

What is microcredit? Why do poorer people need microcredit? Discuss how the availability of credit might be able to help someone move out of poverty.

INTRODUCTION – WHAT IS MICROCREDIT?

Microfinance, comprising almost entirely of microcredit, involves small loans to those in poverty to pursue business ventures and self-employment. Although microfinance comprises of small savings also, it is microcredit that dominates alleviation of poverty. Through this, modern microfinance is seen to have emerged, with Muhammad Yunus and the Grameen Bank considered its original source. As an Economics Professor in 1976, Muhammad Yunus began by funding small loans to local villagers out of his own pocket, then moved on to start the now globally recognised Grameen Bank (Armendáriz de Aghion & Morduch, 2005, p. 1). In 2006, the Grameen Bank was awarded the Nobel Peace Prize for work done in alleviating world poverty, signalling the effectiveness of microfinance as a tool in the fight against poverty (Banerjee, Duflo, Glennerster, & Kinnan, 2009, p. 1). The sizes of the loans funded are usually small and repaid through regular repayment schedules beginning shortly after the loan is agreed (Morduch, 1999, p. 1574). Microcredit often carries lower interest rates than those of the market and rarely requires collateral. This shows microcredit is a major component of microfinance, so the poor can access capital increasing credit, to increase their productivity. These poor have previously been excluded from the formal banking sector due to high costs, high risks, low savings propensities and little by way of collateral (Morduch, 1999, p1573). For this reason, many microfinance institutions are heavily subsidised and are NGOs; ensuring the need for profit does not overtake the benefits seen.

WHY DO POORER PEOPLE NEED MICROCREDIT?

It is widely accepted that a lack of access to credit inhibits the ability of those in developing countries to move out of poverty (Hermes & Lensink, 2007, p. F1). It is why these poor have been excluded from the formal banking that causes a need for microcredit and the unique solutions required to combat them. Microfinance can be seen as an intervention in an imperfect credit market. Currently, credit markets in developing countries are formed of two parts; formal and informal markets. Due to

previous exclusion, the poor often turn to the informal market for loans. These loans are funded by moneylenders who exploit the vulnerability and desperation of the poor, who have little option, by charging very high interest rates (Morduch, 1998, p. 1). It should be noted that moneylenders have a role in the local economy as people are using their services, facilitating them to continue charging extortionate rates. Furthermore, these high rates could be justified when accounting for all the risks and costs that the formal credit market has deemed too high to extend credit to the poor (Armendáriz de Aghion & Morduch, 2005, p.28-29). High interest rates also remove the incentive for longer term projects, as the return is unlikely to cover the interest on the loan. In essence, loans from moneylenders are unlikely to have productive outcomes; extended to the wrong people at too high a cost. Therefore, intervention in the credit market can explain the reasons the formal credit market excludes and the perceived exploitation in the informal market.

The first step to find why microcredit is necessary is to look at why the formal credit market excludes poor borrowers but lends to rich borrowers. The main causes of exclusion are agency problems: asymmetric information, limited liability and moral hazard. Asymmetric information affects the lending process in three stages. The first is before the loan is extended; the lender is unable to determine the borrower's type or choice of project. The second occurs after the loan is taken; the lender is unable to monitor how efficiently the loan is being used. The third stage takes place after the realisation of the project where the lender is unaware of the returns on the investment (Armendáriz de Aghion & Morduch, 2005, p. 35-36).

Limited liability in this instance assumes poor borrowers are unable to provide collateral for their loans so only able to repay the value of their existing income. The responsibility held by borrowers is only up to the value of their collateral (Armendáriz de Aghion & Morduch, 2005, p. 37). Coupling the two together leads to an adverse selection problem but helps to explain the risk of involuntary default and its effect on the formal credit market's propensity to lend. Using an example (Ray, 1998, p. 532), it shows poor borrowers are able to choose between two projects to invest in, but the lender cannot observe which is chosen. As the borrower has no wealth to repay the loan, he will

