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On microfinance, Indian subprime and new regulation.

The regulatory response to the 2010 microfinance crisis in Andhra Pradesh, India

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Abstract

In October 2010, the state government of Andhra Pradesh (India) issued the AP Ordinance in response to new on farmers' suicides. The farmers were said to have killed themselves to escape the high debt with microfinance institutions and their coercive repayment practices. After the AP Ordinance, repayment rates in the microfinance sector in Andhra Pradesh deteriorated, leading to the 2010 microfinance crisis. In response to the crisis, the Reserve Bank of India (RBI) installed the Malegam committee. The results of the Malegam report triggered new regulation for NBFC-MFIs and a redraft of the MFI Bill. This paper set out to investigate whether the regulatory response to the 2010 microfinance crisis in Andhra Pradesh was adequate (does it address the causes of the microfinance crisis?) and whether it will help the sector to develop in a sustainable matter. The regulatory response is fairly adequate in the sense that it addressed the six plausible causes of the microfinance crisis: credit boom to MFIs, lack of regulation, differing state agenda, usury interest rates, pre-existing SHG framework and coercive recovery methods. Moreover, the introduction of more extensive regulation for the microfinance sector is commendable, as is the centralization of supervision over the sector. The negative consequences of the microfinance crisis are grave enough to warrant intervention of the central government in the market.

However, the literature review suggests that the current line of the regulator might not be the most effective and efficient approach to support sustainable growth of the microfinance sector. First, it is recommended to focus more on non-prudential regulation to give a boost to consumer protection and to increase the attention for the quality of the risk management system. This would allow the removal of the quantitative parameters, including the much-debated interest rate ceiling. Second, prudential regulation is only needed for the few very large MFIs and, going forward, for the deposit-taking institutions. Third, the supervisor could leave more to private agencies, while the RBI focuses on the most risky institutions. This would make more efficient use of the supervisory capacity of the RBI. Finally, the SHG program might need to be included under the microfinance framework, even though the set-up is different. But left outside, organizations could use SHG to route around microfinance regulation. Overall, we can conclude that the regulatory response of the RBI and government of India was adequate, but in the long run, the sector would benefit if the regulators would change the chosen direction of supervision more towards self-responsibility of MFIs.

List of abbreviations

AP	Andhra Pradesh (state in India)
AP Act	Andhra Pradesh Microfinance Institution (Regulation on Money Lending) Act
AP Ordinance	Andhra Pradesh Microfinance Institution (Regulation on Money Lending) Ordinance
APR	annual percentage rate
BIS	Bank for International Settlements
CGAP	Consultative Group to Assist the Poor
crore	ten million (see appendix 2)
FY 2011	financial year 2010-2011 (April 2010 – March 2011)
FCR	financial cost ratio
GoI	Government of India (central government)
ICICI	an Indian commercial bank
IPO	initial public offering
JLG	joint liability group
lakh	hundred thousand (see appendix 2)
Lok Sabha	India's lower house of parliament
M-CRIL	Micro-Credit Ratings International
MFI	microfinance institution
MFI Bill	Micro Finance Institutions (Development & Regulations) Bill
MFIN	Microfinance Institutions Network, an industry association in India
NABARD	National Bank for Agriculture and Rural Development
NBFC	non-banking finance companies
NBFC-MFI	non-banking finance companies – microfinance institutions
NGO	non-governmental organization
OER	operational expense ratio
PACS	primary agricultural credit societies
PAR30	portfolio at risk, non-payment longer than 30 days
RBI	Reserve Bank of India (India's central bank)
RBI circulars	Memoranda on changes in RBI regulation
ROSCA	rotating savings and credit associations
Rs.	Indian rupee
Sa-Dhan	an Indian industry organization for MFIs
SBLP	Self-help group – Bank Linkage Program
SHG	self-help group
SIDBI	Small Industries Development Bank of India
SKS	an Indian MFI
UN	United Nations

Table of content

Chapter 1 Introduction

1.1 Introduction

Box 1: Newspaper article

Suicide leash on lenders

19 October 2010

[…]

On October 14, the state government brought an ordinance making it compulsory for MFIs to register themselves, declare the effective rate of interest they charge, ensure that no security is sought for loans and no coercion is used for recovery. Non-compliance will be punished with a three-year prison term and a fine of Rs. 1 lakh.

"What started off as an initiative for social and economic uplift of rural poor has now morphed into a highly competitive business with the sole aim of making profits. People are getting caught in debt traps and they see no way out," chief minister K. Rosaiah said in a statement on Thursday. "All our efforts are to rein in the criminal activities of the MFIs," he added.

[…]

Prabhakar, a 28-year-old who ran a petty fruit business in Kurnool town with his wife, had taken a loan of Rs. 12,000 from an MFI at 27 per cent interest. He fell ill and missed two weekly payments. Because of his illness, he could not sell fruits, which rotted, adding to his financial burden.

Earlier this month, he hanged himself to death, leaving behind wife Kamala and two young children. The two weeks' default had pushed up the debt burden, with the interest rate climbing to 29.5 per cent.

The suicide — the 20th in two months — triggered a public backlash, and offices of MFIs in many district towns were ransacked.

[…]

Source: The Telegraph, 2010. Note: Rs. 12,000 is about EUR 200 and Rs. 53,000 is about EUR 860.

In the fall of 2010, microfinance borrowers, like Prabhakar from the article above, made headlines in Andhra Pradesh (AP). AP is a state in southeast India and home to the largest microfinance institutions (MFI) in India (Arunachalam, 2011). The media attention for suicides allegedly linked to over-indebtedness and coercive collection methods by MFI pushed the state legislators to introduce new regulation. The Andhra Pradesh Microfinance Institution (Regulation on Money Lending) Ordinance[1] (or 'AP Ordinance' in short) was quickly adopted, which required MFIs to register themselves and inform the government on aspects like area of operation, collection methods and interest rate (Priyadarshee & Ghalib, 2011). Moreover, the total interest rate charged was capped at the principal borrowed and MFI could no longer extend multiple loans to the same borrower. Also, the government introduced penalties for MFIs using coercive collection methods. After the AP Ordinance came into effect, the repayment rates dropped dramatically in the microfinance sector, banks closed their credit lines to the MFIs and the MFI sector came to a grinding halt (Srinivasan, 2012). The microfinance crisis in AP was there. In November 2010, Y.V. Reddy, former governor of RBI (India's central bank), said what many were already thinking: microfinance was India's subprime (Economic Times, 2010). Not only did MFIs extend loans to people with poor repaying ability, but governance issues, faltering control mechanisms and inadequate regulation were mentioned in both crises. This paper addresses the question how the government responded to the 2010 microfinance crisis in AP.

[1] *Andhra Pradesh Microfinance Institution (Regulation on Money Lending) Ordinance,* effective as of 15 October 2010. Available on: http://indiamicrofinance.com/wp-content/uploads/2010/10/Andhra-MFI-Ordinance.pdf (accessed 11 December 2012).

1.2 Problem statement

After the state of Andhra Pradesh effectuated the AP Ordinance – and the disastrous effects became visible – the Reserve Bank of India (RBI, India's central bank) installed a committee, chaired by Mr. Malegam (RBI, 2010). The recommendations of the Malegam committee report[2], which were released in January 2011, were 'broadly accepted' by RBI (Kline & Sadhu, 2011). They were used to make some changes to the rules regulating the microfinance sector, as published in RBI circulars, and to present an updated version of the Micro Finance Institutions (Development and Regulations) Bill 2011 (in short 'MFI Bill'). At the time of writing, the MFI Bill was still pending in parliament, although an updated version was presented (PRS, 2012).

The short introduction above leads to the following research question:

Was the regulatory response to the 2010 microfinance crisis in Andhra Pradesh adequate and will it help the microfinance sector in India grow in a more sustainable matter?

Some explanatory notes on the research question. First, the focus of the question lies with the regulatory response to the microfinance crisis, which comes from two sources. The RBI, the central bank, has been the primary source of response. But for the further development of the sector, the decisions of the parliament on the MFI Bill are even more important. Therefore, under regulatory response I understand the response of both the central bank (through the RBI circulars and Malegam committee) and the parliament (through the MFI Bill). Second, with an 'adequate response', I mean that the response addresses the causes of the crisis and not the symptoms or something else. Moreover, judgment whether the new regulation will help the sector 'to grow in a sustainable matter' is based on experience with regulation and interest rate ceilings found in the literature.

The research question can be split into several investigative questions:

1. What were the possible causes of the microfinance crisis in Andhra Pradesh in 2010?
2. How have the Reserve Bank of India and the Government of India responded to the microfinance crisis?
3. Does their response address the possible causes of the microfinance crisis?
4. Is the response supported by literature?

Please note that with regards to investigative question (4), I will focus on two topics, i.e. regulation and supervision as well as interest rate ceilings. These topics flow from the six possible causes for the microfinance crisis that will be defined in chapter 3[3]. Not all causes are as closely related to economic literature – for example the idea that the state government intervened in the microfinance sector for political reasons is better discussed in political science. Therefore I choose to further investigate the two topics that are broadly associated with economic science.

1.3 Research objectives

In general, since its appearance in the late 1970s, microfinance seems to have gone from being hailed as the solution to end poverty to being accused of making profit by exploiting poor people. Popular opinion is clearly swinging from one extreme to the other. In this master thesis, I will aim to steer away from popular opinion and look more closely at scientific literature to assess the RBI circulars and new MFI bill in India. There have been multiple articles with very useful information on the RBI response, but few seem to be ground in economic theory. A thorough assessment of the regulatory response is useful from two perspectives. First, India is a leader in the microfinance industry – in terms of sheer size, development stage, but also in experiencing the drawbacks. If the RBI circulars and MFI bill do what they aim to do, this could lead to very useful lessons learned

[2] *Report of the Sub-Committee of the Central Board of Directors of Reserve Bank of India to Study Issues and Concerns in the MFI Sector*, 19 January 2011. Available on: http://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/YHMR190111.pdf (accessed on 13 December 2012).

[3] In chapter 3, I will define six possible causes of the microfinance crisis: Bank credit boom to MFIs, lack of regulation, differing state agenda, usury interest rates, pre-existing SHG framework and coercive recovery methods.

for other countries. Second, in its newest Five Year Plan (FYP 2012-2017) the government of India has a strong focus on inclusive growth to reduce poverty[4]. Access to finance is mentioned as one of the methods to achieve this goal. However, the microfinance crisis in AP suggests that this is not without risk. Therefore, an adequate response and sustainable growth of the microfinance sector are key to the government's anti-poverty strategy. With this thesis paper, I hope to shed some light on the potential of the MFI Bill and RBI regulation to do this.

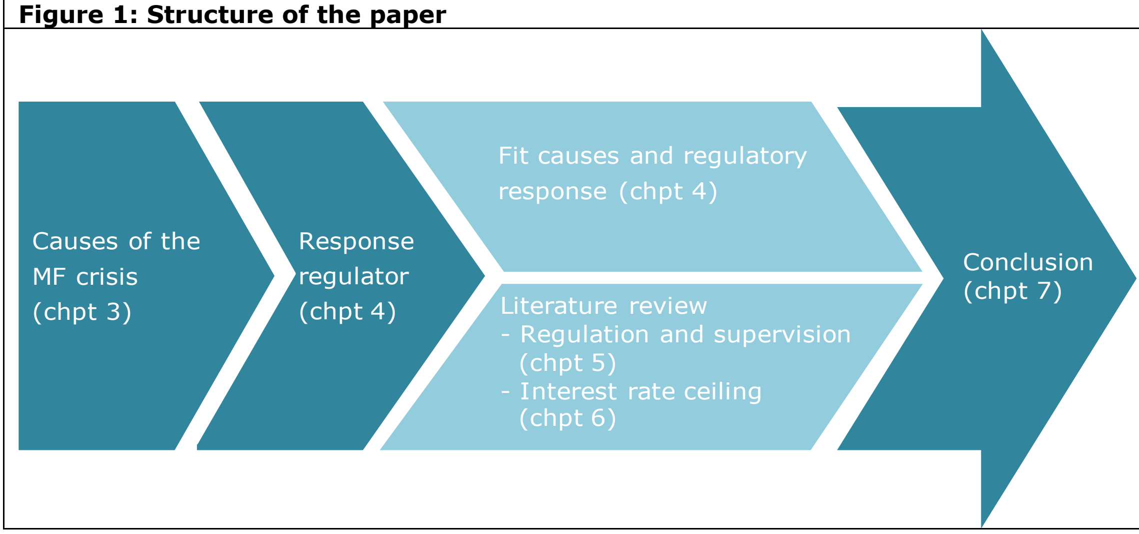
1.4 Research design

This paper has a qualitative focus, in the sense that secondary sources, such as economic literature, academic papers and (semi)scientific articles, will be the primary source of information. To understand the developments in the 2010 microfinance crisis in Andhra Pradesh, I will also use blogs, RBI circulars[5] and government regulation, such as the AP Act. Important is also the Microfinance Institutions (Development and Regulation) Bill, version 2012[6].

1.5 Structure of the paper

The paper starts with some background information on the impact of microfinance and the Indian microfinance sector (chapter 2). Please note that my aim is not to give a complete overview of the pros and cons of microfinance – this is beyond my reach. In this chapter I will also give some definitions that are used throughout the rest of the paper.

Figure 1: Structure of the paper



To gain more insight into the 2010 microfinance crisis in Andhra Pradesh, chapter 3 will show an overview of the crisis and the main causes. Chapter 4 will summarize the response of the RBI and central government. Next, I will zoom in on regulation and supervision as well as interest rate ceilings, in chapters 5 and 6, respectively. Each chapter will include a literature review and the developments in India so far (if any). Finally, the conclusion and recommendations are presented in chapter 7.

Investigative question 1 (causes of crisis) will be answered in chapter 3. Investigative questions 2 (response RBI) and 3 (fit to causes of crisis) will be discussed in chapter 4. And question 4 (response supported by literature) will be dealt with in chapters 5 and 6 on the two mentioned topics. Chapter 7 will include the answer to the main question of the paper.

[4] http://planningcommission.nic.in/plans/planrel/12thplan/welcome.html (accessed 13 December 2012).
[5] RBI circulars are available on http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx (accessed 27 December 2012)
[6] *The Micro Finance Institutions (Development and Regulation) Bill 2012*. Available on: http://financialservices.gov.in/banking/micro_finance_institution_bill_2012.pdf (accessed 13 December 2012)

Chapter 2 Background and assumptions

2.1 The impact of microfinance

The start of the Grameen Bank, in the aftermath of the 1974 Bengali famine, is often seen as the birth of microfinance. After years of being skeptical, the World Bank, IMF and other multilaterals started to warm up to the idea of lending small amounts to poor people in the 1990s (Yunus, 2007). This was furthered by the increasing criticism on the (in)effectiveness of foreign aid and the failure of multilaterals to boost growth sustainably in developing countries (e.g. Brautigam & Knack, 2004; Easterly, 2003; Rodrik, 2006). There was room for a different approach; local initiatives, bottom-up development and empowering the poor were the new buzzwords (UN, 2005). Having originated in a developing country – rather than adapting a Western practice to a local situation – and focusing on poor women, microfinance fitted the bill perfectly.

The idea that access to financial services is needed to further economic growth is also recognized outside development economics. The general consensus among economists is that the development of a financial sector supports economic growth. As Levine (2004) put it: "a growing body of empirical analysis […] demonstrates a strong positive link between the functioning of the financial system and long-run economic growth". More specifically, financial innovation is crucial for sustained economic growth (Leaven, Levine & Michalopoulos, 2012). The innovative aspect of microfinance is how it deals with small loans and lack of collateral, in other words with information asymmetry and moral hazard, namely by using group lending and joint liability (Armendáriz & Morduch, 2010). Using groups to overcome the lack of collateral is not new – rotating savings and credit associations (ROSCA) have been around for some time and financial (credit) cooperatives have their roots in nineteenth century Germany. However, these organizational forms have their own limitations. ROSCAs are rather rigid, for example, in the amount that can be lent. Cooperatives, on the other hand, require quite some knowledge and skills on the part of the cooperative leaders, which traditionally should come from the community. Microfinance draws on the experience of both, but "the place of groups in microfinance […] strengthens and extends earlier uses of groups" (Armendáriz & Morduch, 2010). Ghatak and Guinnane (1999) point to two reasons for the success of group lending; "first, many (but not all) of these lending programs ask borrowers to form a group in which all borrowers are jointly liable for each other's loans. […] Second, most micro-lenders engage in intensive monitoring of clients, and rely heavily on the promise of repeat loans for borrowers who perform well."

Anecdotal evidence for the positive impact of microfinance is abound – see for example the website of the UN Year of Microcredit[7]. However, "there are surprisingly few rigorous empirical studies of the net impacts" (Armendáriz & Morduch, 2010). DFID, the Department for International Development of the British government, sponsored a research into the effects of microfinance. Duvendack et al. (2011), who performed the evaluation, selected 58 studies based on quality criteria, out of the more than 2,000 articles that they screened. The overall conclusion was that "it remains unclear under what circumstances, and for whom, microfinance has been and could be of real, rather than imagined, benefit to poor people." The study of Banerjee, Duflo, Glennerster and Kinnan (2010) was the first (and still one of the few) randomized trial evaluations. They expected microcredit to have effect in three categories, i.e. relaxing credit constraints, shifting bargaining power within the household and affect timing and choice of expenditure. The results on business outcome and composition of expenditure are rather mixed and depend on the propensity to start a new business. The effect on education, health and women empowerment is negligible. In a study of Crepon, Devoto, Duflo and Pariente (2011), a similar heterogeneity is found. The effect of access to microcredit depended on whether the household had self-employment activity to start with, which suggests "that at least some households were clearly credit constrained before the program".

[7] http://www.yearofmicrocredit.org/pages/whyayear/whyayear_whatclientssay.asp, accessed 17 December 2012.

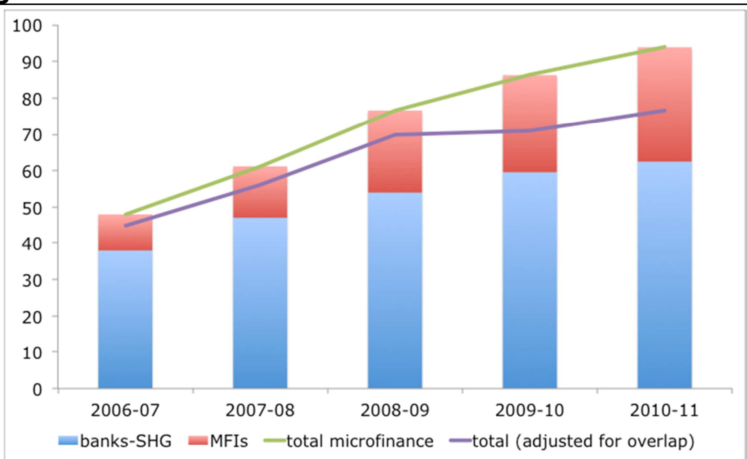
The debate on the effects of microfinance will continue in the coming years. However, for the purpose of this paper, I will assume that the expansion of microfinance will have a positive effect on some households, based on the findings of the studies mentioned above. Moreover, I will also assume that there is a positive relation between access to financial services and growth and thereby between financial inclusion and poverty reduction in the long run. Without these assumptions, there is no need to investigate how regulation can help the microfinance sector in India to grow in a sustainable matter, which is the focus of the rest of this paper.

2.2 The microfinance sector in India

The size and composition of the microfinance sector
In India, only 35% of all adults has an account at a formal financial institution (Demirguc-Kunt, Asli & Klapper, 2012). For the poorest income quintile, this percentage is even lower at 21%. Indians are served through a number of channels, ranging from large commercial banks to small primary agricultural cooperative societies. Annex 1 provides a snapshot of the Indian financial sector. When looking at the broad microfinance sector in India, about 165 million clients had access to credit in March 2011, of which about a quarter were served through small loan accounts of commercial banks[8], 16% borrowed from primary agricultural credit societies (PACS)[9], and a little over half were members of self-help groups (SHG) or clients of microfinance institutions (MFI)[10]. However, in general when talking about the microfinance sector in India, we mean MFIs and the SHG bank linkages programs (SBLP) (Srinivasan, 2012). In March 2011[11], the MFIs and SHG reached 76.7 million Indians, which is a 70% increase compared to March 2007 (figure 1). The total microfinance loan portfolio was Rs. 513.8bn (about EUR 8bn) end March 2011.

Both MFI and SHG channels are important for broadening financial inclusion in India. However, as the 2010 crisis in Andhra Pradesh originated in the MFI channel and most (RBI) regulation is geared towards MFIs, this paper will mostly focus on the MFI part of the microfinance sector. Still, SHG cannot be seen completely separately from MFIs and therefore I will make references to SHG if applicable.

