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DETERMINING THE EFFECT OF REGULATION ON MICROFINANCE INSTITUTIONS FINANCIAL SELF-SUSTAINABILITY – A CROSS-COUNTRY COMPARISON

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A Cross-Country Comparison

Het effect van regelgeving op de financiële duurzaamheid van microfinance instellingen

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Acronyms

ASIC	Australian Securities and Investments Commission
BS	Balance Sheet
CCT	Conditional Cash Transfer
CIC	Credit Information Company
CSR	Corporate Social Responsibility
DEA	Data Envelopment Analysis
DIFID	Department for International Development (UK)
EIU	Economist Intelligence Unit
FIP	Financial Inclusion Program (Pakistan)
GDP	Gross Domestic Product
GE	General Equilibrium
GFC	Global Financial Crisis
LMI	Lenders Mortgage Insurance
LVR	Loan to Valuation Ratio
MFB	Microfinance Bank
MF-CIB	Microfinance Credit Information Bureau
MFI	Microfinance Institution
MFIN	Microfinance Institutions Network (Indian Self-Regulatory Body)
MIX	Microfinance Information Exchange
MRA	Microfinance Regulatory Authority (Bangladesh)
NBFC	Non-Banking Financial Company
NGO	Non-government Organisation
NPL	Non-Performing Loans
OLS	Ordinary Least Squares (regression)
OSS	Operating Self Sufficiency (as defined by MIX market exchange)
PAR	Portfolio at risk
PAR-30	Portfolio At Risk in the last 30 days
PDS	Product Disclosure Statement
PE	Partial Equilibrium
PIM	Pakistan Institute of Management
PKSF	Palli Karma-Sahayak Foundation (Bangladesh government MFI funding body)

PMN	Pakistan Microfinance Network
PPAF	Pakistan Poverty Alleviation Fund
RBI	Reserve Bank of India
RCT	Randomised Control Trials
ROE	Return on Equity
RSP	Rural Support Program
SBP	State Bank of Pakistan
SHG	Self Help Group (savings and loan group)
SME	Small and Medium sized Enterprise
SMM	Secondary Mortgage Market
SRO	Self Regulatory Organisation
TelCo	Telecommunications Company
TFP	Total Factor Productivity
TML	Traditional Money Lender
UN	United Nations
WB	World Bank

Chapter 1

1. Introduction: Research Question and Methodology

1.1 Introduction

The reduction of poverty, has emerged in a variety of forms and under ambiguous initiatives, from the Millennium Development Goals to microfinance institutions (Sumner & Tribe, 2008). Economically developed democracies have created a pursuit of universal values such as equality, and in return, these democracies have sought funding initiatives that seek to directly or indirectly increase world equality (or its equivalent) in developing countries (Evans, Azene, & Kirigia, 1997; Schreiner, 2012; Trussel & Parsons, 2007). In recent decades, a trend has emerged that seeks to fund programs which reflect the proverb: 'Give a man a fish and you will feed him for a day; teach a man to fish and you feed him for life'. Hence, the current trend is to provide the poor with the tools they need to 'lift themselves out of poverty'. The current research focusses on one of these programs: microfinance

Access to financial services has been established in the literature as a key driving force behind 'bottom-up' development driven by the initiatives of the poor themselves (Demirguc-Kunt & Klapper, 2012). However, in many developing countries the poor, and especially women, have no access to formal financial services (Brau & Woller, 2004). Whether this is a credit market failure or not is a topic which will be discussed in the third chapter of this thesis. The issue is that without access to financial services, those excluded do not have the same opportunities to achieve their personal financial and social goals (Al-Azzam, Mimouni, & Ali, 2012). This is potentially an issue for governments which seek equality as a social goal.

A famous method of achieving financial inclusion is through microfinance, which in essence is small loans (or other financial services) provided to the poor who are excluded from the formal financial system. This system has received much acclaim, and also critique in the vast body of literature which has considered the topic from various bottom-up perspectives (Aggarwal, Klapper, & Singer, 2012; Brau & Woller, 2004; Buera, Kaboski, & Shin, 2012; Di Bella, 2011). Despite the body of literature on microfinance, previous research is generally concerned with the efficiency of microfinance in achieving social goals, rather than discussions of how microfinance can be promoted through regulation, with few exceptions (Satta, 2004). Hence, there is a large gap in the literature in terms of strategic[1] perspectives of the issue, and this is a gap which the current thesis aims to address.

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[1] For the purposes of the current discussions, strategic perspectives refer to considerations of how the government affects regulations, which affect business operations, which subsequently affect microfinance borrowers. On the other hand, a bottom-up perspective considers the microfinance borrowers and their personal characteristics, before considering how business operations and regulation have influenced those borrowers.

Microfinance has the ability to mobilise the household savings of those in the country itself, without relying on external financing. In this way microfinance has the ability to bypass corruption or non-existent donor capital flows to support the social development of the poor (van Bastelaer, 2000). Although investment in education, health, and other areas where developing economies need assistance is also vital, it is microfinance's ability to stimulate internal growth which ensures its on-going attraction for external funding. As we will discuss, there are many practical issues which mean that this theory of internal growth support is not always the case, however, there are few avenues for financial support which offer such promising outcomes at all societal and economic levels, as microfinance. Thus, regardless of whether the political goal is inefficient (in that it is costly and serves no economic gain), the method to achieve the goal may be cost-effective (Ogus, 1994, 1995). However, if microfinance has the potential to help achieve government social goals through relatively simple regulation, it needs to be understood why there is not more microfinance-supporting legislation, nor research on the topic.

The financial management of Microfinance Institutions (MFI's) is a topic of research which, while touched upon, has not been seriously covered to date. The relationship between regulation and the financial management of MFI's is a very important issue if the current donor funding of MFI's reduces. Research has found that financially self-sustainable MFI's are more likely to provide long term financial service access than donor-reliant MFI's (Arch, 2005). The specifics of this relationship will be discussed in more detail in the third chapter of this thesis. At this stage it is important to understand that microfinance is more likely to continue in the long term if MFI's are able to operate independent of donations, and that this is potentially related to the incentives created in the regulation. The current thesis is thus concerned with the issue of how governments can, through regulation, affect long term financial inclusion through financially self-sustainable MFI's.

The structure of the current chapter is as follows. The second section presents the background research environment for the current topic. The third section considers the research approach and methodology. The fourth section presents a brief literature review, and the fifth section provides the reasons for the research. The sixth section discusses why this topic is interesting for law and economics. The seventh section details the objectives and scope, and the eighth section defines the problem outlines the research question. The ninth section presents the research process and the structure of future chapters.

1.2 Background and Research Environment

Research on microfinance has been undertaken in various forms and taken different perspectives to the extent that determining the relevance of the research is more of an issue than finding research papers on the topic. This is a result of the fact that microfinance is intuitively a 'feel-good' solution for achieving social goals, and has become a common topic of development research. The issue for this thesis is that the previous studies have not considered microfinance from a law and economics perspective, nor considered the effect of regulation on the long term financial self-sustainability of MFI's. Given the vast body of literature on microfinance it is the task of chapter two to sort through the findings of previous research and present the academic context of the current thesis.

In order to fill the gap in the literature to date it is proposed that an empirical qualitative study be designed to understand the effect of microfinance regulation on MFI's in different countries and from the perspectives of different stakeholders. In addition, regulatory comparison will be undertaken to understand exactly where the regulatory differences lie. In order to understand preliminary trends in the data statistical considerations will also be used, and will guide the qualitative methodology. The current thesis thus builds on a broad research environment to consider the issue from key perspectives.

1.3 Research Approach and Methodology

The research approach for the current thesis builds on the foundation of law and economics methodology and theory to develop an understanding of the relationship between regulation and MFI operations. Considering the lack of research on this specific topic, the current thesis provides a description of the effect of regulation on MFI operations. The use of the law and economics perspective for this particular research adds a large amount of value by allowing an explicit consideration of the practical effect of the incentives created by regulation. As with the pioneer research in the field of law and economics, the current thesis also seeks to use methodology to complement each other to develop an understanding of the research question. The methodology includes comparative law, statistical considerations and qualitative interviews. Key authors in the field of law and economics, such as Posner (1987) have documented the worth of similar strategies which also ensure that the results are founded in what is really happening in the situation described in the research, hence providing inherent value to qualitative research in law and economics.

The current research completes a large gap in the existing literature regarding the law and economics of microfinance. Given the body of research on microfinance to date the current thesis will discuss the existing literature to set the context for subsequent discussions. Further, this thesis will discuss previous empirical literature in isolation from the non-empirical literature because of the limited number of empirical studies. The law and economics theory relevant to the research question will also be presented, which will provide a perspective from which to prepare empirical analyses. Given the nature of the research question, legal comparison will be used in the fifth chapter. Trends in the quantitative data will be presented in the sixth chapter to understand how regulatory changes are related to MFI financial self-sustainability indicators. Statistical considerations can help to understand trends in associated factors to microfinance, both in a micro and macro sense. However, the current research realises that for such a complex research question quantitative analysis may not be sufficient. Empirical qualitative research will also be used to present the results of fieldwork interviews in the countries of interest. The methodological approach for the current thesis is thus comprehensive and ensures the research question is considered from a range of methodological perspectives.

1.4 Literature Review

When considering the perspectives from which to analyse microfinance it is important to consider the types of perspectives that can be validly used. This is because microfinance does not follow the traditional logic of economics, which is why it is not a topic widely found in the empirical economic literature. This section explains why we need microfinance and the foundations of analysis which subsequent chapters will use. In particular the foundations of knowledge regarding empowerment, information, development, success indicators, type of regulation, and operational self-sustainability will be presented.

The literature is comprehensive in regards to the impact assessment of microfinance, such as the positive effect on consumption, poverty, employment, education and social status (Torkestani & Pari, 2008). However, there is a general lack of data on microfinance borrowers, their characteristics, contextual influences and success rates (Emeni & Kehinde, 2008; J. Weiss, H. Montgomery, & E. Kurmanalieva, 2003). Further, the research to date has focussed on microfinance as a socio-economic mechanism rather than as a tool to promote latent entrepreneurship and economic growth (Affleck & Mellor, 2006). Considering that microfinance emerged as a tool to fight poverty, this is not surprising. However, microfinance allows self-employment, which requires a whole new set of skills to overcome difficulties at every stage of operation (Felsenstein & Schwartz, 1993). Microfinance leads to entrepreneurship (Emeni &

Kehinde, 2008) and limited access to capital has been found to be a contributing factor on the poor economic growth of many developing countries (Collier & Dasgupta, 2007). Given the importance of entrepreneurship and the role MFI's play it is surprising there is little research on the topic of how regulation of MFI's can affect developing economies. Further, entrepreneurs in developing countries do not only get their finance through MFI's, with 36% of rural credit in India coming from informal sources (Sharma, 2005). There is no research which looks at the effect of regulation of MFI's on the source of capital used by entrepreneurs in developing countries and the subsequent economic effects. Hence, there are various gaps in the literature. This thesis will address part of this issue by comparing the regulation of MFI's across four countries to work towards understanding the effect of particular regulatory features.

1.4.1 Microfinance Definition

Microfinance is a term which has become a buzz word leading to inconsistency about what it actually refers to. For this reason it is important to establish a definition of microfinance in this chapter so that subsequent chapters can refer to it with consistency of understanding. In a World Bank microfinance impact assessment, Karlan and Goldberg (2007) define microfinance as '…*the provision of small-scale financial services to people who lack access to traditional banking services'* (pp 10). However, this definition is too broad to allow a detailed understanding of what microfinance is for the current thesis.

The current thesis considers that microfinance is specifically:

Loans under €1,000; for the purpose of business establishment or expansion or for the smoothing of consumption expenses; by a group of geographically and socially related people or individually, without collateral requirements; at market interest rates no higher than 50%pa[2]; with no personal recourse for default to other financial resources; with no threat of personal harm in the case of default; primarily to women; solely to people who would otherwise be unable to obtain loans from the traditional financial system; provided by either a regulated or non-regulated MFI or bank subsidiary providing primarily microfinance services; by institutions whose primary aim is the provision of credit availability to the poor. Further, the definition of microfinance used in the current thesis does refer to the associated financial products of micro-insurance, micro-pensions and micro-savings accounts, which will be explicitly identified where relevant.

[2] This excludes loans from loan sharks and payday lenders

Unless indicated as such, microfinance refers to the provision of small loans. This is because a majority of the literature considers microfinance as just the provision of loans. As the current research is interested in the overall functioning of MFI's with the overall objective of financial inclusion, the current definition is broader than just the provision of loans.

1.4.2 Micro and Macro Benefits of Microfinance

The theory of microfinance addressing 'home grown' poverty alleviation is based on local and macro effects on entrepreneurship and wages. Indeed, the initial effect on local markets is potentially as important as potential flow-through effects to macro-economic growth.

Authors have supported the economic effects of microfinance at a macro and also at a local level (Buera et al., 2012). These authors have found that the macroeconomic effects of increasing equilibrium wages and redistributing wealth are also relevant for smaller markets especially because local markets are often segmented with high transportation and trade costs and information friction (Buera et al., 2012). Thus the positive effect of microfinance may also be at a local level because of the information and cost advantages posed by developing segregated markets. Although a lot of the research focusses on a particular locality, meta-analysis studies have also confirmed the positive effect of microfinance on quality of life, as a result of the increases in micro-entrepreneurship (Eichner, 2012). A more detailed consideration of the benefits of microfinance will be covered in the second chapter of this thesis.

1.4.3 Success Indicators

Microfinance is an initiative which takes many forms to achieve the different goals of different MFI's. Given the differing goals of microfinance institutions, the 'success' of microfinance depends on the benchmarks set. This means that the ex-post analysis of microfinance, and in particular the 'success' of microfinance law depends on the benchmarks by which microfinance success is measured in the first place. Different success indicators would thus be relevant for different legislative goals.

Where the regulation aims to 'protect the poor', success indicators may be more likely to include average loan size (to check loans are given to the poorest), complaints filed to the credit bureau/self-regulatory body, average interest rate charged, outreach growth, or percentage of women borrowers. On the other hand, if long term financial inclusion were the regulatory goal, success indicators may be more likely to include source of capital, ROE (Return on Equity), profit growth, or PAR 30/90 (Portfolio at Risk). The theory behind success indicators will be discussed in detail in the third chapter of this thesis where an overview of the law and economics of microfinance will be presented.

Microfinance law, regardless of whether the aim is microfinance sustainable development or protecting the poor, actually has overall strategic aim of increasing financial services to the poor and increasing equality. Thus, in a strategic view, optimal microfinance regulatory systems should be similar across countries. However, in reality that is not necessarily the case because of different focusses of the (inherently political) regulator (Grossman & Helpman, 1996; Kuotsai Tom, 2007; Kyereboah-Coleman & Osei, 2008) or different microfinance sector characteristics and history (Brau & Woller, 2004). However, to achieve regulation which is suitable for a particular country, there are potentially two methods to make the rules. The methods are:

a) Start with the benefit to the poor and build rules with their position in mind;
b) Start with a given set of laws and adjust them for the poor.

The current thesis will examine the individual laws in the countries of interest to determine what optimal microfinance systems look like and whether using a template set of laws adjusted for each country may work or if custom made regulation is more appropriate. The current thesis will use a series of complementary techniques to develop these conclusions in answering the research question and will be discussed in following sections.

1.4.4 Operational Self-Sustainability

Financially self-sustainable MFI's contribute to ensuring long term financial inclusion (Haq, Skully, & Pathan, 2010). At the heart of the research question for this thesis is the discussion of why MFI's should be operationally self-sustainable. A report by the IMF explained how MFI's which rely on donations are restricted by limited resources (Sarr, 2006). Indeed, this report goes on to say that subsidised lending by NGO's may actually have adverse effects on the operations of MFI's (Sarr, 2006). Throughout this thesis, MFI financial self-sustainability, or OSS will refer to the following definition from Indian microfinance organisation Sa-Dahn (2013):

'Financial sustainability means that the MFI is able to cover all its present costs and the costs incurred in growth, if it expands operations. It would mean that the MFI is able to meet its operating costs, its financial costs adjusted for inflation and costs incurred in growth. Financial sustainability is a tangible parameter and can be measured and monitored continually through a set of indicators…' (pp. 2). (Sa-Dahn, 2013)

If MFI's are not financially sustainable (or otherwise unable to access these sources of sustainable capital to lend to borrowers) they must primarily rely on other funding sources; either from NGO's or subsidised credit from governments (Di Bella, 2011). The result of this is that although the social benefits from microfinance may continue to be reached, the continuation of these benefits relies on a cycle of charitably motivated funding. Indeed, authors have found that although the microfinance industry is transforming, funding is not (Al-Azzam et al., 2012). A financial model which relies on donor funding when a self-sustaining model is available may put MFI's under unnecessary risk. This is because if MFI's are reliant on donor or subsidised funding and there is a change in the financial stability or focus of their sponsors, MFI's may be left without funding. However, it is the legislation of MFI's which potentially influences whether they are regulated to a financially stable level where they can receive deposits and also whether international and credit market funding sources are available.

1.4.5 Public Regulation v Reputational Motivations

Microfinance is an initiative which benefits from a 'feel-good factor' which allows for donations from international organisations. This is inherently an advantage for microfinance publicity and it brings to light the potential for reputation to achieve the same goal as regulation under certain situations. However, this possibility is difficult to determine because of a lack of a counterfactual. The third and final chapters of this thesis will consider whether public regulation is what is most suitable for microfinance or if Corporate Social Responsibility (CSR) or reputational incentives are also going to achieve regulatory goals. Hence, soft law is theoretically an option for the current thesis and will be discussed.

Work by the International Monetary Fund (IMF) has discussed how microfinance regulation needs to be considered by governments, although falls short of outlining actual regulatory detail (Basu, Blavy, & Yulek, 2004). This paper states that the goal of microfinance regulation should be to create a healthy environment without decreasing growth and onerous requirements on the MFI's. However, although this paper does recommend a tiered[3] regulatory structure, the authors emphasise that the regulation needs to be flexible to suit each country and their different stages of evolution of the microfinance sector. This report recommends that the tier levels be based on whether services are: deposits and loans to members; deposits and loans to anyone; or only loans (Sarr, 2006). The fact that microfinance regulation is a topic which has been considered by the

[3] A tiered regulatory structure means that MFI's are regulated depending on their characteristics, such as portfolio size. The tiered regulatory structure in theory allows smaller MFI's to grow, and to 'graduate' to 'higher' tier levels which have more onerous reporting, capital, and other requirements, as befits the higher level of societal risk from collapse of a larger MFI.

IMF and other key bodies, yet not addressed in substantive detail provides further evidence for research which fills this gap in the literature.

1.5 Reasons for Research

Microfinance is an interesting but debated instrument. The topic of microfinance has been covered by empirical research with a focus on the social benefits of the system. The social benefits are documented at a policy level; governments set social goals and subsequently determine regulatory, economic, and other strategies to achieve them. Hence, the policy agenda is the driving force behind the setting and achievement of social goals. However, for goals set at a policy level such as access to credit, there are various methods to achieve this goal, and one of those is microfinance. Given that microfinance is one of the initiatives which seems to potentially increase access to credit while not costing the government onerously (Arch, 2005), it is an important area for research. Indeed, it is the ability for microfinance to potentially provide long term and sustainable access to credit for a majority of the world's poor which makes the industry such a focus for research.

The importance of microfinance can be seen in the quantity of research there is on the topic, despite that relatively few publications are empirical in nature. The literature to date primarily takes a bottom-up[4] perspective on the effect of microfinance on increasing the economic and social situations of borrowers and their families. Hence, there is a large gap in the microfinance literature which considers how to promote microfinance from a strategic perspective, namely through regulation. The current research seeks to partially fill this gap in the existing literature by considering the relationship between regulation and MFI operations. In particular, research is needed which focusses on how regulation can affect MFI's in operating in a financially sustainable manner, as this has the potential to reduce reliance on donations and means that microfinance can continue regardless of donor whims in the long term (Di Bella, 2011). There are associated reasons for research, which include: the social benefits of microfinance; achieving the goal of development; flow-through effects to other social areas such as education; driving entrepreneurship through credit availability; and these reasons will be presented in the following paragraphs. Key reasons for research on microfinance regarding the political goals of microfinance and poverty reduction will be addressed in separate sections 1.5.1 and 1.5.2 following.

[4] A bottom-up perspective considers the microfinance borrower and their characteristics before considering how business operations of the MFI or regulation have led to those conditions. For the purposes of the current thesis a bottom-up perspective is considered the opposite of a strategic perspective, which considers the effect of regulation through the various avenues to subsequently affect the borrowers.

Microfinance has long been identified as an important topic for research in terms of socioeconomic benefits to those in developing countries (Brau & Woller, 2004; North, 1989). This reason for overall research in the industry has not changed. There is still a great need for further research in different countries than the existing studies because there are specific country effects caused by the unique combination of culture and regulation in each country. Despite a wealth of research in this field there are few studies which examine microfinance from a law and economics perspective. Indeed, existing research predominantly takes a bottom-up perspective and thus ignores the effect of the law in creating incentives for behaviour, particularly on the behaviour of MFI's. Further, the reasons for research in the industry of microfinance are focussed on three key areas regarding the political motivations of development, financial inclusion (and credit availability) and the legal institutions required to support MFI's, and none of these three reasons have been adequately covered in the literature to date.

The goal of development is an important reason for research in this field. Given the sheer sums of money invested in microfinance it is critical that the system is studied. Academic research in this field aims to build a body of knowledge which may potentially allow the goals of microfinance are achieved. Further, by supporting financial institutions which can promote development there are fewer burdens on the governments of developing countries so they can focus on other key aspects of raising the standard of living such as through health care or education.

Microfinance is such an important area for research because there are potential flow-through effects to other areas of a developing countries economy. In this way it can be intuitively extended that helping to allow people to raise themselves out of poverty via access to financial services has positive effects on the health care and education systems because these individuals may then be able to afford private health care, or indeed be healthier than when they were in poverty (Abdul Rahim Abdul, 2010; Ahlin & Jiang, 2008; Al-Azzam et al., 2012; Muhammad Kashif Khan, Usman, Malik, & Shafiq, 2011). Further, there may be increased rates of child schooling, especially of girls when parents can afford the school fees, although this has not been empirically supported (Banerjee, Duflo, Glennerster, & Kinnan, 2010), and actually the opposite has been empirically found (Augsburg, De Haas, Harmgart, & Meghir, 2012). However, there are mixed empirical results regarding the reality of these dreams and this will be covered in the second chapter of this thesis. Thus the potential wide ranging positive effects of microfinance on economic development is a key reason for research in this area.

Authors have discussed that microfinance is a financial innovation which increases the repayment probability of uncollateralised loans (Buera et al., 2012). Microfinance directly influences the amount of credit available and general access to financial services to the poor in developing countries (Di Bella, 2011). It can be argued that credit availability is a key driver of entrepreneurship in both developing and developed countries (Archer & Jones-Christensen, 2011). Microfinance thus has a potential direct influence on entrepreneurship, which can have wide ranging and long lasting effects on economic development (Ahlin & Jiang, 2008). The effect of the regulation on increasing access to financial services for the poor is a topic of research not covered to date. Thus the current research is required to fill a gap in the literature. The effect of microfinance on financial inclusion and credit availability makes this research topic, and in particular the law and economics perspective of microfinance particularly poignant.

Issues with financial inclusion are more broad and all-encompassing than first considerations would suggest. This is because it is not simply a matter of 'access' to financial services. In developing countries, with a majority of the population illiterate, financially illiterate, and subsistence farmers, microfinance branches in each village is not the complete solution for financial inclusion, as people do not know what access to financial services means for them. Indeed, without identification documents (or an alternative such as fingerprint scanning currently being piloted in Pakistan), financial services cannot realistically be extended to the majority of the population.

The definition of financial inclusion which will be used in the current thesis is the definition detailed by Dev (2006) which is as follows:

'… delivery of banking services at an affordable cost to the vast sections of disadvantaged and low-income groups.' (pp. 4301).

The economic and development dreams of microfinance rest on the idea that entrepreneurs need access to finance to create and build businesses. However, an important consideration in micro-entrepreneurship is the heterogeneity of borrowers. This means that simply providing access to credit does not necessarily create entrepreneurs (Aggarwal et al., 2012). Indeed, this is an intuitive consideration and needs to be remembered when resting the economic development dreams on the shoulders of microfinance. This is potentially one of the reasons why the economic effect of microfinance is still unsupported in the literature and this will be discussed in the second chapter of this thesis.

Research has found that firms in developing countries are credit constrained (de Mel, McKenzie, & Woodruff, 2009; Webley, 2010). Credit availability is theoretically and practically critical for households to set up and expand businesses and time the purchasing of business assets for growth (Banerjee, Duflo, Glennerster, & Kinnan, 2009). Banerjee et al. elaborate on this theory by applying the 'separation theorem', where efficient credit markets allow investment decisions to be based on rates of return rather than on the timing of income and expenditure. The effect of this may be to allow greater credit availability for small (and highly profitable) firms, which is the opposite of what is currently happening (de Mel, McKenzie, & Woodruff, 2011; Karlan & Zinman, 2008; Kiweu, 2011). Access to credit will be considered in the following chapters.

Research into the law and economics of development has followed the heterodox theory of institutional economics, finding that it is more than quantitative market forces which determine prices and the success of markets (Viner, 1927). Indeed, the law and economics of development indicates that market institutions and culture are important, along with legal institutions. This is in contrast to the neo-classical or orthodox perspective which ignores influences on the market other than the market forces of supply and demand (Commons, 1936). The neo-classical approach rejects state intervention in the form of laws and regulations in the opinion of Adam Smith, and partially in the opinion of John Maynard Keynes. However, the institutional economics perspective identifies cultural norms, heritage, history, religion and the state of mind along with laws and regulations as influencing the success of markets (Coase, 1984).

It may be argued that it is obvious that the market is not the only aspect worthy of consideration when the research considers laws from the start. However, it is important to state the perspective of the research and motivations behind the approach used. The current research aims to investigate the research question and in doing so consider whether or how legal institutions matter to microfinance. The 'law matters' perspective will be considered at regular intervals, because although the focus is on the effect of the law on MFI financial self-sustainability, a natural by-product of this analysis is whether legal institutions are necessary and have any effect at all.

The reasons for research on the topic of microfinance have been shown to include: the social benefits of microfinance; achieving the goal of development; flow-through effects to other social areas such as education; and driving entrepreneurship through credit availability. These reasons provide a perspective of research which can be potentially analysed from different perspectives. The current research uses a law and economics perspective because of the lack of previous research on the topic of microfinance which uses this framework. Indeed, given the gap in the microfinance research which strategically considers the effect of regulation on microfinance, the current research project has a strong motivation and fills a large gap in the literature.

1.5.1 Socio-Political Goals of Microfinance

In democracies, government policies often reflect (at least on the surface) social values (Linklater, 2007; Sachs & Bajpai, 2001). Hence, political goals regarding financial inclusion are often politically motivated and not necessarily efficient (Sumner & Tribe, 2008). It's not important that the goals are inefficient, because social goals often are (Sumner & Tribe, 2008). Governments systematically make goals which revolve around increasing access to and quality of education health care, neither of which are 'efficient' in an economic sense to pursue. Authors have commented that articulation of social goals helps governments to be supported by the population in working towards both social and economic goals (Sachs & Bajpai, 2001). The discussion point is how the goals are achieved. Hence the current thesis is not concerned with determining whether it is worthwhile for governments to promote microfinance and the socioeconomic goals which it helps to achieve. Instead, the current thesis accepts the political motivations behind supporting microfinance and seeks to determine how regulation may be able to affect these social goals. In this sense, the current thesis is concerned more with the effectiveness of regulation than the efficiency of it. However, the purpose of this thesis is not to undertake an effectiveness study, rather to describe the effect of microfinance regulation on MFI financial self-sustainability. Authors have discussed the differences between efficiency and effectiveness regulatory studies (Ogus, 1994, 1995) and this thesis falls outside of the scope of these issues.

In the context of the current thesis, microfinance is seen as a mechanism to increase financial inclusion, a widely stated political social goal. This thesis considers that the goal of financial inclusion has been made by governments, and these governments have identified microfinance as a mechanism to increase financial inclusion and thus achieve their social goals. However, this thesis does not consider whether the pursuit of the goal of financial inclusion is efficient, nor whether microfinance is the most appropriate tool to achieve that goal. These issues of economic efficiency and economic growth have been covered in previous research and are not the focus of the current thesis. As a result, the current research seems to leave the separate goals of microfinance unexplored, when in reality they are simply outside of the scope of this research and covered in previous publications. The current thesis accepts that governments establish social goals and that regulation can assist with achieving these goals (Sachs & Bajpai, 2001; Sumner & Tribe, 2008). Hence, this thesis considers how the regulation can affect the financial self-sustainability of MFI's because of the flow-through effects to financial inclusion, not necessarily because this is the most efficient method of achieving this social goal. Microfinance is an instrument to achieve development goals (Di Bella, 2011). This is because development goals often include female empowerment and financial inclusion. However, whether microfinance is what achieves development at the lowest cost is an issue for efficiency research, which is outside the scope of the current thesis. An efficiency analysis would need to determine if microfinance actually results in entrepreneurship. As already discussed, heterogeneity of borrowers means that simply providing access to credit does not necessarily create widespread entrepreneurship (Aggarwal et al., 2012). Hence, the political goals of microfinance and the link to development are issues which fall outside the scope of the current thesis.

Governments have various social goals which they aim to achieve through different regulatory regimes or the creation of legal institutions. The social goals are assumed in this thesis to be a reflection of societal goals in general because governments are usually (in particular in democratic countries) a reflection of the people and will thus act in ways consistent with being re-elected by the population (Grossman & Helpman, 1996). Hence, the current thesis is not concerned with analysing whether the social goals established by the government are actually efficient or worth achieving in the first place. The current research has maintained the perspective of considering how the regulation affects MFI's in their operations, which has subsequent effects on the achievement of governments' social goals.

The aim of microfinance is threefold: providing access to credit; shifting household bargaining power; and providing incentives to change the way people decide on 'temptation expenditure' and 'efficient expenditure' (Banerjee et al., 2009) (pp. 11). The purpose of microfinance is derived from the philosophical perspective taken. Many stakeholders see microfinance as a method to distribute welfare in the form of low interest loans and associated services. Others perceive the role of MFI's as social businesses to increase financial inclusion across the world – operating with the goal of serving society and not for profit maximisation. On the other hand a third group view the poor as a potential market whose demand for credit allows that they are a profitable market for MFI's. The current thesis does not rest on a foundation of assuming a purpose for microfinance as one of these explicit purposes. The current thesis accepts the variety of research which indicates that microfinance is an initiative which does not have large negative effects and is not expensive for governments to support (Brau & Woller, 2004; Eichner, 2012), which is elaborated in the second chapter of this thesis.

Thus, the current thesis treats microfinance as an innovation which can be supported by governments through regulation. However, where necessary the current research does take the perspective that financially sustainable MFI's are an optimum outcome because non-reliance on continued donor funding is something which will ensure the positive social outcomes of microfinance can continue to be achieved (Haq et al., 2010). It is possible to intuitively consider that the perspective which promotes microfinance as a purely social initiative is also supported by MFI's being sustainable organisations. Indeed, research has found that efficient MFIs have greater outreach and that efficiency in operations does not depend on only the scale of production (Haq et al., 2010; Hartarska & Nadolnyak, 2007). The research behind this perspective is covered in more detail in the second and third chapters of this thesis.

1.5.2 Poverty

Political goals often refer to reductions in poverty through initiatives such as microfinance. Hence, an understanding of poverty in terms of definitions and measurement continues the discussion regarding the link between policy goals and methods to achieve those goals (such as microfinance). Research regarding how microfinance addresses the eradication of poverty has not been extensively covered in the literature. Indeed, there is a plethora of research which considers microfinance and poverty at an individual household level (for example Eichner (2012)), but the empirical research to date does not take a strategic perspective to consider the direct relationship between the policy goal and specific microfinance regulations. Hence, although the literature on poverty and on microfinance is extensive, the overlap between them leaves out the strategic perspective. The strategic perspective is potentially critical because it allows us to understand the effects of regulation. This is the gap in the research that the current thesis seeks to address.

As will be discussed in chapters two, three and four, those in absolute poverty have no use for or method to repay a microfinance loan. Hence, microfinance actually serves those above the poverty line, and only rarely the poor. For the purposes of this research, the 'poor' are considered as those below the 'middle class' in each country. The strategic perspective of the current research requires this broad definition and recognises that it misses a lot of detail regarding those in need in developing countries. 'Mission drift' refers to the tendency for MFI's to provide larger and larger average loan sizes to the middle classes in order to maintain operational sustainability. These trends are related to poverty and the ability for microfinance to address poverty.

1.6 Why is Microfinance Interesting for Law and Economics?

The issue of how microfinance can be supported in the regulation is an important topic of research, as previously discussed. The research to date has focussed on techniques which although covering theoretical and empirical methodologies also fail to address the law and economics of microfinance. The current thesis aims to fill the gap in the literature by analysing microfinance from a law and economics perspective. In order to do this the purpose of the law needs to be established with an analysis as to whether the law succeeds in its objective. Thus the current thesis is written from the perspective of considering the effectiveness rather than the efficiency of law (Ogus, 1994). This means that the political goals of microfinance are accepted as a given. Whether microfinance is an initiative worthy of financial support is not a topic of discussion in the current thesis as the research question requires that a strategic perspective of the issue at hand takes prominence.

A law and economics perspective of microfinance will utilise a methodology previously untouched in the literature. The law and economics perspective will theoretically consider microfinance in the context of the financial market and regulatory environment. Further, the law matters tradition (Faure & Smits, 2011; O'Donnell, 2004) will be followed in subsequent chapters to identify the relationship between the microfinance laws (including the goals of the law and the regulation of financial institutions) and the promotion of microfinance. An analysis of legal institutional conditions which would result in conditions within which microfinance can develop (ie. the role of law) is important for the current research and is based on a law and economics approach. The law and economics perspective is required to conduct these analyses and draw appropriate conclusions.

A strategic view of microfinance law is taken in subsequent chapters. There is no specific literature on this topic because currently there are solely country-specific provisions within the laws. There is no set of rules or overarching literature providing regulators with a blueprint from which to develop their microfinance regulation. For this reason the current thesis also looks at microcredit legislation, which may also encompass the microfinance legislation, and this will be covered in detail in chapter five. Although under a law and economics analysis, the current research takes a strategic view of the effect of regulation on behaviour and thus provides the literature with an alternative perspective than the majority of 'bottom-up' research which exists already.

1.7 Objectives and Scope

The current thesis considers a potentially broad area of research: microfinance. For this reason the current research focusses on considering a particular aspect of microfinance from a particular methodological perspective. The objective of the current thesis is to answer the research question using theory and methodology which allows a law and economics analysis. The objective of the current research extends to contributing to the literature by providing a strategic perspective of a research question not explicitly considered to date. In order to focus on these objectives the scope of the current research is limited to considering those theories and methodologies which can potentially contribute to understanding the research question. Important issues which are outside the scope of the current research include: how the regulation is enforced; the efficiency of social goals; the role of poverty on well-being; the role of women's empowerment in equality; among others. Issues not discussed in the current research are outside the scope of the research question.

1.8 Research Question and Problem Definition

The research question for the current thesis is:

How does regulation affect the financial self-sustainability of Microfinance Institutions?

Related to this are the sub-questions of:

- Does microfinance law actually matter at all to the functioning of MFI's?
- How important are country-specific microfinance sector factors for determining the regulatory details?
- Which regulations help MFI's to operate financially self-sustainably?
- Which regulations hinder MFI operations?

The current research focusses on the factors, methodologies, and perspectives which contribute to answering the research question. The current research provides a description of the topic which contributes to the gap in the literature. The problem is defined as those issues which directly concern the effect of microfinance regulation on MFI financial self-sustainability. In order to understand this question it needs to be understood what these terms mean.

Microfinance regulation refers to the regulation which governments have defined as covering MFI's and their operations. This excludes the general financial regulation and regulation which although addressing other social goals indirectly affects microfinance. MFI financial self-sustainability refers to the ability of MFI's to operate without any donor capital or reduced interest loans. Thus it refers to the ability of MFI's to fund their ongoing operations in isolation from donor funding sources.

1.9 Research Process

The research question of the current thesis means that a combination of theoretical and empirical research is needed to accurately and completely understand the key issues at play. The research question considers the issue of microfinance regulation from a strategic perspective, and this requires a suitably broad and strategic methodological approach, as discussed in the previous section. As a result of this strategic perspective the initial chapters of this thesis will consider the published research to date in a manner which allows for a law and economics foundation of understanding to be developed, by looking at the effects of regulation on business operations and subsequently on microfinance borrowers. Specifically, there will be three chapters which consider microfinance research in structured ways to determine how the current research contributes to the gap in the literature. Previous research is primarily bottom-up focussed and hence the current research will examine select previous publications to build a foundation for the current thesis. In addition, there will be three chapters which present the original research and results of the current thesis. In this way the current thesis is balanced and presents original information as well as considerations of previous research. In addition, an introduction and concluding chapter are provided.

1.10 Dissertation Structure

The current thesis focusses on answering the research question. In order to answer the research question in a way that allows for valid and reliable results a specific series of methodology has been designed to consider the issue from complementary methodological perspectives. This means that both quantitative and qualitative methodologies have been selected to analyse the research question. The content of the thesis is thus a description of the effects of the regulation on MFI financial self-sustainability, which hasn't been considered in the literature to date. The strength of this methodological diversification is that the questions raised by legal comparison can be sequentially answered by quantitative and qualitative methodologies. The result of this is that consistency of answers will be systematically reinforced and gaps in the understanding of the research question will be focussed on through further methodological techniques.

The structure of the current thesis will be as follows. The second chapter will present a review of the literature on microfinance, analysing reasons for the divided and one sided literature regarding the effects of microfinance. In order to consider the issues around microfinance from a law and economics perspective, the third chapter will consider the issues in the literature which allow an understanding of how regulation can potentially affect the functioning of MFI's, and potential methods for the law to address these issues. A focus on the empirical literature on microfinance will be provided in the fourth chapter, as most published research relies on unempirical methodology. Hence a focus on the empirical studies allows that the quality research does not get lost in the vast body of published unempirical research. The fifth chapter builds on the law and economics chapter by detailing the regulatory features of case-study countries which have the potential to impact MFI financial sustainability. The fifth chapter provides a regulatory comparison which provides unique research content not covered before in the literature. The sixth chapter uses the analysis from the fifth chapter to consider statistical trends in the data regarding macro and micro indicators. However, the statistical considerations of the sixth chapter actually raise as many questions as they answer, and for this reason fieldwork interviews are documented in the seventh chapter of this thesis. The seventh chapter outlines the methodology and results of empirical fieldwork interviews in Pakistan, India, Bangladesh, and Italy with key stakeholders. The eighth chapter combines the results from the previous chapters to develop an answer to the research question and policy recommendations.

Chapter

1. Research Question and Methodology
2. Microfinance: Dreams and Reality
3. The Law and Economics of Microfinance: An Overview
4. Microfinance: Empirical Findings
5. Microfinance Law Across Countries
6. Statistical Considerations
7. Empirical Results of Fieldwork Interviews
8. Policy Recommendations and Conclusion

The current thesis addresses an issue which is important for academics and policy makers alike. How regulators can support long term financial inclusion via microfinance is a topic which requires a 'non-classical' perspective, because microfinance and the related issues[5] are not 'classic' problems. Indeed, the research question of the current thesis will be considered from a law and economics perspective in order to understand the associated factors which influence incentives in a holistic top-down perspective, as demanded by the research question. A bottom-up perspective which focussed on details (such as the effect of microfinance loans on entrepreneurship) does not suit this research question because the issue is strategic and requires

[5] Such as why repayment rates are so high for uncollateralised loans to people in poverty.

the consideration of a number of associated factors such as regulation and business operations. For this reason, the current thesis will use a variety of methodological techniques to address the strategic nature of the research question. In particular the individual chapters will present the microfinance environment, previous empirical research, the law and economics of microfinance, comparative law, statistical considerations, and empirical fieldwork interviews. The combination of techniques will allow the research question to be answered and academic and policy conclusions to be made. In order to understand the context from which the current research question will build discussions, the second chapter, which follows, will consider the dreams and reality of microfinance.

Chapter 2

2. Microfinance: Dreams and Reality

2.1 Introduction

The inequality in global wealth and access to social resources is one of the most discussed issues in the world today. The development of global social morals (Linklater, 2007) has resulted in the formalisation of political and cultural goals towards equality and fairness. Despite the rationality challenges these morals pose to traditional economists, the achievement of socially based moral goals via regulation has wide ranging effects, including on financial inclusion in developing countries (Augsburg, De Haas, Harmgart, & Meghir, 2012; Economist-Intelligence-Unit, 2013; Gibson & Tsakalotos, 1994).

The fact that most of the world's population does not have access to a social safety net or a formal banking system has led to the development of microfinance to fill this gap in services (Sharma, 2005). Indeed, with 1.4 Billion people living on less than US$1.25 per day there are potentially billions of people who are deemed unprofitable to traditional financial institutions all over the world (The-World-Bank, 2012). Further, the global average for financial inclusion is 50% of the population (using a bank account as a proxy for financial inclusion) (Demirguc-Kunt & Klapper, 2012). Using this trend in statistics it can be seen that potentially half of the global population is excluded from the formal financial system (Abbad, Abbad, & Malik, 2011), and this is at odds with global social morals of equality (Hofstede, 1983)

Microfinance has seen exponential growth over the last twenty years because of its ability to include the poor in the financial system and provide capital to facilitate income generating self-employment activities and smooth consumption expenses (Ahlin & Jiang, 2008). This has mobilised household savings and encouraged emerging small scale entrepreneurs (Rogerson, 2001). There is intuitively a potential effect on economic growth because the impetus to achieve economic growth needs to come from within the developing country, not be imposed from the outside (Collier & Dasgupta, 2007). This concept is congruent with microfinance, which has the potential to enable economic growth through funding small-scale entrepreneurs, bypassing external aid and internal political issues in the process. How microfinance helps achieve this is potentially influenced by microfinance law.

The current chapter sets the context for the current thesis by presenting microfinance in terms of the motivation and history behind it, and factors which are relevant for the effect of regulation on MFI operations[1]. Hence this chapter contributes to answering the research

[1] The current chapter is a re-written version of the publication of the same name in the Dovenscmidt Quarterly Volume 2, 2013.

question by identifying the key reasons behind the political goals which microfinance regulation seeks to achieve along with MFI operational considerations. In order to answer the research question it is important to understand the aspects of MFI operations which may affect long-term operating self-sufficiency of these institutions. Given that microfinance is not a 'classic' initiative it can be understood that the dynamics of the products and MFI operations warrant presenting in the first chapter of this thesis.

It is important to understand that those in poverty have had access to finance prior to the emergence of Microfinance Institutions (MFI's) through Traditional Money Lenders (TML's). Loans through TML's such as banks were rarely approved because of the high transaction costs associated with small loans, no collateral, no credit history, or no business plan (Shankar, 2007; Sharma, 2005) (pp 1337 and pp 295 respectively). Other TML's which operate outside of the formal financial system, such as 'payday lenders' have also been available to the poor, however with potentially extortionate terms (Francis, 2010). Given the emergence of MFI's to fill this gap in financial services, there is little research as to how MFI's are regulated and the subsequent effect on economic development. The regulation of MFI's is crucial because these institutions hold the power to provide or withhold finance which can be used for either the creation of microenterprises or to smooth consumption expenditure. Despite the importance of microfinance there is limited research which provides an indication of how regulation affects MFI's (Etzensperger, 2012).

Microfinance is a topic of research because of the potential wide-ranging and long-lasting effects it can have on a majority of the poor people on Earth. However, there is little empirical research on the area which focusses on the economic benefits of microfinance. This is due to sample selection bias, i.e. it is not possible to compare borrowers from MFI's and those who do not borrow (Aggarwal, Klapper, & Singer, 2012). However, various authors have found direct social benefits from microfinance programs (Affleck & Mellor, 2006; Cabello, 2008; Hossain & Knight, 2008; Husain, 2008; Mayoux, 1999; Molyneux, Hutchison, Chuma, & Gilson, 2007; Roper, 2005; Sharma, 2005). In addition, authors have found that microfinance has the potential to reduce individual and regional poverty levels (Emeni & Kehinde, 2008; Hossain & Knight, 2008; Mogale, 2007; Mwenda & Muuka, 2004; Sharma, 2005). However, the requirements for development to be achieved at a micro and macro level require not only microfinance, but savings of the resulting profits (Opoko, Dzene, Caria, Teal, & Zeitlin, 2009; Rogerson, 2001). Ahlin and Jiang (2008) have gone so far as to say that microfinance will have no effect on GDP unless there are long-term savings patterns by borrowers. The research on the socioeconomic benefits of microfinance will be reviewed in more detail in the coming sections of this chapter.

In contrast, The World Bank has found that most microfinance is used to meet basic needs (such as housing and food) rather than to generate income via investment activities. In addition to this, critics of microfinance generally comment on the mechanism not meeting the needs of the 'bottom of the pyramid' chronic poor (Collier & Dasgupta, 2007; Hartungi, 2007; Molyneux et al., 2007; Roper, 2005; Sykes & Quesenberry, 2009; Webb, Kristiani, & Olaru, 2009; Weiss, Montgomery, & Kurmanalieva, 2003), and does not actually reduce poverty at all (Rogerson, 2001; Zeller & Meyer, 2002). It is clear from the literature that there are a number of factors which affect individual and regional outcomes, which are not limited to microfinance such as agricultural cycles and government policy (Baulch & Hoddinott, 2000; Mwenda & Muuka, 2004; Sharma, 2005).

The equivocality of the research findings regarding the socio-economic benefits of microfinance provides motivation for: clarifying the origins and current situation of microfinance; establishing the areas where the current research will focus (ie. the gap in the literature), and; developing a foundation from which subsequent chapters can build. This chapter contains a positive analysis which seeks to describe the microfinance environment in terms of establishing success benchmarks and determining the empirical findings regarding success or failure to date.

Although the system of revolving savings and loans groups has existed for hundreds of years (Mercy-Corps, 2006) and is theoretically a method to reduce poverty and advance economies through entrepreneurship, in reality there has been little positive recorded effect of MFI's over a large amount of time (Buera, Kaboski, & Shin, 2012).

Existing literature shows no consistency in findings regarding the existence or magnitude of social benefits or poverty reduction as a result of microfinance (eg. Arch (2005)). Further, the interrelationship between microfinance and legal institutions is still not clearly understood. These main issues will be discussed in this chapter in order to establish the existing findings which may illustrate structural or methodological reasons for literature discrepancies, and assist with focussing the current research.

The current thesis aims to discuss from a law and economics perspective how legal institutions can affect long term financial inclusion particularly through financially self-sustainable MFI's. In order to examine this, the research question is: *How does regulation affect the financial self-sustainability of Microfinance Institutions?* Positive and normative chapters will be developed to answer this question. The third chapter will examine the development of microfinance regulation from a law and economics perspective. The fourth chapter will present a review of the empirical literature to date. The fifth chapter will present a regulatory comparison between the countries of focus for the current chapter: Italy, India, Pakistan, and Bangladesh. The sixth chapter will quantitatively consider trends in the data which can explain the effect of some of the differences in law presented in chapter five. The seventh chapter will present the results of empirical fieldwork interviews conducted with different stakeholders to gain a qualitative perspective of the research question. The eighth chapter concludes and presents policy recommendations. Subsequent chapters will seek to describe a regulatory environment for supporting microfinance based on a law and economics framework of analysis.

2.2 What is Microfinance?

In a World Bank microfinance impact assessment, Karlan and Goldberg (2007) define microfinance as '…*the provision of small-scale financial services to people who lack access to traditional banking services'* (pp 10). This definition of microfinance has been clarified in the first chapter of this thesis in order to ensure that subsequent reference to the term microfinance is consistently understood. Thus, the term microfinance in this chapter builds on the previously established definition. The provision of microenterprise loans has been diversified to include the provision of other financial services such as micro-insurance, micro-pensions, deposits and loans for consumption, education and medical expenses. The term microfinance thus refers to a range of small sum financial services provided to the poor, and the primary service is usually loans for the establishment and expansion of micro-enterprises depending on the country.

Microfinance has been formally developed in recent decades with the explicit motivation of providing financial services to the poor. Low balance transactions and high operating costs result in perceived unprofitable relationships from the banks' perspectives, leading to potential borrowers being un-serviced. The development of the microfinance industry has been primarily motivated by socio-economic goals. However, this thesis is primarily interested in how microfinance regulation helps to achieve government social goals and does not judge whether these social goals are actually efficient.

There is a potentially large effect on economic development from microfinance because it supports small scale entrepreneurship which is a vital first stepping stone to lead towards the creation of larger businesses which contribute to the formal economy and employ more people. In order for the economies of developing countries to grow there must be businesses employing people and using economies of scale to ensure sustainable profit (Carree & Thurik, 2005). The development of microenterprises into businesses employing people generally requires increasing amounts of credit at strategic growth points in the life cycle of the business (de Mel, McKenzie, & Woodruff, 2011; Parvin, Rahman, & Jia, 2012). Microfinance thus supports the establishment and growth of microenterprises so that some might become fully fledged businesses contributing to regional and national economies.

2.2.1 Why is there Microfinance?

Despite the recent popularisation of microfinance as a tool for socioeconomic advancement of a majority of the world's poor, microfinance is not actually a new concept. Although our modern understanding of microfinance can theoretically be traced to Jonathan Swift (Hollis, 1999), the famous author and Irish nationalist, savings and credit groups have actually existed for centuries all over the world (Mercy-Corps, 2006).

It is not surprising that small scale informal savings and credit groups existed long before the establishment of formal microfinance institutions. Indeed there are many aspects of society which emerged simultaneously and without collaboration all over the world before small-scale trends became a wide-ranging system. For example, farming and medical care were present at a family level before expanding to the industries they are today. It is understandable that before formal banking institutions were developed, groups of people collaborated to support each other's savings and credit requirements. In particular, we know of savings and credit groups in India (Chit Funds), Indonesia (Arisan) and West Africa (Tontines) (Mercy-Corps, 2006). It is important to recognise the existence of quasi-MFI's centuries ago because it reinforces the important role that banking services have played in rural and poor communities throughout recent human history. It further highlights that for institutions to contribute to society they need not be formal – informal institutions which spontaneously grow may be equally as effective.

The development of financial systems and the effect of financial regulation is a subject covered in chapter three. However, in the case of microfinance it can be seen that without regulatory support savings and credit would have been provided to the poor in a decentralised and village based system. This is because a lack of regulation may have theoretically had effects not only on the functioning of capital markets, but also on NGO's who administer a majority of microfinance. The success of these systems will be discussed in further detail at a later stage of the current chapter. This village-based system may be unable to allow for the scope of entrepreneurship because the amount of available finance is limited to the savings of other group members. However, this is not the case in Peru where most MFI's are primarily funded by domestic deposits (Carrasco, 2006; Etzensperger, 2012). This is particularly important in developing countries where the imposition of external aid has not yielded economic success because of a range of psychological and corruption related factors (Buscaglia, 2011). There is some doubt about the efficiencies of donor aid (Mersland, 2011), which serve to provide further support for the importance of internal sources of growth, of which entrepreneurship supported by microfinance is arguably one. The history of how microfinance developed will potentially allow us to consider factors which influence future trends.

The development of microfinance in Western Europe followed a trend which reflects the current waning and waxing of banking services to different market sectors. Of note for this chapter is the Irish Loan Fund system, established and initially financed by Jonathan Swift, to provide small loans to rural farmers unable to guarantee collateral. This system began in the early 1700's and was widespread in the middle of the 19th Century with loans to 20% of Irish families every year (Hollis, 1999).

In the middle of the 19th Century on continental Europe a similar trend developed in Germany backed by the altruistic wealthy and unions. With the motivation of improving welfare and helping the poor reduce their reliance on money-lenders, rural community credit unions and savings co-operatives increased their clientele (Mercy-Corps, 2006). During this period the co-operatives were also successful in obtaining funds from donors, a key ingredient for the scale of MFI's which lies within the law and economics environment. Western Europe's focus on the development of microfinance has a foundation in the union movement and the underlying socialist nature of many European states. However, elsewhere in the world a similar trend has been developing (Hollis, 1999).

In Indonesia there has been a formal MFI in operation since 1895 (Mercy-Corps, 2006), showing that in developing countries too, it is the media coverage of the sector which is new and not necessarily the sector itself. However, if microfinance has been present at a large-scale in Indonesia for more than a hundred years, it is fair to question how that country still remains in the development phase. This is an important consideration because the current thesis is primarily concerned with the regulation of MFI's in developing countries and using a law and economics approach to establish policy recommendations and suggest a framework for legislation. The historical and globally wide spread existence of microfinance supports the focus of the current thesis. This is because an initiative which affects so many and has such a history is undoubtedly an important topic for research.

Over the last 50 years the development of microfinance has become very particular for each country and it is not accurate to present a general overview of progress because there are such wide differences in uptake, service provision, and effects across a number of the key microfinance countries. It can be argued that what we now consider microfinance was pioneered by Nobel Peace Prize winner Muhammad Yunus in 1974, then a professor of economics at the University of Chittagong in Bangladesh. In collaboration with graduate students and designed as a somewhat experimental design, initial loans were provided to groups of poor villagers (Shukran & Rahman, 2011). The success of the pilot study and observed positive effects on empowerment of the poor, especially of women, alongside the self-sustaining model when funded by deposits resulted in the creation of the Grameen Bank in 1983 (Zapalska, Brozik, & Rudd, 2007). Initially the bank was forced to be self-sustaining because donor and investor funds were difficult to obtain due to the unchartered waters in which the microfinance system was being formally established. A solid foundation of self-sustaining financial services has allowed the bank to light the way for many more large sized MFI's and for international financing to be widespread from both donors and investors (Hulme, 2008). The product foundation on group-lending has ensured that the risk of the loans are low while the poorest in society are sought to be reached (Shukran & Rahman, 2011), which allows MFI's to present a case for reaching the target market with financial services.

Although some aspects of microfinance, such as group lending, have evolved little as a result of their continued ability to meet the needs of the poor, some aspects of microfinance have needed the intentional creation in order to achieve socioeconomic goals. Throughout the history of microfinance the system has only really provided benefits to those who are poor but still above the poverty line, and has not been able to address the needs of the 'Bottom of the Pyramid' poor who do not even have the ability to seek microfinance (Hartungi, 2007; Molyneux et al., 2007; Webb et al., 2009; Weiss et al., 2003). Authors have discussed the chronic poor, and recommend that microfinance be distributed directly to them (Sykes & Quesenberry, 2009) and that associated services be provided to reduce the higher than average drop-out rates for those in extreme poverty (Roper, 2005). Thus, MFI's such as the Grameen Bank have initiated programs designed to directly support the destitute members of society, for whom the traditional microfinance programs are of little use (Hulme, 2008). The ability of microfinance to adapt to the relevant societal issues is an important aspect of the historical development of this industry. The intentional creation of programs to meet the needs of the poorest in society while still maintaining a self-sustaining business model illustrates that the motivation for microfinance development is strong.

It is understandable that people, who are generally risk averse (Hofstede, 1983) would prefer to have a stable income-producing job than have the risk associated with a microenterprise and associated debt. Thus, the fact that most microfinance is used to finance living expenses is an expected outcome and reflects risk aversion which exists across all countries (The-World-Bank, 2003). Indeed, even in developed countries the level of business failures outweigh business successes and this inherent risk is even more pronounced in developing countries (Klapper & Richmond, 2011). It is with reflection on risk tolerance that it can be understood how only a small portion of borrowers 'graduate'[2] from consumption based microfinance to obtaining a loan to fund the establishment and expansion of microenterprises, despite increasing growth over the last 50 years.

2.2.2 Microfinance and Entrepreneurship

Microfinance has existed in some form for centuries. However, the structure of microfinance did not adapt to serve a greater number of people, and it is only in recent times that sheer scale of borrowings has been achieved. The reasons for the development of microfinance into the form we recognise today is based on economic and non-economic reasons. This section of chapter two discusses the reasons for microfinance, followed by the logistics of how the microfinance system has developed.

Given the fact that microfinance has reached increasing amounts of borrowers across most developing countries with a microfinance infrastructure, it can be assumed that there are also a larger number of microenterprises funded by microfinance each year as they form a portion of all microfinance provided. Indeed, there has been year on year growth in microfinance loans of 40% globally over the last decade (Di Bella, 2011). Thus, although most microfinance borrowers are not micro-entrepreneurs but are rather using the credit to smooth consumption, as the amount of people served by the financial system grows, so will the amount of people who borrow to form micro-enterprises. This is because there has been a constant percentage of borrowers using the funds for consumption through the years of increasing microfinance lending (Di Bella, 2011) It is this that ensures the theoretical positive effect of microfinance throughout history will continue to increase in magnitude and scope. Thus, the historical underperformance of microfinance on increasing the economic growth of developing countries may indeed be because of a combination of adverse regulation, and also that the outreach to borrowers needs to be greater.

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[2] Borrowers 'graduate' from microfinance by building their financial portfolio to a size that they are able to enter the formal financial system and hence stop being microfinance clients.

2.2.3 Goals of Microfinance

For microfinance to be successful in the socioeconomic objectives defined by each MFI support needs to be maintained from national and international governing bodies. From a political perspective it can be said that development and credit availability are primary goals and that the regulation of MFI's theoretically supports the achievement of these goals. It is these political goals which specific regulation aims to achieve. Whether the political goals to achieve development are efficient is not a focus of the current thesis.

The goal of development is an important reason for research in this field. Given the sheer sums of money invested in microfinance it is critical to ensure that the system is efficient, which means benefiting the poor relative to the costs associated with doing so. Indeed, the increasing amounts invested in microfinance from NGO's and the governments of developing countries is staggering and increasing, with US$21.3 Billion invested in 2009, a 17% increase on the year before (El-Zoghbi, Gahwiler, & Lauer, 2011). Research in this field may contribute to ensuring that the microfinance system is efficient and that the goals of microfinance are achieved. The current research is not designed to assess the efficiency of microfinance, however it is an important consideration at this early point in discussing the associated literature. Further, by supporting financial institutions which can support development there are fewer burdens on the governments of developing countries so they can focus on other key aspects of raising the standard of living such as through health care or education. In this way critics of microfinance have commented that it is simply a privatisation of welfare . Microfinance is such an important area for research because there are potential flow-through effects to other areas of a developing countries economy. In this way it is intuitive that helping to allow people to raise themselves out of poverty has positive effects on the health care and education systems and subsequent health and education levels. Further, there may be increased rates of education, especially of girls when parents can afford school fees. The link between economic development goals and political social goals is blurred, and political goals of microfinance are often aligned with development goals. Thus the potential wide ranging positive effects of microfinance on economic development are key reasons for research in this area.

The role of legal institutions in supporting financial institutions to provide products to their customers has been well documented (Diamond & Dybvig, 1986). Research in this field has focussed on developed countries and found that financial regulation increases transparency between customers and banks and decreases risks for both parties (Diamond & Dybvig, 1986; Satta, 2004). Indeed, research into the role of legal institutions is widespread in developed countries, and is an emerging area of research for developing countries. The potential impact that legal institutions have on MFI's and subsequently on economic development is large. This is related to the political motivations for research which examine the way in which legal institutions achieve the goal of supporting credit availability for the poor in developing countries.

2.2.3.1 Economic Reasons for Microfinance

Economic reasons for the development of microfinance follow the development economics trend of argument which provides that economic growth is more surely achieved from business growth within a country rather than the imposition or provision of aid from external sources (Collier & Dasgupta, 2007). This argument further lends itself to support that economic development needs a foundation of sustainability and this is achieved most efficiently from internal impetus in the country. The widely referenced work of Amartya Sen illustrates the advantages and the pitfalls of globalisation in the current world (Sen, 2001, 2002), Of which widespread development and social empowerment are suggested as two advantages.

It can be argued that development is the overall aim of microfinance from an economic perspective. It may be of benefit to developed countries to raise individual wealth and reduce poverty, as wealthier countries may be more politically stable and ensure the societal objectives of governments are upheld (Bowles, 2008), Which has flow-through positive effects to developed countries. Behavioural economics, game theory and experimental economics seek to explain the behaviour toward supporting moral values financially (Roth, Prasnikar, Okuno-Fujuwara, & Zamir, 1991; Tomer, 2007). Importantly, modern societies uphold certain moral values which, regardless of their efficiency or rationality, seek to be achieved across the globe (Hofstede, 1983; Kinnier, Kernes, & Dautheribes, 2000; Sumner & Tribe, 2008). Indeed, it is this sense of fairness and moral obligation which drives many large scale government funded NGO's in the world today (Schwartz, 2007). The relevant question regarding this issue is not whether the moral values of fairness are appropriate, rather whether the model of microfinance achieves the morally founded development goals.

The model of microfinance which we recognise today has been designed and supported by particular regulation because of development goals. Governments of developing countries recognise that if self-sustaining MFI's are able to increase entrepreneurship and reduce poverty, that will in turn reduce the amount of funding and monitoring required by the government, allowing more focus on other social objectives such as education or health care. It is thus very strategic for governments of developing countries to provide a regulatory environment which supports microfinance.

Indeed it can be intuitively extended that the financial support of microfinance by NGO's, the governments of developed countries and external investors is extremely efficient in promoting development. This is because the money that is used by MFI's has potential exponential effects on the social economy by providing support for entrepreneurship which further stimulates the economy. Although investment in education, health, and other areas where developing economies need assistance is also vital, it is microfinance's ability to stimulate internal growth which ensures its on-going attraction for external funding. As we will discuss, there are many practical issues which mean that this theory of internal growth support is not always the case, however, there are few avenues for financial support which offer such promising outcomes at all societal and economic levels, as microfinance.

Various studies have found that entrepreneurship and the development of large businesses is key for the economic development of countries (Hartungi, 2007; Sharma, 2005). This is not surprising given the logical economies of scale achieved when businesses are able to employ hundreds of wage earning people while generating a profit. The role of microfinance in this system of economic development occurs at various stages of the entrepreneurship lifecycle. It has been established that microfinance does not not generally support the destitute members of developing countries, but rather those who are just above the poverty line of US$1.25 per day (in 2005) (The-World-Bank, 2009). Indeed, The World Bank estimates that there are 1.4 billion people living below this poverty line, and thus out of the scope of microfinance services. Microfinance has the ability to smooth the consumption of those who are just above the poverty line so they are able to save some money in the form of micro-deposits. Of the millions of borrowers who use microfinance for consumption expenses such as education or medical costs, some of those borrowers will 'graduate' to obtaining loans to establish microenterprises and subsequently join the formal financial sector. Of those who obtain loans for microenterprise establishment, 90% will continue to obtain microfinance for working capital (Roper, 2005). In an ideal microfinance situation, a proportion of these borrowers go on to obtain microfinance in larger amounts at strategic points in their business life cycle to allow for expansion. As these businesses expand, they employ more and more people and generate more and more cash flow and profit which allows them to graduate completely from the microfinance system and join the formal financial system. This, in theory, is how microfinance can assist with large scale internally supported economic development.

This theoretically ideal structure of microfinance leading into fully fledged businesses is a model on which goals of development are based. This is because large businesses provide more economic benefit to countries than small businesses (Carree & Thurik, 2005). However, as discussed it is only a small portion of borrowers who borrow to fund microenterprises and only a small portion of those 'graduate' to the formal financial system. Even in theory, the potential economic benefit of microfinance is thus small. This is one of the many shortcomings of microfinance and one of the foundations of criticism by research on the topic. In later chapters of the current thesis data and empirical results will be discussed regarding this issue.

The economic motivations of the microfinance industry to be developed to reflect the current situation revolve around the mobilisation of household savings for economic development. The theory efficiently aims to provide a financial and psychological empowerment foundation from which all members of developing countries are able to contribute to economic development. As the impetus for entrepreneurship will come from within the country it is thought that the effects will be self-sustaining into the future.

2.2.3.1.1 Development

Throughout history microfinance has been used as a tool for the poor to meet unexpected costs, and to smooth their consumption expenses. It is the ability of microfinance to meet the various needs of the poor that has ensured its wide-ranging success. However, authors have noted that it is the ability of microfinance to fund microenterprises and provide on-going credit through expansion phases which provides the real potential benefits to regional and national economies.

Microfinance was designed in modern times to mobilise household savings in order to smooth the consumption expenses of the poor. A key goal of microfinance is that it serves as a tool for the development of developing countries. Indeed, much of the evidence indicates that microfinance reduces poverty (Emeni & Kehinde, 2008; Hossain & Knight, 2008; Mwenda & Muuka, 2004). These findings have been supported by research in retail mortgage markets of developed countries which have found that there is a relationship between net worth and economic activity (Caplin, Freeman, & Tracy, 1997). However, other authors have commented that most microfinance is used to meet basic needs and the smoothing of consumption outlays which postpone expenses but do not not increase wealth (The-World-Bank, 2003).Specific microfinance research indicates that often the borrowed funds are used to smooth consumption and increase consumer spending (Aggarwal et al., 2012; Buera et al., 2012) rather than to support the creation or expansion of businesses. Further, authors have specified that long term positive effects of microfinance requires on-going savings, and that this will not have an effect on GDP

(Ahlin & Jiang, 2008). However, despite the ambiguity of the effect on development, authors have also found that there may be both macro and micro-economic benefits of microfinance (Sharma, 2005). In terms of the development motivation for the design of microfinance we can conclude that authors have found it is an accepted development agent (Hartungi, 2007) and that it contributes to both financial stability and social outreach (Cabello, 2008).

When discussing the macroeconomics of microfinance, authors have found that microfinance increases equilibrium wages and reduces interest rates, in general equilibrium (Buera et al., 2012). In quantitatively assessing the macroeconomic effects of microfinance these authors identify that general equilibrium analyses are now possible in many countries as a result of the large increase in microfinance. The flow through effect on redistribution from an increase in equilibrium wages means that there are macroeconomic positive effects on the economic development of the poor (Buera et al., 2012).

The research on the development reasons for microfinance indicates that the effect on development is not as grand as the goals microfinance is designed to support (Aggarwal et al., 2012). It has been found that there are increases in equilibrium wages and redistribution of wealth to some extent and only in some circumstances (Buera et al., 2012). However, authors have also found that the theoretical conditions under which microfinance can lead to aggregate development are narrow and not commonly present in developing countries (Ahlin & Jiang, 2008). The research on development shows that although the economic effects from microfinance are often non-existent and small when they are, nonetheless there are potential positive effects and this ensures that the development reasons for microfinance will remain even if indeed the scale of benefit is small.

2.2.3.1.2 Credit Availability

Microfinance directly influences the amount of credit available to the poor in developing countries. It can be argued that credit availability is a key driver of entrepreneurship in both developing and developed countries (Aggarwal et al., 2012; Berg, 2012). Microfinance thus has a potential direct influence on entrepreneurship, which can have wide ranging and long lasting effects on economic development as previously discussed. This effect on credit availability makes the study of microfinance from a law and economics perspective particularly poignant.

The role of credit availability in business growth (Agyapong, Agyapong, & Darfor) has been documented in a World Bank report where it is stated that limited access to finance is often a constraint to business growth in developing countries (Aggarwal et al., 2012). It can be seen from this research that the availability of credit may have a significant effect on small businesses. Indeed, foundation research by Banerjee, Duflo, Glennerster, and Kinnan (2009) found in a randomised experiment that the provision of microfinance in slums results in 32% more businesses created than in slums with no microfinance implemented. These authors further found that there is a clear difference between households with a propensity to be entrepreneurial and those who are not not, which provides further support for a criticism of microfinance that the provision of credit is not enough to create businesses and business growth (Banerjee et al., 2009).

Research has found that during real economy shocks credit availability is reduced whereas in a funding shock credit availability remains constant although borrowers are discouraged from applying in the first place (Berg, 2012). However, the same research does find that microfinance increases credit availability for the vulnerable in society. Credit availability is a result of microfinance which has wide ranging implications and this topic appears at various points in this thesis. Access to credit also provides one of the pillars of financial inclusion which microfinance addresses.

2.2.3.2 Non-economic Reasons for Microfinance

Microfinance is not only a tool for economic development; it also provides borrowers all over the world with social benefits which cover status, and empowerment. Indeed, a significant body of literature has been devoted to the non-economic benefits of microfinance.

