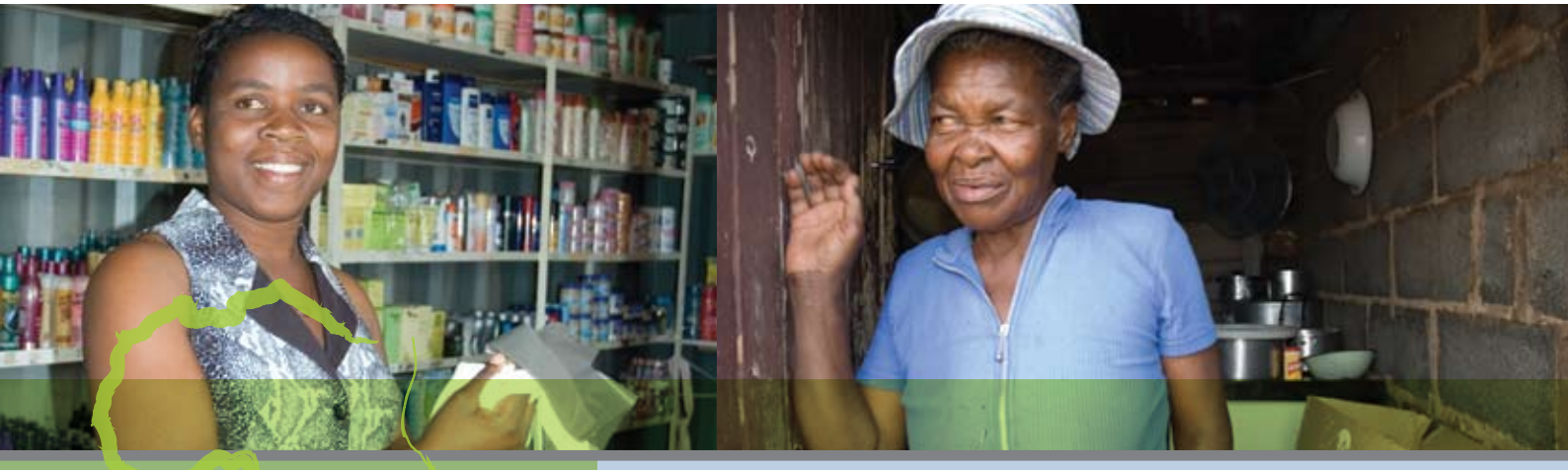
We are aware of debates in the worlds of microfinance and development surrounding the effectiveness of micro-credit and micro-savings. Research in this area is often challenged on methodological and ideological grounds. We have therefore undertaken a systematic review with explicit quality criteria to enable us to expose the available evidence in a transparent and rigorous way.

Our synthesis of the evidence of effectiveness finds that microfinance – whilst it has modest but not uniform positive impacts – is not always a golden bullet, but indeed can cause harm. This is supported by our causal chain, which highlights how, if clients are unable to increase their incomes, they will not only default on their loans, falling into a debt trap, but also be unable to invest in their savings accounts. When you consider the model underlying micro-credit, this finding is not so surprising. It seems short-sighted to expect that small loans with interest rates of between 25% and 37% might make very poor people richer. And the obvious is 'of course, not credit itself that levers the poor out of poverty but their ability to save from income generated from the use made of credit.' (Buckley 1997:1085). Whilst the data on micro-savings look more promising than those on micro-credit, as does the theory, savings do not appear to increase income. Micro-savings schemes are also newer and there is less evidence of their effectiveness (either positive or negative). Further research is clearly needed.

There is a concern for equity that MFIs may not be offering the poor a fair service. Whilst we do not have evidence for this, we suspect that wealthier users of usual banking services are unlikely to accept the terms offered by microfinance institutions (with interest rates of up to 37% on micro-loans) or the patronising tone of some micro-savings schemes. For example, one MFI included the following in its explanation to clients about savings accounts:

> *When you withdraw money, however, the FSA will charge you a withdrawal fee depending on the amount to be withdrawn. That way you won't be tempted to withdraw everyday, and you will be able to save slowly by slowly until you have a good sum.' (Dupas and Robinson 2008:34).*

Something which was not discussed in this review, but which may well be important in further understanding the impact of micro-credit on poor people, is the question of how close borrowers are to their credit limit. Understanding and measuring over-indebtedness is challenging. What we do know is that overstretching yourself by borrowing



too much from too many sources is recognised as a high risk financial strategy, whereas borrowing a little against next month's income may not be. Similarly, the very small loans available may not be sufficient for borrowers to invest constructively in their future. If a loan is too small to start an enterprise, it is not altogether surprising if instead clients spend that money on consumables. Along similar lines, clients who live close to (or even below) the poverty line may be more prone to spend loans on consumables, because they simply have so little to begin with. Having said this, there is an underlying criticism of some schemes for failing to reach the 'poorest of the poor'. However, it may be to these people's benefit that micro-credit services do not reach them, as we know that these same services have the potential to increase poverty rather than alleviate it, confirming Mayoux's description of the virtuous spirals and vicious constraints of micro-credit (1999).

The evidence from SSA reveals a worrying trend: that the benefits of micro-credit appear to diminish – and even become negative – the longer clients are enrolled in a programme. This highlights how micro-credit can lead people into cycles of debt. Both our analysis of the evidence of effectiveness and the causal pathway demonstrate that if micro-credit fails to increase clients' incomes, people are forced to borrow more. Such 'demand' for credit attracts more providers, with the number of MFIs likely to increase. This suggests that the proliferation of MFIs[37] may therefore rather be a symptom of the failure of micro-credit, and not an indication of its success. As Buckley reminds us, 'credit is debt … the choice of usage is determined by whether one takes the lender's or the borrower's perspective' (1997:1092).

We have also noted an expansion in rhetoric which suggests that microfinance has the potential, not only to alleviate poverty, but also to prevent the vulnerable from falling into poverty. However, this may be a dangerous assertion, particularly in the field of development, as it raises expectations of microfinance as a transformational tool, which is not reflected in the evidence. Maybe then microfinance is better conceived of as a tool to foster economic growth and small and medium-sized enterprise (SME) development, rather than a development and poverty alleviation tool. Instead the evidence suggests that the strength of micro-credit lies in its ability to support those with entrepreneurial skills to grow SMEs that might contribute to job creation, production and economic growth. It has also been argued that they need bigger loans on more flexible terms (The Economist 2 December 2010). This implies that donors should rethink their role in supporting microfinance, which in turn raises further questions about how donors can best support microfinance for entrepreneurs. More importantly though, there is a need to compare the effectiveness of microfinance to enable and support enterprises with the effectiveness of alternative development programmes: might it be more effective to facilitate mobile banking, develop financial literacy education or provide cash transfers?

Our findings that microfinance can, in some cases, increase poverty, reduce levels of children's education and fail to empower women, are particularly relevant in the context of the United Nation's Millennium Development Goals. Clearly relying on rhetoric, anecdotal accounts, advocacy research and unfounded assumptions is not sufficient. There is a need for rigorous impact evaluation and systematic review of the evidence to inform such decisions. The work of the Poverty Action Lab, 3ie and others is crucial in this regard, and needs to focus both on unanswered questions, and on challenging unfounded rhetoric. Only through better understanding of poor people's needs in relation to financial services, and through a systematic review of the evidence relating to alternative financial and development services to meet these needs, will a fully evidence-informed approach be possible.

37 In SSA, the most commonly found micro-credit delivery channels have been profit-making MFIs, credit unions and village banks (Holt 1994), with large financial institutions becoming the dominant form of MFI (Honohan and Beck 2007:164).

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

1. Some people are made poorer, and not richer, by microfinance, particularly micro-credit clients. This seems to be because:

    a. They consume more instead of investing in their futures, although this may be a symptom of the credit programme – targeting the very poor, and/or lending only very small amounts may encourage consumption rather than investment.
    b. Their businesses fail to produce enough profit to pay high interest rates.
    c. Their investment in other longer-term aspects of their futures (such as their children's education) is not sufficient to raise their incomes high enough soon enough to give a return on their investment.
    d. The context in which microfinance clients live is by definition fragile: we found evidence from Zimbabwe, Madagascar and Ethiopia, all of which showed how the poor are subject to external influences which microfinance cannot prevent, and may not alleviate.

2. There is some evidence that microfinance enables poor people to be better placed to deal with shocks, but this is not universal (some clients take their children out of school).
3. The emphasis on reaching the 'poorest of the poor' may be flawed – particularly if it just makes them poorer. There may be a need to focus more specifically on providing loans to entrepreneurs, rather than treating everyone as a potential entrepreneur.
4. Micro-savings may be a better model than micro-credit, both theoretically (because it does not require an increase in income to pay high interest rates and so implications of failure are not so high) and based on the currently available evidence. However, the evidence on micro-savings is small and further rigorous evaluation is needed.
5. The rhetoric around microfinance is problematic and damaging.

    a. 'Clients' (a label which implies that they have power and responsibility) could also be called 'borrowers' or 'savers', and 'micro-credit' might just as well be called 'micro-loans' or even 'micro-debt'.
    b. The language surrounding microfinance is all about 'hope' – MFIs even bear names such as 'mustard seed' and 'hope bank'. There is an obligation amongst donors and policy-makers not to falsely raise expectations with development aid.
    c. The apparent failure of MFIs and donors to engage with evidence of effectiveness just perpetuates the problems by building expectations and obscuring the potential for harm. A growing microfinance industry may as easily be a cause for concern as one of hope.