Figure 2: Microfinance client outreach



Source: Srinivasan (2012)

[8] Data on commercial bank loans up to Rs. 25,000 (classified as small loans by RBI) from RBI (2012a). This data includes borrowers from Regional Rural Banks.
[9] Data on PACS (Primary Agricultural Credit Societies) from NAFSCOB (2012). This data includes the small and vulnerable borrowers as defined by Srinivasan (2012), which are the following groups: scheduled caste, scheduled tribes, small farmers, and rural artisans.
[10] Data about SHG and MFI from Srinivasan (2012).
[11] India works with a financial year that runs from April through March. The year 2010-11 thus runs from April 2010 to March 2011. FY 2011 is an indication for the same period (April 2010 – March 2011).

The development of the microfinance sector

The SBLP was initiated in 1992 by the National Bank for Agriculture and Rural Development (NABARD) and encouraged women to set up more self-help groups and stimulated banks to lend to SHGs (RBI, 2011). Where initially savings from the SHG provided the basis for loans to members of the SHG, now bank loans were granted to SHGs too, which could be on-lend to individual members. The program was designed to use reduce transaction costs and risk for banks by organizing poor people into groups. The SBLP grew rapidly, especially in some states, like Andhra Pradesh, West Bengal and Tamil Nadu (Srinivasan, 2012). Meanwhile, MFIs started to expand their operations in India. In general, they ask villagers to form joint liability groups and then provide loans directly to individual clients (RBI, 2011). In the Malegam committee report, the government of AP complaints that the "MFIs are riding 'piggy-back' on the SHG infrastructure created by the program and that JLGs are being formed by poaching members from existing SHGs." Indeed, there seems to be overlap between the two channels of MFIs and SBLP, which was estimated at about 13% in 2011 (Srinivasan, 2012).

The development of the microfinance sector has not been evenly across India. The states in the south of India account for almost half of the clients and loans, with a concentration in AP (Srinivasan, 2012). AP has the largest SHG program in India, most MFIs in India started in AP, and the largest MFIs are based in AP. All in all, the state of AP had a leading role in microfinance in India. The number of microfinance clients, which includes both SHG members and MFI clients, almost doubled between 2008 and 2011 in AP (table 1). In FY 2011, there were 27.6 million MFI clients on a total population of about 85 million, although it should be noted that some people were client with more than one MFI/SHG. The average loan per account was almost Rs. 8,000 (about EUR 126) in that year.

Table 1: Snapshot of trends in Andhra Pradesh

	2007-08	**2008-09**	**2009-10**	**2010-11**
SHG loans (Rs. mln)	53,857	89,021	117,395	128,694
MFI loans (Rs. mln)	19,445	35,652	52,107	52,045
SHG members	10,506,639	15,819,427	17,310,000	21,891,909
MFI members	3,635,115	4,949,393	6,244,648	5,751,000
Total MF clients	14,141,754	20,768,810	23,554,648	27,642,909
Total no. of poor households*	2,520,000	2,520,000	2,520,000	2,520,000
Average loan per account (Rs.)	5,183	6,002	7,193	7,982
Average loan per poor household	29,088	49,473	67,226	71,721
No. of loan accounts per poor household	5.6	8.2	9.3	10.9

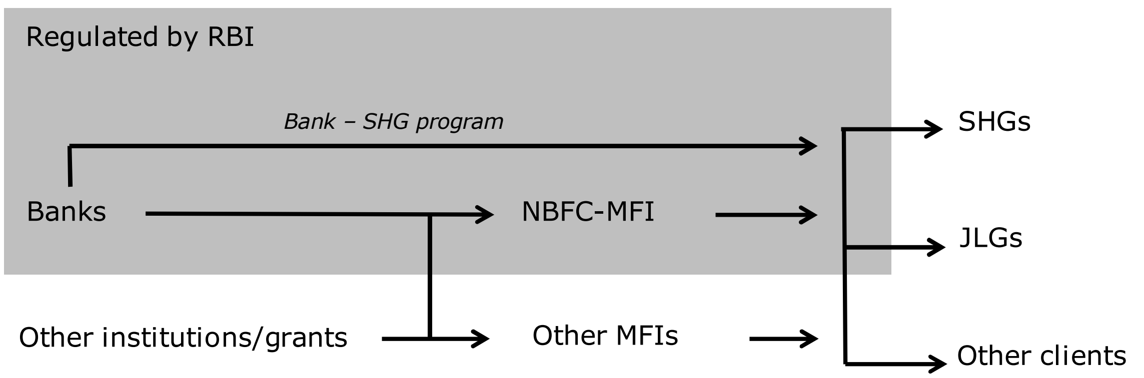
Source: Srinivasan (2012) Note: *Estimate by planning commission relating to the mid-year 2004-05.

Regulation of MFIs

Most MFIs in India are registered as a non-banking financial company (NBFC). In the State of the Sector report 2011, 46 out of the 82 MFIs included in the analysis are NBFCs (Srinivasan, 2012). The others are societies (19), section 25 companies (6), trusts (6), cooperatives (4) and one local area bank. Section 25 firms are non-profit companies as mentioned in the Indian Companies Act. Societies, section 25, trusts and cooperatives are often grouped together under the label of NGO-MFIs or other MFIs. Many NBFCs started off as non-profit entities, but over time most turned into for-profit organizations as this allowed them to tap into resources to fund growth more easily (RBI, 2011). Some NBFC entered the market directly as for-profit companies, as they considered the microfinance sector an interesting business opportunity. NBFC are not only the most common organizational form, they also dominate the MFI market, as they hold almost 90% of the gross loan portfolio in India.

Prior to the microfinance crisis, the RBI regulated the banks – and thus the SHG-Bank linkage program – as well as NBFCs in general. After the crisis, a separate category was created within the group of NBFCs, i.e. NBFC-MFIs. This had little effect on the number of MFIs regulated, but it did change the content of the regulation (more on that in chapter 4). In figure 3, an overview of the credit flow and regulation of the Indian microfinance sector is given.

Figure 3: Current flow of credit and regulation in Indian microfinance sector



Source: PRS (2012)

2.3 Definitions

More (technical) definitions, such as PAR30, operational expense ratio, can be found in appendix 2.

Microfinance: There does not seem to be one commonly accepted definition of microfinance. Most definitions includes references to the 'provision of financial services', 'low-income or poor clients', 'small loans', 'group-lending', 'no collateral', 'frequent repayment'. (BIS, 2010b; Armendáriz & Morduch, 2010; RBI, 2011; Christen, Lauer, Lyman & Rosenberg, 2012). The Malegam report, among others, explicitly includes the goal of microfinance, i.e. economic development tool to lift people out of poverty (RBI, 2011). Moreover, RBI includes specifications on the loan amount, tenor and income level of the borrower. This makes the definition too context- and time-specific for general usage. Therefore, for this paper, I use the definition given by BIS (2010b), as this is a time/context-neutral and comprehensive statement: "microfinance is the provision of financial services in limited amounts to low-income persons and small, informal businesses". Microfinance can thus be done by different organizational types, as core business or as just a business line. Moreover, it includes different products, such as lending, saving and insurances. However, much of the focus of the microfinance sector in India is on the extension of microcredit, rather than a broader array of products. Therefore, on some occasions, the term microfinance in this paper actually refers to microcredit.

Microfinance institutions (MFI): The MFI Bill defines microfinance institution as a society, company, trust, body corporate or any other organization that provides microfinance services, excluding banking companies, co-operative societies and money lenders (MinFin GoI, 2012). Moreover, the RBI demands that 85% of total assets are in 'qualifying assets' for an organization to classify as an NBFC-MFI (RBI/2010-11/505, RBI/2011-12/290). However, as I also discuss MFIs in more general terms outside of India (e.g. in the chapter on regulation), I use the CGAP definition: "microfinance institution is a formal (i.e. legally registered) entity whose primary activity is microfinance" (Christen et al., 2012). The legal registration does not necessarily have to be with the central bank, but may be also with another government authority.

Self-Help Groups (SHG) and Joint Liability Groups (JLG):
SHGs and JLGs are methods seen in the microfinance sector to use groups as a way to mitigate risks and pool savings. SHG are groups of, mostly, women, who regularly contribute small savings. The savings are used to extend loans to members (RBI, 2011). In India, the SHG program has been extended by the SHG-Bank linkage model in which the group is given a bank loan and these loans are onlend to members of the group. The JLG method works slightly different. In this case, the loan is directly extended from an MFI to an individual borrower (rather than to the group as in the case of SHGs). The individual loans are "jointly and severally guaranteed" by the other members in the JLG (RBI, 2011). In practice, MFIs have used existing self-help groups to extend individual loans and request joint liability. The two methods are thus often intertwined in India.

Chapter 3 The 2010 microfinance crisis in Andhra Pradesh

3.1 Introduction

There is no one reason for the 2010 microfinance crisis in Andhra Pradesh (AP). As with every crisis, it was an accumulation of various factors that led to the suicides allegedly linked to microfinance and the strong government response. As Pol (2012) states 'all banking crises have an onset, an outbreak and a culmination'. The onset of the crisis in Andhra Pradesh is the news about the suicides by MFI borrowers. The media widely reported on these events in September and October 2010. In response, the government of AP issued the Andhra Pradesh Microfinance Ordinance (in short 'AP Ordinance'), which was approved on 15 October 2010. This was the outbreak of the banking crisis, which culminated into a freeze of bank credit to MFIs and SHGs.

To shed light on the causes of the banking crisis, a more structural analysis is needed. I will make an analysis similar to Pol (2012), who looked into the causes of the 2007/08 banking crisis. First, the generally accepted narrative on the microfinance crisis is described below. I realize that within writing this down, I will display a certain focus on the type of solution – merely calling the situation in Andhra Pradesh a banking crisis indicates my line of thinking. Taylor (2011), for example, labels the same situation as an agrarian crisis. More critique on the concept of crisis construction and labeling can, among others, be found in Rocheleau, Steinberg and Benjamin (1995). Second, based on the narrative, a list of factors is formulated. From this list, I will aim to distill the factors that could be the causes of the AP crisis.

3.2 Phases of the microfinance crisis

The crisis can be seen as twelve intertwined phases:
(1) pre-existing SHG infrastructure;
(2) microfinance hype and priority sector lending;
(3) Krishna crisis;
(4) failing code of conduct;
(5) private equity inflow;
(6) return of the bankers;
(7) MFI loan boom;
(8) IPO of SKS;
(9) suicides in the news;
(10) AP Ordinance;
(11) bank credit freeze;
(12) Malegam committee.

On the next pages, the twelve phases are graphically represented. Below that, a short description is given per phase.

The description draws heavily on Arunachalam (2011), Srinivasan (2011; 2012) and M-CRIL (2011b; 2012), but also on Kline and Sadhu (2011), Priyadarshee and Ghalib (2011), Taylor (2011), Chakrabarti (2011). Moreover, the blog of Governance Across Borders, several (digital) newspaper articles and organizational websites provided useful information[12].

[12] An overview of these sources can be found in the bibliography (pp. xx-xx).

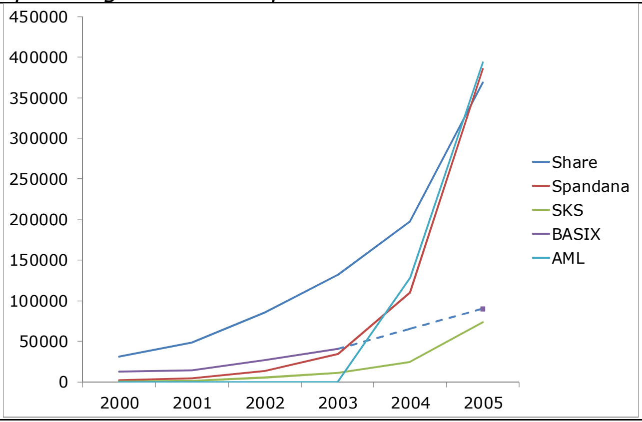
(1) Pre-existing SHG infrastructure

AP was home to a little over a third of all SHGs in India.

SHGs with outstanding loans		
	Groups	% share
Northern region	134,783	3.8
Northeastern region	103,424	2.9
Eastern region	753,048	20.8
Central region	326,763	9.0
Western region	446,550	12.3
Southern region	1,861,373	51.3
All regions	3,625,941	100

(2) Microfinance hype and priority sector lending

Priority sector lending and innovative company models spurred growth of for-profit MFIs in AP.



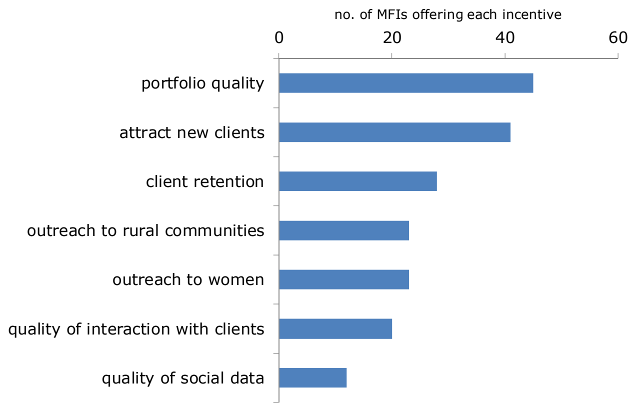
(3) The 2005 Krishna crisis

50 MFI branches were closed after allegations of harassment and usury interest rates.

State of Sector Report 2006: Causes of Krishna crisis	
Enabling causes	- near-saturation of coastal Andhra with microfinance - rapid expansion of bank lending to MFIs - political investment of the state government in cheap credit (part of election platform)
Underlying causes	- rush to grow at all cost - operational practices of the MFIs: o usurious interest rates o coercive collection practices o overlending - unattractive features of the SHG model for borrowers - lack of contact and communication between MFIs and (political) stakeholders

(4) Failing code of conduct

Code of conduct and people-oriented microfinance were the new buzzwords.



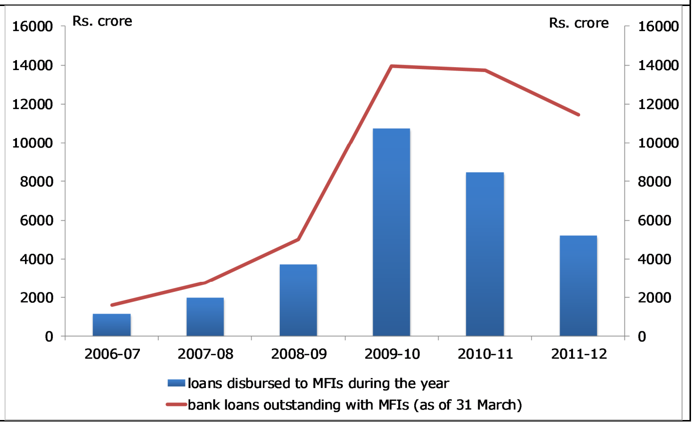
(5) Private equity inflow

Private equity investors were happy to step into the gap left by banks after the Krishna crisis.

Equity deals in Indian MFIs		
Financial year	*Amount (USD mln)*	*No. of deals*
2007-08	52	3
2008-09	178	11
2009-10	209	29
1Q11*	66	6

(6) Return of the bankers

With trust restored by equity investors, banks returned to MFIs.

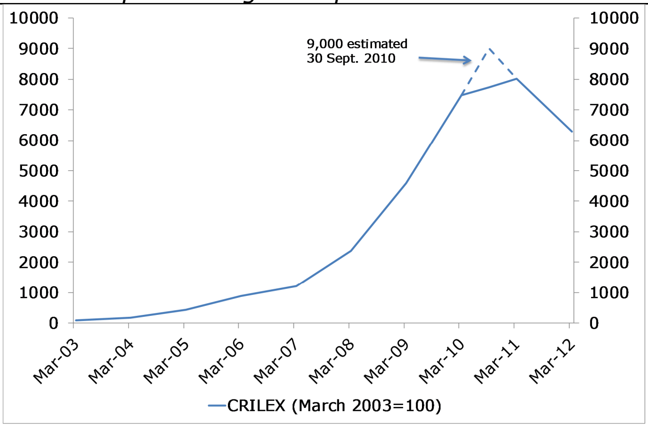


Sources:
(1) Srinivasan (2012); (2) Arunachalam (2011); (3) Ghate (2006); (4) Mix Market (2012); (5) Srinivasan (2011); (6) NABARD (2008, 2010, 2012).

Notes:
(1) Data from 2008. AP falls in the southern region.
(5) * April-June 2010

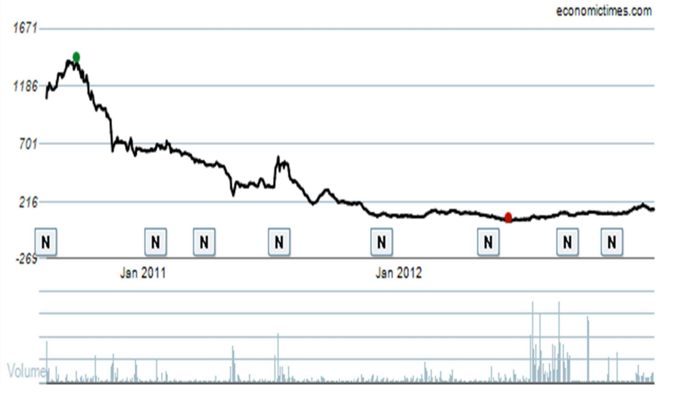
(7) MFI loan boom

The combination of equity funds and bank credit funded exponential growth path of MFIs.



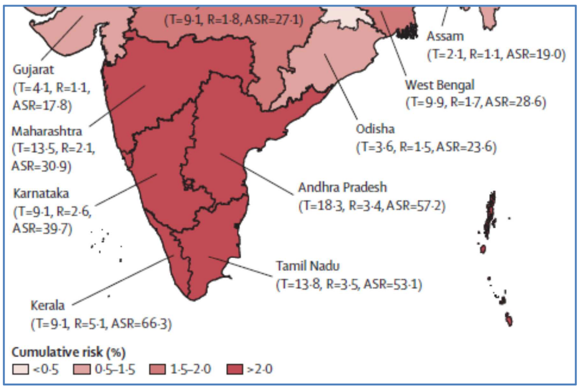
(8) IPO of SKS

In August 2010, SKS, India's largest, made a very successful debut on the stock exchange.



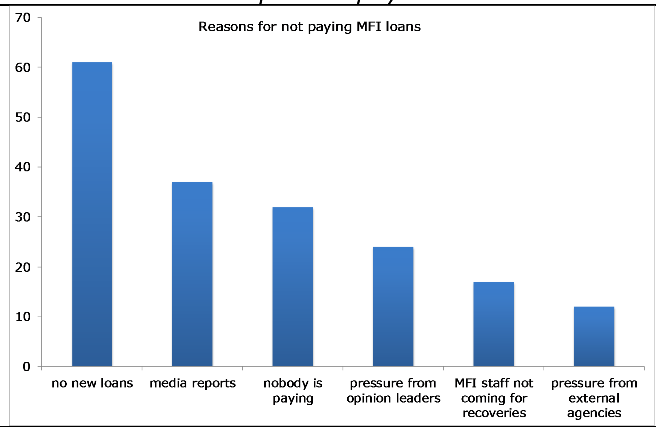
(9) Suicides in the news

News on suicides of indebted farmers outrages the public – even though it is not unusual in AP.



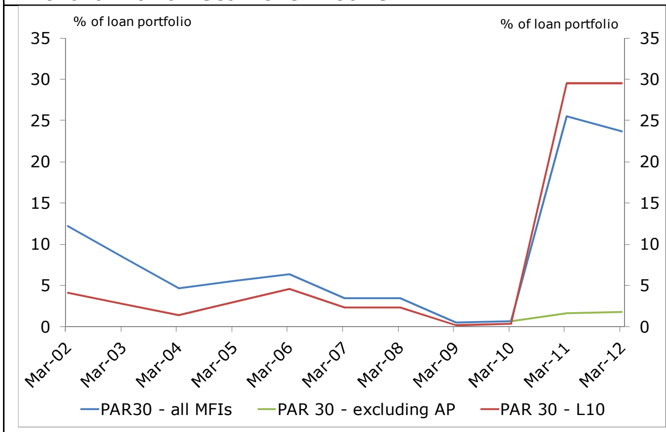
(10) AP Ordinance

The government of AP issues the AP Ordinance, but this has a serious impact on payment moral.



(11) Bank credit freeze

Portfolio quality deteriorates and banks freeze, withdraw and recall their loans.