2.2.3.2.1 Social

The focus of much of the research to date on microfinance has been on the social motivations and benefits of the system and the potential for sustainable socioeconomic transformation (Sharma, 2005). This is not surprising given that since inception modern MFI's have had explicit social goals. The social goals of microfinance generally relate to the empowerment of women and a broad based increase in the standard of living. Authors have pointed out that the definition of poverty relies on socially acceptable wealth standards (Husain, 2008). Thus the measurement of microfinance success is built on a foundation of societal values. In the case of microfinance and other mainly externally funded development initiatives it is thus important that donor countries do not impose their own standards of poverty on those of other countries, and rather allow the internal definition to support country-specific development.

One of the abilities of microfinance to foster development from within is to provide capital to those in countries where donor funds do not not reach (Hudon, 2009). There are some countries where for political, corruption, or economic reasons, donor funds do not not reach those intended (Mersland, 2011). However, microfinance has the ability to mobilise the household savings of those in the country itself, without relying on external financing. In this way microfinance has the non-economic ability to bypass corruption or non-existent donor capital flows to support the social development of the poor (van Bastelaer, 2000).

The potential for social outreach of microfinance has been widely stated by authors (Cabello, 2008). Authors have emphasised that microfinance is a socioeconomic financial mechanism (Hossain & Knight, 2008) and as such needs to measure and take into account social performance (Roper, 2005). It has been found that microfinance has a positive effect on health outcomes (Molyneux et al., 2007), female empowerment (Hossain & Knight, 2008) and in reducing social exclusion (Affleck & Mellor, 2006). However, longitudinal and large scale cross-sectional studies have not been published which confirm these findings. Although the research regarding the effect on poverty and economic growth are ambiguous there is consensus that the social effects of microfinance are wide ranging and present in most countries which have microfinance.

2.2.3.2.2 Empowerment

Empowerment has been defined in various World Bank reports and hand books as the ability to make choices and take actions, which is usually associated with control over resources and decisions (Narayan-Parker, 2005). Authors have further commented that poverty provides great restrictions to empowerment through powerlessness in formal and informal institutions (Narayan-Parker, 2005). Although this particular World Bank definition of empowerment is closely related to institutions, other authors have used a more broad perspective which relates to psychological as well as physical control. In this way, empowerment has also been defined as the '…*capacity to make effective* choices' (Alsop & Heinsohn, 2005). The concept of empowerment is integrally related with that of microfinance because the definitions clearly show that empowerment is a core psychological concept which can be increased through poverty reductions, of which microfinance is designed to achieve.

The empirical measurement of empowerment has been applied in various contexts ranging from poverty interventions (Alsop & Heinsohn, 2005) to the financial planning relationship (Hunt, Brimble, & Freudenberg, 2011). Authors have developed reliable and valid surveys to determine self-reported empowerment regarding specific situations and contexts (Alsop & Heinsohn, 2005; Hunt et al., 2011). The established research in the field of empowerment allows the microfinance literature to implement these surveys and determine the effect of empowerment from microfinance.

In terms of the empowerment benefits of microfinance research has yielded equivocal results. Much of the research on empowerment focusses on women empowerment in developing countries, and indeed that is the strategic focus of many MFI's. However, it has also been found that microfinance does not not itself increase female empowerment because women already have high social networks on which to rely (Mayoux, 1999). On the other hand, it has been found that microfinance does directly increase women's empowerment (Mwenda & Muuka, 2004). Research has elaborated that the increase in empowerment comes from higher levels of income, independence and self-reliance (Roper, 2005). It can be logically extended that empowerment of women and poor societies have the potential to increase the standard of living for a wide range of community members. Development goals generally aim to raise the wealth of individuals in society not solely so they are wealthier, but also because it has been found that there is a general trend supporting happiness and wealth to a certain level (Diener & Biswas-Diener, 2002). However, authors have also supported the need to measure life satisfaction in order to ensure that there is not not an assumed association between wealth and happiness in the poor (Rojas, 2009).

The relationship between microfinance and empowerment has been supported in the literature. It is so well covered in the literature because of the integral importance of social goals and microfinance. The current research is interested in these findings because they indicate that microfinance does benefit the borrowers it serves. This is a foundation which allows the research question to be answered without delving into how empowerment is a result of microfinance. The current thesis accepts the previous findings on empowerment; however the current thesis will address in future chapters how microfinance is affected by microfinance regulation.

2.3 Microfinance Organisation

Microfinance companies are organised around corporate objectives in the same way that banks in developed countries are structured. However, the content of these objectives varies widely to reflect the goals of the MFI. For example, while a large bank such as Barclays may have the motivation of being admired and innovative (Barclays, 2012), MFI's generally have goals of meeting social objectives and operating efficiently, as is the case of KIVA, a large MFI with established web presence (Kiva, 2012). MFI's have a mission to fight poverty and often operate as non-profit entities without underlying legal owners (Spahr, Ashraf, Scannell, & Korobov, 2011). MFI's are generally promoted by international Non-Government Organisations (NGO's), a financial reliance which continues to be a concern for the sustainability of microfinance (Spahr et al., 2011). MFI's focus on the provision of credit to those who, without collateral or evidence of being able to service the loan, are otherwise rejected by the formal financial system. This general goal of credit availability is built on a foundation of flow through social goals such as increases in empowerment, education and health care, as previously discussed in this chapter.

In discussing the organisation of MFI's it may be relevant to consider the marketing strategies involved. In general the marketing strategies by NGO's in developed countries seem quite sophisticated in their methods to extract donations from the population. However, descriptive data research in Ghana has found that MFI's do not not use targeted marketing strategies to attract borrowers (Brafu-Insaidoo & Ahiakpor, 2011). Rather than being indicative of the relative failure of MFI's, this research may indicate the large scope of potential future borrowers if marketing strategies were employed or is a reglection of the market environment of developing countries. Thus, although the marketing strategies of MFI's are not as advanced as the design of financial products to suit the poor, it does provide scope for expansion of the sector in the future.

2.3.1 Financial Organisation

2.3.1.1 Group Lending

The financial model in which microfinance has been built is one of group lending (Rogerson, 2001), however, product innovation means that individual lending is becoming more and more common. This is because of a trend in regulation which allows for innovation in product features such as those which allow collateral to be taken in the form of gold rather than joint liability. Group lending is where the MFI supports groups of people who save together and then lend out the deposited amounts to each other as needed. Understandably, repayment rates are very high with this model because in effect the loans are from family and friends to whom the borrower is accountable on a social as well as a financial level (Ahlin & Jiang, 2008; Besley & Coate, 1995; Mayoux, 1999; Molyneux et al., 2007; Opoko et al., 2009). These levels of responsibility also provide explicit and implicit insurance as the risk is shared (Torkestani & Pari, 2008). However, this also raises one of the issues of microfinance, which is that it is only those who are above the poverty line and have the financial trust of the community who have the opportunity to join these borrower groups. On the other hand, this financial service has not required great evolution since it was common practice in savings and credit groups hundreds of years ago. In this way, this model of microfinance services may be one of the aspects of this industry which requires less legislation than the direct provision of loans to the poor or for the regulation of the MFI itself. The success of microfinance is consistent across the world and although many studies have focused on a particular geographic area there are consistent trends. In terms of loan repayments, there are generally 97% repayment rates globally and PAR-30 (Portfolio At Risk at 30 days) of 1% (Di Bella, 2011)[3]. Indeed, other authors have found the NPL (non-performing loans) ratios at only 0.9% in 2010 as an Indian average because of the social pressure guarantee provided by each borrower inherently (Herd, Koen, Patnaik, & Shah, 2011). The consistency of findings regarding the actual rates of full repayments of loans indicates that microfinance is not a risky business for financial services firms. Despite the high transaction costs discussed, the loans are being repaid consistently.

Group lending has been a service provided since the first microfinance evolved across the world to meet the demands of groups of rural villagers without access to the formal banking sector. Given the prominence of this service through history it can be seen that it is a core aspect of microfinance and a feature which requires little adaptation or control by regulation, although product innovation and collateral requirements are aspects of the regulation which can potentially affect this traditional financial model[4]. Regulation potentially affects the traditional model of microfinance by allowing MFI's to potentially diversify their product offering over and above group lending to include loans which accept collateral in the form of gold or other valuables, or alternative contract types. The potential effect of the law on product innovation is an issue which will be considered in subsequent chapters of this thesis.

2.3.1.2 Financial Trends

The organisation of MFI's differs widely. Given that most MFI's have a similar goal around the provision of credit to the poor, this is particularly interesting. As often unregulated and international organisations[5], MFI's have the flexibility of being able to innovate and develop business structures which creatively achieve the final goal. The increasing use of the internet means that MFI's are able to utilise web-based peer-to-peer lending systems which connect the poor directly with the financial provider. For example, organisations such as United Prosperity,

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[3] In the IMF Working Paper Di Bella (2011) refers to the global averages of repayment rates (write-off rates) and PAR-30, which is taken from all the available data in the world at the time of publication.

[4] Many MFI's operate internationally, or are owned by international NGO's. This means that the traditional financial model includes large institutions and their associated issues.

[5] MFI's are often unregulated in countries where the regulation covers only the largest MFI's or where the regulation does not cover MFI's at all. Many NGO-based MFI's are internationally operated, and while this does not necessarily mean they are outside the scope of regulation, their international nature means that they do not always have a strong motivation for structuring in a way which subjects them to regulation.

rather than providing finance to the borrower, guarantee the borrower's loan with the traditional bank. United Prosperity claims that this system enables financial leverage over and above traditional microfinance and also results in greater long term financial freedom as the borrower builds a relationship directly with the bank which may increase the chance of 'graduating' from the microfinance system (United-Prosperity, 2012). However, these trends do form only a small portion of total microfinance loans.

The trend toward the mobilisation of small donations from individuals in developed countries supports microfinance programs overseas based on a peer-to-peer model. This is an innovation which leverages off existing technology and the increasing awareness of the benefits of microfinance in meeting social goals. Indeed, it is innovations in the financial organisation and strategy of MFI's which may provide results for the success or failure of microfinance which other models have been unable to quantify. Trends in accessing capital are hence closely related to innovation in general, which is an aspect of business operations potentially affected by microfinance regulation.

2.3.1.3 Interest Rates

Critics of microfinance have lamented the fact that poor borrowers have to pay interest rates above 30%pa (median of 36%pa from 1998-2006 and 32%pa from 2007-2009) while the middle and upper classes who have access to the traditional financial system pay interest rates below 10%pa on personal loans (Di Bella, 2011). The moral argument is that the poor should pay lower interest rates than the rich, because of affordability arguments. Organisations such as Microfinance Transparency pay particular attention to differences in interest rate calculations depending on when the repayments begin, and the inclusion of particular features such as compulsory savings (Microfinance-Transparency, 2013).

However, in terms of the efficient use of capital theory, it is most efficient to allocate capital to micro and small businesses as well as the poor because these are the most productive users of capital (Aggarwal et al., 2012). Indeed, it may be that the price of capital is based on the risk premium as well as the transaction costs associated with providing such low balance loans to such a group of people. However, in fact the repayment rates from microfinance loans are generally above 99% (for all the available data from Microfinance Information Exchange across the world) (Di Bella, 2011), and this indicates that in fact the risk from microfinance loans is not high. This logic indicates that the high average interest rates are indeed as a result of the transaction costs associated with providing and monitoring each loan. More detail about this controversial issue will be discussed in the third chapter of this thesis.

2.3.2 Distribution

The concept of the distribution of services and products is dependent on the location within which the analysis is made. Distribution can refer to the distribution of services, or the distributional issue of whether the initiative actually serves the poor. These are two different concepts which may be confused easily given the common term of use. Unless discussed otherwise, the current thesis refers to the term distribution with the meaning of whether the initiative really serves the poor.

Given that microfinance is an initiative which addresses a distributional issue this is particularly relevant. Further, microfinance relies on distributing loans to the illiterate poor who are geographically spread. For example, the distribution of sim cards and mobile phone calling credit in developed countries generally requires a shop authorised to provide the relevant companies products. However, in developing countries these products are generally provided by lone sellers who can be found at many street intersections or in makeshift stalls on the side of the road. The distribution of different products is adapted depending on the market. This is also relevant for microfinance, although not on the same scale as the difference in telecom service. Indeed, the distributional diversity in microfinance is more likely explained by the target market that borrowers are unlikely to enter microfinance offices which resemble the banks which have previously rejected their community. For these reasons microfinance 'branches' are designed to be unimposing so the poor feel comfortable entering them.

This flexibility and diversity of the distribution of otherwise identical products depending on the country in question is directly relevant for the current research. In developing countries where a majority of the banking research is focussed, the banking system is based on a system of physical branches and intermediaries such as post offices. However, this model of banking for microfinance would not translate well in developing countries for a number of reasons. The main reason that a transplant of the banking distribution model favoured in developed countries would not necessarily work well for MFI's developing countries is because the scale of operations in MFI's requires a lot of small balance customers and a formal distribution system requires excessive operating expenses to allow self-sustainability. Hence MFI's use a system of loan officers which are in effect 'mobile branches' to increase geographical scope and outreach.

Further, there are psychological factors which may impede potential borrowers from entering a formal looking MFI. This effect has been noticed in the design of churches in countries such as Australia where the general population feel intimidated by imposing church structures and may never enter them for regular worship. However, when the churches are designed to look like large community halls equipped with sports facilities and child playgrounds, the population feel no hesitation at joining a community for worship. In this sense, the physical environment in which MFI's operate may be critical for their outreach success.

The current distribution of microfinance is adapting to recognise the challenges faced by financial services distribution in developing countries. In order to scale out from the traditional branch model of permanent credit issuing staff MFI's such as Accion are developing 'Alternative Channels'. The motivation for the development of new distribution models is that the branch model physically limits the potential number of borrowers to those who are willing and able to enter a branch for the administration of the loan. Indeed, it is a poignant moment to recognise that it is the rural destitute who are in most need of microfinance, and are simultaneously those who are not serviced by the distribution and product model as it stands (Hartungi, 2007; Molyneux et al., 2007; Webb et al., 2009). There is a need to innovate to distribute microfinance directly to the chronic poor (Sykes & Quesenberry, 2009). The innovations in development aim for 'massive outreach' by establishing MFI brokers in supermarkets and pharmacies across the developing world. Further, Accion has the motivation of reducing costs (which traditionally are heavily in human resources) by finding a balance between personal one-on-one service and transactional services such as those which utilise mobile phone technology. The reduction of cash in the microfinance system has the added benefit of increasing transparency and reducing the risk of corruption or fraud, providing more security for depositors and borrowers (Mesarina, 2012). 'Branchless Banking' innovations have also been developed in Pakistan where the government-led initiative has seen exponential growth in recent years (SBP, 2011).

An aspect of distribution which should be stated is the potential for the provision of other socioeconomic goal driven services. Although outside the scope of the current research it needs to be recognised that the distribution of microfinance is important not only because of the implications for the provision of the services to those who really need it, but also because of the potential scope for the cross-provision of other services. For example, education can be considered as a potential cross-provided product, and indeed some MFI's do provide other services such as education, particularly business skill education (Mesarina, 2012). In the way that religions in modern Australia seek to first make people feel welcome and give them a space where they can play sport or organise community groups, so may microfinance operate in a similar manner. This potential scope in the strategy of distribution of microfinance not only allows for customers who would otherwise have remained unaware, but also for efficiencies of scale in supporting other socioeconomic motivated strategies.

The distribution of microfinance to those who require credit to smooth consumption or to finance microenterprises is an important consideration for the current research. The distribution of microfinance services has the potential to be affected by MFI regulation which is specific to each country. Further, developments in distribution of microfinance to the 'bottom of the pyramid' poor are required to ensure scale of the development model to achieve socioeconomic goals. Distribution is an important aspect of microfinance and will be discussed in more detail in the third chapter of this thesis.

2.4 Geographical Trends in Microfinance

The geographical spread of microfinance is built on a foundation of the historical and natural development of loan societies in communities all over the world. As a result of the home grown evolution of microfinance it is not surprising that the system enjoys success in most developing countries where the legal institutions allow it. However, the main growth in microfinance in recent decades has been in South Asia since Professor Yunus developed the microfinance system we recognise today in Bangladesh.

Research into microfinance has generally been based in specific countries. Although many of the results are applicable in other developing countries it is the case that there is a lot of country specific research. Research has been conducted in Peru (Etzensperger, 2012; Pait, 2009), El Salvador (Cabello, 2008), Indonesia (Hartungi, 2007; Webb et al., 2009), Nigeria (Emeni & Kehinde, 2008), Bangladesh (Eichner, 2012a; Hossain & Knight, 2008; Weiss et al., 2003), Africa (Mayoux, 1999; Mwenda & Muuka, 2004; Rogerson, 2001), South Africa (Mogale, 2007; Sykes & Quesenberry, 2009), Kenya (Molyneux et al., 2007), Ghana (Opoko et al., 2009), India (Eichner, 2012b; Shankar, 2007; Sharma, 2005), Kyrgyzstan (Struyk & Roy, 2006), Iran (Torkestani & Pari, 2008), Israel (Felsenstein & Schwartz, 1993), Guatemala (Kevane & Wydick, 2001), Argentina (Pereiro, 2001), China (Rahman & Luo, 2011; Zhang, 2008), Tanzania (Satta, 2003, 2004), and Pakistan (Eichner, 2011). The countries in which research has primarily been conducted are of interest for the current thesis because it is indicative of the countries which have available data of MFI's, economic growth and a supportive regulatory environment.

Knowledge of prior studies geographic focus will allow the current study to focus on a few key countries in subsequent chapters of this thesis. The country selection relies on two key criteria, namely the availability of data, and regulations in or translated into English. Based on initial screening of countries, India, Bangladesh, Italy and Pakistan are suggested. The procedure for identifying available data will focus on the Microfinance Information Exchange data.

2.4.1 Countries Where Microfinance is a Success

The consideration of microfinance success across countries is important to establish at this stage of the thesis because it will provide a foundation from which the fifth, sixth, and seventh chapters can build. In chapter three it is discussed how microfinance has developed to complete the financial market. Chapter four considers in detail the empirical microfinance research to date. Further, chapter five provides qualitative comparative analysis of microfinance regulation in four countries. The countries which will be analysed in the fifth chapter will be chosen based on the criteria of: legislation in (or translated into) English; one widely regarded 'successful' regulatory environment and one 'unsuccessful' regulatory environment; developing countries comparable across cultures and history; high microfinance uptake and awareness; available data on MFI sustainability; available data on microfinance borrowers and contract types.

Much of the focus of microfinance research has been on Asia, in particular Bangladesh, and also Africa. This is because these 'hot spots' have not only the most developed microfinance systems, but also most of the people in need of financial services. Although the major source of finance across the globe is borrowing money from family and friends (Aggarwal et al., 2012), in Africa the countries with large amounts of microfinance proportional to other sources of finance are Chad, Malawi and Sierra Leone (Aggarwal et al., 2012). n

2.5 Overview of the Literature

This section seeks to determine the success or failure of microfinance given the goals which it has sought to achieve. In considering microfinance from an empirical perspective the influences of microfinance will also be discussed, along with credit market failure motivations for the introduction of laws. However, it is important to consider the limitations of the underlying data on which empirical research is conducted. Microfinance-Information-Exchange (2010) has documented that it is difficult to compare country data when reporting periods differ across the year from March (India) to July (Nepal) and other months depending on the country. Given that previous research is built on integral issues such as these, results need to be interpreted with care.

The literature regarding microfinance covers a broad range of topics directly relevant to the current thesis such as the factors which influence success, institutions, and credit market failure.

2.5.1 Success Influencers

The process of describing microfinance requires that as well as identifying whether it is successful, the influencing factors also need to be identified. Previous literature on the influencing factors of development have illustrated that it is institutions which play a main role (North, 1990), and this is integral for the current thesis where legal institutions potentially impact the financial self-sustainability of MFI's. Other factors which influence development have been found such as reproduction and female employment (Benería & Sen, 1981), health and nutrition (Strauss & Thomas, 1998) and science, skills and incentives (Jovanovic, 2001). However, it is outside of the scope of the current thesis to delve into these details, as the focus remains on the role of institutions, particularly regulation, on MFI operational self-sustainability.

2.5.1.1 Institutions

The literature in the field of institutional economics indicates that institutions impact microfinance success in developing countries (North, 1989, 1990). Research has indicated that the relevant institutions are broader than those related to the black letter law, and include the political and social institutions found in each country, as previously identified (Lee & Kim, 2009). Indeed, when considering the political institutions it needs to be considered not only the formal regulations, but also the informal regulations such as the soft law which is implemented via the Corporate Social Responsibility (CSR) programs of large corporations as well as self-regulatory institutions. The relationship between microfinance and CSR is that many large banks in developed countries have clearly set goals for supporting microfinance programs in developing countries as part of their CSR strategy. The effect of this strategy across many developed country banks is unknown, and the direct impact may be relevant for the current research in terms of the sustainability of MFI's and the reaching of economic and non-economic goals. However, the issue is not not at the core of the research question.

It is the relevance of institutions, in particular legal institutions, for the potential success or failure of microfinance which requires the current thesis to take a law and economics approach. It is the analysis of legal institutions and the subsequent effect and relationship to social institutions and microfinance which will provide the primary contribution of this research.

In terms of developing countries, it is often the cultures and national identities which affect the success of markets and the transplant of legal systems. Indeed, research has identified the legal institutions which foster growth as property law, contract law, corporate law and banking and investment law (Beck & Levine, 2005). In terms of the current analysis of legal institutions it is the banking and investment law, which affects the sources of money, which is of most relevance. As will be discussed in subsequent chapters, the content and enforcement of contract law also has a potential influence on markets (Wilkinson-Ryan, 2011).

The discussion regarding legal institutions leads to the preliminary questions regarding the role of law and how legal institutions can promote microfinance. These issues will be covered in chapter three where the law and economics of microfinance is presented by examining how microfinance completes a gap in the financial markets.

2.5.1.2 Microfinance Stakeholders

The stakeholders of microfinance are important to consider for the current chapter because the perspective of each group differs, and this can have an effect on the success of microfinance and the regulation under which MFI's fall. For this reason, the seventh chapter will present the results of the empirical interviews conducted with stakeholders in the four countries of focus. Mori (2010) has identified the stakeholders in microfinance in order to determine the role they play in strategic board decision making as clients, employees, governments, donors, creditors, and owners. These stakeholders have the potential to affect microfinance in different ways and thus the consideration of different points of view is relevant for the current and subsequent chapters in the current thesis.

2.6 Conclusion

The research on microfinance is comprehensive in terms of analysing the social benefits of the program, especially on the benefits for women. However, the literature is one sided in that the relationship between microfinance and the economy has not been established conclusively.

This chapter has presented an analysis of the background of microfinance in terms of the historical progress along with the reasons for microfinance development and the relevance for law and economics.

The microfinance literature is divided in terms of the social and economic benefits. Further, the interrelationship between microfinance and legal institutions is still not clearly understood. These main issues have been discussed with reference to the existing literature in order to provide an indication of why there is such a division in the one-sided literature and to provide a foundation from which subsequent chapters can build. Indeed, although research has not consistently supported the positive effect on social or economic political goals, there are few avenues for financial support which in theory offer such promising socioeconomic outcomes as microfinance.

Conclusions about the role of law will be drawn in subsequent chapters based on theoretical and empirical analyses of particular environments in which MFI's operate. Subsequent chapters will seek to identify and narrow the scope of the research to specific aspects of microfinance and microfinance regulation. It is through the law and economics structure of analysis that a model of how institutions should be shaped in order to stimulate microfinance will be developed. This methodological perspective is important because it provides a basis of analysis that previous studies have overlooked. The potential impact on microfinance performance through appropriate regulation is large.

Chapter 3

3. The Law and Economics of Microfinance: An Overview

3.1 Introduction

The aim of this thesis is to determine how law and economics can help explain what legal instruments and institutional conditions can promote the financial self-sustainability of MFI's (microfinance institutions). This is an important topic of research because financially self-sustainable MFI's are able to develop outreach without relying on the whims of donors. To examine this, theory will be used in order to develop an analysis of legal initiatives and the effect on promoting microfinance. This chapter presents a theoretical analysis without practical solutions regarding the law and economics of microfinance[1]. The theoretical perspectives presented in the current chapter inherently scratch only the surface of the potential analyses on the financial and structural detail of microfinance and general financial relationships. The problem-oriented discussions presented in this chapter hence provide a framework for discussing microfinance relationships with the goal of being able to subsequently work towards addressing the specific research question of the current thesis. A comprehensive analysis of financial relationships can be found in the final doctoral thesis of Deniz Akün (2013).

It has been established in the second chapter of this thesis that microfinance has confirmed social benefits and potential economic benefits through providing access to credit for the poor. Although the economic benefits of microfinance have not been empirically studied in an exhaustive number of studies, there is enough evidence to suggest that microfinance does not have a negative effect on economic development, does not cost society or the government excessive amounts to support, and thus may be an appropriate system for increasing credit availability of the poor. In light of this the current chapter seeks to understand what institutional conditions can promote microfinance. Further, it is of interest to analyse what the legislators can do wrong in trying to promote microfinance. These discussions will be framed by consideration of the goals of microfinance set in a framework of the normal banking relationship.

In analysing the development of microfinance law it is intuitive to begin at a consideration of regular financial relationships and why regulatory support may be needed to promote microfinance. It has been established that microfinance is a method to increase financial inclusion. However, the poor have always had (expensive and unreliable) access to credit via family and friends, and 'loan sharks'[2]. As an empirical issue, these credit sources are not efficient:

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[1] A modified version of this chapter and chapter 4 (a combined paper titled *The Law and Economics of Microfinance*) has been accepted for publication in The Journal of Law and Commerce for print in March 2015.

[2] Loan sharks make credit available to those in need with flexible loan and repayment terms. They do not always take collateral, however, as they are outside the financial system non-repayment often results in violence, slavery, or

during economic or weather disasters, the regular sources of credit may no longer become available because the family or friends need the capital for their own family's survival. Thus, microfinance provides an avenue for a source of credit which is potentially more reliable.

The previous chapter balanced the research on microfinance effectiveness in achieving the social and economic goals it has been promoted as doing, against the reasons behind the promotion and financing of microfinance. The previous chapter established the strong evidence for social benefits for microfinance, especially for women. The economic effects of microfinance are not supported by a consistent body of literature. However, the chapter concluded that microfinance would not have adverse economic effects.

The chapter which follows will provide an overview of the empirical literature, in particular those which have employed rigorous research methodology. The subsequent chapter will analyse this literature with the perspective of determining whether the theoretical analysis contained in the current chapter has been supported in the literature. Future chapters will include country case studies to examine in depth how the regulation of particular countries promotes or inhibits microfinance.

This chapter is structured as follows: the first section considers normal banking relationships in a problem-oriented way designed to provide background information from which subsequent discussions can build. This means that the current thesis will discuss the banking literature as far as it is relevant for microfinance and hence will remain at the surface of understanding and analysis. Section two discusses access to finance being restricted from the poor; section three outlines the effectiveness and distributional goals of microfinance; section four discusses soft regulation and CSR as potential initiatives; section five discusses direct regulation as a potential initiative to support microfinance; and the conclusion compares and contrasts the fourth and fifth sections to determine the process of regulation required to promote microfinance.

3.2 Traditional Financial Relationships

3.2.1 Law and Economics of Finance

The interrelationship between law and finance has been well documented in the literature of the law and economics of finance. This literature generally indicates that banks lend when there is contract law which is precise and enforced (Waziri, 2012). Solid contract law is also associated

worse (Mayer, 2012). Loan sharks are part of the TML (Traditional Money Lender) system, which is a blanket term including also family and friends as traditional sources of capital.

with a high trust environment, and this leads to economic development and growth (Aggarwal, Klapper, & Singer, 2012; Buera, Kaboski, & Shin, 2012). Authors have commented that this link is because it is institutions which strengthen the property rights of entrepreneurs and investors which provide lasting increases in productive capacity (Arch, 2005). The result of this is that traditional financial relationships develop in a contractual environment.

The consideration of the functioning of traditional financial relationships is an important starting point for the current chapter because it is important that the role and design of microfinance is understood in a context of how traditional banks have failed to address the poor segment of the market. This section of the current chapter thus establishes a context for the discussion on microfinance. Given that microfinance is a financial innovation this is a critical starting point. Indeed, given that the focus of the current thesis is on the financial sustainability of MFI's the importance of establishing this foundation of knowledge is readily apparent. However, the traditional financial relationship model is not presented as an ideal situation from which microfinance may attempt to replicate. Indeed, as the GFC (Global Financial Crisis) illustrated, the traditional banking model suffers from such inbuilt and widespread structural issues that a worldwide financial crisis can be the result. Further, this crisis also illustrated that the importance of assessing the risk of borrowers applies to developed and developing countries. Rather, the consideration of traditional financial relationships serves as a consideration of what is 'normal', but not what is 'best'. The evolution of microfinance to serve a particular segment of society with the model it has may be no accident.

However, despite the consensus in the literature, it may be relevant to consider the operation of ancient moneylenders (and indeed modern payday lenders, loan sharks, or moneylenders operated by organised crime), as they were not able to rely on the enforcement of specific contract law in the way current banks can and yet seemed to thrive in all economies where a gap in legal institutions allowed it (Buscaglia, 2011; Mayer, 2012). Indeed, we know that these money lenders often relied on the threat of physical harm (and many still do in slums all over the world), and despite the ethical issues of this technique, it did assist with the repayment of loans without enforced contract law (Mayer, 2012).

The law and economics of finance helps explain the environmental risk management conditions under which banks will lend money. The relevance of this is that these conditions are similar to those which affect MFI's. That is, access to capital and supportive regulation affect the operations of financial markets and also of financial markets.

3.2.1.1 What Does a Normal Banking Relationship Look Like?

Financial relationships are an aspect of normal life which many in the developed world may take for granted, because in developing countries what is considered a normal financial relationship exists only for the middle and upper classes. As a result of this heterogeneity in who has access to financial relationships, much of the ideas of 'normal financial relationships' come from developed countries. The current chapter will examine aspects of normal financial relationships which have resulted in the lack of access to capital by the poor and which subsequently explains the development of microfinance as a method to overcome this.

Regardless of the location of the financial institutions or the characteristics of the client base, aspects of the financial relationship remain consistent. This is because people all over the world require financial institutions for consistent reasons and products are tailored to provide for these. In particular, people go to the bank to manage their risk (e.g. Insurance and fixed rate loans and deposits), build wealth (e.g. Interest bearing savings accounts, investment portfolios or home mortgages), manage cash flow (e.g. Personal loans), and transfer money (e.g. Money transfers to sellers or to family overseas). These financial services are demand driven and products are designed within regulatory environments to suit the needs of customers. Thus, customers choose to have financial relationships with banks because they have specific needs which banks can meet. Normal financial relationships have consistent motivations and designs across the world.

The current research is primarily concerned with microfinance as a source of credit for the poor. As such, it is the provision of loans (microcredit) which forms the focus. In traditional banking relationships borrowers pay interest rates as a way to provide an incentive to the bank to give up capital which they otherwise could have used. The interest rates charged depends on the level of cost associated with providing the loan and the risk associated with doing so. The consideration of a traditional financial relationship allows that the role of microfinance can be better understood, as interest rates are also charged relative to the cost of providing the loan.

3.2.1.2 Information Asymmetry

Traditional financial relationships include information asymmetry for both parties where the cost of information and search provides customers and banks with avenues to benefit from the relationship (Stigler, 1961). Information asymmetry is a generic problem in banking relationships and banking law is often designed to attempt to reduce these asymmetries because of the resulting market failure. In traditional banking relationships information asymmetry is reduced through signalling and monitoring. That is, borrowers signals to the bank that they are worthy of loans. The bank then monitors the borrower. In terms of banking relationships for the poor the problems of information asymmetry are magnified because the poor are without methods to signal loan worthiness: they are unlikely to have collateral or financial statements. As a result of this, banks are faced with high monitoring costs so they expect a signal of quality but the poor do not have collateral (ie. the signal) to give. The result of this is the poor are left without access to capital. Hence, MFI's have been created which are designed based on a model where the poor are able to provide intangible collateral (ie. social pressure). This is a key innovation of microfinance from an economics perspective – the ability to substitute tangible with intangible collateral (Ekpe, Norsiah Binti, & Razli Che, 2010b; John, Lynch, & Puri, 2003; Ono & Uesugi, 2009; Stroebel, 2011).

The information which is so costly to obtain may be from the clients perspective expertise about financial products to a level which may allow them to bypass banking relationships and act for themselves in the capital and asset markets. From the banks perspective, this information may relate to the complete social and financial history of a client, of which only the client has privy details to. Both parties benefit from acquiring a certain amount of information on these areas, up until a point at which it is most efficient to either pay (by the client) and charge (by the bank) for the information/expertise (the client pays the bank interest or fees) which is asymmetric. These costs of search outweigh the overall benefit from extended search (that is a search process which results in complete expertise in an area) compared with relying on the expertise of financial institutions. Information asymmetry makes banking relationships desirable for both parties because fees based on the costs associated with search, uncertainty, and the resulting asymmetric information mean that customers are willing to pay for expertise and banks are willing to accept fees to compensate for the asymmetric information. Although it may be argued that banking relationships would also exist in an environment without information asymmetry as discussed, it is also important to consider that the existence of asymmetric information allows for greater profit, and thus greater incentives from the relationship. Thus, information asymmetry is a key consideration for traditional banking relationships and the microfinance sector in that it provides a foundation upon which the pricing of loans are set based on uncertain risk levels.

In the example of the second hand car market, Akerlof (1970) describes how the seller has more information, and because the buyer cannot possibly know the difference between seemingly substitutable cars (and thus pays the same price for a good and bad cars) the bad cars outnumber the good cars in the market. This is applicable to the current research because it could be extended that banks cannot know the difference between seemingly identical borrowers and thus good borrowers self out select from the application process for loans with high interest rates, knowing they will be getting the same terms as lower quality borrowers. Although this logical extension for the financial markets requires tempering with the clear logic that good borrowers are unlikely to completely out-select from the financial system, as unlike the second hand car market there are few alternatives. However, research on the effect of interest rates charged in the microfinance sector has indicated that in fact higher interest rates result in potentially lower profits because of adverse selection and moral hazard effects (Hermes & Lensink, 2007). Thus, the example of Akerlof's second hand car market may be directly relevant to the microfinance sector or alternatively to the 'low-doc'[3] loans in the traditional financial system. A consideration of the literature of the economics of information is important for the understanding of how this system operates.

Asymmetric information is an important consideration for the current research because it influences microfinance credit availability through the effect on loan pricing, credit rationing and collateral requirements. Thus the effect on the quantitative aspects of credit availability is a possibility. Each party has unaligned goals in the retail loan relationship, and each wants the other to co-operate and not exploit information asymmetries (Brown, Potoski, & Van Slyke, 2010). Information is asymmetric for both parties, with the borrower not always revealing their full product preferences such as which price is acceptable or their motivation for fulfilling the loan contract (Chiappori, Jullien, Salanié, & Salanié, 2006). Further, the lender also has information that the borrower does not know, such as the actual costs associated with providing the loan including technology and overhead costs (Chiappori et al.). From this perspective information asymmetry affects both parties and the inherent design of financial relationships is an on-going remedy to these issues.

Despite the asymmetry of information within financial relationships, authors have commented that competition makes the information asymmetry irrelevant to financial market functioning (Chiappori et al.) and that there is actually a large amount of information available to both parties (Casellina, Landini, & Uberti, 2011). Indeed, the extensive application process leaves few financial stones unturned from the borrower's perspective. This research indicates that in an increasingly technological financial market, other avenues for product design and provision may outweigh information asymmetry. However, information asymmetry has been found to be a

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[3] Low-doc loans (or low-documentation loans) are loans provided to those in the traditional financial system based on smaller amounts of evidence for repayment ability than regular loans, and are subject to higher interest rates as a result of this. Regular loans generally require two years of previous financial records. Thus, new business owners or those with fluctuating annual income in need of finance have the option of a 'low-doc' loan, as do those without the ability to substantiate their ability to repay the loan.

credit market friction (Chiuri & Jappelli; Vayanos & Wang, 2011) which results in the requirement of collateral (Buera et al., 2012; Chiuri & Jappelli, 2003; Stroebel, 2011). Microfinance is in essence a financial innovation which allows social rather than material collateral, hence this is of interest to the current thesis.

Influencing factors on information asymmetry have been thought to be distance between the financial institution and customer, however, recent research has found that location is not an issue in corporate loan relationships (Carey & Nini, 2007). Authors have also indicated that the result of information asymmetry is an interest rate charged which is too low for banks to make profit from the loan (Sharpe, 1990), although this research is outdated and may no longer be the case. Long term relationships also mitigate the effect of information asymmetry (Chakravarty & Scott).

Another implication of asymmetric information is credit rationing. Authors have claimed that credit rationing to small firms and individuals is a result of asymmetric information (Chakravarty & Scott, 1999; Frame, Srinivasan, & Woosley, 2001), and this is directly relevant for subsequent discussions on microfinance. Information asymmetry is an aspect of financial relationships which ensures continued innovation in processes, products and contract design.

In the microfinance sector, the demographics of borrowers make issues around information asymmetry particularly relevant. However, the community selection and endorsement of borrowers minimises the information asymmetries and subsequent possibilities for the adverse selection of borrowers. Although traditional banking relationships do not use community selection or social pressure in the models of repayment this contractual technique in microfinance has shown repayment rates of 99% (Di Bella, 2011) and wide ranging and long lasting social benefits, as discussed in the previous chapter. Hence credit rationing is an underlying aspect of credit markets which occurs as a result of information asymmetry including microfinance.

3.2.1.3 Credit Rationing

Money comes in the form of different financial instruments, so ideas of credit worthiness are enforced by banks based on a set of institutionalised categories (Polillo, 2011). Authors have commented that money is a collective process of abstraction, and so authority is required to enforce it (Polillo, 2011). Credit rationing is relevant to the current research because it highlights market imperfections in a situation when a borrower is denied funds despite being willing to pay for it. Credit rationing occurs when there is excess demand for credit and rather than increasing interest rates or collateral requirements to reduce demand the bank simply rejects borrowers who are indistinguishable from those approved (Stiglitz & Weiss, 1981). This could have implications for microfinance credit availability because affected people may be less likely to seek credit the next time. In this way, potential borrowers may self out-select from the microfinance application process altogether.

Indeed, Stiglitz and Weiss (1981) have documented that there are a variety of factors which influence the optimal interest rate charged by a bank and that the these may in itself affect the riskiness of loans through adverse selection of borrowers or incentivising borrowers to change their behaviour. The implication of this is that the financial return from increasing interest rates on loans is less than the proportional interest increases (Stiglitz & Weiss, 1981). However, this may not be directly relevant to microfinance because 99% repayment rates (Di Bella, 2011) indicate that adverse selection is not at play in this market. This is because the microfinance model of community selection and social pressure to repay, which are discussed in detail at later stages of this chapter, minimise information asymmetry, which is a key requirement for adverse selection.

Research has found that credit rationing exists in certain environments and is lower where a client-bank relationship exists (Chakravarty & Scott, 1999) and when the bank has a large amount of deposits available (Berlin & Mester, 1999). Further, it has been argued that loan commitments are effectively insurance against future credit rationing (Thakor, 2005). The existence of credit rationing is relevant in both the consumer and small business lending fields of research because of the ramifications it can have for the retail loan market, credit availability, and the economy as a whole.

3.2.1.4 Discrimination

Following on from credit rationing, discrimination against certain consumer groups by lenders is widespread and difficult to monitor. The aspect of discrimination is directly relevant in answering the current research question because it provides a potential explanation for a lack of access to credit for the poor other than market failure from asymmetric information. For the purposes of this discussion discrimination is the unequal treatment of people based on grounds other than those which relate directly to the provision and repayment of loans. Discrimination and self out-selection (both sides of the credit rationing coin) are important for the current research because they affect who applies for loans in the first place, and which clients are more likely to be rejected. Discrimination has been studied in terms of the effect it has on the loan terms offered to borrowers but not in terms of the loan rejections, because of a lack of reliable counterfactual data. However, this information is important because the rejections and those who do not apply in the first place because of perceived discrimination do have the potential to influence the overall microfinance repayment results.

Discrimination does exist in the retail loan market in developed countries (Chakravarty & Scott, 1999). Authors have found that there is in particular price discrimination (Degryse & Ongena, 2005) and that race and neighbourhood racial blend interact in discrimination (Holloway, 1998). Research has yielded some interesting albeit seemingly contradictory results with some authors finding that women pay more for mortgages (Cheng, Lin, & Liu, 2011) and others finding that singles and widows are discriminated against but not along gender lines (Elliehausen & Lawrence, 1990). Subsequent sections discuss microfinance specifically and given that most microfinance borrowers are female and in poverty (MIX, 2013) the issue of potential discrimination in the provision of loans is relevant.

3.2.1.5 *Information Technology*

The value of the banking relationship has been widely covered in the literature to date. However, authors have also documented the trend created by innovations in information technology in the banking sector which have reduced the cost of information and subsequent information asymmetry (Frame et al., 2001). The result of this is that the value of banking relationships is lower, and subsequently banks are able to price their financial products more appropriately for the risk taken. In line with this theory downward trends in interest rate spreads (the difference between the cost of the capital and the interest rate charged to retail borrowers) on retail loans have been well documented (Bradley, Gabriel, & Wohar, 1995). Trends in information technology are one of the key sources of hope for increased awareness and penetration of microfinance in developing countries.

The increasing uptake of mobile phones provides a technological foundation on which MFI innovation in distribution and marketing can build. Indeed, the potential scope for financial services provided via mobile phones has been shown in Kenya. The Kenyan M-Pesa (Swahili for Mobile-Money) money transfer system is used by 70% of the country's population (Aggarwal et al., 2012), effectively including them in the financial system. This widespread use of the money transfer system is especially thorough considering that total mobile phone penetration in Kenya is only 71.3% (CCK, 2012) (p. 10). The potential scope for similar innovations to include people in the financial system can be built on mobile phone penetration across many developing countries such as Pakistan (69.8%, (PTA, 2013)) and India (73.02% (TRAI, 2012) which already have a trend towards mobile phone uptake. However, these innovations need to be balanced by regulation which ensures 'eMoney' is backed by 'real money' in bank accounts because of the potential effects on the supply of money usually government controlled in money markets.

Information technology can increase the operating efficiencies of various microfinance services to particular segments of borrowers. For example, the potential portion of microfinance borrowers who are literate and computer literate may be able to provide initial demographic data online which could then be checked at the initial meeting, saving time documenting basic information. Although the computer literate are not the exact target market for microfinance given their relative education and poverty levels, using those with computer literacy can have flow through effects to marketing design and process operations as the online behaviour can be measured and trends exploited to maximise microfinance awareness. The potential increases in productivity from information technology are promising, especially for increasing microfinance penetration and financial system inclusion.

3.2.2 Supply and Demand Story of the Bank

Banks operate across retail and corporate financial services industries and have various supply and demand issues which affect how they operate their businesses profitably.

3.2.2.1 Supply

'*3-6-3: Give interest of 3%pa for deposits; charge 6%pa interest on loans; be on the golf course by 3pm*'. Although this banking motto may reflect the localised bank branch system which has long been left behind in many developed countries because of increasing competition, the phrase shows that through interest rate spreads between the cost of financing and the return on assets (loans are assets from the banks perspective and deposits are liabilities) banks can make a comfortable profit. It is this spread difference which formed the basis of bank operations through history and has ensured that money lenders (and the ethnic groups not religiously forbidden from operating in the capacity of) have a stigma and prejudice which arguably continues to the current day (Jones, 2008).

However, the nature of current day bank credit supply models has adapted significantly in line with the increasing sophistication of structured products (Frame & White, 2004). Indeed, it may be argued that modern banks are more customer focused than ever before, and this leads to the innovative design and provision of niche products which fall well outside of the '*3-6-3*' model of banking relationships.

Banks must develop contracts (or Product Disclosure Statements as they are called in Australia) when there is a financial product offered (RG 168.36 (ASIC, 2011)). In highly regulated environments such as Australia contracts for financial products are restricted in that all publicly offered contracts (i.e. financial products) must follow a certain structure and contain certain information which then must be approved by the relevant government supervisory body. This level of initial and on-going supervision of financial products is to an extent which limits competition by creating high barriers to entry through high costs of applying to be regulated and on-going compliance with the regulation. The issue of transaction costs will be covered in subsequent sections.

Much economic literature has documented the risks of overregulation (Di Bella, 2011). Indeed, Australian financial regulation is designed to be tight so as to ensure that customers are not likely to lose any of their investments in unsafe or fraudulent schemes. However, the result of this may arguably be less financial products offered, and less benefit to customers because there is less market competition as a result of high barriers to entry for competitive banks (Di Bella, 2011). Indeed, in Australia this has been seen (CBA, 2010; Ellis, 2012). The government officially supports the four major banks, and there is competition between them, but smaller banks and credit unions do not have significant market share. The Australian Government has a well-defined 'Four pillars policy' regarding mergers and acquisitions within the main four banks (Millenium-Challenge-Corporation, 2013). Further, market share is guaranteed through government approval required for mergers and acquisitions. Thus from the supply side banks are potentially influenced by regulation in terms of the products they can offer and the amount of competition and potential takeovers they face.

As well as mortgages, there is demand for loan products such as personal loans, credit cards, business loans, and asset loans, as well as specific loan structures such as car leasing and factoring. In normal financial relationships the fees and interest charged for these loans depends on the costs and risks associated with the type of loan and the characteristics of the borrower. With consumer loan types where there is no collateral (such as credit cards or personal loans) the interest rates charged in Australia are generally between 18%-25%pa. The high interest rates reflect the increased risk to the bank, higher transaction costs than other loans, and the strong demand for such loans from consumers. This is despite the fact that borrowers are personally liable for any debts and all borrowers pass serviceability[4] tests before being provided with any

[4] Serviceability refers to the ability of a borrower to 'service' or make the regular repayments (for the principal and interest) for the set loan period and takes into account income, expenses, and living situation.

loan. Considering this, the high interest rates of microfinance loans are understandable, even compared with normal financial markets.

The serviceability test is a main test to gauge the borrower's ability to repay the loan and generally works in tandem with collateral in retail mortgage markets in developed countries. In this way banks determine whether the borrower is able to repay the loan with ease, effectively reducing the risk they face of delayed payments or default. In addition to ensuring that borrowers can 'service' the loan, banks also require collateral for relatively large loans such as home loans.

3.2.2.2 Demand

Customers in financial relationships apply to have access to financial products because they have a direct need. Thus, despite the requirements for collateral, serviceability tests and LVR's of below 80% (in Australia), borrowers still seek and willingly pay the interest on loans. Despite the interest costs of up to 25% on some uncollateralised loans such as credit cards, consumer outrage is generally regarding hidden fees, costs and interest repayments, rather than the interest rate itself.

It can be argued that the LVR of retail mortgages is a reflection of the attitude toward debt in different countries. Indeed, we can see cross country differences between Australia, with low average LVR's at 67.7% (ABS, 2011) and the USA and Germany each with 74% (EMF-Hypostat, 2010). Relative economic situations in the country also have the potential to influence borrower decisions at the time of loan application and also at the point of refinance. This relates not only to the boom and bust of the property cycles, but also the overall pricing of homes relative to income.

The personal characteristics of the borrower have great importance for the financial decisions made. The combination of various practical and emotional influences on borrowers makes predicting financial behaviour precarious without a broad ranging understanding of the other parties involved. Influencers on borrowers include the psychological concepts of confidence and trust in online retail loan quotes. These concepts are built on a foundation of financial literacy (Yoong, See, & Baronovich, 2012). This is particularly relevant for the microfinance sector where borrowers often have very low financial literacy and borrow in very low trust environments, despite pervasive demand for the loans.

3.2.3 Financial Market Players and Their Incentives

The key financial market players which will be considered in the current chapter are borrowers and lenders, because of the direct relationship to microfinance relationships.

3.2.3.1 Borrower

The level of commitment to a loan dictated by legislation has ramifications for consumer loan behaviour. For example, in Australia and Germany it is not possible to leave a mortgage without being personally liable for the loan, known as full recourse loans. This means that if property prices drop and the property is sold for less than the outstanding loan amount, the borrower is personally liable to make up the missing amount. In America, this is not the case, as borrowers are free to leave their mortgage and hand in the keys to the property, one of the magnifiers of the situation which resulted in the GFC.

In addition to incentives for loan repayments, there are also contractual methods to ensure on time regular payments such as late fees and permanent credit history (or credit score) records. Thus, legislation can affect bank competition and underlying contract design to the extent that borrower incentives are affected. Borrowers with full recourse contracts have incentives to repay the loan whereas those without only have the loan repayment incentives if capital values increase.

3.2.3.2 Lender

Lenders operate in different environments depending on the legislation of the country, and the subsequent nature of the competition they face. The strength of the competition has the potential to influence the products that are developed, the level of relationships sought with and by borrowers, and the marketing strategies employed to obtain new and maintain existing customers (Abbad, Abbad, & Malik, 2011). Thus there are diverse incentives on lenders in operating and managing customer relationships, affected by regulation.

Bank financing has been constantly changing over the past few decades, with an increased use of securitisation and lower reliance on deposits. However, authors have found that there is a relationship between the cost of capital and internal financial resources if there are external financing constraints (Campbell, Dhaliwal, & Schwartz, 2012), and that this can also affect real economic activity through the provision of finance through business and personal channels. The trend away from reliance on deposits and towards financial leverage has a variety of advantages and disadvantages particularly relevant for MFI's and is discussed in sections following.

Authors have commented on the factors which banks are interested in within the lending relationship. Namely, Stiglitz and Weiss (1981) detailed how the contract effectively induces the borrower to act in the best interest of the bank, but can also incentivise self-out-selection of bad repayment behaviour in the loan term.

Lenders are affected by the different legislative and competitive situations. The result of a combination of environmental factors results in different market practices. The USA has seen relatively relaxed lending practices relative to Germany and Australia, and this can be seen in the resulting quality of the loans. A benchmark measure of loan quality is whether the loans can be considered non-performing or sub-prime. Non-performing loans (NPL's) are loans with outstanding payments for more than three months. Sub-prime loans are generally referred to as loans to people who have not provided evidence of the ability to repay the loan. Specifically, the percentage of subprime loans in each country is an important quantitative reflection of lending practices of the various banks. In Australia there are approximately 0% subprime loans, and yet 36% of USA mortgages are classified as subprime (CBA, 2010). Understandably, this has ramifications for the current environment in which banks operate, and is also a reflection of borrower willingness to take on unmanageable debt. That is to say that although the appetite for debt in Australia is higher than that of the USA and Germany based on the overall indebtedness, this combined with a culture of paying off debt may be the reason subprime mortgages are so low.

It can be argued that the result of this on behaviour is that there is lower refinance behaviour in the USA because borrowers are not generally in such good financial position as to re-negotiate a competitive loan with another lender. Indeed, the research supports this argument with authors finding that borrowers in stronger financial shape are more likely to refinance (An, Deng, & Gabriel, 2011; Hurst & Stafford, 2004).

In Australia the lender can seek recourse against other assets of the borrower, including future income. The National Consumer Credit Protection Act (NCCP) (NCCP) places emphasis on the lender's obligation to ensure the borrower has repayment capacity, knows their responsibilities, and loans are not unfair or misleading. In this way lenders are provided with incentives to provide loans to those who are worthy because the law places the obligation on them. On the other side of the coin, the bank is potentially protected in the case of default with personal liability for the loan amounts. The Australian Securities and Investment Commission (ASIC) regulates credit providers and credit providers must apply for a consumer credit licence.

Lenders are influenced by the legislative and competitive environments in which they operate which affects product innovation and relationships with borrowers.

3.2.4 Contracts

Key components of contracts which relate to microfinance loans and financial services are the methods by which contracts are enforced and the interest rates charged to borrowers.

3.2.4.1 Contract Enforcement

The law regarding the enforcement of contracts is a result of the information asymmetries between contract parties and ensures that property rights are upheld (Waziri, 2012). Without a mechanism to enforce contracts and a low trust environment it is possible for the financial system to be very inefficient (Mouzas, 2007; Nawaz, McKinnon, & Webb, 2002). Financial system functioning in developed countries is built on a foundation of trust and enforced property rights legislation (Waziri, 2012). However, the microfinance sector in developing countries usually do not have this foundation *(*Nawaz et al., 2002*)*, and the result of this may be the lower economic benefits of microfinance (Brau & Woller, 2004). Contract enforcement in developed countries thus relies on cultural norms and institutional support. This is in contrast to microfinance contracts whose enforcement is instead supported by social pressure from other community members (Rodríguez-Meza, 2000).

Contracts are designed to ensure both parties have reduced risk despite the inherent information asymmetries present in all financial relationships. In this way, contracts are essentially a risk management tool. This is because it is not that risk should be avoided, simply that uncertainty is something people will pay to circumvent because it is unquantifiable (unlike risk) (Akerlof, 1970).

Banks manage their risk when providing products to clients by ensuring they have collateral for any loans, receiving deposits (Berlin & Mester, 1999), by securing long term funding by locking in interest rates for long term deposits, building long term clients relationships (John et al., 2003; Petersen & Rajan, 1995), and by getting large amounts of personal financial information from clients at the point of application. Clients manage their risk by building relationships with the banks (Dahiya, Saunders, & Anand, 2003), reading the PDS (Product Disclosure Statement) (ASIC, 2011) and by having multiple products with different banks, especially savings accounts (Detragiache, Garella, & Guiso, 2000). However, bank loyalty is high in developed countries. This is supported by the data where in Germany 78% (and 65% in Australia) of people refinance with the same bank (ING-DiBa, 2008).

Banks are very prudent in lending large amounts of money in developed countries. Unsecured loans are generally only present in credit cards and other personal loans of relatively small balance, and even then the loan amounts are secured against the person in the event of default. Regular banking relationships for the provision of loans revolve around two main issues: collateral and serviceability. Collateral is the provision of an asset of value at least that of the loan amount to ensure that the bank has the security of knowing they will not lose capital from the loan even in the event of default because asset ownership remains with the bank. Regardless of if the loan is for the purchase of a new property, or for the establishment or expansion of business, collateral is generally required.

The provision of collateral also has a psychological effect on the borrowers: if you borrow money 'against' your otherwise debt-free home in order to take a business loan there are large motivations to ensure the business loan is paid back.

3.2.4.2 Risk Based Interest Rates

The risk management practices outlined above ensure that the pricing of risk into financial products is easily reflected in the interest rates charged. That is, large balance loans are linked with collateral and charged low interest rates (because the costs of providing the loan are not directly proportional to the loan size and thus easily covered by the interest on such a large principal) (Ono & Uesugi, 2009). In contrast low balance unsecured loans are charged high interest rates reflective of the risk of delayed repayment or higher recovery costs in the event of default as well as higher proportional transaction costs, as covered in detail in the next section of this chapter (John et al., 2003).

3.2.5 Theory of the Firm

The reliance of the 'Theory of the Firm' on the absence of externalities and transaction costs has nonetheless not stopped it from being applied when analysing regulation, including financial regulations. The conditions under which firms emerge and the factors which influence the hiring of contractors or staff was discussed by Ronald Coase in the 'Theory of the Firm' (Coase, 1937). This theory is particularly relevant for this discussion because of transaction costs which Coase identified as being critical for the emergence of financial firms. Further, decreasing returns from entrepreneurship investment indicates that it is more efficient for financial firms to support small businesses as they are more able to pay higher interest rates because of higher profits than established firms (Ferro Luzzi & Weber, 2006). This trend in argument links the discussion on the theory of the firm to banking theory previously discussed.

When considering the traditional banking relationships the Theory of the Firm allows us to understand why financial institutions should support business establishment loans and loans to small businesses (Singh, 2008). This is directly relevant for microfinance theory, because many definitions of microfinance (although not that used in the current thesis) refer solely to the use of the credit for the creation or growth of micro enterprises. This is because loans to small businesses are an effective use of capital with higher returns from investment than established firms (Aggarwal et al., 2012). However, because of transaction costs and risk management, financial institutions do not necessarily follow this trend and lend to small businesses. Indeed, loans to small businesses are a small proportion of total loans in developed countries (Buera et al., 2012). A similar trend can be found in developing countries (Satta, 2004) and it has also been found that it is the efficient use of capital (i.e. supporting entrepreneurship) which can provide long term and sustainable economic growth for developing countries (Eichner, 2012b).

Financial institutions have grown to such a size that there are generally very high overhead (fixed) costs which outweigh product specific variable costs. These ideas are connected to transaction costs when considered in a much broader sense and the Theory of the Firm as discussed in the previous section. Indeed, with the use of technology and automatic payment systems delayed repayment and default are quickly identified and managed. The system of monitoring loan repayments, even those of very large sums are systemised so that problem loans are identified and tracked (Ryan, Engel, & Melamed, 2001). This process is designed to be efficient and utilises the generally internet-savvy, literate, and somewhat engaged borrowers.

However, in the case of default or delayed payment transaction costs increase. It is more profitable for a bank to try and help customers to keep their loan serviced than to repossess the loan (Berkowitz & Hynes, 1999). When repayments are delayed the process is systemised with electronic and personal follow-ups and escalation through bank bureaucracy to determine on-going responses. Thus, the transaction costs associated with delayed payment and default are relatively high but not common and the systems to deal with the problems which arise ensure that the bank and the borrower have flexibility.

More frequent than the transaction costs associated with default and late payment are the costs associated with initially starting a loan. As discussed, high fixed costs in most financial institutions means that the costs associated with issuing a loan are concentrated in human resources rather than in the costs of systems and procedure of processing. However, given that the process of loan application has been systemised, it can be inferred that the cost of issuing loans is relatively consistent, regardless of the loan size. Thus, banks have more incentives to charge a higher interest rate to lower balance loans in order to cover the higher proportional transaction costs to issue the loan. Small loan sizes, short loan terms and rurally dispersed illiterate customers (the target market of microfinance) means that the transaction costs associated with providing and monitoring microfinance loans is very high, despite the outsourcing of many key loan operations to the community. Indeed, average loan sizes have been found to be 1.5 times annual earnings (Buera et al., 2012) which is a low absolute amount in the target borrowers. Further, although the use of the community in borrower selection and monitoring reduces information costs and risk to the MFI, there are features of microfinance loans and borrowers which mean that there are still high transaction costs in providing the loans.

3.2.6 Credit Market Failure

The combination of lack of collateral, undocumented abilities to repay the loan and associated factors of illiteracy and regional diversity means that in the traditional financial relationship, the poor do not have access to financial services. In the situation of credit, where those who are the most productive users (the poor) are willing to pay for finance yet unable to have the service because of a lack of products designed to accommodate their particular characteristics (ie. collateral and deemed riskiness) this is partially a failure of credit markets (Aggarwal et al., 2012).

This failure in the allocation of credit is arguably a result of the unjustified belief by banks that the poor are a market segment too costly and risky to serve. Thus, the distinction between real and perceived risk is a relevant discussion in this context. Further, risk perception and risk tolerance are aspects of this potential credit market failure on which future research may benefit and will not be covered in detail in the current thesis. Subsequent sections of this chapter will address specific regulatory interventions which may support access to finance for the poor.

3.2.7 Conclusion

Traditional financial relationships follow a simplistic model where the bank obtains capital in large bundles which are dispersed to many borrowers at interest rates which cover the risk of default, transaction costs and profit. The target market of microfinance borrowers as being rurally dispersed, illiterate and generally uneducated members of society results in a perception that transaction costs remain unbalanced by the return from market interest rates on such small loan balances. The result of this is that the poor do not get access to finance in traditional financial relationships, and this is a credit market failure which has led to the development of MFI's to complete the market.

3.3 The Poor Also Need Finance

The model of traditional financial relationships leaves a gap in services provided to the poor. The previous section established that the banks in developed countries may deem providing credit and other financial services to the poor excessively high risk (when no collateral is available) or unprofitable (where high transaction costs relative to income earned are small). The result of this is a lack of access to capital for the poor as small loan sizes are not offered or applications are rejected. This situation is relevant across the world, and is especially poignant in developing countries where there are potentially more poor left un-serviced by this credit market failure. Evidence of this credit market failure can be found in developed countries where the relatively poor are also excluded from the formal financial system, which has resulted in a trend towards microfinance and microcredit programs across countries such as Holland, Italy and Germany (European-Microfinance-Network, 2013). Poverty is an absolute and a relative socially constructed definition. It is logical that financial system exclusion exists in all economies, because there will always be a group of people who banks deem unprofitable because of excessive uncertainty of collateral and repayment ability. For this reason, the development of microfinance (in particular microcredit) programs in developed countries such as Italy will be considered as well as in developing countries in the following chapters. Regardless of the country of interest, various supply and demand side issues will exist which contribute to the poor being excluded from the formal financial system.

3.3.1 Supply side

In considering how the financial needs of the poor are related to traditional financial relationships it is worthwhile to consider the issues from the supply perspective. Issues such as distrust, lack of information, interest rates, non-diversified alternatives, Islamic microfinance and loan sharks will be discussed in this section.

3.3.1.1 Distrust

Banks in developing countries have more funding and operational challenges to overcome than banks in developed countries (Hartungi, 2007). Among other challenges, authors have commented that the level of trust within a country and within the financial sector is particularly important for innovation and outreach to poor customers (Aggarwal et al., 2012). The issue for banks in developing countries is that general levels of trust are relatively low and contract law and enforcement are not always reliable to fill the gap in general trust levels (Aggarwal et al., 2012). This is especially relevant for microfinance, and in particular microsavings. In a low trust environment it may still be likely that people borrow from MFI's, but the likelihood of them depositing savings is much less likely (Aggarwal et al., 2012).

In an environment of low trust and with the operational and cost restrictions identified in the previous section, it can be extended that access to finance is not available to the poor, and especially not the rural poor who form the majority of those targeted by political goals for development.

3.3.1.2 Lack of Information

Traditional banking relationships manage risk by collecting a lot of information from future customers before and during the provision of financial products. However, the target customers of MFI's may have no evidence of income, no assets, or ability to prove they can repay the loan. Because of the general lack of information available from microfinance borrowers there is a very large perceived risk associated with lending to them. This is particularly the case for traditional banks with no first-hand experience in the high repayment rates of microfinance loans.

With technological advances and financial services product innovation it is becoming easier and easier to provide financial access in developing countries. For example, in Kenya, which has bank density at one third the density of India, 70% of people use mobile phone banking and bypass traditional banking relationships (Aggarwal et al., 2012; Economist-Intelligence-Unit, 2012; Herd, Koen, Patnaik, & Shah, 2011). However, this system is hinged on the requirement of agents to receive and give cash (Herd et al., 2011). The potential scope of microfinance expansion which builds on the use of mobile phone technology is large. Detail of distribution scope was covered in the second chapter of this thesis.

3.3.1.3 Interest Rate

Interest rates on microfinance loans have a median of 32%pa (from 2007 to 2009) (Di Bella, 2011). The rate of interest is generally explainable by higher costs from a lot of small transactions and higher risk to the lender than for traditional collateralised loans as discussed in the previous sections (Arch, 2005), however this reasoning is not certain. Further, the interest rate reflects a risk allocation and a risk premium given the demographics of the borrowers and subsequent costs. The primary actions of MFI's (and banks when granting loans) is to adequately select a borrower who will repay the interest and loan principal, and then to monitor on-going repayments. The microfinance model uses the community knowledge to select borrowers of low risk, by getting recommendations from non-family members (this system works for both individual and group contracts). Further, these recommendations create social pressure on the borrower which results in them monitoring their own repayments. These two mechanisms build on community knowledge and social pressure, and leave the high interest rates partially unexplained.

A potential reason for such high interest rates may be MFI inefficiency. That is, despite the fact that borrower recruitment, selection and monitoring is effectively outsourced to the community (in both group and individual based loans), MFI's fail to be financially sustainable. Given the social objectives of microfinance it is understandable that NGO funders may monitor and evaluate microfinance performance based on social outcomes rather than the ultimate operational costs and subsequent interest rates. From this it can be logically extended that operating efficiency is not incentivised for MFI's, and the result is high interest rates.

However, a trend towards MFI's self-reporting their financial and outreach data to organisations such as the MIX Market Exchange is that donors can better allocate their funds. This trend creates further issues regarding whether MFI's should be rewarded for being more efficient if there is most likely a trade-off between outreach and operating efficiency (Hermes & Lensink, 2007).

The interest rates on microfinance loans are generally between 32%-37%pa (Di Bella, 2011). This is relatively high compared to the interest rates charged to middle and upper class borrowers in the same developing countries, which may often be below 10%pa. However, in comparison to the interest rates charged by loan sharks in the slums of many developing countries (Mayer, 2012), the interest rates of microfinance are relatively cheap. Indeed, microfinance interest rates are not so different from the 25%pa charged on unsecured credit cards in Australia. The relatively low interest rate is because of the cheap source of capital which MFI's currently have access to, which allows the transaction costs associated with microfinance to be borne partly by the NGO or government providing the capital.

The issue of microfinance interest rates is a hotly debated opinion topic rarely covered in the empirical literature. However, a key empirical paper by Karlan and Zinman (2008) has been published in the American Economic Review which analyses credit-elasticity in microfinance. This research implemented randomised trials in a South African MFI to determine if the poor are sensitive to interest rate changes. The motivation for this is that the authors claim regulation supports MFI's raising interest rates on loans in order to reduce dependence on subsidies, but this strategy only makes sense if the poor are insensitive to interest rate changes. Among key findings, these authors found that loan size was more responsive to a change in loan maturity than changes in interest rates. Long maturities mean there are small monthly repayments and easier cash flow management than short maturities. Hence, this finding is consistent with theory on binding liquidity constraints. Importantly, this research found that increasing the interest rate actually results in lower repayment because of higher information asymmetry. In terms of regulatory implications, this research suggests that lower microfinance interest rates result in greater outreach to poor women and at a very small cost to foregone profits. In this way, the research seems to support interest rate caps, although detail is not provided regarding what the interest rate caps should be.

The discussion regarding interest rates is critical to the law and economics discussion of microfinance and will be elaborated in future sections of this chapter especially regarding legislated interest rate caps. If MFI financial self-sustainability is to be achieved, market interest rates need to be charged to borrowers which reflect the cost of providing the product. Indeed, the interest rates currently charged to microfinance borrowers are relative to those charged on uncollateralised credit card loans provided to consumers in developed countries. This is directly relevant to the provision of Islamic microfinance (discussed in a subsequent section) where the avoidance of interest rates has been achieved through financial engineering.

Thus, with cheap sources of capital MFI's still need to charge above 30%pa interest. For banks with traditional sources of capital it can be understood that the interest rate required to charge borrowers would be much higher. This is unless the need to access the financial and investment markets in itself creates operating efficiencies brought about by the process of on-going regulation. As discussed in the previous section, this means that the interest rates need to cover the transaction costs associated with providing and monitoring the microfinance loans, as well as the potential risk which arises from a lack of information about the borrower.

3.3.1.4 Alternatives – Supply Not Diversified

For the poor and chronic poor who need access to finance to smooth consumption expenses or fund businesses, there are few avenues to choose from. Microfinance is able to provide for the poor (that is those who have an average income below that defined of the average income required to maintain a decent standard of living), however the chronic poor (those who survive on less than US$1.25 per day) remain outside of the scope of microfinance having no way to repay the loan (Baulch & Hoddinott, 2000). It is logical that the loan sharks who dominate the slums and chronic poor areas are not the first choice of potential borrowers because of high interest rates and violent repayment tactics (Francis, 2010). However, with low awareness of microfinance, especially in areas such as sub-Saharan Africa (Aggarwal et al., 2012) where the need is great means that the poor are effectively left with no choice. Unlike traditional financial markets, microfinance markets are not always composed of effective competition for all market segments. Indeed, authors have found that bank dominance limits the choice between alternatives and can range from 99% in Ukraine to 61% in Colombia (Beck, Demirguc-Kunt, & Singer, 2011). However, Beck et al. (2011) found that the size of banks is not associated with access to finance in a study which used access to finance as the primary independent variable as a financial service indicator.

However, authors have also commented that the lower than expected uptake of microfinance can in part be explained by the flexibility of financial services (for example flexible repayment options) offered by TML's (Traditional Money Lenders), which cloud out the use of microfinance (Pearlman, 2010). Indeed, although the specific country relevant situations differ, access to financial services for the poor is limited to TML's and microfinance (Brau & Woller, 2004). In a market without diversification of supply such as with credit access for the poor it can be logically extended that the products available are not necessarily competitive or designed for the market.