default if his chosen project fails, this being his limited liability. In this case, the borrower requires a loan of 100,000 pesos to complete either project, with an interest rate of 10%. If the borrower invests in Project 1, they could achieve a return of 120,000 pesos with a probability of 100%, whereas investing in Project 2 could achieve either a return of 230,000 pesos or 0 pesos; both with a probability of 50%. This gives an expected return of 120,000 pesos for Project 1 ($1 \times 120,000$), and 115,000 pesos for Project 2 ($0.5 \times 230,000 + 0.5 \times 0$). If the borrower chooses Project 1, the lender can expect a return of 10,000 pesos ($110,000 - 100,000$) and minus 45,000 pesos ($0.5 \times [110,000 - 100,000] + 0.5 \times [0 - 100,000]$) for Project 2. It is clear that the lender will only want to finance Project 1, as the return would pay off the loan and interest charges. However, the borrower's choice is determined differently. Under Project 1, they are guaranteed 120,000 pesos so earns 10,000 pesos. Project 2 will yield either 230,000 pesos or 0 pesos. Therefore Project 2 is the most desirable choice, as the borrower expects a return of 60,000 pesos ($0.5 \times [230,000 - 110,000] + 0.5 \times 0$), exceeding the loan and interest charges. As the lender cannot observe the choice, they will assume that the borrower will choose Project 2 and be unwilling to lend. The only solution would be if the lender could ensure the borrower's commitment to Project 1.

To explain adverse selection more completely, it is now assumed that lenders cannot determine whether borrowers are safe (prefer a lower, guaranteed return), or risky (prefer an uncertain, higher return). The lender is forced to set high interest rates to cover their expected returns should they lend to both safe and risky borrowers. If rates rose too high, safe borrowers would leave the market as their returns would not cover the loan and interest charges. Left with only risky borrowers, the lender is forced to increase interest rates further or leave the market themselves. This 'adverse selection' is due to a credit market imperfection that microcredit seeks to solve; aiming to increase efficiency, improve access to the market and distribution (Armendáriz de Aghion & Morduch, 2005, p. 37-43). It should also be noted that where collateral could somehow be offered, i.e. a farmer with a small quantity of land, it is often undesirable to the lender and so deemed irrelevant (Ray, 1998, p.536).

Moral hazard occurs in two forms, both leading to voluntary default. Again, limited liability is assumed by the borrowers, as they have no collateral. The first form is ex ante moral hazard, where the unobservable actions and/or efforts of the borrower can affect the realisation of the returns (Armendáriz de Aghion & Morduch, 2005, p.45). More simply, the borrower can either invest in the project or take the money and run. Using the previous example, assuming the borrower can only choose Project 1 (giving a guaranteed return of 120,000 pesos); the lender's decision can be ascertained. A borrower who decides to take the money and run is caught with a probability of 60%, with the lender retrieving the money. This means an honest borrower will gain returns of 10,000 pesos as before, whilst a successful cheat can expect returns of 40,000 pesos ($0.4 \cdot 100 + 0.6 \cdot 0$). Therefore, the borrower will choose to cheat and the lender will not lend in the market under these conditions. Ex post moral hazard, or the 'enforcement problem', occurs after the realisation of returns on the project. Similar to ex ante, the borrower can choose to take the money and run, but for different reasons. If the lender cannot accurately observe the returns, the borrower can claim failure and default, or the lender can observe returns but not guarantee repayment. The borrower may do this if they feel they can reinvest themselves or gain loans elsewhere, otherwise they would be discouraged from doing so through the threat of permanent finance refusal by the lender (Armendáriz de Aghion & Morduch, 2005, p.45-46).

Having collateral would solve all of these problems, as however the borrower acts, the lender would gain the full return by collecting on the asset. As such, the borrower would have incentive to be both safe (choose Project 1) and honest (invest in the project) to maximise their own returns. Hence, the formal credit market only lending to rich borrowers who offer acceptable collateral to guarantee their loans. The informal credit market, therefore, has to rely on other methods to mitigate the risks. Moneylenders rely on three main methods of improving repayment rates. The first is repeated interactions. The more the borrower repays, the more the moneylender is willing to loan. This promise of greater loans creates an incentive for repayment. Secondly, moneylenders in rural credit markets tend to be landlords and such. This means they can take advantage of 'multi-market

interaction', allowing them to use labour as collateral i.e. when owning a farm. Finally, the use of 'social' capital is available within communities to moneylenders, as they are locals themselves.

Taking advantage of local knowledge and social networks can enable them to 'pressure' borrowers into repayment i.e. a tarnished reputation.