6.2 Recommendations

6.2.1 For policy

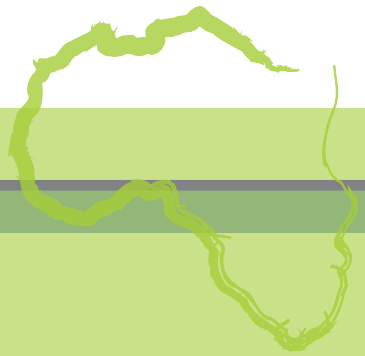
WE RECOMMEND:

- Careful consideration of the causal chain to ensure that the potential for both harm and good are taken into account in decisions to extend microfinance services in sub-Saharan Africa.
- Greater requirements for rigorous evaluation of pilot programmes before roll-out to minimise the risks of doing harm.
- Avoidance of the promotion of microfinance as a means to achieve the Millennium Development Goals – outcomes such as increased primary school enrolment do not increase micro-credit clients' ability to repay their loans and the diversion of finances to such long-term goals may lead to acute debt and increased poverty.

6.2.2 For practice

WE RECOMMEND:

- Caution about offering clients continuing loans, as the longer people are engaged in microfinance schemes, the greater the potential for harm.
- Avoiding contributing to the rhetoric of the success of microfinance and instead encouraging decision making based on rigorous evidence.



6.2.3 For research

WE RECOMMEND THE FOLLOWING FOR PRIMARY RESEARCH:

- Further thorough evaluations, particularly of micro-savings schemes, and across the full range of microfinance models, including self-help groups.
- Improved consistent and detailed reporting of microfinance interventions in reports of their evaluation.
- Greater standardisation of outcomes measured, and of measures used, to enable more effective synthesis of findings across studies.

WE RECOMMEND THE FOLLOWING FOR SYSTEMATIC REVIEWS:

- Comparison of and reflection on the results of related systematic reviews when they are published in 2011, particularly application of their results to the causal chain proposed by this review.
- The reporting of rigorous outcome evaluations to existing research databases to enable better access to this research.
- Further expansion of systematic reviews in international development, which includes reflection on the benefits of international and multi-disciplinary review teams, as well as the pragmatic inclusion of study designs to ensure useful synthesis of evidence.

7. REFERENCES

7.1 Studies included in map

The main references for the 35 studies included in our initial map are listed below.

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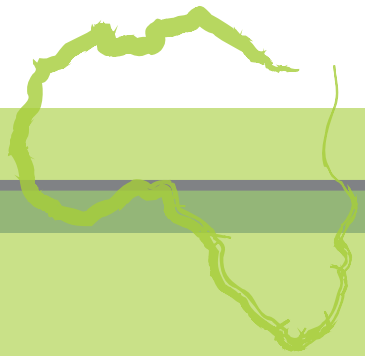

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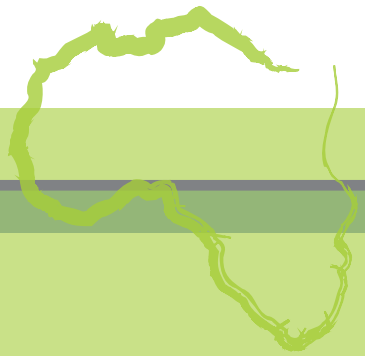

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APPENDICES

Appendix 1.1: Authorship of this report

The authors of this report are:

Dr Ruth Stewart, EPPI-Centre, Social Science Research Unit, Institute of Education, University of London and Centre for Language and Culture, University of Johannesburg.
Carina van Rooyen, Department of Anthropology and Development Studies, University of Johannesburg
Kelly Dickson, EPPI-Centre, Social Science Research Unit, Institute of Education, University of London
Mabolaeng Majoro, Department of Anthropology and Development Studies, University of Johannesburg
Professor Thea de Wet, Department of Anthropology and Development Studies and Centre for Language and Culture, University of Johannesburg

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Contact details

Ruth Stewart, r.stewart@ioe.ac.uk, Social Science Research Unit, Institute of Education, 18 Woburn Square, London, W10 5UJ, United Kingdom.

Review Group

This group is made up of staff from the EPPI-Centre's Perspectives, Participation and Research team, and members of the University of Johannesburg's Department of Anthropology and Development Studies and its Centre for Culture and Language in Africa, namely Ruth Stewart and Kelly Dickson from the University of London, and Thea de Wet, Carina van Rooyen and Maboaleng Majoro from the University of Johannesburg.

Advisory Group

As we have conducted a multi-centre rapid systematic review, we have used a virtual network to advise on this project including:

- The open-access social media Twitter.
- A Ning wiki on Impact Evaluation Social Network (http://3ieimpact.ning.com).
- Our own methodological networks via the EPPI-Centre.
- Academic peer reviewers identified for their expertise in systematic reviewing and in researching microfinance.

Conflicts of interest

None of the authors have any financial interests in this review topic, nor have been involved in the development of relevant interventions, primary research, or prior published reviews on the topic.

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Appendix 2.1 Inclusion and exclusion criteria

Studies have been included and excluded from our review according to the following criteria:

Region

We included research conducted in sub-Saharan African countries, defined as including Mauritania, Chad, Niger and Sudan and all African countries south of these, thus excluding the following north African countries: Tunisia, Libya, Morocco, Egypt and Western Sahara. Research that included countries from both sub-Saharan Africa AND non-sub-Saharan African countries were included in the review if it was possible to identify the impacts of the interventions in sub-Saharan Africa.

Study design

We included only impact evaluations which set out to measure the outcomes, results or effects of receiving microfinance compared to not receiving microfinance. Studies which had no comparison group were excluded.[38] Studies drawing on both quantitative and qualitative data were included. Relevant reviews were not included, but their reference lists were searched and relevant studies included in our review.

Intervention

We included include only microfinance interventions, defined as micro-savings or micro-credit services. Whilst insurance and money transfers are also considered part of microfinance, they are recent activities and are not considered 'core' activities of microfinance for the purposes of this review. We included services owned or managed by service users or by others. Studies of consumer credit (but not specifically micro-credit) were excluded.

Population

We focused on impacts on poor people, namely those who are recipients of the services of MFIs.

Outcomes

We included all outcomes measured in impact studies of microfinance as laid out in our coding tool (Appendix 2.4). These included both financial and non-financial outcomes.

Language

We anticipated identifying literature in English as we only had the capacity to search in English. However, we had scope to access papers in English, Dutch, German, Portuguese, French, Spanish, Afrikaans, Zulu and Sotho languages and did not exclude any relevant papers in these languages.

38 Whilst we included only studies which had a comparison group which did not receive microfinance in our study, we also identified those studies which met all other inclusion criteria but did not have a comparison group. These are listed in Appendix 3.1.

Appendix 2.2: Search strategy for electronic databases

The following search was used for Psycinfo and adapted for other electronic databases.

Microfinance filter – Searched on title and abstract

S1 TI (loan OR credit OR savings OR finance OR bank* OR econom*) or AB (loan OR credit OR savings OR finance OR bank* OR econom*)

S2 TI ('the poor' OR development OR poverty) or AB ('the poor' OR development OR poverty)

S3 S1 AND S2

S4 TI (microb* OR microlith* OR lemur) or AB (microb* OR microlith* OR lemur)

S8 TI (micro-credit OR micro-loans OR micro-finance OR micro-insurance OR micro-savings OR microfinance OR microcredit OR microloans OR microinsurance OR microsavings OR microfranchise OR microfranchis* OR micro-franchise OR micro-franchis*) or AB (micro-credit OR micro-loans OR micro-finance OR micro-insurance OR micro-savings OR microfinance OR microcredit OR microloans OR microinsurance OR microsavings OR microfranchise OR microfranchis* OR micro-franchise OR micro-franchis*)

S9 S8 OR S3

S10 S9 NOT S4

S13 (DE 'Financial Services') and (DE 'Poverty')

S14 S10 OR S13

Country filter – title and abstract, keywords, publication source and population location

S11:

TI (Algeria OR Angola OR Benin OR Botswana OR 'Burkina Faso' OR Burundi OR Cameroon OR 'Canary Islands' OR 'Cape Verde' OR 'Central African Republic' OR Chad OR Comoros OR Congo OR 'Democratic Republic of Congo' OR DRC OR Djibouti OR 'Equatorial Guinea' OR Eritrea OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR 'Guinea Bissau' OR 'Ivory Coast' OR 'Cote d'Ivoire' OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mayote OR Mayotte OR Morocco OR Mozambique OR Mocambique OR Namibia OR Niger OR Nigeria OR Principe OR Reunion OR Rwanda OR 'Sao Tome' OR Senegal OR Seychelles OR 'Sierra Leone' OR Somalia OR 'South Africa' OR 'St Helena' OR Sudan OR Swaziland OR Tanzania OR Togo OR Uganda OR 'Western Sahara' OR Zaire OR Zambia OR Zimbabwe OR 'Central Africa' OR 'Central African' OR 'West Africa' OR 'West African' OR 'Western Africa' OR 'Western African' OR 'East Africa' OR 'East African' OR 'Eastern Africa' OR 'Eastern African' OR 'North Africa' OR 'North African' OR 'Northern Africa' OR 'Northern African' OR 'South African' OR 'Southern Africa' OR 'Southern African' OR 'sub Saharan Africa' OR 'sub Saharan African' OR 'subSaharan Africa' OR 'subSaharan African') or AB (Algeria OR Angola OR Benin OR Botswana OR 'Burkina Faso' OR Burundi OR Cameroon OR 'Canary Islands' OR 'Cape Verde' OR 'Central African Republic' OR Chad OR Comoros OR Congo OR 'Democratic Republic of Congo' OR DRC OR Djibouti OR 'Equatorial Guinea' OR Eritrea OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR 'Guinea Bissau' OR 'Ivory Coast' OR 'Cote d'Ivoire' OR Kenya OR Lesotho

OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mayote OR Mayotte OR Morocco OR Mozambique OR Mocambique OR Namibia OR Niger OR Nigeria OR Principe OR Reunion OR Rwanda OR 'Sao Tome' OR Senegal OR Seychelles OR 'Sierra Leone' OR Somalia OR 'South Africa' OR 'St Helena' OR Sudan OR Swaziland OR Tanzania OR Togo OR Uganda OR 'Western Sahara' OR Zaire OR Zambia OR Zimbabwe OR 'Central Africa' OR 'Central African' OR 'West Africa' OR 'West African' OR 'Western Africa' OR 'Western African' OR 'East Africa' OR 'East African' OR 'Eastern Africa' OR 'Eastern African' OR 'North Africa' OR 'North African' OR 'Northern Africa' OR 'Northern African' OR 'South African' OR 'Southern Africa' OR 'Southern African' OR 'sub Saharan Africa' OR 'sub Saharan African' OR 'subSaharan Africa' OR 'subSaharan African') or SO (Algeria OR Angola OR Benin OR Botswana OR 'Burkina Faso' OR Burundi OR Cameroon OR 'Canary Islands' OR 'Cape Verde' OR 'Central African Republic' OR Chad OR Comoros OR Congo OR 'Democratic Republic of Congo' OR DRC OR Djibouti OR 'Equatorial Guinea' OR Eritrea OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR 'Guinea Bissau' OR 'Ivory Coast' OR 'Cote d'Ivoire' OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mayote OR Mayotte OR Morocco OR Mozambique OR Mocambique OR Namibia OR Niger OR Nigeria OR Principe OR Reunion OR Rwanda OR 'Sao Tome' OR Senegal OR Seychelles OR 'Sierra Leone' OR Somalia OR 'South Africa' OR 'St Helena' OR Sudan OR Swaziland OR Tanzania OR Togo OR Uganda OR 'Western Sahara' OR Zaire OR Zambia OR Zimbabwe OR 'Central Africa' OR 'Central African' OR 'West Africa' OR 'West African' OR 'Western Africa' OR 'Western African' OR 'East Africa' OR 'East African' OR 'Eastern Africa' OR 'Eastern African' OR 'North Africa' OR 'North African' OR 'Northern Africa' OR 'Northern African' OR 'South African' OR 'Southern Africa' OR 'Southern African' OR 'sub Saharan Africa' OR 'sub 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Intervention/trial filter – title, abstract, descriptor terms, keywords

S12 (DE 'Intervention' or DE 'Family Intervention') OR (DE 'Evaluation' or DE 'Program Evaluation')

S16 DE 'Treatment Effectiveness Evaluation'

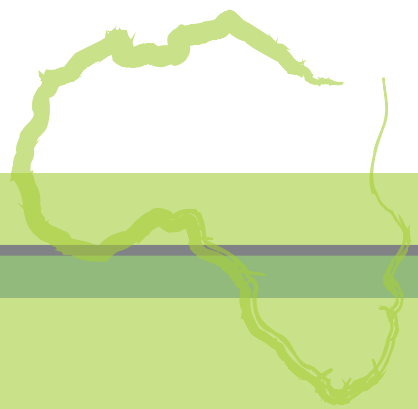
S17 TI (impact OR outcome OR evaluation OR trial OR comparison study OR trial OR comparison study OR non-comparison study OR social performance assessment OR Imp-Act OR results OR effects OR randomized controlled trial OR controlled clinical trial OR randomized OR placebo OR clinical trials OR randomly OR program evaluation OR controlled OR control group OR comparison group OR control groups OR comparison groups OR controls OR Control OR Intervention OR Evaluate OR Evaluation OR Evaluations OR treatment effectiveness evaluation OR RCT) or AB (impact OR outcome OR evaluation OR trial OR comparison study OR trial OR comparison study OR non-comparison study OR social performance assessment OR Imp-Act OR results OR effects OR randomized controlled trial OR controlled clinical trial OR randomized OR placebo OR clinical trials OR randomly OR program evaluation OR controlled OR control group OR comparison group OR control groups OR comparison groups OR controls OR Control OR Intervention OR Evaluate OR Evaluation OR Evaluations OR treatment effectiveness evaluation OR RCT) or KW (impact OR outcome OR evaluation OR trial OR comparison study OR trial OR comparison study OR non-comparison study OR social performance assessment OR Imp-Act OR results OR effects OR randomized controlled trial OR controlled clinical trial OR randomized OR placebo OR clinical trials OR randomly OR program evaluation OR controlled OR control group OR comparison group OR control groups OR comparison groups OR controls OR Control OR Intervention OR Evaluate OR Evaluation OR Evaluations OR treatment effectiveness evaluation OR RCT)

S18 S12 or S16 or S17

Combining the results

S15 S11 and S14

S19 S15 and S18



Appendix 2.3: Websites searched

- We searched the following key websites for relevant literature.
  a. The UK Department For International Development
  b. Consultative Group to Assist the Poor (CGAP)
  c. World Bank
  d. African Development Bank
  e. USAID
  f. Microfinance Gateway
  g. Microfinance Network
  h. International Labour Organisation's Social Finance Unit
  i. UN Capital Development Fund (UNCDF)
  j. World Bank's Sustainable Banking with the Poor project
  k. Centre for Global Development
  l. International Fund for Agricultural Development
  m. Microfinance Information Exchange (MIX)
  n. Africa Microfinance Network
  o. Overseas Development Institute
  p. UNDP Poverty Centre
  q. Small Enterprise Education and Promotion (SEEP) Network
  r. Foundation for International Community Assistance (FINCA)
  s. Innovations for Poverty Action
  t. African Enterprise Challenge Fund
  u. Rockefeller Foundation

Appendix 2.4: Coding tool

This paper is being coded by:
EPPI-Reviewer ID number:
This paper is being coded on:

☐ **English full text**

☐ **Translated full text**

SECTION 1: Describing the microfinance programme

☐ **The microfinance programme name isn't given in the paper**

☐ **Name of microfinance programme is specified in the paper**

Specify name (this is to enable us to identify linked papers and also report on specific programmes)

1.1 Countries

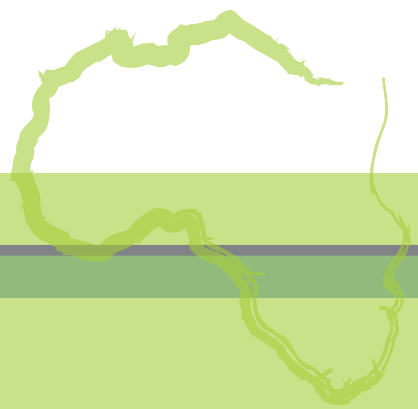
☐ Impossible to distinguish which countries or regions are being talked about in the paper *NB If this makes it impossible to identify impacts of microfinance within SSA, then this paper should be EXCLUDED as 'not SSA'*

☐ SSA Countries named in the paper
NB SSA includes all African countries, including islands, except for Tunisia, Libya, Morocco, Egypt, and Western Sahara.

Specify countries (this is to enable us to identify linked papers and also report findings from specific countries)

☐ Additional non SSA Countries also named in the paper (could include other African or non-African countries)

Specify countries



1.2 If non-SSA countries are also included is it:

☐ Possible to separate impacts in SSA countries from impacts across SSA and non-SSA countries?

☐ Impossible to identify impacts of microfinance within SSA *NB If this is the case this paper should be EXCLUDED as 'not SSA'*

1.3 Setting

☐ Unclear/unspecified

☐ Rural *(described as rural or semi-rural or agricultural)*

If named, specify areas

☐ Urban *(described as urban or peri-urban or a named town or city)*

If named, specify towns/cities/urban areas

1.4 Financial backing for the programme comes from (tick all that apply)

This can include set up costs or running costs

☐ Unclear/unspecified

☐ Formal bank

☐ The countries government (e.g. Uganda state govt)

☐ Another government (e.g. DFID, USAID)

☐ National or international NGO

☐ Local NGO

☐ Community organisation/self-help group *(e.g. community church. Also includes group based savings and credit organisations where the original fund is formed of savings from members of the group)*

☐ Other

Specify

1.5 Programme model

☐ Group clients (externally funded)

☐ Group clients (self-funded)

☐ Individual clients

☐ Other model

Specify

1.6 Key elements of the microfinance intervention (tick all that apply)

☐ Micro-credit ☐ Micro-savings

If neither credit nor savings then exclude as 'not microfinance'

☐ With micro-insurance ☐ With unspecified microfinance services

☐ With money transfers ☐ With other *(specify)*_____

Specify which part of the microfinance intervention is being evaluated in this paper _____

☐ Micro-credit (not savings) ☐ Both micro-credit and micro-savings

☐ Micro-savings (not credit) ☐ With other intervention

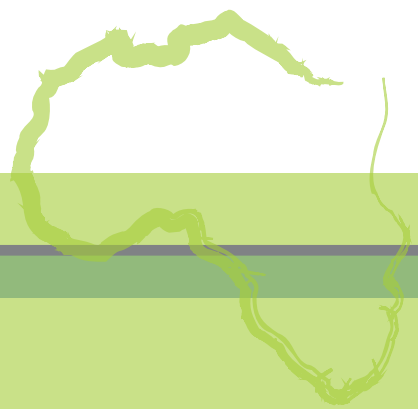
1.7 Clients of microfinance

☐ Gender unclear/unspecified ☐ Women only

☐ Men only ☐ Men and women

☐ Specified 'poverty level' if available

Specify



☐ Specified age group if available

Specify

☐ Other details provided re clients

Specify

SECTION 2: DESCRIBING THE RESEARCH

NB for all the questions below, 'participants' refers to research participants – i.e. people who provide their data for the research (not necessarily the same as the clients of the microfinance intervention)

2A. Intervention group

☐ The research involves providing the intervention as an experiment to a selected group of participants

☐ The research involves exploring impacts amongst those who are already receiving the intervention irrespective of the research

2.1 How many participants receive the intervention

☐ It is not clear how many research participants received the intervention

☐ It is clear how many research participants received the intervention (could also be read as 'how many intervention participants received the intervention')

