

From a supply gap to a demand gap? The risk and consequences of over- indebting the underbanked

Jessica Schicks

In the past, the microfinance industry focused mainly on growth and outreach. Addressing financial exclusion implied a huge supply gap. Recent over-indebtedness crises in several countries have shown that this gap can turn into over-supply. The industry urgently requires research to understand the magnitude and consequences of this shift. This chapter reveals the broad spectrum of consequences over-indebtedness can have on borrowers and other stakeholders, mainly MFIs. It emphasizes that over-indebtedness consequences reach far beyond the risk management concerns that MFIs and investors have on top of their mind. In a second step the chapter reviews the existing empirical research on microfinance over-indebtedness and examines how prevalent over-indebtedness is in microfinance markets today. It highlights the evidence for over-indebtedness in crisis markets and non-crisis markets, especially when markets mature. Only if the extent of the problem is known and its effects are properly understood, can the microfinance industry develop appropriate measures against over-indebtedness and adapt to the challenge of oversupply.

JEL Classifications: O16, O50, G21

Keywords: Microfinance; Microcredit; Supply Gap; Demand Gap; Over-Indebtedness; Customer Protection

CEB Working Paper N° 11/046
2011

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Jessica Schicks

Centre for European Research in Microfinance (CERMi)
Solvay Brussels School of Economics and Management (SBS-EM)
Université Libre de Bruxelles (ULB)

Abstract:

In the past, the microfinance industry focused mainly on growth and outreach. Addressing financial exclusion implied a huge supply gap. Recent over-indebtedness crises in several countries have shown that this gap can turn into over-supply. The industry urgently requires research to understand the magnitude and consequences of this shift. This chapter reveals the broad spectrum of consequences over-indebtedness can have on borrowers and other stakeholders, mainly MFIs. It emphasizes that over-indebtedness consequences reach far beyond the risk management concerns that MFIs and investors have on top of their mind. In a second step the chapter reviews the existing empirical research on microfinance over-indebtedness and examines how prevalent over-indebtedness is in microfinance markets today. It highlights the evidence for over-indebtedness in crisis markets and non-crisis markets, especially when markets mature. Only if the extent of the problem is known and its effects are properly understood, can the microfinance industry develop appropriate measures against over-indebtedness and adapt to the challenge of oversupply.

Acknowledgements: The author would like to extend her warmest gratitude to Richard Rosenberg for his generous support, his work on summarizing the existing over-indebtedness research, and the many valuable ideas that he inspired her thinking on over-indebtedness with. She is grateful for comments from Marc Labie. Also, she would like to thank Marie Christine Adam Foundation and the German National Merit Foundation for their financial support.

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The microfinance sector is used to extensive debates about its mission.¹ However, in one regard, the goal post has always been clearly set: microfinance, if impact focused or not, if poverty focused or not, has always been about extending small scale financial services to the underbanked. About reaching out to those who are not normally served by the formal financial system.

This goal post had clear implications for the competitive situation in microfinance markets. Microfinance institutions (MFIs) were working in an environment characterized by a permanent supply gap². In spite of the impressive growth that the industry has achieved globally over the past decades, enormous figures frequently remind the microfinance community of the remaining supply gap for the industry: estimates of the underserved centre around two or three billion people world wide (Chaia et al., 2009; Karlan and Morduch, 2010).

As a result, the efforts of researchers and practitioners alike have focused above all on growth and outreach. The numbers of clients served, often represented the main proxy for an institution's impact and efforts concentrated on expanding MFIs into larger institutions that would continue to serve the poor sustainably in the long run. Under the paradigm of growth as priority number one, the industry commercialized increasingly, arguing that only self-financed institutions will persist in the long run and that only tapping private capital will allow the microfinance industry to reach the billions of underserved people who still lack access to finance.

Since its beginning, the flagship product of microfinance has been microcredit. It was based on the assumption that the poor are able to work themselves out of poverty if they get access to the capital to grow their income generating activities into more profitable businesses. It assumed that, if at all, the poor were previously using credit from usurious moneylenders. Replacing those high cost loans with cheaper loans from MFIs would make their businesses more profitable so that they could grow, earn a better living for the family and potentially create employment and contribute to the development of the local economy. The demand for credit was so strong among the poor that it seemed to confirm the benefits of microfinance and validate the design of loans according to the microcredit methodology.

Over the past two years this picture has changed fundamentally. Some of the above assumptions have come under increasing criticism, for example the positive impact of microcredit on poverty (Banerjee et al., 2009; Karlan and Zinman, 2009, 2010; Odell, 2010), the impact chain through enterprise development (Collins et al., 2009), and the substitution effect of microfinance replacing informal loans at worse conditions (Guérin et al., 2009; Morvant-Roux, 2009). Behavioural economics highlighted

that continued demand for a product does not automatically prove it beneficial. Typical human challenges such as temptation and an inconsistent evaluation of benefits over time (hyperbolic discounting) can lead to unreasonable spending, under-saving and over-borrowing (Ashraf et al., 2006; Banerjee and Duflo, 2007; Banerjee and Mullainathan, 2009; Schicks, 2010). The risk of over-indebtedness gave rise to an argument against the right to credit that is often encouraged by promoters of the microfinance industry (Hudon, 2009).

The most blatant signal that the microfinance industry's strong focus on expansion might be flawed at least in some areas of the world, emerged from a number of countries that experienced serious crises of over-indebtedness. Adding to the experiences of one of the world's most mature microfinance markets (Bolivia in the late 1990s), certain regions of India, Nicaragua, Bosnia, Morocco, and Pakistan recently went through or are still going through severe crisis. While each country has its own story and they all suffered in varying degrees from the global financial crisis or from political backlashes against high-interest lending, they do have one characteristic in common: In all of these countries many borrowers were no longer able to repay their loans because they had accumulated too much debt. The supply gap had turned into over-supply.