In a smoothly functioning financial market, there should theoretically be a variety of credit access sources which the poor can use, because where there is demand a market should appear. This is because the poor are willing and able to pay for access to credit (Aggarwal et al., 2012), and the best evidence for this is the use of loan sharks across the world. Despite the fact that loan sharks are not able to outsource the selection and monitoring of borrowers in the way MFI's are, their continued existence seems to indicate that providing finance to the poor can be a profitable business. However, microfinance penetration is still relatively low in most countries (with the exception of Bangladesh which has 13% penetration (The-Heritage-Foundation, 2013) while neighbouring India has only 2% (MIX, 2012) and a financial solution to the problem of no access to credit has not developed other than through microfinance and loan sharks. The supply of access to credit for the poor is not diversified, and this creates potential problems not only for borrowers but also for the incentives to innovate and maintain efficiency from the banks perspectives.

One of the reasons why there is relatively low microfinance innovation in contract design, efficiency, funding models and outreach may because a lack of competition between MFI's means that innovation is not required. Meanwhile, microfinance is stuck in a rut and donors are beginning to question the efficiency of their funds' use (Hermes & Lensink, 2007). In this way a lack of competition may have put MFI's 'behind the eight-ball' in ensuring financial self-sustainability is achieved before a change in allocations of donor funds to other avenues of financial support.

The poor are willing and able to pay for access to finance (Aggarwal et al., 2012; Di Bella, 2011), although the chronic poor are not (Mahmood, 2011). This is illustrated in the widespread use of TML's (Traditional Money Lenders such as payday lenders or informal finance sources) by the poor across the world (Amadi, 2012; Francis, 2010). However, the market based financial institutions have not developed to provide this finance. Indeed, authors have found that banks are not encouraging entrepreneurship in that finance is not given to small businesses (Waziri, 2012). The result is a lack of choice regarding where to access finance.

Across the world the most common source of credit is from family and friends (Herd et al., 2011). Thus, although there is a source of credit, there is no diversification of where credit can be accessed from, nor is this supply method efficient (for example in extreme weather or economic catastrophes' which result in this credit source disappearing). This illustrates not only cultural issues and aversions to financial institutions, but also the low awareness and uptake of microfinance. An additional interpretation is that this shows there is a great demand for financial services from the poor. Indeed, with over 70% of loans from family across the world, there are potentially wide-ranging implications in an economic shock which would surely hurt all members of society with inter-community loans, and also restrict loans to cover the unexpected bad circumstances, which at an individual level a society can deal with. The issue of non-diversified access to credit from the demand perspective results in fewer choices from lower competition.

3.3.1.5 Islamic Microfinance

Many countries with strong microfinance sectors and legislation have populations of Islamic faith, such as Bangladesh and Pakistan. Lending for interest, or *riba* is forbidden by the Qur'an and this has led to the development of many Islamic financial institutions in recent times (Jones, 2008). Most financial contracts are incompatible with Islamic law (Ismail & Achmad, 2010). Islamic microfinance contracts entail risk management between the bank and the borrower, bypassing interest, as banks are forbidden from making money from money (Ismail & Achmad, 2010; Jones, 2008). The implications of this is that with contracts based on equity partnerships there also needs to be another regulatory system and supportive institutions (Ismail & Achmad, 2010). The current study will need to take into consideration these contract designs in determining the relative impact of different microfinance regulation in different countries.

Islamic Microfinance is important not only because of the demographics of microfinance borrowers being substantially of Islamic faith, nor only because it reflects the ability of microfinance to be 'engineered' to suit changing market conditions or regulation. This type of microfinance is directly relevant for the current discussion because it highlights the potential impotence of usury laws in protecting the poor from financial exploitation. The reason for this is because although Islamic microfinance products do not charge 'interest', the products are not indeed charity, and banks do profit from these types of loans all over the Islamic world. Operating costs and profit by the bank are recouped in ways which include 'fees' effectively hidden within a 'profit sharing' or 'investment' type arrangements. Thus, usury laws could be potentially overcome with such innovations. Considering the controversy surrounding interest rates on microfinance loans in the current times, innovations in Islamic microfinance may be particularly relevant also for other 'non-Islamic' microfinance.

3.3.1.6 Loan Sharks

The prevalence of loan sharks in urban slums has been well documented (Mayer, 2012) and illustrates a demand for financial services by the poor. Although a source of credit, loan sharks offer access to financial services at an informal level which does not constitute diversification, nor financial market inclusion. However, the continued demand for credit from loan sharks mean that their prominence and relevance remains despite formal microfinance gaining market share. This reliable access to finance is a system of loan recovery which relies on intimidation and the threat of violence, a technique which has high success rates (Francis, 2010). Given that the loans are often to the poor and chronic poor without collateral and are used to smooth consumption expenses or fund businesses these loans have been confused with microfinance in the past. However, as established in the first chapter of this thesis, the term microfinance excludes those small loans provided by loan sharks, which have no goal of credit access and only seek profit.

Authors have found that the flexibility of repayments for services by loan sharks means that it is not uncommon for borrowers to choose these loans rather than the rigid payment schedules of microfinance (Hudon, 2008; Karlan & Mullainathan, 2009; Pearlman, 2010). In a continually adapting microfinancial services market there exists a role for TML's and loan sharks in providing flexible loans, despite the high interest rates. This is an issue from the demand perspective because it illustrates that there is a gap in the traditional market and microfinance has not been designed in a sufficiently adequate manner to complete the gap.

3.3.2 Demand Side

In contrast to supply side issues, demand issues highlight that the poor often have cash flow and no savings and that the high interest rates of loan sharks are

3.3.2.1 Cash Flow But No Savings

The target market of microfinance is the poor who have cash flow to cover expenses as they arise, but have no 'nest-egg' to provide for a 'rainy day' or unexpected or large expenses such as medical expenses or expanding a business. As a contrast, it is important to recognise that microfinance is not even possible for the chronic poor and destitute who have no income or way to repay (Mahmood, 2011). This problem is less pronounced in the poor who have some cash flow to repay the microfinance loans. Indeed, this issue also explains the low tolerance for risk by the poor which subsequently affects less than hoped for microfinance-funded entrepreneurship.

The financial situation of microfinance borrowers provides explanation for why most microfinance is used to smooth consumption expenses rather than to fund microenterprises. It is intuitive that people with a small amount of cash flow but no savings may need to borrow funds to pay for lump sum expenses such as education or medical costs. Indeed, humanities' general risk aversive tendencies (Hofstede, 1983) indicate that even a better personal financial situation may not be enough to shift the use of microfinance from consumption to entrepreneurship.

3.3.2.2 High Interest Rates For Loan Sharks

Although there is a market for credit access among the poor, there are limits as to how much they are able to pay for the service. Despite the prevalence of loan sharks, the poor are not necessarily able to pay the high interest rates on loans from loan sharks which can be as high as 300%pa (Mayer, 2012). This is because high interest rates effectively increase the regular outlay that borrowers have to integrate into their future cash flow. As interest rates increase so do the regular repayments of the loan. Given that the poor already have limited cash flow which does not allow for the saving of funds for future expenses, it is logical that high interest rates are not affordable for many, and may result in a debt-trap[5].

There is credit market failure because the poor cannot get finance in the traditional banking relationship, in that products have not emerged to profit from the demand. This is despite the fact that the direction of finance from those who have saved to those who need capital is an efficient market operation (Buera et al., 2012), especially considering the very high repayment

[5] A 'debt-trap' is when borrowers take more and more loans to pay the interest and capital on previous loans.

rates of microfinance (Di Bella, 2011). This financial restriction creates issues for the model of financial sustainability of MFI's because if borrowers are not able to afford high interest rates to cover the high transaction costs then these costs need to be recovered through other avenues such as reduced cost of capital. This is one of the limits of the traditional banking model, and one of the reasons why MFI's have had to develop to complete the financial market by providing access to finance for the poor.

3.3.3 Typical Microfinance Loan

A typical microfinance loan is very different from a typical loan in traditional financial relationships. In particular, microfinance borrowers have no collateral, no financial security, no financial history, low technological ability, and low literacy levels. As identified in the previous discussions, microfinance loans differ from traditional loans in that there is supply side risk, demand side risk, high levels of uncertainty (which is different to risk because it is unquantifiable), and there are high interest rates charged. The design of microfinance contracts in this way addresses the supply and demand side issues identified previously. The relatively high interest rates charged reflect the high costs of serving the poor through microfinance despite the balance of funds provided by NGO's. Organisations such as Microfinance Transparency serve the sector by examining and detailing how product features (such as forced savings, and when the first repayment begins) affect the real cost of the loan.

These differences illustrate that traditional financial relationships would need to adjust greatly to account for microfinance borrowers and loans. Given these differences it can be understood that credit availability to the poor would not increase without MFI's. Authors have discussed that microfinance is a financial innovation which increases the repayment probability of uncollateralised loans (Buera et al., 2012). Indeed, prior to microfinance an innovation with similar results in both social outcomes and high repayments was not institutionalised.

MFI's complement the financial markets by providing credit access to the poor who would otherwise remain un-serviced. This is because if poor borrowers were to be serviced by traditional financial institutions there may be unaffordable interest rates to cover the transaction costs (of over and above the current microfinance interest rates of above 30%pa), unreliable collateral (for example a cow), and indeed the bank may refuse the loan altogether. So, without MFI's there is no credit for the poor, because the average loan comes with high administration costs which make giving the loan unprofitable to traditional banks.

3.3.3.1 MFI's Complete The Market

The credit market failure identified requires that MFI's complete the market. However, there are a number of challenges which need to be overcome to ensure that the social goals around access to credit are achieved. These issues are overcome by cheap finance from NGO's or governments, innovation in distribution, high interest rates and a model of outsourcing the identification of good borrowers and loan repayments to the community (Di Bella, 2011).

MFI's are in essence 'middle-men' who acquire capital and then on-lend in smaller batches to microfinance borrowers, as are the loan divisions of traditional banks. However, unlike traditional banks, MFI's do not generally acquire capital in a traditional sense such as from capital markets, but rather acquire it from low interest loans or donations (Waweru & Spraakman, 2012). Most MFI's are not publicly listed, and are funded primarily from donor funds (Di Bella, 2011), with the exception of MFI's in Peru, Bolivia, and Pakistan where MFI's are funded by deposits and equity partnerships (Economist-Intelligence-Unit, 2012, 2013). This means that equity from shareholders is not a reliable source of capital to use to lend to the poor. Thus, most capital is required to come from large loans (often subsidised) from NGO's or governments, or donations (Di Bella, 2011), despite the fact that many MFI's do seek operational sustainability (if not self-sustainability) given their particular sources of capital. In some countries the legislation allows that regulated MFI's are also able to accept deposits, and this creates another source of capital (MIX, 2013). Indeed, savings as a source of capital seems to be the most promising development which will allow MFI's to be financially self-sustainable without having high exposure to changing international economic conditions.

Innovations in distribution are allowing MFI's to reach an increasing number of target borrowers while keeping financial and operational costs low enough to be sustainable with subsidised credit available. MFI innovation is specific to the regulatory environment in which they operate and the trend is towards streamlined loan provision processes (Beck & Levine, 2005) and leveraging off innovations in technology (Herd et al., 2011). However, the rate of innovation in efficiency and distribution is not currently at a pace which reflects the growth of MFI's and this may reflect the social (rather than financial sustainability) goals of microfinance or the lack of internal and external innovation pressure.

The majority of microfinance loans are provided in a model of group lending which harnesses the power of social pressure. For example, group loans may be provided to a group of five women from the same village, generally neighbours. Loans are provided to the group and although they borrow individually, they are jointly liable for each other's loans within the group. This model harnesses the power of social pressure, especially in developing countries where a sense of community (or 'collectiveness') is often higher than in developed countries (Hofstede, 1983). Indeed, individual loans are also designed to harness social pressure because of a requirement for 'recommendations', if not joint liability, from other community members. These models bypass the need for collateral or information about the borrowers' abilities to repay the loans because essentially each borrower is selected by community members willing to stake their reputation on repayment. That is, borrowers are unlikely to enter groups if they are not certain of the other borrowers' abilities to repay the loans because they will be personally liable for any defaults of the other members. Unreliable borrowers with individual contracts are unlikely to get recommended from community members. However, although microfinance has been founded on the model of group lending and joint liability, the trend is away from this model. Indeed, research has found that individual loan repayment rates are comparable to group loans when structured correctly around social pressure (Giné & Karlan, 2009).

These operational structures of MFI's and microfinance loans allow that the gap in the market is theoretically overcome and the poor are able to access credit. There are further contract specifications which increase the loan security while allowing that the social goals of microfinance are met and these are generally that loans are provided to females and on fixed repayment schedules, with social collateral an underlying factor.

3.3.3.2 Microfinance Contracts

The analysis regarding microfinance contracts is focussed on the theoretical and practical differences in repayment rates and borrower outcomes between individual and group contracts and repayment schedule rigidity.

3.3.3.2.1 Repayment Schedules

The repayment schedules of microfinance loans have been described by some authors as so restrictive that they ensure the social outcomes of microfinance cannot be achieved (Karlan & Mullainathan, 2009). As with the balance between financial sustainability and social outcomes, there is a balance between efficient contracts and financial inclusion. 'Cookie-cutter' standardised loan contracts with strict weekly repayment schedules beginning immediately do not allow for the complete financial inclusion which allows borrowers to choose between financial products of different banks.

Rigid contracts of borrowing amounts and repayment schedules disregard the volatile financial circumstances of the poor microfinance is sought to reach. The result of this is that many potential microfinance borrowers choose the higher interest rates of TML's (Traditional Money Lenders) because of repayment schedule flexibility where borrowers can miss a repayment if they have a difficult week (Karlan & Mullainathan, 2009; Pearlman, 2010). Indeed, research has found that two thirds of people who borrow outside of family and friends borrow from TML's and that the gap between banks and TML's is filled by SHG's (Self Help Groups) and MFI's (Herd et al., 2011). However, empirical field experimental research has been conducted into the frequency of repayments with authors finding no differences in default for weekly or monthly repayment periods (Law et al., 1998). However, this research by Law et al. (1998) assumes that the choice between weekly or monthly repayment schedules entails flexibility, whereas the repayment schedules from loan sharks also allow a much greater degree of flexibility. This spread of borrower's shows that demand for financial services exists in the poor and that there is potentially large scope for future microfinance penetration. However, the design of microfinance contracts and their rigidity may help to explain the relatively low uptake of microfinance relative to the use of TML's across the world.

3.3.3.2.2 Contract Enforcement

Microfinance contracts can be broadly categorised into individual and group contracts. The model of microfinance began with group lending contracts as a way to overcome the lack of collateral and information about repayment ability. This has developed into individual contracts which also harness social pressure. Microfinance helps with contract enforcement issues through utilising social pressure to bypass non-existing or poorly enforced contractual environments. However, the last decade has seen major MFI's such as the Grameen Bank and BancoSol move most borrowers from group lending to individual lending contracts (Daripa, 2009). This is because although group and individual lending harnesses borrowers to recruit and monitor other borrowers, there are also disadvantages with this model such as vulnerabilities to free-riding and collusion (Giné, Jakiela, Karlan, & Morduch, 2010). MFI's have found that groups of people (in particular men) have been found to agree together to all default on their loans. Microfinance contract design is a financial innovation which allows for reliable repayment from borrowers without collateral or income evidence by utilising community knowledge for borrower selection and social pressure for on time repayment. However, as with most contractual enforcement mechanisms, it has its weaknesses, and those are not a primary focus of the current thesis.

3.3.3.2.3 Risk Management

Lending capital is rarely without risk. The main risks MFI's face is delayed repayment or default (losing the loan balance entirely). The risk of default can be managed by selecting the most reliable borrowers, or having the community select the most reliable borrowers. However, in essence this risk management technique is at odds with the overall goal of microfinance which is to provide financial services to the poor, not only to the credit worthy. However, community borrower endorsements manage default risk. The social pressure generated by community endorsements manages the risk of on time repayments, for both group and individual loans.

3.3.3.2.4 Risk Based Interest Rates

Uncollateralised loans to the poor bring relatively higher risk than collateralised loans provided by traditional banks and this is reflected in the high interest rates. Interest rates on loans reflect the relative risk of the loan and the transaction costs associated with providing the loan. In combination with high interest rates, the design of microfinance contracts to include community endorsement and social pressure motivated repayments are further methods to manage risk in conjunction with high interest rates.

It may seem unethical that the rich are able to borrow funds at lower interest rates than the poor through microfinance. It may be argued that high interest rates reflect nothing more than a new kind of financial exploitation of the poor. However, in order to treat the poor with respect (rather than the pity which often accompanies hand-outs) high interest rates are a reflection of the high costs associated with providing small loans to rurally dispersed and financially unstable borrowers (Eichner, 2012a). Practically speaking, interest rates above 30% allow MFI's to recoup some of the costs associated with providing loans to such a group of people and with the specific loan characteristics involved (Di Bella, 2011). From an economic perspective, the provision of financial services to the poor by MFI's is a service which is remunerated through interest rates.

3.3.3.2.5 Contract Conditions - Gender

The experience of MFI's over the last few decades has found that women are more reliable at repaying their microloans than men, and that this holds across both individual and group lending (Besley & Coate, 1995). MFI's have found that in general men use the microfinance for themselves, while women use the microfinance to provide for their family. In this way the social benefits of microfinance are much larger when the loans are provided to women. Indeed, while women repay loans because of social pressure to do so, groups of men have been found to collude and jointly default (Giné & Karlan, 2009). With no contract enforcement mechanisms other than social pressure, this avenue is intuitive. Further, as discussed in the first chapter, the social pressure in the group lending model ensures that there is a very high repayment rate. The behavioural economics literature supports the social norms which result in high repayment (De Meza, Irlenbusch, & Reyniers, 2008; Elster, 1989; Tomer, 2007). Despite repayment rates above those of normal loans for developed country banks, high transaction costs and operations focussed on social goals rather than financial sustainability mean that the returns on investment in microfinance to target borrowers (the poor) are generally negative. Thus, most MFI's supplement loans to the poor with loans to those just above the poverty line which have lower transaction costs because of population demographics.

It makes economic sense to lend to women in microfinance loans rather than to men. The trend towards microfinance loans to women may also be an explanation for the increasing success of microfinance in terms of repayments and empowerment (Brau & Woller, 2004), in that MFI's have learnt through experience that lending directly to women makes the most sense financially and socially. The higher repayment rates and targeted social outcomes such as empowerment mean that it is not surprising that most MFI's lend only to women (Das, 2012).

3.3.4 Conclusion

Traditional financial relationships exclude the poor because of contracts which do not innovate to include social pressure as an enforcement mechanism nor expand distribution to include the rurally dispersed. Microfinance is arguably a financial innovation which allows credit access for the poor while completing the financial market with methods of distribution and contract design which bypass traditional requirements of collateral and evidence of repayment ability. Microfinance interest rates are priced to cover some of the transaction costs associated with providing finance to such a costly group of people while limiting financial reliance on NGO's and low interest government loans. The design of microfinance contracts is that social pressure is harnessed to provide incentives for repayment. However, there are limited incentives to banks to provide microfinancial services and this will be discussed in subsequent sections of this chapter.

3.4 Effectiveness and Distribution

Based on the previous two sections it has been illustrated that there is a policy problem which results in no credit being made available to the poor in a traditional financial market. Based on the reasons in section two, political goals of credit availability are not realised without MFI's.

Governments are interested in microfinance because of the social goals identified in the second chapter of this thesis. There are wide ranging female empowerment, financial inclusion and mental health benefits from microfinance which assist governments in equity goal achievement (Mahmood, 2011). However, the current thesis is concerned with testing the effectiveness of laws in promoting microfinance. This thesis is not claiming that microfinance is for efficiently achieving political goals. Thus this thesis contains a descriptive study which entails determining how to affect the incentives of stakeholders to promote microfinance via financially sustainable MFI's.

3.4.1 Policy Problem

It is a policy problem regarding whether microfinance provides the efficiency of reaching the political and distributional goals of access to credit for low income people. For if microfinance helps achieve political goals then it is logical for governments to provide legislation which supports MFI's in achieving those goals, and the converse is also true. Previous chapters of this thesis have established that microfinance is a policy problem which various social, regulatory and economic government initiatives seek to address.

3.4.2 MFI Regulation Enforcement

Despite the fact that many MFI's are primarily donor funded, MFI-specific regulation exists in most countries where microfinance is present (Economist-Intelligence-Unit, 2013). This is because microfinance exists in that middle-ground between charity and formal financial services, which means that regulation is required to ensure consumer protection and the long term stability of the sector. However, despite the existence of regulation, little discussion has been given in the past to the enforcement of that regulation. It is intuitive that governments don't highlight to the wider community when they have punished or banned and MFI in case it reduces future donation inflows. However, enforcement of the regulation is documented widely in the microfinance literature across countries with the most microfinance penetration (Economist-Intelligence-Unit, 2013). Indeed, if enforcement of microfinance regulation was documented to be unreliable or non-existent, this topic of study would be inherently useless. That isn't to say that the enforcement of microfinance regulation is perfect, just that the literature to date is comfortable with the relationship between the microfinance regulation and the firms adapting their behaviour to that regulation.

The topic of the enforcement of microfinance regulation is key to the analysis of distribution and the allocation of resources. Microfinance regulation has specific goals around community empowerment and financial inclusion, and given the vast tendency towards donations it would be surprising if the regulation of the sector was lacking. Research indicates that microfinance regulation is continually updated and enforced by well-resourced government departments in the countries where microfinance is most prevalent (Economist-Intelligence-Unit, 2013). Given this, the current research is able to consider microfinance regulation in isolation, without having to question enforcement.

3.4.3 Distribution

The second chapter of this thesis has identified the goals of microfinance as being regarding the distribution of credit availability, social goals of empowerment, and economic development. This chapter is primarily concerned with identifying and describing how particularities of the traditional financial system exclude the poor and how microfinance fills that gap, which is in essence a distributional issue potentially answerable using law and economics methodology.

With technological advances and financial services product innovation it is becoming easier to provide financial access in developing countries by building on existing technological frameworks such as the widespread uptake of mobile phones. In spite of the various challenges technological advances face in developing countries, the clear trend and potential leverage opportunities provide hope for innovation which will achieve distributional goals.

The problem of microfinance success can alternatively be defined as one of distribution. This is because development and social goals are political and not efficiency based, but that does not mean that the goals should not be achieved. From this perspective the core aim of microfinance is exposed as credit availability. Through the distribution of microfinance credit availability will increase (Berg, 2012). Indeed, it is the distribution of microfinance to those in rural areas and of the chronic poor which is the aim of microfinance (Sharma, 2005).

The link between the distribution of financial services and access to credit and subsequent distribution is an important consideration for the current thesis. Where there are formal banks present, the economic effect is that there are less financing constraints on small firms in developing countries (Beck et al., 2011). Specifically, these authors have found that it is the specialised lenders which increase access to finance and that access to financial services by SME's (Small and Medium sized Enterprises) is critical in developing countries because they comprise most of the private sector (Beck et al., 2011). Indeed, authors have empirically found that microfinance results in increased wages across the board and as such has a redistributive and welfare effect on the economic development of developing countries (Buera et al., 2012). This trend indicates that through the achievement of goals for access to credit, development can also be increased in certain areas.

3.4.4 Measurement of Microfinance Effectiveness

In order to measure the effectiveness of microfinance it is critical that clearly defined benchmarks are developed. This is particularly the case with development goals where a range of associated factors make the effect on development difficult to isolate. For the purposes of this thesis the benchmarks for measuring microfinance effectiveness is access to credit. This benchmark will be used as a proxy for effectiveness because it has been established in the second chapter that access to credit is the essential precursor to female empowerment and micro-entrepreneurship which in theory leads to the meeting of political goals. Further, data on access to credit is quantifiable and available.

3.4.4.1 Financial Sustainability

There is a trade-off between MFI financial sustainability and financial access to the poor. Hence, for the purposes of this thesis, microfinance success includes MFI's which are financially self-sustainable. Financially self-sustainability is when MFI's are able to internally fund their operations through revenue, without the reliance on donations or low-interest loans from government as discussed in the first chapter of this thesis. Financial sustainability can be described as an economic model of the relationship between the funding source, transaction costs and profit with outreach to target borrowers. Financial sustainability of MFI's can be understood in the context of traditional financial relationships, hence why the current chapter began by considering how traditional financial relationships operate. Traditional financial institutions obtain their capital from savings, equity, capital markets, or return from investments. Hence, for MFI's to be financially self-sustainable, and in comparison to traditional financial institutions, they would be able to access some of those capital sources and for diversification reasons, preferably all of those sources. However, the regulation in most countries restricts MFI's not only from accessing capital through savings, but also through capital markets, equity and investments (in particular Bangladesh). Hence, regulation has the potential to condemn MFI's to relying on low-interest loans from governments or NGO's, or grants, to provide for ongoing capital to run their businesses. Although this model is still in operation today, regulation which allowed MFI's to operate in a financially sustainable way would provide a system of MFI operations where a change in donor attitudes wouldn't result in a collapse in access to financial services by the poor. In a situation where MFI's are regulated in a way that allows them to be financially self-sustainable, any low-interest loans or grants are able to be used for branch expansion or product innovation, with normal operating capital covered by the sources of capital identified previously.

Financial sustainability is achieved if the MFI outreach and functioning occurs in isolation from the whims of donors or credit providers. Regulation can do this by allowing access to funding sources such as savings (as generally only banks can accept deposits) (Satta, 2004) and international investment funds and credit market access (by being regulated and monitored these sources of capital are able to flow towards MFI's) as well as equity partnerships and investment returns (Di Bella, 2011).

If MFI's are not financially sustainable (or otherwise unable to access these sources of sustainable capital to lend to microfinance borrowers) they must primarily rely on other funding sources, either from NGO's or subsidised credit from governments (Di Bella, 2011). The result of this is that although the social benefits from microfinance may continue to be reached, the continuation of these benefits relies on a cycle of charitably motivated funding. Indeed, authors have found that although the microfinance industry is transforming, funding is not (Al-Azzam et al., 2012). A financial model which relies on donor funding when a self-sustaining model is available may put MFI's under unnecessary risk. This is because if MFI's are reliant on donor or subsidised funding and there is a change in the financial stability or focus of their sponsors, MFI's may be left without funding. However, it is the legislation of MFI's which potentially influences whether they are regulated to a financially stable level where they can receive deposits and also whether international and credit market funding sources are available.

Further, authors have found that increasing access to finance from international capital markets may theoretically increase sustainability but it also increases MFI vulnerability to international economic fluctuations (Di Bella, 2011). This indicates that combined with the trade-off between borrower outreach and sustainability, a trade-off also exists concerning the amount of vulnerability the MFI is exposed to financially.

3.4.4.2 Parameters to Measure Microfinance Success

Microfinance success is access to credit for the purpose of the current thesis. If there is access to credit then potentially there can be reductions in poverty and increases in economic development, along with well-established social benefits. However, this paper is concerned with examining the effectiveness of regulation and legal institutions in increasing access to credit via microfinance promotion. The reason for this focus is because access to credit is a political goal.

Further, given that reductions in poverty are theoretically linked to economic development, a measure of the success of microfinance could be (regional and national) economic growth. Entrepreneurship is theoretically important for mobilising resources (Mayoux, 1999), and microfinance mobilises household savings and promotes entrepreneurship (Sharma, 2005). Thus, a potential measure of the success of microfinance may be the availability of credit to entrepreneurs and micro-entrepreneurs. The availability of credit is a quantitative measure of which data is available in various countries. Given that absolute poverty benchmarks are continuously changing and the exact number of borrowers lifted out of poverty are difficult to quantify reliably, poverty benchmarks may be considered inappropriate for the current research. The explicitly stated and clearly measurable political goal of credit availability and the flow through effects that this has on financial inclusion, empowerment and the support of microenterprises means that this will be the benchmark for effectiveness in the current thesis.

In determining the success of MFI's or of the impact of microfinance it is important to establish criteria by which success can be measured. There are a range of factors integral to the focus and motivation of MFI's, and there are other factors which are deemed important by external observers or those seeking long term success. Thus, depending on the perspective from which microfinance is viewed, benchmarks for success may be developed differently. For the purposes of the current research it is the regulatory success or failure which is of most relevance.

3.4.4.3 What Factors Determine Success?

The current research is primarily concerned with the measurement of the success of microfinance in achieving the goals of the legislator. Microfinance laws as with other sector specific laws are created with specific goals in mind. These goals are not always obvious, but indeed laws are not created arbitrarily (Allott, 1981). The goal of the law is integral in determining by which benchmarks effectiveness is measured: laws designed to provide social outcomes need to be measured against social benchmarks and the same exists for economically motivated laws. If indeed it is not the case that regulation promotes microfinance then the factors which do influence the role of law, such as interest groups or psychology, need to be examined and identified. The current chapter is not primarily concerned with the detail of these issues as they will be covered in subsequent chapters.

The establishment of MFI's as poverty reduction mechanisms via the effective use of credit and entrepreneurship in itself provides ambiguous benchmarks from which comparison can be made. Indeed, the definition of poverty is based on what is socially acceptable (Husain, 2008). Thus, the shifting goalposts which define poverty is an important consideration for the current research. It may be the case that even as every person is reached by microfinance and average wages increase tenfold, the new measure of poverty requires a never ending loop of poverty reduction. However, this consideration is broadly considered as philosophical in nature because there are many social and economic factors such as corruption, religion, women's rights, and politics which ensure that even the initial goals of microfinance are achieved at a steady pace and the additional definition objectives do not restrict research in this field.

Given that the goal of microfinance is to increase the socioeconomic conditions of the world's poor this may be used to develop a benchmark. In particular it may be stated that at least 1.5% of microfinance borrowers need to be lifted out of poverty per year, which is the benchmark of poverty reduction measured by Khandker (2005). However, given the nature of microfinance borrowers and loans (short term loans and with a sector of the population difficult to analyse) this data may have reliability issues. Indeed, the factors which result in borrowers being lifted out of poverty are many and difficult to isolate on a large scale with rigorous empirical methodology employed. There is a trend in microfinance to measure the effect of the loans, called the Seal of Excellence (Microfinance-Summit, 2013), where social and economic outcomes are quantified.

Further, qualitative measures of microfinance regulatory success can be used to complement quantitative measures. For example, the relative reach of microfinance in serving those who are in most need of services is a measure of which data is unavailable. That is to say that the rural villagers and other 'Bottom of the Pyramid' poor (Collier & Dasgupta, 2007) are still un-serviced by microfinance but there are only vague estimates as to the number of people still un-serviced, generally based on poverty statistics. Qualitative analysis can thus complement the results of this thesis because of selection bias and issues of awareness, which potentially skew quantitative results

3.4.4.4 Information Problem

It has been identified earlier in this chapter that there are problems with information in microfinance relationships, particularly between the borrower and MFI. However, there are also problems with information between the MFI's and potential finance sources in international credit markets in the cases where non-regulated and NGO-financed MFI's have no publicly available financial data. The result of this particular information problem may be that it is difficult for the MFI's with information problems to access external credit. The effect of a lack of access to external credit may be reduced financial self-sustainability and this may affect the ultimate outreach of microfinance to target borrowers in the long term (Hermes & Lensink, 2007). However, as previously discussed the information problem is partially addressed by community selection.

3.4.4.5 Concentration Problem (Monopoly)

Although the poor have limited access to finance, even in urban environments finance can be limited to two choices: the TML or the MFI (Block, 2010). The lack of competition between and within financial providers means that in many ways there is a problem of concentration in the microfinance sector (Di Bella, 2011). The research on monopolies have generally found that they result in worse outcomes for the customer. In the context of microfinance this is particularly important because customer outcomes are the goal of the microfinance sector (Al-Mamun, Malarvizhi, Hossain, & Tan, 2012). Indeed, even considering the growth of the microfinance sector, with a large number of poor to service oversaturation of MFI's is still an unlikely reality.

3.4.4.6 Incentives

The law and economics analysis of microfinance will consider the incentives of all the stakeholders in the sector. The incentives to lend and incentives to borrow are an important point for consideration in the current discussion. From the banks perspective, there are limited incentives to provide loans to the target market of microfinance because of the high perceived transaction costs associated with doing so (compared with providing a loan to the middle classes or poor above the poverty line). From the borrowers perspective there may be issues where self-selection bias discourages good borrowers from borrowing under the group lending model because of joint liability for loans (Malimba Musafiri & Ganesan, 2009) and also where high interest rates exist (Hermes & Lensink, 2007), which potentially creates a similar 'market for lemons' where the good borrowers out-select from microfinance loans. Individual loan contracts for microfinance are thus an innovation which may increase borrower quality within microfinance loans, however this does not address the social goals of microfinance which is not to identify the most suitable borrowers. Indeed, to the contrary, research has found that higher interest rates on individual contracts result in lower loan quality because good borrowers out-select from applying (Hermes & Lensink, 2007; Karlan & Goldberg, 2007). Adverse selection applied in this way potentially draws lines of similarity between microfinance and regular financial relationship contracts.

The effect of incentives on supply and demand in microfinance is a direct and (somewhat) predictable avenue for discussion. The law and economics approach allows for the designing of incentives carefully by implementing the most appropriate legal instruments (institutions or legal rules). Thus, although this approach does not allow for an analysis of the efficiency of the goal in the first place, it does allow for the design of effective methods to achieve the goal. The effect of the law on incentives is an issue which will consistently underline many of the subsequent discussions and law and economics conclusions.

3.4.5 Conclusion

The goals of microfinance would not normally be reached in a market environment without intervention. This is because although microfinance exists and the growth of borrowing statistics are impressive, the political goals of credit access have yet to be reached. Supportive legislation is still required to ensure that MFI's are able to be financially sustainable while achieving development and distributional goals. Given this, the legislator must do something to support microfinance, and the development of specific microfinance law in various developing and developed countries is evidence of this.

MFI legislation may allow MFI's to overcome risk management problems and facilitate market functioning. In order to achieve this, regulation may support CSR (Corporate Social Responsibility) programs, facilitative regulation, or direct regulation, and this will be discussed in subsequent sections of this chapter.

3.5 CSR and Facilitative Regulation

Microfinance has challenges to overcome in achieving political goals. There are financial sustainability barriers as well as cultural issues which may lead to the lower awareness and lower than expected microfinance economic success. It may be that regulation can assist in the promotion of MFI's in increasing credit access to the poor. If regulation may assist microfinance there are three main types of regulation to be discussed. The regulation may fall under self-regulation (or CSR), facilitative regulation, or direct regulation. The current and next sections of this chapter will discuss regulation opportunities in the context of microfinance. These sections aim to identify whether legislation can theoretically solve the market problems which were identified previously in this chapter. These discussions will identify the different types of regulation in terms of a tiered approach to microfinance promotion in that the ideal first step is CSR. If CSR fails, facilitative legislation may be implemented. If facilitative legislation fails, direct legislation may be required. Thus, the three approaches to regulation work together to achieve the desired outcome, complementing each other to achieve political goals.

3.5.1 Corporate Social Responsibility

Corporate Social Responsibility (CSR) has potentially direct and strong impacts on microfinance promotion all over the world through such initiatives as 'green finance' where banks in developed countries provide low interest loans directly to MFI's. CSR types of programs are supported by most large financial institutions and organisations all over the world with the aim of contributing to society as well as being profitable. This kind of program is sometimes referred to as the '*triple bottom line',* where companies measure and report the social and environmental outcomes as well as financial. These programs are social initiatives designed by, financed, and implemented by organisations all over the world with the aim of increasing employee morale and reputation in the market.

Many CSR programs are employee driven, or act as an incentive when attracting employee talent in that people are more likely to work for an organisation which not only makes profit, but also supports some social objectives and programs (Gamerschlag, Möller, & Verbeeten, 2011; The-World-Bank, 2013). Research is ambiguous regarding the relationship between CSR programs and financial performance with studies showing that either there is a relationship, is not, or it's unclear (Becchetti, 2005; Margolis & Walsh, 2001; McWilliams, 2006).

In essence, CSR programs are self-regulation where institutions design programs to achieve political social and economic goals. In some developed and developing countries there is legislation which supports CSR programs, which can in turn benefit microfinance if that is the avenue of financial support. CSR programs can operate either in developed or developing countries. Further, CSR programs may entail green finance operated directly by the institution or the funding of development programs (or microfinance programs) which indirectly achieve the individual CSR goals of the organisation. Although the current thesis does not examine whether CSR is indeed efficient, it is most likely having positive effects overall and thus the legislative support of CSR is important to analyse. This is especially relevant considering that many CSR programs support microfinance (ING, 2012). If MFI's are able to operate in a financially sustainable way it is possible for CSR to contribute to support MFI expansionary programs or through knowledge transfers rather than simply donations.

3.5.1.1 Can Legislation Stimulate CSR?

The legislation of **developed** countries can stimulate or support CSR directly via taxation incentives. Given that a body of funds come from developed country CSR programs, the stimulation directed regulation here may have a wider social effect than the regulation of developing countries. In Australia donations to registered charities are tax deductible, and with corporate tax rates fixed at 30% this effectively results in a 30% discount to corporations for donations (ITAA, 1997). The consideration of Australian financial services will be considered in the current thesis because it provides a model of relatively high taxes and financial regulation, potentially providing an example of a regulatory environment which developing countries may consider. Indeed, the inclusion of donations in the expenses which can be claimed as tax deductible allows CSR programs to justify the cost of their programs to budgetary deciders within each organisation. In order to directly stimulate microfinance via CSR programs it may be possible for tax incentives or rebates to be higher for costs and knowledge transfers associated with microfinance. However, this strategy would need to be built on a foundation of studies on the efficiency of microfinance at achieving political goals, of which this study is not one. This study is concerned with the regulation which can promote financially self-sustainable MFI's.

The legislation of **developing** countries can indirectly support CSR programs by strengthening the market conditions in which CSR funded initiatives operate and by reducing corruption (Di Bella, 2011). Arguably, environments which have a more effective use of resources and fewer concerns about corruption may attract more consistent CSR program funding. In addition, many international banks have subsidiaries in developing countries and legislation may be able to support these locally regulated and taxed organisations in achieving social objectives. The tax incentives for microfinance CSR programs which are an opportunity may also be effective in developing countries with financially independent subsidiaries.

3.5.1.2 North-South Development Story

Development co-operation has been a trend since the success of the Marshall Plan of loans after WWII in reconstructing European countries with the use of donor funds (Rosseel, De Corte, Blommaert, & Verniers, 2012). However, the on-going donor relationships in developing countries have not seen the development success which was once expected, and the inherent master-servant style relationship is unavoidable (Rosseel et al., 2012). The flow of funds from developed countries to developing countries continues through government aid and CSR programs stimulated by regulation in developed countries. The flow of funds is generally allocated with purpose and donor-imposed ideas of what the developing countries should do to achieve social and economic goals. In this way, microfinance is in essence a modern manifestation of developed countries donor contributions to developing countries. The main difference is that in the microfinance model the philosophy is that the poor are provided with the opportunities to develop their own country (via micro-entrepreneurship), rather than having development externally imposed. In reality this is not always the case, as discussed in the second chapter of this thesis. Authors have commented that this is the most sustainable method of achieving long-term growth and is built on a foundation of entrepreneurship, which arguably is supported by microfinance. With grand economic development plans for microfinance, the previous chapter of this thesis has already identified that many of the microfinance dreams are remaining unrealised. Hence the trend which continues to support donor flows from North to South MFI's is in essence a continuation of the South relying on the North for development.

3.5.1.3 Green Finance

Operational challenges of microfinance rely on the sourcing of capital to on-lend to borrowers and fund business operations. One source of finance is through green finance, which are wholesale loans provided by large banks to MFI's. One example of green finance is ING's subsidiary ING Vysya and the Green Finance department which together provide more than €70 million in wholesale loans to MFI's in more than eight countries (ING, 2012).

Banks have incentives to do this kind of CSR program not only for marketing content in developed countries, but also because of tax incentives in many countries for charity expenses, as discussed previously. It is possible that the reputational benefits from green finance CSR programs are enough to stimulate MFI's without the need for direct regulation.

3.5.1.4 Benefits

The key benefit of CSR microfinance programs is cost effectiveness in terms of allocating funds to MFI's without taking resources from the governments of developing countries, nor from NGO's. In essence this is a Pareto improvement in the amount of funds available for microfinance in developing countries. However, it does of course bring further issues forward in the discussion of the 'North-South' debate and whether Western consultants are indeed the best allocators of microfinance funds. An additional benefit is that CSR programs allow direct MFI support which bypasses some avenues of domestic corruption which plagues many developing countries (Buscaglia, 2011). Further, CSR microfinance initiatives are designed and implemented by organisations with teams of qualified and experienced consultants who are able to use transferable skills to ensure operating efficiency in allocating the funds to each source. Those in developing countries may be capable of efficiently designing and implementing CSR programs, but using resources from developed countries means that the developing country resources are not diverted.

3.5.1.5 Disadvantages

The imposition of microfinance charity externally through CSR programs has the potential to completely miss the target aims of the microfinance and other programs. This is because it is not possible for executives in developed countries to be able to understand exactly what is needed in developing countries to stimulate microfinance and achieve the subsequent political goals (Allen, Poteet, & Burroughs, 1997). Indeed, although CSR programs may consult with local operators and advisers, there may still be an air of the imposition of ethical ideas in a 'we know what is best for you' colonial sense. In light of this disadvantage, it is understandable that CSR programs invest heavily in knowledge of their programs before allocating funds (Burnard, 1991), although the extent of this presents a trade-off between using capital which could otherwise be allocated to microfinance and ensuring that the money serves the desired goals. An example of this is the failure to address both capital constraints and human capital constraints. Entrepreneurship development programs have often failed to create entrepreneurs out of the poor they give to, when inadequate training results in the 'income generating assets' (such as egg-laying chickens) becoming this evening's dinner. In light of this trend of disadvantages the impact of CSR programs may be less than what would otherwise be expected. However, the Pareto benefits from CSR supporting legislation in developed and developing countries provides adequate motivations for supporting legislation.

3.5.2 Facilitative Regulation

Thus, facilitative legislation such as tax concessions can stimulate organisations to self-regulate through CSR programs to benefit microfinance. However, in the case of microfinance stimulation there are advantages and disadvantages of each type of regulation, and these indicate that the implementation of regulation may need to be across the different types, and tailored to each specific country.

3.5.2.1 State Guarantee

State guarantees of deposits are a technique recently used in many developed countries to prevent bank runs during the GFC[6]. State guarantees of deposits have the potential to increase the financial sustainability of MFI's by providing for a source of capital which comes from the local population of MFI branches. Stage guarantees of deposits move the reliance of trust from the depositor on the MFI to the government, which may have the result of increasing deposits. State guarantees are also applicable to microfinance loans in order to reduce the risk to banks for

[6] Global Financial Crisis

providing microfinance loans. The state guarantee of microfinance loans is thus effectively instead of collateral. Although there are already repayments of 99% on microfinance loans (Di Bella, 2011), perceived risk of microfinance loans by banks may not equate to this reality. In theory state guarantees of microfinance loan amounts provide incentives for banks to lend money to microfinance borrowers so long as transaction costs can be covered, as the risk of default is not borne by the bank, but by the government instead. However, at this stage almost all microfinance is provided by specialised MFI's.

In practice this theory does not account for the high transaction costs associated with providing and monitoring each microfinance loan. As discussed in the second section of this chapter, it is the high transaction costs which limit the ability of MFI's to sustainably service the rurally dispersed poor, rather than the risk of default. Indeed, authors have discussed that it is the high transaction costs which result in the interest rates charged above 30%, and not necessarily solely the pricing of default risk (Di Bella, 2011). However, it is critical that the definition be set appropriately for what constitutes microfinance as banks may simply use the system as a guarantee of small loans to the middle classes, put large loans through as many little loans, and not do appropriate serviceability tests. The result of these potential methods to skirt the legislation could result in higher overall defaults on small loans and further emphasise the importance of not only adequate regulation, but also the enforcement of such regulation. The enforcement of regulation is discussed in

An important disadvantage of state guarantees are potential mass defaults on loans which can destabilise the credibility of microfinance, and also the financial sustainability of MFI's while they apply for their losses to be recouped from the state. In effect, the state guarantees of microfinance loans may potentially result in harm to the microfinance sector. As with all potential results, this depends on the specific country in question and especially the loan culture and levels of trust and cultural capital.

Thus, the state guarantee of microsavings and microfinance loans is unlikely to have large negative consequences on the social and developmental outcomes of the poor, although it is unlikely in itself to have a large impact on the success of microfinance, and the sustainability of MFI's.

3.5.2.2 Support of Microsavings Products by MFI's

Microfinance is a financial innovation which has resulted in creative thinking across methods of increasing financial inclusion to the poor. Authors have discussed that if the poor can borrow their way out of poverty then they can just as surely save their way out of it (Aggarwal et al., 2012). Indeed, microsavings theoretically does the all things that credit does, but without the interest rate and inflexible loan amounts and repayment schedules. Specifically, savings can allow for precautionary savings and provide an amount for starting a business (Aggarwal et al., 2012). Further, savings puts the poor under no burden of debt and is not a resources diversion from other avenues of donor support (Aggarwal et al., 2012).

It is possible for the government to provide regulation which supports the establishment and sustainability of MFI's. This potential facilitative regulation option would theoretically work alongside a government guarantee of microdeposits. This is because people are already somewhat untrusting of MFI's, so it can be imagined that trusting small organisations with savings is even less likely than borrowings (Aggarwal et al., 2012). A government guarantee can potentially increase the level of trust and the use of microsavings, but this also creates a potential moral hazard situation. The potential market for regulated and state guaranteed microsavings institutions is reinforced by the current use of savings accounts by the poor which are suboptimal in that they are costly and present some risk to the depositor. Many savings accounts currently used and active in Africa have no interest and charge a withdrawal fee, yet are still in use (Aggarwal et al., 2012).

It is especially the case in developing countries, without adequate legislation and enforcement to avoid it, that savings abuses and pyramid schemes are frequent occurrences in the past. Because of the saliency of these abuses, combined with low financial literacy, relative trust in the financial system may be very low. Pyramid schemes are those where financial reward comes from enrolling others into the program without actually providing any product or service and as such is not sustainable, with some people guaranteed to lose money when the structure collapses. The result of these kinds of schemes, and the saliency in the minds of those in developing countries means that people often prefer to save in hard assets (such as a cow or gold bangles) or in unreliable methods such as under the mattress. These methods of saving expose people to high risk and no access to interest.

The support of microsavings institutions by facilitative regulation has the potential to encourage the poor to save in efficient ways and may complement the use of microfinance by increasing awareness of microfinancial services in developing countries. This may ultimately lead to increased success of microfinance, as awareness and uptake are critical.

3.5.2.3 Benefits

The main benefit of facilitative legislation such as tax concessions and state guarantees is that the overall cost to the government is small compared to the potential benefit from microfinance and other development initiatives. Indeed, tax concessions for charity spending or for the provision of green finance may result in some lost tax revenue, however there are limited actual expenditures which means the avenues for corruption are fewer than with cost-bearing initiatives (Ala, 2009). In addition, facilitative regulation may potentially allow the diversification of financial services provided by MFI's.

3.5.2.4 Disadvantages

Facilitative legislation provides incentives for large financial institutions to use their funds for supporting development and microfinance initiatives in developing countries. However, this legislation does not take any positive action towards specifically achieving the political goals discussed. Further, the actual cost of facilitative legislation is difficult to quantify because of the problem in isolating CSR investment which is affected directly as a result of the tax concessions rather than through employee demands to management or a source for marketing content. In this way the measurability issues of facilitative legislation mean that concrete discussions and empirical research about which facilitative legislation is most effective at stimulating microfinance are difficult to achieve.

Another key disadvantage is that facilitative regulation provides incentives for funds to be invested in philanthropic causes but not into the particularly effective avenues for development over others. The result of this is that funds may be balanced between avenues such as microfinance with historical empowerment benefits, and other avenues which result in lower benefit to the developing country. Further, in the event of a large economic shock with state guarantees of microsavings and microloans, an already under-resourced government may be required to divert resources to MFI's, banks, and borrowers, rather than the chronic poor who are outside the financial system and are in more absolute need of immediate support during such crises.

A key disadvantage of state guarantees of loans and deposits is that a large potential moral hazard may be created (Hulsmann, 2006). That is, MFI's and banks may provide microfinance to those they know will not repay in order to collect the interest until they recoup the loan balance from the government. The costs and administrative burden of receiving the lost loan balance after default of a microfinance borrower from the government may in fact outweigh the loan balance that will be returned, and this may create further problems than the actual incentives provided by this legislation.

3.5.3 Conclusion

The goals of microfinance generally revolve around distribution and socioeconomic benefits to the world's poor. In order to support microfinance there are different ways to approach government support via regulation and institutional design. The inhibitors to microfinance include perceived risk from the borrowers and banks perspectives. Facilitative legislation and CSR have the potential to overcome these risks through providing incentives to both parties to engage more in the microfinance relationship and develop reliability of the industry.

This section has discussed CSR and facilitative law approaches which may facilitate microfinance to achieve established political goals. It can be seen that although CSR and soft law can potentially achieve the established goals, the systems are not perfect, and a combination of approaches is required. Thus, if soft law is not sufficient in all situations to achieve the goals of microfinance, it may be that direct regulation provides the framework required, and this will be discussed in the next section.

3.6 Direct Regulation

Microfinance programs of CSR initiatives which are stimulated by facilitative legislation may not be enough to achieve the political goals which microfinance seeks to accomplish. If this is the case, direct regulation may be required. Direct regulation includes potential initiatives such as creating a maximum chargeable interest rate to microfinance borrowers or a minimum percentage of loans to microfinance out of the total loan portfolio for banks. Other options include the creation and management of government-owned MFI's. Direct regulation is a potential way to stimulate microfinance, however, some direct legislation can result in a regulatory failure by providing incentives which impact the distribution of resources in a manner which would not occur in an unregulated market and this will be discussed.

3.6.1 Why is There Microfinance Law?

Microfinance law has been implemented specifically, as opposed to allowing MFI's to generally fall under banking law, in order to support the political goals of credit availability and distribution. However, the development of specific MFI law depends on each country and there is as yet no international framework from which developing countries can design their own regulations (Satta, 2004). Although in essence MFI's provide the same services as banks but on a smaller scale, the motivation behind the provision of these services results in different risks to customers and different societal effects (Di Bella, 2011). Thus, the law which regulates a profit seeking bank must surely be different to the law regulating a non-profit MFI with socioeconomic objectives.

The balance of services provided by MFI's gives reason for different regulation to banks. While traditional banks generally have large deposit bases from which to finance their loans or the availability of international and inter-bank loans and securitisation, MFI's generally are not financed by deposits but rather from external sources (Satta, 2004; Zhang, 2008). The exception to this is in a few select countries led by Peru, Bolivia, and Pakistan where supportive legislation allows that MFI's are primarily funded by deposits (Economist-Intelligence-Unit, 2012, 2013). However, this is not the norm (Di Bella, 2011). The implication of this is that there is more risk to customers of traditional banks where individual deposits are at stake in the case of potential bank failure. Hence the theoretical solution of facilitative legislation where the state guarantees loan amounts and deposits is discussed in the previous section. This is a situation which also affects developed countries, and in the GFC potential bank runs (where all of the depositors seek to withdraw their capital resulting in the bank's collapse) were anticipated by government guarantees of deposits in many countries such as Australia. Indeed, this potential effect on MFI financing provides motivation for increasing trust in the microfinance sector, potentially by guaranteeing microdeposits and microloans.

It is logical that financial institutions which provide different products should be regulated differently. The fact that the objectives of microfinance are around credit availability to the poor and subsequent socioeconomic benefits, operational structures would naturally reflect this. In comparison, the profit motivated products and services of traditional banks would indeed be reflected by their operation. Although both entities may provide loans, insurance, pensions, and savings products, the motivation behind the operations and the subsequent effect on society require a different regulatory framework. Indeed, authors have commented that because of the scale of operations and products affected, the collapse of a single MFI is unlikely to have large consequences in an individual country (Satta, 2004). However, there are potentially life-changing (or life-destroying) effects on individual members of the poorest in society if they were to lose their microsavings. Thus, regulation is especially important for situations where the poor can potentially be worse off. This does not mean that no regulation at all is needed, it simply highlights that different regulation is necessary if the socioeconomic goals of microfinance are to be achieved.

The regulation of MFI's often covers only some of the products offered, such as deposits, and not others, such as loans (Satta, 2004). The fact that law generally covers deposits is a reflection of the consumer protection goals of governments, and indeed, banking regulations are present in all countries in some form or another. These laws generally attempt to ensure the financial stability of deposit taking institutions. The provision of small loans and the safeguarding of small deposits are two key services which distinguish microfinance from regular banking and thus cannot, or at least should not, be considered in the same way.

The issue with the analysis of the development of microfinance law from a credit market failure perspective is that microfinance has in many ways evolved to changing market conditions, and evolved in a way which bypassed traditional banking regulations. The village based savings and credit groups were organised informally all over the world until the introduction of microfinance as we know it (Hollis, 1999). Thus, microfinance was not established by law and did not rely on law to create the industry. However, MFI regulation has the potential to increase the size of the industry, rural outreach, operating efficiency, and access to external funding (Satta, 2004). Thus it can be seen from the literature that microfinance is not a clear credit market failure situation where the law is critical for its establishment. Rather, MFI regulation controls whether microfinance is successful in terms of distribution in individual countries or not, and thus subsequently affects the socioeconomic objectives of the industry. Indeed, the discussion regarding the goals of microfinance legislation is relevant at this point because it indicates that although the law may not have goals of efficiency, social distribution goals may be equally worthwhile and a law and economics discussion of the effectiveness of such laws provides a methodological contribution for the current thesis.

3.6.2 How does Microfinance Legislation Promote Microfinance?

MFI regulation in theory seeks to support the socioeconomic objectives for which microfinance has been designed to achieve. The formal financial sector finds poor people theoretically unprofitable because of the reasons discussed in the first and second sections. Further, MFI's are able to operate from a smaller cost base and the development of the sector has been a result of internal growth which did not require the stimulation from regulation (Di Bella, 2011). Authors have stated that in a general sense the regulation of MFI's strengthens their financial stability and sustainability which allows for more capital to be able to be provided to small and medium sized enterprises (SME's) (Buera et al., 2012). Thus, the research tends to indicate that formal MFI regulation does help to achieve the political goal of credit availability.

Specific MFI regulation seeks to protect the financial system, protect depositors and to allow MFI financial sustainability which will in turn allow for credit availability to SME's and low income people (Satta, 2004). In the case of Tanzania, Satta (2004) found that the regulatory guidelines in 2004 over banks restricted them from providing microfinance services because of limits on unsecured lending and investment in fixed assets. Indeed, this author found that no Tanzanian MFI's have moved to being regulated because of the restrictive legislation framework. These results indicate that it is not only that regulation itself may have an effect, but that specific provisions within the regulation are also critical for increasing financial inclusion for the poor.

The findings by Satta (2004) suggested that non-deposit taking MFI's should have non-prudential regulation only. Non-prudential regulation covers such requirements as publishing annual reports, risk management strategies, and the board taking ultimate responsibility and accountability. However, as indicated by the research of MIX (2013) the ability to take deposits may be critical for MFI sustainability, a result which could ensure the long-term increase in credit availability to the poor without reliance on NGO and subsidised funding.

Regulation has the potential to promote microfinance by allowing access to funding either from microsavings or from international capital markets. These avenues of capital contribute to microfinance sustainability by reducing the reliability on donor funds. Greater financial sustainability in theory may increase credit access to the microfinance target market, who are costly to service because of the demographic reasons discussed in the second section of this chapter.

3.6.3 How are MFI's Shaped by Microfinance Law?

The main challenge of policy makers has been to develop a regulatory structure which allows MFI's to provide reliable sources of finance for the growth of small firms and smoothing of consumption expenses (Satta, 2004). The main effect of microfinance law on the functioning of MFI's is that it can potentially address the main problem which MFI's face: the reliance on donor capital (Eichner, 2011). As covered in the previous chapter of this thesis, microfinance generally achieves the social goals politically defined within developing countries.

In the case of Tanzania it can be seen that the provision of microfinance to poor people is hampered by regulation which does not allow regular banks to provide microfinance (Satta, 2004). In Tanzania the regulation is so restrictive of microfinance provision that for regulated banks to offer microfinance they must create a separate entity which is unregulated (Satta, 2004). The regulation in Tanzania does this with the motivation of protecting the financial system, however the results of this are restrictions on loans which are unsecured and loans which are not specifically for fixed assets, which characterise microfinance loans (Satta, 2004). The implications of this is that there is potentially a lower amount of competition between MFI's and also lower availability or outreach of microfinance to those who need it most. Authors have indicated that lower MFI competition and innovation can result in higher interest rates charged to borrowers (Herd et al., 2011). It can be argued that limiting the provision of microfinance by the traditional financial system can affect MFI's in a wide variety of quantitative and qualitative ways, with mostly negative consequences for the poor.

It can be considered that the operating environment of MFI's is hampered by having no direct comparison with regular banks in that there is no large financial organisation which is able to build on market knowledge and pave the way for the smaller MFI's. In this ideal market environment the small MFI's are able to build on established firms experience and service niche microfinance markets out of the scope of the large firm to complete the market. On the other hand it is possible that large NGO-financed MFI's are able to understand the market and share knowledge and currently do that. However, ideas of market efficiency allow that in order for MFI's to achieve financial sustainability (of which only 40% are currently financial sustainable, (Microfinance-Information-Exchange, 2010) it is important for normal market situations to be allowed. In this example it is clear that overly restrictive regulation, and regulation which does not distinguish between MFI's and regular banks has the potential to reduce the amount of credit available the poor. Thus, overly restrictive non-distinguishing regulation has potentially adverse effects on credit provision to the poor.

3.6.4 Legislation

Governments have at their disposal different tools to encourage or discourage certain behaviours, and the tool which is most relevant for the current study is legislation.

3.6.4.1 What Can the Legislator Do?

Legislators have the power to control social outcomes, both for good and for bad. The legislator has control over implementing specific interventions in order to support the achievement of the socioeconomic goals which microfinance is designed to achieve. However, despite socially motivated intentions, interventions may have adverse effects. This section discusses actions by the legislator which are designed to support social and economic political goals, and the theoretical and practical consequences of these interventions. In particular, interest rate ceilings, loan portfolio proportions, and state guarantees are presented as potential direct regulation initiatives.

3.6.4.1.1 Interest Rate Ceilings

The charging of interest on loans is an ethical issue whose continued debate can be traced to biblical and Qur'an eras of literature (Jones, 2008). Apparently the charging of interest, or making money from money is forbidden by certain religious texts because it exploits those who are in need of finance by those who have available capital (Jones, 2008). Many of these texts state that the rich should lend to those who need capital with no interest costs (Jones, 2008). Modern financial planning and wealth creation strategies are based on a foundation of making money from money (or making your money work for you), showing the development of these rules in modern society. Although the majority of the law and economics literature is theoretically against interest rate ceilings (or 'usury'), governmental restrictions on the charging of interest have been present across modern civilisations for most of recorded history (Jones, 2008), and continue today in selected pockets of the world (Herd et al., 2011).

Authors have found that even in theory the positive benefit of interest rate ceilings is balanced by the disadvantages to mean that there may even be overall negative effects. In particular, usury laws may reduce credit availability for the poor while benefiting the rich through lower interest rates on loans and less competition from new businesses entering their market (Benmelech & Moskowitz, 2010). Indeed, these authors have found that each one percentage *reduction* in interest rate limits can lead to 4-6% less economic growth in the decade following (Benmelech & Moskowitz, 2010). Thus interest rate ceilings not only inhibit economic growth but on the other hand may also protect the poor from unnecessary financial exploitation. Interest rate ceilings thus may have good motivations but the practical effect may be the opposite of those intended, in that in the long term the poor are not protected from exploitation from interest rate caps.

When considering the effect of interest rate caps it may also be relevant to consider the reason for high interest rates in the first place. There is not a clear theoretical understanding of why high interest rates on microfinance loans are so pervasive, yet differ widely between countries. On the one hand, uncollateralised loans to the marginalised in society considerably require compensation for the higher level of risk and costs in providing the loan. However, on the other hand microfinance has been designed in a way so that for both individual and group contracts, reliable borrowers are selected by the community and have social pressure to repay the loan on time. This design in theory eliminates the risk and costs, because these are outsourced to the community. Yet high interest rates prevail. There are two prominent possibilities for the high interest rates: a lack of competition (a credit market failure given the unregulated nature of most MFI's), or; MFI inefficiency. Theoretically, regulation and institutions can address these underlying causes more effectively than can interest rate caps.

A key disadvantage of usury laws is that financial innovation, as seen in Islamic microfinance to avoid *riba* is easily able to overcome the issue of interest rates and instead use profit sharing, investment or fee models which result in a similar benefit to the bank. Thus, in order to overcome this type of circumventing of specific laws, the supervisory body would need to document and monitor microfinance products to ensure these particular methods have not been employed. In developing countries where weak institutions, corruption, and scantly resourced supervisory bodies, this method is arguably fraught with risk.

Theoretically speaking, interest rate ceilings are designed to protect the poor from profiteering of loan sharks, payday lenders and unscrupulous microfinance providers who seek to profit over and above the cost of providing the loans. This is understandable in environments where microfinance borrowers pay above 30%pa interest while regular borrowers pay below 10%pa (Di Bella, 2011). However, authors have found that governments wishing to reduce the interest rates payable on microfinance loans are better occupied with creating economic environments where MFI's can innovate and operate efficiently such as by investing in telecommunications, roads, education (Di Bella, 2011). Further, authors have suggested that rather than legislating interest rate ceilings and repayment schedules it is more prudent to do things to reduce the risk of over-borrowing such as a credit database and personal bankruptcy laws which complement credit disclosure (Herd et al., 2011). In practice capping interest rates can result in less credit availability, a clear failure of the legislation.

3.6.4.1.2 Minimum Percentage of Loans to Microfinance Clients

In developing countries there are already established financial institutions providing targeted financial products to the middle and upper classes. Rather than restricting the behaviour of MFI's, regulators have the potential to force existing banks to provide microfinance, whether it be directly or through subsidiaries. Theoretically, legislation is able to guarantee and require a certain percentage of retail capital (eg. 20%) is allocated to microfinance borrowers, ensuring the mobilisation of bank assets to increase credit availability to the poor.

In theory this idea harnesses the existing success of financial institutions and their established channels of distribution and funding to increase the scope of credit access. Indeed, banks are already regulated and have established access to international credit markets and overnight lending agreements with other domestic banks, and this leads to operating efficiencies. However, forcing banks to provide products which previously brought no profit to them may lead to operations which satisfy the minimum requirements of the regulation and nothing more. This direct regulation strategy relies heavily on the definition of microfinance. For example, if microfinance is simply loans below $1,000 it can be imagined that banks provide a set percentage of loans very close to that figure, rather than seek 'real' microfinance clients, being those just above the poverty line as defined in the first chapter.

There are problems with the incentives to banks and to borrowers to engage in microfinance (Besley & Coate, 1995). In order to overcome these incentive problems, direct regulation provides a possible solution. Indeed, these legislation options accompany and facilitate market functioning. However, as discussed there are potential disadvantages of direct regulation which mean that it is realistically a last resort if CSR and facilitative regulation have not, over time, achieved the political goals which microfinance can meet. Direct microfinance regulation can potentially address the market issues of credit access not being available to the poor. However, while an increase in credit access may be achievable through a minimum percentage of capital allocated to microfinance and interest rate ceilings, it is not without potential adverse consequences that these initiatives are employed.

3.6.5 Conclusion

In the event that CSR and facilitative regulation are not enough to promote microfinance, direct regulation initiatives may be implemented. By legislating for the promotion of microfinance the positive intentions of the legislator may not be enough to ensure effectiveness. Indeed, in the case of interest rate ceilings it may be that the result is actually less microfinance outreach to target customers and more microfinance provided to the more profitable middle classes. However, there is the potential for direct regulation to positively affect microfinance in theory. For example, legislating for all loan providing institutions to provide a minimum amount of microfinance loans may stimulate innovation in the microfinance sector and encourage efficiencies of scale by building on already existing expertise in the traditional financial market.

3.7 Conclusion

The current chapter has analysed the literature and legal institutions in order to attribute the development of microfinance to the legal framework, bureaucracy, and social support. It has been found that whether the legislation can support the goals that microfinance aims to achieve depend on the situations in the country, the benchmarks by which success is measured, and a variety of other market and cultural influencing factors. The contribution to answering the research question of the current thesis of the current chapter is the discussion of selected legal rules from which the positive analysis can build.

Microfinance is an avenue for capital which may support the socioeconomic outcomes of the poor. Given that legislators support microfinance in their particular jurisdictions, they are then able to formulate regulatory responses to facilitate microfinance. At the theoretical extreme, governments may provide the capital themselves directly to the poor through state run programs. This is in many ways what is happening in India, with state-run MFI's and interest rate ceilings in some regions. At the other extreme, governments may simply legislate in a way which facilitates microfinance through not restricting their operation and allowing market forces and NGO interventions to promote microfinance. A middle ground in this theoretical discussion may be that the government provides guarantees for the microfinance loans and savings accounts for the poor. However, the middle ground option does not account for the high transaction costs associated with providing and monitoring each loan by MFI's, and this may mean that the scheme does not have the desired effects.

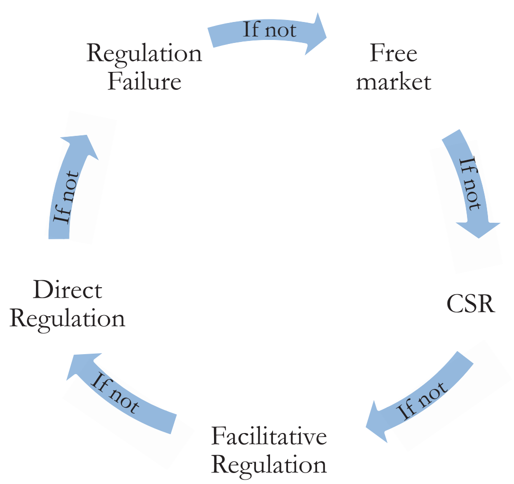
The trade-off between sustainability and providing credit access is that the target market of microfinance brings very high transaction costs because of the likelihood of borrowers being illiterate, in extreme poverty, and geographically dispersed. Thus, although MFI's may be sustainable by serving the poor and middle classes, it is the chronic and rural poor who are the theoretical target market and require the most access to credit (Di Bella, 2011). Thus, it needs to be considered how important the sustainability of MFI's are considering that increased financial sustainability may be associated with lower outreach to the target market of microfinance.

The fourth section of this chapter presented potential soft law and CSR outcomes to the development of microfinance. It was found that if the right conditions are met, CSR supports microfinance in achieving socioeconomic goals, however it will not be sufficient. Thus, this section determined that facilitative legislation may be the appropriate default option for microfinance regulation. In conjunction with CSR, facilitative regulation may complement to provide incentives to banks and borrowers which increase the use of microfinance.

The fifth section of this chapter presented the direct regulation methods by which microfinance can be supported. The avenues for direct regulation indicated that restricting normal market functioning with regulation, regardless of the good intentions, may have the reverse effects unless designed with care. Indeed it was discussed in a theoretical manner that legislated interest rate ceilings may have results which restrict the amount of credit available to the poor, an outcome which is the opposite of the goals of the legislation. However, some regulation such as a set amount of loans from each bank going towards microfinance loans, or the government guarantee of microfinance loans may actually support innovation by banks and distribution of credit availability to the poor.

The foundation of government intervention is theoretically CSR. If the conditions required for CSR to be sufficient in supporting microfinance are absent, facilitative legislation is the next step of the regulator. Subsequently, if the conditions required for facilitative legislation are not sufficient to promote microfinance to a level to achieve socioeconomic goals then direct legislation may be required to achieve the outcomes which microfinance is designed to support. This procedure of regulatory design can be seen in Figure 1.

Figure 1. The types of intervention to support microfinance (vicious circle).



The law and economics of microfinance has indicated that there are many theoretical issues which mean that the measurement of the direct success or failure of microfinance is difficult. However, empirical studies have been conducted in this area and these will be covered in the fourth chapter of this thesis. The current chapter provides a theoretical foundation from which to analyse microfinance. The subsequent chapter will analyse whether the regulatory opportunities discussed here are practically accurate.

From the perspective of law and economics, this chapter has considered relevant effects the law can have on MFI financial sustainability from a theoretical perspective. The effect of the law on MFI financial sustainability can be potentially reflected in financial ratios reported by MFI's. In this way an association between regulation and MFI financial sustainability can be identified in a potentially empirical manner if the theoretical links between these proxies are built on a sound foundation. The financial ratios which can potentially reflect this are:

- Average loan balance and total outstanding loans
- Operating Self Sustainability (OSS%)
- PAR>30 and PAR >90
- Profit margin
- Assets (MFI size)
- Outreach to the poorest women

This chapter has identified how the law can affect the average loan balance through an explicit cap on loan balance for microfinance loans, and this can have potential flow through effects to the profit margin, outreach to the poorest women, total outstanding loans, and subsequently on MFI size and OSS%. Further, laws about how MFI's are able to collect loan repayments (such as whether they are able to visit private residences) have the potential to influence portfolio at risk (PAR). Thus, given the particular nature of microfinance contracts and the demographics of the borrowers, microfinance law has a variety of potential ways to be reflected in financial ratios. It is clear from these initial theoretical discussions that regulatory goals, specific to every country, are the starting points for discussion.