Specify

2.2 DROP OUT (in order to understand the full impacts of the intervention, we need to know how many people dropped out of the study and why, and the researchers should take account of drop out in their analysis/findings)

☐ There is no mention of drop out from the intervention group in the paper

☐ The authors make some attempt to measure, explain and correct for drop out from the intervention group

☐ The authors report in detail drop out from the intervention group, the reasons for drop out and take account of drop out in their analysis and findings

2.3 Who were the intervention participants

☐ The intervention participants are not described (tick if no info is provided, or if the gender of participants is described but no other details)

☐ The gender of the intervention participants is not specified/is unclear

☐ The intervention participants are Men only

☐ The intervention participants are Women only

☐ The intervention participants are Men and Women

☐ The intervention participants are Children

☐ The intervention participants are Households

☐ The intervention participants' poverty level is not specified

☐ The intervention participants' poverty level is specified *(tick if any details are given)*

Specify

☐ The intervention participants' ages are not specified

☐ The intervention participants' ages are specified *(tick if any age info given including means/ranges)*

Specify

☐ Other details are provided re the intervention participants

Specify

2.4 How were the intervention participants selected (tick all that apply)

☐ It is not clear how those participants who receive the intervention are selected

☐ The intervention participants are selected randomly (individual level)

Specify method for random selection of participants

☐ The intervention group is selected using cluster randomisation *(e.g. micro-credit groups are randomised, or households, or schools)*

☐ The intervention group is selected using any other form of 'quasi-randomisation'

Specify

☐ The intervention group is selected in some other a non-randomised way

Specify

2.5 Intervention integrity (consistent delivery of the intervention)

In order to have confidence that impacts observed in the research are due to the intervention, it is important to know that the same intervention was provided to all participants consistently over time. In addition, you need to know that other additional unintentional interventions were not introduced during the study period which might have influenced the outcomes. We sought assurance of these within the research reports.

☐ There is no mention of the consistent delivery of the intervention (to all participants and/or over time)

☐ There is an acknowledgement about the inconsistent delivery of the intervention

☐ The authors describe how they ensured that the intervention was provided to all participants in the same way

☐ The authors describe whether or not participants received any additional unintentional intervention that may have influenced the outcomes

1B. COMPARISON GROUP

☐ There is no comparison/control group (all the research participants receive the intervention) – IF THIS IS THE CASE THIS STUDY WILL BE EXCLUDED FROM THE INDEPTH REVIEW

☐ There is a comparison/control group

2.6 How many people were in the comparison group

☐ There is no indication how many people are in the comparison group

☐ The number of people in the comparison group is specified

Specify

2.7 DROP OUT (in order to understand the full impacts of the intervention, we need to know how many people dropped out of the study and why, and the researchers should take account of drop out in their analysis/findings)

☐ There is no mention of drop out from the comparison group in the paper

☐ The authors make some attempt to measure, explain and correct for drop out from the comparison group

☐ The authors report in detail drop out from the comparison group, the reasons for drop out and take account of drop out in their analysis and findings

2.8 Who was in the comparison group

☐ The comparison participants are not described *(tick if no info is provided, or if the gender of participants is described but no other details)*

☐ The gender of the intervention participants is not specified/clear

☐ The comparison participants are Men only

☐ The comparison participants are Women only

☐ The comparison participants are Men and women

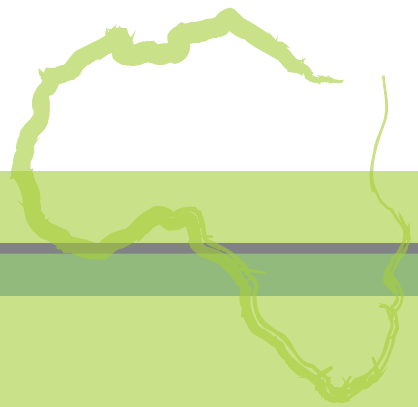
☐ The intervention participants are Households

☐ The comparison participants''poverty level' is not specified

☐ The comparison participants''poverty level' is specified

Specify

☐ The comparison participants' ages are not specified



☐ The comparison participants' ages are specified (tick if any age info given including means/ranges)

Specify

☐ Other details are provided re the comparison participants

Specify

2.9 How were the comparison participants selected (tick all that apply)

☐ It is not clear how those participants in the comparison group are selected

☐ The comparison participants are selected randomly (individual level)

Specify method for random selection of comparison participants

☐ The comparison participants are selected using cluster randomisation *(e.g. micro-credit groups are randomised, or households, or schools)*

☐ The comparison participants are selected using any other form of 'quasi-randomisation'

Specify

☐ The comparison participants are selected in some other a non-randomised way

Specify

CONFOUNDING FACTORS

2.10 How were confounding factors dealt with in the study

Do study authors say that they consider confounding factors in how the intervention and comparison samples were chosen?

☐ Yes

☐ No

Do study authors convincingly account for confounding factors in how the intervention and comparison samples were chosen?

☐ Yes

☐ No

Do study authors say that they consider confounding factors in the analysis?

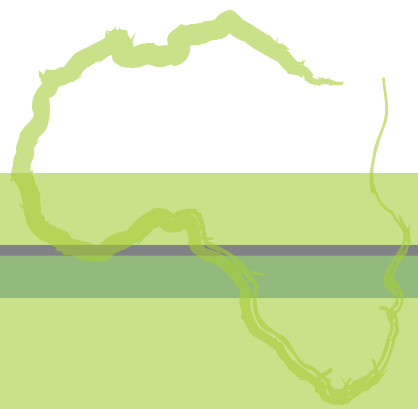
☐ Yes

☐ No

Do study authors convincingly account for confounding factors in the analysis? *(NB controlling for gender/age isn't sufficient, need to consider confounding factors relating to microfinance)*

☐ Yes

☐ No



3. DATA

3.1 Data collection method

☐ It is not clear how the data are collected

☐ The data are collected from secondary sources (e.g. financial records, health records etc)

☐ Primary data are collected by observation by researchers

☐ Primary data are self-reported *(i.e. data given by intervention participants and/or comparison participants = perceptions = potential for bias)*

- ☐ The data are self-reported in a written survey
- ☐ The data are self-reported in interviews or focus groups

☐ Data is collected some other way

Specify

3.2 Data points

☐ It is not clear when the data are collected

☐ It is clear when the data are collected. SPECIFY

☐ Data are only collected at one point in time

☐ Data are collected before and after the intervention was provided

☐ Data are collected on more occasions

Specify

☐ Participants are only asked to provide data about that point in time

☐ Participants are asked to provide data about now AND recall data from an earlier point in time

3.3 Type of data

- ☐ It is not clear what type of data are collected
- ☐ Qualitative data only
- ☐ Quantitative data only
- ☐ Both qualitative and quantitative data

3.4 Blinding in analysis (for studies with comparison groups only)

- ☐ It is not specified whether researchers were blinded to which participants were in the intervention and comparison groups
- ☐ The researchers were blinded to which participants were in the intervention and comparison groups *(i.e. data was analysed without the potential for bias from the researchers)*
- ☐ The researchers were not blinded to which participants were in the intervention and comparison groups *(i.e. the authors specify that the researchers were NOT blinded)*

3.5 Data analysis method

- ☐ It is not clear how the data are analysed
- ☐ It is clear how the data are analysed

3.6 The appropriateness of the data analsis method

- ☐ It is not possible to tell whether the data analysis method is appropriate for the type of data collected
- ☐ The choice of data analysis method is appropriate to the type of data collected
- ☐ The choice of data analysis method is inappropriate for the type of data collected
- ☐ The authors do not describe how they ensure that the analysis was trustworthy, reliable and valid
- ☐ The authors make some reference to how they ensure that the analysis was trustworthy, reliable and valid
- ☐ The authors specify in detail how they ensure that the analysis was trustworthy, reliable and valid

3.7 Study design – use the info in the questions above to specify the study design

☐ Randomised controlled trial (each participant has the same chance of receiving the intervention or being in the *comparison group)*

☐ Cluster randomised controlled trial *(each 'cluster' has the same chance of receiving the intervention or being in the control group)*

☐ Controlled trial/Controlled before and after study *(study includes intervention and comparison groups, with before and after data for both groups)*

☐ Retrospective controlled before and after study *(data from large repeated surveys is used to retrospectively construct intervention and comparison groups, with before and after data for both groups)*

☐ Interrupted time series *(multiple observations over time, with the ability to analyse using 'quasi' comparison group, and 'quasi' before and after data)*

☐ Case control study *(intervention and comparison groups, only one data point)*

☐ Retrospective case control study *(using data from one survey to retrospectively construct intervention and comparison groups)*

☐ Uncontrolled before and after study *(no comparison group, before and after data)*

☐ Simple non-comparison evaluation *(no comparison group, only one data point)*

☐ Modelling study *(based on theoretical/modelled events not real ones)*

☐ Cannot determine study design = EXCLUDE AS 'POOR DUE TO LACK OF INFORMATION'

4. STUDY QUALITY

Only code the quality of studies if there is a comparison group.