(12) Malegam committee

After the MFI sector in AP came to a grinding halt, the RBI installs the Malegam committee.

Proposed parameter	**Malegam report**	**RBI regulation**
Household income	<Rs. 50,000	<Rs. 60,000 (rural) <Rs. 120,000 (urban)
Max loan amount	Rs. 25,000	Rs. 35,000 (1st cycle) Rs. 50,000 (next cycles)
Total debt	Rs. 25,000	Rs. 50,000
Collateral	No	No
Income generation purposes	Min. 75% of total loans	Min. 75% of total loans*
Interest rate cap	24%	26%*
Margin cap	10% (large MFI) 12% (small MFI)	12%*

Sources:
(7) M-CRIL (2012); (8) The Economic Times of India (2010); (9) Patel et al. (2012); (10) Srinivasan (2012); (11) M-CRIL (2012); (12) RBI (2011), RBI circular RBI/2011-12/290.

Notes:
(9) Data: 2010. ASR = age-standardized suicide death rate per 100,000 population. R = cumulative risk (%). T = estimated number of suicide deaths in 2010 (thousands).
(12) * These parameters were relaxed in August 2012 (RBI/2012-13/161).

(1) Pre-existing SHG infrastructure

The state government of AP pursued liberalization reforms in the 1990s, which led to a decline in agrarian subsidies and welfare programs. Instead the government increasingly put its money on SHG and microfinance – literally – and worked closely with the World Bank and NABARD. Under the *Velugu* program the new SHGs popped up like daisies in AP. By early 2000s, AP was home to a significant portion of all SHGs in India. The SHGs were not just used to create access to bank credit for poor without collateral, but also to disburse all kinds of government programs, such as cooking gas subsidies and child subsidies. And during election time, SHGs were an easy route to handout populist measures. Taylor (2011) states that only 25% of the SHGs actually functioned as intended, leaving ample room for NGOs to expand lending. Many NGOs transformed into for-profit NBFCs to fill this gap by offering microcredit. The existing SHG structure was widely used by the new MFIs and banks were happy to use MFIs as intermediary to SHGs. Share Microfin (1992), BASIX (1996), SKS (1997), Spandana Sphoorty Financial (1998) and Asmitha Microfin (2002) are now among the seven largest MFIs in India in terms of client outreach and they all started operations in the 1990s/early 2000s in AP.

(2) Microfinance hype and priority sector lending

Early 2000s, the formal banking sector was interested in increasing lending to MFI, but was somewhat hesitant initially due to the lack of equity that MFIs had. To circumvent this, ICICI, an Indian commercial bank, pioneered a new partnership model. In this model, the loans remain in the bank's books, while the MFI does the selection, monitoring and collection of payments against a fee. This allowed MFIs to grow their portfolio without overleveraging to the point that banks felt uncomfortable with. Other innovations to boost financial inclusion include the use of securitization, equity investment in emerging MFIs and partnerships between banks and NGOs. MFIs were increasingly recognized as an interesting business case for banks and it allowed MFIs to expand their operations.

Priority sector lending, which was initiated in the late 1960s, also facilitated the flow of capital towards MFIs. In the past years, RBI has required all commercial banks to lend 40% of their adjusted net bank credit (ANBC) to priority sectors (RBI, 2012b). Priority sectors are "those sectors […] that impact large sections of the population, the weaker sections and the sectors that are employment-intensive such as agriculture, and tiny and small enterprises" (RBI, 2012b). In 2000, the central bank issued "guidelines for mainstreaming micro credit and enhancing the outreach of micro credit providers", which put microfinance on the list of priority sectors (RBI, 2000). Microcredit and MFIs have since taken an increasingly prominent place in the priority sector policies.

(3) Krishna crisis

In March 2005, the then Chief Minister[13] of AP asked to look into allegations of harassment and exorbitant interest rates charged by MFIs after visiting the Guntur/Krishna district. After investigating the issue, the state closed 50 branches of Share Microfin and Spandana Sphoorty Financial, two of the largest MFIs in India. Some clients saw this as ratification not to repay their debt. As a result of these developments during the so-called Krishna crisis, banks withdraw credit lines and increased their interest rates for MFIs.

(4) Failing code of conduct

In the aftermath of the crisis, several prominent members of the MFI community called for better consumer protection. Code of conduct, client-led organizations and people-oriented microfinance were the new buzzwords. Sa-Dhan, the Association for Community Development Finance Institutions, adopted a code of conduct in March 2006. They promised to charge 'reasonable interest rates' and adopt 'ethical loan recovery techniques' (The Hindu Business Line, 2006). The implementation of this and other codes of conduct was only partial and the 2010 microfinance crisis has provided a new boost to governance practices – also because the AP Ordinance and RBI regulation made some aspects, such as an interest rate cap, compulsory.

[13] A Chief Minister is comparable to a prime minister, but at state level.

(5) Private equity inflow
After the Krishna crisis, banks were less eager to lend to MFIs. While the actual stalemate ended after about eight months, after the RBI and state government stepped in, the credit flow still was less lavish. However, private equity investors were happy to step into this gap, especially those with a social character found a socially responsible ánd profitable opportunity in the MFIs. Moreover, the 2008/09 financial crisis in the US and the ensuing global economic crisis pushed investors to look for returns. A drop of this multi-gazillion capital flow found its way into the Indian MFI sector. Although exact figures are hard to come by (among others because equity can take many shapes), indications suggest a fast increase in capital. Arunchalam (2011) calculated that before April 2007 equity investment amounted to USD 32.5m, while from April 2007 until July 2010 investments worth USD 647m were made. Srinivasan (2011) shows a similar picture in his State of the Sector Report 2010.

(6) Return of the bankers
While equity funding was important to bridge the gap and increase trust in MFIs again after the Krishna crisis, bank loans and priority sector funding soon became the primary funding sources for MFIs again. NABARD reports that end-March 2006, bank loans to MFI were Rs. 1584 crore (about EUR 222m). In two years' time, this amount tripled and in March 2010, it was almost nine times as much as in 2006. At the start of the AP microfinance crisis, more than 80% of the funding for MFIs came from banks and financial institutions.

(7) MFI loan boom
The combination of equity funds and bank credit allowed MFIs to fund their exponential growth path, but also created a need for further growth. More growth creates a stronger base to attract funding, which would allow further growth, but this is also necessary to satisfy shareholders and banks. The six largest MFIs with headquarters in Andhra Pradesh[14] serviced 2.2 million active borrowers in April 2006 and 14.4 million borrowers in March 2010 – an increase of more than 500%! The gross loan portfolio even grew twelve fold from USD 228m to USD 2,806m over the same period. In practice, this meant that MFIs were cutting corners by chasing the same set of customers and multiple lending was (and still is) not an exception.

(8) IPO of SKS
On 16 August 2010, SKS Microfinance Ltd., the largest MFI in India, made its debut on the Bombay Stock Exchange. The initial public offering (IPO) was a huge success – the issue was subscribed nearly 14 times and raised USD 358mln – but the IPO also widely criticized. SKS had already made its founder, Vikram Akula, multi-millionaire and the IPO allowed other original investors to cash out too. From the financial market, the comment was that the stock was overpriced at the start. However, as the Wall Street Journal commented, MFIs are different from regular lenders. They are highly valued in private equity deals and IPOs, partly because of the growth potential, partly because so many investors are looking for a socially responsible deal. Even though the IPO of SKS was a success from a financial markets perspective, it also triggered intense media scrutiny of the microfinance sector.

(9) Suicides in the news
In August and September 2010, the news that microfinance borrowers committed suicide to escape their debt reached the public. Reports on how many took their lives because of over-indebtedness differ; 19, 30 or even 57 accounts have been mentioned. The suicide of Prabhakar, a fruit-seller in southern Andhra Pradesh (also mentioned in box 1), triggered a widespread backlash early October. Several MFI offices were attacked and politicians called for action. The discontent with MFIs was not just because of over-indebtedness, it also had to do with high interest rates and coercive repayment methods. Interest rates charged by MFIs are estimated to be in the range of 24% to 55% in the run-up to the 2010 crisis.

[14] The large MFIs are SKS, Spandana, Share, BASIX, Asmitha and Trident. These six MFIs together accounted for close to 95% of all borrowers serviced by AP headquartered MFIs in 2010. Moreover, all but Trident are in the top-10 of largest MFIs in India. They are all NBFC (non-banking financial corporations).

Why did the media, politicians and public react so strongly to the news on farmer suicides? Farmer suicides, unfortunately, have made the news in India regularly since the 1990s. The National Crime Records Bureau has registered 22,000 suicides by farmers in Andhra Pradesh between 1998 and 2008. The suicides linked to MFI loans therefore hardly seem newsworthy. Moreover, there seems no clear link between debt and suicide. It seems most likely that suicide is triggered by a combination of factors (see also box 2). However, as mentioned above, the IPO of SKS sparked an interest in the media and put the MFI sector under a magnifying glass.

Box 2: Suicides in South India
India has one of the highest suicide death rates in the world, especially in the ages 15-29 years and among women (Patel et al., 2012). Patel et al. (2012) also conclude that the suicide rate is much higher in the southern states, including Andhra Pradesh, than in northern states. In Andhra Pradesh, the suicide death rate among men (women) was 57.2 (32.2) per 100,000 persons in 2010, compared to 12.6 (10.5) in Uttar Pradesh and 6.3 (7.8) in Bihar. While the study of Patel et al. (2012) shows no higher suicide rate among farmers specifically, they do find that the suicide rate in rural India is higher than in urban India – possibly because of the widespread availability of pesticides, the drug of choice for many. Other studies, such as Nagaraj (2008), found that the suicide rate among farmers is above average. However, lack of reliable data complicates the analysis of patterns on suicide. There is also no agreement on the reason behind the high rate of suicides in India. Indebtedness is mentioned by Nagaraj (2008), while Patel et al. (2012) refer to a combination of social problems (family problems, interpersonal issues, financial difficulties, etc.) and pre-existing mental illness. Palit and Singh (2012) also point to a combination of factors, such as "lack of adequate livelihood opportunities, low skills, inadequate access to formal credit and lack of social security support". Srinivasan (2012) states that illness, family problems, poverty and bankruptcy/sudden change in economic conditions were, in this order, the most important reasons for suicide in AP in 2009. A combination of factors seems most likely to be responsible for suicide. Either way, all agree that India and particularly the southern states have had an elevated suicide rate for years.

(10) AP Ordinance
In response to the suicides in the news, the state government of AP introduced the Andhra Pradesh Microfinance Institutions (regulation of money lending) Ordinance 2010, also called the AP Ordinance. As of 15 October the AP Ordinance was effective and in December of the same year the ordinance was turned into a law (and turning the ordinance into the AP Act). The AP Ordinance states that "SHGs are being exploited by private Micro Finance Institutions (MFIs) through usurious interest rates and coercive means of recovery resulting in their impoverishment & in some cases leading to suicides". The ordinance requires MFIs to register themselves and inform the government on aspects like area of operation, collection methods and interest rate. Moreover, the total interest rate charged was capped at the principal borrowed, MFI could no longer extend multiple loans to the same borrower and MFIs were no longer allowed to hold cluster and center meetings. Also, the government introduced penalties for MFI using coercive collection methods.

The AP Ordinance was lauded by some – it was time the government took action – but criticized by many others. Moreover, the AP Ordinance is said to be highly political in light of the success of the private sector MFIs compared to the government-sponsored development programs. For example, the SBLP programs tend to have higher default rates and the Society for Elimination of Rural Poverty (SERP, a parastatal NGO) was losing terrain in the rural areas despite considerable support from the state government. While it cannot be verified, rumor has it that this is part of the reason that the state government introduced such harsh measures on the MFI sector.

(11) Bank credit freeze
After the AP Ordinance, the MFI sector came to a grinding halt. The portfolio quality of MFIs deteriorated quickly. For all states in India, PAR30 was 0.67% end-March 2010 and jumped to 25.5% end-March 2011 (29.5% when only looking at the 10 largest MFIs in India and 1.63% when excluding Andhra Pradesh (M-CRIL, 2012). In the State of the Sector report 2011, Srinivasan estimates that more than Rs. 7000 crore (close to EUR 1bn) of MFI loans in AP were effectively in default. Several are given for the mass deterioration in repayment attitude. First, the AP Ordinance declared visiting groups at home, at the work place or locations close to those places illegal.

Borrowers would need to come to central offices to make their payments, which was a major practical obstacle. Second, MFI personnel faced criminal charges when breaking the rules set out in the AP Ordinance. This discouraged staff in general. Third, local politicians told people not to pay – an efficient and not uncommon way to win some votes in India and in the process kill repayment morality. Finally, a very important reason was that no subsequent loans were given. The AP Act stipulated that approval needed to be obtained when a borrower already had a loan, thereby complicating the loan process. Also, the AP Ordinance sends the implicit message that MFIs should not be allowed to work and thus could not offer new loans.

In response to the rising non-payments, banks decided to freeze, withdraw or recall their loans to MFIs. This response not only came from commercial banks, but also the government-owned Small Industries Development Bank of India (SIDBI) reduced its exposure to the sector by two thirds. Moreover, rating agencies downgraded most MFIs with the expectation that the AP Ordinance would affect the profitability and sustainability of MFIs, which in turn pushed borrowing costs up for the already battered MFIs. As a result, several small MFIs went bankrupt and quite a number of MFIs scaled down operations by withdrawing from certain areas, firing personnel and/or closing branches. Loan disbursements dropped from Rs. 50 *billion* in the first half of 2010-11 to Rs. 85 *million* in the second half (Oct 2010-March 2011). MFIs almost completely stopped disbursing loans and instead solely focused on collecting payments.

(12) Malegam committee report
The AP microfinance crisis shocked the government of India and RBI enough to wake them up out of “their state of passive equilibrium to recognize the microfinance sector requires regulation, especially in the interest of customers” (Srinivasan, 2012). On 28 October 2010, the RBI issued a press release announcing the installation of the ‘RBI Sub Committee of the Central Board of Directors to study Issues and Concerns in MFI Sector’ (RBI, 2010). As Mr. Malegam chaired the committee, the committee is generally referred to as the Malegam committee. One of the key tasks of the committee was “to examine the prevalent practices of MFIs in regard to interest rates, lending and recovery practices to identify trends that impinge on borrowers’ interests” (RBI, 2010). Also in the remainder of the press release there was a strong focus on consumer protection and interest rates charged.

The Malegam committee report was released in January 2011 and led to several adjustments in the regulation around NBFC MFIs, which can be found in the RBI circulars. This regulation is currently only applicable to NBFC MFIs and only applicable to MFIs outside AP (as in AP the AP Act cannot be overruled by RBI regulation). Also in response to the committee report, the government of India redrafted the already pending bill on microfinance institutions – the MFI Bill has been pending for quite some years and was revamped in 2011 and later adjusted again in 2012. So far, the RBI circulars have not changed the situation in Andhra Pradesh much, as RBI regulation on this topic does not overrule the state legislation. If the MFI Bill were adopted, this would lead to more significant changes (more on the MFI Bill in chapter 4) and would overrule the AP Act. The government of AP feels the MFI Bill is too soft on MFIs and that the central government has no jurisdiction in this matter[15]. As mentioned, the MFI Bill is still pending and the discussion under whose legislative authority MFIs fall is likely to complicate the process of passing the bill into a law.

3.3 Plausible causative factors

The next step in the search for the causes of the 2010 microfinance crisis is the formulation of a list of plausible causative factors. We are looking for what caused the banking crisis event, in this case defined as the freeze of bank credit to MFIs in October 2010. Based on the narrative presented in section 3.2 and the articles used to construct this narrative, a list of factors can be

[15] The state governments in India have considerable autonomy and are responsible for quite some fields. Other topics are the responsibility of the central government. In practice, there regularly is a debate on whose jurisdiction it is. In the case of microfinance, regulating money-lending activities is a task for the state government and the government of Andhra Pradesh has made a case that MFIs fall under this heading. Hence, they added ‘Regulation on Money Lending’ to the title of the AP Ordinance. However, the central government is responsible for regulating the financial sector and feels that MFIs are part of the financial sector. To stress this, they have put ‘Development and Regulation’ in the title of the MFI Bill. For more on regulatory gap, overlap and consistency see Chakrabati (2011).

made (see annex 3 for the complete long-list). Terms that pointed towards the same origin were clustered together. Surprisingly, most authors listed a number of factors and issues related to the crisis, but I have not found a model testing the different hypotheses. This might be an interesting topic for further research.

Let's turn to the long-list of factors. Weak internal controls, lack of transparent MIS (management information system) and wrong incentives for employees point to the same source, namely that MFIs failed to incorporate a solid governance system (F1). The emergence of a new type of intermediaries is also categorized under the heading of weak governance, as in itself new types of intermediaries do not cause a crisis. However, the failure to provide the right incentives to these agents (but instead reward them solely on the base of new clients) and the lack of check and balance can create problems over time. A second factor that is mentioned is the usury interest rates (F2). This includes the actual interest rates charged, but also the additional fees and the lack of transparency herein. A third issue often mentioned was the exponential growth of MFI loans offered to the poor (F3).

Taylor (2011) points to the demand side of the microfinance equation in the search for a cause of the AP crisis (F4). He stresses that the high demand for microcredit can be linked to the widespread agrarian crisis in India in the aftermath of the liberalization drive in the 1990s. This pushed small, marginal and landless farmers to search for means of living and cope with shocks, mostly in the form of debt. As a result, the demand for microcredit was high. In the same article, he also discusses the pre-existing SHG framework that facilitated MFI growth (F5). The Malegam report, among others, also discusses the fertile ground for MFIs because of the government's efforts to support SHGs.

Other authors stress over-indebtedness as a factor in the AP crisis (F6). Also coercive recovery practices (F7) are often mentioned as a reason for the crisis. These two factors, together with the high interest rates, take a prominent role in the government response and AP Ordinance. In a different category, failing supervision of the microfinance sector (F8) is cited as an issue, especially in light of the huge amounts of credit that poured into the sector (F9). The priority sector lending also falls under this latter heading, although it could be argued that this is a result of failing supervision. Finally, the different agendas of the state government and the microfinance sector (F10) played a role in the banking crisis. For completeness, suicides by farmers (F11) and the IPO of SKS (F12) are added, because these factors are sometimes mentioned in light of the crisis, especially by the media.

Table 2: Factors, symptoms and plausible causes of the microfinance crisis

Long-list of factors	*Symptoms*	*Plausible causes*
F1: Weak corporate governance	S1: MFI loan boom	C1: Credit boom to MFIs
F2: Usury interest rates	S2: Over-indebtedness	C2: Lack of regulation
F3: MFI loan supply boom	S3: Farmer suicides	C3: Differing state agenda
F4: High demand for loans	S4: IPO of SKS	C4: Usury interest rates
F5: Pre-existing SHG framework		C5: Pre-existing SHG framework
F6: Over-indebtedness		C6: Coercive recovery methods
F7: Coercive recovery methods		
F8: Failing supervision		
F9: Credit boom to MFIs		
F10: Different agenda of state		
F11: Farmer suicides		
F12: IPO of SKS		

Sources: see appendix 3

Taking a closer look at these factors suggests that not all can be causes of the banking crisis. Some factors are actually symptoms of the crisis rather than causes and there seems to be overlap between factors.

The supply boom in MFI loans (F3), the high demand for loans (F4) and over-indebtedness (F6) seem to be strongly interlinked. It seems logical that the combination of a boom in supply and high demand caused over-indebtedness. Therefore, over-indebtedness is more likely to be a symptom of the banking crisis than a cause. The supply boom in MFI loans (F3) in turn is likely to be caused by the fast inflow of credit (F9) and is thus not an origin for the crisis in itself but an indicator of the credit boom. Moreover, farmer suicides (F11) and the IPO of SKS (F12) cannot be held responsible for the crisis (see also box 2 for more on farmer suicides). This makes that the boom in MFI loans (S1), over-indebtedness (S2), farmer suicides (S3) and the IPO of SKS (S4) were symptoms of the crisis to be.

It is possible to group the weak corporate governance (F1) and failing supervision (F8) under lack of regulation (C2), because regulation of microfinance processes can come from the company itself, the state or something like a sector association. This leaves us with the following plausible causative factors: credit boom towards MFIs (F9 -> C1), lack of regulation (C2), differing state agenda (F10 -> C3), usury interest rates (F2 -> C4), existence of the SHG framework (F5 -> C5) and coercive recovery methods (C7 -> C6).

While it is outside the scope of this paper to construct a complete model to test the causative links of the six plausible factors to the banking event E, I give some final thoughts on causation. High interest rates (C4) may not necessary lead to a banking crisis, as moneylenders have charged similar or higher rates for decades without causing such a widespread crisis. Similarly, coercive payment methods (C6) are hardly new to the informal sector in India, unfortunately, and may thus turn out to be insignificant when incorporated in a model. This might be an interesting topic for further research.