This chapter has identified the theoretical aspects of microfinance from a law and economics perspective. This means that the development of the financial market in which microfinance sits has been described with reference to how microfinance completes the market. In order to determine the practical application of these theories in depth, legal case studies will be conducted in three developing countries: India, Pakistan and Bangladesh, and one developed country: Italy. Italy is an emerging microfinance market and the potential scope in providing capital for relatively poor entrepreneurs is a trend which makes this case of value to compare and contrast. Comparative microfinance law will be documented in the fifth chapter of this thesis.

From a theoretical perspective, economic development and increases to empowerment may be achieved as a result of access to credit and financial services, which in turn may be supported by microfinance, as outlined in the second chapter of this thesis. The sustainability of MFI's may promote microfinance through unrestricted outreach. Microfinance sustainability is directly affected by different forms of regulation. This chapter has discussed some regulatory opportunities and the possible effects on the promotion of microfinance.

The analysis of microfinance interventions from the perspective of this chapter is a description. There is no efficiency test involved because the current thesis is not concerned with making a claim that microfinance is efficient or not at achieving political goals compared with other methods. Rather, as shown in chapter two, the legislator wants microfinance and therefore the task at hand is to analyse how regulation and legislation affects MFI financial self-sustainability, and to develop suggestions regarding regulatory detail given particular regulatory goals. The theory of microfinance development and organisation has been discussed from the law and economics perspective. In order to determine if this theory is an accurate reflection of what is actually happening in the microfinance sector, the next chapter will examine previous empirical studies.

Chapter 4

4. Microfinance: Empirical Evidence

4.1 Introduction

Previous chapters of this thesis have covered a variety of literature which theoretically, anecdotally, or qualitatively considered the effect of microfinance on increasing the socioeconomic well-being of the poor which is inherently a bottom-up perspective of the issue. This chapter presents a critical and analytical evaluation of the empirical studies on microfinance published to date. It seeks to determine whether the theory presented in the previous chapter is actually happening. This thesis aims to address whether law and economics can help explain which legislation and legal institutions can promote microfinance. Thus previous chapters established the information we have to date about microfinance.

The second chapter of this thesis addressed the dreams and reality of microfinance, finding that while the social goals of microfinance, in particular female empowerment, have been consistently reached, reductions in poverty have not been found. The third chapter considered microfinance from a law and economics perspective, including the particularities of financial inclusion for the poor and how different legislative initiatives can promote this political goal via microfinance. The third chapter thus considered the benefits and disadvantages of different types of legal initiatives, finding that direct legislation promoting microfinance is theoretically effective only if facilitative legislation and CSR have been attempted and proven unsuccessful.

The current chapter[1] seeks to focus on the few studies which have focussed on microfinance using empirical methodology such as experiments to examine the issues raised in previous chapters. This chapter is required because although the literature on microfinance is plentiful, published studies which follow an empirical methodology are few and far between. Thus, these empirical studies risk becoming 'lost' in the expanse of the previous chapters' body of studies which do not use such rigorous methodology. Although empirical works provide a much stronger foundation of knowledge from which this thesis can build, the studies covered in previous chapters do impart a wealth of knowledge on the functioning and impact of microfinance which the empirical studies do not cover because of their low number and focus on aspects such as contract design, outreach, and financial sustainability (that is, being able to provide microfinance without reliance on donor funds, by generating enough revenue to cover the costs of providing loans).

[1] A modified version of this chapter and chapter 3 (a combined paper titled *The Law and Economics of Microfinance*) has been accepted for publication in The Journal of Law and Commerce for print in March 2015.

The current chapter seeks to present the empirical work to date in order to determine if the theoretical conclusions drawn in previous chapters are indeed valid according to the empirical literature. The empirical literature on microfinance covers topics directly related to the research question of the current thesis. Specifically, a number of empirical works examine the trade-off between financial sustainability and outreach, and a couple also consider MFI regulation and the social and economic effects of microfinance.

Hermes and Lensink (2007) discuss the methodological weaknesses of most microfinance papers in this field as being that: the variables to measure behaviour are only theoretically and indirectly related; that crude one-dimensional measures are used to proxy for complex constructs; and the endogeneity problems of the sample. These authors consider the effect of these weaknesses and the importance of financial sustainability of MFI's. In particular, if MFI's are unable to stand on their own feet, long term large-scale outreach to the poor cannot be guaranteed. Further, at a short term level these authors discuss how microfinance sustainability affects the breadth (number) and depth (socio economic level) of the clients served. Hence there are aspects to take into account when considering the research presented in this chapter.

In order to consider the results from the empirical literature, topics covered will be based on the existence of empirical studies in the particular field rather than following the structure of previous chapters. As there are few empirical works which the current chapter is able to discuss, the direction of discussion must be based on the works which have been empirically designed and published in reliable journals. Unlike previous chapters, research without empirically sound methodology will not form the basis for conclusions drawn and future analyses.

The current chapter is structured as follows. The first section discusses empirical works on the developmental effects of microfinance. The second section considers social effects of microfinance. The third section discusses the perspective of the empirical literature on the effect of regulation on microfinance. The fourth section presents the regulatory proposals by authors of empirical works, and the fifth section concludes.

4.1.1 *Empirical Analyses*

The political goals regarding microfinance are generally centred on the socioeconomic advancement of the population, as established in previous chapters of this thesis. The current thesis is not concerned with the motivation for the political goals, rather whether the political goals can be promoted by regulation which supports microfinance in the long term. Thus, it is the effectiveness of microfinance-promoting institutions which provide the relevant perspective from which the discussions will begin (Allott, 1981).

Given the political goals of microfinance and the previous analysis of impact, it can be seen that there is inconsistent evidence regarding the success of microfinance, given that that success depends on which benchmarks it is measured against. Based on the benchmarks identified, political goals around poverty alleviation and social goals of financial inclusion and distribution have been partially met. Regarding poverty alleviation, the research has indicated that only 1% of borrowers each year are lifted out of poverty (Shukran & Rahman, 2011), yet most borrowers are female and there are high levels of increased empowerment across countries (Mayoux, 1999). Other authors have that 1.5% of borrowers were lifted out of poverty between the years of 1991/92 and 1998/99 in Bangladesh (Khandker, 2005). However, the long term effects of microfinance are complicated to establish empirically because loan terms are generally so short the direct effect cannot be reliably confirmed, and most borrowers do not continue to take further loans (Sharma, 2005). Indeed, the movement of a large number of people in and out of poverty (Baulch & Hoddinott, 2000) make the effect on poverty even more complicated to measure. Thus, many empirical papers seeking to examine microfinance success and MFI performance have measured different proxies such as access to credit, financial sustainability, and outreach.

4.1.2 Development

Microfinance is so popular with donors because it seems to serve the dual aims of social and economic development. In particular, micro-entrepreneurship has potentially long lasting effects on development. However, for development to be achieved, microfinance needs to facilitate access to credit and wealth creation.

4.1.2.1 Access to Credit

The effect of the size of financial firms on financial access is an important topic which is relevant for determining the impact of factors related to microfinance and microfinance institutions within the context of the financial sector. A recent study by Beck, Demirguc-Kunt, and Singer (2011) examined how a higher number of large banks would influence credit availability of different sized firms. This study has strong theoretical and empirical importance because of potential assumptions by policy makers that bank size and strength increase credit access (Beck et al., 2011). On a more practical level, these authors noted that access to financial services by SME's (Small and Medium sized Enterprises) is critical in developing countries because SME's comprise most of the private sector (Beck et al., 2011). Bank dominance refers to the proportion of financial business placed through large banks versus small banks, and as such is generally communicated in percentage terms. Bank dominance is an important issue for law and economics because of the direct effect regulation can have on financial system structure (via bank size and barriers to entry) and subsequent economic development. Bank dominance differs between developing countries such as Ukraine with 99% bank dominance and Colombia with 61% of bank dominance (Beck et al., 2011). Banks and specialised financial services firms have innovated such products as factoring and leasing to avoid the requirement for personal financial history, showing that the community involvement of microfinance is but one of many financial service innovations which aim to expand the potential client market to include the poor. These authors examined the effect of financial institution size on firm access to finance with a methodology of combining two data sets on financial structure and firm characteristics. This study explores the heterogeneity which exists across countries of different economic development, industries, and firm sizes. This heterogeneity allowed for regressions to be developed to explore how trends in financial structure affect firms' access to finance. These authors constructed financial service indicators by using access to finance as the independent variable and a variety of dummy variables such as account existence, overdraft existence and loan existence. Indeed, this study found that the average size of banks is not associated with access to finance. This is contrary to traditional banking regulatory motivations which aim to promote bank strength and dominance (Australian-Government, 1997). Specifically, these authors found that financial markets in developing countries with more large banks resulted in reduced financial service use by firms of all sizes. They found that it is specialised lenders (such as MFI's) which increased firms' access to finance. However, they also found that microfinance does not help with the financing constraints of formal and larger enterprises, which is logical given the target market of microfinance and the products designed to service them. Beck et al. (2011) commented in describing the implications of their results that policy makers control financial institution size and thus specific financial market structure by determining regulations which impose entry barriers, minimum capitalisation requirements and bank ownership restrictions.

4.1.2.2 Wealth Creation

The theoretical strength of microfinance lies in its ability to increase wealth through the mobilisation of capital for entrepreneurial and investment opportunities by the poor. This individual wealth creation aspect is critical for the potential benefits of microfinance because it runs hand in hand with increases in economic development. Bauer, Chytilová, and Morduch

(2012) empirically analysed from a behavioural economics perspective why microfinance has such financial benefits over programs such as those which focus on savings. These authors thus examine microfinance as an innovation for self-discipline of financial behaviour, and the results have been published in the American Economic Review.

In order to determine the reason for the repayment success of microfinance, Bauer et al. (2012) used a random walk method[2] to select nine villages per *taluk* (similar to a state district) and 35 people per village (in total 573 people) in rural India. The researchers had a high response rate with 90% participation acceptance. The sample of respondents was generally representative of the population except that there was marginally lower literacy and higher marriage than the region average. This study determined the discount rate by asking respondents if they would prefer 'Rs250 tomorrow or Rs265/280/300/330/375 in three months' time?' (NB. Rs is Indian Rupees). They also identified time preference reversals. The methodological procedure of this study seems sound in that the same subjective transaction costs apply to both options available to the subjects because all payments are in the future. Subjective transaction costs refer to perceived higher transaction costs of future payments and the effect that hyperbolic discounting has on the desire to consume sooner rather than later. Further, risk tolerance was determined by a simple gambling game (designed to overcome the need for literacy). The data which was collected related to demographics, wealth (calculated by the researchers based on other information), and women's position in the household.

The results of the study by Bauer et al. (2012) show that self-discipline is the reason why people ca not save but can repay loans in rural India. Specifically, women who are more present biased[3] (one-third of people worldwide) are more likely to borrow from an MFI. This is because they have more need to borrow (than non-present biased women) because of a greater tendency to spend income. It can be logically extended that microfinance is more efficient than saving because of social pressure and regular repayment structure which provide greater incentives for financial discipline than regular savings programs. Other authors have also commented on this hyperbolic discounting aspect of microfinance (where future events are discounted at higher

[2] These authors randomly selected villages based on Indian Census Data and replaced unsuitable villages with directly comparable villages which satisfied the requirement of having access to the village head. Although this methodology is not without fault it does introduce a certain amount of potential bias into the results because there may be a variable which influences whether the participating NGO has access to the village head and also affects the savings and loan behaviour of residents.

[3] Present bias refers to the preference to consume today rather than later. This is also referred to as hyperbolic discounting. These authors categorise present-bias as when the calculated personal current discount rates are larger than future discount rates, and is generally one third of the population. In a practical sense, this means that these people are impatient about consumption choices for tomorrow but not for consumption choices in one year's time. This study further distinguishes between 'weakly' and 'strongly' present-biased participants.

rates than in the near future) (Herd, Koen, Patnaik, & Shah, 2011). Contrary to many statistics, these authors found that most borrowing is used for investment, and the results hold after controlling for time-discounting and the propensity to borrow. These results also provide support for the rigid and regular repayment schedules which other studies (such as Pearlman (2010)) have indicated may reduce the uptake of microfinance. Further, these results explain why despite a move towards individual contracts, the regular repayment schedules and regular group meetings model has been maintained. The results of the empirical study by Bauer et al. (2012) show that many of the issues which affect the wealth creation of individuals in developed countries also affect microfinance borrowers.

4.1.3 Poverty Reduction from Microfinance

Microfinance has developed and provided outcomes for the world's poor, which are measurable as small statistical increases in socio-economic benefits. Research has indicated that 1% to 1.5% of microfinance borrowers are lifted out of poverty each year (Khandker, 2005; Shukran & Rahman, 2011). Considering the historical increases in the amount of microfinance borrowers per year, this indicates a positive result. This is because it is the ability of microfinance to serve millions of people rejected by the traditional financial system which provides its true potential in achieving socioeconomic goals. When we consider the number of borrowers served by microfinance thirty years ago, we can see that the figure of 1.5% being lifted from poverty each year (between the period of 1991/92 and 1998/99) (Khandker, 2005)(pp 284) is quite small when there are only a few million borrowers. But now, with ever-increasing millions of borrowers all over the world (Satta, 2004) the benefit to society as a whole is increasing constantly. Indeed, the result of this is an estimated 1 million to 1.5 million microfinance borrowers per year lifted out of poverty. Despite the fact that those lifted out of poverty are not the poorest of the poor (as microfinance addresses the poor but not the extreme poor as already discussed), these numbers are not insignificant. Given that even those who are 'poor' but not 'in extreme poverty' can also be lifted out of poverty, the effect of microfinance has been documented to have socio economic benefits.

This increasing outreach to more and more borrowers also indicates that the overall impact on microenterprises is also increasing. If, for example, only 1% of borrowers graduate from consumption based loans to obtaining loans to microenterprises, this is a disheartening result for those who plan on microfinance being the economic driver of development. However, when the increasing amount of borrowers is considered this figure has much more positive impact than when considered in isolation.

The economic development of developing countries has lagged behind theoretical models considering the provision of microfinance and donor funds (Shukran & Rahman, 2011). Indeed, World Bank reports have found that the economic gains from microfinance are lower than would be expected (Aggarwal, Klapper, & Singer, 2012), however there is an overall increase in wages (Buera, Kaboski, & Shin, 2012)[4]. This research fits in the subject of development economics where a large body of research has aimed at isolating causes of low economic development and focussed on the effect of institutions (Laffont & Triole, 1990). As such, the economic impact of microfinance is a question beyond the scope of the current thesis. At this point it is important to establish simply that microfinance is heralded as an economic innovation, but that a variety of institutional and other conditions potentially restrict the measurement of the direct economic impact of microfinance. Other authors have found that microfinance results in income generation and does reduce poverty in small degrees (Eichner, 2011). However, in an empirical economic sense the success of microfinance is supported in only a handful of published papers and thus the results should be interpreted with caution. However, theoretical arguments continue to support microfinance as a method to support micro entrepreneurship and this may have future economic benefits. The theoretical arguments for this have been discussed in the previous chapters.

4.1.3.1 Macroeconomic Perspective

Microfinance as a financial intervention is now of sufficient scale to allow general equilibrium analysis of the economic effects. In particular, a study by Buera et al. (2012) looked at the general and partial equilibrium effects of microfinance by examining microfinance and credit programs targeted at small business. The methodology for this empirical paper built on including endogenous saving rates between entrepreneurs and workers and high and low ability people. This limited scope of analysis excludes microfinance loans for consumption and may have less generalisable results because of this. Further, the exclusion of consumption loans results in an under-prediction of consumption increases attributed to microfinance and the resulting flow-through effects on the economy. This study uses a model of entrepreneurship where financial development results in large aggregate impacts. The most significant finding of this particular research is that most people are positively affected in an economic sense by microfinance because of increases in equilibrium wages, not only for microfinance borrowers.

[4] Subsequent chapters of this thesis will consider the design of institutions in promoting microfinance alongside the design of specific prudential regulatory provisions.

Under general equilibrium (GE) analyses, the research by Buera et al. (2012) found an increase in aggregate TFP (Total Factor Productivity). However, these authors also found that the increase in TFP is counterbalanced by a reduction in capital accumulations (that is, savings) because of the high redistributive impact of microfinance from savers to non-savers (because of the increase in wages and interest rates). The implication of this is that the scaling up of microfinance programs will lead to a small per-capita increase in income. Despite this, there are still significant aggregate and distributional impacts of microfinance. Importantly, general equilibrium analyses also found increases in equilibrium wages and interest rates. Thus, under GE, microfinance affects marginal entrepreneurs directly, workers indirectly (through higher wages), and may hurt business people or the rich because of an increase in factor prices. However, given that the aim of microfinance is in essence wealth distribution, this may actually be a bonus result.

Buera et al. (2012) also examined the macroeconomic effect of microfinance based on a partial equilibrium (PE) analysis. A PE analysis assumes that wages and interest rates (among other assumptions) remain constant, whereas a GE analysis allows theoretical changes in defined associated inputs. Although not as easily generalizable to the real economic situation, these PE results did find higher increases in aggregate output and capital than under GE assumptions. Further, the increased rate of entry of productive entrepreneurs into the market resulted in an increase of capital and labour demand and output, with subsequent results being lower aggregate TFP than under GE analyses. Further, there were greater magnitude impacts on consumption and output, business starts, capital inputs, and labour inputs and outputs than under GE.

The paper by Buera et al. (2012), published by the National Bureau of Economic Research, is important in establishing the effect of microfinance on economic development. Indeed, the GE effects of increased wages show a redistributive effect which leads to an increased welfare effect. Thus, although previous studies have focussed on the absolute change in poverty of borrowers, this study allows for nuanced effects such as relative wage increases to be discussed.

4.1.3.2 Economic Gains From Microfinance

A variety of economic literature supports the need for small businesses to have access to finance in order to achieve long term economic growth. Recent research published by The World Bank by Aggarwal et al. (2012) examined the role of microfinance on the access to credit of small businesses in Africa. This paper uses the 2009 and 2010 Gallup World Poll data which includes 150,000 people from 157 countries and asks questions regarding demographics, well-being, income, politics, and financial inclusion (the existence of a bank account, access to credit, and risk mitigation). These authors used the data from this survey to compare the findings of the literature and draw conclusions which support the development of micro-savings innovation.

The research by Aggarwal et al. (2012) finds mixed support for microfinance in terms of economic gains. On the one hand, the research does show that access to finance results in business growth. However, on the other hand the results also indicate that the economic gains from microfinance are lower than were theoretically expected because of the mobilisation of household savings and empowerment from financial service access, and that the only certain positive outcome from microfinance is the smoothing of consumption expenses. Indeed, following this trend the authors highlight the economic drawbacks of microfinance (such as a credit-based poverty trap, over-indebtedness and the crowding out of other anti-poverty interventions) and provide evidence that suggests the promotion of methods for saving would be more efficient at reducing poverty in sub-Saharan Africa than loans: a result at odds with the research by Bauer et al. (2012). These authors find that borrower heterogeneity means that microfinance does not actually help to create new businesses on average, a result supported by Ahlin and Jiang (2008).

The results of this paper tend to support previous literature in the area, as covered in detail in the second chapter of this thesis. However, despite the research paper using original data from the Gallup World Poll, the conclusions drawn by the paper relate to the potential for savings accounts rather than any conclusions drawn from the actual data analysis. The data analysis has been made at a descriptive level, and although providing some very interesting summaries of the Gallup World Poll and the implications on microfinance in sub-Saharan Africa, nonetheless few results are provided which contribute to the gap in the literature in this field.

A key theoretical paper on the topic of the long term economic effects of microfinance has been published by Ahlin and Jiang (2008) in the Journal of Development Economics. These authors sought to use the Occupational Choice model to examine these effects based on the idea that access to credit allows some people to start businesses who previously had to subsist or rely on wages. Thus, microfinance can potentially reduce subsistence payoffs and reduce long term inequality and poverty. However, these authors found that the key to long term microfinance success is the ‘graduation rate’ (that is entrepreneurs who then start fully fledged firms and access the formal financial system). The model analysis showed that microfinance ‘graduates’ who achieve long term benefits come as often from saving as from having business success. The implications of these findings are that the quality of microfinance loans needs to be increased through increasing the productive efficiency of self-employed borrowers through information sharing, technological transfer, and training programs. Further, these authors suggest that MFI loan officer incentives and MFI evaluations be structured around the requirement for 'graduation' of borrowers as well as outreach and social benefits. Importantly, this theoretical discussion highlighted the interconnectedness between microfinance, microsavings, and long term poverty reduction.

4.1.3.3 Vulnerability to External Shocks

Prior to the GFC (Global Financial Crisis) MFI investment was an asset class for inclusion in investment portfolios providing sound diversification because of the general insulation from international markets and lower financial leverage than banks. This risk diversification benefit allowed microfinance to attract investment as well as donor funds, and the impact on borrowers was steady growth in outreach. In an IMF Working Paper, Di Bella (2011) examined the effect of the GFC on microfinance, in particular the systemic risk faced by MFI's. This author sampled 353 MFI's (out of 1,174 with data available on the MIX website) who conformed to a set of criteria regarding size and the consistency of data over the last seven years, and grouped for analysis into geographical regions. In determining the performance of MFI's, these authors use asset and lending growth, Return on Equity (ROE) and Portfolio at Risk (PAR-30) (the percentage of loans in arrears in the last 30 days), and write-off ratios. This paper examined the systemic risk of MFI's over a nine year period during which the GFC also occurred. The methodology of OLS panel regressions and general regressions seem to be robust given the measures taken to ensure there are not other influencing factors involved.

Di Bella (2011) found that as MFI's trend away from the traditional funding sources of NGO (Non-government Organisation) funds, there is increased exposure to changes in domestic and international economic conditions. The implications of this are large, especially for countries such as Peru, Bolivia and Kenya where microfinance composes a large percentage of total GDP (Gross Domestic Product). This paper found that the MFI transformation from being unregulated to regulated invariably results in an increase in systemic risk[5]. It can be simply and intuitively extended that the increased vulnerability to external shocks which MFI's face from having other funding sources may practically spread the financial troubles of international markets to the front door of marginalised microfinance borrowers in developing countries. That is, international crises which do not greatly affect NGO-funded MFI's now may result in reduced access to credit for small, rurally dispersed business people and families all over the developing world. This paper uncovered a number of other significant findings in relation to

[5] This is an issue directly relevant to the current thesis and will thus be covered in detail in subsequent chapters.

regulation, MFI financial sustainability and the differences between regulated and non-regulated MFI's, and these issues will be outlined in the relevant sections of this chapter.

4.1.3.4 Micro-Entrepreneurship

The theoretical economic success of microfinance lies in its ability to mobilise the household savings of the poor to provide loans for entrepreneurs to start or grow small businesses. However, some authors have commented that micro-entrepreneurship is not part of the global economy, nor of national or international trade statistics (Arch, 2005). The implications of this have been described against the '*rising tide lifts all boats'* strategy of globalisation and the economic statistical influences of microfinance. Despite these theoretical issues, most empirical works on the economic effect of microfinance have not considered the effect of micro-entrepreneurship occurring at a level too small to be included in cross-country statistics, and this provides a consideration when analysing the quality of empirical papers in this field. However, research by Ahlin and Jiang (2008) does consider the importance (indeed, the critical nature) of the graduation of microfinance borrowers to full-scale firms on the long term economic effect of microfinance.

The heterogeneity of borrower characteristics is also a subject of study in itself in that it affects the people who undertake microfinance and subsequently how the funds are used. A study published in the International Journal of Economics and Finance by Parvin, Rahman, and Jia (2012) examined this topic to determine the factors which influenced entrepreneurship of women in rural Bangladesh. These authors collected data from 248 entrepreneurs and 132 non-entrepreneurs regarding their personal attributes, family situation and environment. The study used a sampling method which seems to entail using all the possible entrepreneurs in a particular village in rural northern Bangladesh, and a convenience sample to identify non-entrepreneurs. An interview schedule was applied to each participant, and it is presumed (although not stated in the published article) that the responses were coded to allow for quantitative statistical analysis. The authors used a probit model to explain the impact of these explanatory variables on the probability of doing micro-entrepreneurship, and the model seems sound given that it was also used by influential authors such as Roodman and Morduch (2009). Despite the qualitative data collection and other methodological considerations, the results of this study do provide some detail into the factors which influence female micro-entrepreneurship and should be considered. In particular, this study found that women participate in micro-enterprises because they want freedom of work and an increase in social status. Importantly, the research found that families in financial hardship are more likely to undertake microfinance. The factors which influence entrepreneurship as a result of microfinance are of importance to the current research and to the empirical analysis of microfinance and associated effects.

An important consideration in micro-entrepreneurship is the heterogeneity of borrowers. This means that simply providing access to credit does not necessarily create entrepreneurs (Aggarwal et al., 2012). Indeed, this is a logical consideration and needs to be remembered when resting the economic development dreams on the shoulders of microfinance.

A foundation empirical paper on the impact of microfinance on entrepreneurship and social benefits has been undertaken by Banerjee, Duflo, Glennerster, and Kinnan (2010) and published as a working paper with the Bureau for Research and Economic Analysis of Development (BREAD). This key empirical paper provides experimental evidence from the implementation of randomised MFI establishment in certain '*bastis*' (neighbourhoods) in Hyderabad. These researchers partnered with Spandana, a large and growing MFI which is primarily similar to the Grameen model of microfinance loans, but it does not provide business or financial literacy training. Spanada identified 120 areas, and 2,800 households completed a baseline survey in 2005 before the randomised establishment of MFI's in 2006-2007. The baseline survey, while not being implemented randomly, did allow the researchers to track the control and experimental groups for changes as a result of microfinance being made available. This experimental model, while not being perfect, does allow for widely generalisable results on the effect of microfinance.

These authors found that the establishment of an MFI in a new market resulted in an increase in 50% of borrowers in that area, and access to the MFI was used to borrow, invest, and create and expand businesses (Banerjee, Duflo, Glennerster, & Kinnan, 2009). Further, these authors found household differences in the effect of microfinance, with those with the propensity to start businesses reducing the consumption of food and temptation goods, whereas those with lower propensity to start businesses increasing food consumption as a result of their access to microfinance. These authors comment that this household discrepancy means that the long term effect of microfinance is difficult to assess because some households may actually get poorer (though they eat more), while others get richer (while eating less), as a result of access to credit. These authors also found that microfinance shows no effect on education, health or female empowerment.

4.2 Social Benefits of Microfinance

From a social perspective, microfinance has been relatively successful, with much of the previous research indicating an increase in empowerment of borrowers and increased access to finance, especially for female borrowers (Mayoux, 1999; Mwenda & Muuka, 2004). Although the research confirming the qualitative success of microfinance is not unequivocal, varying research methods and countries may indicate that results are not directly comparable and this may explain the discrepancy. Indeed, it is the social equality and fairness aspect of political goals which continue to motivate governments to support microfinance, both in and out of the developing world. Considering that the political goals are primarily social it can be extended that the analysis of whether microfinance is a success or failure should be limited to social benefits. From this perspective, microfinance has achieved success benchmarks.

4.2.1 Social Mobility

The social mobility of people generally refers to the movement in social standing as a result of changes in income. It is a widely discussed goal of microfinance to increase social mobility of borrowers because of the resulting health and educational benefits from increases in income and social standing. An empirical study by Hamdani and Naeem (2012) applied the social mobility scale to 350 microfinance customers of three leading MFI's in Rawalpindi and Islamabad in Pakistan. The sampling of the borrowers examined in the study was not reliably shown to be representative. These authors found that microfinance results in an increase in social mobility and living standards as well as providing financial opportunities. The results of this study allowed these authors to conclude that microfinance is a key strategy for quick economic revival, an increase in living standards, empowerment, and social mobility. Although social mobility is a key desired result from microfinance, empirical studies focussing on this independent variable are limited and there is potential scope for future research on this aspect of microfinance social effects.

The key experimental paper by Banerjee et al. (2009), while examining the effect of microfinance from a study which randomly implemented microfinance in 104 areas of Hyderabad, also considered the social effects of microfinance. This paper is of relevance to this section because these authors found that microfinance has no effect on education, health, or female empowerment. Although the study only tracked participants over a 15 to 18 month period, this is arguably a sufficient time period in a properly implemented empirical study to establish the effect of microfinance on these critical social outcomes. Thus, although a variety of studies have supported the theoretical or isolated examples of the positive effect microfinance has on social outcomes, in reality this is not a certain conclusion.

4.2.2 Intergenerational Effects

The effect of microfinance on intergenerational reductions in poverty are intuitive in that families with more successful businesses are better financially able to send their children to school, and higher education provides the children (and subsequent generations) with better potential long term outcomes. However, this does not account for the potential that children provide a cheap source of labour for a growing family business. An influential study by Augsburg, De Haas, Harmgart, and Meghir (2012) as a working paper for the National Bureau of Economic Research has analysed exactly this paradox to determine the impact that microcredit has on intergenerational poverty reduction, child and teenage labour and education.

Augsburg et al. (2012) used an RCT (Randomised Controlled Trials) methodology to randomly provide credit to 1,198 borderline applicants previously refused microfinance in Bosnia and Herzegovina. This experimental design allowed the authors to isolate the direct effects of microfinance on the variables of interest as half of the participants received credit and half did not, but both groups were monitored over a 14 month period. However, the potential population sample of this study comprised only those borderline applicants who were rejected, so the sample may not be representative of microfinance in general. The selection of participants for this study was a critical component of the experimental methodology as they were able to identify participants who thought they had a viable business opportunity and were on the borderline of being accepted. However, as the participants were refused microcredit by the bank previously, demographic trends were found to be different than to the existing group of borrowers within the microcredit institution. In particular the participants of the study were slightly poorer and more disadvantaged than regular borrowers, however consistent interest rates were charged (22%pa compared with 21%pa to regular borrowers) and the average loan was the equivalent of $1,012 over an average maturity of 57 weeks.

The study examined the effect of microcredit on child and teenage labour and education in order to determine the intergenerational effects of microcredit (Augsburg et al., 2012). The key findings of this study are that microcredit results in lower education and that higher labour supply of teenagers between 16 and 19 years old. This is because internal labour is cheap, therefore the borrowers choose to transfer utility from their children to themselves for business activity. These authors found that microcredit does not lead to an increase in profits or an increase in household income over the observation period. However, being provided with microcredit does increase business activity in that there are increases in business ownership and reductions in the purchase of temptation goods. The study also found evidence that the microcredit loans are too small to start or expand a business, in that borrowers either ran down savings (those with a business and savings) or decreased consumption (those without savings) over the period to compensate. Although 77% of the borrowers offered collateral for the loans, the result of this was adverse selection as evidenced by erratic repayment by those who offered collateral.

The study by Augsburg et al. (2012) highlights that the intergenerational effects of microfinance may in fact be the contrary of those often promoted by microfinance advocates. Specifically, this research found that increases in parental wealth *do not* necessarily result in higher childhood education (especially for females), and that instead this is effectively an intergenerational transfer of wealth from children to parents. There may alternatively be more efficient tools at alleviating long term poverty, and the authors propose a combination of microfinance and CCT (Conditional Cash Transfer) to overcome the effective competition between business activity and schooling which is currently underpinned by microcredit. However, these innovations cross the line between treating borrowers as valued members of the financial system and charity recipients with conditions for doing what external ideas impose as beneficial.

4.3 Effect of Regulation

The effect of microfinance is only as strong and long-lasting as the foundations on which it is built. Regulation has the potential to promote or restrict microfinance penetration across the world. Indeed, authors have found that incomes differ across countries not because of knowledge, capital markets, population, natural resources, human capital, or culture – it is because of differences in the quality of institutions and economic policies (Oison, 1996). Indeed, this is the focus of the current thesis –ways in which regulation and institutions can be designed to promote microfinance and thus access to credit. Other authors have also commented that economic growth and poverty alleviation are not possible in societies without strong institutions (Arch, 2005). There has been much debate on this topic in the past, and this issue is not directly related to the research question of the current thesis. As such, the effect of regulation and legal institutions will be assumed to exist and the analysis will move forward from there.

4.3.1 Sustainability v Outreach

Microfinance was developed as an innovation to increase credit access for the poor. However, the last few years have seen discussion on outreach shift towards financial sustainability. This is because authors have realised that the long term outcomes of microfinance are not possible based on a model of NGO funding.

In determining the performance of microfinance institutions, authors have considered the trade-off between sustainability and outreach. Ferro Luzzi and Weber (2006) examined the measurement of MFI performance in a particularly robust paper published in CRAG (Centre de Recherche Appliquée en Gestion). These authors use data collected by the Graduate Institute of Development Studies of Geneva on 45 MFI's from 1999-2003, and utilised the particular variables of interest for the paper.

The variables selected by Ferro Luzzi and Weber (2006) are of significance and reflect the view in the literature regarding proxies for the measurement of various microfinance factors. In particular, the authors use loan size as a proxy for depth of outreach in that small average loan sizes reflect that MFI's reach the very poor. Further, the percentage of female borrowers is also a proxy for depth of outreach because loans to women are apparently more highly valued by society. In addition, the range of financial services provided by MFI's affects the scope of outreach. The number of loan officers per branch is deemed to affect both breadth and scope of outreach. These authors further theoretically extend that lending to groups reflects outreach to the poor. These factors of analysis can be combined to determine how oriented to serving the poor the MFI actually is. Using this data these authors exploited the different dimensions of MFI performance (sustainability and outreach) to conduct factor analysis which identifies separate influences on sustainability and outreach individually without requiring pre-determinants.

The results of the analysis by Ferro Luzzi and Weber (2006) were developed using factor analysis and cluster analysis. These authors emphasise that the efficient use of capital by small scale entrepreneurs leads to potentially high returns and thus a willingness to pay relatively high interest rates. Based on their findings, these authors comment that in order for MFI's to complete the market they either focus on increasing outreach to the poor or on financial viability, and rarely both simultaneously. This paper is particularly important for the current research because it provides a unique way of analysing MFI performance in a multi-dimensional context, something which has not been done in other papers. However, while the results of the paper do provide an indication of the most important aspects of financial performance of MFI's, the effect of country-specific macroeconomic and institutional conditions caused the clusters (generated under cluster analysis) to be somewhat undefined. This, in combination with the methodological issues of factor analysis (in not being able to determine absolute effects) means that the results of this study are indicative of outreach and performance aspects but not statistically definitive. Despite these issues, the paper by Ferro Luzzi and Weber (2006) has provided some key results, such as illustrating the potential negative effect of competition on the results to microfinance borrowers, interest rate ceilings, and the time required to grant a first loan on financial performance of MFI's. This research effectively found that there are a number of key factors critical for MFI performance and borrower outreach, and these are often at odds with each other. An implication of these results is that there needs to be operational efficiency of MFI's which includes the monitoring of loan officers, and potentially performance based bonuses or a similar system as supported by Jiwani (2007).

Empirical studies have built on the results found by Ferro Luzzi and Weber (2006) and focussed specifically on the effect of regulation on MFI performance. A particularly prominent study on this topic has been published in Applied Economics by Hartarska and Nadolnyak (2007). This study examined performance as a function of bank-specific variables, macroeconomic conditions, institutions, and the regulatory framework. These authors used panel data which allowed them to determine if fixed or random effects were the most appropriate methodological perspective. In examining the data for 114 MFI's in 62 countries these authors found that MFI's are less leveraged than banks and yet 38% of MFI's do not collect savings to supplement the reduced access to capital from external sources. Of importance, this research found that the capital ratio affects financial performance. That is to say that MFI's which are better capitalised have higher financial sustainability. Further, age and size also positively impact MFI sustainability, potentially because of the resulting impact on funding sources. Hartarska and Nadolnyak (2007) found that having access to more funding sources resulted in higher financial sustainability, while having access to more savings resulted in greater outreach (as measured by the number of borrowers). The potential implication of this is that prudential regulation directly concerning MFI's[6] has the ability to increase the amount of savings held by MFI's and this can affect outreach (a previously defined political goal from the preceding chapters). Thus there are indirect benefits of regulation in that increases in savings in MFI's results in greater outreach and access to credit.

[6] In terms of microfinance, prudential regulation refers to the licencing and regulation of formal MFI's for ongoing activities.

Following the trend of the area of interest followed by Hartarska and Nadolnyak (2007) and Ferro Luzzi and Weber (2006), a paper by Haq, Skully, and Pathan (2010) examines the cost efficiency of MFI's using data from the Mix Market Exchange on 39 MFI's in Africa, Asia, and Latin America. These authors used a non-parametric data envelopment analysis (DEA), a piece-wise linear combination that connects the best practice observations and forms a convex productions set of possibilities. This methodology is especially useful to apply to non-profit organisations where high profit and low cost are not vital. The relevance of this technique for the analysis of the sample selected is that the researchers do not need price information and they can work with a small sample size.

Bauer and Gaskell (2000) developed two models to examine MFI cost efficiency and found that efficient MFI's have greater outreach (are output-oriented) and higher operational sustainability (are input-oriented). Interestingly, these authors identified the Ethiopian Bank-MFI *'DECSI'* as the most technically efficient. It was found that NGO-MFI's have the highest overall mean efficiency, which indicates that the regulation affecting these institutions may be the most relatively supportive. In terms of operating efficiencies it was found that cost efficient managers are better at managing customers and monitoring operational costs. Further, an implication for the size of MFI's is that efficiency is achieved from efficiently using resources, not simply from the scale of production. This is despite the fact that larger MFI's have greater performance (Bauer & Gaskell, 2000). However, to the contrary this result may also indicate that any attempt to regulate MFI's leads to inefficiency (because NGO's are usually outside of regulation).

Despite the study of the financial performance of MFI's being limited to the data voluntarily provided to such companies as Mix Market Exchange, a number of studies have empirically examined the relationship between financial sustainability and performance and outreach. A key empirical World Bank study by Cull, Demirgüç-Kunt, and Morduch (2005) systematically studied the financial performance and outreach of 124 MFI's in 49 countries. These authors made a distinction between the three main type of MFI's (individual-based, solidarity group lenders, and village banks) and examined if profitability leads to lower outreach as a result of '*mission drift'* (deliberately serving the wealthier and more profitable clients). These authors commented on the trend towards individual loans in large MFI's such as the Grameen Bank (Bangladesh) and BancoSol (Bolivia), as individual loans are assumed to be more flexible. However, these authors found that screening and monitoring in group lending overcomes the issues of moral hazard and asymmetric information[7]. The evidence for this finding is that as the interest rate increases there is a reduction in the portfolio quality in individual loans but not for group loans.

In a summary of the empirical research on microfinance, Hermes and Lensink (2007) examined the trade-off between financial performance and outreach. These authors discussed how joint lending reduces asymmetric information because it provides incentives to the group to screen, monitor and enforce repayment. This effectively reduces the agency costs of the lender. Given that the poor are excluded from the financial system because of the cost to the bank to screen, monitor and enforce contracts, along with a lack of collateral, this provides the microfinance innovation.

4.3.1.1 Outreach

In determining the performance of MFI's the outreach to borrowers is often used as a benchmark. The direct influences on outreach to borrowers has been studied by Hartarska and Nadolnyak (2007) in a paper which aims to determine the effect of regulation on MFI performance. This study examined 114 MFI's from 62 countries using data from Mix Information Exchange. These authors determined performance as a function of bank specific variables, macroeconomic conditions, institutional design, and the regulatory framework.

This particular study by Hartarska and Nadolnyak (2007) documented a variety of important results for the regulation of MFI's, discussed in subsequent sections of this chapter. Of importance to the outreach, this study determined that outreach equates to reaching more borrowers. This benchmark in itself is problematic because a focus on quantity rather than quality is rarely a good strategy when the well-being of the poor is a documented outcome. Nonetheless, this paper followed an empirical methodology and determined that MFI's with more funding sources have more savings, and that more savings deposits results in higher levels of outreach as discussed previously. Further, prudential regulation has been found to directly increase the savings held by MFI's. As an indirect conclusion, these authors also found that economic freedom and property rights security did not affect MFI sustainability but did increase outreach to borrowers. The results of this study indicate that outreach is an established goal of microfinance and that regulation has the ability to directly affect it via deposit rates.

[7] These topics are covered in the previous chapter of this thesis.

4.3.2 MFI Operations

As with other financial institutions, MFI's must manage their operations in many different areas. Particularly important aspects of MFI operations include group dynamics and repayment, innovation, sources of capital, access to finance, and regulatory failure. Each of these issues has the potential to affect MFI operations and hence financial self-sustainability.

4.3.2.1 Group Dynamics & Repayment

The economic and behavioural reasons behind the high repayment rates of microfinance loans made to groups is a topic of interest in the research because of the interdisciplinary relevance crossing the borders of economics and psychology. One of the first empirical studies to determine repayment in groups was conducted by Wenner (1995) who examined 25 microfinance groups in Costa Rica. Green and Britten (1998) found that written (and thus formal) rules regarding how the individuals in the group should behave resulted in greater repayment performance. In addition, this author found that the rurally located groups had higher repayment because without access to other sources of credit they must repay in order to ensure future access to credit. Subsequent studies by Sharma and Zeller (1997) examined the similar issue of group repayments and studied 128 groups in four lending programs in Bangladesh. These authors found that more relatives in the group resulted in lower repayment because of collusion. In addition, Punch (2005) found that borrowers who were exposed to credit rationing had higher repayment levels and that self-selected groups also showed higher levels of repayment. These papers indicate that the model of group lending is not simply about the group, but also about the finer intricacies of how the group is put together and monitored, and that the expectation of future loans is a strong motivator.

The empirical methodology for collecting data to examine repayment performance is an important consideration for many research papers. A key study on group repayment has been conducted by Ahlin and Townsend (2007) in examining 262 groups from the BAAC microfinance program in Thailand. These authors used robust economic methodology to explicitly derive direct empirical tests from widely discussed models of adverse selection, moral hazard and social sanctions. Building on these models the authors generated theoretical predictions regarding repayment performance and found that the results differ between models. This is predictable given that each model assumes different economic environments and focuses on different types of joint liability problems. Using this methodology Creswell (2012) found that high levels of relatedness reduced repayment performance, a result consistent with the findings of Punch (2005). In this trend, these authors found that social ties do not actually promote group repayment.

In examining the role of social ties as covered in the paper by Punch (2005), a paper by Karlan (2007) further built on the empirical methodology required to solve the endogeneity problem (as identified by Hermes and Lensink (2007) previously in this chapter) by using a natural experiment. Patton (2005) tested if groups with strong social connections outperform those with weak connections in terms of group repayments. The motivation for this study is that although there is trend for MFI's to have borrowers create groups among themselves, a particular MFI in Peru, '*Finca-Peru*' randomly creates groups and this provides a natural experiment situation for examination. At *Finca-Peru*, borrowers go onto a list of potential borrowers and when there are thirty people on the list the microfinance group begins. The result of this is that it creates groups with different levels of social ties, so the researchers can measure the impact of social ties on repayment. These authors studied 2,000 individual group members and found that strong social connections to other group members do result in increased repayment and saving performance because the members can monitor and enforce repayment more efficiently. A potential reason for this trend is that groups with strong social connections can tell the difference between default and strategic default, a key ability which separates the functioning of MFI's from traditional banks.

Other techniques have also been employed to examine group repayment behaviour, including the novel approach of microfinance experiments. A key paper by Cassar, Crowley, and Wydick (2007) used a specific microfinance experiment to disentangle the different aspects of social capital and the effect it has on repayment performance. These authors considered social capital as trust of the group members and society. The economic game was implemented in Nyanga (South Africa) and Berd (Armenia) to 36 microfinance groups including 498 individual participants. These authors found that individual repayment depends on the belief that others will do the same (which depends on social capital within the group). In addition, it was found that trust between the group is more important for repayment performance than trust for society as a whole and that the social and cultural homogeneity of group members also increases repayment performance. Further, a past positive experience by group members of a group helping to pay someone's loan provides incentives to help others pay loans in the future. In summary, these authors found that simply knowing each other does not affect performance, but the level of social capital within a group does.

The functioning of groups in microfinance loans is one of the areas of operation which actually has a number of empirical studies on the topic. The studies in this area have found that groups without close relatives (but with some social ties), with written rules, and high trust function more effectively in terms of repayment. Further, repayment has been found to be higher in those borrowers who are credit rationed via rural locations, clearly illustrating that it is the expectation of future loans which contributes to repayment consistency, a trend which is also found in traditional financial systems with credit databases and bankruptcy laws.

4.3.2.2 Innovation

The potential for microfinance to be developed within a country by building on existing infrastructure has promising outcomes across the world, especially in the case of building on the penetration of mobile phones. In an OECD working paper Herd et al. (2011) examined the financial reform in India and considered the various ways mobile phones can be utilised in increasing financial inclusion. These authors discuss the additive model (where there is a new interface for existing customers) and the transformational model (where the telecommunications company provides a money transfer system through their own network, with local agents who give and receive cash). The additive model is the path that has been chosen by the RBI for India. However, these authors suggest that the government can facilitate this technological innovation by reducing the '*Know Your Client*' regulation for banking services under a certain account balance. This is especially prudent considering that India does not have a national requirement for identity cards. The paper supports the potential impact of this legislative change by illustrating the penetration of mobile phone based financial services in Kenya, a country which has bank density of one third that of India and yet financial system inclusion much higher proportionally (also considering the relatively similar mobile phone penetration rates of the two countries). The potential scope for microfinance penetration through innovation is large and requires complementary legislation to achieve the goal. The design of this legislation is proposed in subsequent chapters of this thesis.

4.3.2.3 Sources of Capital

Banks require capital in order to provide loans to borrowers, to finance operational costs and fund expansion. The operations of MFI's are no different in such a general sense regarding the sources from which they obtain capital, and at what cost. Traditionally MFI's have been primarily financed by donor capital from NGO's and western governments (Di Bella, 2011). However, there has also been a trend in the recent decades for MFI's (especially those large and well established) to obtain finance from private investors who purchase shares as investments or from domestic and international capital markets (Block, 2010). The recent trend in changes in the sources of capital MFI's use is motivated by the increased consideration of MFI financial sustainability, as discussed in the previous sections. The relationship between the regulation of MFI's and their performance (as measured by financial sustainability and outreach) is an area of research closely aligned with the research question of the current thesis.

In determining the impact of regulation on MFI performance Hartarska and Nadolnyak (2007) conducted an empirical analysis of MFI performance. These authors found that MFI's with access to savings from depositors had greater outreach. Thus, Hartarska and Nadolnyak (2007) found that regulation indirectly affects MFI's through affecting the sources of capital available to them. Further, these authors also found that MFI's with many sources of capital were more sustainable, as were those which were better capitalised. Given that prudential regulation has the potential to allow MFI's access to savings and that being regulated may allow MFI's to access capital from the domestic and international capital markets, regulation has a potentially large impact on sources of MFI capital, which subsequently affects outreach to borrowers Hartarska and Nadolnyak (2007).

4.3.2.3.1 Savings

*'If the poor can borrow their way out of poverty then they can equally well save their way out of it' (*Aggarwal et al., 2012) (pp.17). In a World Bank working paper, Aggarwal et al. (2012) present a line of analysis and argument for the support of microsavings programs in sub-Saharan Africa. These authors found that trust is critical for financial behaviour and that it is closely related to the problem of corrupt institutions. These authors also found that if there is low trust in the country, people do not borrow and they definitely do not deposit. Thus, the regulatory initiatives to provide support for savings may need to be much more encompassing of the whole financial system and country in general. That is, regulation which can promote microfinance may need to address the regulation of MFI's, however, the regulation which can promote savings may need to address systemic corruption and financial system security, among other things.

These authors, among others, have commented on the importance of the legal protection and enforcement of property rights and the flow-through effects it can have on overall trust and financial system functioning in a country. Indeed, it may be relevant to state at this point that if a government has one role in society, it is to uphold property rights, and the diversion of resources such as those in the form of taxes is simply to support this process (Alchian & Demsetz, 1973; North, 1986). These points illustrate that answering the research question of the current thesis is a task which requires the consideration of many potential influencing institutions. Specifically, the promotion of MFI financial sustainability is affected not only by the direct regulation of MFI's, but also by banking law, and the law relating to property rights.

However, despite these challenges these authors develop theoretical arguments for microsavings as programs with high potential impact because savings do all the things that debt should do, but without the burden of debt or resource diversion. Further, Aggarwal et al. (2012) found that there is a large potential scope for microsavings in that people already use various savings methods which are expensive (such as giving no interest and charging a withdrawal fee) and risky (such as livestock). Thus, innovation in microsavings can provide the poor with accounts to which they have access and which are dependable. The issue of microsavings and the support of such innovations is key to the consideration of microfinance because of the previously discussed potential role of savings in financially self-sustainable MFI's.

4.3.3 Access to Finance

4.3.3.1 Small Firms

The importance of access to finance for small firms has been repeatedly covered in the literature because of the effect it has on supporting entrepreneurship and subsequent economic growth. A paper of interest for the current research is published in the International Journal of Entrepreneurship and Innovation by Satta (2003). This author made a survey of 136 small Tanzanian firms and found that 63% consider restrictions on access to finance as the major impediment on their growth. The restrictions on access to finance are also real in that 94% use resources from themselves or from loans from family and friends as start-up capital, rather than finance from a financial institution.

4.3.3.2 Bank Size

There are a variety of factors which influence access to finance for firms of different sizes. A particular World Bank Report by Beck et al. (2011) combined two unique data sets to determine the effect of bank size on access to finance by small firms. This study used data from the Financial Sector Assessment Program (FSAP) on financial structure and World Bank Enterprise Survey to develop a sample of 54 developing countries (and up to 50 countries per regression). These authors matched the samples from both surveys based on indicators developed and made a cross-sectional database. For the FSAP the authors developed indicators for access to finance, account, overdraft, and loan (with the last three acting as dummy variables). The authors ensured the validity of results by conducting such methodological strategies as controlling for firm-level characteristics which could otherwise affect access to finance (such as firm size, public listing, age). The underlying assumption for the methodological design is that some industries rely more on external finance than others for technological reasons and that these differences are consistent across countries.

Using the rigorously constructed database of financial sector and firm data, Beck et al. (2011) subsequently built and tested non-linear models using regressions with OLS (in order to determine marginal effects of interaction otherwise difficult to interpret. The results of this research are not necessarily consistent with initial intuition in that it was found that a greater number of large banks are associated with lower financial services use by firms of all sizes. However, it was found that a greater number of specialised lenders (regardless of the financial firm size) results in greater access to finance of small firms. These authors discuss the implications of these results in the context of development in developing countries where access to financial services by small firms is critical because they comprise most of the private sector. Further, Beck et al. (2011) explain how a particular trend in the size of financial institutions is affected by the regulator because entry barriers and minimum capital requirements affect bank ownership which subsequently affects financial institution size. The effect of this on microfinance is that bank dominance affects credit access, financial system inclusion, and microfinance competition. Thus, from the perspective of these authors, the regulator is in control of the access to finance by small firms through regulating with a particular market structure in mind. This is of direct relevance because it illustrates the control the regulator has on not only the functioning of the microfinance markets, but also of individual MFI's, and logically on the financial sustainability of MFI's.

4.3.3.3 Interest Rate Ceiling

Particular aspects of microfinance are especially relevant for law and economics discussions on the topic. One particular aspect of relevance is the determination and charging of interest on microfinance loans. In an IMF working paper Di Bella (2011) examined the effect of the GFC on microfinance with a particular focus on the impact on interest rates. Di Bella (2011) empirically examined the determinants of lending rates using data from the Microfinance Information Exchange (MIX) from 1995-2009 provided by 1774 MFI's in 107 countries. Of the available data the study of interest sampled 353 MFI's who had available data for seven consecutive years from 1998-2009 and three years of data from 2007-2009 and other selection criteria to minimise survivorship bias. Di Bella (2011) grouped the MFI's based on region, institution type, legal status, purpose and age. This paper examined variables of MFI performance, global and domestic market risk and lending rate (and spread) determination. Standard robustness checks seem to have been performed on the analyses to ensure validity of the results.

The results of the study by Di Bella (2011) which are of most interest to this section are related to interest rate determinants. This issue gained prominence in the GFC, along with the profits of MFI's which were supposed to exist to serve the poor. The author of this paper goes into detail justifying the various reasons for the interest rates charged by MFI's being above those charged by commercial banks. Di Bella (2011) developed two models to account for the interest rate charged and the spread on loan funds. This paper found that the increased vulnerability of MFI's to systemic risk because of the diversification of capital sources also makes MFI's increasingly vulnerable to changes in regulation. This paper states that inappropriate regulatory caps on interest rates likely result in the withdrawal of MFI funding, reduced MFI scale, increased loan sizes, and increases in effective interest rates for the poor (as there will be a shift towards TML's who charge higher interest rates than MFI's). This paper goes on to suggest that the most efficient methods to reduce interest rates charged on microfinance loans are: increasing infrastructure, innovating MFI practices, strengthening the legal framework and increasing competition between MFI's.

4.3.4 Regulatory Failure

When regulation aims to address a certain social issue and has negative consequences other than those intended, this can potentially be considered a government failure, but is not always the case because of other potentially associated reasons. In the context of microfinance, this can be especially relevant to the issue of interest rates. The paper by Di Bella (2011) discussed the ramifications of interest rate caps and how they resulted in reductions in access to credit for the poor and increased effective interest rates for the marginal poor. Under a model of interest rate caps the poor are forced to access credit from TML's (as MFI outreach is reduced to cover the easily profitable clients such as the middle class, also known as '*mission drift*') such as loan sharks which have much higher interest rates than MFI's. This example is a clear sign of government and regulatory failure. Regulation may have correct intentions, however that does not guarantee the intended results.

This topic of regulatory failure was also examined in an OECD working paper where Herd et al. (2011) discussed the case study of Andhra Pradesh (where interest rate caps were regulated after media coverage of microfinance-blamed suicides of rural male farmers) and stated that the results are reduced profit of MFI's and higher default of borrowers, which will both ultimately result in reduced long term credit availability to the poor. Herd et al. (2011) suggested alternative government actions to avoid regulatory failure such as developing a credit database and strengthening bankruptcy laws. These, among others, will be discussed in the following section.

4.4 Proposed MFI Regulation

The topic of proposed microfinance regulation has been covered in the literature by a number of researchers working for various international institutions such as the World Bank, CGAP, IMF and OECD. Experimental evidence for regulation is not a methodology often employed regarding microfinance, although many of the suggestions for regulatory guidelines are based on papers which conducted empirical methodology. Authors have emphasised that a tiered approach is needed for the entry of MFI's into the market because of the risk of regulatory arbitrage (Satta, 2004).

4.4.1 Non-Deposit Taking MFI's

The consideration for how MFI's should be regulated rests on a framework of understanding the different risks faced and posed by MFI's with different operating functions. It is intuitive that MFI's which do not receive deposits pose a much lower risk to the financial stability and well-being of the poor than MFI's which also receive deposits. This is because a loan provider which collapses does not necessarily take the life savings of the poor with it, whereas a deposit taker may. In developing a series of recommendations for MFI regulation in Tanzania, Satta (2004) considered non-deposit taking MFI's and recommended that they employ internal rules for board governance and auditing, rather than imposing stringent requirements to ensure financial stability as the law would a deposit-taking MFI.

This concept of treating different MFI's differently is key to the analysis of the sector from a law and economics perspective. The development of MFI's to complete the financial markets clearly illustrates the way MFI's differ from traditional banks. MFI's developed the way they did because banks were not able to provide access to credit for the poor. Thus, MFI's have different operations and purposes than banks, and should be treated differently. Further, MFI's differ between themselves and the regulation of all MFI's should not take the same form. The regulation of non-deposit taking MFI's should therefore reflect the operations and potential risks to society.

4.4.2 Legal Framework

Government initiatives to promote microfinance can potentially take the form of specific regulations or legal institutional policies, or a broad blanket approach to strengthening the legal framework in general. The suggestions from the literature on how governments can promote microfinance generally fall into these two categories. Works by the IMF have highlighted the adverse consequences of regulation, not only in terms of its costliness, but also in terms of potential regulatory failure (Di Bella, 2011). Indeed, various authors have concluded empirical studies by suggesting that rather than governments focusing on individual pieces of legislation, that rather the legal framework as a whole is strengthened (Di Bella, 2011). It has been stated that the strengthening of the legal framework entails generalising credit bureaus, increasing corporate governance and financial reporting (Di Bella, 2011). However, broad recommendations such as these provide governments of developing countries with little direct instruction. Further, recommendations to strengthen legal frameworks and infrastructure may in themselves initiate a regulatory advice failure in that the task becomes so hard (rather than implementing one particular regulation for example) that governments choose to do nothing instead. There are clearly combinations of approaches required to promote microfinance in developing countries. The interrelationship between microfinance and general economic and social conditions is one which cannot be unravelled and as such potential initiatives need to consider both broad-based recommendations at a government level as well as particular regulations which can be implemented.

4.4.3 Credit Database and Disclosure

There are a variety of initiatives which regulators can implement to promote microfinance. However, many are seen as being overly burdensome to implement or monitor. Some initiatives such as a credit database and disclosure regulation has the potential to promote microfinance in a '*softly, softly'* manner which does not have many potential disadvantages, but has many potential benefits. In an OECD working paper Herd et al. (2011) analyse the financial reforms of India and develop recommendations for microfinance regulation to promote microfinance. The authors based an analysis on the law of microfinance in India with the aim of avoiding the consequences such as were seen in Andhra Pradesh in 2010 with interest rate caps introduced by the state parliament. The paper established the situation of microfinance in India in 2010, and theoretically discussed the effect of financial sector reforms on financial sector efficiency and the spill-over effects on the rest of the economy. In particular it was found that 13 out of 14 of India's largest MFI's were regulated as non-bank financial companies and were not allowed to take deposits. The result of this is understandably that there is lower microfinance penetration (as found by Hartarska and Nadolnyak (2007)).

The legal analysis conducted by Herd et al. (2011)focussed on future Indian financial reforms. This paper suggested that the government can do things to reduce the risk of over-borrowing other than caps on interest rates, such as a credit database. Further, these authors suggested that personal bankruptcy laws be developed to complement the credit database. These two suggestions for regulation affect microfinance directly by supporting borrowers and providing fewer transaction costs than other legislative reform in this area.

4.4.4 Support of Mobile Phone Banking

The OECD working paper by Herd et al. (2011), while focussing on potential financial reform for India, suggests that the model of financial system inclusion via mobile phones be developed. In order to promote financial system inclusion (and potential microfinance repayments and other transactions) these authors suggest regulative changes which can support this innovation. In particular, lowering of the requirements for '*Know your client*' regulations for accounts under a certain balance are suggested in order to ensure that financial inclusion is extended across people of different wealth levels. This is especially relevant in India where there is no requirement for an identity card and thus proof of identity (for account creation and access) for the poor and marginalised may have other challenges on top of the fact that the traditional financial system has excluded them.

A key paper by Herd et al. (2011) supports the potential impact of microfinance legislation by illustrating the penetration of mobile phone based financial services in Kenya, a country which has bank density of one third that of India, but financial system inclusion which is proportionally much higher (also considering the relatively similar mobile phone penetration rates of the two countries). In order for financial services to be provided via mobile technology regulation needs to support less stringent requirements to establish a financial relationship. For example, regulation changes in Pakistan to mobile banking rules have resulted in large increases in financial system access (SBP, 2007). The potential scope for microfinance penetration through innovation is large and requires complementary legislation to achieve the goal.

4.5 Conclusion

There are knowledge gaps in our understanding of microfinance, and empirical studies completed to date have not covered the complete range of important issues. In order to fill these knowledge gaps a legal comparison of particular countries will be presented in the next chapter of this thesis.

The current chapter has examined the methodology and results of key empirical papers in the field of microfinance. As the topic of microfinance is a blossoming, ever-changing area of research, reviewing the existing literature is an on-going process which has the vulnerability to become out of date when related to changing economic and legal conditions. In consideration of these issues the current chapter has reviewed the empirical research to date and the structure of this chapter follows the areas of research covered in empirical works.

Empirical works on the subject of microfinance have covered areas of interest including the effect of microfinance on wealth creation, business start-ups, wages, and economic growth. The empirical results have found that there is a small but significant effect of microfinance on increasing business start-ups and wages. However, the effect on wealth creation, especially intergenerational, has been shown to be potentially negative because child business labour competes with education; reducing the education of children, and thus potential intergenerational wealth effects from such social capital. Further, the effect of microfinance on economic growth remains to be seen especially given that most small businesses operate on such a level that the data does not flow through to macroeconomic trends.

The social benefits from microfinance have been studied empirically in terms of the effect on social mobility and the intergenerational effects from education. The research has consistently showed that microfinance increases social mobility, but the effects on education paint an unpromising picture. The fact that the education of children can compete with the provision of labour to the family business means that education often decreases for children as a direct result of microfinance (Augsburg et al., 2012). Thus, although the theoretical evidence presented in the second chapter of this thesis provides a promising effect of microfinance on social factors, in reality the empirical evidence does not support this. However, other social effects have consistently been confirmed.

Research has discussed the effect of regulation, in particular on sustainability and outreach, MFI operations, access to finance, and regulatory failure. The research has found that regulation has the potential to greatly impact these issues discussed as it has the potential to support MFI operations through ensuring operational efficiencies or for allowing access to domestic and international capital and investment markets and savings. In this way MFI's have the potential to be flexible and adjust to country-specific factors in promoting microfinance financial sustainability. Further, research has discussed the effect of government initiatives which consistently have the opposite effect from those intended, such as interest rate ceilings.

Authors of empirical research have proposed MFI regulatory specifications such as fewer requirements for non-deposit taking MFI's, strengthening the legal framework, establishing a credit database and disclosure network, and legislating for the support of mobile phone banking. These various regulatory avenues provide potential methods for governments to promote microfinance while not exposing the government to excessive risk or cost in doing so. These proposals have also been discussed in the previous chapter of this thesis from a theoretical perspective.

The law and economics analysis of microfinance requires a consideration of the economic effect of laws, and the reasons behind such core issues as microfinance interest rates. The analysis of these core empirical works on microfinance provides a perspective on these issues which contributes to the law and economics analysis of the current research question. This chapter has contributed to answering the research question of the current thesis by illustrating the established methodology for conducting empirical research in the field of microfinance, along with providing the empirical consensus on findings in the field to date. The following chapter will build on these findings by empirically comparing and contrasting the microfinance regulatory details of the four countries of focus for the current research.

Chapter 5

5. Microfinance Regulation Analysis: Cross-Country Comparison

5.1 Introduction

With most of the world's population living on less than US$2 per day (The-World-Bank, 2012) it comes as no surprise that the primary goal of many governments is to promote increases in the average standard of living via economic development, as well as empowerment through social inclusion, particularly inclusion in the financial system (Demirguc-Kunt & Klapper, 2012; Shafi & Medabesh, 2012; The-World-Bank, 2013a). These dual goals of social and economic development are the motivation for billions of dollars of donor funds flowing to various projects in the developing world. The 'dish of the day', or the destination of these funds has been shifting more and more from avenues which provide hand-outs (such as food, housing, medical services and education) to those which provide people with the opportunity to help themselves (such as access to the financial system via microfinance services). Indeed, with an estimated 100 million microfinance borrowers in the world, this industry has seen uncommon growth fuelled by donor favourability (MIX, 2013). However, to date the growth of microfinance, the outreach to borrowers who are in most need of the service, and subsequent social effects have been primarily reliant on donor funds (Kiweu, 2011). Thus, although the positive impact of microfinance is widely supported in the literature (Brau & Woller, 2004; Das, 2012), continued results rely on the preferences of donors, a strategy unsustainable in the long term. Despite the importance of research in this topic, relevant new research on the role of regulation in supporting sustainable microfinance is lacking. This chapter[1] seeks to describe the current regulatory environment regarding microfinance in the countries of interest.

The current reliance of MFI's on donor capital means that growth is potentially limited to donor whims. In order for MFI's to be able to continue providing loans irrespective of donations in the future, other sources of capital need to be available, and the MFI's need to have the freedom to operate efficiently enough to pay for the capital sources. As with other businesses, MFI's can potentially access capital through capital markets (domestic or international), shareholders (equity), or donors. Credit and equity sources come with their own advantages and disadvantages, and may suit different MFI's depending on their organisational situations and goals. In some countries, such as Pakistan, equity partnerships between MFI's and international TelCo's (Telecommunication Companies) are gaining popularity, and the regulation provides no restrictions on it. In other countries, such as in India and Bangladesh (as well as Pakistan), large MFI's are able to access the credit markets. Hence, it is not that current MFI's are completely

[1] A shortened version of this chapter has been published as: Hunt, K. H. M. (2014). Microfinance Regulation: A Four Cross-Country Comparison. In L. Brunori, E. Giovanetti & G. Guerzoni (Eds.). ***The Potential for Microcredit and Social Business in Italy*** (pp. 39-47). Milan, Lombardy: FrancoAngeli.

restricted from accessing these alternative sources of capital, it's simply that it is not common. Indeed, many MFI's today do aim to be financially self-sustainable, and some have even stopped receiving donor capital. However, this is the exception rather than the rule. This issue is critical for the current thesis, because access to capital is inherently linked to MFI's abilities' to operate in a financially sustainable manner, if that is their goal. Further, the regulation has the potential to affect these sources of capital, and this issue is at the core of the current thesis.

Perspectives on the role of microfinance and MFI's in development differ according to philosophical judgements. As discussed in the first chapters of this thesis, regardless of whether individual philosophies of microfinance revolve around microfinance as a social innovation or view the poor as a potential market for financial products, MFI sustainability is important. There are two reasons for this theoretical conclusion. The first is that MFI's with established social impacts which rely on donations are potentially unable to guarantee long term social effects. The second is that efficient MFI's have greater social outreach (Bauer & Gaskell, 2000; Haq, Skully, & Pathan, 2010; Hermes & Lensink, 2007). Thus, MFI financial sustainability is important irrespective of the philosophy regarding its purpose.

This thesis is primarily concerned with this issue: the long term sustainability of microfinance as a tool to reach these dual goals. From the perspective of the current research, for microfinance to be sustainable in the future the business model needs to be financially self-sustainable in a way which still achieves outreach goals. In order to be financially self-sustainable, MFI's theoretically need to be able to operate in a way which gives them access to sources of capital other than donor funds, and to provide loans with product features and costs which reflect market conditions. This is because a reliance on donor funds makes MFI's susceptible to the whims of capital providers into the future, which may change as other social initiatives become prominent.

As MFI's are institutions with potentially large social effects if they collapse, the freedom to operate may need to be balanced by the risk to society in failure. Thus, regulation of MFI's has the potential to promote and support MFI's and, on the other hand, may restrict their operation to simply providing hand-outs. However, the potential effect of collapse of deposit-taking MFI's provides argument against blanket deregulation which leaves deposit holders at risk (Shäfer & Leyens, 2009) – a potential regulatory strategy discussed in the previous chapters.

Research has analysed the effects of MFI's being regulated based on a tier structure which supports MFI growth as opposed to being unregulated, and found that there are indirect benefits of regulation such as an increase in access to savings which are directly related with higher outreach (Hartarska & Nadolnyak, 2007). However, previous research has not empirically analysed the different aspects of specific regulation and their effect on MFI sustainability, which is where the current thesis contributes to the body of research, and in particular to the gap in the research in this field. There are only a handful of papers which consider the effect of regulation on MFI's, and those that exist do not explicitly consider the effect of different aspects of the regulation on MFI financial operations. The current thesis is unique in the focus on the effect of specific regulatory features on MFI operations, rather than simply whether MFI's are 'regulated' or 'unregulated'. The contribution of the current thesis to the literature on microfinance regulation can be seen from the current chapter.

The World Bank has reported that MFI's should be classified according to their source of funding, that is: other people's money; member's money; or the public's money (Van Greuning, Gallardo, & Randhawa, 1998). This paper by the World Bank on MFI regulation suggests that it is the source of funding which should determine how MFI's are regulated. However, this research is more than 15 years out of date and replacement reports have not yet been released. Given the out of date nature of this particular piece of research and the momentous changes which the microfinance sector has witnessed since the report's release, it can be seen that there is a great need for new research on this topic.