REPORTING (tick IF the following are NOT REPORTED)

☐ Microfinance intervention

☐ Describe participants

☐ Confounding factors

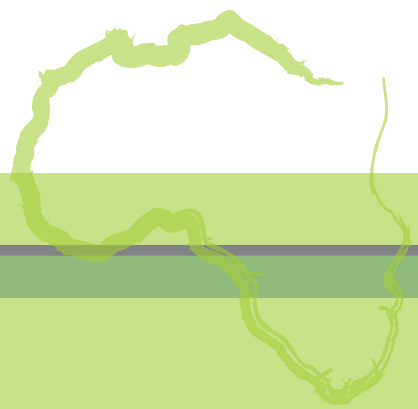
☐ Data collection

☐ Data analysis

☐ IF 2 or more of the above ticked, the study is judged to be POOR QUALITY due to the lack of information provided re methodology *DO NOT EXTRACT FINDINGS*

QUALITY OF METHODS (TICK BASED ON ANSWERS ABOVE)

- ☐ Inappropriate assumptions *(Assumptions within causal model assessed in this study are inappropriate meaning leaving you unconvinced that what is being measured is actually the impact of microfinance) If ticked = POOR*
- ☐ Inappropriate analysis methods (if ticked = POOR)
- ☐ Findings are not apparent in the data or analysis (if ticked = POOR)
- ☐ NO consideration of confounding factors at sampling AND no consideration of confounding factors at analysis (if ticked = POOR)
- ☐ NO consideration of confounding factors at sampling BUT THERE IS SOME consideration of confounding factors at analysis (if ticked = MEDIUM)
- ☐ Drop out described/explained (if ticked = MEDIUM)
- ☐ Attempts to account for consistent delivery of intervention (if ticked = MEDIUM)
- ☐ Attempts to ensure analysis was trustworthy, reliable, valid (if ticked = MEDIUM)
- ☐ POOR QUALITY due to the methods used DO NOT EXTRACT FINDINGS *NB if ranked MEDIUM on methods quality, but the participants are not described, code as POOR QUALITY*
- ☐ MEDIUM QUALITY due to the methods used *EXTRACT FINDINGS*
- ☐ HIGH QUALITY due to the methods used *EXTRACT FINDINGS*



5. OUTCOMES ASSESSED

For each outcome assessed, record the findings on EPPI-Reviewer.

5.1 Wealth outcomes relating to the microfinance clients

- ☐ Individual income
- ☐ Business income
- ☐ Individual expenditure
- ☐ Business expenditure
- ☐ Individual accumulation of assets
- ☐ Business accumulation of assets
- ☐ Individual level of savings
- ☐ Business level of savings
- ☐ Household income
- ☐ Household accumulation of assets
- ☐ Household expenditure
- ☐ Household level of savings
- ☐ Other outcomes relating to wealth of microfinance clients

Specify outcomes

5.2 Other outcomes relating to microfinance clients

- ☐ Housing
- ☐ Job creation
- ☐ Food security/nutrition
- ☐ Social cohesion
- ☐ Empowerment (in general)
- ☐ Education of microfinance clients
  - ☐ Empowerment of men
  - ☐ Education of children within households
  - ☐ Empowerment of women
  - ☐ Health
- ☐ Other non-wealth outcomes

Specify outcomes

6. SUMMARY *Allocate the study to the corresponding cell below*

STUDY DESIGN	Assessing impact on the incomes of the poor	Assessing impact on the other wealth indicators for the poor	Assessing impact on other outcomes for the poor
Randomised control trials	☐ 1	☐ 2	☐ 3
Other comparative outcome evaluations	☐ 4	☐ 5	☐ 6
Non-comparative outcome evaluations	☐ 7	☐ 8	☐ 9

Appendix 2.5: List of MFI organisations contacted for information on impact studies

- National Credit Regulator, South Africa
- Finmark Trust, South Africa
- Small Enterprise Foundation
- Marang Financial Services
- Savings and Cooperative League of South Africa
- Khula Enterprise
- Micro-enterprise Alliance
- Community Microfinance Network, South Africa
- Africap Investment Company, South Africa
- FINCA, Washington
- PRIDE, Uganda
- Association of Microfinance Institutions of Uganda (AMFIU)
- Association of Ethiopian Microfinance Institutions (AEMI)
- Ghana Microfinance Institutions Network (GHAMFIN)
- Africa Microfinance Network (AFMIN)
- International Network of Alternative Financial Institutions (INAFI), Senegal
- Association of Microfinance Institutions of Zambia
- Country Women's Association of Nigeria (COWAN)
- Enhancing Financial Innovation and Access (EFINA), Nigeria
- Malawi Microfinance Network
- Regroupement des Institutions du Systeme de Financement Decentralise du Congo (RIFIDEC)
- Association of Microfinance Institutions, Kenya
- Financial Sector Deepening Trusts in Kenya (FSDK)
- Financial Sector Deepening Trusts Tanzania (FSDT)
- Tanzania Association of Microfinance Institutions

Appendix 3.1: Citations for 34 impact evaluations which did not include comparisons of microfinance versus no microfinance

Abdalla NB (2009) *The impact of Sudanese General Women's Union savings and micro-finance/credit projects on poverty alleviation at the household level with special emphasis on women's vulnerability and empowerment*. Pretoria: University of South Africa.

Adu-Anning C (2005) Micro-credit as an instrument to promote indigenous food resources in Ghana: the case of Abomosu snail farmers in the Eastern Region. http://www.icra-edu.org/objects/public_eng/ACFKmsnCC.pdf

Afrane S (2002) Impact assessment of microfinance interventions in Ghana and South Africa. *Journal of Microfinance* 4(1): 37-58. Contains two evaluations.

Alabi J, Alabi G, Ahiawodzi A (2007) Effects of 'susu' – a traditional micro-finance mechanism on organized and unorganized micro and small enterprises (MSEs) in Ghana. *African Journal of Business Management* 1(8): 201–208.

Allen H (2006) Village savings and loans associations: sustainable and cost-effective rural finance. *Small Enterprise Development* 17(1): 61-68.

Arku C, Arku FS (2009) More money, new household cultural dynamics: Wwomen in microfinance in Ghana. *Development in Practice* 19(2): 200–213.

Athmer G, de Vletter F (2006) The microfinance market in Maputo Mozambique: supply, demand and impact. http://www.gdrc.org/icm/country/mozambique/mozambique-gabrielle.html

Beyene SZ (2008) *The role of micro-credit institutions in urban poverty alleviation in Ethiopia: the case of Addis Credit and Saving Institution and Africa Village Financial Services*. MA paper. The Hague: Institute of Social Studies. Contains two evaluations.

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APPENDICES

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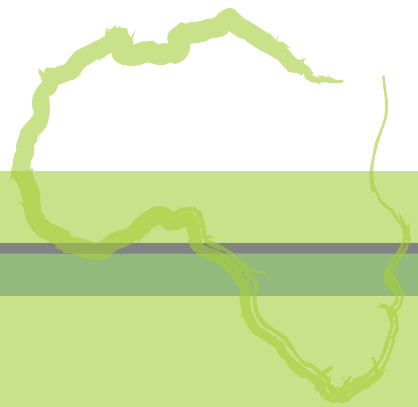

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Appendix 3.2: Details of 35 studies included in the map

Study reference (first author and date – full citations provided in 7.1)	Country	Intervention	Quality
Adjei (2009)	Ghana	micro-credit	Medium quality methods
Agha (2004)	Uganda	micro-credit	Poor quality methods
Aideyan (2009)	Nigeria	micro-credit	Poor due to lack of information
Ashraf (2008)	Kenya	micro-credit and other: • Four week orientation course • Opening personal savings account with local commercial bank, and if in micro-credit treatment group, they make first cash contribution to Transaction Insurance Fund that serve as collateral for initial line of micro-credit (maximum loan size is four times balance in TIF) • Provides smallholder farmers with information about how to switch to export crops • In-kind loans for purchase of agricultural inputs • Provides marketing services by facilitating transactions with exporters	Medium quality methods
Bahng (2010)	Ethiopia	micro-credit	Poor due to lack of information and poor quality methods
Barnes (2001a)	Uganda	micro-credit and micro-savings and other: • Foundation for Credit and Community Assistance: Non-formal education in health, nutrition, family planning, HIV/Aids prevention and better business management	High quality methods
Barnes (2001b)	Zimbabwe	micro-credit	Medium quality methods
Binate (undated)	Ivory Coast	micro-credit and micro-savings	Poor due to lack of information
Bouquet (2009)	Madagascar	micro-credit	Poor due to lack of information
Brannen (2010)	Tanzania	micro-credit and micro-savings	Medium quality methods
Copestake (2001)	Zambia	micro-credit	Poor due to lack of information
Copestake (2002)	Zambia	micro-credit	Poor due to lack of information
Diagne (2001)	Malawi	micro-credit	Poor quality methods
Doocy (2005)	Ethiopia	micro-credit	Medium quality methods
Dupas (2008)	Kenya	micro-savings	High quality methods
Gubert (2005)	Madagascar	micro-credit	Medium quality methods
Hazarika (2008)	Malawi	micro-credit	Poor quality methods

Study reference (first author and date – full citations provided in 7.1)	Country	Intervention	Quality
Izugbara (2004)	Nigeria	micro-credit	Poor due to lack of information and poor quality methods
Johnson (2005)	Malawi	micro-credit	Poor due to lack of information
Kiiza (2003)	Uganda	micro-credit	Poor quality methods
Lacalle (2008)	Rwanda	micro-credit	Medium quality methods
Lakwo (2006)	Uganda	micro-credit	Medium quality methods
Liverpool (2010)	Ethiopia	micro-credit	Poor due to lack of information
Masanjala (2002)	Malawi	micro-credit	Poor due to lack of information
Mghenyi (2009)	Kenya	micro-credit	Poor due to lack of information
Mosley (2004)	Kenya Uganda Zimbabwe South Africa Cameroon	micro-credit	Poor due to lack of information
Nanor (2008)	Ghana	micro-credit	Medium quality methods
Owuor (2009)	Kenya	micro-credit	Poor quality methods
Pronyk (2008)	South Africa	micro-credit and other: • gender and HIV awareness training (Sisters for Life) • community mobilisation support	High quality methods
Seiber (2004)	Uganda	micro-credit	Poor quality methods
Shimamura (2010)	Malawi	micro-credit	Medium quality methods
Simtowe (2006)	Malawi	micro-credit	Poor due to lack of information
Ssewamala (2010)	Uganda	micro-savings and other: • training on asset building and financial planning (over 10 month period) • monthly mentorship programme	High quality methods
United Nations Capital Development Fund (2004)	Malawi Nigeria Kenya	micro-credit	Poor due to lack of information
Wakoko (2004)	Uganda	micro-credit	Medium quality methods