3.4 Investigative question

In chapter 1, the following investigative question was formulated:

Investigative question 1: What were the possible causes of the microfinance crisis in Andhra Pradesh in 2010?

Based on the discussion above, I have defined six possible causes of the microfinance crisis: Credit boom to MFIs, lack of regulation, differing state agenda, usury interest rates, pre-existing SHG framework and coercive recovery methods. As mentioned, all factors are plausible, even though some are more likely to lead to significant test results than others. But, it is beyond the scope of this paper to construct a model to test the hypotheses.

In chapter 5 and 6, I will get back to regulation & supervision and interest rate ceilings, respectively, to further investigate the causes of 'lack of regulation' and 'usury interest rates'. But first, I will look at the regulatory response by the RBI and government of India.

Chapter 4 RBI response to the microfinance crisis

4.1 Introduction

The initial response to the farmer suicides, allegedly linked to the microfinance sector, came from the state government of Andhra Pradesh (AP). They introduced the AP Ordinance, which triggered the banking crisis. The central Government of India (GoI) and the Reserve Bank of India (RBI, the central bank) in turn reacted to the microfinance crisis. In October 2010, the RBI installed a committee to investigate the issues and concerns in the MFI sector, generally referred to as the Malegam committee. Below, in section 4.2, you will find the main conclusions of the Malegam report. The report was broadly supported by the RBI and forms the base of the changes made to MFI regulation, as presented in RBI circulars. A selection of the RBI circulars relevant for the MFI sector can be found in section 4.3. Finally, the Malegam report was used to redraft the pending bill on MFIs (see section 4.4). In the last section of this chapter, I will take a look at investigative questions 2 and 3.

When reading this chapter, it is important to realize the complexity of India's political and regulatory structure. India has a federal structure, which means that the state and the central government each have their own jurisdiction. Money lending falls within the jurisdiction of the state government, while banking regulation falls within the power of the central government. The AP Ordinance, which was turned into the AP Act, was issued by the state of AP within their right to regulate money lending. Several MFIs have challenged the AP Act in court, but the High Court of AP decided on 11 February 2013 not to rule on the AP Act, as the MFI Bill is pending. Changes in AP will thus not come until the new MFI Bill is accepted, as the RBI circulars cannot overrule this state legislation. In the new MFI Bill, a clause is included that will annul the AP Act and bring all MFI regulation to the RBI at a national level. The MFI Bill is currently pending in the Standing Committee on Finance. With the next parliamentary session to be dedicated to the budget (February/March 2013), the MFI Bill is likely to discussed until the Monsoon session in the summer of 2013. Whether it will be accepted then is the 1-million-dollar question. Until the Bill is turned into an Act, the RBI regulation as described below thus holds for all states, except AP where the AP Act still stands. It is also good to note that some state governments are expected to challenge the MFI Bill in court, as they feel that MFIs should be regulated at state level.

So why discuss the RBI regulation so extensively, even it cannot overrule the AP Act? For three reasons. One, the RBI regulation is the current practice for NBFC-MFIs in all states, except AP. While it thus may not hold for some of the largest MFIs in India, it does regulate many others. Second, once the MFI Bill is accepted, the RBI regulation will be the sole regulator for all MFIs in all states. As the RBI is expected to continue on the path laid out in the recent RBI circulars, they seem to be a good indication of what the regulatory environment would look like. Third, the RBI response has legitimized the MFI business to banks, investors and other (financial) stakeholders in the aftermath of the microfinance crisis. This is key to the sector as without this legitimization, the microfinance sector as we know it would have come to an end in India, as banks would have little incentive to lend to MFIs.

4.2 The Malegam committee report

The Malegam report, or 'Report of the sub-committee of the central board of directors of Reserve Bank of India to study issues and concerns in the MFI sector' as it is called officially, was published in January 2011. In appendix 4, the main findings and recommendations of the Malegam report are summarized. The full report can be found on the RBI website (RBI, 2011).

The main tasks of the committee were to analyze the following topics (RBI, 2011):
- The definition of microfinance and microfinance institutions.
- The practices of MFIs regarding interest rates, lending and recovery practices.
- The current regulation regarding MFIs and recommendations on changes.
- The role associations of MFIs can play to enhance transparency.
- A grievance redressal mechanism.

- The conditions under which loans to MFIs can be classified as priority sector lending.

To execute this task, the committee consulted a wide range of stakeholders to the MFI sector and came with the following recommendations. First, the Malegam committee recommended creating a separate category for MFIs under the RBI regulation on NBFC (non-banking financial companies). To qualify for this classification, NBFCs would have to adhere to strict rules regarding portfolio distribution, loan specifications and interest rates – more or less a description of what constitutes a decent microfinance loans. For example, the total loan amount should not exceed Rs. 25,000 (close to USD 470), but the total indebtedness of a borrower should also not exceed this amount. Moreover, borrowers cannot be a member of more than one SHG/JLG. Being a member of multiple groups was all but common practice in Andhra Pradesh and often one loan was repaid with another. Also, no more than two MFIs can lend to the same borrower. To monitor this, one or more credit bureaus should be established and all MFIs have to be member of at least one bureau. Furthermore, the minimum tenor of the loan has to be 12 months for loans up to Rs. 15,000 and 24 months for larger loans, although the borrower can repay earlier without fine.

The interest rate cap is another prominent recommendation. The committee pleads for a margin cap of 10% over the cost of funding for large MFIs (loan portfolio of more than Rs. 100 crore), a margin cap of 12% for smaller MFIs and a general interest rate cap of 24% on each individual loan. These figures are based on a normative cost structure, which was derived from the cost structure of MFIs (table 3). With the financials of March 2010 in mind, which is before the Andhra Pradesh crisis, this would mean that the large MFIs have to adjust their internal cost structure downward, especially staff costs and overhead are well above the norm. Both large and small MFIs would need to reduce their cost of funds. The Malegam report also recommended that the price of loans can only consists out of three components (processing fee of max 1%, interest charge and insurance premium) to prevent loopholes.

Table 3: Cost structure of MFIs

(% of loan portfolio)	Larger MFIs*	Smaller MFIs*	Norm
Staff costs	8.00%	4.46%	5%
Overheads (other than staff costs)	5.72%	3.63%	3%
Provision for loan losses	1.85%	1.07%	1%
Sub total	*15.57%*	*9.16%*	*9%*
Return on equity	1.85%**	1.42%**	3.39% #
Total internal cost	*17.42%*	*10.58%*	*12.39%*
Cost of funds	13.37%	11.94%	10.20% ##
Total of internal and external costs	*30.79%*	*22.52%*	*22.59%*
Rounded off to			*22.00%*
Debt/equity ratio	83.1/16.9 = 4.92	84.9/15.1 = 5.61	85/15 = 5.67

* The calculations are based on the financials over the period 31 March 2009-31 March 2010 of nine large MFIs, which account for 70.4% of MFI clients and 63.6% of the loans portfolio of microfinance. And on the financials of two smaller MFIs. Figures are averages.
** assuming that profit before tax corresponds to return on equity before tax.
# 15% post tax, i.e. 22.6107% pre-tax on 15% of loan portfolio
12% on borrowings i.e. 85% of 12% on loan portfolio (assuming 15% equity).

Source: Malegam report (RBI, 2011)

Regarding the internal governance of MFIs, the committee feels that this is the responsibility of the MFIs, to be checked by the regulator. But also the banks, as provider of funding, and industry associations should play a role. As part of the code of conduct, the MFI should be aware of its recovery practices. The committee proposes that field staff should not be allowed to visit the home or workplace of the borrower to collect repayments, but that this should be done in a central place.

Finally, the Malegam report states that loans to MFIs should continue to count towards the priority sector lending target of banks. But these MFIs would need to adhere to more strict rules than previously. Among others, at least 90% of total assets of the MFI should be in 'qualifying assets' and at least 75% of the total loans should be for income generating activities. Assets qualify if they fit within the restrictions on loan size, etc., similar to qualification of NBFC-MFI, mentioned earlier. Moreover, the Malegam committee recommends that funding of MFIs should be diversified, e.g. through the creation of a Domestic Social Capital Fund and through the issuance of preferential capital.

4.3 RBI circulars on MFI sector

The RBI board broadly supported the Malegam committee report and has used the report to set up a new framework for MFIs since January 2011. The changes are published in RBI circulars, memoranda on changes in RBI regulation. In appendix 5, a short description of the circulars most relevant to the MFI sector is given.

One of the main recommendations was to create a new category within the NBFC structure, especially for MFIs. This was done in December 2011 and the guidelines for NBFC-MFIs are in line with the Malegam report. While the spirit of the report was fully incorporated, the actual amounts on loan size, interest rate cap, income limit for borrowers and qualifying assets are slightly different – the RBI has been less strict than the Malegam committee had suggested. In the new regulation, the maximum loan amount is Rs. 35,000 (instead of Rs. 25,000) and can increase to Rs. 50,000 in subsequent cycles (this was not an option in the Malegam report). Also, the total indebtedness of a borrower can be Rs. 50,000 (instead of Rs. 25,000). Moreover, the interest rate cap is set at 26% per year (instead of 24%) and the margin cap at a maximum of 12% for all MFIs (instead of 10% for larger MFIs and 12% for smaller MFIs). Finally, the percentage of qualifying assets is set as 85% of total assets (instead of 90%). In March and August 2012, the RBI issued circulars in which extension of time to comply with the new rules was given on certain topics (e.g. provisioning norms) and several restrictions were relaxed (e.g. share of income-generating loans and interest rate cap). This was done after the RBI had received comments that MFIs had difficulties complying with the new NBFC-MFI framework in light of the developments in AP.

A second recommendation that was implemented was to keep the MFIs in the list of priority sector lending. The rules have become stricter – only MFIs that fit the restrictions just mentioned qualify – but overall the sector can still benefit from the banks' need to extend 40% of their loan portfolio to priority sectors.

Thirdly, the issue of corporate governance was addressed. In 2006, the RBI had issued guidelines for fair practices for NBFCs. With the introduction of the new category NBFC-MFI, the RBI updated the code. While NBFC-MFI should adhere to the general code, there is now a separate section included in the code specifically for MFIs. Guidelines include directions on the training and compensation scheme of staff, the method of recovery, the way information is presented to the borrower and the need for a grievance redressal system.

4.4 Micro Finance Institutions (Development and Regulation) Bill

In March 2007, the Micro Financial Sector (Development and Regulation) Bill, 2007 was introduced in the Lok Sabha, India's lower house, but was not accepted (MinFin GoI, 2012). The developments in Andhra Pradesh and the ensuing Malegam committee report have triggered the Government of India (GoI) to redraft the bill. The resulting Micro Finance Institutions (Development and Regulation) Bill, 2012 (the 'MFI Bill' in short) was introduced in the Lok Sabha on 22 May 2012 (PRS, 2012). The Bill was referred to the Standing Committee on Finance on 28 May 2012 and is still pending[16]. In appendix 6, the main points of the MFI Bill are summarized. A complete version of the bill can be found on the website of the Ministry of Finance, Government of India.

The primary goal of the MFI Bill is to create a formal statutory framework for institutions that provide microfinance services. The RBI would become the regulator for the microfinance sector and

[16] It is not uncommon in India that bills take several parliamentary sessions, which are held three times a year, or even several years to be approved. Only after approval a Bill becomes an Act and comes into force on a date specified in the Act.

all MFIs have to register with the RBI. The MFI Bill thus has a broader focus than most RBI directions, which primarily focus on the NBFC-MFI category. The Bill also includes societies, trusts, companies and other organizational forms, some of which are now regulated by other agencies (but the bill excludes banks, cooperatives and money lenders). In the future, some regulatory power can be transferred to NABARD or other government agencies. This could potentially create a conflict of interest, as NABARD also extends loans to MFIs (this also holds for the to-be-created MF Development Fund, see below) (PRS, 2012; Roy, Sane & Thomas, 2011). Also in the area of services provided, the bill is more encompassing than the RBI circulars and Malegam report. The bill aims to regulate all microfinance services, which includes credit, thrift, pension and insurance, while the RBI circulars and Malegam report have focused on credit only. This means that if approved, the bill would open up the possibility to more thrift (savings) collection by MFIs.

Unchanged are the directions that the RBI can issue with regards to the size of loans, interest rate cap and composition of loan portfolio. Moreover, the RBI continues to set the prudential norms for MFIs. The details are left to the RBI, except for the loan size, which is set at Rs. 50,000 (or up to Rs. 100,000 for purposes specified by the RBI). The MFI Bill moves from an interest rate cap to a maximum annual percentage rate (APR). The APR should include annual interest rate, processing fees or any other charge or fee levied by the MFI.

New features of the MFI Bill are the creation of a Micro Finance Development Fund and councils at different levels. The Fund will be managed by the RBI and can extend loans, grants, seed capital and other support to MFIs. Councils are created at central, state and district level. At the central level, the Micro Finance Development Council shall advise the central government on policy issues in the microfinance sector. Lower level councils are asked to monitor developments in the sector. Also new is the creation of an Ombudsman, which would execute the grievance redressal mechanism. Each MFI already needed to have its own procedures, but in the bill a central process is set up by the RBI.

4.5 Investigative questions

In chapter 1, two investigative questions were formulated that I will address here.

Investigative question 2: What was the regulatory response to the microfinance crisis?

The response of the RBI and GoI has been extensively discussed in the previous sections. The RBI has responded by installing the Malegam Committee and by making the regulation regarding MFIs more specific. The Government of India redrafted the pending bill on the microfinance sector. In the new MFI Bill, the government lays down a new regulatory framework for the microfinance sector. The new framework is more encompassing that thus far and includes all types of organization and a wider range of microfinance services.

Investigative question 3: Does the response fit the possible causes of the microfinance crisis?

In chapter 3, I defined the following possible causes of the 2010 microfinance in Andhra Pradesh: Credit boom to MFIs, lack of regulation, differing state agenda, usury interest rates, pre-existing SHG framework and coercive recovery methods. For each topic, I will discuss whether the RBI response addresses that cause.

Credit boom to MFIs
In the Malegam report (RBI, 2011), the issue of funding is discussed in relation to the high level interest rates that are suggested to be the result of the entry of private equity into the microfinance sector. Although the committee does not give an opinion on whether this is the case or not, they do stress that MFIs need to diversify their funding base. Moreover, with regards to priority sector lending, which is an important source of funding for MFIs, the committee recommends that this continues. The RBI adopted these recommendations. Moreover, in the MFI

Bill a Micro Finance Development Fund is created to support the development of the MFI sector. Thus, regarding the cause of 'credit boom', the regulator and legislator have not taken adequate action. In fact, they have focused on creating additional sources of funding.

However, closely related to the credit boom were the boom in MFI loans supplied, high demand, and the symptom of over-indebtedness. While the RBI and GoI have not addressed the credit boom itself, several rules and guidelines have been issued to address the underlying factors. All kinds of restricting parameters have been introduced to pace the microfinance sector and prevent over-indebtedness. Moreover, the prudential norms have been tightened. If appropriately implemented this should also stem the inflow of credit as MFIs demand less funding when they grow in a more moderate pace.

Lack of regulation

The lack of regulation, as possible cause of the microfinance crisis, had two roots, i.e. external supervision and internal organization within MFIs. Regarding the external supervision, based on recommendations by the Malegam committee, the RBI strengthened the regulatory environment of MFIs. It created a new category with the NBFC regulation and issued several directions on what constitutes appropriate microcredit. There are two points worthy to note. First, the new regulation only focuses on NBFC-MFIs. Out of the more than 250 organizations involved with microfinance, only 56 fell in this category in 2011 (CGAP blog 8 May 2011). This leaves many unregulated. Admittedly, those 50+ organizations do account for about 85% of the loan portfolio. So, the RBI did pick the appropriate category to start with, as the central bank had to be selective in light of supervisory capacity constraints. In the MFI Bill, all organizations would have to register with the RBI and fall within the framework.

Second, the question is raised whether the regulation will be implemented correctly. On the one hand, the use of priority sector lending is a strong leverage to enforce the new regulation. If MFIs do not qualify, their cost of bank funding will go up. As 85% of the funding for MFIs stems from the banking sector, the threat is credible (CGAP blog, 8 May 2011). On the other hand, some parts of the regulation will be very difficult to implement. For example, the creation of a Credit Information Bureau is doable, but the registration of all borrowers is challenging. Many Indians do not have a personal identification number and the roll out of the Unique ID program can take several more years (CGAP blog, 18 October 2011). Also, the restriction of Rs. 50,000 total debt is difficult to assess if informal sector loans should be taken into account.

Regarding internal organization, many MFIs expressed the intention to formulate a code of conduct after the 2005 Krishna crisis, but implementation has been rather weak. The progress after the 2010 microfinance crisis is difficult to assess, but external pressure to get their act together has risen. The RBI has made industry associations and banks more explicitly co-responsible for the compliance. Moreover, the RBI has clearly included NBFC-MFIs in the Fair Practice Code by creating a separate section for this type of organization.

Overall, the regulatory environment of the microfinance sector has improved. The regulation is more tailored towards the sector, if the MFI Bill is approved all MFIs fall within the same framework and the internal implementation of a code of conduct has received much attention. However, critique has been expressed that the RBI is has turned from almost absent to micromanager. Should a central bank determine the specifications of loan, repayment schedule and interest rate cap? More on this in chapter 5.

Differing state agenda

With the RBI circulars, the central bank has created more clarity on the regulatory framework of NBFC-MFIs. However, this still leaves many MFIs out of scope. If the MFI Bill is accepted, regulatory oversight over the whole microfinance sector is centralized with the RBI. In theory, this would prevent another AP Ordinance-like law at state level. However, the reality in India is often more obstinate. As Roy et al. (2011) put it, "the Bill tries to oust the jurisdiction of the state government over money lending activities and undermines the federal structure of the Constitution". It is very well possible that a state will still try to issue acts in their capacity to regulate money lending or challenge the MFI Bill in the Constitutional Court.

Usury interest rates

The RBI put a quick end to another possible cause to the microfinance crisis, i.e. usury interest rates. The introduction of the interest rate cap and the margin cap will force MFIs to charge interest rates within these boundaries. In this sense, the RBI acted adequately. Whether this was the best way to go about and whether it will have negative side-effects is to be seen. More on this topic in chapter 6.

Pre-existing SHG framework

While the new regulation does not explicitly address the presence of the SHG framework, it does limit the usage of existing SHG by MFIs, which is said to be one of the reasons that MFIs could grow so fast. In the RBI directions it is stated that borrowers can only be part of one SHG or JLG.

Coercive recovery methods

The method of recovery is included in the Fair Practice Code as issued by the RBI (RBI/2011-12/470). This also stipulates that MFIs should train their staff and should prevent staff compensation schemes that overly focus on extension of loans (as this could lead to over-indebtedness, which in turn pushes the need for recovery). Moreover, the RBI direction on NBFC-MFIs states that "recovery should normally be made only at a central designated place. Field staff shall be allowed to make recovery at the place of residence or work of the borrower only if borrower fails to appear at the central designated place on 2 or more successive occasions" (RBI/2011-12/290). Complaints were made that MFI staff would come to a borrower's house or work and intimidate people into repaying. Restricting the repayments to a central place should create transparency and reduce coercive recovery methods. However, as this direction only holds for NBFC-MFIs and not yet for other MFIs (probably will when the MFI Bill is approved), the possible cause is not fully addressed. Moreover, implementation of a code of conduct and check and balances still has to be done by MFIs. It can take a while before all staff members are aware of the new practices and adhere to it. The RBI does not have the capacity to intensively check all MFIs at this level and implementation risk is thus high.

Table 4: Overview of possible causes and regulatory response

Possible cause	*Response addresses possible cause?*	*Explanation*
Credit boom towards MFIs	+/-	- Focus on finding more funding sources. + Introduce restricting parameters to prevent over-indebtedness and stem pace of expansion
Lack of regulation	+	+ Introduce new regulatory framework that is tailored to NBFC-MFIs + MFI Bill will put all MFIs under in one framework +/- Implementation risk for code of conduct and new regulation is present
Differing state agenda	+	++ MFI Bill will centralize regulatory oversight in RBI +/- MFI Bill might still be challenged by state governments
Usury interest rate	+	++ Interest rate cap and margin cap will prevent usury interest rates +/- whether it will have negative side-effects is to be seen
Pre-existing SHG framework	+	+ borrower cannot be a member of more than one SHG/JLG
Coercive recovery methods	-	+ RBI directive on repayment location +/- This directive does not include all MFIs - Implementation risk is high.