This does not mean that the previous assumptions of microfinance are completely wrong. Nor does it mean that there is no more need for microfinance to grow and expand outreach. It means that we need to develop a more balanced view, that we need to pay attention to the nuances of microfinance impact and that we need to take the needs of clients in their various backgrounds more seriously. Instead of putting institutional growth first, microfinance needs to put the needs of clients first. Institutional objectives are just a means to that end.

Microfinance has started long ago to grow beyond the one-size-fits-all approach of its original group lending methodology. Now is the time to take the next step of diversifying approaches, tailoring the credit offer to the needs of customers, tailoring the operations of MFIs and expectations of investors to different market environments and speeding up the development of non-credit products. The industry has to recognize that not everybody is a potential borrower and that even microfinance markets can saturate.

Given that the question of over-indebtedness is relatively new to the microfinance industry and totally contradicts its original thinking about outreach and the impact of credit, there is an urgent need for more research into the prevalence, causes and consequences of over-indebtedness. Every actor in the microfinance industry needs to be aware in their daily work that the positive impact of credit is not automatic and that lending to the poor can equally cause harm. If we want to realize the full potential of microfinance and leverage the power of credit for the poor, we need to learn how to extend the *right*

products to the *right* people. This will require a lot more careful experimentation with product features and continued improvements to the assessment of loan applicants' creditworthiness. It will require education to clients and just as much to investors, loan officers, and the managers of MFIs.

Microfinance scholars can learn a lot from developed country consumer finance research on over-indebtedness but will have to test the transferability of these findings to different cultural and economic contexts and to reveal the specifics of over-indebtedness experiences among its target group. This chapter will first reveal the broad spectrum of consequences that over-indebtedness can have on borrowers and on other stakeholders, mainly on MFIs. It will emphasize that over-indebtedness consequences can reach far beyond the typical risk management concerns that MFI managers and investors may have on the top of their mind.

The chapter will then review empirical findings on over-indebtedness in the microfinance industry to date. It will show that there clearly is a reason for concern about microfinance over-indebtedness but that we still cannot judge if this is a general concern that applies to many microfinance markets or rather a few exceptional cases. Neither can we tell if it is a growing concern, or one that has seen its peak with the financial crisis or one that will periodically rise and fall as markets go through their different phases of development. Finally, it is unclear to what extent customer experiences of over-indebtedness are always related to or preceding portfolio problems for MFIs or if the over-indebtedness phenomenon on the customer level maybe a much more wide-spread and permanent challenge than that of delinquency crises.

1. The consequences of over-indebtedness

Over-indebtedness is a complex phenomenon that defies all attempts at developing a universal definition. Debates vary substantially depending on the subject over-indebtedness refers to, i.e. nation states, companies or consumers. In spite of the original microfinance paradigm of microenterprise finance, the appropriate point of reference for microfinance over-indebtedness is that of consumer over-indebtedness, households being personally liable for their loans and not usually separating household and business cash flows (Schicks, 2010).

Even within the focus on consumer over-indebtedness, definitions and measurements of over-indebtedness vary considerably. Schicks (2010) provides an overview of the various approaches and distinguishes between institution-centric and borrower-centric approaches. While the main impact of over-indebtedness on lending institutions occurs through repayment irregularities, for microborrowers the consequences of having too much debt usually manifest in the form of personal struggle and sacrifice before they reach the stage of delinquency or default.

This chapter follows the borrower-centric, more inclusive approach to defining over-indebtedness. Microborrowers are over-indebted when they continuously struggle to meet their repayment deadlines and structurally have to make unacceptably high sacrifices to repay.³ Therefore, the consequences of over-indebtedness include the struggles of repayment as well as the consequences of involuntary delinquency and default. The analysis of over-indebtedness consequences will focus first on the consequences of over-indebtedness on microborrowers. In a second step it will pinpoint the impact of over-indebtedness on lending institutions and other relevant stakeholders.

1.1 The impact of over-indebtedness on microborrowers

In the microfinance literature, research on borrower over-indebtedness is scarce. However, there is a range of literature on the over-indebtedness of private borrowers in developed countries. The disciplines of economics, sociology and psychology, each add relevant insights to the understanding of over-indebtedness consequences for borrowers. While most of this research has been performed in environments that are culturally very different from the typical microfinance setting, the basic findings can probably be transferred to microborrowers. The underlying mechanisms of credit and the basic needs of human beings are most likely similar.⁴ In any case, the impact of over-indebtedness and the intensity of the various effects will vary not only between developed and developing countries but is likely to also differ between microfinance markets and depending on individual circumstances. This chapter therefore represents an overview of potential consequences of over-indebtedness rather than a list of effects that would apply to each real-life over-indebtedness case.

Following the distinction of the main academic disciplines that have contributed to consumer over-indebtedness research, this chapter categorizes the consequences of over-indebtedness on microborrowers into three types of effects: the material, sociological and psychological consequences of debt. In each category, consequences result mainly from the cost of repayment and from the cost of delinquency or default. Additionally, certain indirect effects and the general cost of being in debt may play a role.

Material consequences

The most obvious cost of being over-indebted for a borrower is that of having to serve a large amount of debt. When heavily indebted borrowers still manage to keep their repayments up, they already suffer from the cost of repayment. With a higher burden of debt expenses in relation to income, over-indebted borrowers live on a lower consumption level than their peers (Betti et al., 2007) and have lower buffers for shocks (Burton, 2008). In addition to sacrificing current income for instalments, Brett (2006) finds microborrowers in Bolivia to rely on cash support from their families and social networks, take on additional debt, sell assets, reduce the quantity and quality of their food, and to take on additional paid labour to be able to repay on time. Hardly any of his subjects were able to cover

instalments from the returns on their investment projects. Gonzalez (2008) identifies similar repayment sacrifices in Bolivia and adds reductions in human capital investments, pointing out that the immediate consequences of over-indebtedness lead to lower education levels, lower income generating capacity and lower household welfare in the long run. Schicks (2011) provides a detailed account of the sacrifices of over-indebted microborrowers in Ghana, revealing precisely which sacrifices are made most commonly, at which frequency they tend to be made, and which sacrifices it is that borrowers perceives as most severe.⁵ The sacrifices identified in microfinance markets are quite similar to the findings of Canner and Lockett (1991) and of Drentea and Lavrakas (2000), in developed countries.