Chapter three established that the law has the potential to influence MFI operations at the different levels of regulation, being self-regulation, facilitative regulation, and direct regulation. This chapter develops the criteria established in the third chapter to provide a comparative analysis of microfinance legislation in three comparable developing countries and a developed country. The comparison is based on microfinance regulation criteria which influence the financial sustainability of MFI's, as identified in the third chapter.

Microfinance, and in particular, financially sustainable Microfinance Institutions (MFI's) have the potential to create large and long lasting increases in the social outcomes of people across the world (Ahlin & Jiang, 2008). Previous chapters of this thesis have established that microfinance is a social, and potentially an economic tool which may provide countries with an avenue for financial inclusion, empowerment, entrepreneurship, and ultimately economic development. Despite mixed empirical results on the impact of microfinance, as covered in the second chapter of this thesis, microfinance research tends to indicate that it may be one of the more promising development tools. Given this, the current thesis is primarily concerned with how MFI's can operate sustainably, and particularly how regulation can promote this. The importance of this is that currently most MFI's in the world operate as non-financially sustainable receivers of donations, grants, and low interest loans in order to continue providing access to the financial system for the poor. With continued donations, regulation which supports capital and equity investment in MFI's is intuitively unnecessary, and in addition regulation cannot affect the continuation of donations. However, although this model works for the moment, and has worked for the past couple of decades, a change in priorities of donors is all that is needed for the system to collapse and access to finance eliminated for many of the worlds' poorest. Hence, the current microfinance system is not financially self-sustainable because donors may reduce funding. The current thesis is not concerned with how to affect donor funding, rather how the regulation can support MFI's in having access to other sources of funding, among other business operations issues.

Although the current research is primarily concerned with how regulation can affect MFI's and their abilities to operate in a financial sustainable way, it should be addressed that MFI's which have large savings bases, access to other funding sources and are reaching more poor people, are also more likely to be attractive for donors to continue supporting. Indeed, there has been a trend in recent years often discussed as worrying where the focus of donors has allegedly shifted to those MFI's which 'score' the best in reporting their sustainability and outreach to institutions such as the Microfinance Information Exchange. It can be intuitively understood that a shift in the focus of MFI's from providing loans to the poor to reporting good results about efficiency and outreach could lead to a change of culture within the microfinance industry which leads to a trend of mission drift.

This chapter examines the regulation of MFI's in order to establish a foundation of positive analysis from which subsequent chapters of this thesis can build. This research has the potential to impact the regional and global regulation of MFI's and provides empirical research on a topic not studied as yet. Previous research has not considered the particular aspects of MFI regulation contained within this chapter, nor focussed on the particular countries of interest here.

The third chapter of this thesis established the regulation factors which theoretically have the most potential effect on the financial sustainability of MFI's. These criteria of regulation relate to restrictions on business activities such as product conditions, as well as consumer protection provisions via risk management requirements, and on-going reporting guidelines. Thus, this chapter is a practical analysis and continuation of the theory presented in the third chapter.

This chapter considers the different regulatory environments in key microfinance countries with a focus on the regulation which has the potential to impact MFI operations and more specifically

MFI financial sustainability (while maintaining outreach). Subsequent chapters will build on this knowledge aiming to empirically determine the effect of regulation on MFI operations.

In order to provide a regulatory description which is of relative value to the literature, the current chapter will focus in detail on three relatively comparable countries, Pakistan, India, and Bangladesh, and also a contrasting country, Italy, where microfinance is an emerging option for financial access. The justification for comparing these countries is given at a later stage of this chapter. Thus, a cross-country comparison designed in this way not only provides a focus on comparable countries, but also provides a blend of comparison not examined in the previous research as yet.

The topic of regulation specific for microfinance has been covered before by The World Bank in a report from 1998. This report, titled 'A Framework for Regulating Microfinance Institutions', sets out how MFI's should be distinguished from each other (based on their funding structure) and how the regulation should be designed (in a tiered structure). This paper has provided a reference point for the current paper in determining some of the aspects of regulation which need to be compared across countries. The reason for using this report as well as others to develop the current research is because in 1998 the microfinance sector was much different from the sector which is present today. Thus, many of the analyses and recommendations in the World Bank report are out of date and need to be taken with a pinch of salt. This is critical, because the topic of research is very important, and yet few studies have covered the topic in recent years. Indeed, it is the lack of recent research in this important field which has provided motivation for the current thesis. In this way the current thesis will build upon the work by The World Bank to develop an understanding of microfinance regulation.

5.2 Country Selection and Methodology

This section of the current chapter details the process and results of the country selection process and the criteria for legal comparison in a continuation of the theory presented in the third chapter of this thesis. Further, this section considers why each component of the analysis has been selected.

5.2.1 Country Selection

The purposes of this chapter are aligned towards identifying countries which are comparable from which subsequent empirical chapters can build. In a strategic sense, identifying countries to compare can take one of two main perspectives. Some authors have indicated that the most beneficial legal comparison can be made between countries which have large contextual differences, such as Marr and Tubaro (2013) who intentionally chose to compare Peru, Tanzania and the Indian state of Tamil Nadu because of the differences. On the other hand, authors have attempted to compare similar countries, such as the paper by Beck and Levine (2005) on the role of private investor protection on financial development. Both perspectives are important for establishing a sound empirical methodology for the current research, however, similar countries have been chosen for a number of reasons, which will be discussed following.

Pakistan, India and Bangladesh have been chosen as countries of focus for the current chapter because of their relative comparability in terms of cultural factors which may otherwise distort the results. Indeed, these three countries have a shared history, and were one original country in the recent past until 1947, and although the cultures between these countries may be considered by their members as starkly different, it can be intuitively argued that the differences are nonetheless smaller than between, for example, Mexico and India, where direct comparison would be fraught with difficulty.

In addition to these three comparable countries, Italy has been chosen as a comparison country. A developed country is important to include in the comparison because it has the potential to illustrate the trend in regulation, as microfinance is only recently having success in developed countries. Although microfinance exists in many developed countries in some form, Italy has been selected as the comparison country in part because there is specific microfinance regulation. A report has identified Italy as the country in Western Europe most in need of microfinance (European-Microfinance-Network, 2013). Thus, it is not without reason that Italy was selected as country for comparison for the current thesis. There is an established microcredit industry in Italy with thousands of borrowers, and MFI's which have data on their borrowers' characteristics and loan details. Hence, although the focus of the regulatory comparison is given to the developing countries with their thorough and impactful regulation, Italy is also considered to give the most appropriate developed countries perspective.

A key consideration was the availability of data, as although microfinance is present in many countries, the availability of data on microfinance laws differ widely. Considering this, three key countries have been identified for consideration - Bangladesh, India, and Pakistan. Indeed, from a historical perspective, these three countries were administered by Britain as one country until less than 70 years ago. India, Pakistan and Bangladesh have been chosen as comparable countries for a number of key reasons. In particular, these countries have a similarity in history and culture, despite different dominant religions. There is also relative similarity across geography, language and established microfinance presence. Although the countries have distinctly different cultures, religions, and regulatory conditions now, it can be argued that these differences are smaller than would exist between a geographically diverse set of countries.

The Indian sub-continent is the location chosen for the regulatory comparison for a number of reasons. Importantly, Bangladesh is attributed with being the 'home of microfinance' and has a large per capita penetration (13% according to MIX Market Exchange (2012)) of this method of access to the financial system. Despite being a foundation country of microfinance and home to the Grameen Bank, The Economist Intelligence Unit (2012) has recently ranked Bangladesh as 41st (out of 55 sampled countries) for microfinance business environment based on criteria of regulatory framework and practices, supporting institutional framework, and stability. Clearly, a country's fame in the sector of microfinance is not an indicator of regulatory quality (in the sense of supporting microfinance).

India is a country with a large number of microfinance borrowers in absolute terms but with a relatively smaller per capita penetration than in Bangladesh. The recent crisis in the Indian state of Andhra Pradesh in 2010 resulted in that state's government providing restrictions on MFI operations in terms of the interest rate charged, schedule of repayment and methods of obtaining scheduled repayments. This crisis had significant impacts on microfinance repayments in that state and ultimately led to a collapse in MFI sustainability and outreach. India has recently implemented national legislation which shifts the power to regulate MFI's to the Reserve Bank of India (RBI) in order to rectify the effects of this crisis. This crisis illustrated the effect that regulation can have on MFI's and financial access. Given the large amount of data available on Indian microfinance and the recent changes in law, this country is a suitable comparison with Bangladesh for the purposes of this thesis. The Economist Intelligence Unit has ranked India as the 22nd best microfinance business environment – a ranking which is much higher than Bangladesh but which still reflects a legislative and business environment not designed towards promoting microfinance relative to other countries.

In contrast to the rankings received by India and Bangladesh, Pakistan has consistently been ranked by the Economist Intelligence Unit as one of the environments most supportive of microfinance. Indeed, in 2012 Pakistan was ranked third in the world for business environment which supports microfinance. This is particularly interesting given that until 1971 Pakistan and Bangladesh were the same country (Bangladesh was then called East Pakistan), yet in 40 years the regulatory system has completely diverged in terms of microfinance. Considering the relative similarities in history and culture between these three countries, the different effects on microfinance are particularly revealing.

A key issue with the countries chosen for comparison is size. That is, India has a vastly greater microfinance market than that of Bangladesh or Pakistan, and has an economy which has a variety of size-related macroeconomic issues to be considered. Indeed, the Indian economy is the 10th largest in the world, according to the International Monetary Fund, while Pakistan is 44th and Bangladesh is 59th (IMF, 2013). It is for this reason that the paper by Marr and Tubaro (2013) actually compared the countries of Peru and Tanzania to one Indian state, rather than India as a whole. However, that study was interested primarily in the wholesale lending market, and not in regulation, so the issue of size was more relevant for their analysis. In contrast, the Italian economy is the 9th largest in the world, so from this perspective Italy and India are similar countries for comparison, while logic would indicate that this was not the case at all. The current research thus takes the methodological perspective that it is not only the economic size of a country which provides it's comparability with other countries on a regulatory basis.

5.2.2 The Economist Intelligence Unit

The comparison of microfinance regulatory environments in terms of the broader business environment, which includes regulation and institutions, has been done before, by the World Bank in 1998 (as discussed in the introduction to this chapter), and by The Economist Intelligence Unit (EIU). It is relevant to discuss the work by the EIU at this point because their analysis focussed on the regulatory effect on the microfinance business environment and their study overlaps the current thesis. The reports by The World Bank and EIU were used as reference points when developing the criteria by which to compare the countries of interest and the financial sustainability of MFI's. In this way, the current research has built on previous research in this field to ensure validity of the findings.

The EIU report used a variety of data in developing their rankings, primarily qualitative data regarding regulations, and institutions and the use of interviews of key stakeholders in all the countries to identify other current developments. Further, the report used an online interview technique to gather a broader range of responses from the microfinance network. Thus, the report used a variety of methodologies to achieve arguably reliable and valid results.

In ranking 55 countries where microfinance is prevalent, The Economist Intelligence Unit considered a range of factors, including the following three categories and sub-factors:

1. Regulatory Framework and Practices

- Regulation and supervision of microcredit portfolios
- Formation of regulated/supervised microcredit institutions
- Formation/operation of non-regulated microcredit institutions
- Regulatory and supervisory capacity for microfinance (including credit and other services)
- Regulatory framework for deposit-taking

2. Supporting Institutional Framework

- Accounting transparency
- Client protection: transparency in pricing
- Client protection: dispute resolution
- Credit bureaus
- Policy and practice for financial transactions through agents

3. Adjustment Factor: Stability

- Political shock to microfinance
- Political stability

In the annual EIU reports, each of the first ten sub-categories in the list above was given a score out of four (with four being the best and zero is the worst) and the scores for each category were then aggregated to develop a score out of 100 (where 100 is the best and zero the worst). The calculation then assigned a 50% weight to 'regulatory framework and practices' and to the 'supporting institutional framework' to develop the final score. In addition, the criteria regarding 'political shock and political stability' were combined to give a score out of 100, which was then used to calculate a reduction in the overall score based on the following formula:

Reduction Amount = 100 – (Political Stability) * 0.25

The current thesis is concerned primarily with the regulatory aspects which impact MFI financial sustainability and so the results of the annual study by the Economist Intelligence Unit are not sufficient for this analysis. Nor are the categories used. However, the methodology and results of the study have provided a useful reference and guide for country selection and for some aspects of regulation which should be analysed within the current study.

The report discusses the key developments in each country on a yearly basis. In the case of Pakistan the report indicates that the country has increased its rankings again because of regulation which allows for branchless banking (SBP, 2011), and which has subsequently resulted in a six-fold increase in six months in the number of financial transactions monitored by the State Bank of Pakistan, a clear benefit for financial inclusion and for the operating environment for MFI's. On the other hand, other strong contributors to the rankings include inflation. For example, Uganda dropped in the rankings because a high inflationary environment has led to non-performing loans and a drop in demand for microfinance. Thus, the report places a lot of emphasis on the business environment in general, not only on the regulations which govern MFI's. The report explains how Peru has achieved the number one ranking in the world consistently and recent improvements in the business environment for microfinance with a strengthening of deposit-taking regulations and government promotion of price transparency, financial literacy and credit bureaus. The report thus balances the effect of regulation and government initiatives on the overall effect on microfinance.

The potential increases in understanding from the detailed comparison of the specific legal provisions which affect three comparable countries are great. However, the methodology needs to be designed in a careful manner to ensure that the value the data brings is communicated. Thus, the methodology for this chapter follows a dual track process of first describing the countries of interest and second presenting a comparative legal analysis of the identified criteria across countries. The description of the MFI regulatory environment for each country is critical to provide context for the subsequent comparative analysis. Indeed, the historical development of MFI regulation and country descriptions can help explain why three comparable and neighbouring countries have such different MFI regulation. There are various country-specific factors which ca not be adequately communicated in a stand-alone comparative analysis on this topic of research, thus the dual track approach to this chapter.

5.3 Overview of Countries

This section presents an overview of the microfinance and regulatory environments in the four countries of interest. The data used for establishing the context in each country is primarily from the Mix Information Exchange, with supplementary information from various reports and scholarly texts. For ease of explanation, all monetary figures in this section will be in USD, the currency used by the Mix Information Exchange in reporting on the microfinance sector.

5.3.1 Microfinance Regulation in India

India is such an important country for microfinance because of the high number of absolute borrowers. There are 26 million microfinance borrowers in India with a total of US $4.3 billion in outstanding loans (MIX, 2013). However, with a population of 1.2 billion people, 26 million borrowers is only penetration to 2% of the population. The low penetration of microfinance in India may be an opportunity for future growth, since there is an established framework of MFI's and regulatory supervision. This can be seen in positive light because the established system of MFI's already in place in India allows scope for future growth. Indeed , supportive changes to the regulation of MFI's at this early stage of microfinance penetration have the potential to achieve significant influence on the microfinance sector and the dual goals of microfinance (social and economic progress).

The regulation of MFI's in India has followed a similar path as reform in the banking sector as a whole, trending towards less government restriction on operations. A research paper by Marr and Tubaro (2013) has set the context for microfinance regulation in India by describing how economic reforms supported by high domestic demand, foreign direct investment and international trade have increased the country's economic power. The paper explains that MFI regulation has not been supportive to MFI operation in the past and so NGO-MFI's have sought partnerships with mainstream financial institutions to overcome these restrictions. However, new regulation has provided MFI's with more flexibility in achieving their corporate goals of financial excellence.

At the start of 2013, new regulations were implemented which shifted the regulation of microfinance from a state to a national level. In the past regulation was national but each state had the potential to implement specific and binding regulation for its resident MFI's. The result of this was that some states changed (read: crashed) the microfinance sector with well-intended state based regulation. The most widely cited example is from 2009 when the State Government of Andhra Pradesh implemented microfinance law with the intention of consumer protection, and thus imposed interest rate caps and restrictions on repayment frequency and collection techniques. The national based legislation was implemented in part to avoid these kinds of 'hijacking' by State governments.

According to the Malegam Committee Report by the RBI, Self Help Groups (SHG's) account for approximately 58% of the outstanding microfinance loan portfolios in India, while Non-Banking Financial Companies (NBFC's) account for 34%, and trusts and societies for 8% (Malegam, 2011). Thus the microfinance market in India is widely diversified in terms of the providers of microfinance, which indicates that much of the microfinance provided falls outside of the scope of the relevant NBFC-MFI regulations. This information indicates that although new regulation in this area is promising, there are still many potential issues to be addressed in the future.

5.3.2 Microfinance Regulation in Pakistan

Pakistan is not particularly noticeable as a player in the microfinance sector when considering history, outreach or celebrity MFI's. Indeed, the microfinance outreach is to just 1% of the population. However, the growth of microfinance in Pakistan is among the strongest in the world (MIX, 2013). Further, the ratio of borrowers to depositors is also very high, with 2 million borrowers and 1.5 million depositors (MIX, 2013). Although microfinance has existed in Pakistan for decades, specific regulation was only implemented in 2001 with the Microfinance Ordinances Act which specified how to create and operate microfinance banks (MFB's), as the relevant tier of MFI's are called in Pakistan. This law created a new area of legislation with jurisdiction over an industry which had previously been donor funded and very small scale.

The regulatory system in Pakistan has evolved into a tiered system which effectively covers five different levels and types of MFI's, each separately regulated (Shah, 2011). This structure has evolved to address the goals of the government. The government has explicitly stated that the purpose of the legislation is to allow MFI's to operate sustainably with access to capital sources other than donations. A second key aspect of the MFI regulation in Pakistan is that it is directed in large part by the industry itself. In particular MFI's have developed various self-regulatory bodies, and in 2009 documented a code of conduct by which all abide, as well as a system of credit bureaus. These industry-developed initiatives highlight the level of empowerment held by MFI's in Pakistan.

With effectively five regulatory categories, one of the key potential disadvantages of the regulatory system in Pakistan is that only 35% of microfinance outreach is regulated by the State Bank of Pakistan (SBP). The rest of microfinance outreach is regulated under different regimes which, while providing the benefits of a tiered regulatory system, also provide the potential for regulatory arbitrage.

One of the key strengths of Pakistan's regulatory environment is the framework to allow mobile and branchless banking (Lintner, 2009). This regulation allows greater financial inclusion, and reflects the government's focus on progression and leveraging technology to benefit financial inclusion. Indeed, CGAP have indicated that this on-going discussion and revision of this aspect of Pakistan's financial system is key for the development of microfinance as a sustainable initiative (CGAP, 2010).

A report by the Pakistan Microfinance Network (2011) explained how the specific regulations of 2001 resulted in a dramatic increase in investment in microfinance in Pakistan, alongside a trend towards MFI's with defined ownership and governance, plus specific management systems designed to achieve efficiency and outreach. These regulatory initiatives achieved a balance between financial risk management and the ability to operate freely, based on the tiered structure. Specifically, MFI's which are able to mobilise deposits have much lower leverage than MFI's in other tiers which are restricted from mobilising deposits (because of different reporting and risk management requirements). This means that the MFI's which present the greatest risk to consumers and the financial system as a whole are regulated in a way which reflects this. In contrast, the MFI's which operate in ways which pose less risk are regulated less tightly. In this way, the tiered regulatory structure allows flexibility for MFI's to operate in ways which suit their unique organisational goals.

5.3.3 Microfinance Regulation in Bangladesh

Bangladesh is known as the birthplace of microfinance as we know it because it is the country which motivated Professor Yunus to develop financial inclusion based on trust rather than financial collateral. Now, Bangladesh is still a golden country with respect to microfinance. Indeed, with a population of 150 million of whom 20.9 million are microfinance borrowers, the penetration of microfinance is above 13% (MIX, 2013). Unlike the situation in India, Bangladesh's statistics showing US $2.8 billion in loans and US $2.2 billion in deposits clearly reflect the fact that the microfinance industry is well developed.

The history of the Grameen Bank is a well-known example of the capacity of entrepreneurship to consider problems in a different way and create sustainable businesses to address those problems. Microfinance was borne out of the famine that crippled the country after the independence from Pakistan in 1971, which Professor Yunus sought to address with a market solution. The Bangladeshi government enacted a special ordinance in 1983 which provided a platform for the Grameen Bank to be able to operate under guidelines less onerous than those of the traditional banks in the financial system. Despite the emergence of many competitive MFI's such as BRAC and ASA since then, all but Grameen are required to be regulated as NGO's and operate with a social (rather than a financially sustainable) purpose exclusively. This has led to a dual path with the Grameen Bank on one hand, and all of the other MFI's in Bangladesh on the other.

Various commentators in Bangladesh have recently claimed that the government of Bangladesh has undertaken a smear campaign to gain complete control over the Grameen bank (NY-Daily-News, 2012). Indeed, Professor Yunus was removed from his post at the MFI, and the government has initiated new laws which give it the power to control the board of directors. Although the potential effect of these changes is unclear, what is certain is that in Bangladesh, even the Grameen Bank is not immune from government intervention.

5.3.4 Microfinance Regulation in Italy

The development of microfinance as an industry in Italy is one which is particularly relevant at the time of writing. Although there are only 45,000 microfinance borrowers in Italy (Borgomeo, 2012) in a population of 60 million, the development of microfinance as an industry in Italy is particularly relevant because Italy has some of the highest financial exclusion in Europe with 16% of the population excluded (European-Microfinance-Network, 2013) and a polarised society in terms of wealth disparity. This means that the potential market for microfinance does exist in Italy. The issue which seems to challenge developers of microfinance in Italy is one of cultural understanding of the concept of a trust-based system. That is, a system which uses social collateral may work in the tightly knit communities in developing countries but it does not mean that this system can be 'cut and pasted' to developed countries which are much more individualistic (Hofstede, 1983). Indeed, with a thriving financial system for the majority of the population, it is tempting to believe that borrowers who are provided with the opportunity to obtain a loan without the requirements of collateral, may abuse the system. This may be one of the reasons that microfinance did not evolve sooner in Italy. However, we wo not know for sure as there are many potential reasons for the slow development.

What is considered to be microfinance in developing countries is not something which is directly transferrable to developed countries such as Italy. For example, while the average loan size in Bangladesh may be near US$100 (MIX, 2013), in Italy the needs of microfinance borrower are much greater. Further, the definition of microfinance in Italy seeks to ensure that the microfinance provided in Italy is vastly different to that provided elsewhere. Specifically, microfinance in Italy has tended towards two alternatives: either the loans are low interest and for consumption purposes (similar to charity), or the loans are for the creation of small businesses, with a maximum loan of around US$15,000.

The microfinance sector in Italy emerged from a foundation of religious based organisations seeking to assist local community members. Many religious institutions fund programs of providing credit at low interest to those in the community. This historical origin potentially compromises the sector in financial sustainability terms if there emerges a future goal to develop MFI's as sustainable providers of financial services to those excluded from the financial system.

The law regarding microfinance in Italy has been developed with consultation with microfinance and law experts; however the two brief pages of law are inadequate in providing any kind of regulatory framework from which the sector can develop. The importance of this lack of regulatory framework is uncertain, and this will be discussed in more detail in the analysis section of this chapter. As the sector develops in Italy, it would be a reflection of many developing countries if many MFI's fell outside the scope of regulation. This may not necessarily be a bad thing, because the consequent risks to society of MFI collapse are low.

5.4 Comparative Analysis

5.4.1 Methodology for Comparative Analysis

The methodology for conducting the comparative analysis of regulations between the four countries of interest is based on the criteria broadly identified in the third chapter of this thesis and subsequently developed. In the third chapter of this thesis a law and economics analysis identified different aspects of regulation which can theoretically have an impact on MFI financial sustainability. In this way, the current chapter is a test of the theory on which aspects of microfinance regulation have a potential impact on MFI financial sustainability. In particular, chapter three identified that regulation which promoted the use of microfinance would potentially contribute to MFI's financial sustainability. The methodology of comparative analysis was chosen for the current study because it provides a direct examination of the differences between countries which may help in discussing differences in MFI financial sustainability. The research question for the current thesis requires a complete understanding of regulation which has the potential to affect MFI sustainability. In order to ensure that all aspects are considered the current chapter will build on the work by The World Bank and the Economist (as previously discussed) to focus the analyses on the most valid regulations and effects. In order to apply this, a dual path methodology will be undertaken and in this section is the second path being the comparative analysis.

The current study builds on and is guided by previous research on microfinance regulation, and established methodological processes as a guide for such a study. This section presents the various categories of legal comparison which are made in the following section, and provides key information regarding the inclusion of each category and its relevance for the current research. What follows is a list of each of the criteria used in the current study, and a short description of the relevance of the criteria for answering the research question at hand.

5.4.1.1 Criteria

The criteria for cross-country comparison have been identified based on the theory identified in the third chapter of this thesis. The theory identified previously indicates that the aspects of regulation which are likely to have the largest impact on MFI financial sustainability relate to stipulations regarding business activities, which includes provisions for risk management and consumer protection. These criteria will be examined, along with the differences across the regulatory environment in general in order to establish a contextual understanding and framework which builds on the current knowledge of each country provided in the previous section of this chapter. Following this theory, regulations pertaining to business activities have been categorised more specifically into sub-criteria in order to compare and consider specific aspects of each component of regulation. Each sub-criteria was identified based on the actual reference points of the regulation on that topic. Thus, for example, when considering business activities, an aspect of regulation which consistently appears across countries is capital requirements. In order to reduce the repetition of the selection process, the sub-criteria which have been included in this thesis represent an aspect of a broader criteria previously established theoretically in the third chapter of this thesis, which appears in the MFI-specific regulation of at least one country of interest and is theoretically directly relevant for the financial sustainability of MFI's. Following are explanations for each of the sub-criteria selected.

5.4.1.1.1 Regulatory Environment

The overall regulatory environment needs to be understood with a view to the potential implications on MFI financial sustainability. Aspects of the regulatory environment are important because they contribute to the transaction costs which MFI's must consider in on-going operational decisions. Intuitively, regulatory burdens of reporting and the regulatory system as a whole have potential effects on the financial sustainability of MFI's. The aspects of the regulatory environment considered in the current chapter include: relevant legislation, becoming regulated, tiered approach to MFI regulation, tier thresholds, supervision; self-regulation; rule of law; and judicial system. In addition, the Economist Intelligence Unit 2012 Rankings have been included.

5.4.1.1.1.1 Relevant Legislation & Regulator

For each country of interest there are a varying number of pieces of legislation, depending on the thoroughness of the microfinance specific legislation (or the overlaps). It is important for this thesis to document which legislation is relevant and with whom the regulatory responsibility lies. Indeed, as pieces of regulation differ between countries, so do the regulators themselves. It is important to establish the identity of the regulator in order to understand the relationship between the enforcement of regulation and any influencing factors. That is, if the main self-regulatory organisation is an industry player in microfinance (and hence has a conflict of interest, as is the case in India), it can potentially explain inefficiencies in the system with flow-through effects on MFI sustainability.

5.4.1.1.1.2 Becoming Regulated

The process of becoming regulated needs to be described in terms of a transformation from an unregulated entity, as well as for a new entity seeking to participate in the microfinance market. The process of becoming regulated may be a simple online application (in India), or an arduous process based on a variety of hurdles to jump. The necessity of becoming regulated is also relevant to this criteria because it can affect the transaction costs which MFI's face (and thus affect financial sustainability). The process of becoming regulated thus affects competition in the microfinance market. Research has found that an increase in competition needs to be accompanied by greater transparency, organisation, and regulation (Marr & Tubaro, 2013). Thus it is a continuous cycle of regulation.

5.4.1.1.1.3 Self-Regulation

The effect of self-regulation on MFI financial sustainability via market competition and consumer protection was examined in the third chapter of this thesis particularly focussing on the interaction with CSR programs. However, in the case studies of this chapter it is more relevant to understand self-regulation as industry motivated, created and organised institutions which develop codes of conduct and administer audits to MFI's. Depending on the control of these organisations, it may provide a possibility for MFI supervision to be less burdensome to the government while providing specialised knowledge on the microfinance sector.

5.4.1.1.1.4 Tiered Approach to MFI Regulation

A tiered approach to MFI regulation has been proposed (and subsequently ignored in much of the MFI regulation) by the World Bank by Wagle (2002). In theory this system provides MFI's with different legislative structures depending on their particular characteristics, and in this report MFI's are classified in terms of their funding source.

Wagle (2002) have indicated that the tiered approach to the regulation of MFI's is the best method for ensuring MFI sustainability and outreach. Despite the fact that the World Bank released these suggested regulatory guidelines 15 years ago, very few countries have followed this advice. It may be that this report was issued at a time when microfinance was beginning to be a regulated industry but was not large or well-known enough to have regulation designed in a way that reflected the suggestions by the World Bank. It may be that in providing a framework before the industry really took off the World Bank suggestions were overlooked.

Given that the microfinance sector comprises a variety of MFI's including region based co-operatives, NGO run MFI's, and national MFI's with thousands of borrowers, different regulation for each type has been proposed by this report. As with any aspect of tiered regulation, there is the potential for regulatory arbitrage and other negative outcomes. However, overall the authors in the report consider that MFI regulation on type of products provided, source of funds, or size, as a preferred avenue for regulation.

5.4.1.1.1.5 Tier Thresholds

Regulatory systems which have a tiered approach to regulation most usually follow a system where different tiers of regulation apply when thresholds of business activity (such as loan portfolio size) are crossed. It is intuitive that a tiered regulatory system would base 'graduation' from one tier to another on pre-determined criteria, and these benchmarks may have the potential to influence the effectiveness of the regulation, MFI operations and firm size, and MFI financial sustainability.

5.4.1.1.1.6 Rule of Law

The rule of law relates to how much law actually influences behaviour in societies. It is important to consider for the current research because it illustrates that in countries with a poor rule of law it does not matter how adequate, efficient and encompassing the law is if it is not enforced or followed by the people. Thus, available data are included in the current legislative comparison. The comprehensive research by La Porta, Lopez-de-Silanes, Schleifer, and Vishny (1998) and (The-Heritage-Foundation, 2013) provides the data for these scores. An understanding of this kind of factor across countries is potentially important for the analysis of MFI sustainability because research has found that economic freedom and property rights security (aspects associated with the rule of law and judicial system) increase MFI outreach but do not affect sustainability directly (Hartarska & Nadolnyak, 2007). This is an important consideration because the definition of sustainability of MFI's relies on the measurement not only of financial outcomes but also of social outcomes.

5.4.1.1.2 Business Activities

Regulations which govern financial services institutions commonly contain specific instructions about how to operate the business in order to ensure financial stability of the firm (and thus not affect the financial system as a whole through collapse). These specifications may also be critical in affecting the financial sustainability of MFI's. The current chapter will consider regulations relating to particular business activities which have been chosen because they are most likely to have a direct impact on MFI financial sustainability.

5.4.1.1.2.1 Initial Capital Requirements

The barriers to entry implemented by regulatory systems have clearly understood effects on competition, and in the microfinance industry, outreach and interest rates and other product features (Parlour & Rajan, 2001). Initial capital requirements are a simple example of barriers to entry in the microfinance sector. However, these barriers to entry relate only to those MFI's which are regulated. In some countries, the tiered regulatory structure allows small MFI's to begin operations at a micro-level and become regulated as they grow. However, in some countries the regulation requires that all MFI's be regulated, and thus subject to initial capital requirements upon entering the market. As well as influencing the ability to enter a market, initial capital requirements also dictate the minimum size of an MFI, thus ensuring that all MFI's have some level of commercial viability. This has a potential flow-through effect to MFI financial sustainability because it may provide an incentive to the MFI's themselves to operate efficiently and to donors to support viable MFI's. Indeed, a key empirical paper by Hartarska and Nadolnyak (2007) found that larger MFI's (and also older MFI's) are more financially sustainable than smaller MFI's.

5.4.1.1.2.2 On-going Capital Adequacy Requirements

Capital adequacy ratios, along with other ratios indicate the degree of financial stability and financial prudence with which managers operate a business. Without specific microfinance regulations, MFI's wishing to mobilise deposits for the purposes of funding business activities and providing loans must comply with general banking regulations. This is understandable given the potential risk to consumers of an MFI holding deposits as well as providing loans (Sarr, 2006). Thus, capital adequacy requirements reflect regulatory guidelines to protect consumers by ensuring financial stability of MFI's. Further, ensuring financial *stability* also potentially contributes to financial *sustainability* because it ensures prudent financial management of the company. Indeed, an empirical study by Hartarska and Nadolnyak (2007) analysed the effect of regulation on the financial performance of MFI's and found that better capitalised MFI's are more financially sustainable.

5.4.1.1.2.3 Legal Form Requirement

The requirement for MFI's to be constituted in a particular legal form could potentially limit market entry and competition. Although many MFI's are structured as companies, many are structured as cooperatives or building societies. Hence, the imposition of a particular legal form limits the freedom of MFI's and dictates how they should grow. Regulations which insist on a certain legal structure may have an impact on MFI financial sustainability by affecting which MFI's are able to seek capital sources other than donations, (which are available at different regulatory tiers) and so these criteria will be considered for the relevant countries.

5.4.1.1.2.4 Ownership

As with the required legal form for MFI's, legislation may stipulate ownership requirements. For example, it may be required that only local citizens comprise the owners of the underlying legal structure or are on the board of directors. This will clearly influence business capabilities if MFI's are restricted in who can own and operate them.

5.4.1.1.2.5 Investment Requirements

The regulation of financial institutions often contains requirements for the assets held by the institutions as investments. For example, regulation may restrict MFI's from holding more than 25% of their assets in long term or speculative assets for liquidity and risk management.

5.4.1.1.2.6 Asset (Loan Portfolio) Guidelines

As a general consideration, regulations are created with a particular goal in mind. Microfinance is theoretically a tool to achieve the dual goals of access to credit, and social empowerment. Thus, governments may choose to support either goal, or both goals. The aims of the regulation may be seen in guidelines regarding the required loan portfolio of MFI's. Specifically, regulation may insist on a certain amount of loans which support either enterprises or consumption, or restrict loan size to increase outreach. Restrictions on the asset portfolio of MFI's are related to MFI sustainability. Further, allocations for the loan portfolio may lead to other consequences such as clients being forced to 'shop-around' for suitable microfinance loans (Karlan & Mullainathan, 2009; Pearlman, 2010), or to seek loans from Traditional Money Lenders, which have much higher interest rates than from MFI's (Lintner, 2009). Depending on the goals of the government, requirements for loan portfolio allocations may assist the achievement of political goals and MFI sustainability, or inhibit it.

5.4.1.1.2.7 Reporting

The regulated requirements on what must be reported to the supervisory bodies (whether governmental or industry based) and how often, may reflect the attitude of the government to financial sustainability of MFI's. Further, there is a potential balance between the risk management initiatives imposed on MFI's through on-going audits based on government-set financial benchmarks, and between the freedom of MFI's to operate based on market demands and competition. Indeed, governments have the potential to require so much on-going reporting from MFI's that it requires large resources to check. On the other hand, governments may require inadequate reporting from the MFI's, which results in issues going unchecked. In this study it is directly relevant which financial documents an MFI must provide (eg. Balance Sheet, Profit and Loss); how often (eg. weekly, annually, bi-annually); and to which body (eg. the government regulatory body or a self-regulatory body).

5.4.1.1.3 Risk Management Provisions

5.4.1.1.3.1 Sustainability Benchmarks

The current thesis is primarily concerned with how the regulation of MFI's can affect their financial sustainability. Does regulation specifically address financial sustainability through direct measures? This is a question which comparison of the regulation aims to answer.

5.4.1.1.3.2 Interest Rate Caps

Usury laws are a topic of research widely covered in the economics literature to date, as the practice has existed through the recent millennia. Throughout history, financial institutions have been developing products which use a structure and terminology to bypass the requirements against charging interest on loans, and that system is still present in Islamic Microfinance (and finance) today. However, current governments aim to impose a cap on interest rates and this is a potential issue for the sustainability of microfinance (Di Bella, 2011). MFI's faced with an interest rate cap may seek to hide the remaining interest rate in fees for loan servicing or other expenses. Authors have found that MFI's have safeguards which also allow them to perform in inflationary environments (Hartarska & Nadolnyak, 2007) and this means that caps on interest rates may not necessarily be required when the goal of microfinance is not huge profits. However, it can be logically extended that where there are interest rate caps, this flexibility to adapt to changing inflation may not exist. There are a variety of potential impacts of interest rate caps and these aspects make it an important factor to compare across countries.

5.4.1.1.3.3 Legislated Loans to Microfinance

Governments seeking to support microfinance have sought methods to achieve that goal outside of direct MFI investment. For example, some countries (such as Indonesia) legislate the need for banks to provide a certain amount of loans specifically to microfinance borrowers. Indeed, in India the RBI has determined that 40% of all loans need to be made to vulnerable aspects of the economy, which includes microfinance.

5.4.1.1.3.4 Deposit Taking – Regulatory Framework to Allow (EIU)

The provision of deposit accounts is a key source of potential loan customers and capital. The regulatory framework to allow deposit taking was one of the key considerations for the study by The Economist Intelligence Unit. The regulatory system naturally follows the process where institutions with deposit taking capabilities are required to follow greater reporting and scrutiny requirements than non-deposit taking institutions. This, in essence provides an easily understood tier system of regulation based on products provided. Authors have found that access to deposits results in greater outreach (ie. more borrowers), and this is an indirect benefit of supportive MFI regulation (Hartarska & Nadolnyak, 2007).

5.4.1.1.3.5 Mobilisation of Deposits

An aspect of good microfinance regulatory environments is the possibility for MFI's to mobilise deposits for use in providing loans and business operations. As identified in the report and rankings by The Economist Intelligence Unit (2012), the ability to not only take deposits but to mobilise those deposits for business activities is critical for MFI financial sustainability. Further, reports by the World Bank have also indicated that a tiered regulatory system with allowance for different levels of deposit mobilisation is an aspect of an appropriate microfinance regulatory environment (Wagle, 2002).

5.4.1.1.3.6 Access to Finance - Debt

Research has analysed the effect of sources of finance on MFI financial sustainability and found that a greater number of funding sources results in MFI's which are more financially sustainable (Hartarska & Nadolnyak, 2007). This finding is in line with logic, since organisations with access to different sources of capital ensure that they have capital during the different business cycles. The access to capital via debt will be considered in terms of regulatory requirements.

5.4.1.1.3.7 Access to Capital - Equity

As with the access to debt discussed above, having access to capital via equity is not only a source of capital for different business cycles, but also provides the organisation with access to potential shareholders who may also bring operational skill and industry knowledge (Mori, 2010). Restrictions on access to equity partners are linked to ownership restrictions in that some countries limit the ownership of MFI's to real people with local nationality or resident tax status (Kyereboah-Coleman & Osei, 2008). It intuitively follows that such restrictions may limit companies or foreign people from acquiring equity in MFI's.

5.4.1.1.4 Consumer Protection

5.4.1.1.4.1 General Provisions

Regulatory provisions regarding consumer protection are relevant for this analysis because these provisions are designed to protect consumers against bank failure and insolvency. The current thesis is primarily concerned with developing countries where deposit guarantee mechanisms are not necessarily in place. Regulatory provisions regarding consumer protection are also associated with ensuring financial sustainability of MFI's and ethical conduct by them. In ensuring that consumers are protected, regulation simultaneously provides incentives to MFI's to operate in a manner which is financially prudent and takes into account risk management provisions. Risk management provisions are designed to protect the public in the event of bank failure. Regulatory restrictions which limit the operational freedom and financial management of MFI's are theoretically related to the current thesis because there is a potential direct impact on the financial sustainability of MFI's. For example, consumer protection regulations which dictate that MFI's must follow the same risk management processes as banks with much greater capitalisation is a practice which may lead to MFI's either failing to remain financially sustainable, or seeking to avoid being regulated under those provisions.

5.4.1.1.4.2 Measures for Over-Indebtedness

Consumer protection is a prime motivation for regulators to restrict the operations of MFI's, particularly for preventing people from obtaining loans from different MFI's in order to pay off other loans, a result of over-indebtedness. In order to address this problem, regulators have options of requiring MFI's to undertake thorough information gathering before granting a loan, to register all loans with a credit bureau, or other possibilities. There should theoretically be a balance between protecting the consumers from over-indebtedness and over-burdening the MFI's with administration tasks which do not add to the achievement of their organisational goals, which in the end are generally with the interests of the poor at heart.

5.4.1.1.4.3 Credit Bureaus

For consumer protection goals to be achieved, not only do MFI's which mobilise deposits theoretically need to be stable, but also credit bureaus need to be in place and effectively monitor borrowers loans for over-indebtedness and for the loan terms. Although it is a theoretical assumption that credit bureaus play an important role in consumer protection, it is not assumed that all countries have in place an enforced system of credit bureaus. Thus, this aspect of the financial system will be compared across the countries of interest.

5.4.1.1.4.4 Deposit Protection

The stability of financial institutions theoretically relies on the predictable withdrawal of deposits, because the financial ratios of banks are often reliant on leverage to achieve profitability. For this reason, during the Global Financial Crisis, the governments of many developed countries offered deposit protection for bank accounts of citizens in domestic banks. Their motivation was to avoid a 'bank-run'[2] which may have resulted in a systemic collapse of the financial system. However, in developing countries we cannot assume that sector-wide deposit protection schemes are in place. Thus, the measures which are implemented by governments to ensure deposit protection within MFI's must be considered separately for each country of relevance.

5.4.1.1.5 Economist Intelligence Unit 2012 Rankings

As discussed previously in this chapter, the research by The Economist Intelligence Unit provides an interesting examination of the microfinance business environment across 55 countries. The methodology undertaken in this study has already been discussed, and it will be briefly described here why each ranking by the study is included for reference.

5.4.1.1.5.1 Overall Microfinance Business Environment

The methodology undertaken by The Economist Intelligence Unit, while being based on a qualitative system does assign weights to the underlying categories to determine final rankings and scores. The combination of these underlying rankings and scores to achieve the overall rank and score is easily comparable and understandable.

5.4.1.1.5.2 Regulatory Framework and Practices

The study included an analysis and ranking of the regulatory framework of each of the countries, and this aspect is directly relevant to the current thesis. Indeed, the scores on this measure when

[2] A bank-run refers to the situation when too many depositors of banks demand their money. Banks hold liquidity of often less than 15%, and so they are unable to satisfy such demands from depositors. After one bank almost or does collapse, there is often a contagion effect where depositors of all banks attempt to take out their savings. This is what is known as a bank-run (Uhlig, 2010)

compared across the countries of interest may indicate some key differences which are worthwhile explaining in more depth.

5.4.1.1.5.3 Supporting Institutional Framework

Aspects of the supporting institutional framework are particularly interesting for the current thesis because of the inclusion of considerations such as the existence of credit bureaus. A cross country comparison of these scores may help to provide the current study with a more complete understanding of the relative differences between countries.

5.4.1.1.5.4 Stability

Results do indicate countries with potential volatile environments and this can have a flow through effect on microfinance.

5.4.2 Comparative Analysis

The current chapter aims to compare regulatory environments of the chosen countries and subsequently identify any natural experiments which may provide a situation where the empirical effect of regulation can be more reliably determined. For the countries of interest, national law is the relevant law to be compared. This simplifies the process, especially considering that the laws in India used to be state based for microfinance and this created a series of issues for the sector.

The table which follows compares the regulation of MFI's across the three countries of interest. Regulatory detail is given based on the criteria previously established to be relevant for the current thesis.

Criteria	India	Pakistan	Bangladesh	Italy
Regulatory environment				
Relevant legislation	MFI Bill, 2012; RBI/2012-13/161; DNBS(PD)CC.No.300 /03.10.038/2012-13; Marr and Tubaro (2013)	Microfinance Institutions Ordinance, 2001 (for microfinance banks (MFB's)); the Societies Registration Act, 1860, The Voluntary Social Welfare Agencies Ordinance, 1961, The Trust Act, 1882, and the Companies' Ordinance, 1984 (for MFI's and Rural Support Programs (RSP's)). Supplemented with Prudential Regulations about how to establish MFB's and on-going requirements; Grossman and Helpman (1996)	Grameen Bank Ordinance (1983); Microfinance Regulatory Act (2006); MRA Rules (2010) SRO No. 394-Law/2010	Article 111. Banking Act on Microcredit
Regulator	RBI (Reserve Bank of India) and Self-Regulatory Organisations (SRO's). Most MFIs are registered as non-bank financial companies (NBFCs) while the rest are registered under regulations such as the Societies, Cooperatives, and Trusts Acts. There are also village-based groups known as self-help groups (SHGs).	SBP (State Bank of Pakistan) with a Microfinance Division established in 2001. The Microfinance Consultative Group was also created in 2001 and is chaired by the SBP.	Microcredit Regulatory Authority (MRA): 'Independent' body with Central Bank representation on board.	The Minister of Economy and Finance, after consulting the Bank of Italy
Becoming Regulated	Uncomplicated process to go from being unregulated to regulated, which then allows NBFC's to attract commercial domestic investment. Online	SBP has provided guidelines on how NGO's and other MFI structures can become regulated as MFB's. The release is called: *NGO/RSPS/ Cooperatives-*	After being regulated as an NGO (under one of 4 Acts) they can apply to the MRA to be a regulated NGO-MFI. As at the 7th April 2013 there are 715 licenced MFI's under the	No regulation option other than as a financial institution. The regulation applies to the specific microfinance products offered (based on a definition) rather than the

Criteria	India	Pakistan	Bangladesh	Italy
	application for registration is possible (need to provide hard copies). New NBFC-MFI's must provide details of CAR and a 3 year business plan.	*Transformation Guidelines*. It is beneficial to become regulated as an MFB because of fewer restrictions on access to capital and ownership structure.	MRA.	MFI as an institution.
Self-Regulation	All MFI's must be a member of an SRO recognised by the RBI. MFI's must comply with the Code of Conduct of the SRO. Responsibility for compliance with the regulations lies with the NBFC-MFI's.	Various industry bodies have been created to provide a level of on-going self-regulation	No relevant industry bodies established with the purpose of self-regulating MFI's have been established	Not relevant
Tiered Approach to MFI Regulation	MFI's of different sizes (based on loans outstanding) are regulated differently in the stipulation regarding business activities. MFI's are either 'large' or 'small'.	MFB's are regulated differently to MFI's and informal microfinance providers. This table will consider MFB's only, with MFI's considered where the contrast in legislation is relevant for financial sustainability.	No. There is one set of regulation for MFI's and a separate legislation for the Grameen Bank under the previously stated Ordinance.	No
Tier thresholds	The benchmark is that a large MFI is one with more than Rs. 100 crore (1 crore = 10 million) loan portfolio. (Approx. €14million)	MFB's need €7.7mil in paid up capital to be regulated as such. Each MFI has the ability to decide under which regulatory code they are regulated. There is no clear tier structure with defined thresholds.	No thresholds.	No thresholds, just benchmarks for what microcredit is
Rule of Law (La Porta et al., 1998)	4.17 (out of 10)	3.03 (out of 10)	N/A	8.33 (out of 10)
Business Activities				
Initial Capital Requirements	The law is different for	Rs. 1 billion (Approx. €7.7	No requirements from the	Banking Act – not specific to

Criteria	India	Pakistan	Bangladesh	Italy
	existing MFI's converting to being NBFC-MFI's until March 31st 2014, by which time all NBFC-MFI's need to have NOF (Net Owned Funds) of Rs. 5 crore (Approx. €700,000). There is an exception for the NE Region for Rs. 2 crore (Approx. €280,000). If they do not have the required capital they are restricted to lending only 10% of funds in microfinance loans, but can still be registered as a NBFC-MFI.	million) in paid up capital to be regulated as a MFB. The RSP's and other regulatory tiers have other capital requirements, and they are not directly regulated by the SBP.	MRA. Requirements are from the regulation under which NGO's were created (of which there are four).	MFI's
On-going Capital Adequacy Requirements	Capital Adequacy of 15% of Risk Weighted Assets	Capital Adequacy of 15% of Risk Weighted Assets	All NGO-MFI's maintain CAR of above 10%	Banking Act – not specific to MFI's
Legal Form requirement	No requirement.	Legal form restrictions are placed on MFI's regulated by other supervisors than the SBP.	Depends on the regulation under which the NGO was formed.	Banking Act – not specific to MFI's
Ownership	No restrictions. Can be NGO owned or private companies.	No restrictions. Can be companies which allocate profits to shareholders and receive investments.	Depends on the regulation under which the NGO was formed. Must be NGO's of some description.	Banking Act – not specific to MFI's
Investment requirements	No specific requirements other than portfolio composition restrictions.	Restrictions on activities with speculative purposes (e.g., stocks), real estate investment, and rental/ lease arrangements with directors, employees, and owners. Funds may only be invested in government securities and 'A' rated securities. Investment in other	MFI's are not allowed to use their capital for anything other than for carrying on their operational activities. Long term assets ca not be funded with short term liabilities. Maintain an investment register with clear descriptions.	Banking Act – not specific to MFI's

Criteria	India	Pakistan	Bangladesh	Italy
		microfinance entities is limited to 15% of own equity.		
Asset (Loan Portfolio) Guidelines	85% of assets must be 'Qualifying Assets' (applies to post-2012 assets only) to receive eligible bank funding. In addition, 70% of loans must be for income generation purposes (as opposed to for housing repairs, education, medical emergencies).	The MFB must determine that the borrower has the ability to repay the loan. Hence, loans for business purposes are easier to verify, and many MFB's only provide loans for business purposes.	Loans for microenterprises must be less than 50% of the total loan portfolio. Regulatory guidelines from July 2011 ban unofficial deductions by lenders for so-called saving schemes (forced deposits from borrowers), limit charges for administration fees and set a 15-day mandatory grace period for repayment, and borrowers must pay back their loans in 46 instalments.	No restrictions
Reporting	Must provide P&L and BS to RBI annually.	Weekly report of summary (one page of financial indicators). Annual audit to SPB. Need an internal audit department which reports to the board. Annual audit rating.	Abstract of results of internal audits must be published. MRA must be informed of the interest rate, duration, and repayment schedule of all loans on a half-yearly basis. Send to the MRA annual reports of the BS, CF, Income-Expenditure, Change in Capital, Portfolio Statement.	Banking Act – not specific to MFI's
Risk Management Provisions	Must provide a percentage of profits as a reserve fund to the RBI each year (which will be used for MFI training etc)	Cash reserve requirement (5% of deposits); statutory liquidity requirement (10% of demand and time liabilities); statutory reserve (20% of annual profits); depositor's protection fund (5% of annual profit); provisioning requirements (100% loss	10% of total income surplus (accumulated surplus or profits) must be maintained in a reserve fund (a separate bank account). The remaining profits can be used for operational activities or poverty alleviation activities (if approved by the MRA).	Banking Act – not specific to MFI's

Criteria	India	Pakistan	Bangladesh	Italy
		declared on arrears of 180 days); exposure against contingent liabilities (<= 5 times equity). Standards for board composition are documented.	Liquidity of 15% (previously 10%) required (5% in cash and 10% in term deposits) balanced half-yearly. MFI to classify loans as “Regular”, “Watchful”, “Sub-standard”, “Doubtful” and “Bad Loan” on an annual basis and provision based on the percentage indications provided in the rules. Bad debts are classified as an expenditure in accounting.	
Sustainability benchmarks	Leeway in interest rate benchmarks for small MFI’s to help them operate sustainably	The aim of the legislation is to develop MFB’s which attract outside investment, thus having a range of sources for capital and incentives to operate in a sustainable manner.	None	Banking Act – not specific to MFI’s
Interest rate caps	Loans under US$4,000 are subject to an interest rate cap. Interest rates are capped at 26%pa (with 4%pa +/- leeway). To calculate the cap, MFI’s must use a calculation of the annual average borrowing cost plus the margin (max of 10% or 12% for ‘small’ MFI’s. The aim of this is that in a low interest rate environment the borrower will benefit and in a high interest rate environment the NBFC-MFI will have enough leeway to	No restrictions.	Microfinance interest rates are capped at 27%pa.	Interest rate charged must be less than the market interest rate (Article 111.e(3)).

Criteria	India	Pakistan	Bangladesh	Italy
	maintain sustainability.			
Legislated loans to microfinance	Domestic banks must lend 40% of lending portfolio to ‘weaker sectors’ (including microfinance)	No restrictions.	70% of clients must be borrowers	No
Deposit taking – Regulatory framework to allow (EIU)	Regulated MFI’s can take ‘thrift’, but not mobilise the savings for business activities	MFB’s can receive deposits as outlined in the regulations.	Grameen Bank can take deposits, and in 2009 had a ratio of 142% for client savings to loan portfolio. Total deposit balance will not exceed 80% of total loans outstanding at any time. There are conditions which need to be followed in order to receive voluntary deposits (including that they ca not exceed 25% of the total capitalisation of the organisation). Detail is given about how to administer deposits and the conditions to follow.	No allowance for MFI’s to take deposits. Banking Act – not specific to MFI’s
Mobilisation of deposits	Can mobilise deposits if the MFI has capitalisation of US$400,000 and a CAR 12-15%	MFB’s can mobilise deposits if the risk management guidelines are followed.	Grameen Bank is permitted to accept deposits from the general public. Under the MRA, MFIs are allowed to intermediate deposits from members (up to 80% of loan portfolio), but that is different to deposit mobilisation.	Banking Act – not specific to MFI’s
Access to finance - debt	Can mobilise deposits if benchmarks above are met. Of the lenders to MFI’s, 21% are international (compared with 55% in Peru and 75% in	Microfinance Credit Guarantee Fund (MCGF): GBP 10 million (USD 16.47 million) is available to the microfinance industry as	MFI’s can take loans from financial institutions. For loans from international institutions Government authorisation must be	Banking Act – not specific to MFI’s

Criteria	India	Pakistan	Bangladesh	Italy
	Tanzania (Marr & Tubaro, 2013).	guarantees to access commercial debt. This fund is also part of the Financial Inclusion Program (FIP).	obtained. Securitisation is allowed. Loans from people other than clients are allowed with a well-defined contract. Grameen Bank can sell bonds and debentures guaranteed by the Government.	
Access to finance - equity	Foreign investment in MFI's is automatically approved. Being a regulated NBFC allows them to attract commercial investment.	Investment in MFB's has no restrictions. Other providers of microfinance have investment restrictions, such as RSP's, thus giving incentives to move up the tiered regulation structure.	MFI's are structured as NGO's, therefore the ownership of the NGO is subject to the specific regulations under which it was founded.	Banking Act – not specific to MFI's.
Consumer Protection				
General Provisions	MFI's must abide by the Fair Practices Code issued by the RBI	Retail MFI's developed and voluntarily adhere to a code of conduct established in 2009.	Client rights (and responsibilities) are outlined in the 2010 MRA rules. However, Bangladesh does not have a solid financial system consumer protection measure, and the 'Guidelines on Mobile Financial Services for the Banks (consumer protection related)' is not expansive to cover microfinance.	Banking regulations.
Measures for over-indebtedness	People can only borrow from one MFI, and the MFI must monitor and enforce this. Total indebtedness ca not exceed Rs. 50,000 per person. Monitored via credit bureaus.	No specific measures other than the establishment of a microfinance specific credit bureau, to complement the other credit bureaus.	The MFI is responsible to consider loan usage, ability to repay, and loans from other sources in granting loans to clients.	None
Credit bureaus	Every MFI must be a member of a Credit	MF-CIB, a microfinance specific credit bureau was	Luoto, McIntosh, and Wydick (2007) indicates that	Banking Act – not specific to MFI's

Criteria	India	Pakistan	Bangladesh	Italy
	Information Company (DiCicco-Bloom & Crabtree) created under the CIC Regulation Act 2005. Each MFI must share information with the CIC's about indebtedness and source of borrowing.	released in June 2012 to reduce the likelihood of microfinance defaults for over-indebtedness.	the World Bank planned to establish a credit bureau in Bangladesh, but no evidence has been found.	
Deposit protection	In the case of MFI failure depositors are the first of the creditors to have access to assets.	Included in the strict risk management provisions is: depositor's protection fund (5% of annual profit)	If an MFI closes, depositors will have first access to assets.	Banking Act – not specific to MFI's
Economist Intelligence Unit 2012 Rankings	1 is relative best, 55 is worst country in the world) and Scores (out of 100)			
Overall Microfinance Business Environment	Rank: 22/55 Score: 45.7/100	Rank: 3/55 Score: 67.4/100	Rank: 41/55 Score: 32.8/100	N/A
Regulatory Framework and Practices	Rank: 28/55 Score: 45/100	Rank: 3/55 Score: 75/100	Rank: 37/55 Score: 40/100	N/A
Supporting Institutional Framework	Rank: 8/55 Score: 55/100	Rank: 3/55 Score: 65/100	Rank: 38/55 Score: 30/100	N/A
Stability	Rank: 49/55 Score: 37.5/100	Rank: 29/55 Score: 67.5/100	Rank: 47/55 Score: 40/100	N/A

5.5 Analysis and Discussion

The dual path methodology designed to explore and contrast the microfinance regulatory system in four countries has revealed some clear potential differences which may illustrate the link between MFI sustainability and regulation. This methodological approach has allowed for the understanding of contextual issues in each country while at the same time being able to directly compare key regulatory aspects. This process has provided directly analysable results, which will be covered in more detail here. This section will discuss the results identified in the comparative analysis. In order to ensure that all key results are presented, each criteria and sub-criteria will be separately discussed.

The microfinance legislation of Italy displays aspects which can be attributed to the spread of microfinance from developing countries to the rest of the world. That is, it is intuitive that specific microfinance regulations are more detailed in developing countries as the innovation has only recently spread in a meaningful sense to Italy and other developed countries. In contrast to the other countries, the regulation of Italy provides no incentives for any firm to consider fitting in with the regulations of what is considered microcredit – there is no increased access to capital investment, nor outreach, from being regulated. On the contrary, the regulations only seek to limit the provision of microfinance by limiting the interest rate charged to one that is below market interest rates, a practice which theoretically ensures non-financial sustainability of MFI's as discussed in chapter three. Other than basic definitions of what microcredit is in Italy, the Italian legislation is very brief and seeks to provide no incentives to MFI's to operate sustainably or provide financial system access to those in need. However, despite the unhelpful nature of the Italian microcredit regulation, the regulation does not require MFI's or institutions providing microcredit to follow the regulations. Thus, the negative impact of this regulation is not large. In the example of Italy it can be concluded that the regulation is not helpful but also does not seek to restrict the microfinance industry.

5.5.1 Regulatory Environment

The regulatory environment for microfinance is clearly vastly different across the countries of interest. The regulatory environment will be examined in more depth in the following sub-sections.

5.5.1.1 Relevant Legislation

The relevant microfinance legislation in each of the countries of interest differs vastly from two pages of vague microfinance definition in Italy to the tiers of regulation provided by Pakistan's regulator. Of note is that although the tiered regulatory system in Pakistan has resulted in great reviews and a sound microfinance sector, it does seem as though there are too many and overlapping individual regulations and this may lead to regulatory arbitrage, confusion of responsibilities, or potential inefficiencies. In India the legislation has recently been implemented in 2012 and is a simple guideline for MFI regulation, a great improvement on previous legislation which allowed state (rather than national) control. Bangladesh has a series of regulation and rules, as well as the Grameen Bank Ordinance (1983) which ensures the Grameen Bank is regulated completely differently to other MFI's and also to banks.

5.5.1.2 Regulator

The relevant regulator for MFI's has shown that in some instances it missed most providers of microfinance (in Pakistan), or doubles up the regulation of the same institutions (in India). On the other hand, in Italy MFI's are not regulated as separate institutions but are regulated based on their operations, which means that if they hold deposits they are regulated as a bank, whereas if they simply provide loans then they are regulated as such. Thus, in Italy the regulator for UniCredit (Italy's largest bank) is the same as the regulator for PerMicro (a specialised MFI) if they both mobilise deposits. As of March 2011, MFB's in Pakistan accounted for 35% of credit outreach; the MFIs and RSPs together accounted for 65%. Thus, in effect the SBP regulates only one-third of the microfinance industry.

5.5.1.3 Becoming Regulated

The process of becoming regulated is a critical aspect of microfinance regulation because it is the entry path by which the government can gain some control and consistency over MFI operations while simultaneously affecting market competition and entry barriers. The goal of this particular regulation is arguably to promote microfinance as a method of financial inclusion as well as maintaining consumer protection. Given the importance of the process of becoming regulated, it is interesting to note that the process is easy in India and Pakistan with straightforward online applications. However, the process in Bangladesh requires that the entity be first registered as an NGO, under one of four potential regulatory regimes (which leaves the option for regulatory arbitrage). The MFI regulation in Italy leaves no option to be regulated as such, thus the system of becoming regulated is the same as the process is for a bank to become regulated – that is, very difficult.

5.5.1.4 Self-Regulation

The regulatory system in India and in Pakistan supports various self-regulatory bodies. This allows for a depth of regulation not possible when there is only the government regulator. Indeed, as specialised industry-created institutions, it is intuitive that these institutions are also more informed about the sector and what borrowers and MFI's need in order to operate sustainably. In Bangladesh there are not any relevant self-regulatory bodies and the MRA has a monopoly on regulation.

As identified in chapter three, self-regulation provides an opportunity for the leveraging off such initiatives as Corporate Social Responsibility (CSR) which allows potential efficiency because the regulator is able to focus on other things in more detail. If self-regulatory bodies are able to maintain systematic audits and develop industry reports and suggestions for the regulator then the overall quality of the regulatory system may be increased. Naturally, this theory relies on a variety of associated factors such as co-ordination between the self-regulatory bodies and the government.

5.5.1.5 Tiered Approach to MFI Regulation

As discussed previously, the tiered approach to MFI regulation is theoretically the most suitable regulatory strategy in terms of allowing MFI's to grow while still being regulated and supported by the regulation in doing so (The-World-Bank, 2003). The tiered approach to regulation is seen in Pakistan, and to a lesser extent in India. However, the tiered approach to regulation is clearly non-existent in Bangladesh or in Italy where there are blanket rules relating to all MFI's (with the exception of the Grameen Bank). In this way, MFI's in Pakistan and to some extent in India are able to progress from being donor financed to being sustainable without being 'thrown in the deep end'.

5.5.1.6 Tier Thresholds

The tier thresholds in India distinguish MFI's based on their loan portfolio, with the distinction identifying 'large' MFI's and 'small' MFI's, with loan portfolios respectively above and below the Rs. 100 crore (approximately €14 million) threshold. Thus, although there is no explicit tiered regulatory structure, the different capital requirements for different sized banks in effect do provide a tiered structure to some extent. In Pakistan there are distinct tiers based on how the

MFI's choose to be regulated, with more onerous regulatory requirements regarding capital, risk management practices and reporting for those which operate more similarly to banks than to NGO's. This structure provides Pakistani MFI's the flexibility to be regulated in a way which suits their organisational goals.

5.5.1.7 Rule of Law

The foundation paper by The-World-Bank (2013b) provides scores out of ten for India, Pakistan and Italy for rule of law. India and Pakistan receive very low scores with 4.17 and 3.03 respectively, while Italy received 8.33. This may illustrate the differences in the rule of law across developed and developing countries. These findings are important in highlighting the role of enforcement in various regulatory aspects. In countries where the rule of law is low one could question the validity of considering microfinance regulation at all without a mirrored analysis of how the regulation is actually enforced. This is important given that the focus of this thesis is how regulation affects MFI's – if the regulation has no effect because of a lack of enforcement then the consideration of specific regulations is intuitively futile. The seventh chapter of this thesis presents the results from fieldwork interviews and illustrates that MFI's consider the regulation to have an effect on their operations, and so the rule of law, at least regarding microfinance regulation is sufficient to allow accurate description.

5.5.2 Business Activities

Regulation may inhibit or promote the operations of MFI's in a variety of ways. Some regulation is designed to ensure the stability of MFI's and the financial system as a whole and other regulation is designed to protect microfinance borrowers. Depending on the aims of the regulation there are varying impacts on the business activities of MFI's. The different aspects of the regulation which impact on business activities will be discussed in the following sub-sections.

5.5.2.1 Initial Capital Requirements

The initial capital requirements in India allow for differences across regions, with North East region MFI's allowed to have a smaller capital base. Further, the regulation in India allows that MFI's which do not have the required capital can lend only 10% of their funds in microfinance. This is in essence also a risk management provision and ensures that even MFI's which do not meet the initial capital requirements can still be regulated. On the other hand, Pakistan requires that MFI's registered as MFB's (the tier of regulation which the current comparison focussed on) have ten times more capital than those in India. The capital requirements in Bangladesh do not exist in the specific MFI regulation, rather they relate to the requirements to be registered as an NGO prior to applying to operate as an MFI.

Therefore, although the capital requirements in Pakistan are high, the negative side may be that barriers to market entry are created along with greater risk management and less reliance on donor capital. Indeed, the high capital requirements for MFB's in Pakistan allow MFI's to have established sources of capital and efficient business activities before being regulated as a microfinance bank.

5.5.2.2 On-going Capital Adequacy Requirements

There is little difference between the countries regarding on-going capital requirements, with India and Pakistan requiring 15% CAR and Bangladesh requiring 10% CAR. As with most of the regulations regarding Italy, capital adequacy requirements relate to banks, or charities, depending on the operations of the MFI. However, regardless of the requirement to report these ratios, authors have stated that most financial ratio's do not pick up non-routine and non-auditable risks, and it is these risks which are the bigger threat (Wagle, 2002).

5.5.2.3 Legal Form Requirement

There are no large differences on the legal form requirements of MFI's in the countries of interest. As discussed previously, MFI's can have a variety of structures in many of the countries and the underlying structure of NGO's in Bangladesh is not an onerous obligation of interest.

5.5.2.4 Ownership

Unlike many countries where microfinance is prominent, the ownership restrictions for the countries of interest are negligible. Indeed, it is of worth noting that although the regulatory systems of Italy and Bangladesh seem relatively inhibitory of microfinance in many aspects, when considering ownership restrictions the countries at least do not restrict microfinance operations.

5.5.2.5 Investment Requirements

The investment requirements which are present in Pakistan are closely related to ensuring financial stability by excluding speculative investments in property or stocks. On the other hand, the requirements in Bangladesh are that investments are solely for the purpose of carrying on business activities. This regulation seems contradictory in that it also states that each MFI must maintain a register of investments and that long term assets ca not be funded with short-term liabilities – guidelines which seem at odds with the requirement to only invest in business activities.

5.5.2.6 Asset (Loan Portfolio) Guidelines

The regulations regarding the composition of the portfolio of loans are clearly stated by the Reserve Bank of India, with MFI's required to provide 85% of their loans as 'qualifying assets'[3] in order to receive loans from banks. Further, the RBI requires that at least 70% of loans from MFI's must be for income generation (such as for the expansion of a small business). Here it can clearly be seen that the government has identified microfinance as a way to achieve economic growth in targeted areas. On the other hand, loans in Bangladesh must be at least 50% for consumption purposes. Here it can be inferred that the government of Bangladesh wants to support social empowerment through microfinance while the government of India wants to support economic growth. In Pakistan the regulation and SBP reports explicitly state that the goal of the regulation is to support MFI financial sustainability as a cornerstone of financial inclusion.

The aims of MFI's are important to consider in this context, because it may be that it is the composition of microfinance loans which are related to regulation and on-going social outcomes rather than other regulatory pieces. Thus, it may be relevant that 70% of MFI's in India are classified as financial (versus social) lenders, compared with 50% in Peru and zero in Tanzania (Marr & Tubaro, 2013), showing the aims of the MFI's.

5.5.2.7 Reporting

The reporting requirements of MFI's in the countries of interest range from an annual report of Profit and Loss and Balance Sheet to the RBI (in India), to an internal audit and annual report to the SBP and a weekly financial summary (in Pakistan), to a list of requirements to be provided half-yearly (in Bangladesh). As discussed previously, the requirement for so many reporting caveats in Bangladesh is made with the intention of ensuring any issues are picked up early, however research has found that it does not pick up non-routine risks and it is these risks which are a bigger threat (Wagle, 2002). In this way, the highly summarised nature of the weekly

[3] Directly from **RBI/2012-13/138 and RPCD.CO.Plan.BC 13/04.09.01/2012-13 clarification on Priority Sector Lending:** A "qualifying asset" shall mean a loan disbursed by MFI, which satisfies the following criteria:
(i) The loan is to be extended to a borrower whose household annual income in rural areas does not exceed `60,000/- while for non-rural areas it should not exceed ` 1,20,000/-.
(ii) Loan does not exceed ` 35,000/- in the first cycle and `50,000/- in the subsequent cycles
(iii) Total indebtedness of the borrower does not exceed `50,000/-.
(iv) Tenure of loan is not less than 24 months when loan amount exceeds `15,000/- with right to borrower of prepayment without penalty.
(v) The loan is without collateral.
(vi) Loan is repayable by weekly, fortnightly or monthly instalments at the choice of the borrower.

reporting requirement in Pakistan may be a compromise. Further, in the case of Bangladesh, it may also be worthwhile considering the extra resources the government needs to provide to the MRA to actually monitor such a huge amount of financial information so regularly. Indeed, the regulation indicates that the MRA will be half-yearly monitoring the loan composition details as well as annually monitoring the Balance Sheet, Cash Flow, Income-Expenses, change in capital, and portfolio statement. The cost of reviewing this information for more than 600 MFI's may prove to be more than the potential fines received in enforcing it. One of the key theoretical goals of regulation is that if possible it should be self-sustainable in itself. That is, regulation should be theoretically designed in a way such that the cost of enforcing the regulation is covered by the fines and fees associated with those being regulated (Masciandaro, Nieto, & Prast, 2007). In the case of microfinance this means that the cost of regulating the MFI's needs to be borne in essence by the MFI's themselves, through registration fees or fines for breaches. When the regulation is overly demanding regarding reporting, the flow through costs will theoretically impact the MFI's in adding another cost to their operational structure.