Conclusion

In table 4, an overview is given of the possible causes and whether the regulatory response (including the pending MFI Bill) addresses these causes. Overall, it is fair to say that the regulator scores rather well. All issues are addressed in the RBI circulars and/or in the MFI Bill. While not all MFIs are currently included in the regulatory framework of the RBI, they will be in the future. However, implementation risk is present and it is questioned whether the RBI has the capacity to check MFIs on all aspects.

While the regulatory response addressed the possible causes of the 2010 microfinance crisis, there are still concerns and questions. Roy et al. (2011), for example, raise concerns among others about the lack of clarity of the MFI Bill and the risk of conflict between state and central jurisdiction. While they base their finding on the 2011 version, they also largely hold for the 2012 version. Questions are asked about the direction of the regulation and interest rate ceilings. Is their current shape supportive of sustainable growth of the microfinance sector? These two topics will be discussed in the next chapters.

Chapter 5 Regulation and supervision

5.1 Introduction

The first Core Principles, as formulated by BIS[17] in its Core Principles for Effective Banking Supervision, states that "the promotion of safety and soundness of banks and the banking system [is] the primary objective for banking supervision. […] Supervision should aim to reduce the probability and impact of a bank failure" (BIS, 2012). Clearly, within BIS – being founded by a group of central bankers – there is no debate on the necessity of banking regulation in general. However, there has been a discussion on whether and how to regulate MFIs (Christen et al., 2012). In India, there has been a call for more targeted regulation in the aftermath of the 2010 microfinance crisis, but does this make sense? In this chapter, we will take a closer look at why regulation is warranted, why you shouldn't do it and how you can approach regulation. In section 5.4, the situation in India is described so that in section 5.5 a judgment can be passed on the regulatory actions and plans in India.

5.2 To regulate or not to regulate

Why regulate
"[T]he existence of monopoly power, externalities, and informational asymmetries create a potentially constructive role for government interventions to offset these market failures and enhance social welfare" (Barth, Caprio and Levine, 2004)[18]. In the case of the banking sector, market failures related to information asymmetry and moral hazard cause agency costs[19]. Regulation can be a tool to align the interest of the bank with the general public and overcome information asymmetry. "[W]ith perfect information, there would be no need for supervision – everyone would know what risks banks were taking" (Caprio, 1998). Interest rates, the price of banks, should make risks explicit, but in reality, information may be a long way from perfect. Or as Cechetti (2010) put it, "the motive for financial regulation is straightforward: left to their own devices, banks hold too little capital and too little liquidity". He explains that a higher return on equity, higher interest rate margins and profits provide an incentive for bankers and shareholders to lower capital and hold less liquidity, even though this would leave banks more vulnerable to shocks. If severe enough, shocks can lead to bank runs, large bailout programs, bank nationalization and high non-performing loan ratios, which are all manifestations of banking system insolvency that is closely related to financial crises (Caprio, 1998). The costs of financial crises can be substantial for the society, both in terms of lost GDP growth (BIS (2010a) finds that the median losses peak-to-trough or until growth recovers to pre-crisis trend are 9-10% of GDP) and in terms of fiscal costs associated with being the lender of last resort (Ciancanelli and Reyes Gonzalez (2000) report costs ranging from 3% of GDP to 20% of GDP found by different studies). Therefore, governments provide incentives to align the interest of bank with the general public in the form of financial regulation.

Research suggests that more conservative regulation, tighter capital and liquidity requirements and therefore better capitalized banks are associated with smaller output fluctuations, more robust banking systems and improved capacity to weather storms, such as the 1998 Asian crisis and 2008/09 global financial crisis (Caprio, 1998; BIS, 2010a; Demirguc-Kunt, Detragiache and Merrouche, 2010). Barth et al. (2004) do not find this relation to be as clear cut, but bank

[17] Bank for International Settlements (BIS) aims to be a centre of competence for central banks (www.bis.org).
[18] Barth et al. (2004) refer to Pigou's *The Economics of Welfare (1938).* In light of welfare economics, Pigou discusses, among others, externalities and how these effects can be included in the price of a product through taxes. His ideas are widely used in environmental economics (Klink, 1994). Barth et al. (2004) also mention Stigler's *The Theory of Economic Regulation (1971)* as part of the "long, vast literature on the overall role of the government in regulation economic activity".
[19] The Agency Theory or principle-agent problem refers to the problem that the interest of the agent (e.g. bank manager, employee, politicians) is not aligned with the interest of the principle (e.g. bank owners, employer, voters) (Ray, 1998). The agency theory assumes, among others, that the agent has more information than the principle (asymmetric information) and that there is a normal or competitive market (Ciancanelli & Reyes Gonzalez, 2000). In banking sector, multiple principle-agent relationship make for a complex environment: depositors – bank, owners – managers, bank – borrowers, regulator – bank.

development, performance and stability benefit from regulation that promote disclosure of information and limit the moral hazard related to deposit insurance schemes[20].

Financial regulation needs to fit the objective that it is trying to achieve, the market failure that it is trying to correct. Commonly, regulators have three objectives, i.e. protecting the stability of the financial system as a whole, protecting deposits and consumer protection (Christen et al., 2012; Roy et al., 2011). In the case of microfinance, a fourth objective is occasionally added as justification for regulation – promoting financial inclusion. According to Christen et al. (2012) providing clarity can attract commercial actors, adjusting regulation can open up financial services to a new group of customers, and a favorable tax treatment can make the sector attractive to investors.

Why not regulate

Next to the pro-regulation camp, there are those that oppose regulation or too much regulation by the government. From the 1970s, less public sector involvement, less regulation and more free market policies was the mantra for many governments and multilaterals like the World Bank. This is also found in the Washington Consensus, the more or less standardized approach of the IMF and World Bank stressing the free-market approach in troubled developing countries (Rodrik, 2006). Also in the financial sectors around the world, liberalization and deregulation was seen in the same time period, although most deregulation has been about changing the rules rather than completely abandoning it (Ciancanelli and Reyes Gonzalez, 2000). In the wake of the 2008/09 global financial crisis, the call for regulation is strong in politics and media, but free market advocates caution against too much regulation. They think along three lines of reasoning: the market is distorted by regulation, the government might not be the best regulator and regulation comes at a cost that should be balanced with the benefits.

In line with Adam Smith's free market thinking, some argue that regulation distorts the working of the market to correct excesses and provide the most efficient allocation of resources. Frye and Shleifer (1997) make a nice comparison to explain how the government can act: the invisible hand (a la Smith), the helping hand (for which China is often mentioned as example) and the grabbing hand (as mentioned below). Under the invisible-hand model, the government restricts its tasks to the institutional framework to ensure rule of law and leaves the rest to the market. Following this theory, regulation soon becomes distortive. Ciancanelli and Reyes Gonzalez (2000) discuss the distorting impact of regulation on corporate governance in banks – the weak state thereof is often seen as important factor in the US subprime crisis and Indian microfinance crisis. Especially the implicit or explicit guarantee from the government as 'lender of last resort' distorts the incentive of owners and promotes excessive risk-taking. Also Krugman (1998), as cited in Caprio (1998), focuses on the risk of moral hazard leading to overinvestment that is promoted by the government guarantees.

A second group of economists consider some form of regulation or supervision useful, but question whether the government is the right party to do this. Shleifer and Vishny (1998, as cited in Barth et al., 2004) argue that governments may not act in the interest of the general public, but in their own interests, which they call the 'grabbing hand'. Using their power, the government provides benefits to certain groups, extracts bribes or stimulates banks to invest in their preferred projects. While Barth et al. (2004) stress that their results do not imply that regulation and supervision are useless, they do find that a range of measures for direct government supervision is not positively related to bank performance and stability. "[Their] findings raise a cautionary flag regarding reform strategies that place excessive reliance on countries adhering to extensive checklist of regulations and supervisory practices that involve direct, government oversight of and restrictions on banks". In a follow-up study, preliminary results show that their findings were confirmed (Barth, Caprio & Levine, 2012). In the past decade, many governments implemented Basel guidelines, which include higher capital requirements and more power for official supervisory agencies. But, "existing evidence does not suggest that this will improve banking-system stability, enhance the efficiency of

[20] I do not further explore the discussion on deposit insurance schemes and moral hazard problems in this paper, as the RBI does not have such a scheme for MFIs.

intermediation, or reduce corruption in lending" (Barth et al., 2012). Private monitoring (e.g. by certified auditors or rating agencies) does still have a positive relation with bank development.

Others also see some benefits to financial sector regulation, but stress that this comes at a cost; for the regulator, the entity that is regulated and even for the public. The costs can be in the form of welfare costs (e.g. from reduced competition as shown in Guiso, Sapienza and Zingales, 2006), but also in the form of actual costs (e.g. from hiring specialized staff and costs for external audits). Cull, Demirguc-Kunt and Morduch (2011) point to a study by Elliehausen (1998) that put the costs of compliance at 12-13% of the banks' noninterest expenses for US banks. This was before the global financial crisis that triggered Basel III[21]. The height of the costs of implementing Basel III is hotly debated, but all agree that the costs will rise[22]. Similarly, for MFIs the costs of compliance with prudential regulation is estimated to be higher than the calculations of Elliehausen, as MFI generally have less economies of scale and need to raise the share of skilled labor in the staff (Cull et al., 2011). These costs are a relevant issue for regulator, as it has an impact on the outreach of MFIs to women and borrowers that are costlier to reach – in case of for-profit MFIs – or on the profitability and thus on financial sustainability – in case of less-profit oriented MFIs (Cull et al., 2011). Different objects of the regulator are thus not easily combined; stricter prudential regulation might support resilience of the banking sector, but hinders the financial inclusion target as outreach is curbed.

5.4 How to regulate

As said in the introduction, the discussion extends beyond whether or not the microfinance sector should be regulated. It also focuses on *how* to regulate the sector. Porteous, Collins and Abrams (2010) describe this as the regulators' dilemma, "how to promote greater access to credit without causing consumer abuse and over-indebtedness [or] a crisis in the financial system". In this section, several approaches to regulation are discussed: (1) prudential and non-prudential regulation, (2) risk-based approach, and (3) activity-based and institution-based approach. The general tone is that regulation should fit the risks taken by institutions and the complexity and size of transactions, the so-called principle of proportionality (Christen et al., 2012; BIS, 2010b; BIS, 2012).

Prudential and non-prudential regulation
Banking regulation can be split into two main categories, prudential and non-prudential regulation. Prudential regulation has the "ultimate aim of protecting the stability of the financial system or retail depositor funds" (BIS, 2010b). Rules on depositor protection, capital adequacy, liquidity ratios, etc. fall within this category. Non-prudential regulation is all other rules and guidelines, which mainly focus on the code of conduct of an organization. It may include areas such as "registration, consumer protection, fraud and financial crimes prevention, credit information services, interest rate policies and tax issues" (BIS, 2010b). There is a general consensus that compliance with prudential regulation is more costly for the supervisor and supervised and more complex than of compliance with non-prudential regulation (Cull et al., 2011; Christen et al., 2012). Therefore, in general only deposit-taking MFIs should be subject to prudential regulation (Christen et al., 2012; BIS, 2010b). In rare circumstances, lending-only MFIs should face prudential regulation, for example if a borrowers run[23] jeopardizes the stability of the country's financial sector (Christen et al., 2012). But often the costs of supervision are higher than the cost of bailing out MFIs and other methods of supervision are more effective.

[21] The Basel Committee on Banking Supervision agreed upon a new global regulatory standard for banks, the so-called Basel III Accord. Among others, banks would be required to meet two new liquidity requirements – a short-term requirement called the Liquidity Coverage Ratio (LCR) and a long-term requirement called the Net Stable Funding Ratio (NSFR). The LCR ensures that banks have adequate funding liquidity to survive one month of stressed funding conditions. The NSFR addresses the mismatches between the maturity of a bank's assets and that of its liabilities. Implementation of the new regulation will start in 2013. (IMF, 2012; BIS, 2010a)
[22] Estimates range from 0.3% to 0.7% off annual global GDP growth in the long term and from 25 basis points to 364 basis points on credit spreads (BIS, 2010a; IMF, 2012; IIF, 2011; OECD, 2011).
[23] While a 'bank run' on deposit-taking institutions is well known, a 'borrowers run' is less known. An important stimulus for borrowers to repay microcredit is the (implicit) promise of a next loan (Armendariz and Morduch, 2010). The problems in a large MFI can trigger borrowers of other MFIs to question whether a next loan is possible and hence decide not to repay (Christen et al., 2012).

Risk-based approach
In the 2012 version of the BIS Core Principles for effective banking supervision, more attention is paid to the risk-based approach than in earlier versions. "Supervisors should assess the risk profile of banks, in terms of the risks they run, the efficacy of their risk management and the risks they pose to the banking and financial systems" (BIS, 2012). Fitzgerald and Vogel (2000) explain that "traditional supervision focuses more on *quantifying problems and minimizing risks* in individual financial institutions, while risk-based supervision focuses more on the *quality of risk-management systems* and the *recognition of systemic risks to the banking system caused by the economic environment"* (emphasis in original text). There is a time and place for traditional supervision, especially when institutions face trouble it is useful to get a good, quantified snapshot of the current state. However, this tends to be labor intensive. A risk-based approach allows the supervisor to use its resources where it is most effective, where most risk is perceived. Also, it gives more room to innovative products like microfinance and mobile-based banking, as it focuses on mitigating or off-setting risk rather than avoiding risk[24] (Fitzgerald & Vogel, 2000). However, the risk-based approach is no panacea. This approach became the preferred approach in the US in mid-1990s and has been included in the 1997 version of the BIS Core Principles of banking supervision (Fitzgerald and Vogel, 2000), which is well before the 2008/09 global financial crisis that still happened in all its magnitude.

Activity-based and institution-based approach
Christen et al. (2012) suggest that supervision should be based on activities rather than on institutional type to create a level playing field and prevent regulatory arbitrage. In practice, this might not be as easy as it sounds, as it implies that all institutions providing microfinance should adhere to the same rules. Small NGOs providing microcredit, large for-profit, deposit-taking MFIs and commercial banks providing microfinance would thus all face the same regulation. With the discussion on prudential regulation in mind, this could imply that small MFIs are pushed out of the market as the costs of compliance are excessive. Despite this drawback, which could trigger the supervisor to create a slightly more complex multi-tiered framework, the activity-based approach has its merits. In countries where the jurisdiction of legislation and regulation is divided over central, state and local level, the risk of regulatory overlap, regulatory gap and/or regulatory consistency is significant (Chakrabarti, 2011). Countries with a federal structure are particularly at risk. To prevent a regulatory mess, "any entity that performs a particular function should come under the regulator that is in charge of that function" (Chakrabarti, 2011). If an organization extend microcredit and collects deposits, it performs banking functions and should thus fall under the banking supervisor.

5.4 Situation in India

Now that we discussed the pros and cons of regulation and some approaches, it is time to turn to India. Based on the information above, I formulated several questions that will help me to judge the regulatory response to the 2010 microfinance crisis in the next section.

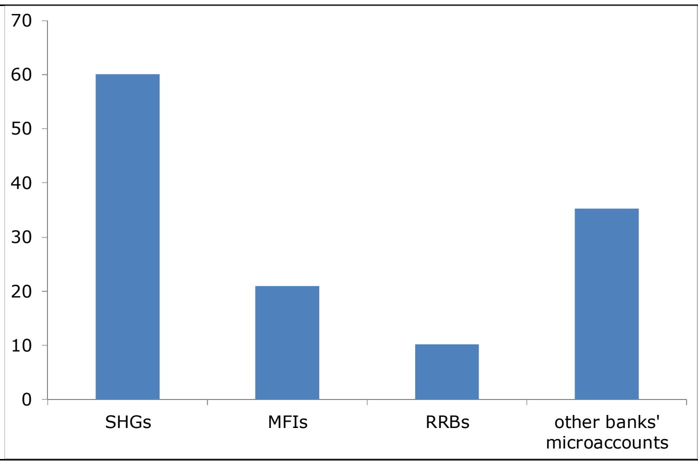
Are MFIs allowed to take deposits?
At this point in time, some MFIs are very selectively allowed to collect deposits from members (especially MFIs registered as cooperatives). The average deposit to loans outstanding was about 4% for NBFC and NGOs and close to 28% for cooperatives, end-March 2012 (M-CRIL, 2012). In the MFI Bill, the government is opening the door to accepting deposits. Rumor has it that the RBI at this point is time is not willing to allow thrift collection by MFIs. However, to include it in the bill now would save a troublesome adjustment procedure via India's parliament in case the RBI wants to open up savings to MFIs. A reason to do this would be to diversify the funding sources of MFIs.

Does the RBI regulation include prudential regulation? And the MFI Bill?
In the RBI regulation for NBFC-MFIs and in the MFI Bill, there are explicit references to prudential norms, among others on capital adequacy ratio and provisioning.

[24] There are three ways to minimize the adverse consequences of risk-taking: (1) avoiding risk, by putting limits on the amount of risk; (2) mitigating risk, by implementing internal control and hiring experienced staff; (3) off-setting risk, by charging higher interest rates or fees to compensate the higher risk. (Fitzgerald & Vogel, 2000).

Do MFIs pose a systemic risk to the Indian banking sector?
The systemic risk of MFIs to the Indian financial sector is negligible. The Malegam report (RBI, 2011) puts the total funds from the banking sector and SIDBI to MFIs at about 0.5% of the total loan portfolio of commercial banks. This was end March 2010, at the height of the microfinance boom in India. M-CRIL (2012) reports that the MFIs extended just 0.29% of the total credit outstanding in the banking sector end March 2012 (down from 0.64% in March 2010). In terms of clients, M-CRIL (2012) estimates that there are 16.7 million unique MFI borrowers, which means that MFIs serve about 6% of the 280 million families in India.

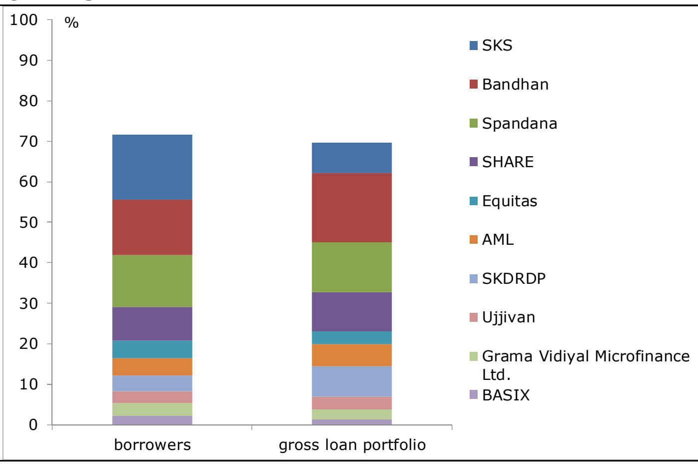
Figure 4: Number of small credit accounts (<Rs. 25,000) in millions



Source: M-CRIL (2012). Note: RRB = regional rural bank

When looking at the number of MFI accounts in the section of small accounts (<Rs. 25,000), which are assumed to be the most relevant for the expansion of financial inclusion, MFIs play a more prominent, but still not impressive role (figure 4). MFI account for about 30% of the formal sector small credit accounts and about 16% of the formal and semi-formal small credit accounts (i.e. including SHGs) (M-CRIL, 2012). Despite the limited systemic risk to the Indian financial sector as a whole, the concentration risk in the MFI sector is large, which poses a risk to the stability of the microfinance sector. End March 2012, a little over 40% of the active borrowers were serviced by three MFIs, i.e. SKS, Bandhan and Spandana (figure 5). The top-10 (by number of borrowers) even covered about 70% of the market in terms of active borrowers and gross loan portfolio. The failure of one of these MFIs could pose a contagion risk to the rest of the sector.

Figure 5: Percentage of borrowers and gross loan portfolio of top-10 MFIs



Source: Mix Market. Note: top-10 by number of borrowers

What is the structure of the MFI sector? How many MFIs are there and what is their size?
M-CRIL (2012) estimated that there are about 650 organizations active in the microfinance sector (see also appendix 1). Mix Market reports data on 113 institutions in India's microfinance sector, of which 95 have a market share of less than 1% in terms of borrowers. As a result, the concentration in the microfinance sector is large, as 10 MFIs cover about 70% of the borrowers (figure 5). In terms of legal type, the MFI sector is dominated by NBFC-MFIs (Srinivasan, 2012; M-CRIL, 2012). Out of the top 10 MFIs, eight are registered as NBFC-MFI and in total about 85% of the active borrowers are with NBFC-MFIs (M-CRIL, 2012). Many MFIs started out as local organization – although it should be noted that local can mean a state larger than your average European country – but have expanded across state borders in the past years.