When, in spite of sacrifices, an over-indebted borrower is no longer able to repay his loan on time and delays, skips or stops repayments, this might partly bring material relief. However, at the same time it triggers new consequences, the costs of delinquency and default (Stearns, 1991; DeVaney and Lytton, 1995). The direct material costs of delinquency result from late fees and higher and longer payment of interests on the loan amount. The most important cost of default is the seizure of collateral or other assets. Asset seizures in microfinance are performed either by loan officers or by solidarity groups and can include productive assets or essentials such as land, roofing or cooking pots (Hulme, 2007). A seizure usually represents a serious loss to the household and in some cases reduces the borrower's future income generating capacity, especially when an essential business asset such as the new and maybe only sewing machine gets seized. In addition, depending on the environment, there might be legal fees and insolvency fees to cover. A more difficult to quantify but highly relevant factor for some borrowers is the loss of the client relationship to the MFI. In industrial country environments with credit bureaus, the loss of creditworthiness can even imply complete exclusion from credit, paid labour and other contracts such as rent, car purchases or mobile phones (Lyons and Fisher, 2006).

Given the cost of delinquency and default, many borrowers try to avoid this stage by all means. They do not only sacrifice as discussed above but may also employ strategies of multiple borrowing to win time. The material consequences of over-indebtedness can get aggravated if borrowers who are already over-indebted get further into debt taking new loans to help them repay old ones. Probably, the costs of delinquency and default are only postponed to a later stage when they will be even more severe and when debt problems have become too serious to be solved with less painful measures.

Finally, over-indebtedness can have indirect material consequences via non-material channels. As a result of psychological difficulties in dealing with their financial stress, borrowers may experience a loss of income due to reduced workplace performance (Bagwell, 2001) and higher workplace absenteeism (Jacobson et al., 1996; Kim et al., 2006). If microborrowers suffer from their repayment pressure to the extent that they no longer manage to fulfil their daily responsibilities, it may destroy

their livelihood. Moreover, over-indebtedness can lead to a loss of business opportunities if business partners withdraw from the over-indebted when their reputation deteriorates (Besley and Coate, 1995; Smets and Bähre, 2004).

To conclude, the material consequences of over-indebtedness consist of a wide range of additional costs and deprivations to be born by those who are already struggling with financial difficulties. In the worst case over-indebtedness actually leads to further impoverishment, or as Guérin et al. (2011) call it to 'pauperization through debt'.

Sociological consequences

The societal perception of indebtedness is a concept that varies with culture and over time. According to the French researcher Viaud and Roland-Lévy (2000), depending on type, debt is sometimes perceived as necessary but in most cases considered negative and dangerous. It can have harmful effects on reputation and represents a principle of social differentiation and source of shame for borrowers. Roesch and Héliès (2007) find that in Southern India, even in a microfinance environment where credit is very common, people consider debt as bad and try hard to avoid it. Similarly, Guérin et al. (2011, p. 15) explain that in Tamil Nadu 'the term "to be involved in debt" (*kadangan* or *kadangar*) has pejorative moral connotations, implying surrender, dependence and even servility'. While in industrial societies, the image of indebtedness has become much more positive, Dichter (2007) claims that most microfinance markets today are similar to Western societies in the 19th century: the mere fact of being in debt is charged with strong negative symbolism and implies an emotional burden for the debtor as well as social stigma in the eyes of others.

In certain cultures, for women the social stigma of being in debt may be even stronger. According to the fieldwork of Guérin et al. (2011) in India, a single woman who borrows from a man outside her family is normally forced to offer sexual favours in turn. This being widely known in society, female debt automatically comes with the stigma of being a prostitute.

If being in debt as such represents a sociological cost, there are further sociological consequences of struggling with loan repayment. They range from the burden of asking others for help (Canner and Lockett, 1991) to the pain of peer pressure in solidarity groups, to marital tensions, domination and violence towards women borrowers in their households (Rahman, 1999). It is important to take such intra-household dynamics into account in analysing credit decisions and their consequences (Kirchler et al., 2008).

The strongest sociological mechanisms come to play in cases of delinquency and default. Historical analysis shows that Western nations have a long history of turning defaulters into servants of their

creditors or imprisoning them (Muldrew, 2000; Burton, 2008). Today, there are similar reports of coercive collection practices and even imprisonment from microfinance markets (Montgomery, 1996; Hulme, 2007). More commonly, MFIs deliberately employ social pressure as an enforcement mechanism.⁶ This social pressure in group lending represents a high sociological cost for borrowers (Besley and Coate, 1995). Simple measures such as detaining borrowers at group meetings beyond schedule to force a group member to repay can have severe consequences for the delinquent (Rahman, 1999). They miss out on business time, get into trouble with their husbands, or are forced to leave their children or shops unattended for too long. Another strong mechanism in group lending is that of peer pressure. Peer pressure tends to start with gossiping about delinquent group members, insulting and humiliating and sometimes threatening them and may go as far as applying physical violence and destroying the defaulter's belongings (Montgomery, 1996; Smets and Bähre, 2004; Hulme, 2007).

Even outside the solidarity groups, repayment of one's duties is a question of respect and non-repayment a source of shame and coercion (Guérin, 2006). The stigma of over-indebtedness can therefore lead to a loss of self-confidence and of one's social network and safety net (Smets and Bähre, 2004; Guérin et al., 2011). This may eventually affect not only the delinquent borrower but lead to an erosion of social trust and mutual support in the community, disturbing informal credit relationships and social networks (Montgomery, 1996; Smets and Bähre, 2004; Banerjee and Mullainathan, 2009; Morvant-Roux, 2009).