Appendix 4.1: Further details of 15 studies included in the in-depth synthesis

Appendix 4.1.1 Describing the microfinance interventions included in the in-depth review

Main paper (full citations and linked papers provided in 7.2)	Source of main report	Language	Country	Microfinance intervention	Name of microfinance programme	Setting
Adjei (2009)	IDEAS	English	Ghana	Credit	Sinapi Aba Trust (SAT)	Rural and urban
Ashraf (2008)	Searching reference lists	English	Kenya	Credit plus other	Drumnet	Rural
Barnes (2001a)	ELDIS, searching reference lists	English	Uganda	Credit and savings plus other	Foundation for International Community Assistance (FINCA), Foundation for Credit and Community Assistance (FOCCAS), Promotion of Rural Initiatives and development enterprises (PRIDE)	Rural and urban
Barnes (2001b)	Searching websites; searching reference lists	English	Zimbabwe	Credit	Zambuko Trust	Urban
Brannen (2010)	Citation searching	English	Tanzania (Zanzibar)	Credit and savings	Village Savings and Loan Association	Rural
Doocy (2005)	Psycinfo, SSCI, CSA	English	Ethiopia	Credit	WISDOM Microfinance Institution	Rural
Dupas (2008)	Searching reference lists	English	Kenya	Savings	unnamed	Rural
Gubert (2005)	IDEAS	French	Madagascar	Credit	Action for Development and Financing of Micro-Enterprises (ADéFI)	Urban
Lacalle (2008)	EconLit, SSCI	Spanish	Rwanda	Credit	Spanish Red Cross in Rwanda	Rural
Lakwo (2006)	ELDIS	English	Uganda	Credit	Pakwach Nam Co-op Savings and Credit Society	Rural
Nanor (2008)	Searching websites and reference lists	English	Ghana	Credit	Upper Manya Kro Rural Bank, South Akrim Rural Bank and the Afram Rural Bank. KROBODAN (NGO).	Rural
Pronyk (2008)	Cochrane Library, Psycinfo, Contacting authors, SSCI	English	South Africa	Credit plus other	Small Enterprise Foundation (SEF)	Rural
Shimamura (2009)	SSCI	English	Malawi	Credit	Malawi Rural Finance Company (MRFC)	Rural
Ssewamala (2010)	Citation searching, SSCI	English	Uganda	Savings	Suubi Research Program (Suubi is Luganda for 'hope')	Rural
Wakoko (2004)	CSA	English	Uganda	Credit plus other	unnamed	Rural and urban

Appendix 4.1.2 Describing the evaluations included in the in-depth review

Main paper	Study design	Study quality	Dates of data collection	Intervention group	Control group
Adjei (2009)	Case control	MEDIUM	2007	316 people were included in the intervention group, all of whom had at least 4 loans over 2 years. Further details on this group are not apparent.	The comparison group consisted of 231 new clients who had not yet received a loan or who had recently received their 1st loan.
Ashraf (2008)	Cluster RCT	MEDIUM	2004–2005	Two treatment groups sampled from potential Drumnet customers: (1) 12 groups with 373 individuals receiving all DrumNet services; (2) 12 groups with 377 individuals receiving all DrumNet services except credit. All Drumnet customers had to be members of a registered farmer group, express an interest in growing crops marketed by DrumNet, have irrigated land, and be able to meet the first Transaction Insurance Fund commitment.	Control group made up of 12 self-help groups including 367 individuals who received no Drumnet services.
Barnes (2001a)	Control trial	HIGH	1997–1999	Report data on 576 clients who received the intervention, 93% women. Average age at start of study was 36 years; average education = one year of secondary schooling; 67% married; average household size 6.6 members (2 economically active).	393 of the comparison group were available for follow up. 93% were women; average age was 33 years, non-client households' average size 5.48 members.
Barnes (2001b)	Control trial	MEDIUM	1997–1999	Report data on 344 clients who received the intervention; included both men and women; between 50 and 66% were from households under $2/capita/day poverty line; typical age at start of study was 41 years; typical client in survey: married female with seven to eight years of education; household size: 5–6 persons.	255 of the comparison group were available at follow-up. These non-clients were other micro-entrepreneurs who were matched to the clients on the basis of gender and micro-enterprise sector. The group included both men and women.
Brannen (2010)	Case control	MEDIUM	2006	The number of participants is not completely clear, but is mostly likely 120. We do know that participants include men and women; average age post intervention was 37.95 (was 33.19 at joining); 75% were married; the majority (47.5%) had only primary education; and the average household size was 47.9.	50 new members of the programme formed the control group. They included men and women; average age when joining the programme was 33.64 years; 70% were married; 40% had only primary education or less; and the average household size was 4.92.
Doocy (2005)	Case control	MEDIUM	2003	The study included 404 men and women who were established clients (and the 326 children within households of these established clients) as well as 199 men and women who had been clients for less than a year (and their 120 children). Other details are not available.	The study also included 205 men and women who had no involvement in the programme ('community controls') and the 150 children within their households. Other details are not available.

Main paper	Study design	Study quality	Dates of data collection	Intervention group	Control group
Dupas (2008)	RCT	MEDIUM	2006–2008	The study reports on 104 men and women who received the intervention. The average age of the 53 men was 29.42 years, and of the 51 women was 33.8 years. The men had an average of 2.74 children in their households and the women 3.39. The group had just over 7 years of education on average.	81 men and women were in the control group. The average age of the 35 men in this group was 29.09 years, and 31.61 years for the 46 women. The men had an average of 2.57 children, and the women 3.17. The group had just under 7 years of education on average.
Gubert (2005)	Case control	MEDIUM	2001–2004	It is not clear how many intervention participants were included in this study. However, the group consisted of 42.2% men and 57.8% women. The majority fell in the age band 21–50. 37.8% had 9 years or less of education.	The comparison group is also not described in detail, but we know that 48.2% were men and 51.8% were women. 77.6% had 9 years or less of education
Lacalle (2008)	Case control	MEDIUM	2004	30 'poor' and 'most vulnerable' households were included in the intervention group. The average age of the individual borrowers was 38.17 years.	30 control households with the same 'poor' and 'most vulnerable' profile were included. The average age of the individual non-borrowers was 43.47.
Lakwo (2006)	Case control	HIGH	2003	Data from 79 households was included in the study. Participants included rural women with a mean household size of 4.7.	77 households formed the control group. These were 'pipeline clients' who had joined the programme but hadn't yet received a loan. All were women with an average household size of 4.3.
Nanor (2008)	Case control	MEDIUM	unclear	710 households formed the intervention group. Details about the households were not apparent.	135 households formed the comparison group.
Pronyk (2008)	Cluster RCT	HIGH	2001–2004 (also scale-up 2005–7).	A total of 262 women were under 35 years at study onset and eligible for surveys on HIV risk behaviours. 130 formed the intervention group. 83% (108/130) of the intervention group were successfully interviewed and 92% of these at the 2 year follow-up. The intervention group included women with an average age of 19.9. 70/108 of the intervention participants had to beg for food or money in the last year.	132 women from the original sample of 262 were assigned to the control group. 85% (112/132) of the control group were successfully interviewed, 79% of whom were available two years later for follow-up. The mean age of these women was 29.2. 70/112 of the control participants had to beg for food or money in the last year.
Shimamura (2009)	Case control	MEDIUM	2006	107 households formed the intervention group, including men and women. The average age of the head of these households was 47.0 years. The mean household size was 5.37.	The comparison group included 141 households including men and women, with a mean age of head of household of 45.0 years. The mean household size was 4.64.
Ssewamala (2010)	Cluster RCT	HIGH	2005–2008	The intervention group included 138 Aids-orphaned youth from 9 primary schools (133 by end of trial). Boys and girls with 'low income' were included. The average age was 13.7 years.	The comparison group included 148 Aids-orphaned adolescents from 6 primary schools (141 by end of trial). Boys and girls with 'low income' were included, with an average age of 13.7.
Wakoko (2004)	Case control	MEDIUM	1993–1994	A total of 527 households were surveyed but it isn't completely clear how many fall into the intervention or control groups. Descriptive data is apparent for the whole sample, but not for borrowers and non-borrowers separately. The groups did include both men and women.	A total of 527 households were surveyed but it isn't completely clear how many fall into the intervention or control groups. Descriptive data is apparent for the whole sample, but not for borrowers and non-borrowers separately. The groups did include both men and women.