What is the object of regulation?
The RBI has multiple objectives. As regulator and supervisor of the financial system, the RBI also has to objective to "maintain public confidence in the system, protect depositors' interest and provide cost-effective banking services to the public" (www.rbi.org). Moreover, in a speech for a BIS-related conference, the RBI governor explained that their "experience in India has been that left to itself, the financial sector does not have a pro-equity bias" (Subbarao, 2011). In response, the RBI developed regulation to stimulate financial inclusion, such as priority sector lending and regulation on financial inclusion.

When looking specifically at the MFI regulation, financial inclusion seems to be the primary goal, as the MFI Bill starts with (MinFin GoI, 2012):

> "A Bill to provide for development and regulation of the micro finance institutions for the purpose of facilitating access to credit, thrift and other micro finance services to the rural and urban poor and certain disadvantaged sections of the people and promoting financial inclusion through such institutions and for matters connected therewith or incidental thereto."

Later in the bill, the RBI is given the task to "regulate, promote and ensure orderly growth", so there is also a focus on stability. Furthermore, the assignment of the Malegam committee strongly focuses on consumer protection, referring to the need to "examine the practices of MFIs in regard to interest rates, lending and recovery practices to identify trends that 'impinge on borrowers' interest" (RBI, 2011). An indirect effect of the RBI regulation, especially the new NBFC-MFI category and the continued priority sector lending, was the confirmation of the microfinance sector as legitimate business sector.

What approach is used by the RBI? Risk-based or traditional approach? Activity- or institution-based approach?
In the RBI regulation on NBFC-MFIs, there is a strong focus on quantitative and restrictive rules and guidelines – maximum loan amount, maximum interest rate margin, maximum indebtedness of the borrower, minimum percentage of loans for income-generating activities, etc. Also in the MFI Bill, there are numerous references to quantitative restrictions. This suggests that the RBI and the Ministry of Finance, which drafted the MFI Bill, are more focused towards the traditional approach than the risk-based approach.

Regarding the activity-based approach, this is not yet the case for RBI regulation (as this only covers NBFC-MFIs), but the MFI Bill moves in the direction of activity-based approach. Almost all organizations providing microfinance would fall within the new framework. However, there is an exception for banks, cooperatives and money lenders.

Is there regulatory gap, overlap or inconsistency in India?
It is safe to say that there is confusion and overlap in the regulatory structure of MFI supervision. Chakrabrati (2011) goes as far as stating that the microfinance sector faces regulatory imbroglio, a regulatory mess. He explains that "at the heart of the conflict lay not just the arbitrariness and hidden agenda of the Andhra ordinance […]. One may well argue that the trouble stems from an inherent structural flaw in the regulatory architecture that allows for unclear division of jurisdiction between multiple regulators and political centers".

5.5 Investigative question

In chapter 1, an investigative question was formulated that I will address here.

Investigative question 4: Is the response supported by literature?

Based on the literature review in sections 5.2 and 5.3 and the description of the situation in India, I make the following observations below regarding the regulatory response to the microfinance crisis. However, before turning to these observations, it is worthy to note that in general it is well understood that the microfinance crisis in Andhra Pradesh triggered the call for regulation. Even though the crisis did not pose a systemic risk to the financial sector in India, the negative consequences were grave enough for both the banking sector and the borrowers that the government can justify intervention into market. It only raises the question whether they approached this sensibly?

(1) More activity-based approach warranted
The MFI Bill aims to correct one of the major flaws in the regulatory and supervisory framework of MFIs, i.e. it wants to bring all organizations providing microfinance services under one regulator. This is commendable, as it would prevent a state government from changing the local legislation and creating vastly different regulatory rules for MFIs that often work across state borders. Moreover, it would also prevent MFIs clustering in the states that are most lenient and create concentration risk – Barth et al. (2004) show that diversification supports banking sector stability. Also, it creates a level playing field for all providers of microfinance services. A drawback of the current MFI Bill is that it excludes banks and cooperatives that provide microfinance services. While it is understandable that banks, which offer a much broader range of products, and financial cooperatives, which have a unique ownership structure, require specific oversight, it might create regulatory arbitrage. Moreover, banks that would like to move into microfinance could face different regulation or additional obstacles. Furthermore, the SHG program is out of the scope of the RBI regulation and MFI Bill. In the M-CRIL report (2011b) is becomes clear that over-lending is not just on account of MFIs, but also on the back of the SHG structure. An (even) more activity-based approach, which would include different organizational types, could be worthwhile to consider for the regulator.

(2) Selective prudential regulation and more focus on non-prudential regulation
Currently, NBFC-MFIs are subject to prudential regulation and if the MFI Bill is accepted this would likely imply prudential supervision for other entities too. However, at this point in time, MFIs are hardly allowed to collect thrift and the RBI is expected to be hesitant to extend this permission. The literature suggests that prudential regulation in this case might be too costly and hinders the financial inclusion target. The fact that systemic risk from the microfinance sector to India's financial sector seems limited supports this view. As the concentration risk within the microfinance sector is high, it is understandable that the regulator would like to keep a closer eye at this dozen or so institutions. However, it begs the question whether prudential regulation in the current form is necessary. In fact, the Malegam report and much debate in the aftermath of the microfinance crisis focus on consumer protection, more than on sector stability. Non-prudential regulation is well suited to address this, e.g. with the creation of an ombudsman, the establishment of a credit information bureau and an extensive code of conduct. All these elements are mentioned in RBI regulation and the MFI Bill, but could do with more attention (see also next point).

(3) Risk-based approach instead of micromanagement
The focus of all regulation is on quantitative restrictions; loan amount, tenor, interest rate margin, etc. The literature suggests that a shift towards risk-based is recommended and blogs/newspaper articles confirm that the MFIs self and industry associations are also more in favor of a risk-based approach. The RBI response seems an overreaction in response to the microfinance crisis. Some call the new framework micromanagement. This results in unnecessary red tape, it could potentially lead MFIs to focus on the more profitable, easier to reach clients and is likely to hinder innovative products. The risk-based approach is especially fitting to the microfinance sector as much is decided locally (Fitzgerald & Vogel, 2000). The local credit officer has extensive power to

decide on offering a loan or not. In traditional banks, credit applications are supported by documents and analyses. In the case of microfinance, there generally is very little documentation and the tacit knowledge of the local credit officer and the group is very valuable. The supervisor will have a very hard time to check a sample of the numerous small loans without documentation. It is therefore more efficient to focus on the adequacy of internal systems to guide local decision makers, like the credit system, code of conduct and staff reward scheme. [25]

(3) Multi-tiered framework
BIS (2010b) suggests differentiating between small and large MFIs and between deposit and non-deposit taking MFIs. This goes more strongly for prudential regulation, as most non-prudential regulation would apply to all MFIs, irrespective of organizational type or size (Christen et al., 2012). For India this also seems to be the most appropriate approach, considering the large number of very small MFIs and few large MFIs. It is useful to monitor the large MFIs more closely than the small MFIs. A multi-tiered framework would also allow the RBI to selectively grant MFIs permission to collect deposits and impose prudential regulation on those institutions. The organizational type would in this case be irrelevant, in contrast to the current practice. The quality of risk management, track record and possibly size would be more logical parameters to classify organizations and draft regulation. In the MFI Bill, there is the possibility to delegate supervisory tasks to other entities. However, this should be done with care and the risk of regulatory inconsistency looms large. Therefore, it might be preferred to keep the authority to draft regulation at one central point, the national supervisor, and delegate some supervisory tasks to other government bodies (mostly for smaller MFIs).

(4) Larger role for private supervisors
Unlike the general practice in India, the government might not be the best institute to do all the work. Several aspects of MFIs could be much better supervised by specialized institutions, such as certified auditors, external rating agencies and industry associations. Moreover, credit information bureaus can centralize valuable information on the creditworthiness of borrowers. Admittedly, there has been much debate in the aftermath of the 2008/09 financial crisis on the role of rating agencies, but Barth et al. (2004, 2012) find that private monitoring can provide a useful contribution to bank-sector performance. The MFI Bill and RBI regulation make mention of the need to supply audited statements and create a credit information bureau, but the supervisor still has a very prominent role.

Concluding, the RBI regulation and MFI Bill are a step in the right direction. Both BIS (2010b) and Christen et al. (2012) strongly recommend special regulation for MFIs considering the differences between microfinance services and traditional banking services. Also commendable is the centralization of supervision over the sector. However, it would be more efficient to gear the supervision more towards an activity-based and risk-based approach. The RBI has made some steps, by focusing mainly in the large MFIs. But the micromanagement approach of setting loan parameters hinders operational flexibility and could curb financial inclusion. It would be better to focus on adequate internal management systems, with a strong focus on non-prudential regulation to strengthen consumer protection. Prudential regulation is only needed for the few very large MFIs and, going forward, for the deposit-taking institutions. Also, the supervisor could leave more to private agencies, while the RBI focuses on the most risky institutions. This would make more efficient use of the supervisory capacity of the RBI, so less needs to be delegated, which reduces the risk of regulatory imbroglio. Finally, the SHG program might need to be included under the microfinance framework even though the set-up is very different. But left outside, organizations could use SHG to route around microfinance regulation.

[25] The RBI seems to slowly realize the herculean task that it has given itself and received much critique from the business on the lack of operational flexibility. In the RBI circular of 3 August 2012, it has already moved from the restriction that the interest rate margin cannot be breached on every loan to the stipulation that it should not be breached on average: “the average interest rate during the financial year does not exceed the average borrowing costs during that financial year plus the margin” (RBI/2012-13/161).

Chapter 6 Interest rate ceiling

6.1 Introduction

In the previous chapter, regulation and supervision in broad terms was discussed. In this chapter I will further investigate one of the most hotly debated measures of the RBI, i.e. the cap on interest rates and interest margins.

It is widely accepted that MFIs charge higher interest rates than the formal-sector banking channels, as in general the costs of reaching MFIs clients and extending many small loans are higher (e.g. Armendáriz & Morduch, 2010; Helms & Reille, 2004). However, there are indications to suggest that at least some MFIs in Andhra Pradesh (AP) charged very high interest rates (Arunachalam, 2011). The RBI has made an end to the interest rates that are – perceived or actually – too high, by imposing an interest rate cap and margin caps on MFI loans. The responses to the interest rate ceiling and margin cap have been very diverse. Some quotes from blogs on the website of CGAP[26]:

- [The interest rate cap and margin caps] have been put in place to make sure that microfinance institutions do not profiteer from the poor (4 August 2011)
- Margin cap […] similarly has clearly done away with incentives for the microfinance institutions to rework their cost structures and use technology to bring down their costs once they have reached a certain benchmark (4 August 2011)
- Absolute interest rate caps are anti-market and introduce rigidities (24 July 2011)
- Remoter areas will suffer as MFIs might scale down operation in high-cost areas to meet interest rate caps. In fact, it might discourage smaller loans and encourage larger debt-pushing (8 May 2011)
- [It is] micromanagement (21 July 2011)

In the academic world you see a similar divide of those in favor of interest rate ceilings and those against it. Below we will look at the arguments of both sides (section 6.2) to see what best fits the situation in India. Section 6.3 describes the situation in India and 6.4 passes a judgment.

One discussion that needs to be excluded on forehand is on hidden charges, fees and other additional costs. To circumvent an interest rate ceiling, MFIs sometimes charge additional fees to cover their costs or make more profit (Helms & Reille, 2004). In India, this option is severely limited because the RBI regulation stipulates that the pricing of loans consists out of three components: the interest charge, the processing charge[27] and the insurance premium[28]. Moreover, MFIs are not allowed to make a security deposit/margin compulsory in the financing structure. Even though this currently only holds for NBFC-MFIs, the MFI Bill also states that the RBI should define the "levy of processing fees, interest, life insurance premium and other terms relating to micro credit facilities" (MinFin GoI, 2012). Moreover, the bill refers to an annual percentage rate (APR). APR is promoted as a more transparent way to communicate the costs of a loan on an annual basis and if based on a common formula, makes loan costs more comparable[29]. Unfortunately, this option is not without drawbacks either. When bridging liquidity gaps, borrowers might be more interested in the actual costs of the loan for a few weeks or month, than in a hypothetical annual price (Schicks, 2010). As said, I will not go further into this discussion as the option to charge additional fees is much restricted in India.

[26] An overview of these sources can be found in the bibliography (p. xx).
[27] RBI/2011-12/290: Processing charges shall not be more than 1% of gross loan amount. Processing charges need not be included in the margin cap or the interest cap.
[28] RBI/2011-12/290: NBFC-MFIs shall recover only the actual cost of insurance for group, or livestock, life, health for borrower and spouse. Administrative charges where recovered, shall be as per IRDA guidelines.
[29] Just as an example on how confusing interest rates can be. Let's take 5% per month, which may sound attractive if the formal-sector interest rates are around 15% per year, is almost 80% on an annual basis. A 2% per week interest rates even translates into a whopping 180% on an annual basis. And these examples do not include insurance premiums, compulsory savings, or other charges. More information on www.mftransparency.org.

6.2 All in favor say yea, all against it say nay

The debate on interest rate caps or even interest bans is as old as the hills. Much of the early bans and usury laws were rooted in religious convictions. Christianity long considered charging interest rates sinful and the Islam still forbids it (hence the growing interest in Islamic Finance). Also in Hindu, Roman and Chinese law, rules on interest rates ceilings have been present for centuries (Swamy and Oak, 2007). More recently, the arguments stem from economic theory on financial markets and information asymmetry, but also the view on consumer protection comes into the debate. However, the discussion is expected to continue as neither side has been able to give a decisive answer from a theoretical point of view nor based on empirical evidence. It turns out that "it is in fact hard to separate out rigorously the full effect of the interest rate control regime" (Porteous et al., 2010). Also interesting to note is that interest rate ceilings are not a developing-country phenomena or just related to microfinance. Restrictions on consumer lending and lending on small, short-term loans (such as payday lending [30] in the US) are frequently present in developed countries as well (e.g. Ramsay, 2009).

The concepts of adverse selection, moral hazard and credit rationing play a prominent role in the literature on interest rate ceilings. In a seminal paper by Stiglitz and Weiss (1981), the existence of credit rationing is related to information asymmetries and occurs even without the intervention of the government. Adverse selection and moral hazard cause the market on credit not to clear and some part of the population is left without credit even though they might be willing to pay a higher interest rate. However, for the bank raising interest rates has a negative effect on its profitability as higher interest rates either discourage safer investors and/or stimulate borrowers to invest in riskier projects. So, the bank does not raise its interest rate and credit is rationed for part of the borrowers. Armendáriz and Morduch (2010) see two effect; on the size of the pie and the distribution of the pie. First, the existence of adverse selection and moral hazard drives interest rates up and pushes less riskier borrowers out of the market, which would be inefficient as both risky and less risky borrowers have projects that would have a positive return and are thus worthwhile to be funded. The size of the pie is therefore smaller than it could be. Second, if the interest rates are low enough to keep safer borrowers in the market, the presence of risky borrowers pushes interest rates up for both groups. While this does not lead to credit rationing, it does have distributional effects (safe borrowers cross-subsidize their risky neighbors).

Mayer (2012) argues that this cross-subsidizing is welfare hindering and that an interest rate cap can create credit rationing for risky borrowers, thereby enhancing social welfare. He explains that in absence of an interest rate ceiling, the deregulated market produces externalities; the safer borrowers cross-subsidize the riskier borrowers as the latter have higher rates of default. By imposing a moderate interest rate cap, the riskier borrowers are driven out of the market, the safer borrowers can lend at a lower rate and the market continues to exist. In fact, by using the US market for payday lending, he shows that the loan volume does not change, as "when costs fall, some consumers who could not borrow at the higher, unfettered rate will do so now". So, despite the welfare loss for a small group of risky borrowers, the overall welfare in the society increases and a moderate interest rate cap is justified. Zinman (2010) also looks at the market for payday lending in the US, but contrary to Mayer (2012) finds negative effects of interest rate restrictions. After the introduction of binding restrictions, borrowing decreased, households moved into different – plausibly inferior – products and the restricted access hurt the overall financial condition of households.

Espinosa-Vega and Smith (2001) focus on the costs of bankruptcy and side with the pro-ceiling advocates to conclude that an interest rate cap can have a positive effect. They demonstrate that with an interest rate ceiling, bankruptcy costs can be reduced. The resources that are freed can be partly redirected to capital formation. "And, as the capital stock rises, so will incomes and savings

[30] In case of payday lending, the borrower writes a check postdated to the next pay day in return for a few hundred dollars. This type of lending is much used in the US and is of particular interest here for its similarities to microfinance. Payday lending is short-term and unsecured and it generally deals with small amounts. Moreover, payday lending is generally more expensive to provide than traditional banking products for the small size of the loans and the short repayment periods. See among others Mayers (2012) and Zinman (2010) for more information on payday lending.

(if the interest elasticity of savings is not too high). As a result, credit rationing will become less severe. This, along with lower rates of interest, is the source of the expected utility gains for borrowers that arise from interest rate regulation."

Helms and Reille (2004) word the most commonly heard argument in the microfinance sector against interest rate caps: "Interest rate ceilings make it difficult or impossible for formal and semi-formal microlenders to cover their costs, driving them out of the market (or keeping them from entering in the first place)." Christen et al. (2012) also state that interest rate ceilings curb the outreach of MFIs to clients that are harder to reach (e.g. in rural areas) and more costly to service (e.g. with smaller loans), as the interest rate ceiling prevents MFIs to cover the costs of those clients. The argument is hardly new, as already in 1984, Adams et al. state that if interest rates are too low it can undermine the financial sustainability of microfinance institutions because they are unable to cover their costs (cited in Porteous et al., 2010).

In line with this argument, is the idea that the interest rate ceiling constrains lending to riskier borrowers. Interestingly enough, this argument is used by both sides. As just mentioned, Mayer (2012) explains that this exclusion of risky borrowers can have a positive welfare effect. But in the microfinance literature, the exclusion of risky borrowers is often regarded as a negative, because microfinance clients are considered to be the riskier borrowers (Porteous et al., 2010). Lifting the credit rationing of this group is the goal MFIs set out to achieve. So I guess that question is who you define as risky; the microfinance clients compared to the traditional banking customers or a group within the total pool of microfinance borrowers. The answer to that question will strongly influence the outcome of the welfare analysis of interest rate ceilings.

Those focusing on theories of efficient financial market advocate that the financial markets can more efficiently allocate resources without government interference (e.g. Levine, 1997). "Government-imposed financial restraints [are] impediments to investments and economic growth, [as] they suppress domestic saving and reduce the supply of investible funds to the banking system (Demetriades & Devereux, 2000). Demetriades and Devereux (2000) and Porteous et al. (2010) cite the work of McKinnon (1973) and Shaw (1973) as the roots of this view. Mohane, Coetzee and Grant (2002) reiterate this position in their research, "when there is an artificial ceiling the allocation of resources is distorted if the equilibrium price [which is found when supply and demand interact freely] is above the ceiling". The distortion of free market allocation of resources, financial repression and government intervention are also discussed in chapter 5 (Regulation and supervision).

Interesting for the regulator (or MFIs if the interest rate is not regulated) is the developing evidence on interest rate elasticity. The traditional view of the microfinance industry has been that "the poor generally consider ongoing access to credit more important than the actual cost of the credit" (Helms & Reille, 2004). This implies that poor households in developing countries are not very responsive to changes in interest rate and that interest rates should be left to MFIs to allow them to set the rates at levels that make them financially sustainable (as this would be most beneficial to expand the outreach of MFIs and/or reduce reliance on subsidies). However, two recent studies suggest that this might be oversimplified. Dehejia, Montgomery and Morduch (2012) estimate an interest elasticity in the range from -0.73 to -1.04 using the data from a lender in the slums of Dhaka, Bangladesh. They found that "borrowers tend to take smaller, more frequent loans, and repay more quickly, leading to a reduction in overall loan balances" in response to higher interest rates. Also Karlan and Zinman (2008) found evidence that poor households are sensitive to the interest rate charged in an experiment with consumer lending in South Africa. As such, lower interest rates – either through a cap or through the market – could give access to more borrowers. While this does not suggest that the government should set an interest rate cap, it does imply that reducing interest rates can be beneficial to an MFI's outreach target.