From the perspective of Amartya Sen (1999), if poverty equals capability deprivation, it is not only the material costs of over-indebtedness that lead to the further impoverishment of borrowers. Instead, sociological consequences such as depriving the borrower of respect, self-dependence and freedom of choice are also mechanisms of impoverishment.

Psychological consequences

To the list of consequences that over-indebtedness may have on the financial situation and material well-being of poor borrowers and to the sociological risks and costs of being in debt or a bad debtor, psychologists add the subtle but nevertheless very real dimension of psychological struggles resulting from over-indebtedness. The mere fact of being in debt can already have psychological costs for the borrower. They tend to get worse when loans turn into problem debt. According to empirical research by Brown (1952) with data from Canada, the existence of household debt is correlated with lower psychological well-being of the household head, the effect increasing for unsecured debt and for larger amounts of debt. A British study by Bridges and Disney (2005) finds a relationship of debt to psychological stress to the extent of depression. Equally, in the USA and Britain, debt is positively associated with behaviours of low self-control such as smoking, drinking and obesity (Drenea and Lavrakas, 2000; Webley and Nyhus, 2001). In all three examples, the cause and effect chains are

ambiguous and in fact they are likely to go both ways, with debt reducing well-being, causing depression and undermining self-control, which may feed back into higher indebtedness. In microfinance markets psychological effects are likely to occur in a similar manner.

These psychological mechanisms are expected to be the underlying reasons for the above mentioned effect of debt and financial stress on workplace performance (Bagwell, 2001) and absenteeism (Jacobson et al., 1996; Kim, Sorhaindo and Garman, 2006). Negative effects also exist on physical health, probably resulting from a combination of psychological stress with the reduction in self-control and with lower medical expenses (Drentea and Lavrakas, 2000). In extreme cases, both in developed countries and in developing country microfinance settings, these consequences of over-indebtedness have pushed defaulters into crime or suicide (Sarhou-Lajus, 1997; Fouillet, 2006; Dichter, 2007; Dossey, 2007; Hulme, 2007; Burton, 2008).

There are a number of reasons, why being in debt and in debt problems is so detrimental to psychological well-being. More importantly, according to Sarhou-Lajus (1997), debt relationships are asymmetrical and create a perception of dependence and a lack of self-sufficiency in the borrower. Not being able to repay may mean not being able to reconcile one's personal identity and instil a feeling of alienation and guilt in the debtor. Dichter (2007) cites Nietzsche to confirm that a debtor internalizes a guilt 'imposed by the debt' and may therefore feel unequal or unworthy and even lose his sense of identity. The effect of debt varies between borrowers, however, some managing to rationalize and thereby mitigate the shame, and others suffering from guilt and shame to the extent of physical and mental health deterioration (Gloukoviezoff, 2008).

If debt and the presence of repayment problems alone lead to serious negative consequences, the effects get exacerbated by the influences of collection practices. They can significantly enhance the pressure and shame experienced by a borrower. There are additional psychological effects of lenders using abusive language towards delinquent borrowers, and even more so from harassment and threats such as for example a pressure on borrowers to sell their clothes or even children as reported from Bangladesh and India in Karnani (2009).

To sum up, over-indebtedness can impact almost all spheres of live and can result in over-indebted microborrowers getting poorer, more socially excluded and psychologically weaker or even ill. Some of those findings have been transferred to microfinance from a developed market consumer finance context. Others are findings from specific microfinance environments. Empirical research will have to confirm the prevalence and importance of these effects in microfinance markets more generally. In the mean time, a heightened awareness is required among microfinance practitioners that there is a risk of debt and especially over-indebtedness leading to severe negative consequences for microborrowers.

This is not specific to microfinance nor does it contradict the potential positive impact of microlending on borrowers that do not reach the stage of over-indebtedness. However, the awareness of the downsides of debt may lead to a more nuanced and careful approach to who to extend what amount of credit to in what way.

1.2 The impact of microfinance over-indebtedness on other stakeholders

Over-indebtedness is not only a concern for customers and for efforts of customer protection. It is also a very important concern for microfinance institutions. The next section analyses the different effects that over-indebtedness may have on MFIs. In a second step, over-indebtedness that is wide-spread can have consequences for other stakeholders such as non-overindebted borrowers, donors, investors, support organizations or the general public. This chapter will point out such second-order effects but its focus is on the key counterparties to a lending contract, borrowers and lenders.

Consequences for lending institutions

For microfinance institutions, over-indebtedness is mainly a risk management concern. Especially when it reaches the stage of delinquency and default, it is a threat to the MFIs' profitability and self-sustainability. On the cost side, the most direct effect of over-indebtedness on the financial situation of MFIs is that of delinquency triggering a deterioration in portfolio quality. It first requires higher loan loss provisions and then the write-offs ultimately resulting from default represent definite losses to lending institutions. Furthermore, there are financial consequences related to higher screening expenses, collection costs and other operating costs of dealing with over-indebted customers (Canner and Luckett, 1991; DeVaney and Lytton, 1995).

According to microfinance practitioners, the development of portfolio risks in the mostly uncollateralized loan portfolios of MFIs does not follow a linear trend. Instead, it seems that seemingly moderate delinquency levels tend to suddenly spin out of control when losses reach around 5 per cent of the outstanding portfolio or when 10 per cent of the portfolio is overdue by at least one repayment period (Rosenberg, 1999). Once delinquency gets unmanageable, it does not only hurt profitability or self-sustainability but actually threatens the existence of the lending institution.

On the income side, the effect starts with a reduction of market potential when many clients in a certain market are already over-indebted. MFIs cannot sustainably or profitably lend to customers who are not creditworthy, i.e. have insufficient repayment capacity. The loss of creditworthiness by means of a bad credit history might also exclude some customers for a longer time than justified by their financial situation. In addition, over-indebtedness in microfinance markets tends to incite MFIs to be over-careful in their lending decisions and restrict their own target market. Even if the over-indebtedness has not yet led to wide-spread default but is buffered by clients incurring sacrifices to repay, this is likely to reduce the pool of borrowers who would be willing to apply for a loan again. In

this way, even without any repayment regularities, the over-indebtedness of microborrowers can impact the profitability and growth of lending institutions via negative effects on customer satisfaction.