Appendix 4.1.3 Describing the outcomes assessed in the 15 studies included in the in-depth review

Main paper	Wealth outcomes assessed	Non-wealth outcomes assessed
Adjei (2009)	• Household accumulation of assets • Individual savings	• Health • Education
Ashraf (2008)	• Business-level income	
Barnes (2001a)	• Household accumulation of assets • Individual savings • Other: remittances and gifts • Other: diversity of income sources • Other: starting a new substitute business • Other: investing in land for cultivation	• Housing • Education
Barnes (2001b)	• Household-level income • Business accumulation of assets • Other: remittances and gifts	• Health • Food security and nutrition • Education • Empowerment • Job creation
Brannen (2010)	• Household accumulation of assets • Other: diversity of income sources	• Health • Food security and nutrition • Education • Housing
Doocy (2005)		• Health • Food security and nutrition
Dupas (2008)	• Business-level income • Individual-level expenditure • Business accumulation of assets • Individual savings • Other: investing in land for cultivation	• Health • Food security and nutrition
Gubert (2005)	• Business-level income	• Education • Job creation
Lacalle (2008)	• Household accumulation of assets • Other: Household/family economic status	• Health • Food security and nutrition • Education • Housing
Lakwo (2006)	• Other: individual economic well-being	• Empowerment
Nanor (2008)	• Household-level income • Business-level income • Household level of expenditure • Other: household poverty level	• Food security and nutrition • Education
Pronyk (2008)	• Other: household economic well-being	• Health • Empowerment
Shimamura (2009)		• Food security and nutrition • Education • Other: child labour
Ssewamala (2010)	• Individual savings	• Health • Education
Wakoko (2004)		• Empowerment

Appendix 4.2: Narrative synthesis of findings relating to the impact of microfinance on the wealth of the poor

	Individual level	Household level	Business level
Income	• There is no evidence of impact of micro-credit or micro-savings on the individual incomes of poor people.	• A trial in Zimbabwe found that, over the two years following departure from a micro-credit programme, clients had diversified their income sources, potentially providing the households with greater income security, but there is no evidence that household income increased per se (Barnes et al. 2001b). • The greater diversification of income sources was not observed for the poorest households. In addition 'significantly more continuing clients and departing clients than non-clients fell into poverty during the assessment period' (Barnes et al. 2001b). • Whilst this may be associated with the economic and political situation in Zimbabwe, it clearly shows that micro-credit has had a negative impact on the wealth of households (Barnes et al. 2001b). • An evaluation of a micro-credit programme in Ghana provides inconsistent evidence, with clients' household income significantly higher than that of non-clients within two of the four districts examined, but significantly lower in the other two (Nanor 2008).	• Across all 4 Ghanaian districts studied, the longer a client stayed in a credit scheme, the worse their business profit became (Nanor 2008). • In Madagascar, micro-credit did not provide client businesses with a spurt of growth; in fact, although not statistically significant, the relative performance of clients' businesses was worse than those of the control group (Gubert and Roubaud 2005). • Whilst a combined agricultural business development and credit programme in Kenya increased farmers' income from export crops, this could not be attributed to the micro-credit element of the intervention (Ashraf et al. 2008). • Due to limitations in the data, there is no evidence that the increased investments in the businesses run by savings clients in Kenya led to greater profit levels (Dupas and Robinson 2008). • A study in Ghana found that micro-credit was associated with an increase in business profits in some districts but a fall in profits in others (Nanor 2008).
Expenditure	• The data from the RCT of micro-savings in Kenya suggests that food expenditures and private expenditures increased significantly for client women (Dupas and Robinson 2008).	• The Ghanaian study suggests that client households have greater expenditure on non-food items than non-client households (Nanor 2008).	• There is no evidence of the impact of microfinance on the level of business expenditure per se – see accumulation of business assets (below).

	Individual level	Household level	Business level
Asset accumulation	• There is no evidence of impact of micro-credit or micro-savings on the individual's accumulation of assets.	• The study of micro-credit in Rwanda found credit clients purchased significantly more clothing, footwear and soap than non-clients (Lacalle et al. 2008). • There is evidence from Uganda and Tanzania that micro-credit clients invest more on household assets such as mattresses, radios, stoves and beds (Barnes et al. 2001a; Brannen 2010). • The data from Zanzibar suggest that this investing in household assets is especially true of male clients, although it is also significant amongst female borrowers (Brannen 2010). • Analysis of women borrowers in Ghana suggests that participation in a micro-credit programme is significantly associated with the purchase of a refrigerator, and also sewing machines (Adjei and Arun 2009). • Length of time within the credit programme was not a significant factor in the consumption of these household items – refrigerators and sewing machines (Adjei and Arun 2009).	• In Zimbabwe, participating in a micro-credit programme did not have an impact on the value of fixed assets in clients' businesses (Barnes et al. 2001b) • A trial of micro-savings in Kenya found that savings accounts led women to invest more in their businesses (Dupas and Robinson 2009).

	Individual level	Household level	Business level
Savings	• An RCT of micro-savings in Kenya found that client women managed to save more than controls (Dupas and Robinson 2008) • A trial of micro-savings for AIDS-orphaned youth in Uganda found that those with savings accounts had a significant increase in their attitudes to saving money over time, compared to a decrease in attitudes to savings amongst controls (Ssewamala et al. 2010) • Whilst a study in Ghana suggested that micro-credit influenced the amount of savings deposits made by participants, this is likely to be a function of the credit system which requires borrowers to have at least 10% of loan amounts in the form of savings deposits before a loan will be approved (Adjei and Arun 2009). • The length of time that individuals had been with the Ghanaian credit programme was negatively associated with savings. Although not statistically significant, this suggests that the longer people are enrolled in a credit programme, the less they save (Adjei and Arun 2009). • A study of combined micro-credit and micro-savings programmes in Uganda showed that clients were significantly more likely than non-clients to have increased their level of savings in the last two years (Barnes et al. 2001a). • Clients preferred to keep their non-mandatory savings elsewhere than in the bank account (Barnes et al. 2001a).	• There is no evidence on the impact of microfinance on the level of household savings.	• There is no evidence on the impact of microfinance on the level of business savings.

	Individual level	Household level	Business level
Other wealth-related outcomes	• Data from Uganda reveal that micro-finance had not improved the well-being status (which included financial well-being) of clients relative to that of non-clients, and that clients engaged in microfinance for more than three years saw very negligible value-addition to their well-being status (Lakwo 2006). • While micro-credit clients in Uganda made insignificant gains in financial and human assets, non-clients gained in natural and physical assets (Lakwo 2006).	• In the study by Barnes and colleagues in Uganda, client households were slightly more likely to provide remittances and gifts (and with higher amounts) to non-household members (Barnes et al. 2001a) • In a parallel study in Zimbabwe however, after controlling for a number of initial differences, there was no significant difference between gifts given by clients and non-clients (Barnes et al. 2001b). • There is some evidence for a general improvement in economic status for micro-credit clients in Rwanda, but this is self-reported data about families' economic situation and may be a direct function of being given credit in the form of livestock, which the authors report as particularly popular among the intervention group (Lacalle et al. 2008). • Evidence from South Africa shows a clear pattern of improvement across all nine indicators of economic well-being for micro-credit clients, including household asset value, ability to repay debts and ability to meet basic household needs (Pronyk et al. 2008). • A study in Ghana found no statistically significant difference between micro-credit programme households and non-programme households when comparing them on a poverty line (Nanor 2008).	• Data from Uganda suggests that micro-credit clients are more likely to have more diverse sources of income than non-clients, although this is not true for the poorest households (Barnes et al. 2001a). • Kenyan savings clients invest more money in land for cultivation (Dupas and Robinson 2008). • Ugandan credit clients invest more money in land for cultivation (Barnes et al. 2001a). • In Uganda ,credit clients also increase both the number of crops they grow and their income from crop production (Barnes et al. 2001a). • Credit clients are more likely to have added new products or services to their current business (Barnes et al. 2001a). • Credit clients in Uganda were more likely to start a new business than non-clients – this new business was a substitute enterprise, not a second enterprise (Barnes et al. 2001a). • Credit clients in Tanzania were more likely to become involved in more 'income generating activities' (Brannen 2010).

Appendix 4.3: Narrative synthesis of findings relating to the impact of microfinance on the non-wealth outcomes

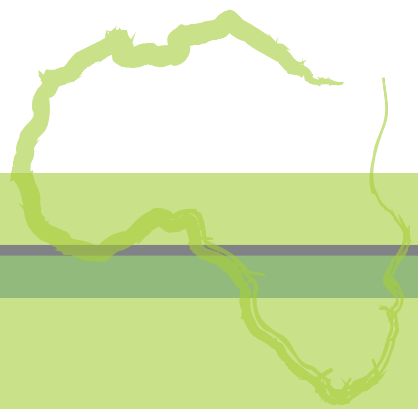
Outcome	Findings
Health	• There is some evidence that micro-credit increases investment in health care in terms of health insurance (Lacalle et al. 2008). • Micro-credit increases expenditure on health care itself (Brannen 2010; Adjei and Arun 2009; Dupas and Robinson 2008 – note that only Adjei and Arun's finding is statistically significant). • The length of time within the micro-credit programme does not affect health expenditure (Adjei and Arun 2009). • Micro-credit improves the health of the children of clients in terms of protective behaviours – i.e. sleeping under a mosquito net (Brannen 2010). • Micro-credit improves nutritional status for families in particularly stressed environments, although this is only significant for some of the geographical areas investigated (Doocy et al. 2005). • Established and new borrowers have better nourished children than non-borrowing community controls, suggesting that borrowers are quite different from non-borrowers (Doocy et al. 2005). • It is largely female micro-credit clients (and not male clients) who invest in their children's nutrition (Doocy et al. 2005). • Whilst the IMAGE trial in South Africa found significant improvements in sexual health and women's empowerment for intervention participants, the intervention they received included far more than just micro-credit, with considerable investment in gender and HIV awareness training (Pronyk et al. 2008). • A trial of the impact of savings accounts on the risk-taking sexual health behaviours of AIDS orphans in Uganda did find significant improvements for the young savers due to the microfinance intervention itself. Relative to the boys and girls in the control group, who showed an increased approval of risky sexual behaviours over the course of the study, those in the intervention group showed either unchanged attitudes (in girls) or a significant decrease in approval of such behaviours (in boys). Thus both boys and girls benefited from the intervention, but in different ways and girls to a lesser extent (Ssewamala et al. 2010). • The study of the Zambuko Trust in Zimbabwe suggests that participation in the credit programme benefited HIV-affected households by leading to more varied, and therefore more secure, sources of income. However, the evidence for this is not entirely convincing (Barnes et al. 2001b).
Food security and nutrition	• Data on the impact of microfinance on food security and nutrition suggest that participation in a combined micro-savings and micro-credit programme has no effect on meal quantity (Brannen 2010). • Participation in a credit-only programme also shows no impact on meal quantity (Doocy et al. 2005). • Evidence from Tanzania suggests that participation in the Village Savings and Credit Association is associated with a significant positive increase in meal quality, with an increase in consumption of meat and fish (Brannen 2010). • Evidence from Rwanda shows that participation in the Red Cross credit programme is associated with a significant positive increase in meal quality, with an increase in consumption of meat (Lacalle et al. 2008). • Participation in the Zambuko Trust in Zimbabwe also had a positive impact on consumption of nutritious food (meat, chicken or fish, milk) in extremely poor client households compared to non-clients and in those who had left the programme (Barnes et al. 2001b). • Data from Ethiopia show little significant difference in household diet and food security, with additional analysis showing that female client households were more successful in maintaining quality diets than households of male clients or community controls. Differences in current receipt of food aid and length of time receiving food were not significant between the three comparison groups (Doocy et al. 2005). • Data from Ghana show little significant difference in household diet and food security, although the combined results of all the estimations for food expenditure suggest that micro-credit increases expenditure on food through an increase in income of programme households (Nanor 2008). • The data from the RCT of micro-savings in Kenya suggest that food expenditures increased significantly for client women (Dupas and Robinson 2008). • Data from Malawi show that access to credit of adult female household members improves 0–6 year old girls' (but not boys') long-term nutrition as measured by height for age. This is not the case for measures of short-term nutrition and does not apply to male household credit recipients (Shimamura and Lastarria-Cornhiel 2009). • In Ethiopia, there were few significant differences in the use of coping mechanisms between established clients, incoming clients and community controls with regard to food. Prevalence of consumption of seed crop was similar among established clients and community controls at 17.1% and 19.2% respectively, while incoming clients had a significantly lower rate of seed crop consumption at 11.4% (Doocy et al. 2005). There was a significant difference in the reported consumption and sale of small animals between the three client groups: 37.7% of established clients as compared to 28.5% of incoming clients, and 30.7% of community controls reported above normal consumption or sale of small animals (Doocy et al. 2005).