5.5.3 Risk Management Provisions

The risk management provisions across the countries of interest are quite different in their level of complexity. Further, in countries such as India, the requirement to provide a set percentage of profits each year to the RBI (to be used for MFI training apparently) seems to be an avenue to ensure the potential for corruption in a sector otherwise outside of the scope of widespread corruption. Whether this is the case or not is unknown at this stage, however, with most MFI's not making a profit it can be assumed that this flow of funds will be insubstantial. From a law and economics perspective, it is worthwhile considering the incentives that such a requirement creates. That is, MFI's have no incentives to make a profit because when they do, they must funnel some of it to a government which does not score well on corruption indices (Transparency-International, 2013). Thus, this kind of regulation provides incentives to MFI's to operate as low-profit entities, or potentially as 'Social Businesses', but certainly not as viable profit making institutions. Given that making profits from providing financial services to the poor is an issue of ethical debate, this topic will not be discussed in depth in the current thesis as it is outside of the scope of the research question.

In Pakistan the risk management provisions are comprehensive, as they are with other financial institutions and present no serious implications for financial sustainability other than to ensure stability of the institutions. On the other hand, in Bangladesh there are a variety of risk management provisions which are confusing to say the least. For example, the requirement for government approval for using profits for poverty alleviation activities seems to be an overly restrictive regulation. However, liquidity and other requirements seem intuitive given the comparison with other countries of interest.

5.5.3.1 Sustainability Benchmarks

Of interest regarding governmental support of MFI sustainability is simply that the SBP has stated the goal of its legislation is to help MFB's attract outside investment and have a range of sources to capital and incentives to operate sustainably. When considering all the points of comparison as has been done in the current chapter, this goal is clearly seen in the various provisions. India does not state that it aims to support MFI's operating sustainably but it does provide some leeway regarding interest rate benchmarks to help small MFI's operate sustainably.

5.5.3.2 Interest Rate Caps

The subject of interest rate caps, or usury laws, is a topic of discussion widely covered in the economics literature and has been theoretically discussed in the previous chapter of this thesis. It is interesting to note the differences in approach to interest rate caps between the three countries for comparison. India has capped interest rates at 26% and Bangladesh at 27% with various different details about how the cap is calculated. Pakistan, on the other hand, imposes no interest rate cap on its MFI's (and similar institutions). Despite Italian microfinance being at an infant stage, the regulation imposes an interest rate cap to below market interest rates. Clearly, in the Italian microfinance sector there are incentives to not be classified as microfinance according the government definition. The effect of interest rate caps has been discussed in the previous chapters of this thesis and the effect is theoretically that there is potentially lower access to credit for the poor as loans are provided more to the middle classes where lower interest rates reflect the cost of servicing this portion of the financial system.

5.5.3.3 Legislated Loans to Microfinance

The government of India has for some time used legislation to promote loans to particular areas of the economy. For example, domestic banks are required to provide 40% of their loans to 'weaker sectors' which includes microfinance and agriculture. The other countries of interest show no set amount of legislated loans to microfinance. Bangladesh does have a requirement that 70% of clients are also borrowers, but that is a regulation which does not have foreseeable implications for MFI sustainability.

5.5.3.4 Deposit taking – Regulatory Framework to Allow (EIU)

The report by The Economist Intelligence Unit (2012) includes the regulatory framework to allow deposit taking as a key component in the calculation of scores. This is because it sets the framework for MFI's to be able to access another (sustainable) source of capital to fund loans and business activities. The analysis has shown that all the countries of interest (except Italy where MFI's are regulated as banks) are able to receive some form of deposits, be it 'thrift' in India or microsavings in Bangladesh. In Bangladesh there are also guidelines for the ratio of deposits to loans outstanding (80% of total loans). The limit on Italian MFI's not being able to receive any form of deposits means that their funding structure relies on donations. Indeed, statistics indicate that 82% of MFI's in Italy are not-for-profit (Kyereboah-Coleman & Osei, 2008).

5.5.3.5 Mobilisation of Deposits

When it comes to the mobilisation of deposits collected (as indicated above), the countries differ widely. For example, in India MFI's can mobilise deposits so long as the bank is of a certain size and has a certain CAR. There is a more extensive requirement to mobilise deposits in Pakistan with all of the risk management provisions to be complied with beforehand. On the other side of the spectrum, MFI's in Bangladesh are allowed to intermediate deposits from members up to the 80% ratio discussed.

5.5.3.6 Access to Finance – Debt

Bangladesh allows the Grameen Bank (which is 25% government owned) to mobilise deposits and issue government guaranteed bonds and debentures. Other MFI's need government authorisation to receive loans from international institutions. There is clearly a dual-path regulatory system in Bangladesh. On the other hand, India allows MFI's to borrow to fund their business operations.

Pakistan also provides a large fund which is available to guarantee loans for their MFI's so they can access commercial debt. This is a significant regulatory movement because it provides Pakistani MFI's not only with access to another form of capital, but also governmental support in doing so. As discussed in the third chapter of this thesis, a theoretical initiative to promote microfinance could be for governments to provide guarantees of microfinance loans. The legislation in Pakistan has taken an even bolder step by indicating that the market system will operate and the poor will have access to finance only if MFI's are allowed to operate freely.

Thus, rather than trying to stimulate and promote microfinance itself, the government has taken the step towards supporting MFI's in fulfilling their objectives.

5.5.3.7 Access to Finance - Equity

The regulation in India supports foreign investment in MFI's and also provides incentives for MFI's to be regulated by allowing them to attract commercial investment when they are. A similar structure is in place in Pakistan where there are no restrictions for investment in MFB's, but there are restrictions for other tiers of regulation, thus providing incentives for MFI's to 'move up' the tiered regulatory structure as they increase in their demand for capital and scope. On the other hand, Bangladesh provides a vague and seemingly overlapping regulation which can potentially lead to regulatory arbitrage because it depends on which of the four acts the NGO-MFI is regulated under.

5.5.4 Consumer Protection

Regulation of MFI's often has the motivation of consumer protection, whether in terms of deposit protection or over-indebtedness. The following sub-sections will discuss the regulatory factors with the motivation of protecting consumers.

5.5.4.1 General Provisions

Codes of conduct have been established for some years in all countries of interest, and are supervised by the regulatory and self-regulatory bodies where relevant. In Bangladesh, although client rights and responsibilities are outlined in the MRA rules of 2010, there is no real system for consumer protection in the financial system.

5.5.4.2 Measures for Over-Indebtedness

Given the crisis in Andhra Pradesh, the Indian government has had good motivation to establish laws which limit over-indebtedness. Indeed, the new regulations limit that people can only borrow from one MFI and up to a maximum of Rs. 50,000. This is similar to the system in Pakistan which combines over-indebtedness measures with the system of credit bureaus to ensure that no borrower has loans of more than PRs 300,000. In Bangladesh the MFI's are responsible to consider loan usage and the ability to repay but if they fail in their analysis there is no documented recourse for compensation.

5.5.4.3 Credit Bureaus

Credit bureaus are theoretically a critical aspect of implementing the measures for consumer protection such as over-indebtedness. In India and Pakistan there are established credit bureaus and there is apparently one planned for Bangladesh. Thus, all the countries of interest seem to realise the importance of credit bureaus in consumer protection. From the perspective of the sustainability of MFI's, the requirement for MFI's to be registered with and provide information to credit bureaus is an additional cost but it seems that ensuring the reputation of the sector is also critical in MFI sustainability so the benefit outweighs the cost.

5.5.4.4 Deposit Protection

A method to support deposits in MFI's is to provide external guarantees for deposits in the case of MFI failure. In Pakistan there exists a provision for a depositor's protection fund to be held by all MFB's. However, in India and Bangladesh the only real provision is that depositors will be the first of the creditors to access assets. The law and economics perspective of this aspect was discussed in the third chapter of this thesis.

5.5.5 Economist Intelligence Unit 2012 Rankings

5.5.5.1 Overall Microfinance Business Environment

Pakistan has consistently achieved high rankings in the overall business environment for microfinance, and has been ranked as third in the world. Pakistan's neighbour, India has been ranked as the 22nd country, while Bangladesh, which was previously known as East Pakistan, is ranked 41st in the world. Despite these countries having a single origin, their regulatory systems for microfinance have diverged to such an extent that an analysis is worthy. Indeed, differences in particular microfinance law in these countries are stark. Clearly, cultural and regulatory origins are not enough to guarantee similarities as country-specific factors diverge.

5.5.5.2 Regulatory Framework and Practices

In terms of the specific regulatory framework, Pakistan is again ranked as third in the world, and India and Bangladesh as 28th and 37th respectively (Economist-Intelligence-Unit, 2012). As discussed in previous sections of this chapter, this particular aspect of the report focussed on the factors which are most closely related to the topic of the current thesis and thus these rankings are particularly interesting. However, the recent regulation in India which was not included in the analysis will probably result in India achieving a higher ranking in subsequent years. Hence, these rankings are already out of date.

5.5.5.3 Supporting Institutional Framework

The institutional framework such as the existence of credit unions is an aspect which provides an understanding of the broader market situation. Here it can be seen that India has achieved a much more respectable rank, which indicates that although the particular regulation in India is not supportive of microfinance, there are other institutions which support the sector. A variety of research supports the importance of strong institutions for economic development (North, 1989).

5.5.5.4 Stability

The rankings for stability illustrate the volatility of the countries in question, with none of the countries achieving a better rank than 29th in the world (Pakistan). With governmental changes and political issues present, this region is consistently low in stability. Importantly, the consistent rankings for stability highlight two things. The first is that these countries are affected by similar and potentially contagion affects through culture and politics. The second is that these countries are comparable for the current analysis because of systemic similarities such as instability.

5.6 Conclusion

Microfinance regulation in different countries has the potential to greatly affect the financial sustainability of MFI's, and thus the long term viability of microfinance as a development mechanism. In light of this the regulations of four countries have been compared. It has been found that there is no one-size fits all solution when it comes to MFI regulation. Different cultures and different stages of microfinance uptake mean that countries need to regulate within maximum and minimum limits with regards to each piece of direct legislation. Countries which may be deemed worthy of empirical comparison nonetheless have historical differences which mean that the regulation is naturally different. Thus, this research has found that regulatory suggestions for microfinance are more likely to be contingent predictions around the existing legal environment around social capital, culture, maturity of the microfinance sector, among other things. Indeed, because of the descriptive nature of the current research, far reaching analytical conclusions are not able to be drawn. Policy recommendations will be discussed in chapter eight. Further, there are potentially interaction effects of context dependent effects such as trust.

In the case of Bangladesh an explanation needs to be sought for the fact that despite being the pioneer country of microfinance as we know it today, the legislation of MFI's stifles financial sustainability and provides a monopoly for investment in the Grameen Bank. One explanation for this may be interest groups. Specifically, if politicians are benefiting from this arrangement then this is an explanation. As the Grameen Bank has 25% government ownership (Grameen-Bank, 2011), this explanation may be valid. It can be logically extended that the government seeks profit from its ownership stake in the MFI, and ensuring competing MFI's are unable to be financially sustainable may be one method to achieve this goal.

The regulation of Bangladesh which simultaneously requires all MFI's to be registered as NGO's without access to capital markets but providing one exception, the Grameen Bank, is a situation which may be interpreted as rent seeking. Rent seeking in this context can be described as the manipulation of regulation to create economic gain for a particular stakeholder (the government) (Conybeare, 1982). Specifically, individual politicians have the potential to benefit greatly from MFI law which appears on the surface to protect the poor (in developing democracies where the poor compose the majority of voters) as it may encourage re-election. The government has created a monopoly, not of MFI's themselves, but of financially self-sustainable MFI's. By limiting the access of MFI's to sources of capital and free business practices, this may indeed be a form of rent seeking by the government, who has incentives to do so via a part ownership in the MFI. By considering the reasons behind the development of particular regulatory trends the current research highlights the strong cross-country differences which limit the strength of legal comparisons across countries. Given the unique situation of individual countries, without considering contextual factors the analysis can potentially become superficial and not allow for practical implications to be drawn in a valid manner.

Given that microfinance is an avenue for both social and economic outcomes it is understandable that governments take a perspective on which goal they aim to achieve. However, it is interesting when governments so closely comparable otherwise chose different goals. In India, the government has regulated that at least 70% of loans are for supporting microenterprises. On the other hand, in Bangladesh MFI's must lend no more than 50% of their loan portfolio to income generating enterprises. This contrast is very interesting because it illustrates the motivation behind the particular regulations more than any other. It is clear that the Indian government wants to try and stimulate microenterprises through law which directs microfinance towards loans for business purposes. On the other hand, the Bangladeshi government wants to support the social aims of microfinance, through law which directs microfinance loans for consumption purposes rather than for microenterprise creation or expansion. This has implications for MFI sustainability because the goal of the government clearly has flow through effects on the regulations drafted, and loans used for consumption versus microenterprises have a different repayment rate (Agyapong, Agyapong, & Darfor, 2011). When the government aims for MFI's to be financially sustainable, as in Pakistan, the legislation is tailored to achieve that goal. In that way, the current thesis may benefit from considering the goals of government as much as the underlying regulations which result. Indeed, the goal of the government seems to be a driving force. An additional implication is that the different benchmarks for microfinance success mean it is not methodologically sound to compare India, Bangladesh, and Pakistan, given the different goals of the government and the low through effect on individual regulation. The current thesis is not concerned with challenging the benchmarks for success or the goals set by individual governments. The current thesis accepts that governments have political goals and is not concerned with whether these goals are efficient as it has been discussed in previous research that the social goals set by governments are not always efficient (Sachs & Bajpai, 2001; Sumner & Tribe, 2008).

As was established in the second and third chapters of this thesis, whether regulation can be considered effective or not depends in part by which benchmarks success is measured. This is particularly relevant given the results identified in the current chapter between the perspectives of the Indian and Bangladeshi governments. That is, Bangladesh supports the social aims of microfinance while India supports the economic aims of microfinance, and this is driven by the defined goals of the government. Thus, it is not possible to directly compare and critique these two countries legislation against each other because the benchmarks for success are different. Although the benchmarks for success may be potentially a topic worthy of criticism and research, it falls outside of the scope of the current research which makes assumptions regarding the benchmarks and moves forward to consider the issue from a strategic perspective. As a result of this, a potential solution could be for regulation to require MFI's to measure the social and economic impact of their programs. If the responsibility were on MFI's to reliably measure these kinds of trends, governments would be more able to decide what the motivation of the legislation is. MFI's would be then able to become sources of information which would help the government support their activities.

The success of many financial systems is a combination of direct, facilitative, and self-regulation, aspects of which were covered in the third chapter of this thesis. The combination of these three regulatory types allows, in theory, for the microfinance industry to develop its own best practice standards while having formal regulation to uphold minimum quality standards. From the trend of self-regulation of the three comparison countries it seems that a high level of self-regulation is associated with a better microfinance environment. Specifically, this means that those countries which have self-regulation also happen to have high levels of MFI financial self-sustainability, borrower outreach, and social effects of microfinance. Although the link made between self-regulation and the microfinance environment is at this stage theoretical, it has been established in this chapter that MFI indicators (such as portfolio quality and source of capital) increase in environments where self-regulation is common. Self-regulation in the context of Pakistan relates to the establishment of various industry created and government recognised regulatory bodies. Pakistan, third in the world for microfinance environment (Economist-Intelligence-Unit, 2013), has the most self-regulatory bodies, which have been formally established for over a decade.

Although it is not possible to directly compare the use of self-regulation and direct government regulation (because they complement each other), it is theoretically possible that the benefit of self-regulation for MFI financial sustainability is greater than direct regulation because much of the direct regulation seems to hinder rather than support MFI financial sustainability (Arch, 2005). Indeed, self-regulation may work better than direct regulation because of availability of higher quality information (through industry-designed credit bureaus), lower transaction costs, and potentially less rent seeking by governments. These implications of self-regulation are law and economics conclusions, which although theoretical do provide insights into potential situations when self-regulation is more appropriate than direct regulation for the issue of MFI financial self-sustainability.

In contrast, India has provisions for a couple of self-regulatory bodies but their responsibilities potentially overlap and the administration of them poses a conflict of interest. To the extreme, Bangladesh has no legislated self-regulatory institutions in place. The MRA is the sole regulator of MFI's in Bangladesh. However, a third body, PKSF does evaluate microfinance but in an inconsistent manner. When comparing the countries of interest for their scores in the report by The Economist and the presence of self-regulatory systems it can be seen that there is a consistent positive relationship. Trends in the data will be examined in the following chapter.

It can be seen that a number of regulatory differences contribute to different working environments for microfinance. In particular, aspects such as freedom to set interest rates, an easy process for becoming regulated, relaxed loan portfolio guidelines and a high number of self-regulation institutions with clear responsibilities potentially contribute to an environment where MFI's are more able to be financially sustainable. Further, some government initiatives not only support MFI sustainability, but promote it, such as the guarantee fund for Pakistani MFI's when accessing the credit markets. These ideas will be quantitatively presented in the subsequent chapter.

Future chapters will consider correlations to gain an indication of the effect of certain regulatory and institutional environments on relevant indicators which will help to contribute to answering the research question of the current thesis. Further, subsequent methodology may benefit from qualitative empirical research in the form of interviews with key players in microfinance in each country of interest. This kind of process would aim to interview twenty five relevant people on the topic on location in Pakistan, India, Bangladesh and Italy.

The next chapter of this thesis will present a statistical analysis of the effect of microfinance law on MFI financial sustainability. Some of the data which is relevant for establishing this includes: World Bank reports; before and after legislation; legislation in successful microfinance environments; institutional details; goals of the legislator; aggregate data; entrepreneurship data; economic activity of the poor data; trust (Kantorowicz, 2013; World-Values-Survey, 2013).

The current chapter has found that otherwise very similar countries potentially have microfinance regulations which are vastly different and which potentially have implications for the sustainability of MFI's. It has been found that the regulatory environment of Pakistan is theoretically supportive of MFI financial self-sustainability because it has complementing components which consider consumer protection, financial stability, and a free business environment. As covered in detail in this chapter, the Pakistani regulation has a tiered structure which allows large multi-region MFI's to fall under more onerous reporting and operational standards than small province-based MFI's. On the other hand, the overly prescriptive laws of India and Bangladesh seek to provide MFI's with requirements on how to operate, rather than by working together to achieve social and economic goals.

This chapter has extended the theory presented in the third chapter of this thesis to understand which regulatory factors affect MFI financial sustainability, and to begin to consider in which way. The cross-country comparison has shown that the key influencing factor which determines the regulatory detail is the perspective of the government. If the perspective of the government is to support the social outcomes of microfinance and the focus is on consumer protection, then the regulation is designed in a way which inhibits MFI financial sustainability through restrictions on business activities such as access to capital and interest rate caps. On the other hand, when the government identifies MFI's as potential engines of development and financial inclusion, the regulations are designed in a way which provides MFI's with a variety of capital sources and freedom of business activities. There are vast differences based on the perspective of the government in question. Because of this, forming concrete conclusions is somewhat difficult.

Indeed, this means that the current research can just tell if a particular regulation can potentially achieve a particular goal, and more broad statements are more challenging.

The key findings from the extensive comparative analysis presented in this chapter highlight that comparable countries seeking to increase financial inclusion through supporting microfinance have the potential to differ greatly in the specifics of microfinance regulation. This chapter has highlighted that differences in regulation regarding the overall regulatory environment, business activities, risk management provisions, and consumer protection, have potentially measurable effects on MFI financial self-sustainability. Differences in the MFI's abilities to obtain finance and capital, capital adequacy requirements and interest rate caps all have significant impact on MFI operations. This chapter has brought to light the key differences in microfinance regulation among the countries of interest.

Based on this strategic difference identified, it can be extended that there is also a relationship between the perspective of the government (and thus the trend of regulations) and the financial sustainability of MFI's. Building on the criteria examined in this chapter, the next chapter will examine this relationship and identify if it is actually the case. A dual track strategy will be employed to answer this question, with both statistical analyses and qualitative interviews undertaken and presented in their respective following chapters. This dual track approach will provide the current thesis with a methodological soundness to ensure the answer to the research question contributes to the gap in the literature in this field while providing potential practical recommendations for regulators.

Chapter 6

6. Statistical Considerations

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6.1 Introduction

The long term positive effects of microfinance depend on MFI's which are financially sustainable (Pollinger, Outhwaite, & Cordero-Guzmán, 2007). Previous chapters have established that the effect of microfinance is primarily positive and relatively cheap for governments to support (via regulation). Thus, microfinance is a development tool which should theoretically be supported. However, the current microfinance system relies on a continuous cycle of donations, grants, and low interest loans for MFI's to continue operating. The financial sustainability of MFI's will thus theoretically allow for the positive benefits of microfinance to be achieved consistently into the future.

The issue is what affects MFI sustainability, and in what way. This research has identified regulation as a key factor which has the potential to affect MFI financial sustainability through affecting the incentives of borrowers, MFI's and microfinance stakeholders to build an environment which supports MFI operations. Given that the goal of most, if not all, MFI's is to provide a reliable source of capital to those otherwise excluded from the financial system, it is theoretically important for these institutions to be able to operate in a way which allows them to achieve that goal. The previous chapter of this thesis explored how regulatory environments can differ widely between otherwise comparable countries, and that there are potential influences on MFI sustainability from these regulatory particularities. Indeed, the previous chapter identified that specific MFI regulation has the potential to affect how MFI's source capital and how they operate their businesses. The current chapter aims to extend the analysis from the previous chapter to quantitatively explore the effect of regulation on MFI sustainability.

It was established in the previous chapter that the aim of the government regarding the role of microfinance is critical in shaping MFI regulation. Subsequently, MFI regulation has the potential to affect MFI sustainability. Thus, the objectives of the government provide the key starting point for the direction the regulation takes and the flow through effect on microfinance borrowers. In this way, regulatory situations can potentially be coded in strategic ways categorising the perspective of the government, as well as the particular regulations within the regulatory environment. Both perspectives will be considered in the current paper and discussed in the methodology section.

Although the previous chapter clearly identified the differences in regulation across India, Pakistan, Bangladesh, and Italy, the potential conclusions drawn were based on a one-sided consideration of the description of the regulation only. This chapter aims to explore those differences with a quantitative methodology in order to draw more concrete conclusions about the effect of regulation on MFI sustainability. The current chapter aims to contribute to answering the research question by establishing if there is a relationship between regulation and MFI financial sustainability, and in what way.

Determining the effect of regulation on something so specific as MFI sustainability requires a sound methodological process. In order to ensure the results achieved within the current chapter are reliable and valid a series of quantitative methodology will be undertaken to include: cross-country; within country and across region; and within country and across time periods analysis of data. Further, the current research will consider a variety of potential extraneous variables such as corruption, trust, and business environments, among others. This methodological procedure will use data publicly available via the sources of the Microfinance Information Exchange, Microfinance Summit Campaign, and World Bank. Details of the methodological procedure will be outlined in the appropriate sections.

This chapter is structured as follows. The second section presents methodological considerations. The third section presents the results of statistical analyses and the fourth section concludes.

6.2 Methodology

In order to answer the research question of the current thesis, the methodology requires that two key variables be identified and quantified. Namely, it needs to be understood what financial sustainability is, and what regulation is, in terms of how these aspects can be quantified.

6.2.1 Definition of Financial Sustainability

The operational sustainability of MFI's is one of the criteria by which data is gathered for the MIX Information Exchange. MIX collects information from a number of MFI's in each country (those who willingly provide the data) and gathers specific information, some of which is relevant for the current chapter.

A key report by Sa-Dhan, The Association of Community Development Finance Institutions established what operational sustainability is in microfinance after considering potential viewpoints and establishing a formula. In particular, this report establishes operating sustainability as:

Operating self-sufficiency is a percentage (%), which indicates whether or not enough revenue has been earned to cover the Microfinance Institution's (MFI's) total costs – operational expenses, loan loss provisions and financial costs. P.1.

The current research further clarifies this definition with the following requirements:

- Independence from donations
- Social factors plus financial factors. Move to measure the social outcomes of MFI's, and decide on investment in them based on social performance as well as financial performance. So sustainability is achieving and measuring both outcomes. There is the 'Microfinance Summit Campaign' tick of approval for these companies, so they can be potential MFI's to focus the research on.

There are a variety of potential issues with the data available for these analyses. The primary issue is that there are various factors which have the potential to impact MFI sustainability other than regulation, and not all of these factors can be potentially controlled for in the statistical analyses. A primary issue is the management of the MFI, a factor which ca not accurately be quantified. This is because the reliability of proxies is still an issue of debate (Kolenikov & Angeles, 2009), and some information is impossible to know without the use of proxies. Further, the potential for randomisation in the current analysis is limited to the sample size. For example, with 35 listed MFI's from Pakistan on the MIX website, to randomly select from that the population would reduce the sample size to such an extent that any results would have questionable validity. In order to overcome issues of sample selection two data sets have been used: MIX Information Exchange, and the Microfinance Summit Campaign.

There are large amounts of data on microfinance available. The issue is that most of the data relates to aspects of microfinance which fall outside the scope of the current research, that is the effect of microfinance on social outcomes. The data obtained from the MIX and Microfinance Summit have been substantially narrowed to focus on the key factors relevant for this research. The third chapter of this thesis identified the potential financial indicators of MFI's which may reflect particularities in the law. Specifically, the variables which are potentially able to reflect regulatory effects are:

- Average loan balance
- Operating Self-Sustainability (OSS%)
- PAR>30 and >90
- Profit margin
- Assets (MFI size)

- Total outstanding loans
- Outreach to the poorest women

These financial indicators have been chosen based on the identification that these may have theoretical justification, in the third chapter of this thesis. In the third chapter it was identified that legal particularities such as a cap on loan sizes may affect the average loan balance, outreach to the poorest women, outstanding loans, and subsequently also on profit margin, OSS%, assets, and PAR. Other law changes may have potential effects on these financial indicators, such as interest rate caps or other restrictions on how MFI's carry out their business operations. Previous chapters have identified that these financial indicators are those which are theoretically sensitive to changes in the law regarding microfinance. Further, these financial variables are actually reported on by most MFI's in the world, to either MIX market exchange or the Microfinance Summit Campaign. Hence, the analyses of these variables have been supported in the theoretical considerations of chapter three, and are the variables for which data is also widely available.

6.2.2 Statistical Considerations

Empirical research is built on a foundation of reliable and valid statistical analyses of random samples. Thus, it is critical that the statistical techniques identified and undertaken for the current analysis are measuring what is sought to be analysed (validity), and in a consistent manner (reliability). Further, weaknesses in the data need to be discussed and the results interpreted with care, given the sample size and sampling method (self-selection). Standard statistical methodologies of OLS (Ordinary Least Squares) regression and correlation will be used to understand potential trends in the data.

There is the potential for methodology such as Event Studies, but the analysis of data for this case is restricted because of the highly specific events in question. That is, the regulatory change (which would form the event) in the relevant countries is either from before reliable data existed (Pakistan) or too recent for available data (India). No significant law changes have been introduced in isolation in Bangladesh worthy of study. Further, the availability of market data inhibits the development of a market portfolio for comparison in the later stages of this technique.

A key issue with the design of statistical analyses for the current chapter is the identification of a counterfactual. Arguably it can be said that Bangladesh provides a counterfactual for Pakistan because the regulatory environment is so restrictive in the former. However, the scope of analysis required to compare these countries against each other, and without a recent law change to analyse in detail, means that too many variables need to be controlled for. One of the key and ever-persistent arguments against this strategy is that the fact that the countries have such different regulation is simply evidence that they are not two comparable countries (Eisenberg, 2000) .

Regression discontinuity has been considered as a potential statistical technique to use in the current study. However, the benchmarks which would be relevant for the current research would be the tier thresholds which distinguish MFI's regulated in certain ways. Tier thresholds are relevant in the current research because they theoretically provide the regulation with an inherent foundation from which to support growing MFI's of different sizes be regulated in different ways. One of the key criticisms of regulation which does not discriminate between microfinance and banks is that MFI's are subject to banking law which is far too restrictive considering the products offered by MFI's and the potential societal impact from those products. In this trend, regulation which does not discriminate between different sizes (or another criteria for the tier) of MFI's also inherently inhibits MFI's from achieving financial sustainability by applying a blanket of rules to MFI's which are vastly different organisations. Most tier thresholds are based on size (eg. in India) but they can also be based on the number of borrowers, or as in Pakistan where the MFI choses the regime under which to be regulated. A key issue with using this technique is that the tier thresholds are not necessarily 'arbitrary', which is a requirements for this technique. Further, it is certain that the groups of MFI's on each side of the threshold are not directly comparable. Indeed, it can be argued that those seeking to be regulated as a higher tier do have some particular characteristics which make them different to those in another tier of regulation. Hence, the nature of MFI's, and the wide differences in operational goals mean that this group of subject institutions are inherently heterogeneous.

One of the potential key techniques for this kind of analysis is comparing a variable before and after a regulation was introduced. The issue with this technique in the current thesis is that either the law was brought in before there is reliable 'before' data (eg. In Pakistan and Bangladesh), or else there are a series of law changes year on year which would contribute in a cumulative way to the change in the operating environment for MFI's. For example, in Bangladesh there have been few substantial changes to the law since 2007 which can be isolated as having an effect. On the other hand, in Pakistan, each year the microfinance law has been changed, with no single ground breaking piece of legislation. This is in contrast to India where the recently implemented Microfinance Bill (2012) will undoubtedly have measurable effects within the coming years, but it is too soon to see the results because of the lag in the implementation of the law at a practical level and also because of a lag in time before MFI individual data are available.

Although the current chapter faces a broad range of challenges in designing empirical methodology, that is not a sufficient excuse to ignore the quantitative aspect of microfinance. Indeed, in presenting a clear quantitative representation of the data relative to the current thesis, even without sophisticated statistical techniques and empirical natural experiments is still a contribution to the literature in this field. This is particularly because the current thesis is concerned with the financial sustainability of MFI's, which includes readily quantifiable data.

6.3 Results

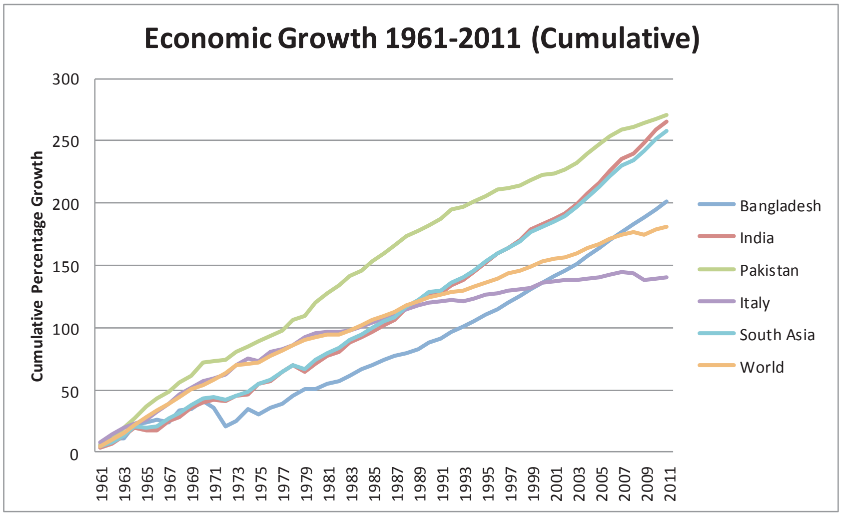
6.3.1 Macro Analyses

Macro conditions are important to consider for the current chapter in order to account for and potentially identify any anomalies or trends in the data which may explain specific findings relating to MFI sustainability. In particular, general analyses of macro data can illustrate cross-country trends which are otherwise difficult to understand.

6.3.1.1 Economic Growth

The countries of interest have had patterns of economic growth which are illustrative for the current analysis. The data for this analysis was acquired from the World Bank Economic Growth Indicators, which are provided in percentage terms for each year since 1961. In order to gain an understanding of the on-going effects of yearly growth patterns, the cumulative amounts have been calculated.

Figure 1. Cumulative Economic Growth 1961-2011



Source: World Bank Economic Growth Data (Yearly), 2013[1]. Own calculations of cumulative growth rates. http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG

As can be seen from the above figure, the economic growth rates of Pakistan and India have outpaced the world average. On the other hand, Bangladesh suffered from the flow through economic effects at the time of independence from Pakistan around 1970. The result of this shock was a ten year period of limited economic growth which affected the ultimate level of growth over the 50 year period illustrated. From the perspective of microfinance it can be seen that the Bangladeshi economic shock at the time of independence was an appropriate motivator which spurred Professor Yunus to develop the microfinance system of the Grameen Bank. Although the current research is not primarily concerned with macroeconomic indicators such as economic growth, a variety of research has linked the importance of law and economic growth, which is relevant for the current thesis (Faure & Smits, 2011; Ohnesorge, 2009).

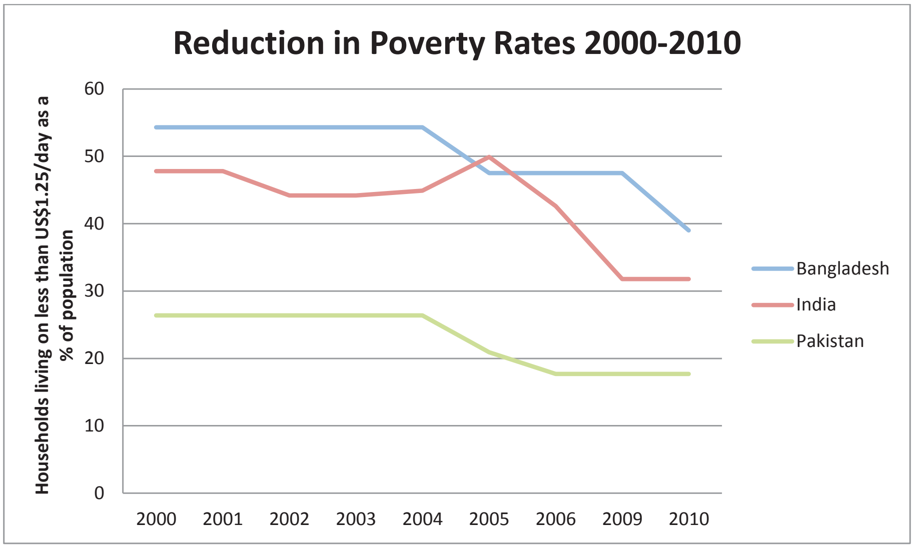
6.3.1.2 Poverty

Along with social benefits, overall poverty reductions are also a goal of microfinance. Research has showed that global poverty rates have been reducing over the last 50 years (The-World-Bank, 2009). Thus, it is no surprise that Figure 2 illustrates a similar trend in reduction in poverty in the

[1] 'Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2000 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources'.

countries of interest in the last decade. The data for this analysis was taken from the Progress Out of Poverty Index's published by Mark Schreiner

Figure 2. Poverty Reduction



Source: Mark Schreiner's publications for the Progress Out of Poverty Index[2] (Ismail & Achmad, 2010; Schreiner, 2009, 2013)[3].

Figure 2 illustrates that over the time period of the figure the poverty reduction in India and Bangladesh has been approximately 15% whereas the reduction in poverty in Pakistan has been less than 10%. It is not the goal of the current thesis to attribute these trends to microfinance, but rather to illustrate that these countries do have differences which may be of benefit examining in more detail in future research. From this data it can be speculated that the higher concentration of microfinance per capita in India has flow through effects to poverty, but attempting to empirically show this is outside the scope of the current thesis.

6.3.1.2.1 India Poverty

The previous chapter identified that different microfinance law applies to MFI's in different regions of India, namely between North East India and the rest of India. Thus an analysis has

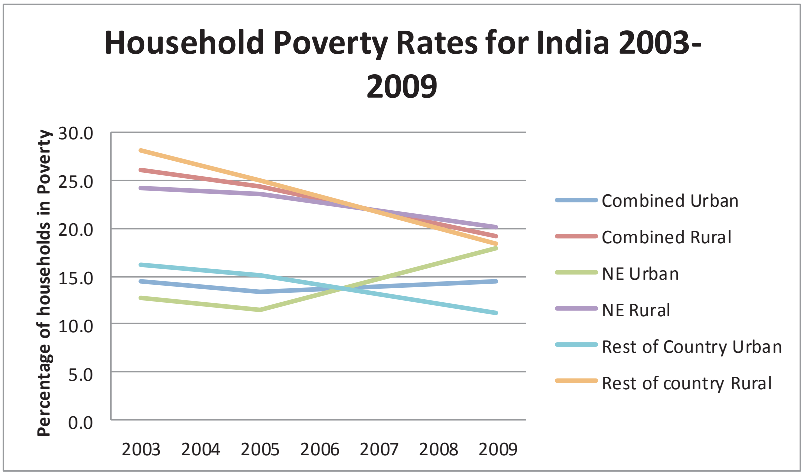
[2] The 'Simple Poverty Scorecard' was used for each country for each year where data was available, which was not always the same for each country. Where no data was available for a particular year the rate of poverty is illustrated as remaining constant.

[3] Poverty rates were taken for the number of households in absolute poverty as per the World Bank's definition of earning less than US$1.25 per day (The-World-Bank, 2009). Where these rates were not available the National Tendulkar rate was taken instead.

been conducted to demonstrate the trends in poverty over time for those regions in order to understand the motivation for the law, and also any potential effects on poverty.

The data for this analysis was from the work by Ismail and Achmad (2010) and the 'National Tendulkar 100%' rate for the number of households in poverty scores were taken for each year for each state which were then divided into either North East or the rest of India, and averages were calculated. This score was chosen because these criteria had the most complete data. Where data was unavailable at the 100% rate, the 'legacy' score was used.

Figure 3. Indian poverty levels by region and urban/rural status



Source: Mark Schreiner's work for the Progress out of Poverty Index, 2012 (Schreiner, 2012)[4]

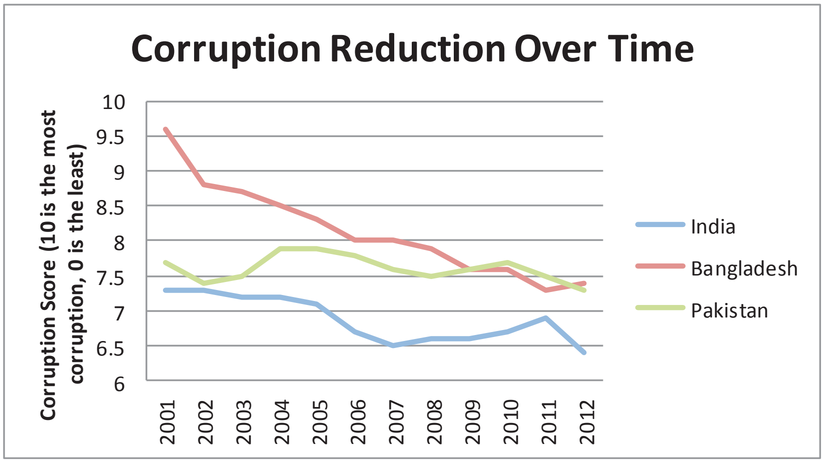
The figure above shows how rural poverty levels, while initially much higher than urban poverty levels, have been falling at a more consistent rate. Further, the figure indicates that although the households in the North East region are more likely to be in extreme poverty if they are rurally located, the urban poor of the North East region have actually increased in poverty over the time period. This result may indicate why the law, put in place in 2012, has identified the North East region of India to receive particular treatment (in particular the reduced capital requirements to be registered as an MFI).

[4] The 'Simple Poverty Scorecard for India' was used for this data. Regional data was taken for each year where data is available.

6.3.1.3 Corruption

Microfinance is a tool which bears on its shoulders grand poverty alleviation and social empowerment goals. In order to ensure that the analysis of the effect of regulation considers some potential extraneous and confounding factors, a brief illustration of rates of corruption in the countries of interest will be presented. Data has been sourced from Transparency International, the leading source of data on perceived levels of corruption.

Figure 4. Corruption Reduction Over Time



Source: Transparency-International (2013) and own calculations[5]

Figure 4 above clearly shows the steady reduction in corruption perceptions in Bangladesh, a slow reduction in India, and barely any reduction in Pakistan. These results not only provide an indication of how corrupt these countries are, but also highlight the progress over time. Specifically, although previous figures have indicated that there are lower levels of poverty in Pakistan, the issue of corruption may affect the success of microfinance regulation to a greater degree than other associated factors. However, it is also worth noting that although the perception of corruption has reduced the most in Bangladesh over the last decade, it still has slightly higher corruption perception than India and Pakistan.

[5] Transparency International is the leading organisation which focuses on and measures corruption in most countries of the world. Corruption scores have been inverted in order to show a more intuitive reflection of decreasing corruption levels over time. This is because the index gives higher scores for lower corruption. However, when considered in graphical form over time and compared to other countries it is more readily understandable to be presented as it has been calculated above. The website source is: http://www.transparency.org/cpi2012/results

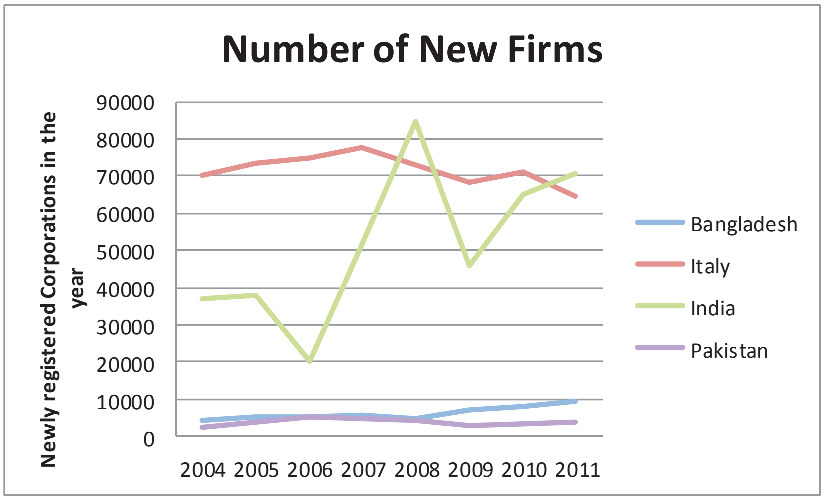
6.3.1.4 Entrepreneurship

Authors from the World Bank have established that there is a strong relationship between entrepreneurial activity and economic and financial development growth indicators, as well as the legal and regulatory environment and governance (Klapper, Amit, Guillen, & Quesada, 2007).

The data available to use for this include the Global Entrepreneurship Monitor, and the World Bank Group Entrepreneurship Survey. Authors have found that the former data covers more the potential supply of entrepreneurs whereas the latter accounts for the actual supply of entrepreneurs (Acs, Desai, & Klapper, 2008). The World Bank data was chosen for this thesis because of its completeness for the countries of interest.

One of the key goals of microfinance is to increase entrepreneurship (Holvoet, 2004). In order to consider the rates of entrepreneurship indicators in the countries of interest data from the World Bank has been prepared in graphical form. Data will be presented for the number of new firms registered, and the density of new firms.

Figure 5. Number of new firms per calendar year



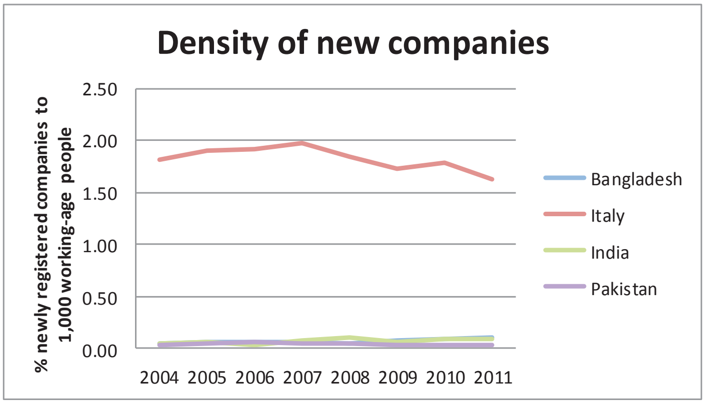
Source: The World Bank Entrepreneurship Data (The-World-Bank, 2013c)[6]

[6] The data provided by The World Bank as a part of their 'Doing Business' series of surveys have been presented in the figure above and also figures 6 and 7. Data is presented as it appears in the original source and graphed on a yearly basis. The website is: http://www.doingbusiness.org/data/exploretopics/entrepreneurship

It is interesting to note that the number of new corporations being registered each year is now greater in India than in Italy. Considering these two economies are of a similar size indicates the growing pace of India and the stagnant economic environment of Italy over the last few years. While the numbers of new companies in Italy and Pakistan has remained relatively stable over the last five years, it is clearly seen that in India and Bangladesh the annual figures have almost doubled. These results may indicate that the process of registering corporations in India and Bangladesh has recently been transformed in order to capture more firms, or that there is actually a steady increase in entrepreneurship in these countries. Regardless of the underlying cause, the overall effects are nonetheless interesting.

From the perspective of microfinance, the trend may also reflect that there has been a greater graduation rate of small businesses to being formal enterprises under government regulation. Although most of the enterprise which exists in the developing world are unregulated as a result of the small-scale nature, it is the goal of microfinance to support the establishment and growth of small enterprises until they become fully-fledged companies contributing to the economy as a whole. Thus, research which analyses the effectiveness of microfinance would benefit from an in-depth analysis of this data. With such basic analyses as the time series presented in this section, conclusions ca not be drawn, rather associations can be discussed. For example, the downward trend of new firms in Pakistan is particularly surprising given the supportive regulatory environment and the success of microfinance in that country, relative to the comparison country of Bangladesh. Indeed, the slight reduction in poverty rates in Pakistan relative to the other countries of interest follows a similar line of analysis. These two points suggest that despite the fact that the microfinance regulation in Pakistan is in theory so strong, the flow-through effects to economic indicators does not illustrate a potential flow-through effect on poverty reductions. The data analysis required to draw concrete conclusions of this nature are outside of the scope of the current research.

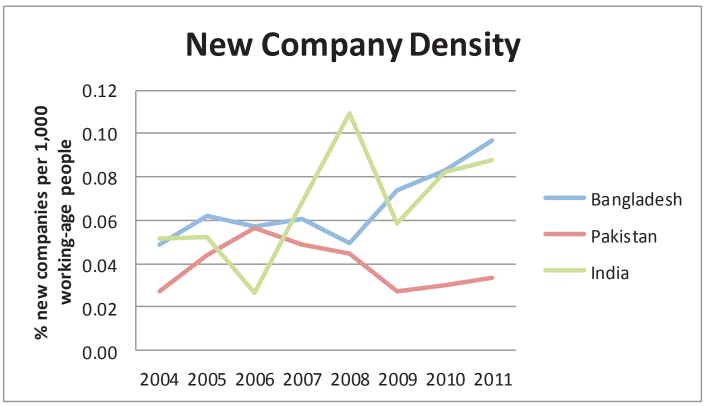
Figure 6. Density of new companies for Italy, India, Bangladesh, Pakistan



Source: The World Bank Entrepreneurship Data, 2013[7]

The figures preceding and following illustrate the density of newly registered limited liability companies per 1,000 working-age people (those ages 15-64). Figure 6 above shows how the density of new companies is much higher in Italy than in the Indian subcontinent. This is because although these countries boast similar economic size (The-World-Bank, 2013d), their populations are vastly different in size. In order to examine the trends in the three comparable countries, the following figure has been developed.

Figure 7. New Company Density (without Italy)



Source: The World Bank Entrepreneurship Data, 2013[8]

[7] The same source as the figure preceding

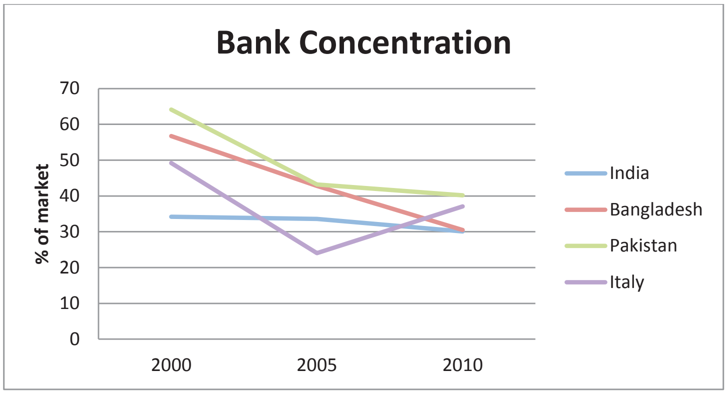
The figure above, with a more comparable scale, illustrates again the increasing entrepreneurial activity in India and Bangladesh, and the relative stagnation in Pakistan. Indeed, over a seven year period the density of new companies increased by more than a third in India and Bangladesh, and barely changed in Pakistan. This is logical given the trend of new company registrations presented in Figure 6. For the purposes of the current thesis it is of importance to note that the increase in formal (and thus easily measurable) entrepreneurship in Pakistan has not increased in line with increasing levels of microfinance in that country. In contrast, the amount of new companies and the density of those companies has increased relative also to population growth in working age people (which naturally has a 16 year lag effect as it is for the working-age population) in both India and Bangladesh. Considering this finding, we would expect to find confirmatory findings in the data regarding access to credit as well as to poverty reduction. Indeed, with relation to poverty reduction it can be seen that reduction of poverty in Pakistan is lower over the time period than in India and Bangladesh. The purpose of this thesis is not to draw conclusions about the relationship between entrepreneurship and poverty reduction, although this association may indicate a dataset which future research may benefit from exploring empirically.

6.3.1.5 Financial Development

Microfinance is in essence a financial innovation with social benefits (Block, 2010; Brau & Woller, 2004). Given the interconnectedness between microfinance and the financial markets through which MFI's source capital (in ideal situations), and the ability to be regulated as a specific sector of financial institutions, financial development is important to consider for the current chapter. In order to gain an understanding of financial development of the countries of interest figures will be presented regarding bank concentration[9], bank accounts, and bank deposits.

[8] The same source as the figure preceding
[9] Bank concentration is defined by the World Bank as: A measure of the degree of concentration in the banking industry, calculated as the fraction of assets held by the three largest commercial banks in each country.

Figure 8. Bank Concentration



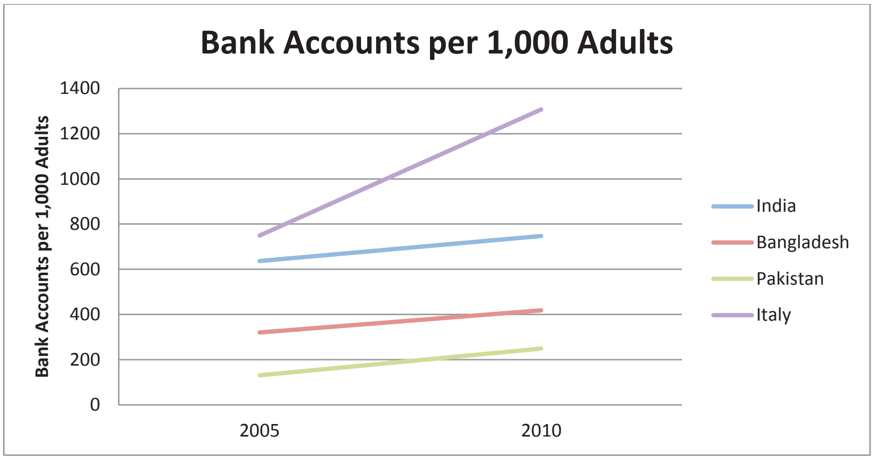
Source: The Little Data Book on Financial Development 2013 (The-World-Bank, 2013e)[10]

The data sourced from the World Bank indicates that in all the countries of interest bank concentration has fallen since the year 2000. In particular, bank concentration has fallen sharply in Bangladesh and Pakistan and slightly in India and Italy. This is a positive result for all the countries because it implies that competition has subsequently increased, an aspect of financial markets which has the potential to increase access to financial services and benefit the poor. Authors have commented that financial market diversity benefits the end consumers (Allen & Gale, 1999). Whether this data includes microfinance is difficult to ascertain.

In terms of measuring financial access, also a goal of microfinance, the proxy of bank accounts per 1,000 adults can be used. This proxy provides an indication of how many people have access to the formal financial system in the form of savings accounts. Authors have commented that for microfinance to result in quantifiable economic development, clients need to 'graduate' to the formal financial system (Ahlin & Jiang, 2008). Thus, the data which follows in the next two figures may reflect in part an effect of microfinance in enabling the poor to 'graduate' to the formal financial sector, or there may be various other effects which account for the trends.

[10] This data source by The World Bank covers a variety of indicators of financial development. The aspects of this analysis which are relevant for this research have been included in the figures in this section. The source of the data remains the same for figures 8,9 and 10.

Figure 9. Bank Accounts per 1,000 Adults

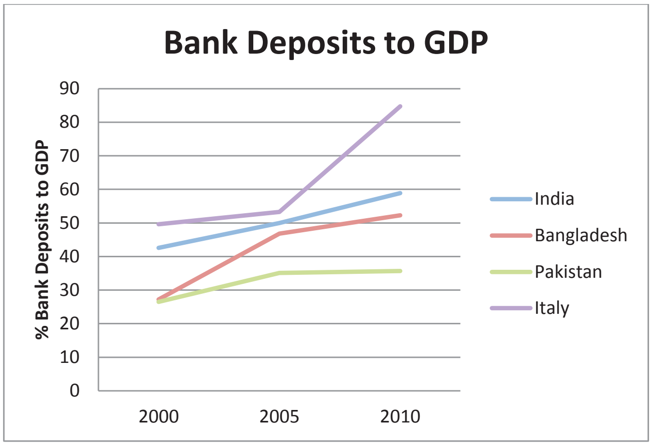


Source: The Little Data Book on Financial Development 2013

The figure above shows the increase in the relative number of bank accounts in all of the countries of interest. Data was not available for the year 2000, so the short term nature of the data means that interpretations should be cautious. The data indicates that in India, most people have a bank account, while in Bangladesh the numbers are much lower and in Pakistan only one fifth of the population have a bank account. Thus, although growth in bank accounts has been documented, financial inclusion still has a long way to go. Interestingly, in Italy most people have more than one bank account on average. Hence, although it is a country with the most need for microfinance, especially microcredit, in Europe (Kyereboah-Coleman & Osei, 2008), deposit accounts do have high penetration.

In addition to the relative number of bank accounts, the amount in those bank accounts is also relevant to understand financial development and financial inclusion. The figure below indicates trends in bank deposits to GDP for the countries of interest.

Figure 10. Bank Deposits to GDP



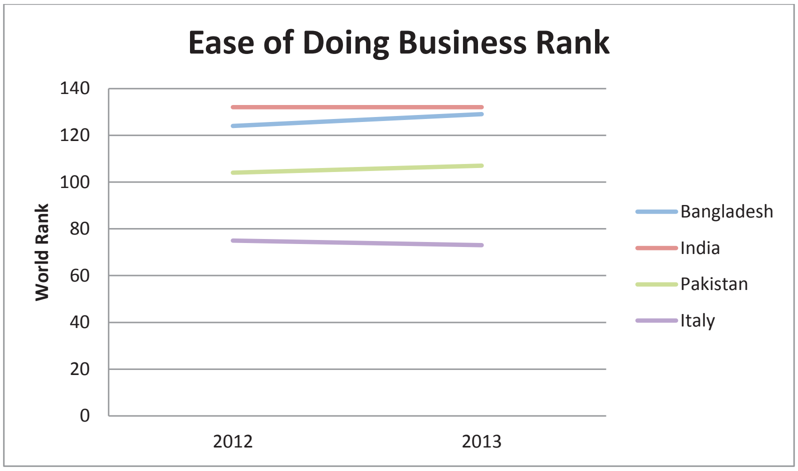
Source: The Little Data Book on Financial Development 2013

The figure above indicates that the amounts saved in bank accounts have been consistently trending upwards in the countries of interest. As with other development data, this data also identifies Bangladesh as having the greatest increase in the indicator of interest, while Pakistan has the lowest rate of increase.

6.3.1.6 Doing Business

Various research in the past has covered the relationship between institutions and economic growth, as the flow-through effect of institutions on the ease of doing business is well established (Ohnesorge, 2009). In terms of microfinance, the ease of doing business is linked not only to the establishment of microenterprises and their graduation to being regulated enterprises, but also for the establishment and growth of MFI's themselves. Thus the data on this area is of interest to this chapter. Conveniently, research by the World Bank ranks countries on various indicators of doing business, such as the ability to get credit, ease of doing business, and starting a business. This chapter makes use of this data to provide an illustration in trends of business environment indicators which may be a reflection or supporter of the microfinance business environment as well.

Figure 11. Ease of Doing Business World Ranks

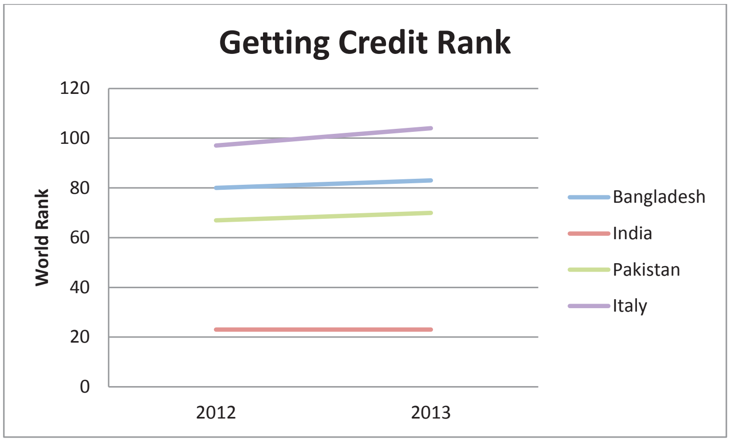


Source: The World Bank Doing Business Data (The-World-Bank, 2013a)[11]

The figure above provides some interesting indications of which of the countries of interest provide an institutional system which supports business relative to other countries. Interestingly, Bangladesh and India score well above Italy on this particular scale. Although the data is not complete for various data points in the past, the current ranks do provide an indication of the countries at the present moment.

[11] The annual Doing Business reports by The World Bank contain a number of indicators. In order to maintain relevance to the current research question, a select number of indicators are presented in this chapter. The data source is the same for figures 11, 12 and 13. The data is sourced from www.doingbusiness.org

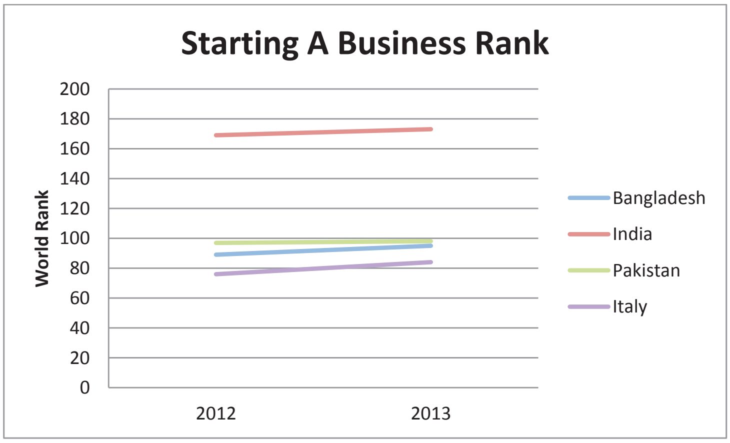
Figure 12. Getting Credit Rank



Source: The World Bank Doing Business Data (The-World-Bank, 2013a)[12]

In contrast to the ranks for overall doing business, the ability for businesses to obtain credit is much higher in Italy, Bangladesh, and Pakistan than India. This is especially interesting given the critical role that credit plays in business establishment, and the flow through economic effects.

Figure 13. Starting a Business Rank



Source: The World Bank Doing Business Data (The-World-Bank, 2013a)[13]

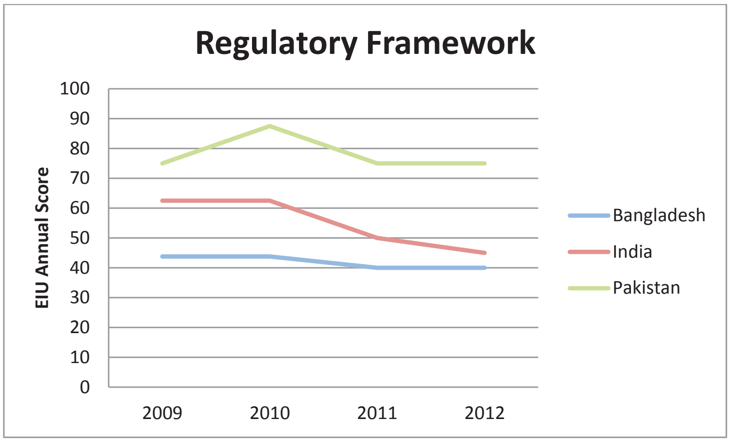
[12] The data source is the same as for the preceding figure
[13] The data source is the same as for the preceding figure

In contrast to the world rank regarding the ability to get credit, the figure above illustrates that in India it is much easier to start a business than in the other countries of interest, despite being the worst out of the four for the ability to get credit.

6.3.2 Regulation Analysis

The research by The Economist Intelligence Unit (EIU) has been covered in previous chapters of this thesis and is a primary empirical qualitative source of motivation for the direction of the current thesis. This research has consistently ranked Pakistan as one of the best environments for microfinance, with India and Bangladesh towards the bottom half of countries for the same criteria. It should be noted that changes in the Indian Microfinance Bill implemented in 2013 mean that it is likely this country increases its' scores in the future. In order to consider trends in the scores produced in this report, the main findings will be presented across time.

Figure 14. Regulatory Framework Scores

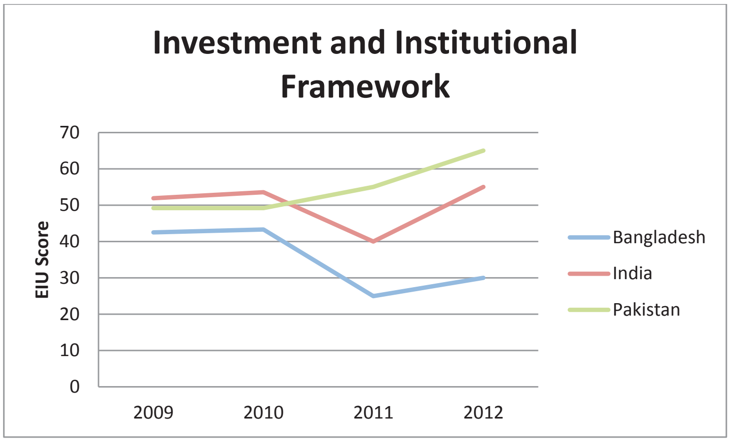


Source: Economist Intelligence Unit: Global Microscope on the Microfinance Business Environment , 2009, 2010, 2011, 2012[14]

The overall score for regulatory environment shows that although Pakistan is one of the best countries in the world for microfinance, India and Bangladesh have actually reduced their scores over the last four years.

[14] Yearly scores have been charted for each criterion in order to show trends in the data across time and comparison between countries.

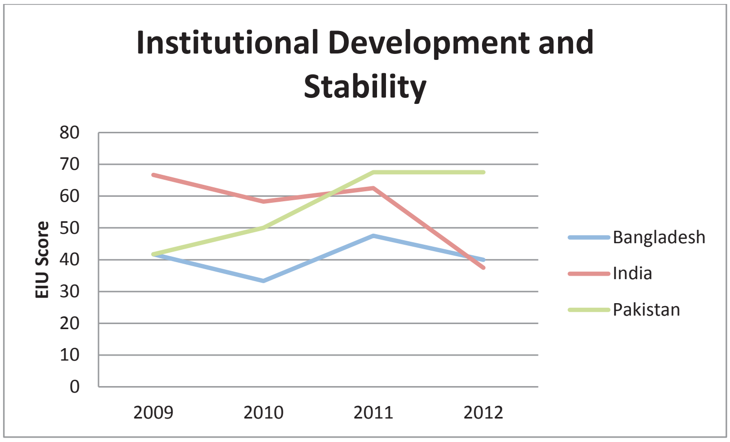
Figure 15. Investment and Institutional Framework Scores



Source: Economist Intelligence Unit: Global Microscope on the Microfinance Business Environment , 2009, 2010, 2011, 2012

The figure above indicates scores in line with the regulatory systems and adaptations of the countries of interest. Specifically, the regulation in Pakistan clearly and explicitly states that the goal is to support investment in microfinance, and this can be seen in the increasing scores in this area. On the other hand, despite a dip in scores, the investment environment of India has not changed significantly in the last four years. This is in contrast to Bangladesh, where recent national changes in law and economic conditions have resulted in a worsening score as the years progress. Considering the previous results regarding the macro conditions of the countries, this is particularly surprising, if relationships between microfinance and development are assumed to exist (Ahlin, 2008 #221).

Figure 16. Institutional Development and Stability Scores



Source: Economist Intelligence Unit: Global Microscope on the Microfinance Business Environment , 2009, 2010, 2011, 2012

The primary purpose of the third analysis by the EIU was to provide an adjustment factor for the previous findings, in stability. As can be seen in the above figure, stability has been increasing in Pakistan, stable in Bangladesh, and decreasing in India. These scores reflect a similar methodological procedure to the current thesis in that other confounding factors have been included in order to understand other issues which may affect the core variable of the study. The data from the EIU reports has been valuable in tracking over time key summarised indicators.

6.3.3 MFI Indicators

All data in the following sections, unless otherwise stated, are compiled from MIX and the Microfinance Summit Campaign. Italian MFI's do not provide data to either of these sources and so are not considered in the following analyses.

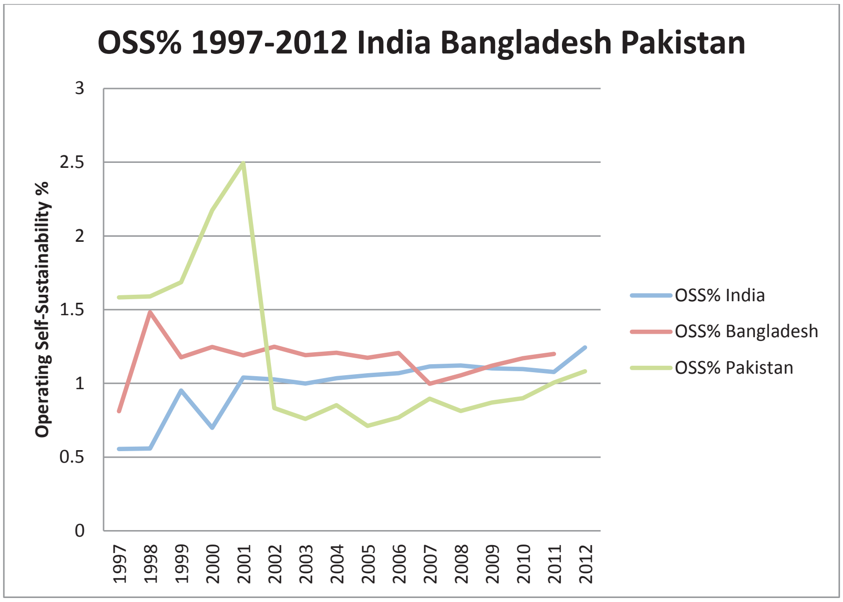
6.3.3.1 Country Averages

6.3.3.1.1 OSS% Over Time

Trends in operating self-sustainability have the ability to reflect a change in the operating environment of MFI's which may be a result of changes in regulatory structure. Operating Self Sufficiency, as reported in the data by MIX is defined as: financial revenue / (financial expense +

impairment loss + operating expense)[15]. Thus, although OSS% is an important indicator, it does not completely isolate the MFI's ability to not rely on donations, as those income sources are included in financial revenue. Without well designed experiments it is not possible to isolate the actual cause of the change in the independent variable (operating self-sustainability) over time, and that is scope for future research. In order to consider trends in operational self-sufficiency in India, Pakistan and Bangladesh, the available data has been graphed below.