Ultimately, for MFIs, delinquent interest equals postponed income. Also, there is lost income from the slower rotation of the loan portfolio. In the case of default, write-offs permanently reduce the size of the income earning portfolio (Stearns, 1991). The negative effects of over-indebtedness are contrasted to a certain extent by late fees and extended interest payments on a given loan amount. Therefore one might argue that MFIs may not only accept over-indebtedness as long as the cost is mainly born by clients and doesn't manifest in a poor repayment performance: They may even choose to accept a certain level of delinquency in exchange for the late fees or for reduced monitoring and selection costs. However, in most business models of MFIs, these are not sufficient to make up for serious repayment problems in a client portfolio. Risk management remains essential to institutional success for MFIs and over-indebtedness can ultimately threaten an MFI's existence.

In addition to the direct financial effects of over-indebtedness on MFIs, over-indebtedness represents a reputation risk along several dimensions. On the one hand, the institution's reputation with borrowers is at risk. A critical mass of defaults will erode repayment discipline among other borrowers who are struggling and might even trigger strategic defaults. In the Bolivian over-indebtedness crisis, debtors even formed associations aiming to release borrowers from their repayment obligation (Gonzalez, 2008). More recent examples from Nicaragua and India display similar phenomena. Furthermore, there is an adverse selection risk of good borrowers leaving an institution with a tainted reputation while risky borrowers stay. On the other hand, over-indebtedness puts an MFI's public reputation at risk, particularly given its social mission and the negative social consequences of over-indebtedness. The general public might support defaulters, negative media coverage can threaten the position of MFIs and ultimately, governments may close branches or institutions or impose more restrictive regulation. The current events in Andhra Pradesh in India provide a very prominent example. Reputation effects may also alienate donors and investors. All these types of reputation effects can have repercussions from those MFIs with significant over-indebtedness problems on other MFIs in the market and ultimately the microfinance industry as such.

In line with the external reputation effects of over-indebtedness on MFIs, over-indebtedness can also have internal reputation effects. According to Dichter (2007), collecting bad debt may represent a challenge to an MFI's organizational identity. When it represents a significant share of the MFI's activities, it risks leaving a bad impression on good borrowers as well as lowering staff morale. Especially in institutions with intrinsically motivated staff who have chosen their work place according to the MFI's mission, the daily interaction with clients in trouble risks creating motivational

problems and staff attrition. Nevertheless, even among loan officers who consider identification with a social mission a second priority and see themselves as professional bankers in the first place, collections of bad debts may represent the toughest, most tedious and least rewarding of their activities. The risk of a reduction in motivation and high staff turn-over therefore remains.

Consequences on other stakeholders

Just as over-indebtedness consequences may spill over from one MFI to others in the same market, over-indebtedness can also have repercussions on other stakeholders. The damage to the reputation of MFIs in only a few markets can turn into a reputational damage for the microfinance industry as a whole, including for its funders the donors and investors. At the same time, higher default in microfinance portfolios reduces investments returns. Besides being a direct cost to microfinance investors and its support industry, the reputation effects and return reductions of over-indebtedness on a large scale, could reduce the availability of capital for microfinance locally or even globally.

In a specific market, with over-indebtedness spreading, it is likely that borrowers who will default on one loan, may also default on their other loans if any, potentially including loans or bills from other parties than institutional lenders. Such defaults could lead to the instability of other MFIs or institutions that are not even directly involved in microlending. The instability of a few institutions risks having systemic consequences, and, where the MFI sector is sufficiently large or closely entangled with the formal banking industry, it can potentially reduce financial system stability.

Furthermore, if over-indebtedness weakens lending institutions, this affects those customers that are not over-indebted and even non-borrowing clients. It is likely to imply higher interests or generally deteriorated terms and conditions for the MFI's products and might in extreme cases eliminate the MFI's product and service offer and put savings at risk (Stearns, 1991; DeVaney and Lytton, 1995; Burton, 2008). Also, the higher risk aversion of lenders in markets with over-indebtedness is likely to restrict credit supply even to good borrowers (Canner and Lockett, 1991). To the extent that over-indebtedness results from a poor evaluation of repayment capacity and selection of borrowers, it implies channelling credit (and for non-sustainable MFIs channelling subsidies) to unproductive uses and activities with negative welfare effects. The impacts spread much further than over-indebted microborrowers or their lenders.

To conclude, the range of first and second level effects that over-indebtedness may have is broad and reaches far beyond individual MFIs and over-indebted borrowers. Some of the above effects are unlikely to occur except in extreme cases. Others are common effects of over-indebtedness that occur quite frequently – there is simply a lack of awareness of attributing them to debt as a trigger, especially if debt may be only one cause among others.

The main message from this section is therefore twofold: On the one hand, researchers and practitioners need to be aware that the full spectrum of over-indebtedness effects is much broader than the simple effects that are usually covered by the public debate. Especially the risks of tipping points where a previously manageable level of over-indebtedness turns into a serious crisis with spillovers on other borrowers, institutions and external stakeholders is important. On the other hand, even on an individual level, the phenomenon of over-indebtedness is one of most severe consequences. Again, the public debate tends to focus on certain elements, while ignoring other effects. The most common reduction of over-indebtedness consequences is that of over-emphasising the institutional perspective of risk management and not taking borrower experiences into account. Finally, even when addressing borrower concerns, reflections on over-indebtedness rarely consider the full spectrum of material, sociological and psychological damage that over-indebtedness may cause.