Outcome	Findings
Education	• Savings provision to AIDS-orphaned young people in Uganda has been shown to increase their intention to attend secondary schooling, and their certainty that these plans will come to fruition. These young people also did significantly better in Uganda's Primary Leaving Examinations than the control group (Ssewamala et al. 2010). • Participation in credit programmes increases a household's expenditure on children's education in Ghana, although data suggest that the length of time within the credit programme does not have a significant impact on expenditure on education (Adjei and Arun 2009). • Data from Zanzibar (Tanzania) show no effect of micro-credit on household expenditure on education (Brannen 2010). • Data from Ghana show varied positive and negative impacts of micro-credit on education expenditure depending on the region (Nanor 2008). Results show that spending on children's education were significantly different between programme and non-programme households (except for the households in Manya Krobo district). 'It came out that non-program household education expenditure was greater than program households in the Yilo Krobo district' (Nanor 2008:143–144). • Rwandan data show that participation in credit programmes does increase a household's expenditure on children's education (Lacalle et al. 2008). The percentage of children in school was statistically higher amongst clients: 67% of children in beneficiary households were in schools, compared with 44% among families in the control group; this is statistically significant. The percentage of households that paid all school fees for their children was also significantly higher: 46.7% of beneficiary families were able to pay expenses of all school children, while only 20% of families in the control group could meet these expenses; the result is statistically significant. Families who received micro-credit were 3.5 times more likely to cover the education of all children than families in the control group (Lacalle et al. 2008). • Data from Zimbabwe suggest that participation in micro-credit has a positive impact on the proportion of the household's boys aged 6–16 actually enrolled in school, whilst data from the same study show no such effect for girls (Barnes et al. 2001b). This positive impact for boys was also evident for extremely poor client households (Barnes et al. 2001b). The proportion of the household's girls aged 6 to 16 in school decreased more for continuing clients than for departing clients and non-clients (Barnes et al. 2001b). Participation in the Zambuko programme was not found to have an impact on the schooling of household members aged 6 to 21 among continuing clients and departing clients (Barnes et al. 2001b). • Data from Madagascar show no significant difference in primary enrolment between intervention and control groups (Gubert and Roubaud 2005). • Data from Malawi shows that micro-credit significantly decreases primary school attendance amongst borrowers' children, leading to a repetition of primary grades in young boys and delayed or lack of enrolment for young girls (Shimamura and Lastarria-Cornhiel 2009). Micro-credit has no effect on school attendance for secondary school students within households in the same study. • In Uganda client households were significantly more likely than non-client households to be unable to pay school charges for one or more household members for at least one term during the previous two years, hence children had to drop out of school (Barnes et al. 2001a). 'The data suggest that a small core of client households experienced financial hardship that kept school-aged children from returning for further education' (Barnes et al. 2001a:65). • Clients viewed skills training, leadership and social networks as positive benefits of MFI participation (Barnes et al. 2001a).

Outcome	Findings
Empowerment	• There is some data from Uganda which suggest that micro-credit contributes to a women's decision-making power, but the author notes that this is a symptom of status within the household and control in their farming businesses as much as an impact of micro-credit (Wakoko 2004). • Similarly the data from the IMAGE trial in South Africa showed a marked improvement in intervention women's ability to negotiate safe sexual practices and avoid intimate partner violence (Pronyk et al. 2008); however, this is likely to be due to other aspects of the intervention and cannot be attributed to the micro-credit alone: analysis of micro-credit alone, versus IMAGE, versus control found non-consistency of effect of micro-credit alone on these empowerment variables (Kim et al. 2009). • Findings from Zimbabwe are inconclusive: whilst there is no indication that participation in Zambuko led to greater control over the earnings from the business, for both married men and women there was more consultation and joint decision-making with the spouse (Barnes et al. 2001b). • We found only one study, on the impact of a rural micro-credit programme in Uganda, which found significantly greater empowerment among women taking part in the programme (Lakwo 2006). This included women gaining financial management skills, owning bank accounts, gaining greater mobility outside their homes and taking pride in contributing to household income. In non-client households husbands contributed all household income, while in client households 25% of women contributed to household income. While both clients and non-clients were reliant on the use of family labour for their businesses, only clients (10%) were using hired labour. Also, fewer women clients (4.2%) provided labour in enterprises owned by their husbands compared to non-clients (16.4%). • Credit client women indicated a reluctance to save as savings were used to repay loans: clients did save cash, but did not invest this in savings accounts (Lakwo 2006). • Female credit clients in Uganda gained ownership of some selected household assets more commonly owned by men, mainly poultry, beds with mattresses, their micro-enterprises and their bank account (Lakwo 2006:154). • 'The involvement of women in micro-enterprises is accompanied significantly by an emerging ownership over those activities. Among clients … the women themselves own a considerable number of the enterprises (73.2%) as compared with their husbands (4.2%)' (Lakwo 2006:156–157). • Female credit clients gained decision-making power – individually making decisions on nearly half of the loans taken (48%) compared to their husbands (34%) (Lakwo 2006). • Husbands take the lead in making school enrolment decisions for their children both among clients (61%) and non-clients (79%), and in deciding on education expenses (61% among clients and 75% among non-clients). 'However, this trend is more eroded among clients where women are increasingly participating in decision-making regarding education expenses (49%) than in enrolment (38.6%). More women clients compared to non-clients largely participate in such decision-making jointly with their husbands than as individuals' (Lakwo 2006:161). • 'While there is a negligible difference between clients and non-clients in self-decision making (45% clients and 46% non-clients) just as in the role of their families play in such a process (18.3% clients and 17.9% non-clients), the husbands of non-clients (31.3%) still take a considerable share of decision-making compared to only 19.7% of clients' (Lakwo 2006:162). Enterprise gender enclaves in cooked food and beer for women, while women are slowly penetrating into male domains (like fishing and fishmongering), thereby challenging such norms (Lakwo 2006:163). • 'Clients largely (80.5%) made the decisions while among non-clients there is almost a shared decision-making responsibility between the individual women (59.7%) and jointly with their husbands (40.3%). Such a difference in savings decision-making was attributed to the type of savings' (Lakwo 2006:163). • Changes in individual and intra-household levels of empowerment sparked community-level issues, like reconsidering polygamy, resistance to religious dogma (like trading in alcohol), life-time security building at natal homes, downplaying MFI rigid operational guidelines (through loan diversion and delayed repayments), enjoying community politics and building socio-economic allies (Lakwo 2006).

Outcome	Findings
Housing	• Data on housing is limited but suggests that Village Savings and Loan Association participants in Zanzibar are more likely to own their own home and make investments in the quality of their home than control groups (Brannen 2010). • Finding from Rwanda show that credit recipients were found to have made more improvements to their homes than non-credit clients (Lacalle et al. 2008). • A greater proportion of client households in Uganda, compared to non-client households, became owners of the place in which they resided, and client households were more likely to have increased the number of rental units owned than non-client households (Barnes et al. 2001a).
Job creation	• In 2001, the impact of micro-credit on employment in Rwanda was positive and significant, but by 2004, while positive, it was not statistically significant (Gubert and Roubaud 2005). • Data from Zimbabwe also showed that micro-credit had no impact on employment levels in businesses (Barnes et al. 2001b). The unfavourable economic conditions in Zimbabwe may well explain why participation in microfinance did not have an impact on employment levels in businesses (Barnes et al. 2001b). Participation in Zambuko also had no influence on the number of person-hours worked in the previous week and person-days worked in the previous month in businesses (Barnes et al. 2001b).
Social cohesion	• There is no evidence of the impact of microfinance on social cohesion.
Other non-wealth outcomes	• Although there was an increase amongst credit clients' children's involvement in agricultural production (mostly tobacco production), this was not significant (Shimamura and Lastarria-Cornhiel 2009). The authors say this may be due to a measurement error: the survey was conducted after the harvest season. • There is strong evidence that credit uptake reduced the probability of children's participation in household chores (Shimamura and Lastarria-Cornhiel 2009).

Notes



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