Credit rationing can indirectly address both adverse selection and moral hazard. It occurs when the borrower would like to borrow more money at the current interest rate, but is refused by the lender meaning low interest rates and a busy market (Ray, 1998, p. 548). Credit rationing due to adverse selection arises when a lender wants to keep 'safe' borrowers by maintaining interest rates. If they can, the lender will charge low interest rates and gamble on who to lend to, as long as the expected return is higher. A similar outcome is seen when mitigating moral hazard; a higher interest rate is likely to see more voluntary defaults, due to higher gains by cheating. As such, a lender would prefer to keep interest rates low. In both cases, by undercutting the market rate, the lender is rationing credit and keeping the market busy.

Microcredit is therefore necessary to improve market imperfections and prevent clearing. Although there are both formal and informal credit markets, there are still those that are unable to gain access to loans. Namely those safe borrowers excluded from the formal credit market and unwilling to pay the high interest rates set by local moneylenders. It is these borrowers that microcredit aims to service by changing the structure of the rural credit market.

SYSTEMS IN MICROCREDIT

Having seen the need for a solution to credit market imperfections, the next step is to look at the systems microcredit incorporates that makes it a viable solution. Again, the Grameen Bank's model of lending is often cited as the example of good microcredit in practice, with both policy and theoretical discussions spotlighting the joint-liability group lending contracts as one of the major success stories in microfinance (Morduch, 1999, p. 231).

The Grameen Bank's model for group lending has a system that counters both adverse selection and moral hazard. Typically, groups are formed voluntarily and consist of five members. Although loans are extended to individuals, each member is liable for repayment of each loan taken out within the group. Also if any loan is defaulted, all members within the group are denied any future loans (Morduch, 1999, p. 1575). Some microcredit lenders also enforce a mandatory group savings fund, so a small amount of collateral can be built up to cover any shortfalls. This allows the use of peer pressure as a collateral substitute, reducing the risks. A member with incentive to default (moral hazard) will not due to the social repercussions of doing so. As well as increasing the likelihood of repayments, group lending can also reduce the problems caused by asymmetric information; lowering the costs of monitoring. Previously, lending to an individual involved multiple credit checks. Under group lending, the voluntary formation of a group acts as a screening and monitoring process, as small communities are likely to know the creditworthiness and honesty of each other. By forming groups with those they trust, safe borrowers are automatically reducing the number of risky borrowers in the market. Finally, group lending reduces transaction costs for microcredit lenders. By having meetings with a large number of groups simultaneously, transaction costs are reduced five-fold relative to meetings with individual borrowers (Ledgerwood, 2000, p. 68-70). Therefore, group lending, in theory at least, shifts the risks and costs to the borrowers where possible.

However, this means the system is imperfect and can suffer drawbacks. Firstly, times of crisis in developing countries, such as floods that damage productivity, have dramatic effects on groups. If more than one member cannot repay it is likely all will struggle and the group will collapse, removing many safe borrowers from a market. Borrowers also shoulder much of the costs for attending mandatory meetings, whether through lost labour hours or transport costs (Harper, 2007, p. 42-43). A final disadvantage is risk averseness. Borrowers that do not want the extra liability inherent in group lending may decide to avoid entering the market altogether, reducing market efficiency (Ledgerwood, 2000, p. 71) (Armendáriz de Aghion & Morduch, 2005, p. 108-113).

Grameen Bank also uses progressive lending to reduce the costs and risks of lending to the poor. This involves lending a small amount at the start, then offering larger loans as each is repaid. This has three benefits; average costs are reduced, risky borrowers are recognised early and borrowers are discouraged from defaulting (Armendáriz de Aghion & Morduch, 2005, p.125). Frequent repayment schedules are another unique feature of microcredit lending. In Grameen's case, repayments are weekly and start soon after the loan is taken. As microcredit is aimed at promoting business ventures, this is unlike other business loans repaid only after the realisation of returns. This provides an 'early warning system', whereby repeated transactions are more likely to enforce repayment. Two further reasons are given for its effectiveness; risky borrowers are discouraged by the earlier repayments and households with a low propensity to save find it easier to make the repayments than hold on to liquid assets long enough to make a lump-sum payment (Armendáriz de Aghion & Morduch, 2005, p.129-132).

A final system is the targeting of women. Microcredit lenders have found women are statistically more reliable in making repayments, so much so that women now make up over 90% of its clients (Armendáriz de Aghion & Morduch, 2005, p. 139). Many reasons have been cited as to why, ranging from higher sensitivity to pressure, greater caution and their proximity to home being greater. However these are difficult to prove when accounting for other social factors.