2. Empirical research on over-indebtedness in microfinance to date

In the current stage of the microfinance industry, many stakeholders are very alert about over-indebtedness but the extent to which there is reason to worry is still unclear. A more comprehensive understanding of over-indebtedness consequences is one important component to decide how much we need to worry about over-indebtedness and how to best address it. The other component is empirical evidence of the actual prevalence of over-indebtedness in microfinance markets. The next section will review what we know about the prevalence of microfinance over-indebtedness to date.⁷

For most of the microfinance industry's growth years, measuring over-indebtedness has not been on the mind of microfinance scholars. As this chapter laid out, the main reason for their unawareness was the huge supply gap of poor people who lack access to finance. Market saturation seemed far out of reach. However, the industry's first over-indebtedness crisis had actually already occurred in the late 1990s in Bolivia, when for the first time, a microfinance market had experienced a relevant size in the country's financial system and had started overlapping with the consumer finance industry.

The first microfinance over-indebtedness crisis

The first repayment crisis on a country level in microfinance took place in the years 1999 and 2000 in Bolivia, triggered not only by strong growth of microfinance institutions but also by a recession of the Bolivian economy and the entry of consumer lenders as new competitors. It soon became common for microborrowers to borrow from multiple lenders at the same time, often exceeding their repayment capacity. Working with the MFI Caja Los Andes, Vogelgesang (2003) finds significant delinquency, with 27 per cent of repayments being made too late. Arguing from the motivation of developing stronger repayment incentives, Vogelgesang's paper already raised many of today's most up to date

recommendations nearly ten years ago: it explains that the microfinance industry should learn to adapt to increasingly saturated markets by means of well thought-out regulation, functioning credit bureaus and risk-adjusted growth strategies and lending policies of MFIs. Implicitly this early analysis suggests that, as microfinance markets mature, over-indebtedness and default problems are likely to occur more widely unless the industry takes appropriate preventative measures. It also shows that saturation is a relative phenomenon. On a national level there remained ample room for microfinance in Bolivia and the industry has continued to grow and develop successfully since the 1999 crisis (González-Vega and Villafani-Ibarregaray, 2011). However the segments mainly targeted by MFIs and consumer lenders at the time were already overbanked.

In addition to the message of microfinance markets saturating and sometimes faster than expected, the Bolivian crisis revealed another fundamental message about microfinance over-indebtedness: More clients may be over-indebted than are paying late. Applying a very broad over-indebtedness definition to Bolivian household survey data from 1997 to 2000, Gonzalez (2008) identifies 85 per cent of all microborrowers in his sample as over-indebted. These include borrowers who were strategically unwilling to repay or who incurred just one costly action to repay their loan that they had not anticipated at the time of borrowing (e.g. working more than under their ordinary schedule). While not everybody may agree that a little extra effort or even wilful default are signs of over-indebtedness, the important contribution of the study is the recognition of costly borrower actions: Gonzalez (2008) reveals that the strong repayment performance of microfinance borrowers in most situations is largely due to the costly actions that borrowers undertake, sometimes going to great lengths to meet their repayment deadlines. Gonzalez does not distinguish between reasonable efforts and intolerable efforts on behalf of debtors, but if in some of his cases the efforts required for repayment are extremely high, the borrowers may already be over-indebted.

Concerns about debt problems for customers

Following the Bolivian debt crisis, the topic of over-indebtedness quickly disappeared from people's minds again and the industry's focus continued to be on growth. However, researchers increasingly pointed to the troubles that loans could imply for microborrowers. They recognized that, on a smaller scale, debt problems occur to individual borrowers even in non-crisis markets.

Already in 1995 and 1996 in Bangladesh and Sri Lanka, empirical research pointed out the costs of the repayment incentives and social collateral used in microfinance group lending, particularly in the form of peer pressure, aggressive collections practices, and reputational or material loss for defaulters (Besley and Coate, 1995; Montgomery, 1996). In 2004, Smets and Bähre analyse social capital and coercion in Indian and South African microlending. More recent research highlights the severe social implications debt can have for borrowers and points out that microfinance may contribute to poor

borrowers sliding into debt problems (Dichter, 2007; Hulme 2007). An ethnographic analysis from Bolivia in 2006, long after the market had stabilized again, exposes that most microenterprises in their local context still could not earn sufficient returns for borrowers to repay their loans (Brett, 2006). Instead, borrowers struggle to repay and are forced to incur all kinds of sacrifices.

This research resulted in an increased awareness that there is a downside to credit. The focus of the industry remained however on the large supply gap it was facing, and the growth in outreach that this supply gap required. Scholars did not connect the messages about maturing markets with the findings about borrowers struggling to repay their debt.

High debt levels in South Africa

With South Africa, the next market that triggered research into over-indebtedness was a relatively mature market where the formal consumer lending industry and microfinance industry are closely interlinked and sometimes difficult to distinguish. What counts as ‘microfinance’ in this environment may be quite different from the traditional microfinance model. The research by Collins (2008) did not react to a specific crisis but rather to the permanent high debt levels among households in South Africa that had previously been addressed rather on the level of middle income households but not specifically with regards to the poor.

Collins (2008) measures over-indebtedness in terms of a debt-to-income ratio above 20 per cent. In the three communities of low-income households she surveys, 16 to 30 per cent of households are over-indebted. Over-indebtedness experiences differ between rural and urban households as well as salaried and non-salaried borrowers but they exist in all segments. This indicates that a certain over-indebtedness level may be a common feature of any mature credit market. According to the findings of Collins (2008) this problem that is well known from developed country consumer finance, occurs in microlending just as well.

However, the microfinance industry in this study not being a typical case of ‘microfinance’, the findings of Collins could have been specific to microfinance in South Africa. It did therefore not trigger a reflection on over-indebtedness in microlending in general.

Delinquency at times of the global financial crisis

In the years 2008 and 2009 the global financial crisis hit the world’s capital markets and slowed down real economies. In spite of the usual resilience of microfinance markets to macroeconomic cycles and shocks, a number of microfinance markets tumbled into severe over-indebtedness crises, marked by high delinquency and, in India, by a series of borrower suicides. Most likely, in most cases the financial crisis was just the trigger but not the underlying cause for the problems. Two empirical

studies shed light on the extent of over-indebtedness in such markets. The other two studies from this period focus on markets that have not (yet) reached crisis stage.