Figure 17. Operating Self-Sufficiency 1997-2012

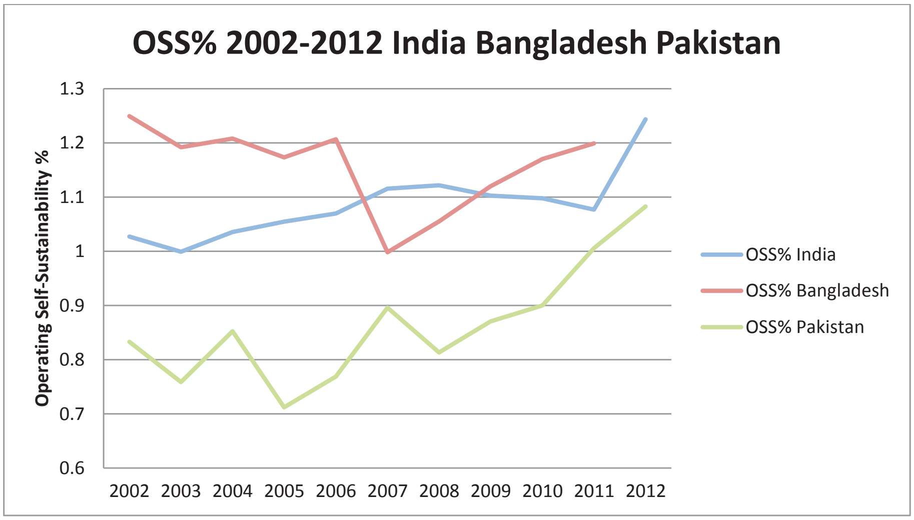


Source: Microfinance Information Exchange website: mixmarket.org/data

Figure 18 illustrates volatility in trends before the year 2002, most probably caused by a small sample size in those years, which mean the average scores are prone to be influenced by outliers more readily than in a large sample size in following years. For this reason and to examine the trends more closely, the years 2002 to 2012 have been isolated for the available data in the following figure.

[15] Definition taken from http://www.themix.org/publications/microbanking-bulletin/2011/05/microfinance-profits

Figure 18. Operating Self-Sustainability 2002-2012



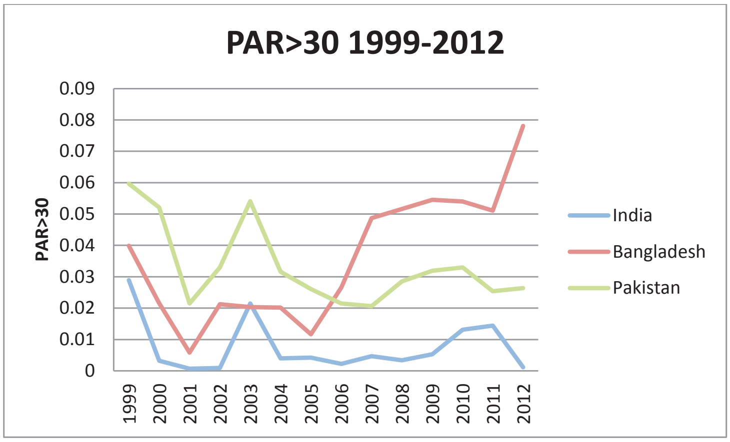
Source: Microfinance Information Exchange website: mixmarket.org/data

The above figure, as opposed to Figure 18, provides the most representative representation of trends in OSS% across time in the countries of interest because of the completeness of the data in this time period. The above figure indicates some interesting trends in operational self-sustainability. For example, in 2007 the OSS of Bangladeshi MFI's slumped, while at the same time those in India spiked upwards. Although only speculation, the law changes brought about in 2007 in both of these countries may be a reason for this. In particular, in Bangladesh in 2007 the specific microfinance law was drafted and implemented which required all MFI's to be registered and comply with the new law. The law was very restrictive in terms of product design freedom and restrictions on financing sources (eg. no mobilisation of deposits). In contrast, the law in India in 2007 partially opened up the ability for MFI's to grow by accessing capital markets if they met certain criteria. Although the trends illustrated in the figure above do nothing to assist speculation about the cause of the spikes in each country, previous chapters of this thesis would suggest it may be because of regulatory changes. This is because of the theoretical link between OSS% and MFI regulation, as well as because of particular regulatory changes in 2006/2007 which may explain the trends. For example, in 2007 Bangladesh implemented new law which greatly restricted MFI's in their operations, and the trend in OSS% following shows a clear spike downwards.

6.3.3.1.2 Par>30

The measure of PAR>30 is a benchmark which indicates the value of the loans which have a component of the principal repayment overdue by more than 30 days (Crabb, 2008). In the context of microfinance this can be a particularly sensitive measure of consumer attitudes toward repayment as well as a potential red light which flags a future decline in financial sustainability because of a reduction in regular loan repayments.

Figure 19. PAR>30



Source: Microfinance Information Exchange website: mixmarket.org/data

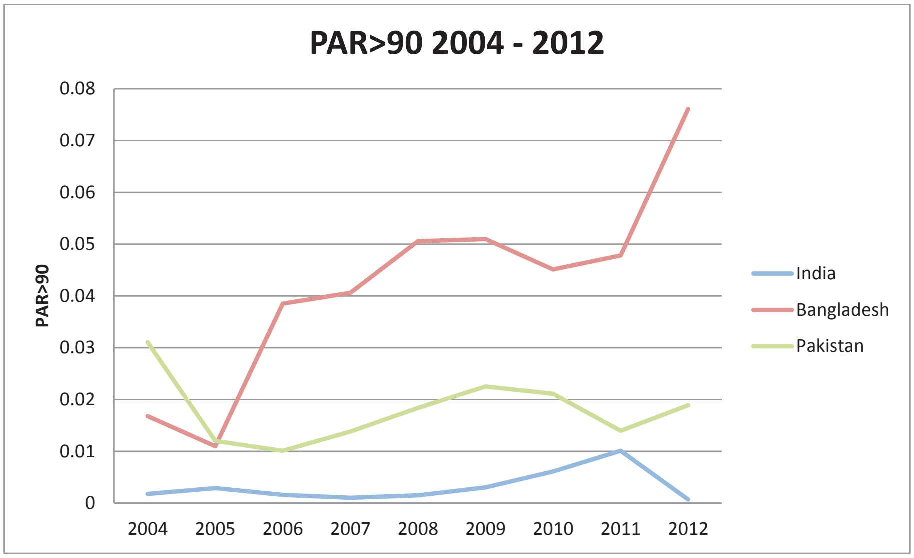
The figure above illustrates the trend in Bangladesh toward greater portfolio problems over the last decade for the MFI's which report to the MIX market database. Although it is tempting to attribute the increase in problematic loans to the declining quality of the Bangladeshi regulatory environment since 2007, there may also be other issues such as the Global Financial Crisis or weather events which result in localised reductions in the ability to repay microfinance loans. However, regardless of the cause, the increase in PAR in Bangladesh is particularly striking. Of note is the rise in problem loans in all countries at the same time as the Global Financial Crisis, a trend which suggests that the effects of the crisis did indeed reach the poor and affect their ability to repay their loans. Despite the relative increase, it can still be seen that in absolute terms all countries have consistently high repayment rates.

The empirical work by Karlan and Zinman (2008) on the effect of interest rates on repayment and demand for loans suggests that in the years with no interest rate cap average interest rates would rise, and loan defaults or PAR>30 would increase (Karlan & Zinman, 2008). In the case of India, interest rate caps were removed in 2010 (nationally however some states imposed their own interest rate caps), and in that year it is also noted that there is an increase in PAR>30 from the year before, which subsequently reduces in 2012 when an interest rate cap is brought back in. Although the trend in India's data for PAR>30 cannot be attributed solely to changes in the law regarding microfinance interest rates (based solely on the analysis provided above) it does highlight a particularity which may be a worthwhile subject of future empirical research.

6.3.3.1.3 Par>90

In a similar vein to PAR>30, the measure of PAR>90 reflects the more serious issues in portfolio composition and portfolio risk. Indeed, while the PAR>30 may reflect sentiment or a change in localised conditions, PAR>90 is more likely to be an accurate reflection of consistent issues in portfolio composition caused by more long term issues with consistent repayment.

Figure 20. PAR>90



Source: Microfinance Information Exchange website: mixmarket.org/data

The clear trends in the reduction in quality of the portfolio of Bangladeshi MFI's may intuitively be argued to be a result of regulatory changes which have increased the restriction on microfinance business operations. In this trend, an intuitive explanation could be that as MFI's are restricted in their sources of capital and ability to collect repayments there are 'forced' to provide loans to a segment of society that is more risky than traditional microfinance borrowers, and this results in greater portfolio risk. Further qualitative research may be able to shed light on the reasons for this trend, something which the data is unable to illuminate.

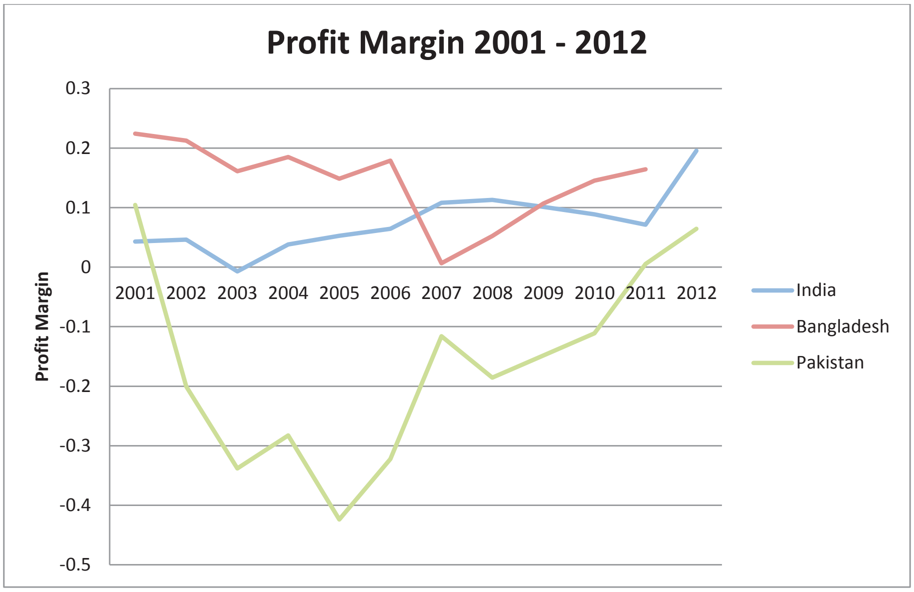
Putting aside any issues of sample size and the self-selection bias which affects these trends, it is clearly seen that PAR>90 has become an increasing problem in Bangladesh. Indeed, the figure has more than quadrupled since the data begins in 2004. This reflection of portfolio problems may reflect a number of underlying causes such as borrower selection or repayment collection measures. However, regardless of the effect, the trend indicates that while portfolio risk in Pakistan and India has remained relatively stable over the period, in Bangladesh the issue is increasing year on year. The changes in regulation in Bangladesh since 2007 which further restrict MFI's from collecting loan repayments in regular ways or operating their businesses as viable operations may be one of the explanations for this.

One could speculate that the trend in the riskiness of the Bangladeshi microfinance portfolios is because the law was changed in a way which made the provision of microfinance more difficult and also because

6.3.3.1.4 Profit Margin

The profit margins of MFI's are potentially a good summary of the ability of the managers to operate an efficient business considering the market environments. Separate from operating sustainability, profit margin is a more specific measure which divides operating income by net financial revenue (Hartungi, 2007 #33). Trends in this variable have the potential to reflect not only the external business environment, but also the operating capacity of MFI managers.

Figure 21. Profit Margin 2001-2012



Source: Microfinance Information Exchange website: mixmarket.org/data

The measure of profit margin is particularly interesting because it illustrates an aspect of business functioning which is not captured by OSS%. Indeed, the previous trends examined could not have anticipated the slump in profit margin of Pakistani MFI's between 2001 and 2007. And contrary to the crisis which affected portfolio quality, at that point the profit margin started increasing at a more consistent rate.

This particular data highlights that even though the regulatory environment in Pakistan has been relatively supportive of MFI's since 2001, the flow through effects to particular financial indicators is not guaranteed. This may be because in Pakistan MFI's have been more traditionally run as businesses rather than charities and hence the MFI's face different challenges to those which operate as charities.

The case of Pakistan profit margin is particularly interesting because the MFI regulation in that country is apparently world class (Economist-Intelligence-Unit, 2012, 2013). However, if the law does not support profit margin, which is an indicator of financial self-sustainability, then it leads one to question how exactly the law was able to achieve such a high ranking in the world stage. If the theory of previous chapters is correct, then the law has the ability to greatly influence the financial sustainability of MFI's. However, this trend in profit margin indicates either a great lag in the time for the effect of the law to take place, or perhaps the law does not have as much influence as the theory would suggest.

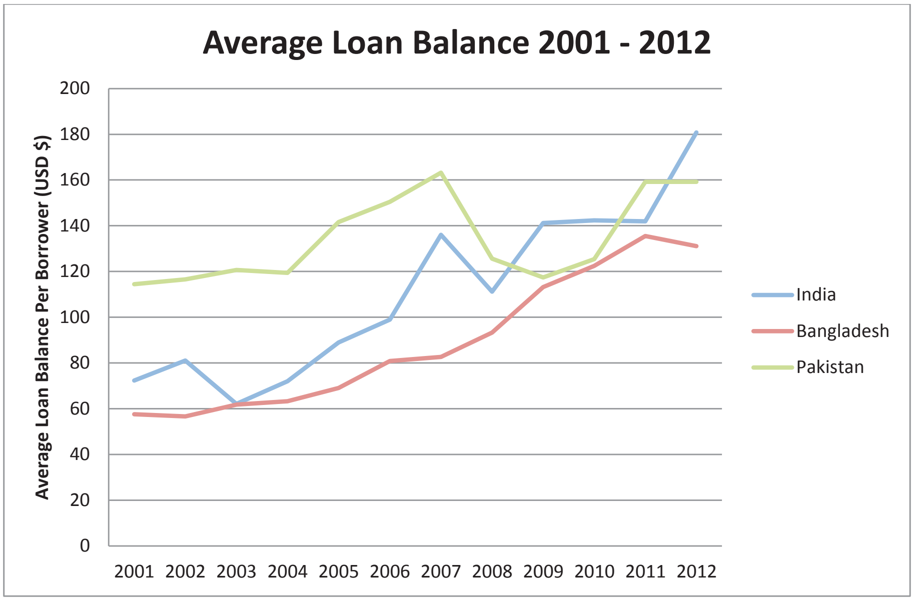
It remains clear that there is a stark contradiction in the profit margin trends in the countries of interest, if we are to continue with the theory (established in chapter three) which indicates the law can and does have an effect on MFI financial sustainability. From the theory of the previous chapters we would assume that since 2001 (when the Microfinance Ordinance was put in force in Pakistan) there was an increasing trend in profit margin, in line with the gradual 'improvement' of the legislation which already supported MFI's to operate as genuine businesses. However, what can actually be seen from the trend data portrayed above is that the profit margin has been negative in Pakistan, and only increasing since 2005. These results, while highlighting the potential weaknesses in the data, also show that a quantitative analysis of this research question is not sufficient. Indeed, contradictions such as those illustrated in this section suggest that a qualitative approach to the following chapter may be appropriate. Of note in the above data is that the profit margin of all the countries of interest has become positive in recent years. This trend towards positive profit margin may be a result of a combination of supportive business environment and economic factors. Alternatively, the trend toward focussing on profit margin and OSS% may be a result of demand from donors to give to MFI's which are transparent and efficient.

6.3.3.1.5 Loan Size

The average loan size issued by MFI's is a financial indicator of particular interest for research which is interested in the outreach of microfinance to those in most need of financial access. This is because a lower average loan size generally reflects greater outreach to the poorest in the community. In contrast, a higher (or trending higher) average loan size may reflect 'mission drift'[16] (Kiweu, 2011).

[16] Mission drift is where MFI's seeking to maintain financial sustainability provide larger loans to fewer people (in particular the middle classes instead of the poor) in order to reduce operating costs and increase profit margin.

Figure 22. Average Loan Size



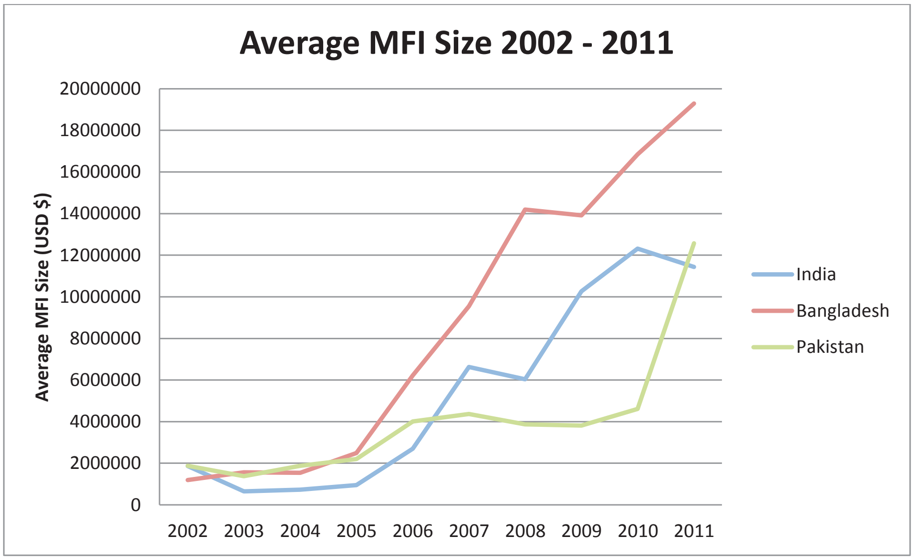
Source: Microfinance Information Exchange website: mixmarket.org/data

The figure above clearly illustrates the increasing average loan size over time for MFI's in India, Bangladesh and Pakistan. Of particular note is the decrease in average loan sizes in Pakistan after 2007, despite that the required maximum legislated loan size was repeatedly increased over the same period. The change may reflect greater outreach by MFI's to the target market, or alternatively may reflect an effect of the regulation.

6.3.3.1.6 Average MFI Size

Various literature has commented in the past on the benefits of efficiencies of scale which come with increased organisation size, and this also applies to microfinance (Okeahalam, 2007). The various implications of MFI size mean that this variable is one of interest to consider across the countries.

Figure 23. Average MFI Assets



Source: Microfinance Information Exchange website: mixmarket.org/data

The tenfold increase in MFI size in Bangladesh over the last 10 years is the most striking feature of the above figure. However, the trend may be a result of self-selection of MFI's in providing their financial data to MIX market, which results in only the large MFI's contributing. On the other hand, the average size of Pakistani MFI's has increased steadily until a spike in size in 2011. The regulatory changes leading up to that change were a doubling of the maximum microfinance loan size and the ability for MFI's to take loans in foreign currency from foreign investors. Although this research wo not attempt to determine if these legal changes are the reason for the jump in MFI size, it is an interesting consideration. However, the argument against the effect of regulation on Pakistani MFI size is that ever since 2009 there have been well documented increases in the quality of the regulation, not only in 2010 as the graph above suggests. However, the trend may in fact reflect the lag which exists before the effect of particular regulation is actually reflected in company financial indicators, as well as the cumulative effect of a series of positive law changes over time.

6.3.3.2 Average Loan Size v's PAR>30 India

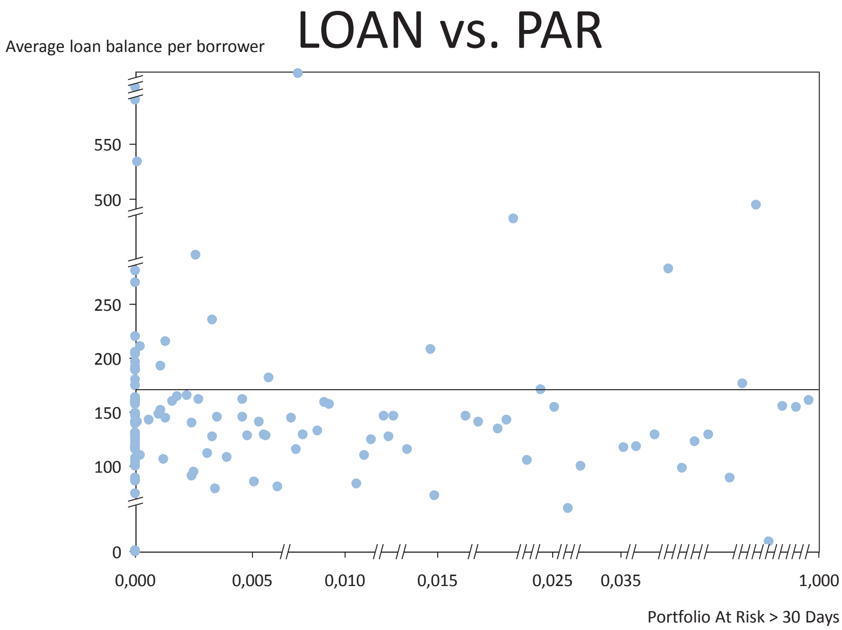
The effect of microfinance regulation on MFI financial sustainability is most easily examined by using financial indicators as proxies for the effect on particular business operations. In order to determine which financial indicators would serve as proxies for the effect of regulation links have been drawn from the theory of the third chapter. The theory indicates that the law can potentially affect average loan size through explicit loan size caps and through providing incentives to MFI's to provide loans to the poorest segments of society. The result of this is that in theory, smaller loans have a higher proportional cost to service, and lower profit margin. Hence, MFI's with smaller average loans should also have lower profit margins. Average loan size can also reflect the demographics of the borrowers, in that smaller loans are given to the poorest of society (which, as already established in the second chapter of this thesis, are not the normal microfinance borrowers) which poses higher risk than normal. Hence, in theory there is a link between the average loan size and PAR (which is a proxy for the riskiness of the portfolio). As can be expected, a higher PAR may be associated with lower profit and hence lower financial sustainability. Hence, the effect of law on average loan size and PAR may have flow through effects to financial sustainability. However, for the effect of the law on loan size caps to be determined, the association between average loan size and PAR also needs to be determined.

The theory regarding average loan size is somewhat contradictory, because the literature indicates that there is a 'sweet spot' average loan size which has the lowest default, and it is neither too small to service the poorest in society, nor large enough to serve the middle classes (Jiwani, 2007). This means that microfinance, the initiative designed to meet the financial needs of the poor (but not the very poor), inherently creates analysis issues. Further, dealing with averages of each MFI and averages of all MFI's creates a tendency towards the middle even more so, and this means that the results, even in the best circumstances, can only be indicative.

In order to examine the trend in more detail the figures are presented with data from each year where there is data from more than 35 MFI's (ie. from 2003 to 2012) for validity reasons. In 2002 data was provided by only 14 MFI's, and in 2003 there is data for 39 MFI's in India, and the figures increase each year. For each year, MFI's which had incomplete data were deleted (for example only OSS% or only average loan size), as well as any outliers (for example an average loan balance of more than US$2,000). These data requirements apply to all yearly correlations and other figures in this section.

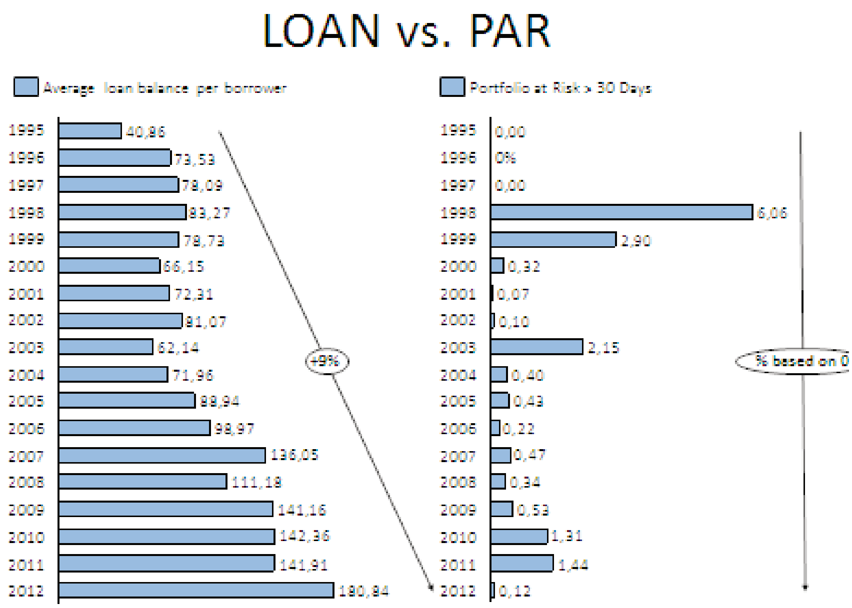
One of the theoretical effects of microfinance law established in previous chapters is on the average loan size of microfinance. A low average loan size generally reflects high outreach to borrowers who are in the most need (the poorest), whereas a high average loan size may reflect 'mission drift'[17]. Hence, one of the direct ways in which law can affect microfinance is through interest rate caps which have the potential to provide incentives to MFI's to provide larger loans on average, because a greater proportional return is received from larger loans. This is despite the fact that Karlan and Zinman (2008) found the contrary to be true. The following figures relate to Indian specific MFI data from MIX Market Exchange.

Figure 24. Average Loan Size vs. PAR>30 Scatterplot



[17] This is the tendency to give larger loans to the middle classes, as these loans are more profitable. When there are interest rate caps in place, mission drift is a foreseeable consequence because interest rates generally reflect the higher servicing cost of poor clients.

Figure 25. Average Loan Size and PAR>30 Averages by year



Source: The above two figures have been generated for this chapter using data from The Microfinance Information Exchange (mixmarket.org/data) and PowerPoint Software to compare and contrast the data.

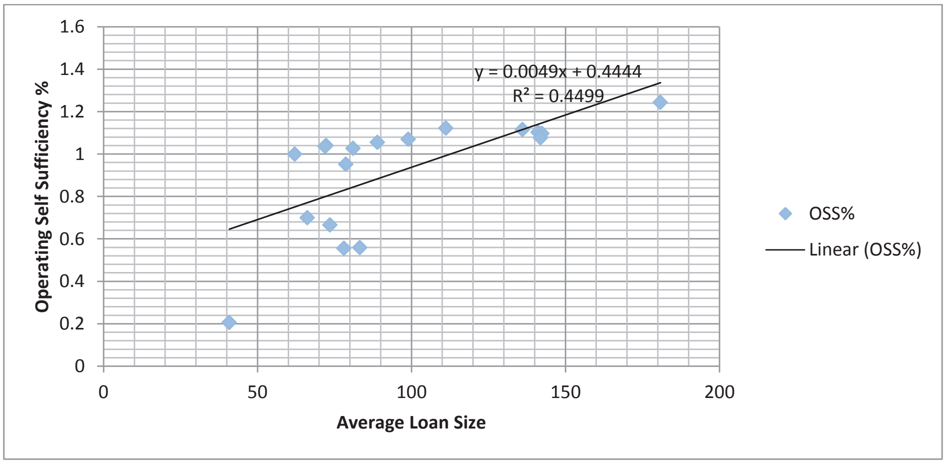
The figures above present a trend in the data which illustrates a consistent increase in loan size and PAR across time for Indian MFI's. These figures above illustrate the trend in increasing average loan balances over time, along with an increase in PAR as well. Hence, more statistical analyses may be worthy of these data sets in the future.

6.3.3.3 Average Loan Size v's OSS%

Theory in previous chapters have identified that there may theoretically be a relationship between the average loan size and OSS% because of operating costs. This is potentially relevant for answering the research question because law does have a clear potential (and theoretical) effect on OSS% in this regard.

In the following figure the average loan size and the average OSS% for all Indian MFI's for each year from 1995 to 2012 has been graphed on a scatter plot. There is a positive and significant correlation (based on t-test[18]) between loan size and operating self-sufficiency. This is illustrated in the figure below. This may indicate that more sophisticated quantitative techniques are warranted to isolate this effect from other confounding variables.

Figure 26. Average Loan Size v's OSS% 1995 to 2012



Source: Yearly averages for Indian MFI's were used for OSS% and Average Loan Size as documented by MIX Information Exchange. The graphical representation of the data illustrated above and the calculation of R^2 was performed for the purposes of this chapter using MS Excel. The significance of the relationship was calculated manually based on R^2.

6.3.3.4 Women poorest % and OSS

Whether MFI's provide loans to mostly the poorest women in society is a variable easily measured as it is consistently reported by MFI's to both data sources. Along with indicating mission drift (or the lack thereof), the percentage of women poorest also reflects the level of outreach. For the year 2012 data from the Microfinance Summit Campaign shows a potentially positive association between these two variables, as per the figure below.

[18] The calculated t-value is 13.67, which is greater than the critical value of 2.131 at 95% significance level.

Figure 27. Linear regression Women poorest % to OSS%

```
. reg  OSS2012  Borrowers2012 WomenPoorest2012 if  OSS2012~=0, robust

Linear regression                                      Number of obs =      96
                                                       F(  2,    93) =    2.80
                                                       Prob > F      =  0.0661
                                                       R-squared     =  0.0493
                                                       Root MSE      =  35.098

------------------------------------------------------------------------------
                 |               Robust
         OSS2012 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
   Borrowers2012 |   .0000616   .0000372     1.66   0.101    -.0000122    .0001354
WomenPoorest2012 |  -.2090332   .1067275    -1.96   0.053    -.4209729    .0029065
           _cons |   123.5985   7.975746    15.50   0.000     107.7603    139.4368
------------------------------------------------------------------------------
```

Source: India MFI specific data from 2012 was sourced from the MIX Information Exchange. The above regression was calculated using Stata.

The results illustrated in the calculations above serve to highlight an aspect of the data which would serve to be analysed more thoroughly in future research. The data set is relatively small because of missing data and outliers, and considering that the Microfinance Summit Campaign has one of the most complete data sets for this information, these limitations are persistent.

6.3.3.5 Large v's Small MFI's

Microfinance law can develop tiers based on a number of possible variables. Most common, total assets are used as the differentiator between the tiers. For example, in India 'small' MFI's (with less than approximately US$835,000) have a few different rules to 'large' MFI's. One would thus expect, also because of scale, that large MFI's are more efficient. However, analyses have found that the differences are minor. There is no clear relationship between the size of MFI's and OSS for any of the years analysed. Hence figures are not included. This result is counter-intuitive and refutes the theoretical associations which were discussed in previous chapters. In addition, this result is at odds with the finding by (Hartarska & Nadolnyak, 2007) who found that large MFI's are more financially sustainable. This result could have been because of the heterogeneity between MFI purposes (OSS% or charity) which may provide influencing factors. In order to empirically determine this, the data would need to be analysed in a way which considers homogenous samples.

6.4 Conclusion

Previous chapters of this thesis have provided theoretical explanations and justifications for the effect of certain microfinance law on the operational self-sustainability (OSS) of MFI's. Previous chapters have illustrated that in theory, microfinance law has the potential to greatly affect how MFI's design products, conduct relationships with clients, and finance their operations. However, there are a number of other factors which also affect MFI operations, such as employment, consumer sentiment, and technology. These factors ca not necessarily be accounted for in simple statistical considerations. Rather, in order to examine these direct effects an empirical approach needs to be designed and carried out. This chapter serves to illustrate a path which future research can take having discussed the trends in the data. The current chapter has identified some aspects of the theory developed in previous chapters which are not supported, but rather refuted, in the analyses contained herein.

Previous chapters have identified a number of potential associations which would indicate the effect of the law on MFI OSS%. However, broad analyses to determine the potential relationship have proven to be fruitless. Indeed, the only predicted association has been found between the percentage of poor women borrowers and OSS%, and the average loan size and OSS%.

The current chapter has compared the countries of interest over time against a number of financial indicators. The data suggests that in all three countries of interest, operating self-sustainability is increasing over time, as is profit margin, loan size, and average MFI size. In contrast, portfolio quality is generally decreasing in Bangladesh, as reflected in both PAR>30 and PAR>90 ratios. These results indicate that there are issues within the factors which influence repayment which need to be analysed in Bangladesh in future research.

A number of correlations were run between the variables of interest. Associations have been found between average loan size and OSS%, indicating that as average loan size goes up, so does OSS. Although no line of causation can be drawn, the relationship has nonetheless been identified. This means that from a quantitative perspective, larger loans are associated with MFI's being able to operate more sustainably. Future empirical work would benefit from exploring this relationship empirically. One of the contributions of this chapter to the literature is the examination of various potential associations and excluding most of them from being a source of potential interesting results in the future. In this way the current chapter has narrowed down variables of interest which are worthy of future empirical research.

The data presented in this chapter have shown some interesting trends and associations. In particular, it was found that there is an upward trend in profit margin and OSS% since 2007 for all countries of interest. Further, the rate of increase in these indicators is relatively the same for Bangladesh and Pakistan for 2007-2012. This trend indicates that maybe the law does not have such an effect on MFI operations as the theory may suggest, as Pakistan has some of the best microfinance law in the world, and Bangladesh some of the worst[19]. It would be expected that Pakistan may show a trend of increasing profit margin and OSS, but the opposite would be expected of Bangladesh, and this has not been seen in the data presented in this chapter. Hence, either the criteria used to determine the quality of a microfinance system is invalid, or else MFI's in Bangladesh have strategies for avoiding the effects of the regulation on their business operations. With solely quantitative data this is not possible to determine, hence the next chapter will consider these issues in a qualitative way. Given that it is compulsory that all MFI's are regulated by the Microfinance Regulatory Authority (MRA), this seems unlikely. Results such as these highlight the inherent inadequacies of quantitative data with a research question with so many potential confounding effects. Hence, the following chapter will address these weaknesses and provide a qualitative approach with fieldwork interviews in the countries of interest.

In contrast to this result presented above, there is a distinct trend in Bangladeshi MFI's for increasingly risky portfolios, as reflected in PAR>30 and >90. This upward trend indicates that there may potentially be an effect of the law changes in Bangladesh which are not reflected in OSS% and profit margin data. Indeed, this result may provide evidence for the use of PAR as a better reflector of the effect of microfinance law on the operational functions of MFI's. This is just a possibility, as the extent of the data analysis provided herein cannot either prove or disprove this idea.

In analysing the relationship between loan size and OSS% a positive relationship was found. Given that there is a theoretical relationship between the law and average loan size (as a maximum loan size can ensure all microfinance loans are below a certain size), this result provides a potential indirect relationship between the law and the operational self-sustainability of MFI's, at the heart of the research question of the current thesis. Hence, depending on the specific regulation the effect may be supporting or aversive. The regulation can potentially limit average loan sizes by explicitly capping the maximum loan size. As per the theory discussed in the third chapter of this thesis, the fixed costs associated with providing loans mean that higher loan sizes are theoretically associated with higher profits. However, smaller loans are also

[19] According to The Economist Intelligence Report's country rankings from 2007-2013

associated with serving the poorest in the community, who need smaller rather than larger loans (Al-Mamun, Malarvizhi, Hossain, & Tan, 2012), which is aligned with the vision of microfinance.

The direct effect of law can be potentially seen in the decreasing trend in average loan size in Pakistani MFI's after 2007, after the effect of the maximum loan amount became apparent. This result is expected, as it is logical that a law regarding the size of loans has an effect on the actual loan sizes given to clients. However, having said this, a similar trend has not been seen in India, where a loan size cap also exists.

The results of the current chapter have shed light on a number of issues where relationships were theoretically predicted. However, as many questions as were answered have also been raised from the results. For example, based on the results, if OSS% trends upwards regardless of the law (especially business inhibiting law such as that in Bangladesh), then how are MFI's practically getting around the law? Further, why is it that Bangladeshi MFI's are growing at such a fast rate, and so much larger than MFI's of other countries of interest? Another question which is raised is how there is a practical relationship between PAR and OSS%. These questions have been raised by the quantitative analyses of this chapter, and it may be that a qualitative consideration of the issues is what is needed to get answers to these questions. The current thesis aims to determine the effect of MFI-specific law on MFI OSS%. The results of this chapter show that despite OSS% being a quantifiable variable, determining this effect potentially requires a qualitative methodology. This is because most relationships examined quantitatively showed no strong relationship. For this reason the subsequent chapter will summarise the results of structured interviews conducted in the field in the countries of interest.

Chapter 7

7. Fieldwork Interviews and Results

7.1 Introduction

The regulation of Microfinance Institutions (MFI's) has the dual purpose of protecting poor borrowers from unscrupulous practices, and in supporting an industry which increases financial inclusion. Given these purposes, specific regulatory pieces are aimed at ensuring MFI's are financially strong enough to provide microfinance services. As discussed in the fifth chapter of this thesis, those particular regulatory pieces often ensure that the MFI has a certain amount of capital available before offering loans to the poorest, and that they follow certain guidelines in seeking capital from sources other than donations. Specific regulations which have the role of protecting the poor from unscrupulous MFI's include interest rate caps and credit bureaus (which restrict multiple lending). However, despite these various roles of MFI regulation and the various practical implications of regulations, little research has been published on this topic. This chapter builds on the previous topics to describe the implications of certain regulatory regimes & individual pieces of regulation from the perspectives of different stakeholders in four countries. Thus, although the role of MFI regulation may be to protect consumers and to strengthen the microfinance industry, this chapter will provide the perspectives of actual practitioners to describe the extent of the effect of the regulations on the microfinance sector.

The effect of regulation on MFI financial sustainability is a research topic which benefits from a diversified methodological approach. Previous chapters of this thesis have established the theoretical effects of regulation on MFI financial self-sustainability and explored the quantitative indicators of these effects. However, despite the availability of data on MFI's, direct insight into the practical effects of regulation is difficult to conclude without deeper insight. Indeed, the previous chapter of this thesis, which aimed to describe some of the issues from a quantitative perspective, raised more questions than it answered. For this reason, the current chapter will present the process and results of semi-structured interviews with key players in the microfinance sector in India, Pakistan, Bangladesh, and Italy. In order to get a diverse perspective of the research question and the specific issues in each country interviews have been conducted with people at high levels of MFI's, NGO's, self-regulatory institutions and regulators of all the countries. However, despite the diversity of perspectives, all interviewees have a vested interest in microfinance and thus there is inherent bias in their perspectives.

The research question for the current thesis aims to understand the effect of MFI regulation on MFI financial self-sustainability. This topic is important because of the role that microfinance plays in long term financial inclusion. The second chapter of this thesis established that microfinance is a development tool which while potentially producing positive social and economic benefits, is unlikely to be relatively costly to governments of developing countries to support relative to food, medical and education initiatives. In this sense, the second chapter of this thesis established that although the dreams of microfinance are potentially not being reached in their entirety, the positive effects of microfinance mean that the initiative is worth supporting. Further, the second chapter established that MFI's which are financially sustainable are more likely to be able to continue providing microfinancial services in the long term, regardless of donor whims (Arch, 2005; Pollinger, Outhwaite, & Cordero-Guzmán, 2007).

The third chapter of this thesis further examined the operational aspects of microfinance and MFI's from a law and economics perspective. The issues examined in the third chapter allowed for a theoretical consideration of how the law can affect MFI sustainability through allowing access to capital and freedom of business operations. Despite the vast body of literature on microfinance over the last decades, relatively few empirical studies have been conducted, neither regarding the effect of microfinance, nor the operation of MFI's. The analysis of previous empirical research was the topic of the fourth chapter of this thesis. The fourth chapter established the empirical methodology used in examining microfinance in previous research. However, this chapter also identified the wide gap in the literature that the current thesis seeks to fill. This is because although a handful of empirical studies have been conducted on the effect of microfinance, none have been published regarding the effect of regulation on MFI sustainability. Indeed, for the research question of the current thesis it can be said that there are no high quality comparison literature from the last decade on which to build.

In contributing to the research on microfinance regulation the fifth chapter of this thesis provided an empirical legal comparison of microfinance legal structures of the four countries of interest. This chapter provided a unique cross-country comparison of the regulatory aspects of the countries of interest in an easily analysable tabular format. This analysis allowed the current research to establish that it seems the detail of particular MFI law depends on the motivation of the government toward microfinance. In particular, it could be drawn from the analysis whether the government saw microfinance as a social or economic tool, among other conclusions. However, while this analysis established the differences in law across the four countries of interest the actual practical effects of the law remained undetermined.

The sixth chapter of this thesis considered the regulatory differences identified in the fifth chapter in a quantitative manner. There is a body of data available on MFI's over the last five years. However, this chapter faced challenges regarding the consistency of data over a time period where the direct effect of laws could be determined. The sixth chapter thus considered the potential effects in a quantitative manner and found that future research may benefit from a natural experiment study analysing a few of the key variables of MFI operations which are affected by regulation. Given the recent changes in Indian MFI law and the lack of recent data able to incorporate its effects, this is a potential hotspot for future research.

The sixth chapter of this thesis raised various questions regarding: trends in portfolio quality, profit margin increases in Bangladesh, average loan size trends, MFI growth, and the relationship between portfolio quality and operational self-sustainability. Previous chapters have also raised a number of questions regarding whether self-regulation can really work in microfinance, and if there is any benefit (other than consumer protection) of having a credit information bureau. The current chapter will discuss these topics with reference to the results of the current interviews.

The potentially important conclusions suggested by the fifth and sixth chapter of this thesis have led to the design of interviews for the current chapter. The interviews are of in-depth nature in order to gain real insight into the perspectives of the regulators, supervisors, and MFI's. The interviews have been conducted in the field in India (Mumbai), Pakistan (Karachi), Bangladesh (Dhaka) and Italy (Bologna). The fact that the interviews have been conducted in the home cities of the people of interest, in a face to face manner means that the results have potentially more validity than were all interviews conducted via Skype or email.

The results of the interviews of the current chapter will be combined with the preliminary conclusions of each chapter of this thesis to develop policy recommendations in the eighth chapter. Hence, this chapter provides the last chapter of unique research results, and the following chapter will build on previous chapters in developing policy recommendations.

This chapter is structured as follows. The second section will present methodological detail. This is followed by the results of the interviews. The fourth section analyses and discusses the implications of the results, and the fifth section concludes.

7.2 Methodology

Qualitative research faces similar methodological considerations to quantitative research (Creswell, 2012). For both methodological perspectives the most important aspect is the overall strategy and logic of the analysis, and the second most important aspect is quality data input. Hence, for the current chapter to build strategically and consistently on the chapters preceding, the strategy needs to be planned in detail, followed by gathering the right sources of data to complement that strategy.

The technique of interviewing has long been established as a method of gaining in-depth and personal information which is critical for certain research fields (DiCicco-Bloom & Crabtree, 2006). Indeed, the practical application of interviews in empirical research has become widely acceptable in all fields of research where personal perspective is likely to provide valuable detail to a subject matter where quantitative analysis is insufficient. Considering the questions raised in the previous chapter, this is clearly relevant for the current research.

The current chapter is concerned with identifying the perspectives of different stakeholders on the issues identified in previous chapters, particularly the questions raised in chapter six. Through understanding what people in the industry think about microfinance law in their own country it is possible to understand the practical effects of microfinance law on the financial sustainability issues of MFI's. This is the strategic consideration of the research.

In order to achieve the strategic methodology for the current chapter, valid data sources need to be obtained. As this chapter will focus on qualitative interviews, this means that the most appropriate people need to be interviewed. Unlike research which can be considered as 'bottom-up', such as research which determines the effect of microfinance on individual poverty levels, the current research takes a 'top-down' perspective of the issue. The result of this strategic perspective is that the interviewees need to also have a top-down perspective of their industry and all the associated effects. This is clearly understood when considering how much a branch teller of an MFI or a borrower would know about the funding constraints of the MFI – probably very little. In addition to this, interviewees need to be at a high level of responsibility within their respective organisations so that the opinions they express are actually reflective of the organisation as a whole. Indeed, many organisations only authorise a certain level of people to be interviewed as part of their role with that organisation, for this reason.

These requirements mean that the interviewees for the current research are required to be of very high quality in terms of their positions in important organisations which are relevant to the current research question. In order to ensure these requirements are met, all interviewees will be either the CEO (Chief Executive Officer), MD (Managing Director) or Regional Manager of MFI's or NGO's. In terms of government interviews, the interviewee needs to be at a high enough level that they are authorised to give interviews on behalf of the Government (only high level employees have this authorisation).

Despite the body of data available on microfinance and MFI's, the trend is unclear regarding the effect of microfinance regulation on MFI financial sustainability. This is because of the 'inconvenient' timings of large changes in microfinance law (and thus with potentially measureable effects) in the relevant countries. Specifically, law changes were either implemented before reliable data existed (eg. Pakistan), too recently for the effects to be incorporated in the data (eg. India), or in too small levels (eg. Bangladesh). Hence, the previous chapter examined trends in the data with the aim of illustrating some of the trends in MFI sustainability and the regulatory aspects which could have an impact. Thus the methodology of the current chapter aims to complement the different methodologies of previous chapters to provide insights into the topic of research from a qualitative perspective which provides a different type of empirical data.

7.2.1 Interviewee Selection

In identifying individual interviewees who suit the criteria explained above the academic and professional network of the researcher was utilised. In this sense, months before the interviews were to take place various professionals in microfinance were contacted in the relevant countries and potential interviewees were identified. A preference was given to high level people in institutions which reflected the different components of the microfinance sector, such as from the NGO, regulator, and MFI perspectives. As a result of this focus for the interviewees and their positions at the head of significant stakeholders, there is inherent bias in their perspectives as they all have a vested interest in the microfinance sector succeeding in some way or another. Although the actual fieldwork interviews would only take place in Mumbai, Karachi, and Dhaka, quality interviewees outside of these cities were also contacted. As a result of the high level of interviewees and the expected weight of the given perspectives, the focus has been made on quality rather than quantity. Previous research has indicated that six interviews are generally sufficient, and that data saturation occurs after 12 interviews (Guest, Bunce, & Johnson, 2006). Hence, for each country a minimum of six interviews were sought to be performed. As can be seen from Appendix A, the list of interviewees who completed the full interview, approximately six interviews were achieved for each country.

7.2.2 Interview Questions

The interviews were semi-structured, and this means that the questions were used as a guide for the discussions. Indeed, given the inherent nature of qualitative research of this kind, the direction of the interviews individually evolved depending on the particular interest, experience, and perspective of the interviewee. Further, in order to ensure that the interviews proceeded in a manner which was flowing and with the most possible information, a formal interview technique (which can make subjects suspicious and defensive (Britten, 1995)) was avoided.

7.2.3 Process

The discussions with interviewees were recorded electronically as well as the responses being either typed or hand-written during the interview (depending on the preference of the interviewee). This double-pronged record strategy means that the key ideas are not lost from interviews, and empirical results are easier to verify.

Each interviewee was informed of the purpose of the research and the strategic perspective of the research question. Interviewees were ensured that the transcripts would not be published in complete form and that the transcripts would be sent first to them to check before any direct quotes appeared in the research. Most respondents were willing to share their perspective of their experience in microfinance, and few were concerned about being quoted. However, in some cases the transcript was returned with a note to refer only to the office, and not the person who was interviewed. Regardless of the instructions, they were always followed for privacy and respect reasons.

7.2.4 Methodological Reflections

The interview questions were designed in a way which reflected the perspective of the research – that is, that each microfinance law has a definable effect on MFI operations, and hence on microfinance borrowers. However, in the first few interviews it became apparent that this is not necessarily the case. It may be relevant for other sectors of law, but for microfinance it is more that the whole regulatory environment together has an effect on MFI operations, and individual laws do not impact in an isolated way. Being qualitative research and hence able to adjust the technique on the basis of learning from the interviewees, subsequent interviews took a more broad perspective. In particular, the country-specific regulatory questions were phrased in a different way, to allow a discussion of the issues.

After the first few interviews, the interview process became more like a guided conversation, with the key areas of discussion always covered, at the appropriate point in the discussion. Key areas to discuss included the effect of different aspects of the law on operating costs, competition, innovation, outreach, access to capital/equity. A new question was incorporated into the interviews, which was: What are the main challenges faced by MFI's? This question brought up topics of discussion which were relevant for the research but which were not elicited from the other questions. This style of interviewing regulated in many unexpected revelations which would not have been elicited with more specific open-ended questions.

Despite initial scepticism of the qualitative research approach (the researcher has a background in quantitative survey design and implementation), the flexibility of this technique has proven to be highly relevant and beneficial for the current research methodology. The contribution of the interviews will greatly enhance the validity of this research as a whole.

7.3 Results

The interviews were conducted across MFI's large and small, self-regulatory institutions, ratings agencies, NGO's, and the regulator. Despite the diversity of perspectives, consistency can be seen in the results in most cases. The trends in the effect of the law on MFI operations are understood by all players, and so the results of the interviews were simpler to compile than if each perspective presented a different opinion. This section will present a summary of the results of the interviews, and will be presented in a tabular format for ease of comparison. In addition, it will be considered explicitly how the interviews have helped to answer questions raised in the previous chapters of this thesis. Questions raised in the previous chapter of this thesis relate to portfolio quality, trends in profit margin, average loan size trends, MFI growth trends, and the relationship between portfolio quality and OSS%. Questions raised in chapters other than the previous relate to whether self-regulation can work efficiently, and if there is any real benefit of having a credit bureau. These issues will be covered in this section.

The previous chapter of this thesis considered trends in portfolio quality across the countries of interest. Portfolio quality has the potential to impact MFI operating sustainability because of losses, or an increase in the cost of recovering the loans. There has been a trend towards decreasing portfolio quality, as reflected in PAR>30 & >90, over the last five years. The interviews revealed that without there being a CIB clients were taking multiple loans from different institutions in Bangladesh (where individual lending was possible), and this can lead to higher than expected defaults. Indeed, this situation is potentially supported by the over-saturation of the microfinance market, with PKSF funded MFI's in 95% of all villages, which may lead to a tendency of borrowing from multiple MFI's. In Bangladesh, unlike in Pakistan, there is no CIB, nor will there likely be one in the near future according to interviews with the MFI's. This is a direct effect of MFI regulation on the MFI sector, as borrowers are potentially allowed to become over-indebted and MFI's have lower portfolio quality as a result of the lack of the CIB. This will be discussed in more detail in section 7.4.2.

Although Pakistan has a relatively strong regulatory environment and Bangladesh a relatively weak environment, MFI's of both countries have seen an upward trend in OSS% and profit margin since 2007. The interviews revealed that although the regulatory environment in Bangladesh is not as theoretically as good as that of Pakistan (Economist-Intelligence-Unit, 2012), the Bangladesh regulation in 2007 did have a positive effect in legitimising the microfinance industry and separating it formally from that of the TML's. In doing so, the regulation effectively increased the potential market for microfinance. Interestingly, MFI's have indicated that the regulation was beneficial because it resulted in less competition between MFI's, putting them on equal footing.

The interviews in Bangladesh provided a key result for the current research in providing evidence for how regulation can act explicitly (and yet indirectly) against rogue operators in the microfinance sector. The fact that MFI's in Bangladesh have reported reduced competition after the regulation indicates that the regulation, along with the specific interest rate price cap have had a large effect on the microfinance industry. The regulation has resulted in a price cap below equilibrium, with the results that the other 'bad' MFI's drop out of the market, reducing competition. The reduction in fly-by-night operators can arguably be seen as a benefit to society as a whole, and an example of the regulation partially achieving what it was designed to achieve.

Caps on loan sizes are present in the regulation of all the countries of interest, because microfinance inherently requires that loans are small. In the particular case of India it was found in the previous chapter that average loan sizes are not decreasing, despite the cap on loan sizes. The interviews with the self-regulatory bodies and MFI's in India revealed that as a result of interest rate caps and margin squeezes, MFI's are seeking to provide larger and larger loans, in order to remain in business. Hence, from the industries perspective, it is a necessary effect of the regulatory restrictions on margin that loan sizes are increasing.

The average size of MFI's in Bangladesh has been increasing at a rapid rate, according to the data provided to the MIX Market website considered in the previous chapter. This growth is potentially explained in part by the self-selection of MFI's which provide data to MIX in the first place, but there is a definite trend that is not covered completely by this consideration. Based on the results of the interviews in Bangladesh, the growth in MFI size is because the regulation effectively created a larger potential market for microfinance in legitimising the industry. Hence, MFI's have had solid growth in outreach since the regulation. In addition, PKSF has increased its funding of small MFI's, increasing their size. In addition to this, medium sized MFI's such as

BURO have been growing by innovating with savings products and seeking increased capital from the capital markets.

The quantitative considerations of the previous chapter were not able to determine what the relationship is between PAR and OSS%. The results in that chapter indicated that although OSS% was generally trending towards the positive in all countries, PAR was also increasing, albeit at a slower rate (except in Bangladesh, as previously discussed). The interviews revealed that for small MFI's in all the countries, PAR is very challenging, and this is because of a mix of inexperience in operating a sustainable business model, and the lack of the ability to get recourse for the defaulted loans. For large MFI's, it is the shocks in PAR and defaults that are caused by natural disasters which are most relevant. In Pakistan this risk is decreased because the government generally provides grants to cover losses as a result of agricultural shocks or law and order issues. Thus, for small MFI's there is a stronger link between portfolio quality and their ability to maintain profitability, but it is mostly because they do not have the scale or expertise to operate in a financially viable way.

Previous chapters of this thesis have considered self-regulation as a potential option for a regulatory system to promote long term financially viable microfinance institutions. Previous chapters considered how self-regulation can remove the burden from the government, while still ensuring a high level of industry quality. The interviews in countries with self-regulatory institutions (namely MFIN in India and PMN in Pakistan) revealed that the role of these bodies is much more important than this research previously thought. The interviews revealed that the self-regulatory body not only ensures MFI's are able to set their own industry standards and keep each other in line, but it also serves as a forum for sharing ideas, and a powerful lobbying body to get changes in the legislation that would have otherwise been impossible. Indeed, these institutions have indicated many particular changes in the law have been a direct result of their negotiations with the government.

In instances where the self-regulatory body has power because it is a funder of MFI's, such as PKSF in Bangladesh and PPAF in Pakistan, it is a very efficient regulatory system for the smaller MFI's – which are the ones that seek funding from these bodies. In this situation, all the interviews revealed that it is a very favourable situation because it takes the burden off the regulator to be able to focus on the larger and high-risk MFI's. This is especially the case in Bangladesh where the regulator has opted for paper-based reporting (and manual entry into an electronic system to monitor MFI's), and thus does not have the resources to monitor all of the MFI's in a detailed manner.

Previous chapters of this thesis have discussed the role a CIB (Credit Information Bureau) can play in consumer protection of microfinance clients. The previous discussions have considered how a CIB can ensure that borrowers do not become over-indebted by taking multiple loans from different MFI's. However, the previous considerations did not identify whether the CIB could actually benefit MFI's and the microfinance industry as well. Interviews in the countries of interest revealed that it actually does have a strong effect on repayment, PAR, NPL's, and hence financial viability of the MFI's. The reasons given for this is that borrowers 'take the loans more seriously', and hence the best borrowers self-select to enter into microfinance contracts. For example, Kashf, a Pakistani MFI had a crisis in 2008 because of wide-spread non-repayment by borrowers which resulted in writing-off 80% of the loans outstanding. After the crisis, Kashf analysed what went wrong and found that although clients were defaulting with them, they were simultaneously taking other loans from other MFI's. Hence, the defaulting borrowers had no incentive to repay the loan, as there was no punishment from default – they would still be able to get loans from other MFI's. After this, Kashf pushed the government, along with other members of the self-regulatory organisation, to establish a CIB.

In addition to these specific issues raised in previous chapters a comparison of responses from interviews will be presented in tabular format on the following pages. Implications of the results will be discussed in the following section.

Criteria	India	Pakistan	Bangladesh	Italy
Goal of the regulator	Protecting the poor borrowers.	Using MFI sustainability as one of the ways to achieve financial inclusion in the long term. A dual track system where the regulated MFB's serve the unbanked **poor**, and the unregulated MFI's serve the unbanked **poorest**.	Protecting the poor borrowers.	Define microfinance and set a foundation for future regulation of the sector.
Positive ways the regulation affects MFI's operating sustainably	The regulation allows MFI's to specialise without getting undue competition from banks or unregulated entities. This means that all the players in the market are on more even footing.	The regulation supports sustainability in many ways, including the loan guarantee fund, savings mobilisation, and allowing innovation in distribution through branchless banking.	The regulation has legitimised microfinance in the sector, differentiating MFI's from TML's. The government has created and funds PKSF, which funds the small MFI's with capital for on-going operations and for specific projects.	The regulation does not support MFI operations, but in the provision of microcredit products, the regulation does not particularly hinder operations either.
Regulatory hindrances to MFI operations	MFI's have the issue of not being able to achieve scale. The law does not help MFI's grow to an efficient size, because savings mobilisation and capital market access are hindered rather than supported.	The requirements to put capital aside for NPL's after only 30 days means that the MFI's effectively have to have much greater than the 15% CAR available to cover these loans. Large MFI's have established techniques and products which ensure there are low rates of NPL's. However, some small MFI's are suffering from defaults as	There is a limit on the amount of savings an MFI can receive, which means that they must seek either capital market sources (which are not readily available), or donations.	There is no ability to be a normal regulated financial institution, without the current banking capital requirements being lowered for MFI's. This means the entities must operate as charities.

Criteria	India	Pakistan	Bangladesh	Italy
		high as 10%. Hence, the law affects the small MFI's more adversely in this regard than the large MFI's.		
Effect of the law on operating costs				
- Capital Requirements in case of NPL's	1% of all loans have to be put aside in a separate fund to prepare for the case of NPL's. This reduces the scope for potential sustainability even further, considering that operating costs are around 10% and the margin is capped at 12% above the cost of funds. It puts a lot of pressure on MFI's to get operating costs below 10%, which generally means serving a more profitable segment of society – which is not the poor.	General Provisions exist to ensure that for all NPL's capital is put aside (1%) in a fund for in case the loan becomes non-performing. Because the requirements are so large and so soon put in place (relative to commercial banks), it results in a large amount being charged to the P&L and effectively less capital available for other uses. MFB's want these General Provisions to be reduced. There is a waiver for loans which are gold-backed, and hence innovative MFB's are developing products in this area.	The MFI's are generally in surplus (they do not call it profit), and 10% of that surplus must be held in a separate bank account to cover defaults. So the regulation does not have a huge effect on those MFI's which are donor or PKSF funded (and thus not aiming for financial sustainability).	Not relevant
- Defaults	Not relevant	Grants to cover defaults as a result of agricultural disaster (paid for by Z Bank) and law and order issues (paid for by the SBP). This provides MFI's with a second level of	Not relevant.	Not relevant.

Criteria	India	Pakistan	Bangladesh	Italy
		'collateral' behind the loans they provide.		
- Portfolio Composition	The restriction of loans for businesses (which must be the majority) mean that there are higher costs in providing the loans because of more business considerations.	Loan portfolio is a small percentage of assets (<50%), and as loans are the highest returning assets it means relatively high overhead costs.	The loans must be primarily for consumption purposes, and this reflects the main aim of many MFI's: to serve the poorest segment of society. Hence, this restriction is not strongly felt.	Microcredit in Italy is defined as being for business purposes only. However, this does not limit the MFI's, as this is their target market anyway.
- Variable costs of giving a loan	The MFI must verify each borrowers income, a costly and time consuming exercise which adds not only to the cost of giving a loan, but also disbursal time (which can effect competition from TML's).	The MFB must verify that the borrower is able to repay the loan. This process means that usually loans are granted in a week (and loans from TML's take only hours).	Most loans in Bangladesh are still on a group-loan system, which means that the costs of giving a loan are high because of the additional paperwork, but the borrowers do the selection of each other.	Not relevant
- Interest rate cap	The cap is too tight given the cost of capital and operating costs and has resulted in mission drift. Given the cost of capital and operating costs of most MFI's, the interest rate cap has effectively the same effect as the margin cap, and there is no room for arbitrage.	There is no interest rate cap.	Does not disadvantage MFI's, as they have a guaranteed low cost of finance in the first place, and in fact has the positive advantage of helping to keep all of the competition relative to each other. However, it has also resulted in mission drift as the MFI's seek to maximise the profit available for increasing outreach.	The interest rate cap restricts MFI's if they seek to provide microfinance under the definition of the law. However, actual MFI practices are not monitored by the regulator, so in essence there is no interest rate cap.
- Loan size cap	Too low	Too low. The MFB's pushed the SBP to increase the loan	Too low	Not relevant

Criteria	India	Pakistan	Bangladesh	Italy
		size cap, and they did. According to the VIS Ratings Agency, the MFB's did this because they did not want to be forced to serve the poorest in society. Now the cap for home loans has been increased to 500,000 PRs		
Biggest challenge faced by MFI's				
- Access to capital	The interest rate and margin cap mean that there is no room for profit from microfinance operations in India. The result of this is that no investments are flowing into the microfinance sector, and this inhibits the potential scale of microfinance. If the MFI's can decrease operating costs, then there is room for profit, but that requires leveraging off technology, which the regulation does not support. Hence, access to capital (and equity) is limited.	MFB's are well capitalised, but they need to prove to the market that they are able to operate as efficient businesses, and according to the Pakistan Institute of Management they are incompetent as they are just SME's themselves, learning to operate efficiently. The DIFID Guarantee fund has helped 27 loan contracts take place. According to VIS Ratings Agency, this is effectively a credit enhancement'.	Large MFI's are able to access capital on the capital markets without restrictions, and as they are entities which operate in surplus, they have no issue in getting access to funds. Small MFI's access capital either from donations, low interest loans, or from PKSF, the funding body. However, with more than 600 MFI's, only 200 receive regular funding from PKSF. Medium-sized MFI's struggle to obtain capital on the capital markets, and area also restricted in mobilising savings, finding that capital is not easy to come by.	MFI's are funded primarily by donations, particularly from religious institutions. As most are still reliant on donations or low interest loans, their ability to receive capital from commercial entities is restricted.
- Savings Mobilisation	Not easy	Easy once regulated	Not easy; and restricted to	Not possible

Criteria	India	Pakistan	Bangladesh	Italy
			25% of capitalisation for on demand accounts, up to 50% total for term deposits (but with a lot of requirements to qualify for that).	
Effect of the law on MFI Innovations				
- Pace of innovation	Medium/Fast	Fast	Slow	Medium
- Sustainability	Large MFI's are developing securitisation products which they can sell to the market to fund operations and share the risk of the loan portfolios. There are strong innovations in this area, because most microfinance loans are only a 12 month term but the securitised products are for 3 years, so there is some financial engineering to fix the maturity disparity and ensure they are marketable products.	Innovations in what is acceptable as collateral, with regulation allowing waivers of the 'general provisions' for capital requirements for loans secured against gold. This means that loans secured by gold have less impact on the P&L, freeing up capital for productive use in other loans. The diversification of MFI services to include remittance services has not only increased the revenue of MFI's, but also increased financial inclusion.	MFI's are starting to diversify their product offerings into micro-insurance and specific agricultural microfinance, but this is not widespread. Most MFI's operate with a group-lending model that has not changed much in 30 years. With increasing saturation in the microfinance market, these innovations will help MFI's potentially generate more revenue and be sustainable, but that is not certain.	MFI's are working on lowering costs and increasing the scale of operations.
- Products	MFI's are not able to develop products which leverage off technology, and this is a big restriction in product innovation.	The waiver (as above) has resulted in gold-backed products. Most loans are for business purposes, which limits the potential market for expansion, at least for the microcredit purposes.	There has been a trend away from group-loans by the large MFI's but the core products are still loan products without any kind of specialisation or flexibility of loan terms. Most MFI savings accounts are still	MFI's are very creative in terms of which segments of society they provide finance to. For example, some MFI's provide microcredit to psychiatric patients having found that the loans for

Criteria	India	Pakistan	Bangladesh	Italy
			effectively inaccessible by the depositors, except with BURO.	business also help the clinical outcome as well as including a previously excluded segment of society within the formal societal structure.
- Outreach	The regulator wants to avoid the creation of 'eMoney', as happened in Kenya as a result of the mobile phone money transfer system. Hence, there are regulatory restrictions on operating in a 'cashless' way. The result is that MFI's can only increase outreach through the traditional model of branches and loan officers, which is naturally more expensive than operations which can use technology in a systematic way.	Branchless banking: mobile phone penetration of 60% of the population. Innovations in delivery of financial access via mobile phones. Not all MFB's see Branchless Banking as a way to increase financial access. Some MFB's are seeking equity partners to provide capital which will fund increased outreach in new regions. These (European-Microfinance-Network) MFB's do not include branchless banking as a potential future innovation to increase outreach.	PKSF funds over 200 small MFI's to provide for increases in outreach and also to fund operating expenses. PKSF (which is a government owned and funded entity) claims to have operations via the MFI's they finance in 95% of the villages of Bangladesh. Hence, PKSF have an attitude that the outreach has been achieved. With such strong outreach to the villages' one wonders why poverty levels are still so high in Bangladesh.	The regulatory environment does not support or inhibit the marketing of microfinance in the Italian society. However, microfinance is still relatively unknown and the regulation does nothing to legitimise the sector in a way which will potentially result in greater outreach.
Soft Law				
- Self-regulation	MFIN	PMN PPAF the funding body for unregulated MFI's	PKSF in essence is also a self-regulatory body because in funding the small MFI's it also monitors their practices against their own sets of rules and regulations of operations. PKSF suspends funding when the MFI's do not	Does not exist.

Criteria	India	Pakistan	Bangladesh	Italy
			operate according to their rules (which are rules of best practice).	
- Funding bodies	No government funding body of a large scale.	PPAF	PKSF	No government funding body of a large scale.
- Consultation with the industry on regulatory changes	Key people from MFIN and MFI's are part of consultation committees with the government, and some of their suggestions are taken on board in the regulation.	Consultation with the industry is at a very high level. When the MFB's have a suggestion or a restriction, they discuss it with the SBP and changes are often made in accordance with the industry's needs.	Consultation with the government is low because the large MFI's (BRAC, ASA and Grameen) have established a business model which is on a large enough scale to be efficient considering the regulatory environment. The small MFI's are 'represented' by PKSF, who through decades of funding them have built rules representative of the industry, and which the government adopted as national regulation in 2007 (with some changes).	Consultation with the industry did exist when the law was made, and the regulation was drafted in most part by Professor Lamandini, who has close ties with microfinance and microfinance research.
Consumer protection				
- Credit Bureau	MFIN credit bureau has been introduced to check over and multiple lending.	MF-CIB introduced to reduce the total amount of debt that each person can have. All MFB's share information with the MF-CIB, as do all MFI's funded by PPAF.	The industry players do not want to share borrower and market information, and the 'planned' credit bureau is unlikely to ever materialise.	There is an Italian credit bureau for credit information in general, but it does not include microcredit loans. Over indebtedness is not a major issue.
Effect of the law on				

Criteria	India	Pakistan	Bangladesh	Italy
investment into MFI's				
- Strategic investment	MFI's are restricted from making a profit, unless their operating costs are below 10% (which means mission drift). Hence, there is limited strategic investment in MFI's from domestic and international companies.	TelCo's are investing in MFB's in a strategic way because with the innovations in branchless banking which mean that the poor are now a potential market for financial services. These investments in MFI's are profit motivated, in terms of increasing the potential market for TelCo products and services. However, the result of the poor being treated as a market is that there will certainly be increased financial inclusion through MFI growth and an increase in outreach as a result. Smaller MFB's are seeking equity partners to provide the capital to increase outreach, often in a traditional microfinance sense.	MFI's are not profit making entities, and any surplus is controlled by the government, so investment in the MFI's is by international NGO's, not in terms of strategic investment.	Microfinance is increasing in Italy and many of the local banks are beginning investments in some MFI's or starting their own MFI subsidiary. However, the perspective is on corporate social responsibility (CSR), rather than the perspective of making a profit in the future.
Differences in the perspective of the regulator and perspective of MFI's	The regulator says that the 12% margin is high enough, and MFI's say that it is leading to mission drift. The regulator insists on verifying the income of the	Regulator says the MFB's do not operate efficiently enough, and that is the issue. MFB's say access to funding is the main issue.	Regulator says there are no issues in the sector. MFI's say they need to be able to mobilise more savings than just 25-50% of capitalisation.	MFI's want no interest rate cap, as it should be a reflection of the operating costs incurred in providing the loan.

Criteria	India	Pakistan	Bangladesh	Italy
	borrower, and MFI's say that the maximum loan amount and credit bureau are enough safeguards to protect the poor consumers. The MFI's want to leverage off technology to create cashless microfinance, but the regulator says it's a divergence from what microfinance should do anyway – which is serve the poor unbanked.			