Different views on consumer protection also create various views on interest rate ceilings. In fact, the decision to impose an interest rate ceiling might not be an economic one, but driven by politics (Ramsay, 2009). Anecdotal evidence of indebted households, populism during economic downturns, but also the general ideological orientation can increase political pressure for interest rate ceilings. As Ramsay (2009) describes, "[f]or the English, the spectre of the loan shark for those excluded by the ceilings haunts all discussion. For the French the absence of ceilings will hasten over-indebtedness and consequent financial exclusion". Labat and Block (2012) agree with the English that the poor pushed out of the market by usury-law induced credit rationing will end up in the hand of the loan sharks. But their main argument is a more basic, libertarian one: "if two parties agree to a commercial interaction, it must be beneficial to *both*, or they would not agree to engage in it". Moreover, Labat and Block (2012) wonder how the government can set a non-arbitrary price and state this is best left to the market.

6.3 Other dimensions to the discussion

It is not just relevant to discuss whether or not interest rate ceilings are beneficial or harmful, it is also worthwhile to look at other dimensions of the discussion. For example, let's assume that interest rate ceilings are beneficial, at what level should the interest rate ceiling be set? "In theory, interest rate caps could be set at a level that permits sustainable microfinance operations while eliminating excessive profits" (Christen et al., 2012). This is easier said than done. While it is generally accepted in the literature that the administrative costs of microfinance are higher than conventional banking (e.g. Helms & Reille, 2004), the general public might not accept interest rates that seem exorbitant in their view. Moreover, the costs of MFIs might be widely different depending on the area they serve, customers they have and the funds they can access. An option is to benchmark MFIs against conventional banking and use a margin over the banking interest rate for MFIs. Still, the products that both banking channels offer are quite different (BIS, 2010b), so using the commercial bank interest rate as benchmark might be a rather random solution. Swamy and Oak (2007) refer to an old Hindu law stating that the total interest accumulation cannot exceed the original principal, irrespective of how much time has elapsed. This is thus a 100% interest rate maximum over the complete tenor, irrespective if the tenor is three months or five years.

Moreover, it is good to reiterate part of the discussion from chapter 5: what is the object of regulation? What is the government trying to achieve with the interest rate ceiling? Moreover, as Porteous et al. (2010) point out, high interest rates might not be the real cause but merely a symptom. If the high interest rates are caused by a lack of competition, stimulating new entry might be more effective. Addressing information asymmetries might be better done by setting up a credit information bureau. And if the government is trying to protect consumers from over-indebtedness, again that credit information bureau might come in handy. Interest rate ceilings might thus not be the best solution. Porteous et al. (2010) conclude that "the evidence presented here suggests that the interest rate control regime in itself will certainly not prevent over-indebtedness or borrower exploitation, though it may reduce the scale of abuse, by limiting the scale of legal formal credit operations in high risk niches".

6.4 Situation in India

Again, it is time to turn to India and, just as in chapter 5, I formulated several questions that will help me to judge the regulatory response to the 2010 microfinance crisis in the next section.

What is the interest rate ceiling in India?
Initially, the RBI regulation stipulated that the interest rate was capped at 26% for individual loans and there was a margin cap of 12% above borrowing costs for MFIs (RBI circular 2010-11/505 and 2011-12/290). Also, a processing fee of 1% was allowed, which is not included in the margin cap or interest rate cap. These restrictions only hold for NBFC-MFIs. In August 2012, RBI relaxed the constraints for NBFC-MFIs (RBI circular 2012-13/161):

- The 26% interest rate cap on individual loans was removed, under the condition that the "maximum variance permitted for individual loans between the minimum and maximum interest rate cannot exceed 4%."
- The margin cap on individual loans was removed, but "the *average* interest rate on loans during a financial year [should] not exceed the *average* borrowing cost during that financial year plus the margin, within the prescribed cap" (italics added).
- The margin cap "may not exceed 10 per cent for large MFIs (loans portfolios exceeding Rs.100 crore) and 12 per cent for the others".

In practice this means that the focus has shifted from the interest rate ceiling to the margin cap. In the MFI Bill, the RBI is given the task to, among others, specify the maximum margin and maximum APR for microcredit. The level of the margin and APR is left to the RBI. However, until the MFI Bill is approved and implemented, only NBFC-MFIs face an interest rate ceiling and margin cap.

What is the goal of the interest rate ceiling?
The Malegam committee (RBI, 2011) states its concern of exploitation of borrowers and discusses two options to address this concern, i.e. an interest rate cap and a margin cap. While the committee indicates that there are drawbacks to these solutions, the two caps are desirable to prevent exploitation. In its circulars, RBI does not explain the reason for installing the interest rate cap and margin cap. However, as it endorsed the outcome of the Malegam committee, it is assumed that the RBI acts in light of consumer protection.

What interest rates are currently charged? What are the margins in India? What are the costs of MFIs in India?
There are two commonly used measures for interest rates. The first is the annual percentage rate (APR), which represents the interest rate charged to a client, and the second is the yield on loan portfolio, which focuses on the revenues earned as a percentage of the loan portfolio. I will look at both measures below.

The Malegam report and RBI regulation stipulate that the pricing of loans consists out of three components, i.e. processing fee, interest charge and insurance premium. An often used compulsory security deposit is not allowed. This closely resembles the calculation of 'APR (interest + fees + insurance)' by MF Transparency, an organization that aims to promote transparent pricing in the microfinance industry. APR stands for annual percentage rate and the information between brackets specifies the included components[31]. Figure 6 includes the APRs for 87 Indian MFIs and 483 products they offer. The products differ in size, tenor and purpose. Figure 6 shows that most MFIs charge an APR between 20% and 50%. The highest APR of 58.30% is charged by a cooperative for a Rs. 10,000, 72 days business loan. The lowest APR of 17.10% is offered by a for-profit MFI for a Rs. 10,000, 10 month loan. Note that a substantial chunk of the microcredit products have APRs above the 26% interest rate ceiling. Admittedly, the ceiling only holds for NBFC-MFIs at this moment (in figure 6 represented by the privately-owned and publicly-owned for-profit MFIs), but these organizations also have APRs above the 26%.

Figure 6: APR (interest + fees + insurance) for Indian MFIs

Source: MF Transparency. Note: each point represents the price of

[31] MF Transparency also uses two other calculation methods for APR: APR (interest + fees + deposits) and APR (including security deposits). The former is advocated by the code of conduct of the Microfinance Institutions Network (MFIN), a leading industry association in India. The latter is promoted by MF Transparency "as it most accurately represents the true cost of a loan from the perspective of the client". http://www.mftransparency.org/calculating-transparent-prices-in-india-overview-of-methodology/, accessed 1 March 2013.

one loan product

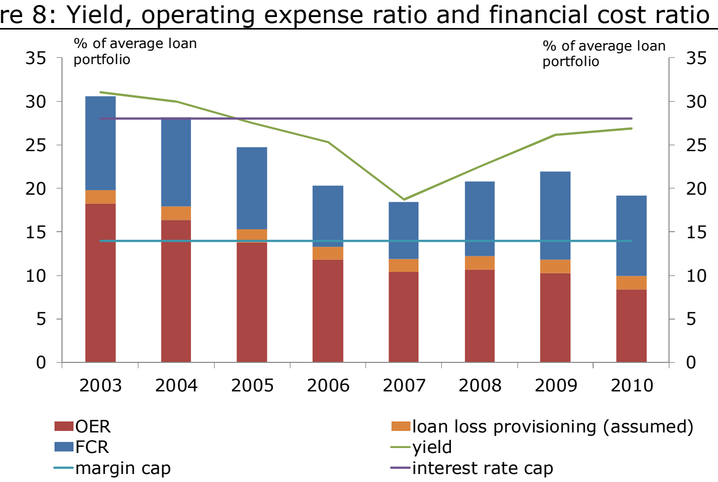
Figure 7: APR (interest + fees + insurance) for Indian MFIs based on the date when information was updated

Source: MF Transparency

Perhaps it has to do with the moment that information was presented to MF Transparency? The loan prices used for figure 6 all have been updated in October 2010 or later, which means during or after the AP microfinance crisis. 15 MFIs, offering 103 products, have uploaded data after May 2011, i.e. after the RBI first published the 26% interest rate cap in its circular on priority sector lending. This split is shown in figure 7 (please note that every organization is represented only once). This figure suggests that the moment of uploading information is hardly related to do with the interest rates charged. We can only conclude that the for-profit MFIs tend to have more up to date information available (many of the green dots are for profit organizations).

M-CRIL (2011a) uses the yields on the loan portfolio (or portfolio yield), as this represents the "actual financial cost of borrowing to microfinance clients". Basically, the portfolio yield is calculated by taking the total income of an MFI as a percentage of the average loan portfolio outstanding during the year (see appendix 2 for a complete definition of portfolio yield as well as operating expense ratio, financial cost ratio and margin). Data on the 16 largest MFIs in India, which combined cover more than 80% of the active borrowers and loan portfolio (end-March 2010), were consolidated by M-CRIL to see how those MFIs performed compared to the 26% interest rate cap and 12% margin cap. The results are presented in figure 8.

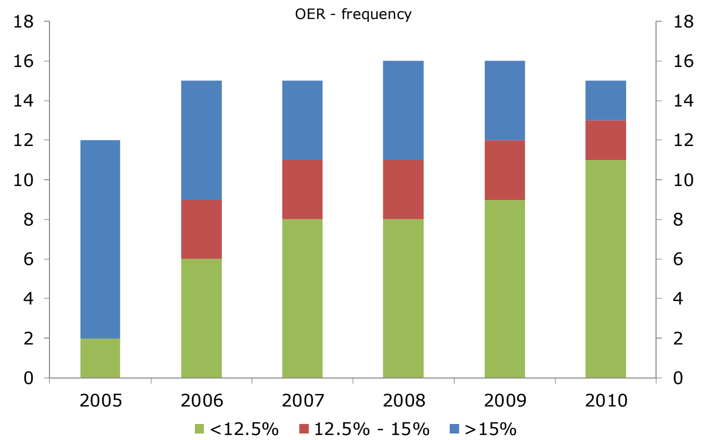
Figure 8: Yield, operating expense ratio and financial cost ratio



Source: M-CRIL (2011a). Note: weighted average of the 16 largest MFIs based on number of clients.

While the concept of financial cost ratio (FCR) differs slightly from that of borrowing cost (see appendix), it is a useful indicator of borrowing cost. Also, it is good to note that the operating expense ratio (OER), a measure of all expenses other than financial costs, does not include loan loss provisioning. In the report of M-CRIL (2011a), a 1-2% loan loss provisioning is assumed based on normal, pre-crisis circumstances (1.5% in the graph). M-CRIL puts the cut-off value at 28% for the portfolio yield and at 14% for the margin cap[32]. Figure 8 shows that since FY 2005, the largest MFIs have been also to keep their operational costs within the margin cap of 14%. When taking loan losses into account, the MFIs fall within the cut-off value as of 2006. Moreover, the portfolio yield falls below the 28% threshold as of FY 2005. When looking at the breakdown of the operating expense ratio (OER) we see that an increasing number of MFIs is able to keep their OER below 12.5% (14% threshold minus 1.5% loan loss provisioning) (figure 9). In FY 2010, 11 out of 16 large MFIs had an OER below 12.5%. This is of interest as the most recent changes in regulation shift the focus towards the margin cap.

Figure 9: Frequency of OER



Source: M-CRIL (2011a)

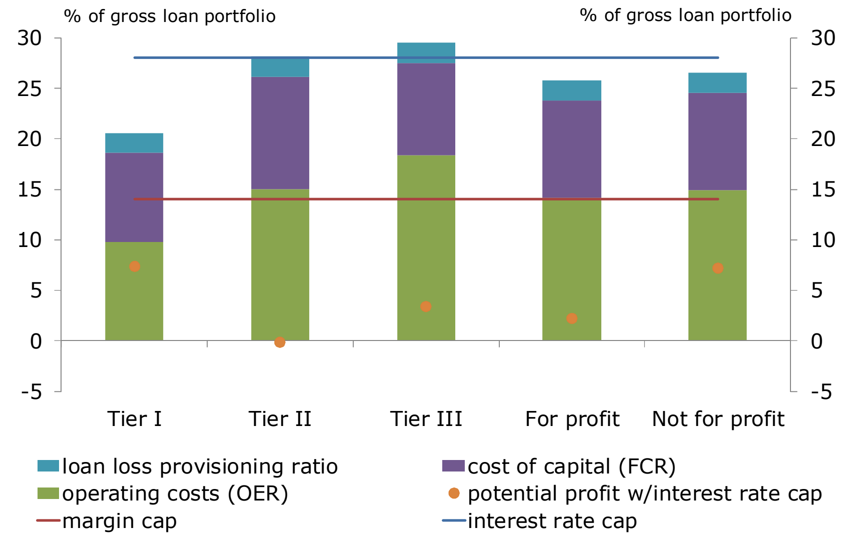
The observations that the yield and OER fall within the thresholds do not come as a surprise. The Malegam committee based its proposals for the interest rate cap and margin cap on an analysis of the cost structure of nine large MFIs, which together account for 70% of the clients and 64% of the loan portfolio, and two smaller MFIs (RBI, 2011). The overlap between the M-CRIL calculations on the 16 largest MFIs and the Malegam calculations of nine large MFIs is substantial. The key question is whether the other MFIs face the same cost structure. A hint is given by the M-CRIL report (2012), which also includes the OER of the 'typical Indian MFI' – a simple average across MFIs. The OER of the typical Indian MFI was 14.3% in FY 2010, compared to 8.4% of the 16 MFIs from figure 8. In fact, the typical MFI has an OER that is consistently higher than the weighted average of the largest MFIs. Srinivasan (2012) concludes that 38 MFIs in his sample have yields of 28% or lower, based on data from 2010-11. But, the other 32 MFIs in the sample had yields between 28% and 50%, indicating that compliance would be much harder for these MFIs. Moreover, he found a strong relation between the age of the MFI and the yields, with older MFIs being able to operate with lower yields.

SIDBI (2011) conducted a research into the interest rates and costs of 30 MFIs. They find that cost structures depend on the size, geography, organizational form and orientation (for profit or not) of the MFI. Also the APR and portfolio yield differed over the organizational types. When keeping the interest rate cap and margin cap at 28% and 14%, respectively, Tier I MFIs easily fall within both thresholds (figure 10). These are generally the larger, more mature organizations, which can benefit from economies of scale and cheaper bank credit. The banks tend to see these

[32] The RBI has set a 26% interest rate cap plus a 1% loan processing fee. M-CRIL (2011a) states that the "1% loan processing fee spread over the average outstanding principle – broadly half the loan principle at disbursement – result[s] in an average cost of 2%". The cut-off line for the interest rate cap is thus 26% RBI interest rate cap plus 2% loan processing fee. The cut-off line for the margin cap is thus 12% margin as stipulated by the RBI plus 2% yield resulting from the 1% loan processing fee. Srinivasan (2012) concurs with this view and too sees 28% as the yield level that would have MFIs comply with RBI regulation.

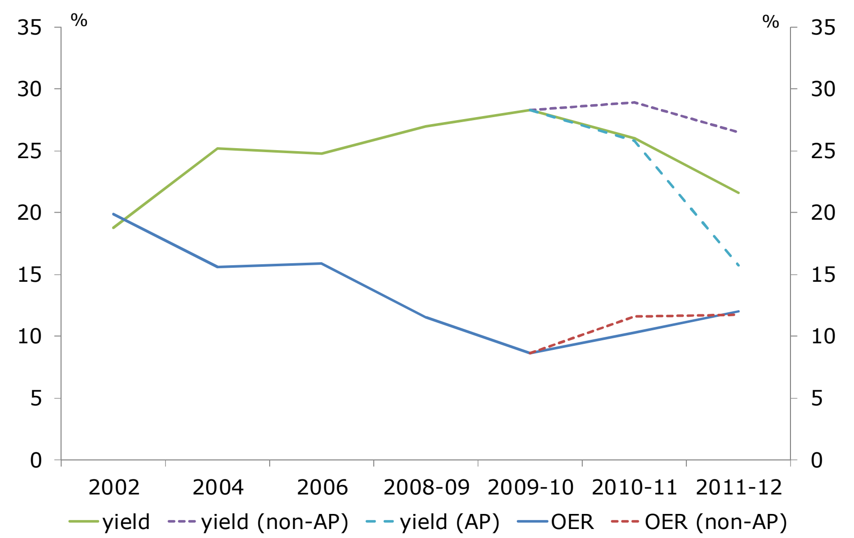
organizations as more creditworthy on the back of a larger diversification, more professional organization and track record. Tier III MFIs would also have a positive return, supported by their low costs of fund. These are often NGOs, which are able to access soft loans. Tier II organizations will struggle to make a positive return. These organizations are mostly the MFIs pushing for growth, which translates into higher operational costs, but do not have the size or maturity to get access to the cheaper bank credit. The differences between profit and non-profit MFIs are rather limited. Not in the graph, but also interesting to note is that the operating costs for MFIs in the northeast is higher than in the rest of India. The infrastructure (roads, electricity supply, etc.) is less developed in that region and MFIs face a challenging terrain with plains and hills. It should be noted that the returns in figure 10 are hypothetical returns. In reality, the MFIs charged APR (interest + fees + insurance) between 17.22% and 50.09% in FY 2011. The former is offered by a Tier II, non-profit organization and the latter by a Tier III, for profit organization.

Figure 10: Cost structure of 30 MFIs in different categories.



Source: SIDBI (2011). Note: Data FY 2011. Tier I has >250,000 clients, Tier II has 50,000-250,000 clients and Tier III has < 50,000 clients.

Figure 11: Developments in portfolio yield and OER



Source: M-CRIL (2012). Note: data for 56 MFIs (> 20,000 clients)

Do you see changes in the interest rates, margins and costs after the installation of the interest rate ceiling?
The controversy of higher interest rates in AP and the RBI regulation has put pressure on the interest rates, especially for MFIs working primarily in AP. While MF Transparency reports that most APRs are still above 28% (figure 6 and 7), M-CRIL sees a decline in portfolio yields (figure 11). Moreover, both operational costs and financial costs seem to have increased in the wake of the microfinance crisis. M-CRIL (2012) reports an increase of OER from 10.3% in FY 2011 to 12.0% in FY 2012 for the 56 MFIs in their sample (all >20,000 clients). For the 'typical MFI', they see an increase from 15.6% to 17.1% over the same time period. In the State of the Sector report 2011, it is mentioned that the borrowing costs of MFIs have increased to around 15%, which is above the 10% to 14% borrowing costs generally seen (Srinivasan, 2012; M-CRIL, 2011a). The declining portfolio yields and rising operational and financial costs have put a squeeze on the profitability of MFIs, especially if you take into consideration that the costs of loan losses is likely to the higher than the 2% provisioning.

Do you see changes in the outreach of MFIs?
The number of microfinance clients served has dropped since the outbreak of the 2010 microfinance crisis. M-CRIL (2012) reports a 36% decrease in active borrower accounts between March 2011 and March 2012; from 31 million to 19.9 million. This is lower about 6 million lower than the MFIs report, as M-CRIL corrects for the inactive accounts, i.e. accounts in AP that have been overdue for more than 90 days. While this observation of reduced outreach coincides with the introduction of the interest rate cap and margin cap, it seems far more plausible that this is the aftermath of the AP crisis rather than a response to the new regulation. As such, it is hard to make a statement on the size of the effect of the interest rate ceiling on outreach. Still, going forward, the interest rate ceiling and margin cap are expected to have at least some impact on the expansion plans. In interviews with 15 NBFCs and 17 NGO-MFIs, 40% and 35% of the organizations, respectively, indicate that the new interest cap will affect future business plans in terms of expansion into new areas (Srinivasan, 2012).

6.5 Investigative question

In chapter 1, the following question was formulated.

Investigative question 4: Is the response supported by literature?

It is hard to conclude whether interest rate ceilings are justified or not from a literature point of view. Not only provide both side plausible theoretical models, the empirical evidence is mixed. Moreover, the purpose of the interest rate ceiling is an important aspect. If preventing over-indebtedness or boosting competition are the targeted goals, one can wonder whether an interest rate ceiling, which is a rather blunt instrument, is the way to go.

When looking at the case in India, I make several observations. First, the reason for installing the interest rate ceiling and margin cap is the exploitation of the poor households. However, the level of the ceiling and margin cap seem to be within the current parameters for the large MFIs. The impact on bringing the interest rates down thus seems limited for those MFIs, which dominate the market. Second, for the smaller and new MFIs as well as MFIs in the northeast of India, the ceiling and margin cap require adjustments that could affect their profitability and thereby their ability to expand. As a result, the concentration level in the microfinance market is at risk of increasing further. I wonder whether this is a desired effect, as the literature suggests that increased competition is one of the ways to increase downward pressure on interest rates.