The biggest over-indebtedness crisis for the microfinance industry to date, especially given its political consequences, took place in Andhra Pradesh in India. While these very recent events have not yet been researched, Krishnaswamy and Ponce (2010) provide an analysis of the mass defaults in a neighbouring state, Karnataka, that preceded the larger crisis of Andhra Pradesh. A preliminary report of the study offers strong evidence for the spillover risks of microfinance over-indebtedness. It shows that significant repayment stress among a share of MFI customers was at the origin of the mass defaults. 21 per cent of borrowers in default towns reported their repayments as a burden compared to only 3 per cent in non-default towns. For specific sacrifices such as skipping meals, the percentages are even higher and display the same divide between crisis and non-crisis towns. However, not all of the defaulters are over-indebted. Over 90 per cent of defaulters stated that they refused to pay although they would have had the means to do so. Instead, (potentially among other causes,) the actual over-indebtedness experiences of some have triggered a ban on MFI repayments by religious organizations and thus the default of a much larger group of borrowers. Once the defaults started to spread, second level effects made even more borrowers default because peers in their group or centre had previously defaulted as well.

Although the exact split between over-indebted defaulters and opportunistic defaulters remains unclear, Krishnaswamy and Ponce (2010) reinforce the existing evidence that there are critical levels of over-indebtedness in certain microfinance markets. They also underline the difference between over-indebtedness from a customer protection perspective and actual repayment behaviour: not only can there be more borrowers struggling with their debt than actually defaulting but there can also be more defaults than over-indebtedness.

The Indian problems with debt among the poor population do not seem to be limited to the states that have experienced an explicit default crisis. Instead, there is also evidence of over-indebtedness in the third large Southern state of India, Tamil Nadu. Guérin et al. (2011) show that 91 per cent of households in their sample villages are indebted. On average, a household's outstanding debt amounts to its total income for one year and its monthly repayments make up half of its monthly income. Guérin et al. (2011) focus their more detailed analysis on the 20 per cent of households with the highest debt load and, applying 'impoverishment through debt' as the definition of over-indebtedness, they find that all of these households are over-indebted. For 19 per cent of them (4 per cent of total sample), the state of over-indebtedness is probably only transitory, for another 38 per cent there seemed no hope to escape debt in the near future (8 per cent of total sample) and the remaining 43 per cent (9 per cent of

total sample) had reached a stage of extreme dependence on others to survive and were unable to keep their repayments up.

A completely different methodology on a different continent has yielded similar results. About 1000 microborrowers were sampled with data from MFIs and the credit bureau in Bosnia and Herzegovina, and a smaller sample of borrowers was personally interviewed. The study defined over-indebtedness as a net debt-service ratio⁸ above 100 per cent and found that 17 per cent of microborrowers are over-indebted. Another 11 per cent are at risk of over-indebtedness with a net debt-to-income ratio of 75-100 per cent. Over-indebtedness especially affects clients on lower incomes and with several loans outstanding at the same time. Nearly all borrowers had multiple loans in parallel; almost half of them had five or more loans. As Bosnia is one of the countries where an over-indebtedness crisis did openly erupt, 27 per cent of all microborrowers were already delinquent. However, these are only partly the same borrowers as those with a net debt-to-income ratio above 100 per cent.

Finally, a study by Grammling in Ghana in 2009 finds signs of over-indebtedness also in Africa. The study applies various research methodologies that differ in their rigorousness to several samples of borrowers⁹ and concludes that at the time at least half of the microfinance borrowers had more than one loan outstanding. The subjective perceptions of borrowers indicate that respondents who were interviewed in local markets believed 46 per cent of all borrowers in their area to face serious repayment problems (19 per cent when interviewed in branches). Regarding their own situation, 60 per cent of respondents said that their expenses temporarily exceeded their incomes and 15 per cent admitted to face a permanent income gap. The study considers borrowers to be over-indebted if they are de-capitalizing and business assets no longer exceed their liabilities. It finds that 12 per cent of borrowers were over indebted and another 16 per cent were at risk. Over-indebted borrowers according to this definition are more likely to have multiple loans in parallel and are more likely to be delinquent. Overall, 14 per cent of borrowers were delinquent.

While the results of the Ghana study provoke concerns about an approaching over-indebtedness crisis, watch our upcoming publications for signs that the situation may have partially improved. At least the country's top MFIs seem to have found successful strategies to manage the risks of multiple borrowing and keep delinquency low. At the same time, the personal repayment situation of many borrowers remains challenging and over-indebtedness continues to be a problem in Ghana, at any rate from a customer protection perspective.

So what do we know to date?

To sum up, the existing empirical studies on over-indebtedness show that over-indebtedness is a reoccurring phenomenon in microfinance markets, sometimes at worrisome levels. In spite of the large

numbers of underbanked poor, some microfinance markets produce at least local over-supply. There are cases of open crises at several points of time in the history of the industry, especially when (sub-national) markets mature and the economic environment is weak. In these countries, over-indebtedness can lead to crises of delinquency and default that – as a result of strategic defaults - exceed the scope of the original over-indebtedness problem. Conversely, there are also markets that do not experience an open crisis but where a relevant share of microborrowers is struggling with their amount of debt. Finally, a certain level of over-indebted borrowers might be an unavoidable phenomenon in all lending markets. As the studies on the downsides of social capital in Asia or on microborrowers' returns in Latin America suggest, microfinance markets might not be exempt from the downsides of debt burdens even if facing a large supply gap.

The empirical research that exists with regards to microfinance over-indebtedness to date remains too limited however to judge how widespread the phenomenon is in microfinance markets in general. It is unclear how many markets over-indebtedness applies to at present. The sample of studies reviewed in this chapter is highly skewed as most of them were conducted on the grounds of ex-ante concerns about over-indebtedness in the respective markets. Equally, further research needs to analyse if with this period of financial crisis, the peak of over-indebtedness in microfinance is over, if there is a general trend of over-indebtedness increasing as the industry matures, or if it rather peaks at a certain stage of a market's life cycle until the MFIs adapt to increasing competition. Alternatively, the industry may be seeing its global over-indebtedness peak right now and will learn to adapt collectively to avoid future crisis in other microfinance markets and improve the debt experiences of microborrowers in general.