USING MICROCREDIT TO ESCAPE POVERTY

We have seen rural credit markets are imperfect and do not allow poor borrowers access to much needed credit. Microcredit tries to correct these imperfections and allow those in poverty to be entrepreneurial. The gaining and use of these loans must be considered. How does access to microcredit allow those in poverty to become wealthier and is this really seen in the real world?

The first point to look at is how loans are being used to purchase. Loans can be made for either working capital or fixed assets. Both are designed to increase profitability of business ventures. Working capital involves goods used in the normal course of business, such as wood for carpentry.

Fixed assets are those with a typical life span of greater than a year that are used over time in a business, such as machinery, property and equipment (Ledgerwood, 2000, p. 136). Using the loans to purchase such goods are the main aims of microcredit, as it directly enables people to increase productivity, and so profitability. It is these sorts of entrepreneurial activities that have positive effects on households in poverty. Poverty can be due to lack of income, vulnerability to income shocks and lack of control (Ledgerwood, 2000, p. 48). The first effect of microcredit should be increased income, whereby consumption levels are increased. In turn, the demand for children, children's education and leisure should also increase. On the other hand, time will gain in value. This will have countering effects. Alongside increased female employment (due to targeting), the cost of children increases and so depressing fertility rates. Demand for children's education could follow a downwards trend if parents now need their children to help with the extra workload, whilst demand for leisure could decrease if opportunity costs increase too greatly (Morduch, 1999, p. 1597). Essentially, the first generation is removed from poverty, but the second generation does not benefit if the associated pitfalls of poverty such as low education, healthcare and nutrition are not overcome. Many MFIs are NGOs, and as such are looking more for social benefits than profit. This means many microcredit programs advocate education, health, nutrition and family planning alongside the loans. Hence, there are a number of forces to consider when looking at the success of microcredit in moving the poor out of poverty.

Most empirical studies look at the aftermath of credit, whereas few look at the expected changes in consumption patterns. One study finds that the expected rise in consumption of fixed assets and new business growth does occur in areas with access to microcredit, confirming its efficient use (Banerjee, Duflo, Glennerster, & Kinnan, 2009). Many other studies look at how microfinance has helped to reduce poverty ex post, with most citing difficulty in attributing cause and effect efficiently. An example is the statistic that 57% of school-age sons of borrowing households attend school, whereas only 30% of school-age sons of eligible non-borrowing households attend school. However, are those who choose to borrow also more likely to demand education regardless of the

loan? (Morduch, 1999, p. 1598) Similarly, another study notes that Grameen Bank locates in the worst poverty areas, so comparing poverty in program areas with that in non-program areas, could mistakenly suggest microfinance increases poverty (Khandker, 2005, p. 5). Hence, few studies are able to agree on the specific impacts of microcredit. Most agree that microcredit has had a positive impact on income levels and reduced poverty in its simplest terms. Measures of education, nutrition and health, however, have had mixed results. This is attributed to the NGO nature of many MFIs and the coupling of social benefit programs to credit. Only empowerment and poverty itself have had clear positive results (Ledgerwood, 2000, p. 48-49) (Khandker, 2005).

Goldberg (2005) agrees that almost all studies point to microcredit loans being used efficiently by borrowers to alleviate poverty through increasing incomes. The paper also agrees that other factors in poverty can be improved through microfinance programs. However, it adds the caveat that all microfinance programs are different and focus on different factors, so any increases or decreases in health, nutrition and education cannot be attributed to all microfinance (Goldberg, 2005, p. 46).

CONCLUSION

Microcredit is considered one of the most innovative tools in banking when battling imperfect credit markets. As a viable option for poor borrowers, it has helped alleviate their poverty. The next step for microfinance is suggested to be a move away from subsidised NGOs to sustainable banking, so the banking sector itself can contribute to the local economy. MFIs are also looking into ways of incorporating microsavings into their sustainable microfinance models. Others feel the programs that run alongside the loans are too valuable to cut completely so NGOs still have a place in microfinance. What is certain is that microfinance is not a perfect tool to fight global poverty and that much more must be understood and incorporated to improve its effectiveness (Goldberg, 2005, p. 46).

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