Overall, imposing an interest rate ceiling and margin cap is not the most effective way of achieving the goal of the Malegam committee and the RBI, i.e. of improving consumer protection. The current level is fit for the large MFIs in the more favorable geographies, but does not seem fit for many other types and regions. The risk of hindering expansion in those areas is high. By applying alternatives for consumer protection (see also chapter 5) this risk could be reduced.

Chapter 7 Conclusion and recommendations

This paper set out to investigate whether the regulatory response to the 2010 microfinance crisis in Andhra Pradesh made sense. I not only wanted to know whether the response was adequate in the sense that it addressed the causes of the crisis – it would not be the first time that politicians focus more on treating symptoms than on actual causes. But I was also interested in going beyond the general public opinion and putting the economic literature next to the regulatory response in the areas of supervision and interest rate ceilings.

An extensive discussion of the microfinance crisis led to six possible cause of the microfinance crisis: credit boom to MFIs, lack of regulation, differing state agenda, usury interest rates, pre-existing SHG framework and coercive recovery methods. While all factors are plausible, some are more likely to be the real causes of the crisis than others. However, it was beyond the scope of this paper to construct a model to test these hypotheses. This would be an interesting topic for further research.

The RBI and government of India responded in three steps to the microfinance crisis: installation of the Malegam committee, introduction of additional regulation for NBFC-MFI and redrafting the MFI Bill. Overall, it is fair to say that the regulator scores rather well in addressing the causes of the crisis in the RBI circulars and/or in the MFI Bill. While not all MFIs are currently included in the regulatory framework of the RBI, they will be in the future. However, implementation risk is present and it is questioned whether the RBI has the capacity to check MFIs on all aspects. Another area of concern is the direction of the regulation.

The introduction of more extensive regulation for the microfinance sector is commendable, as is the centralization of supervision over the sector. The negative consequences of the microfinance crisis are grave enough to warrant intervention of the central government in the market. However, the literature review suggests that the current line of the regulator might not be the most effective and efficient approach to support sustainable growth of the microfinance sector. First, it is recommended to focus more on the quality of the risk management system and non-prudential regulation to give a boost to consumer protection. The micromanagement approach of setting quantitative loan parameters hinders operational flexibility and could curb financial inclusion. This includes the practice of setting interest rate ceilings and margin caps. As the current levels are based on the largest MFIs in the most profitable geographical areas, the effects in those areas are expected to be slim, while at the same time complicating the situation for smaller MFIs in geographical areas with less favorable characteristics. Second, prudential regulation is only needed for the few very large MFIs and, going forward, for the deposit-taking institutions. Third, the supervisor could leave more to private agencies, while the RBI focuses on the most risky institutions. This would make more efficient use of the supervisory capacity of the RBI, so less needs to be delegated, which reduces the risk of regulatory imbroglio. Finally, the SHG program might need to be included under the microfinance framework even though the set-up is very different. But left outside, organizations could use SHG to route around microfinance regulation.

Getting back to the research question, we can conclude that the regulatory response of the RBI and government of India was adequate, but in the long run, the sector would benefit if the regulators would change the chosen direction of supervision more towards self-responsibility of MFIs.

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MF Transparency www.mftransparency.org
M-CRIL www.m-cril.com

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RBI/2010-11/376: http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=6227
RBI/2010-11/407: http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=6266
RBI/2010-11/505: http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=6381
RBI/2011-12/290: http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=6857
RBI/2011-12/304: http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=6876
RBI/2011-12/463: http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=7081
RBI/2011-12/470: http://rbidocs.rbi.org.in/rdocs/notification/PDFs/CFPCR260312.pdf
RBI/2012-13/27: http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=7388
RBI/2012-13/31: http://rbidocs.rbi.org.in/rdocs/Notification/PDFs/31MB020712FL.pdf
RBI/2012-13/108: http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=7402
RBI/2012-13/138: http://rbidocs.rbi.org.in/rdocs/notification/PDFs/19072012RG.pdf
RBI/2012-13/161: http://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=7493

CGAP blogs (accessed 9 February 2013)

8 May 2011 (N. Srinivasan): http://cgap.org/blog/regulation-last-indian-mfis
21 July 201 (Samit Ghosh): http://cgap.org/blog/india-microfinance-bill-%E2%80%93-good-and-bad
24 July 2011 (Narasimhan Srinivasan): http://cgap.org/blog/india%E2%80%99s-microfinance-bill-answers-most-questions
4 August 2011 (Vineet Rai) : http://cgap.org/blog/india-microfinance-bill-offers-mixed-bag-investors
18 October 2011 (Timothy Lyman): http://cgap.org/blog/credit-reporting-and-indian-mfi-bill

Appendix 1: The Indian financial sector

Type of financial institution	**Institutional ownership**	**Regulated by**	**Number of institutions**
Commercial bank	Government Private (Indian) Private (foreign)	RBI	26 20 40
Regional Rural Bank (RRB) Local Area Bank	Government Private (Indian)	RBI/NABARD RBI	82 4
State Cooperative Bank District Cooperative Bank Primary Agricultural Cooperative Societies (PACS)	DCCBs/State governments PACS/individuals Individuals	State government/NABARD State government	31 371 ~93,400
Non-Bank Finance Company (NBFC)	Private (Indian, some partly or wholly foreign)	RBI	12,375
Business correspondents of banks	Mainly private individuals or business establishments	RBI via the banks	95,767
Microfinance institutions as …			**Estimated numbers**
NBFCs	- as above –	RBI	~50
Section 25 companies	Private (Indian)		5
Cooperatives, MACS and others	Individuals	State government	100
Societies/trusts	No ownership structure	Central/state government	500
Self-help groups (SHG)	Unregistered – member equity	Self, some supported/guided by NGOs	With outstanding bank loans – 4.35 mln With bank savings accounts – 7.96 mln

Source: M-CRIL (2012).
Notes: Number of institutions as per end March 2012.
DCCB = District Central Cooperative Bank. RBI = Reserve Bank of India. NABARD = National Bank for Agriculture and Rural Development. MACS = Mutually Aided Cooperative Societies.

Appendix 2: Definitions

Financial cost ratio (FCR):
"All financial expenses incurred by the MFI calculated as a proportion of the average loan portfolio outstanding during the year. The FCR is different from the borrowing cost (referred to in the RBI circular); the latter is the average cost of funds (or the weighted average cost of all loans taken by the MFI) from wholesale lenders such as commercial banks. The reason the two differ is that the amount borrowed (the denominator for borrowing cost) is not exactly the same as the amount lent (the denominator for FCR)." (M-CRIL, 2011a)

Lakh and crore:
In India, the terms lakh and crore are used to describe larger numbers, similar to the use of million and billion. One lakh is 100,000 (hundred thousand) and one crore is 10,000,000 (10 million). One lakh crore is 1,000,000,000,000 (1 trillion).

Table 5: Conversion of lakh and crore to Arabic figures

South Asian English	Indian figure	Arabic	Arabic figure
1 lakh	1,00,000	hundred thousand	100,000
1 crore	1,00,00,000	10 million	10,000,000
1000 crore / 1 lakh lakh	1,000,00,00,000	10 billion	10,000,000,000
1 lakh crore	1,00,000,00,00,000	1 trillion	1,000,000,000,000
1 crore crore	1,00,00,000,00,00,000	hundred trillion	100,000,000,000,000

Source: Wikipedia

Margin:
"[The margin], as referred to by the RBI in setting the "margin cap", is the difference between the yield (the income earned by the MFI) and the borrowing cost (the average cost of borrowing funds)." (M-CRIL, 2011a)

Operating expense ratio (OER):
"The OER is calculated as the total of all expenses incurred during the year as a proportion of the average loan portfolio outstanding during the year. All expenses incurred in lending operations include[e] staff expenses, travel and other administrative expenses including depreciation, but excluding provisioning expenses for bad debts/loan losses." (M-CRIL, 2011a)

Portfolio at risk (>=30 days) or PAR30:
"Ratio of the principal balance outstanding on all loans with overdues greater than or equal to 30 days to the total loans outstanding on a given date" (M-CRIL, 2012).

Portfolio yield (or simply **yield**):
"Income on loan portfolio including income from interest and all types of loan processing fees as a proportion of average loan portfolio outstanding during the year. Thus the average yield amounts to the amount paid by the average client to an MFI as the cost of her loan." (M-CRIL, 2011a)

Appendix 3: Long-list with factors for AP microfinance crisis

Factor	**Other lying aspects**	**Source***
F1: Weak corporate governance	Weak corporate governance in Indian MFIs**;** Wrong incentives for employees**;** Issues in corporate governance**;** Weak internal controls**;** Dominance of for-profit, shareholder driven MFIs**;** New type of intermediaries (broker agents or micro-agents)**;** Lack of integrated transparent MIS; fast growth without careful training and addressing staff orientation.	Arunachalam (2011); Srinivasan (2012); Taylor (2011); M-CRIL (2012)
F2: Usury interest rates	Unjustified high rates of interest; Lack of transparency in interest rates and other charges; Upfront collection of security deposits	RBI (2011)
F3: MFI loan supply boom	Artificial burgeoning growth of some MFIs (multiple lending, ghost lending, fraudulent transactions, etc.); Multiple lending; Ghost borrowers.	Arunachalam (2011); RBI (2011); M-CRIL (2011b)
F4: High demand for loans	Widespread agrarian crisis	Taylor (2011)
F5: Pre-existing SHG framework	Presence of the SHG framework	Taylor (2011); RBI (2011); M-CRIL (2011b, 2012)
F6: Over-indebtedness	Defaults and delinquencies (leading to multiple lending and facilitated by failing MIS and corporate governance)**;** Over-borrowing; debt trap and over-borrowing by the poor; over-indebtedness.	Arunachalam (2011); RBI (2011); Chakrabarti (2011); M-CRIL (2011b, 2012)
F7: Coercive recovery methods	Coercive methods of recovery; aggressive collection practices.	RBI (2011); Chakrabarti (2011)
F8: Failing supervision	Lack of client protection; Lack of clear regulatory framework	Arunachalam (2011)
F9: Bank credit boom into MFI sector	Fast inflow of bank funding; Priority sector lending	M-CRIL (2011b)
F10: Different agenda of state	Failing government poverty program (MFI predatory on government program); conflict of interest between the industry player and regulatory roles of the government.	Chakrabarti (2011)
F11: Farmer suicides	Farmer suicides	Indian Microfinance (2010); media
F12: IPO of SKS	IPO of SKS	Media

* See also narrative in section 3.2.

** RBI (2011) is the Malegam committee report. Indian Microfinance (2010) is the AP Ordinance.

Appendix 4: Main findings and recommendations of Malegam committee report

Issue	***Recommendations***
Regulatory scope	- Separate category to be created for NBFCs operating in the microfinance sector (NBFC-MFI). - Only NBFCs with more than 90% of total assets in qualifying assets (see 'loans' below) can be classified as NBFC-MFI. - 75% of the total loan portfolio should be for income generation purposes.
Definition	- Define NBFC-MFI as: A company (other than a company licensed under Section 25 of the Companies Act, 1956) which provides financial services pre-dominantly to low income borrowers with loans of small amounts, for short-terms, on unsecured basis, mainly for income-generating activities, with repayment schedules which are more frequent than those normally stipulated by commercial banks and which further conforms to the regulations specified in that behalf.
Interest rate	- 24% cap on individual loans; margin cap of 10% on large MFIs (loan portfolio exceeding Rs. 100 crore) and 12% for rest. - There should only be 3 components in pricing of the loan: (i) processing fee (not exceeding 1% of the gross loan amount), (ii) interest charge and (iii) insurance premium.
Loans	- Only lend to borrowers with a household income of less than Rs. 50,000. - Maximum loan amount of Rs. 25,000. - Minimum tenor of 12 months (for loans up to Rs. 15000) or 24 months (for larger loans). - Individual borrowers have to be a member of a JLG; borrower cannot be a member of more than one SHG/JLG. - No more than two MFIs should lend to the same borrower. - Loan is without collateral. - Repayment is by weekly, fortnightly or monthly installments, at choice of borrower.
Prudential norms	- All NBFC-MFIs should have a minimum net worth of Rs. 15 crore composed of Tier 1 capital. - NBFC MFIs should maintain a capital adequacy ratio of 15%. - MFIs should maintain an aggregate provision for loan losses (at least 1% of outstanding loan portfolio).
Code of conduct	- Responsibility of not using coercive methods of recovery lies with the MFIs. - Each MFI should establish a grievance redressal procedure. - Regulator should monitor that MFIs have a proper Code of Conduct and system of supervision of field staff. - All recoveries should be made at a central place. - Regulator should publish a client protection code to be accepted and observed by MFIs.
Credit information bureau	- One or more credit information bureaus should be established; all MFIs should join a bureau.

Sources: PRS (2012), Malegam report (RBI, 2011).

Appendix 5: Short description of RBI circulars relevant for MFIs

Below you will find a short summary of the RBI circulars most relevant to MFIs, issued after the release of the Malegam committee report. The list includes regular Circulars – memoranda on regulatory guidelines from the central bank – as well as Master Circular – a summary of previous guidelines on a specific topic. Links to the circulars are provided in the bibliography under a separate heading.

RBI/2010-11/505: Bank loans to Micro Finance Institutions (MFIs) – Priority Sector status (3 May 2011)
The microfinance sector is to be regulated as a separate category and as of 1 April 2011, bank loans to MFIs only qualify as priority sector lending if the MFI complies with a set of rules. This includes the stipulation that at least 85% of total assets of the MFI should be in 'qualifying assets' and that at least 75% of the total loans should be for income generating activities. The criteria for 'qualifying assets' are strongly based on the Malegam report and include directions on the size of the loan, interest rates cap and borrower. Some guidelines have been modified compared to the Malegam committee recommendations (see also next circular).

RBI/2011-12/290: Introduction of New Category of NBFCs – 'Non-Banking Financial Company-Micro Finance Institutions' (NBFC-MFIs) – Directions (2 December 2011)
This circular includes the framework for the new category NBFC-MFI. The guidelines are based on the recommendations from the Malegam report, but the height of the loan amounts and interest rate cap have been set to a higher level than the Malegam committee had suggested. The maximum loan amount is Rs. 35,000 (instead of Rs. 25,000) and can increase to Rs. 50,000 in subsequent cycles. And the total indebtedness of a borrower can be Rs. 50,000 (instead of Rs. 25,000). Moreover, the interest rate cap is set at 26% per year (instead of 24%) and the margin cap at a maximum of 12% for all MFIs (instead of 10% for larger MFIs and 12% for smaller MFIs). The guidelines as mentioned in RBI/2010-11/505 on qualifying assets and income-generating loans also hold if an MFI wants to be registered as an NBFC-MFI.

RBI/2011-12/304: External Commercial Borrowings (ECB) for Micro Finance Institutions (MFIs) and Non-Government Organisations (NGOs) – engaged in micro finance activities under Automatic Route (19 December 2011)
As of December 2011, MFIs are allowed to raise External Commercial Borrowing (ECB) up to USD 10 million. Under certain conditions, MFIs are allowed to attract foreign currency loans. One of the conditions is that the end-use of the loans should be onlending to SHGs, extension of microcredit or related activities such as capacity building. This holds for different types of MFIs, including NBFC-MFI and Societies.

RBI/2011-12/463: 'Non Banking Financial Company-Micro Finance Institutions' (NBFC-MFI) – Provisioning Norms – Extension of time (20 March 2012)
Considering the hardship that the sector faced in 2011 and 2012, the RBI has granted the NBFC-MFIs extension at which the asset classification and provisioning norms should be reached from 1 April 2012 to 1 April 2013. Asset classification refers to the organization of assets into 'standard assets' and 'nonperforming assets' (90 days overdue). The provisioning norms stipulate that NBFC-MFIs should maintain a provision of at least 1% of outstanding loans.

RBI/2011-12/470: Guidelines on Fair Practices Code for NBFCs (26 March 2012)
In 2006, the RBI has issued guidelines for fair practices for NBFCs. With the introduction of the new category NBFC-MFI, the RBI updated the code. While NBFC-MFI should adhere to the general code, there is a separate section included in the code specifically for MFIs. Guidelines include directions on the training and compensation scheme of staff, the method of recovery, the way information is presented to the borrower and the need for a grievance redressal system.

RBI/2012-13/27: Master Circular – Fair Practices Code (2 July 2012)
This Master Circular summarizes the guidelines issued Fair Practice Code.

RBI/2012-13/31: Master Circular – Introduction of New Category of NBFCs – 'Non Banking Financial Company-Micro Finance Institutions' (NBFC-MFI) – Directions (2 July 2012)
This Master Circular summarizes the guidelines issued on the new category NBFC-MFI.

RBI/2012-13/108: Master Circular – Lending to Priority Sector (2 July 2012)
This Master Circular summarizes the guidelines issued on Priority Sector Lending. As is expressed in RBI/2010-11/505, bank loans to MFI only count towards the priority sector lending target if the MFI complies with certain rules. These rules are stricter than before the microfinance crisis and the Malegam report.

RBI/2012-13/138: Priority Sector Lending – Targets and Classification (20 July 2012)
Based on a sub-committee headed by M V Nair, the RBI has adjusted guidelines for priority sector lending. The regulation regarding NBFC-MFI was not changed.

RBI/2012-13/161: 'Non Banking Financial Company-Micro Finance Institutions' (NBFC-MFI) – Directions – Modifications (3 August 2012)
The RBI received comments that MFI had difficulties complying with the new NBFC-MFI framework and has therefore made some adjustments (compare: *RBI/2011-12/290 and RBI/2012-13/31)*. Included in these adjustments are an extension of the deadline to have Net Owned Funds of Rs. 5 crore; only assets originated after 1 January 2012 have to comply with the criteria for 'qualifying assets'; the share of income-generating loans is decreased from 75% to 70% of the total loans extended; the calculation of the capital adequacy ratio has temporarily been adjusted to take the bad loan portfolio in Andhra Pradesh into account. Moreover, the interest rate cap was relaxed. To allow operational flexibility, the average interest rate on loans during a financial year should not exceed the average borrowing cost plus margin. This is a change from the need to calculate interest cost and income on a fortnightly basis. Also, the margin was 12% for all MFIs and has now become 10% for large MFIs (more than Rs. 100 crore loan portfolio) and 12% for other MFIs. Moreover, the interest rate on individual loans may exceed 26% (previously the absolute cap), provided that the spread between the minimum and maximum interest rates on loans is no more than 4 percentage points.

Appendix 6: Main points of Micro Finance Institutions (Development and Regulation) Bill, 2012

Topic	
Regulatory scope	- The RBI shall regulate, promote and ensure orderly growth of the microfinance sector. - All microfinance institutions have to register with the RBI. - (Part of the) regulatory power can be delegated to NABARD or other government agencies for (a class of) MFIs.
Definition	- Microfinance institutions means a society, company, trust, body corporate or any other organization (not money lender, cooperative societies, banking companies), which provide microfinance services and has a net owned fund of at least Rs. 5 lakh*. - Microfinance services mean one or more of the following financial services: micro credit up to Rs. 5 lakh, thrift collection, pension or insurance services, and remittances.
Interest rate	- RBI will specify the maximum margin and maximum annual percentage rate to be charged. - The annual percentage rate comprises of the annual interest rate, processing fees or any other charge or fee levied by the MFI.
Loans	- Maximum loan amount of Rs. 50,000. Up to Rs. 100,000 for purposes specified by RBI. - RBI will issue directions on the specifications of the loan portfolio, such as the income threshold of borrowers, tenure of loans and repayment schedules.
Prudential norms	- The RBI will set prudential norms relating to income recognition, accounting standards, provisioning for bad and doubtful debts and capital adequacy ratio.
Client protection	- RBI will specify the sector benchmarks and standards for methods of operation, fair and reasonable methods of recovery, etc. - MFIs have to set up a grievance redressal mechanism and create a Client Protection Code, to be checked by the RBI. - Every MFI has to create a reserve fund and transfer a percentage of its profits to this fund. Usage of the fund is to be determined by the RBI. - The RBI has to set up a grievance redressal mechanism and Ombudsman.
Credit Information Bureau	- MFI has to become a member of at least one Credit Information Bureau.
Consultation	- Councils are created at central, state and district level. At the central level, the council shall advise the central government on policy issues in the microfinance sector. Lower level councils are asked to monitor developments in the sector.
Other	- Financial statements of all registered MFIs have to be audited. - A Micro Finance Development Fund is created. The RBI will manage this fund, which can extend loans, grants, seed capital or other support to MFIs. - Closure, (de)merger, restructuring or transferring of ownership of MFIs is only allowed with approval of the RBI.

Sources: PRS (2012), MinFin GoI (2012)
Note: *Rs. 5 lakh is Rs. 50,000 (or about EUR 700).*