3. Conclusion

Globally the microfinance industry still faces a large supply gap. But in an increasing number of sub-markets, situations of oversupply emerge or potentially sometimes a mix of simultaneous oversupply for certain customers and undersupply for others. These cases of over-supply have the potential to be detrimental to microfinance customers and lending institutions alike.

This chapter sheds light on the over-indebtedness risks inherent in microfinance lending. Risks get measured in terms of magnitude and likelihood. The first part of the chapter therefore analyses the magnitude of the over-indebtedness problem. It reveals the broad spectrum of potential consequences over-indebtedness can have on borrowers and lending institutions.

With regards to borrowers, it finds that borrowers are likely to suffer from over-indebtedness on a material level, in extreme cases experiencing further impoverishment. They may also experience

sociological consequences such as social stigma, peer pressure, domination in the household, shame and coercion and the loss of their social networks. According to Amartya Sen's concept of development as freedom, this loss of respect and support that leads to a reduction in the borrower's personal freedom of choice and ability to determine his life could also be interpreted as a form of impoverishment. Finally, can borrowers experience potential psychological effects of over-indebtedness that range from alienation and guilt to psychological stress that can cause depression or deterioration in physical health. The consequences of over-indebtedness thus reach far beyond the problems for portfolio quality that are important from a perspective of risk management. As far as findings are specific to non-microfinance research settings, future research needs to confirm their transferability to other cultures and to the microfinance context.

In a second step, the section pin points the consequences of over-indebtedness for lending institutions. In addition to the obvious costs of loan loss provisions and write-offs, over-indebtedness can result in increased operating costs, reductions of market size, a loss of customer satisfaction, postponed and lost income, and internal as well as external reputation effects. There can also be spillover effects on other MFIs or even other stakeholders, possibly endangering a whole market.

The second part of chapter focuses on the likelihood of over-indebtedness to occur in microfinance markets and reviews what we know about the prevalence of over-indebtedness to date. It points out that over-indebtedness may occur in maturing markets, at least on a sub-national level. Bolivia, South Africa and several regional markets in India seem to be such examples. The section also shows that over-indebtedness crises may arise in connection with other economic crises in a country. For example, this was probably the case in Bosnia, even if the global financial crisis is unlikely to be the only driver behind this over-indebtedness crisis. Finally, a certain level of over-indebtedness may be prevalent in any debt market. For example, there is research on non-crisis markets in Tamil Nadu in India, in Ghana and on mechanisms of social collateral in Bangladesh and Sri Lanka that indicates that some borrowers suffer from their amounts of debt, even if there is no crisis in the market.

More research is required to understand how many microfinance markets are currently affected by over-indebtedness at what level and what the likely future trends are. We need to understand if over-indebtedness is generally increasing, or has already peaked due to the global financial crisis and the current development stage of the industry, or will continue to go up and down in different regions in line with the development of these microfinance markets. This requires a systematic understanding of over-indebtedness causes and the magnitude of the various influence factors from market structure, to institutional environment, to economic cycles.¹⁰ Moreover, there is a need to disentangle the concepts of over-indebtedness and delinquency crises. They can go hand in hand but are not necessarily equivalent as the empirical review in this paper shows. Customer experiences of over-indebtedness

may not always be related to portfolio problems for MFIs if the borrowers who struggle with too much debt are still repaying. There can also be customers who do not repay although they are not over-indebted, for example in cases of crises and spillovers of delinquency from over-indebted to not over-indebted clients.

In spite of the many unanswered questions and the urgent need for research on over-indebtedness in microfinance, existing research clearly points out that the actors in the microfinance industry need to take the possibility of over-supply and the downsides of debt for borrowers into account. This awareness is likely to improve the product offer to microfinance customers and may help to regulate the balance of under and over-supply. It will lead to the necessary experimentation with product features¹¹ and to the development of codes of conduct and of customer protection mechanisms. The microfinance industry will continue to develop and, with sufficient attention to the customer perspective and to over-indebtedness, will increasingly extend the *right* products to the *right* people.

¹ For background on these debates see for example Copestake (2007); Labie (2007); Armendáriz and Szafarz (2009).

² See Armendáriz and Labie (2011) for an encompassing volume of microfinance papers that centers around the question of a supply and demand mismatch.

³ See Schicks (2010) for a detailed discussion of this definition and how to put it into practice as a measurement.

⁴ The section therefore reports theoretical and empirical findings from developed and developing countries in parallel. Further research should analyse to what extent non-microfinance findings apply to microfinance settings.

⁵ Some of the sacrifices in Schicks (2011) refer to the non-material debt consequences discussed later in this chapter but many are the results of material pressures such as discussed by Brett (2006) and Gonzalez (2008).

⁶ See Stearns (1991) for the explicit advice to MFIs to use shame as an enforcement mechanism and make the names of delinquent borrowers public.

⁷ Also see Schicks and Rosenberg (2011) who review empirical findings on over-indebtedness from a slightly different angle.

⁸ Monthly debt instalments divided by monthly household income net of other expenses.

⁹ Our summary of this study reports findings from the various approaches without distinguishing the methodologies used. Results are not perfectly comparable amongst each other. Refer to the original paper for a better understanding of the reliability of these findings and of their shortcomings.

¹⁰ See Schicks (2010) for a conceptual framework of over-indebtedness causes. Future research will have to confirm to what extent factors identified in consumer finance markets can be transferred to microfinance market and what the relative importance of the different influence factors is.

¹¹ Hamp and Laureti (2011) analyse the possibility for enhancing product flexibility to better meet the needs of clients. They show that flexibility can be combined with the necessary repayment incentives but in turn may increase cost.

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