7.4 Analysis and Discussion

Key findings link the importance of law (ie. that law matters) in affecting the incentives which govern the behaviour of MFI's and microfinance borrowers. In essence, this is a very important topic to be considered from the law and economics perspective because of the potential ramifications for a majority of the world's poor with regard to long term financial inclusion. The results of the interviews have yielded some key law and economics conclusions. In particular, the results have shown how influential specific regulation can be in terms of supporting the creation a credit bureau (which has the effect of strengthening portfolio quality and increasing consumer protection), as well as the ways the law can allow and encourage innovation in microfinance (through innovation in collateral uses, leveraging off of mobile phone technology, or identification of borrowers). These two law and economics implications of the research can be understood within the overarching framework of the perspective of the government in creating the microfinance law. These law and economics conclusions will be discussed in more detail in the following sections.

The interviews across countries and across different stakeholders in the microfinance industry have yielded some very interesting and unexpected results. The perspectives of each of the stakeholders have been surprisingly consistent, which indicates that the microfinance 'culture' of each of the countries is country-wide, and that there is not an on-going battle about every regulatory aspect between the regulators and MFI's. A key contribution of this chapter for the current thesis is in establishing strong links between the theory of previous chapters and potential conclusions. In this way, the current chapter completes the approaches used to answer the research question and ties the associated factors together.

The comparative table presented above shows the different ways the law affects MFI financial sustainability in reality. The effects of some aspects of the law were not predicted in previous chapters of this thesis. For example, the importance of the general provisions for capital requirements for gold-backed loans in Pakistan has resulted in large growth of gold-backed enterprise loans and allowed the development of profitable product innovations. In addition, the issue of access to capital is well-known, but the management of the MFI's was not considered as a primary restriction for capital in previous chapters. The interviews revealed that in fact, only the well-run MFI's with low defaults and operating costs are able to access capital on the capital markets (or equity investors), even with government sponsored guarantee funds in place. This is particularly interesting because it illustrates a potential 'vicious circle' where the small scale MFI's are not able to achieve efficiency because they are not able to access capital. In this way, many results of the interviews were unexpected.

Some results were expected, given the analyses in previous chapters. For example, the effect of loan size caps and interest rate caps was predicted theoretically in previous chapters. Interviews confirmed that in all countries, the loan size caps restricted MFI's from diversifying products to other consumers, particularly small businesses, who need larger loan sizes in order to expand their businesses. In addition, the perspective of the government was identified in the fifth chapter of this thesis as the potential guiding force behind subsequent regulation of MFI's, and this was confirmed in the interviews.

7.4.1 Effect of Regulation Relies on a Number of Factors

The interviews conducted in the field have provided such important results for the current research because of the clear illustration of the effect of the regulation relying on a number of underlying factors. In particular, the effect of the regulation depends on the maturity and normal practices within the microfinance market. Further, the effect of the regulation will depend on the regulatory history in each country, relative to the maturity of the microfinance market. This is particularly poignant in the countries of interest, where the microfinance regulation has been brought in at different stages: 2001 in Pakistan; 2008 in India; and 2007 in Bangladesh. Considering this, it is particularly relevant that the microfinance market in Pakistan is even now still in its infancy (despite an established law), and yet the Bangladesh market has been well established over the last 30 years. Hence, there is not necessarily an established microfinance sector which leads to a supportive regulatory environment for MFI's to operate under.

In addition to the history of the regulation, the effect of the regulation depends on the MFI's themselves, and enforcement of the regulation. MFI's in different countries have different management goals (eg. profit v's serving the poorest), and different organisational origin, either evolving from an NGO or from a strategic financial company. It can be easily understood how the actual MFI characteristics affect the overall impact of the regulation on the sector. For example, MFI's which are in essence NGO's are less likely to be negatively affected by restrictions on savings mobilisation and capital requirements than are financially viable MFI's seeking to maintain profitability, as the sources of capital are completely different.

In addition to these findings, the interviews revealed that the microfinance regulation in all countries of interest is being enforced. Interviews with the regulator in Bangladesh revealed that each year 5-10 MFI's lose their licence because of their inability to follow the regulation to the letter. However, in the case of Bangladesh, which relies on a paper-based financial regulation enforcement system, there is an inherent delay in reacting to wayward MFI's. In addition, MFI's in Pakistan reflected that in order to move up to another level of regulation (in a tiered regulation system) the government had to be completely satisfied that they were following the regulation they were previously under. The interviews revealed that the perspectives of all stakeholders reflect the way the microfinance regulation is being continually enforced, and isn't put in place simply in order to have something written in law.

These different perspectives have been highlighted in the diversity of the perspectives given by the stakeholders interviewed. However, it is also important to note that despite the variety of factors which affect the impact of microfinance regulation, the perspectives of the interviewees are inherently biased towards what they hope is future microfinance success. If this research were so broad to have considered the perspectives of funding bodies such as DIFID and USAID the results may have been different.

7.4.2 Credit Bureaus

Credit bureaus have been considered in previous chapters as institutions built for consumer protection motivations. These institutions compile borrower data from all of the different MFI's in order to make sure that borrowers do not become over-indebted by obtaining loans from different companies. In this way, the credit bureaus enforce the particular regulation about how many or the maximum value of microfinance loans per borrower. Further, the success of the credit bureau relies on information shared by the MFI's, which can either be regulated or supported as industry best practice. The results of the interviews are so critical for the law and economics conclusions because the interviewees actually revealed the role that the credit bureau plays in portfolio quality. Indeed, the interviews in India and Pakistan, countries where credit bureaus exist, revealed that portfolio quality relies on the credit bureaus for a number of reasons.

From the perspective of MFI's, credit bureaus play a dual role. Not only do the credit bureaus ensure that clients self-select into microfinance only if they take the loans seriously enough to repay them, the credit bureau also serves as an industry apex of information sharing to make sure that borrowers are given incentives to repay their loan, because if they do not they will not be able to access any loans from other MFI's either. Hence the credit bureau plays a role throughout the loan process. Discussions with MFI's revealed that their portfolio quality and repayment rate has increased since the credit bureaus have been active. This is potentially support for the 'law matters' principle where credit bureaus are government run and supported, and law and economics conclusions relating to the creation of incentives by the government.

A key advantage of qualitative interviews is that 'off-the-record' responses can be understood without the need to quote the direct source. This is the case regarding the perspective of Bangladeshi MFI's and the government regarding the creation of a credit bureau in that country. Sources advised that in Bangladesh a credit bureau would never be formed, regardless of the intentions of DIFID and other funding bodies to bankroll the institution, because the MFI's do not want to share borrower information because of competition reasons[1]. In addition, interviews revealed that MFI's want to be able to continue providing multiple loans (meaning where borrowers have other loans with other institutions as well) because it increases their loan portfolio. This is somewhat contradictory to the results from India and Pakistan, although it may be that although the MFI's in Bangladesh do not want the credit bureau, if it ever arises they may be thankful for the increase in portfolio quality as a result. The different perspectives of interviewees in this example highlights that although the results of the interviewees are inherently biased towards supporting microfinance in the long term, their particular beliefs about what is appropriate do differ across countries.

The regulation which creates and requires reporting to CIB's affects not only the MFI's in increasing portfolio quality, but also in protecting consumers from over-indebtedness. Research has commented in the past on the ability for microfinance borrowers to take multiple loans, with each loan being used to repay the previous one, being responsible for the crisis in Andhra Pradesh (Das, 2012). Although this does seem to be 'protecting consumers from themselves', it is common place in developed countries for such regulations to synchronously reduce defaults and reduce over-indebtedness. Hence, MFI regulation can directly affect all stakeholders.

This issue is also related to general maturity of the microfinance sector in the relevant country. Although in Pakistan and India the MFI's are grateful for the relevant credit bureaus, competition between MFI's is quite low and an increase in outreach is possible through covering undiscovered territory. This is not the case in Bangladesh, where a well matured industry has already covered most of the country and MFI's are usually in direct competition with each other.

Formal establishment of a credit bureau has been found to have a potential strong effect on the financial sustainability of MFI's because of an increase in portfolio quality. The interaction

[1] Microfinance penetration in Bangladesh is very high, with competition between the largest MFI's increasing (Archer & Jones-Christensen, 2011)

between incentives on the borrowers and incentives on the MFI's mean that the creation of a credit bureau is a potential law and economics implication for the current thesis.

7.4.3 Perspective of the Government and Innovation

The results presented in the table above consistently fall into categories which can be traced back to the perspective of the government. This is particularly relevant in this chapter with regard to the adaptability of the regulator in changing the laws to suit industry requirements, particularly around innovation.

Previous chapters of this thesis have considered the effect of the regulation on MFI financial self-sustainability in terms of the past and current operations. However, long term financial inclusion is potentially more important than what has been happening in the past. Given that microfinance is not a new innovation, one can assume that following the trend of what has happened in the past will not necessarily lead to greater outreach indefinitely. This is relative to all sectors, where a certain level of penetration is reached before new innovation must unlock further markets. Indeed, it can be logically extended that innovation in microfinance is required to be an integral strategy to ensure long term financial inclusion is reached. Considering this logical argument, it is surprising that the governments of India and Bangladesh do not support innovation in microfinance, nor through products, financing options, or leverage off technology. The regulation of these countries reflects that MFI's are not encouraged to innovate in product design (such as with collateral options) such as in Pakistan, nor are they able to access the capital markets as easily. In addition, in interviews with the Indian government they explicitly communicated that they wanted to avoid the use of mobile phones in banking, to avoid the creation of 'eMoney' outside of fiscal control. Indeed, this is a potential conclusion of the current research given the law and economics implications and the theoretical design of microfinance law. However, despite the vested interest of the viewpoint of the Indian microfinance sector regulator in this example, it can be foreseen that at some point in time their perspective will change, particularly as more and more countries adopt a regulatory framework which supports innovations in microfinance and mobile phone banking.

There are various ways in which MFI's can innovate to increase financial inclusion in the long term. A current aspect of microfinance that is particularly relevant is the ability to leverage off technology. In this day and age, it is interesting to note the way the regulator in Bangladesh choses to rely on a paper-based system of reporting despite being created in 2007, when the technology was available for a digital system. This issue is also relevant in India. The interview with the regulator in India revealed that they have no intention to allow mobile-phone repayments or branchless banking, because they do not want to create unregulated 'eMoney'. However, they also have no intention of considering the way Pakistan is developing a system to allow for regulated eMoney, despite the countries being neighbours. The perspective of Pakistan is that allowing MFI's to leverage off technology will result in financial services reaching a greater number of people, which is aligned with the social goals of the government. Further, the government of Pakistan advised me that the overall aim of their regulation is financial inclusion, and microfinance is just one of the initiatives they are promoting to achieve that. They are also building financial system stability and other associated factors.

The interviews in Pakistan with leading MFI 'Tameer' illustrated how MFI regulation directly affects their business operations and model. In terms of capital, Tameer have an equity partner in TeleNor (a Norwegian Telecommunications Company) which allows the MFI to increase outreach using phone banking for certain services, as well as capital to invest in innovative infrastructure and market research. In addition, this equity partnership provides TeleNor with an entry point into the Pakistani mobile phone sector, which is one of the most innovative and progressive of developing countries. This equity partnership is directly supported by regulation which allows for this relationship to take place, unlike in India and Bangladesh where the regulation explicitly denies equity partnerships of this nature. Tameer is well known in Pakistan for their 'gold-backed' microfinance loans, which, despite only serving those with some gold investments, do allow a flexibility of collateral which allows the firm to have 100% repayment of loans. Interviews with both Tameer and the State Bank of Pakistan revealed that the gold-backed products are a direct result of the regulation which provides a waiver to the 'general conditions' for gold-backed loans. In effect, this means that gold-backed loans don't require the large amount of capital reserves that unsecured loans require (to ensure MFI financial stability in the case of mass-default). Hence, the regulation has directly affected not only the operations and products offered by Tameer, but also allowed greater financial inclusion to those who aren't able to enter the formal financial system.

Government support for innovation through regulation has direct flow-through effects on MFI operations and subsequently on financial inclusion in each country. Interviews have shown that the regulation has the ability to allow companies to form equity partnerships with international firms to share knowledge, to create innovative products, or to seek to leverage off technology in increasing outreach to the poorest.

7.5 Conclusion

The fieldwork interviews were conducted with more than 20 key people in the microfinance sector in the countries of interest. The benefits of qualitative research for a law and economics topic such as the current one are clear as answers were found for questions that could not be answered with theoretical or quantitative approaches alone. Indeed, the current research has benefited greatly from the qualitative research process, in addition to the results confirmed in the current chapter. Being in the field in the countries of interest, where microfinance is an established financial initiative, brings a different perspective to the research question. Another result of this immersion in the microfinance sector is the inevitable bias of the interviewees who have achieved success in their business lives (to be CEO's, MD's and heads of government department) within the microfinance sector. These interviewees have naturally shared a biased perspective, albeit from the perspectives of different stakeholders, nonetheless biased towards wanting microfinance to continue.

The results of the empirical interviews revealed that consultation between industry and the government is critical in the regulation reflecting societal goals. Further, the interviews revealed a surprising consistency between the perspectives of the industry and government. The law and economics analysis in chapter five anticipated that there would be a constant struggle between MFI's and the government, with MFI's seeking less regulation and government seeking more control. However, in fact the MFI's appreciated most of the regulation and actually sought more particular regulation and institutions, such as credit bureaus, to stabilise the entire industry. The consultative role of regulation thus ensures that it has the most appropriate effect on the microfinance industry from the perspective of all stakeholders.

The interviews have shown the different ways the regulation can affect MFI financial self-sustainability. Although the results have not highlighted the way one particular law can make or break a microfinance sector, the combination of the regulations, along with the regulatory and market history of each country plays a role. The results have indicated that governments have the ability to allow innovation in microfinance to support long term financial inclusion. Indeed, the results of the interviews have illustrated repeatedly that the fate of MFI's in the countries of interest are in the hands of the regulator. That is, regulation has direct and measurable influence on the actual practices of MFI's and hence on financial inclusion. With such power to guide and control an industry as important as microfinance, research in this topic is increasingly important.

Chapter 8

8. Policy Recommendations and Conclusions

8.1 Introduction

The effect of regulation on long term financial inclusion (via microfinance) is a non-traditional law and economics topic. This is because of the theoretical foundation on distribution and social goals, rather than on welfare maximisation, which is the traditional foundation in law and economics. The ability of law and economics theory and methodology to be applied to non-traditional research questions such as that of the current thesis is a strength of the academic discipline and legitimises the traditional areas of law and economics research. For this reason, law and economics scholars should welcome such an important topic of research being addressed with the law and economics approach. This chapter will present how the chapters of this thesis build on each other to answer the research question using law and economics methodology and with law and economics conclusions.

The topic of this research is not 'classic' because microfinance is not a classic industry: it is an innovative initiative to address an issue which had not been successfully addressed with traditional models; and MFI's are not classic organisations. Hence, the research topic ensures that a traditional perspective will be inadequate to understand the research question. The perspective taken, which is based on distribution allows the research to consider how legal instruments can be used to achieve social goals in the sector of microfinance. Detail regarding the foundation on distribution has been discussed in the third chapter of this thesis. This chapter will focus on how previous chapters have contributed to answering the research question.

Despite the 'non-classical' nature of microfinance and microfinance law, research which considers governmental social goals using economic theory has been a popular methodology in development research. The current research has built on the perspective of Sumner and Tribe (2008) and Hickey and Mohan (2003) who contend that the social goals of governments are 'imbedded' with economic judgements and strategy. This inherent interconnectedness of social and economic policy (Sachs & Bajpai, 2001) has allowed the current research to consider the social goals of empowerment and financial inclusion from the perspective of the regulation which affects MFI's. This perspective provides further justification for the narrowing of the focus of the current thesis to exclude discussions regarding whether these social goals of the government are in any way efficient or just. Those issues of efficiency are outside the scope of the current research. This intuition has been based on the development literature which has followed this approach.

The effect of regulation on microfinance is a topic of research established to be very important not only for the academic literature, but also for policy makers. This chapter will present the academic and policy conclusions by consolidating the results of previous chapters to answer the research question. The conclusions presented in this chapter will illustrate that best practice depends on how the social goals related to microfinance are defined in the first place. This underlying result of the research is very important because it ensures that the definition of benchmarks and criteria for successful law depends firstly on how social goals are defined. Research on microfinance law in the past has overlooked this important first step which has been found in the current research.

A key issue for the current thesis is addressing how the research question became important. Microfinance Institutions have been operating outside of the regulatory environment for most of their existence in most developing countries. However, regulators intervened to stimulate microfinance, to legitimise the industry and to protect consumers. Regulation in microfinance is theoretically and often practically related to a market failure which resulted in the poor, who are willing and able to pay for financial services, being excluded from the financial system. The issue for the current thesis is whether the regulatory institutions are effective given their social goal related to financial inclusion. As discussed, goals differ between governments, and this means that the measurement of regulatory 'success' depends on the goal established by the government. This is an underlying conclusion of all the recommendations in this chapter, that the benchmarking of 'successful' law is dependent on which criteria the law is measured against.

Previous chapters have addressed the current research question in a manner designed to better understand the grey area which exists between the governments social goals and the economic-focussed regulation designed to achieve those goals. Although governments articulate economic goals as part of five year plans and similar, the articulation of social goals and associated strategies is often more closely aligned with the need for democratic governments to communicate the end-goals of economic progress to their voters (Sachs & Bajpai, 2001)

This chapter is structured as follows. The first section will discuss the academic conclusions, including law and economics perspectives. The second section will cover policy recommendations. The third section will define how the current thesis answers the research question. The fourth section discusses the limitations of the current research and considers potential areas for future research. The final section concludes.

8.2 Academic Findings

The literature on microfinance, what it lacks in clarity makes up for in number. There are thousands of research papers on microfinance taking various perspectives and invariably taking a bottom-up approach to determine the effect of microfinance, rather than the strategic perspective the current research takes. The result of that is a large gap in the research when it comes to the effect of regulation on microfinance, and this is the contribution of the current thesis.

Initial chapters, particularly the second and fourth, have explored the literature and empirical research respectively. The second chapter of this thesis explored the research which has discussed the effect of microfinance, drawing a direct parallel to the goals of what microfinance is designed to achieve. Previous chapters of this thesis have found that the reality of microfinance is less impressive than the grand dreams of economic development and female empowerment. In particular, previous research found that economic development as a result of microfinance is not being achieved because borrowers more likely use the funds for consumption rather than entrepreneurship (Ahlin & Jiang, 2008), which is inherent to the nature of loans to the poor – not everyone is a born entrepreneur. However, the social benefits of microfinance have been consistently confirmed for female empowerment, if not on the scale that has been predicted (Steele, Amin, & Naved, 2001). The current research has found that there is the potential for regulation to affect whether loans are used primarily for business or consumption purposes by affecting the loan sizes (larger loan sizes suit business more than consumption), collateral requirements, and the target market of MFI's. Hence, although to date the effect of microfinance has been unconfirmed in the previous literature, there is the potential for regulation to play a role in the increasing success of microfinance in the future, and this will be covered in more detail in the following sections of this chapter.

The fourth chapter identified that although there exist a vast number of studies on the effect of microfinance, very few of them are empirical, and this is why this chapter was entirely devoted to discussing the empirical research. This chapter showed that the existing empirical studies on microfinance do not consider how microfinance can be promoted in a strategic sense. Hence, the existing empirical literature does not cover the perspective relevant for the current research, and hence this thesis aims to complete a gap in the literature, which is important both for further theoretical research on the topic and for the practical purposes of many people in developing countries.

The fourth chapter identified that although some empirical studies on microfinance exist, the studies do not consider in a strategic sense how microfinance can be promoted. Hence, although empirical research exists, it does not exist in a meaningful sense relevant for the current research, and hence this thesis completes a gap in the literature which is theoretically and practically important for many people in developing countries. The contributions of the current research to providing academic conclusions for the research question will be discussed in this section.

8.2.1 Evaluating law

The current thesis has presented and discussed the relationship between and detail of microfinance law and MFI operations. One of the potential conclusions that can be conducted is regarding evaluating the law to determine whether it is 'appropriate, successful, good' law. However, the key finding from the research in this regard is that the regulation cannot be evaluated in isolation – the goal of the regulation needs to be considered, along with the history of the microfinance sector. Hence, the evaluation of the law needs to be conducted in each country, and is not necessarily a process which can be conducted in a blanket way across countries. This conclusion was reached through the results of the empirical interviews, which through open-ended questioning revealed that laws which had previously been considered restricting of microfinance were actually supportive of the sector. For example, in Bangladesh the law requires all MFI's regardless of size, scope or source of capital to be regulated. Previous chapters have considered that this might have a negative effect on the microfinance sector by placing undue demands on small institutions which pose a low public threat. Interviews revealed that in actual fact the requirement legitimises the industry and removes fly-by-night operations which otherwise would have affected microfinance sector reputation. The reason for this is because of Bangladesh's microfinance history of over 30 years, and high microfinance penetration interrupted by infrequent microfinance scandals. Hence, the sector in Bangladesh needed the regulation for legitimisation reasons. The same conclusion could not be made for India and Pakistan without first considering the sector characteristics, and indeed this conclusion may never have been reached without the empirical interviews. This is an important academic conclusion because it allows us to understand the complicated dynamics of law and economics research on the topic of microfinance. In addition, that regulation can effectively remove fly-by-night operations provides additional support for the implementation of microfinance regulation in particular countries. Theoretical considerations regarding the effect of microfinance regulation had previously considered the effects of the regulation in terms of stimulating MFI's in particular ways. However, this result shows that microfinance regulation has the potential to act indirectly against rogues in the industry, and this is an unexpected conclusion of the current research.

The conclusions presented in this section are related only to those which are considered academic in nature. This means that the conclusions presented here are those which complete a gap in the literature or provide a foundation from which future research can build. Given the focus of the current research, there are no directly comparable studies whose results can be directly compared. Hence, conclusions are not able to confirm or refute previous research findings, but rather provide a foundation from which future research can build.

Given the goal of regulators, the conclusions may be:

1. When it comes to long term financial inclusion, the regulators have more power than previous considerations have understood. The effect of regulation on MFI financial self-sustainability has been shown in various ways through supportive policies. Hence, an initial conclusion of the current research is that law on microfinance does matter, and that regulators should seek a regulatory environment for microfinance which is more 'hands-on' than a free-market approach. This result was found through the cross-country comparison interviews where most institutions in the four countries supported regulation and dialogue with the industry. This does not mean that regulation is necessarily always a good thing; only that in the countries of interest it was shown to benefit building a foundation through microfinance for long term financial inclusion.

2. Regulators are able to create institutions which promote the achievement of social goals. For example, credit bureaus created by the government are able to simultaneously protect consumers while supporting a reduction in MFI operational costs. This direct link between the regulator, institutions, and social goals is a conclusion which should not be overlooked.

3. The current research has found that there are some particular pieces of regulation which are 'inappropriate' given the governments' social goals and considering the microfinance sector of that country. These regulatory 'failures' cannot be determined in a blanket approach and are specific to each country. From an academic perspective it is possible to evaluate these specific pieces of microfinance regulation by considering the mistakes that some countries have made. This is an important conclusion because it effectively empowers the academic literature with regard to the microfinance sector to analyse not

only the countries with 'successful' microfinance law, but also the countries which have made mistakes. Some of the regulatory 'mistakes' include limiting savings mobilisation by MFI's, particularly those in Bangladesh and India. Another regulatory 'mistake' is the requirement for Pakistani MFI's to put aside capital for NPL's (Non-Performing Loans) after only 30 days, which means that the effective capital requirements of MFI's is actually much higher than 15%, and harms the small MFI's which do not have as efficient systems to ensure high repayment rates as the larger MFI's do. According to the results of the current research, these are examples of regulatory failure. This conclusion supports future research in this field which focusses on regulatory mistakes, and in this way broadens the potential scope of research in this field.

4. To understand ex-ante the effects of regulation academic perspectives would benefit from considering a variety of theoretical foundations and perspectives. This academic conclusion is reached by the fact that the effects of a credit bureau on influencing borrower behaviour may have been anticipated ex-ante had a behavioural law and economics theory also been used to analyse each particular regulatory initiative. Hence, although the conclusion was found anyway through empirical interviews, ex-ante understanding of these issues is valuable. This conclusion, while potentially assisting future research in this field obtain accurate ex-ante predictions, it does encourage a broad methodology of future research. This academic conclusion needs to be balanced with empirical methodology, as the ex-post findings are often equally as valid as ex-ante predictions. This is because it is often those findings which could not be anticipated which truly contribute to the scientific body of knowledge. This is because results which are found through empirical methodology and yet were not expected broaden the perspective of the scientific community in valid ways which ex-ante predictions are less able to do.

   For example, the finding that the relatively 'bad' regulation of Bangladesh actually acted against rogue 'fly-by-night' MFI's and reduced competition in the industry is a result which was not predicted. The reason this result was not predicted is that the statistical increases in MFI size and number (discussed in the sixth chapter of this thesis) indicate that the regulation had no effect, or a positive effect on the operating environment of MFI's. Additional statistical findings from the sixth chapter which indicated decreasing portfolio quality (as reflected by PAR) among Bangladeshi MFI's indicated that MFI's were growing but with less quality loans being offered. These statistical considerations from the sixth chapter led to this result from the interviews being un-anticipated. Hence, although research on self-regulation versus public regulation has supported these kinds of results in the past (see, e.g. Ogus (1995)) in the current research it was not anticipated because of the statistical foundations which were developed to guide and inform the interviews. Hence, the current research may have anticipated this finding had the foundational work be built on theory rather than actual market data from the countries of interest. The fact that this result was surprising reflects the novel and practical nature of the research methodology itself. Indeed, as with exploratory research which has no precedent, the current research has also considered and documented subject areas which benefit from fieldwork and not simply from a consideration of theory.

An additional unanticipated finding was that the regulatory requirement for reporting to a credit bureau actually helped MFI's by increasing their portfolio quality, rather than solely being another administrative burden as was predicted. This result is surprising because if the credit bureaus have such a strong positive effect on portfolio quality and over-indebtedness, then why does Bangladesh still have no credit bureau? Although the research on credit bureaus as 'gate keepers' has been covered in the literature (see, eg. Hoek-Smit (2006)) this literature has not expressly considered microfinance. This is an important point, because as the first three chapters of this thesis have established, microfinance is not a traditional issue which literature can be applied to. This is illustrated by the fact that Professor Yunus received the Nobel Peace Prize in 2006, not one for Economics, as the economics literature is still working on understanding how microfinance can work so successfully and yet not fit with specific economic theory (although much has been documented claiming the contrary). If the research on credit bureaus could be directly applied to the microfinance sector then one would expect that the world's first and most famous microfinance country, Bangladesh, would have established one decades ago. This is not the case. Indeed, even India and Pakistan have only recently put into place credit bureaus and regulation which require reporting to them. An additional consideration is the statistical findings from the sixth chapter which indicated that profit was increasing in Bangladeshi MFI's, despite no credit bureau being in place. In addition, the MFI's in India and Pakistan, despite the credit bureaus being established, have not indicated strong growth since reporting to credit bureaus was made mandatory. However, discussions with industry leaders in Pakistan and India illustrated that to the contrary, the credit bureaus were facilitating their operations towards profitability, despite the increased reporting requirements. The fact that Bangladeshi

MFI's claimed in the interviews that they would resist any efforts towards a credit bureau while in Pakistan the MFI's were the initiators of the credit bureau shows that the theory of gate-keeping credit bureaus is not generically applicable to the microfinance sector, and depends on the country of interest. This surprising result, along with the previous result regarding rouge MFI's illustrate that while some theory is not applicable to microfinance, it is impossible to know which theory is able to be transferred from traditional financial markets and applied to microfinance. Hence the findings of the current research support the combination of theoretical and empirical methodologies in researching microfinance.

5. The current research found that self-regulation only works if it is industry-wide. The interviews in Pakistan revealed how certain self-regulatory institutions such as credit bureaus can be developed by MFI's seeking a solution to their own portfolio problems. However, the interviews also showed that unless such institutions are industry-wide, self-regulation is not a viable alternative to direct regulation. The example of this which was highlighted in Pakistan is the way that Kashf (a key MFI) developed their own credit bureau to use across their branches, yet it did not help portfolio quality because borrowers who had defaulted with other MFI's would still be able to take loans with them. After that experience, Kashf worked with other MFI's to create a self-regulatory body and an associated credit bureau to ensure it was industry-wide. In the example given above, direct regulation also played a part after the credit bureau was established, by requiring that all regulated MFI's, called MFB's in Pakistan, reported repayment data to the credit bureau. Hence, industry-wide self-regulation is a potential viable alternative to direct regulation however they are also potentially complements of each other.

8.2.2 Law and Economics Perspective

8.2.2.1 Regulatory Goal

The comparison of regulatory goals between countries in the current research has allowed an increased understanding of the effect of regulation. The regulatory goal is what guides subsequent regulation detail. In India and Bangladesh the regulation aims to serve the poor, and the result of that are regulations which aim at protecting the borrowers, not at stimulating microfinance via sustainable institutions. This is in contrast with Pakistan, where the government has an overall goal of financial inclusion, and sustainable microfinance is one of the tools to achieve the goal. The perspectives are completely different, and that is why in Pakistan the regulations clearly support MFI growth and innovation, whereas in the other countries the law appears (without any logical extension) to be protecting consumers.

In Pakistan the government does not place importance on efficiency, and instead the focus is on the ability for MFI's to operate in a market environment. However, initiatives such as the microfinance seal of excellence (Microfinance-Summit, 2013) and government pilot programs for the measurement of various social effects mean that it is a concern. The fact that the government of Pakistan does not measure or consider efficiency of microfinance is further support for the conclusions drawn in the second chapter of this thesis which established that microfinance does more good than harm, and is not particularly expensive to support. Thus the cost-benefit trade-off is enough to allow governments to support microfinance without undue efficiency considerations.

8.2.2.1.1 Ex-ante and Ex-post Findings

The regulation is designed with a goal in mind, and for microfinance regulation the goal is usually social such as financial inclusion. Ex-ante discussions regarding the research question of the current thesis enable us to use theory to anticipate what regulation should look like considering specific social goals. Following the ex-ante analysis, ex-post conclusions about how the law actually works can be contrasted. The third chapter of this thesis covered the theoretical analysis of microfinance from a law and economics perspective. In this trend, the third chapter identified a number of ex-ante analyses which are different to ex-post conclusions found through the empirical interviews, such as the effect of interest rate caps. The ex-ante analyses are considered such because they are based on theory only (unlike ex-post findings which are based on actual findings of the research) and make preliminary conclusions based on the theoretical review conducted. In this way the ex-ante analyses are different to hypotheses, however they do serve the same purpose of informing the empirical methodology of the latter chapters of this thesis. On the other hand, there are also some similarities between ex-ante and ex-post conclusions which indicate that part of the theoretical foundation used was adequate to allow ex-ante conclusions in an academic context. One of the discrepancies between ex-ante and ex-post conclusions is regarding interest rate caps.

The third chapter identified that if the goal of regulation is to increase the outreach of financial access to the poor, interest rate caps may actually have the reverse effect. The law and economics analysis of interest rate caps concluded that regulation which seeks to improve the outreach of microfinance services to the poor would not include interest rate caps because of the effect on the profit margin and subsequent 'mission drift' of MFI's under that regulatory regime.

However, the empirical interviews conducted provided mixed results regarding this issue. In particular, Bangladeshi MFI's indicated that the interest rate cap actually was beneficial to them because it reduced competition in the industry. From the perspective of MFI's in a highly saturated microfinance market such as in Bangladesh, reduced competition means that they have easier access to customers than before, allowing MFI's to increase in size. Intuitively, reduced competition may have negative effects for society as a whole, however, the focus of this research is on the MFI financial sustainability, not on the societal benefits of regulation. The reason for the effect of the interest rate cap in reducing competition is that if the price cap is below equilibrium, which it may be considering the interest rate discussions in the third chapter of this thesis, the other MFI's which are not as efficient will drop out of the market as they cannot provide services at below equilibrium. In this way, the regulation also addresses rogue and 'fly-by-night' MFI's which not only damage microfinance reputation, but also society. This has the double effect of also increasing the quality of the remaining MFI's in the market which may have flow through effects on the reputation of the industry. An alternative reason for why the interest rate cap reduces competition (and hence is seen by a positive for the industry) is that it creates a 'target' which facilitates co-ordination between MFI's, acting like an informal cartel. Although the empirical literature on these possible reasons is not available, these intuitive reasons do shed light on some of the discrepancies found between ex-ante and ex-post conclusions.

On the other hand, Indian MFI's indicated that the interest rates resulted in them having to continue to rely on donations because it made self-sustainability impossible without mission drift. These two countries have the same regulatory goal, and yet ex-post conclusions show that the law does actually work differently in different countries. This result underlies one of the key academic and policy conclusions of this thesis, which is that the design of microfinance regulation not only depends on the goal of the government, but also the dynamics and history of the microfinance sector in that country. This is because the microfinance sector in India is vastly different and relatively newer than the microfinance sector in Bangladesh. Hence, industry specifics are as important as regulatory goals when it comes to predicting ex-ante how the law actually should work.

The consideration of ex-ante and ex-post conclusions allows us to better understand the importance of empirical research when addressing research questions such as that of the current thesis. This confirmation allows future research in this field to understand the importance of making predictions and empirically determining results.

8.2.2.2 Social Goal: Financial Inclusion

Governments have various social goals which they aim to achieve through different regulatory regimes or the creation of legal institutions. The social goals are assumed in this thesis to be a reflection of societal goals in general because governments are usually (in particular in democratic countries) a reflection of the people and will thus act in ways consistent with being re-elected by the population (Grossman & Helpman, 1996). Hence, the current thesis is not concerned with analysing whether the social goals established by the government are actually efficient or worth achieving in the first place. The current research has maintained the perspective of considering how the regulation can be designed most effectively to achieve the social goals established.

Developing countries have various serious problems to deal with, both through regulatory measures and through charitable initiatives. There has been a trend in recent decades which has moved away from 'giving a man a fish', to 'teaching a man how to fish'. In essence this is a trend towards grassroots empowerment of the people through education, training, and access to the resources they need to lift themselves out of poverty. A key aspect of this is financial inclusion, which has been defined in the first chapter of this thesis. Financial inclusion is seen as an umbrella term which covers access to a range of financial services for all. The achievement of financial inclusion, however, requires more than simply ensuring the poor have access to microfinance. Hence, although financial inclusion is a social goal, it requires that the population have some financial education, personal identification, among other challenges. Hence, microfinance is simply one of the strategies required to achieve financial inclusion and not the entire answer.

Microfinance and regulation help to achieve the social goal of social inclusion. The results of the current research allow a conclusion that regulation is useful for governments seeking to achieve the social goal of financial inclusion via the instrument of microfinance. In particular, the results indicate that the specific goal of the regulation which falls under financial inclusion, being either to protect the poor or to support sustainable MFI's, is the key driving force for the direction of the regulation in practice. However, the current research makes the contribution to the literature by concluding that regardless of the goal of the regulation, the regulation should create and enforce the provision of information to a credit bureau. However, regulation which seeks to simply protect the poor does not necessarily need to contain provisions for innovation or supporting MFI's in the case of unforeseen widespread microfinance defaults (such as from weather events) as would be the case for regulation which seeks to support MFI financial sustainability. In this way, the current research concludes that when it comes to microfinance regulation there is no one-size-fits-all approach. Rather, the design of the regulation needs to be tailored to the specific goals of the country and industry specifics of that country.

8.2.2.3 Distribution

The issue of distribution is an economic goal which needs a law and economics perspective to understand. This is because it is not based on welfare, or the efficiency of the laws, but rather distribution. This theoretical foundation has been discussed in the first, second and third chapters of this thesis. Distribution is the issue, not efficiency and not social welfare, which are related to market failure. Regulation has the potential to create and to address market failure, and law and economics can be used to see if microfinance achieves regulatory goals of distribution. However, the current thesis does not address the market failure, rather simply assumes that there has been a market failure which is why regulation has been put in place. As discussed in the third chapter, it is a market failure that those who are willing and able to pay for financial services are not being provided them (in the form of microfinance), hence regulation and charitable donations have been used to stimulate the market and solve the distribution issues. The results of the current thesis allow us to conclude that regulation can potentially play a balancing role in addressing the market failures which have resulted in a lack of access to finance.

8.2.2.4 Alternatives

Assumptions of the current thesis have restricted the analysis to include law and economics theories and methods. However, although it is the effect of the law on MFI's that is the current focus, this assumes that law is important to begin with. Wherever assumptions are made there is the potential for the discussion of alternatives. Two key alternatives for the theoretical foundation of the current thesis are the absence of law, and social norms, however these have been established in previous chapters as not viable for the microfinance sector. The absence of law allows the market to 'work' on its own accord. The Chicago style of analysis allows market forces to ensure that what is supplied is demanded by the market. However, the empirical results of the current research have found that both governments and MFI's in all the countries of interest welcome regulation for a number of reasons, indicating that the market did not work and regulation was needed. This consistency across perspectives means that the regulation is there for a reason.

An alternative to regulation is social norms; that is allowing the 'best practice' of MFI's and borrowers to ensure that the industry is protected and supported. However, this requires an alignment of social norms within an industry, and the diverse cultures and practice across MFI's within a country means that this is not possible. Social norms may be a viable alternative if the industries were more homogenous, however, with each MFI aiming for a different outcome, this is not a viable alternative to regulation. The social norms which would need to be aligned in the industry relate to the repayment behaviour of borrowers, which is also inherently related to the size and type of loans. For example, smaller loan sizes for consumption purposes may have different repayment norms than loans for small business expansion. Indeed, social norms relating to which MFI's are approached by borrowers (in high microfinance density areas) are also relevant. In addition, social norms within MFI's is also important, because it has the potential to affect how MFI's seek clients, the terms offered, and the systems to recover late repayments. The social norms within MFI's have the potential to create an informal best practice, as discussed as an alternative to regulation in the third chapter of this thesis. However, it has been seen that it is not a viable alternative because before regulation supported the microfinance industry, social norms alone were not able to increase access to credit.

The second and third chapters of this thesis established that if social norms are relied upon without direct regulation, loan sharks can prevail and financial inclusion and MFI financial self-sustainability goals are less likely to be reached. However, that does not mean that there is no role at all for social norms. Indeed, from the donors perspective, all decisions are based on social norms, not on regulation. Donations from governments and organisations to MFI's are not regulated for, they occur without the need for regulation. Hence, social norms do play a role in the microfinance industry, although from a different perspective. In this sense, law does matter when it comes to microfinance.

8.2.2.5 Types of Institutions

The institutions which affect long term financial inclusion include not only formal institutions such as MFI's and credit bureaus, but also informal institutions such as consultative groups and self-regulation which allow communication between the government and industry. This is a particularly important conclusion for the current thesis because it is the law and economics conclusion which seeks to suggest how to create efficient institutions and instruments which achieve society's goals. In this regard the current thesis contributes to academic conclusions of institutions by illustrating the important role that both formal and informal institutions play in supporting microfinance.

The current research has found that formal institutions such as credit bureaus are equally important as informal institutions such as industry-created self-regulatory bodies. Both types of institutions have been shown to support microfinance, and thus this research provides support for the existence of different institutions. Indeed, the structure of these institutions, and whether they are created by government or industry has been found to be less important than whether they exist or not.

Credit bureaus in particular are one of the key results from the current research which was not predicted in the theory or literature covered before the empirical analyses. However, the results across all of the countries of analysis confirm that the credit bureau is a key institution in a healthy microfinance sector because of its ability to act as a gatekeeper for the MFI's. The credit bureau as a gate keeper means that it has the ability to screen particular individuals regarding credit attitudes, effectively curing the information asymmetries which inherently exist in all credit relationships. Indeed, considering the particularities of the microfinance sector, with borrowers who are illiterate and have no financial statements as evidence, information asymmetry is a concern which has resulted in the designing of social rather than physical collateral into the contracts. These issues were discussed in the third chapter of this thesis. However, although information asymmetries were considered previously in this thesis, the practical way in which credit bureaus address this issue is a surprising result.

The current research is not able to conclude in detail regarding to how these institutions are formed, rather simply reflect on the positive effects of institutions in the countries analysed. Indeed, when it comes to normative conclusions, the support for institutions across microfinance sectors is tempered with the specific details of the microfinance sector in each country.

8.2.3 Normative Implications

The normative conclusions that can be drawn depend heavily on the goal of the regulator. Given the methodological challenges inherently reflected in the results of this research the conclusions need to be interpreted cautiously and not seen to be far reaching and all encompassing. The specific details of the country mean that normative conclusions can only be made for if/then scenarios, and not in a blanket sense. The normative academic conclusions for the current research are:

1. It is recommended that every country with microfinance establishes a specialised microfinance credit bureau. Further, the regulation should require that all MFI's provide

information to the credit bureau in a standardised manner. The results from the Pakistani interviews, particularly with Kashf MFI, showed that a credit bureau is so necessary to market functioning that it may evolve eventually (and after negative events such as MFI failures) if not formally put in place soon enough.

2. The regulation of countries should support innovation in microfinance through partnerships with suitable institutions which can benefit the outreach of microfinance to the poor. In addition, the regulation should consider ways to support innovations in microfinance products such as those which use gold for collateral.
3. Regulators should make microfinance law and regulate all institutions providing microfinance, either through soft or direct regulation. The results of this research have shown that regulating microfinance is a good thing for institutions increasing their financial self-sustainability and also for achieving the social goals of microfinance law. The results of this research have supported the importance of law in microfinance, and this is a key law and economics normative conclusion.

8.3 Policy Implications

Whether regulation can be considered effective or not depends in part by which benchmarks success is measured. This is particularly relevant given the results identified in the current chapter between the perspectives of the Pakistani and Bangladeshi governments. That is, Bangladesh supports the social aims of microfinance while Pakistan supports the economic aims of microfinance. Thus, it is not possible to directly compare and critique these two countries legislation against each other because the benchmarks for success are different. As a result of this, a potential solution could be for regulation to require MFI's to measure the social and economic impact of their programs. If the responsibility were on MFI's to reliably measure these kinds of trends, governments would be more able to decide what the motivation of the legislation is. In this way, MFI's would then be able to become sources of information which would help the government support their activities. If MFI's were required to undertake socioeconomic benchmarking then the governments would be free to set the goal of the regulation at MFI financial self-sustainability without having to worry about whether MFI's are achieving social goals. The act of measuring social outcomes of microfinance is likely to affect MFI's so that they are more focussed to towards serving the poorest (Buera, Kaboski, & Shin, 2012).

The current research has highlighted the effect of regulation on the reputation of the microfinance industry, and of differentiating formally regulated MFI's from the 'fly-by-night' operations which in the past have resulted in reputational damage to the entire industry. The qualitative interviews in Bangladesh highlighted this in that despite the MFI's were subject to a new regulatory regime (and one which is arguably fastidious), the reputational benefits from being regulated outweigh the costs. This is clearly support for regulation of the microfinance industry, and that the industry is open to being regulated and entering into the formal regulation environment.

Although regulation of the microfinance industry has been found to have a generally positive effect on MFI financial self-sustainability, there are some specific policy moves which can be considered as harmful for the microfinance industry as a whole. The current research, and in particular the interviews, have revealed that restrictions on the mobilisation of savings force MFI's to rely on other sources of capital such as those from donations and capital markets. This kind of effect has potential ramifications for MFI financial self-sustainability as access to capital in a cheap and reliable manner is key for business operations, and savings serve many benefits which capital markets do not. However, even Pakistan, where the regulatory environment generally supports the mobilisation of savings, has some regulatory features which impede MFI financial self-sustainability. For example, the requirement for Pakistani MFI's to put aside capital for NPL's (non-performing loans) after only 30 days means that their actual CAR (Capital Adequacy Ratio) is much higher, and this affects smaller MFI's which tend to have higher rates of non-performing loans than larger MFI's. Hence, from a policy perspective, there are particular regulations which can be considered as negative.

8.4 Answering the Research Question

The current thesis has presented a series of analyses on microfinance separated into chapters which have built on each other to establish a foundation of analysis from which the research question can be answered. The research question for the current thesis was:

How does regulation affect the financial self-sustainability of Microfinance Institutions?

This thesis has established the theory of how the research question can be answered, and that namely relates to how the regulation can impose interest rate caps, and overly burdensome reporting requirements, which have negative effects on MFI operations. Previous chapters established the differences between the regulations of the countries of interest and considered the trends in the data which may be related to regulatory specifics. The previous chapter of this thesis tied the theory and empirical findings together to establish that microfinance law can have a very large effect on long term financial inclusion. The current research concludes that microfinance law affects long term financial inclusion through establishing country-specific social goals for the law to achieve, followed by the creation of institutions and precedents to simultaneously encourage consumer protection, innovation, and operational sustainability

How microfinance law supports MFI's:

- Credit bureaus allow an increase in portfolio quality of MFI's by ensuring that only the most suitable borrowers self-select for loans and that those who are granted loans take the repayments seriously, knowing that if they default they will not be able to gain loans for other MFI's in the future.
- Regulation can allow for innovation in equity partnerships between MFI's and associated companies (such as TelCo's in Pakistan) and to have flexibility in designing products which creatively provide loans to more of the population such as those with collateral over gold instead of personal guarantees.

How microfinance law can hinder MFI's:

- Some regulation, such as that of India and Bangladesh places a limit on the amount of savings the MFI can receive and subsequently mobilise for loans. These savings limits effectively increase the average cost of capital MFI's face and thus should be designed in consultation with the specific microfinance industry of that country.
- The regulatory option for imposing interest rate caps is something that has raised much discussion in the economics literature. Indeed, the usury research is directly applicable to microfinance and indicates that interest rate caps may actually reduce access to finance (Al-Azzam, 2012; Shapiro, 2009). However, the political nature of interest rates for microfinance means that in India and Bangladesh the interest rates are unlikely to be unchanged in the near future.

8.5 Limits of the Research

Empirical research conducted in a field without directly comparable previous studies, naturally have various limits to the research. Indeed, although the current research has built a foundation from which future studies can build considering the law and economics of microfinance, there are also limitations to the current research which need to be considered. The limitations of the current research primarily regard the restrictions on the methodological design, and limits to the validity of the empirical interviews. Details of these limitations will be presented in the following sections.

8.5.1 Data

The current research uses the law and economics perspective to determine the effect of regulation on MFI operational self-sustainability. This particular research focus means that data can theoretically be matched with changes in regulations, and the effect of the regulation quantitatively measured. However, although there are a number of empirical research papers on microfinance, none have been able to quantitatively isolate the effect of the regulation (nor have any seriously attempted). The issue with this particular research approach is that for the current topic it is not able to match high quality data with points of regulatory change. In particular, this means that there is either high quality data at points in time without large regulatory change, or else there are regulatory changes either too long ago (before data was available) or too recent (and recent data is not available). A result of this is that the current research has not undertaken empirical quantitative methodologies, because of the lack of the relevant data. In contrast, the empirical qualitative methodologies have provided the stitching needed to piece together the answers to the research question. However, the issue of data is a major limit of the current research. Given the results of the current research future research has the potential to quantitatively build on the findings.

8.5.2 Interviews

Qualitative empirical research which uses interviews as the foundation requires that a number of methodological considerations are built into the research. Indeed, qualitative research requires the same quality of data input as quantitative research, only of a different type. Given the number of interviews, the quality of the interviewees is very important. A key limitation of the current research is that the interviewees were not sampled in a random manner. The reason for this is because CEO's (or the equivalent) were the target for interviews and the matter of interviewing a CEO is not a straightforward process, as they invariably have other commitments and priorities than academic interviews. Hence, interviewees were recruited through the professional network of the researcher as well as through 'cold' emails. The result of this is that the interviewees (and hence the results of the interviews) are not necessarily representative of the total population of CEO's and government officials.

Another disadvantage of the interviewees is that a balance was not achieved across governments for the interviewees. Specifically, this means that although the head of the microfinance department in Pakistan was interviewed, it was only second-tier staff who were interviewed in India. Although this is because of logical accessibility issues, it does potentially bring into doubt some of the comparability across responses. An additional issue regarding the interviews is the inherent bias which is a result of talking only to stakeholders in the microfinance industry. Although this bias was mitigated as much as possible by gaining the perspective of all key players in the microfinance sector, there is still some inherent bias which needs to be considered. Given that the interview results are the key binding force in the current research it inherently weakens the validity of conclusions.

8.5.3 Scope for future research

The current topic of research is very important for developing countries, MFI's, borrowers, and donors who want to support the expansion of microfinance rather than providing ongoing capital for MFI's which should have the freedom to operate sustainably. Given the importance of the research and the lack of existing literature on the same topic, there is vast scope for future research which considers the same issue. However, future research would particularly benefit from comparing countries other than those covered in the current research. Indeed, future research may benefit from comparing countries which have no microfinance law with countries which do. In this way the 'free market' of microfinance can be truly understood.

Future research would benefit from considering the same research question and countries of interest but using alternative law and economics techniques. In particular, empirical quantitative methodologies may benefit future research, in particular regarding the effect of the recently released law in India which has not been considered by previous research to date. In the coming year data should become available which makes this a possibility.

Research which focusses on regulatory failure rather than success would contribute greatly to the body of literature in this field. Indeed, the analysis of failure in the regulatory environment of microfinance may reveal particular conclusions which the current research focus was unable to uncover. Future research on regulatory failures would have the potential to consider a quantitative empirical methodology to determine the real effect of regulatory failure on MFI financial indicators.

One of the key limitations of the current research has been the unavailability of relevant data. This is because of a number of factors to do with the timing of regulation and the type of data available. However, new initiatives such as the Microfinance Seal of Excellence (Microfinance-Summit, 2013) seek to document new amounts of data for specific borrowers over the long term. As data becomes available for this initiative, and combined with new regulatory programs, future research may benefit from this data. The trend towards collecting different types of data means that future empirical research on microfinance will benefit greatly.

Some of the specific discrepancies between ex-ante and ex-post conclusions may be worthy of specific research in the future. In particular, the actual reason for why the interest rate cap reduces competition in the Bangladeshi microfinance market is an important topic for future research. The current thesis has considered a couple of potential reasons, namely that a price cap below equilibrium may cause inefficient MFI's to exit the market, or that it creates a target for which to focus on which allows for co-ordination in a cartel-like manner. These reasons need to be examined empirically and the research would benefit from answers on these issues which are specific to microfinance.

The research topic of microfinance is one that can potentially be considered from a bottom-up as well as a top-down perspective. Indeed, although the current research has taken a strategic perspective of the research question, a bottom-up approach that considers the effectiveness of the law on actually increasing borrower empowerment and repayment behaviour, may also be considered from the perspective of behavioural law and economics. However, a bottom-up approach is inappropriate for the current research question. For the current thesis, there are also a couple of behavioural law and economics conclusions which can be drawn from the effect of credit bureaus on increasing MFI portfolio quality.

Behavioural law and economics may be applicable in explaining how credit bureaus actually work. Indeed, from an ex-ante perspective, had behavioural law and economics theory been used in more detail, the outcome may have been predictable. The empirical results showed that credit bureaus increase MFI portfolio quality by ensuring that only borrowers who intend to repay the loan self-select into microfinance, and that they take the loans much more seriously than before the credit bureau was in force. The ex-ante analysis that was completed did not predict this outcome, and assumed that the credit bureau protected the borrowers more than the MFI's. Indeed, the behavioural law and economics research, particularly in the field of banking could have highlighted self-selection as a focus for the current research (Thakor & Udell, 1987). In addition to this, behavioural law and economics research regarding the actual actions by borrowers in contrast to ordinary economics predictions could have shown that borrowers repay loans not only because of future credit rationing reasons (Bester, 1985; Ghatak & Guinnane, 1999; Lea, Webley, & Walker, 1995; Livingstone & Lunt, 1992). Economic models fail to ex-ante explain microfinance relationships, and that is because human behaviour in this context is not accounted for in these models (Williamson, 1987). However, in an ex-post sense, authors have considered the economics of microfinance and accounted for behaviour. This shows that economics has not been able to predict microfinance behaviour, nor the success of microfinance, and highlights the potential relevance of behavioural law and economics for future research.

Hence, behavioural law and economics has a role to play in understanding the conclusions of the current research, and provides scope for future research in this field. This contrast between ex-ante and ex-post conclusions allows the current research to not only address the research question but to also comment on future methodology for such a research topic.

8.6 Conclusion

The research question has been answered by building a foundation of analysis on theory and previous research to identify appropriate methodologies. The current thesis has used comparative law, quantitative analysis, and empirical qualitative analysis to obtain targeted results which complement each other to provide a holistic answer to the research question. Each chapter of this thesis has contributed to understanding the context within which the research question must be answered.

The current thesis established in the second chapter that the previous research on microfinance is equivocal regarding the economic benefits of microfinance. However, previous research does generally support the social effects of microfinance, namely regarding women's empowerment. Hence the second chapter confirmed that although the effect of microfinance is still uncertain, it is relatively cheap for governments to support and does more good than harm. In extending the second chapter the third chapter considered microfinance from a law and economics perspective, identifying distribution and other theoretical foundations from which the research can build.

The few empirical studies published in the past were analysed in the fourth chapter of this thesis. The chapter identified the various empirical methodologies used in the past and recognised that for the current research a strategic top-down perspective was required, rather than the bottom-up perspectives of previous research. The fifth chapter built on this finding by establishing and contrasting the regulatory environments for microfinance across the four countries of interest. And understanding of the countries' regulatory environments raised a number of questions and ex-ante predictions about the effects of the laws, which were statistically addressed in the sixth chapter. However, although the sixth chapter sought to answer the questions raised in the fifth chapter regarding the actual effect and importance of the regulation, more questions were raised than answered. Hence an empirical qualitative methodology was required and designed for the seventh chapter. The results of the empirical interviews pieced together the preliminary conclusions and predictions of previous chapters to gain a complete understanding of how the current research results answer the research question.

The current research concludes that in the microfinance sector, law does matter. Further, the current research has found that microfinance regulation invariably supports MFI's in their quest for financial self-sustainability. In particular, the current research has identified the importance of the regulatory goal in determining appropriate regulation. This means that most of the benchmarks to determine 'successful' regulation rely on what the government wants to achieve through the regulation. Indeed, the benchmarks also rely on a consideration of the microfinance sector in question – as has been seen from the contrast between India and Bangladesh where the same regulatory goal and specific regulation regarding the interest rate cap have had vastly different effect on MFI's in each country.

Despite the contingency of results on regulatory goals, the current research has found that particular aspects of the regulation would be 'successful' in every interpretation. This includes support for innovation and a credit bureau specific for microfinance, as these aspects allow competition and MFI operational self-sustainability (or at least the possibility for it). Hence, the current research contributes to the law and economics literature by empirically determining ways the regulation can have the desired effect on the behaviour of companies and people. The current research has identified areas where future research would benefit – namely for research which is able to pair quality quantitative data with points in time of significant regulatory change. However, the methodological design of the current thesis does not allow for far reaching analytical conclusions. Future research is thus able to build on the findings of the current law and economics perspective to further understand how regulation can affect long term financial inclusion via microfinance.

References

Abbad, M., Abbad, R., & Malik, S. (2011). Limitations of e-commerce in developing countries: Jordan case. *Education, Business and Society: Contemporary Middle Eastern Issues, 4*(4), 280-291.

Abdul Rahim Abdul, R. (2010). Islamic microfinance: an ethical alternative to poverty alleviation. *Humanomics, 26*(4), 284-295.

ABS. (2011). *ABS Housing Finance*. Australian Bureau of Statistics: Canberra.

Acs, Z. J., Desai, S., & Klapper, L. (2008). A Comparison of the Global Entrepreneurship Monitor and World Bank Group Datasets. *The World Bank: Development Research Group., Policy Research Working Paper*(4667).

Affleck, A., & Mellor, M. (2006). Community Development Finance: A Neo-Market Solution to Social Exclusion? *Journal of Social Policy, 35*, 303-319.

Aggarwal, S., Klapper, L., & Singer, D. (2012). Financing Businesses in Africa: The Role of Microfinance. *Policy Research Working Paper 5975* (Vol. February 2012, pp. 1-28): The World Bank, Development Research Group, Finance and Private Sector Development Team.

Agyapong, D., Agyapong, G. K. Q., & Darfor, K. N. (2011). Criteria for Assessing Small and Medium Enterprises' Borrowers in Ghana. *International Business Research, 4*(4), 132-138.

Ahlin, C., & Jiang, N. (2008). Can micro-credit bring development? *Journal of Development Economics, 86*(1), 1.

Ahlin, C., & Townsend, R. (2007). Using repayment data to test across models of joint liability lending. *Economic Journal, 117*(1), 11-51.

Akerlof, G. A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics, 84*(3), 488-500.

Akün, D. (2013). *Banking Regulation in Turkey and Russia: an economic analysis.* PhD (EDLE), Erasmus University, Rotterdam.

Al-Azzam, M. d., Mimouni, K., & Ali, M. A. (2012). The Impact of Socioeconomic Factors and Financial Access on Microfinance Institutions. *International Journal of Economics and Finance, 4*(4), 61-71.

Al-Mamun, A., Malarvizhi, C. A., Hossain, S., & Tan, S.-H. (2012). Examining the Effect of Microcredit on Poverty in Malaysia. *ASEAN Economic Bulletin, 29*(1), 15-28.

Ala, C. D. M. (2009). Fighting Corruption in Developing Countries: Strategies and Analysis. *Labour Capital and Society, 42*(1/2), 196-198.

Alchian, A. A., & Demsetz, H. (1973). The property right paradigm. *The journal of economic history, 33*(1), 16-27.

Allen, F., & Gale, D. (1999). Innovations in Financial Services, Relationships, and Risk Sharing. *Management Science, 45*(9), 1239-1253.

Allen, T. D., Poteet, M. L., & Burroughs, S. M. (1997). The Mentor's Perspective: A Qualitative Inquiry and Future Research Agenda. *Journal of Vocational Behavior, 51*(1), 70-89.

Allott, A. (1981). The Effectiveness of Laws. *Valparaiso University Law Review, 15*(2), 229-242.

Alsop, R., & Heinsohn, N. (2005). Measuring empowerment in practice: structuring analysis and framing indicators. *World Bank Policy Research Working Paper*(3510).

Amadi, C. W. (2012). An Examination of the Adverse Effects of Consumer Loans. *International Journal of Business and Management, 7*(3), 22-31.

An, X., Deng, Y., & Gabriel, S. A. (2011). Asymmetric information, adverse selection, and the pricing of CMBS. *Journal of Financial Economics, 100*(2), 304-325.

Arch, G. (2005). Microfinance and development: Risk and return from a policy outcome perspective. *Journal of Banking Regulation, 6*(3), 227-245.

Archer, G. R., & Jones-Christensen, L. (2011). Entrepreneurial value creation through green microfinance: Evidence from Asian microfinance lending criteria. *Asian Business & Management, 10*(3), 331-356.

Augsburg, B., De Haas, R., Harmgart, H., & Meghir, C. (2012). Microfinance, Poverty and Education (Vol. Working Paper 18538, pp. 1-47). Cambridge, MA: Natuional Bureau of Economic Research.

Australian-Government. (1997). Release of the Report of the Financial System Inquiry and Initial Government Response on Mergers Policy. *Financial System Inquiry* (Vol. 9th April 1997). Canberra, Australia: Australian Government Treasury.

ASIC (2011). Disclosure: Product Disclosure Statements (and other disclosure obligations). Australian Securities and Investment Commission, 2011.

Baulch, B., & Hoddinott, J. (2000). Economic mobility and poverty dynamics in developing countries. *The Journal of Development Studies, 36*(6), 1-24.

Banerjee, E., Duflo, E., Glennerster, R., & Kinnan, C. (2009). The Miracle of Microfinance? Evidence from a Randomized Evaluation. *Bureau for Research and Economic Analysis of Development, BREAD Working Paper No. 278 June 2010*, 1-54.

Banerjee, E., Duflo, E., Glennerster, R., & Kinnan, C. (2010). The Miracle of Microfinance? Evidence from a Randomized Evaluation. *Bureau for Research and Economic Analysis of Development, BREAD Working Paper No. 278 June 2010*, 1-54.

Barclays. (2012). Our framework, code and rules. Retrieved 15th October 2012, from http://group.barclays.com/about-barclays/about-us/our-framework-code-and-rules

Basu, A., Blavy, R., & Yulek, M. (2004). Microfinance in Africa: Experience and Lessons from Selected African Countries. *IMF Working Paper, 04*(174), 1-24.

Bauer, M., Chytilová, J., & Morduch, J. (2012). Behavioral Foundations of Microcredit: Experimental and Survey Evidence from Rural India. *The American Economic Review, 102*(2), 1118-1139.

Bauer, M., & Gaskell, G. (2000). *Qualitative researching with text, image and sound: A practical handbook for social research*: Sage.

Baulch, B., & Hoddinott, J. (2000). Economic mobility and poverty dynamics in developing countries. *The Journal of Development Studies, 36*(6), 1-24

Becchetti. (2005). Corporate Social Responsibility and Corporate Performance: Evidence from a Panel of US Listed Companies. *CEIS Working Paper, 78*.

Beck, T., Demirguc-Kunt, A., & Singer, D. (2011). Is Small Beautiful? Financial Structure, Size and Access to Finance *Policy Research Working Paper* (5806 ed., Vol. Development Research Group, pp. 1-32): The World Bank.

Beck, T., & Levine, R. (2005). Legal Institutions and Financial Development. In C. Menard & M. Shirley (Eds.), *Handbook of New Institutional Economics* (pp. 251-278): Springer US.

Benería, L., & Sen, G. (1981). Accumulation, Reproduction, and "Women's Role in Economic Development": Boserup Revisited. *Signs, 7*(2), 279-298.

Benmelech, E., & Moskowitz, T. J. (2010). The Political Economy of Financial Regulation: Evidence from U.S. State Usury Laws in the 19th Century. *The Journal of Finance, 65*(3), 1029-1073.

Berg, G. (2012). Funding vs. Real Economy Shock: The Impact of the 2007-2009 Crisis on Small Firms' Credit Availability *Policy Research Working Paper 6030* (Vol. April 2012, pp. 1-39): The World Bank, Africa Region, Finance and Private Sector Development Unit.

Berlin, M., & Mester, L. J. (1999). Deposits and Relationship Lending. *The Review of Financial Studies, 12*(3), 579-607.

Besley, T., & Coate, S. (1995). Group lending, repayment incentives and social collateral. *Journal of Development Economics, 46*(1), 1-18.

Block, W. E. (2010). A critique of Yunus and his micro-finance. *Economics, Management and Financial Markets, 5*(2), 57-75.

Bradley, M. G., Gabriel, S. A., & Wohar, M. E. (1995). The Thrift Crisis, Mortgage-Credit Intermediation, and Housing Activity. *Journal of Money, Credit and Banking, 27*(2), 476-497.

Bowles, S. (2008). Policies Designed for Self-Interested Citizens May Undermine "The Moral Sentiments": Evidence from Economic Experiments. *Science, 320*(5883), 1605-1609.

Borgomeo, C. (2012). *Microcredito: Dimensioni e prospettive del prestito sociale e imprenditoriale in Italia*. Italy: Rubbettino Publisher.

Brafu-Insaidoo, W. G., & Ahiakpor, F. (2011). Understanding the marketing strategies of microfinance institutions within the Accra metropolis of Ghana: Case of selected institutions. *African Journal of Marketing Management, 3*(2), 45-55.

Brau, J. C., & Woller, G. M. (2004). Microfinance: A Comprehensive Review of the Existing Literature. *The Journal of Entrepreneurial Finance & Business Ventures, 9*(1), 1-27.

Britten, N. (1995). Qualitative interviews in medical research. *BMJ: British Medical Journal, 311*(6999), 251.

Brown, T. L., Potoski, M., & Van Slyke, D. M. (2010). Contracting for Complex Products. *Journal of Public Administration Research and Theory, 20*(1), 41-58.

Buera, F. J., Kaboski, J. P., & Shin, Y. (2012). *The Macroeconomics of Microfinance*. NBER Working Paper Series. National Bureau of Economic Research. Cambridge, MA 02138.

Burnard, P. (1991). A method of analysing interview transcripts in qualitative research. *Nurse Education Today, 11*(6), 461-466.

Buscaglia, E. (2011). On best and not so good practices for addressing high-level corruption worldwide: an empirical assessment. *International handbook on the economics of corruption, 2*(1), 453-478.

Cabello, M. G. (2008). Merilee Grindle and the reform of financial institutions: The case of micro-finance regulation in El Salvador. *International Development Planning Review, 30*(4), 1-21.

Campbell, J. L., Dhaliwal, D. S., & Schwartz, W. C. (2012). Financing Constraints and the Cost of Capital: Evidence from the Funding of Corporate Pension Plans. *Review of Financial Studies, 25*(3), 868-912.

Caplin, A., Freeman, C., & Tracy, J. (1997). Collateral Damage: Refinancing Constraints and Regional Recessions. *Journal of Money, Credit and Banking, 29*(4), 496-516.

Carey, M., & Nini, G. (2007). Is the Corporate Loan Market Globally Integrated? A Pricing Puzzle. *The Journal of Finance, 62*(6), 2969-3007.

Carrasco, Y. R. C. (2006). Regulation of Microfinance: An Impact Assessment of the Regulatory Framework of Microfinance Institutions in Peru. *University of Manchester, Institute for Development Policy and Management*, 1-85.

Carree, M., & Thurik, A. R. (2005). The Impact of Entrepreneurship on Economic Growth. In Z. Acs & D. Audretsch (Eds.), *Handbook of Entrepreneurship Research* (Vol. 1, pp. 437-471): Springer US

Casellina, S., Landini, S., & Uberti, M. (2011). Credit Market Dynamics: A Cobweb Model. [Article]. *Computational Economics, 38*(3), 221-239.

Cassar, A., Crowley, L., & Wydick, B. (2007). The effect of social capital on group loan repayment: evidence from field experiments. *Economic Journal, 117*(85-106).

CBA. (2010). Australian Residential Housing and Mortgages (Vol. 9th September 2010, pp. 18). Australia: Commonwealth Bank of Australia.

CCK. (2012). Quarterly Sector Statistics Report. *Director/Competition Tariffs and Market Analysis* (Vol. 2nd Quarter October-December 2011/2012): Communications Commission of Kenya.

CGAP. (2010). Update on Regulation of Branchless Banking in Pakistan. (Vol. February 2010). Washington, DC: Consultative Group to Assist the Poor.

Chakravarty, S., & Scott, James S. (1999). Relationships and Rationing in Consumer Loans. *The Journal of Business, 72*(4), 523-544.

Cheng, P., Lin, Z. G., & Liu, Y. C. (2011). Do Women Pay More for Mortgages? *Journal of Real Estate Finance and Economics, 43*(4), 423-440.

Chiappori, P.-A., Jullien, B., Salanié, B., & Salanié, F. (2006). Asymmetric Information in Insurance: General Testable Implications. *The RAND Journal of Economics, 37*(4), 783-798.
Chiuri, M. C., & Jappelli, T. (2003). Financial market imperfections and home ownership: A comparative study. *European Economic Review, 47*(5), 857-875.
Coase, R. H. (1984). The New Institutional Economics. *Zeitschrift für die gesamte Staatswissenschaft / Journal of Institutional and Theoretical Economics, 140*(1), 229-231.
Collier, P., & Dasgupta, P. S. (2007). Poverty Reduction in Africa. *PNAS Proceedings of the National Academy of Sciences of the United States of America, 104*(43), 16763-16768.
Commons, J. R. (1936). Institutional Economics. *The American Economic Review, 26*(1), 237-249.
Conybeare, J. A. C. (1982). The Rent-Seeking State and Revenue Diversification. *World Politics, 35*(01), 25-42.
Crabb, P. (2008). Economic Freedom and the Success of Microfinance Institutions. *Journal of Developmental Entrepreneurship, 13*(2), 205-219.
Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*: Sage.
Cull, R., Demirgüç-Kunt, A., & Morduch, J. (2005). Contract design and microfinance performance: a global analysis. *World Bank, Washington, DC, and Economic Journal forthcoming.*
Cull, R., Demirgüç-Kunt, A., & Morduch, J. (2010). Microfinance meets the market. *Contemporary Studies in Economic and Financial Analysis, 92*, 1-30.
de Mel, S., McKenzie, D., & Woodruff, C. (2009). Are Women More Credit Constrained? Experimental Evidence on Gender and Microenterprise Returns. *American Economic Journal. Applied Economics, 1*(3), 1-32.
Dahiya, S., Saunders, A., & Anand, S. (2003). Financial Distress and Bank Lending Relationships. *The Journal of Finance, 58*(1), 375-399.
Daripa, A. (2009). Social Capital, Individual Incentives and Loan Repayment. *Birkbeck College, London University.*
Das, S. K. (2012). Entrepreneurship through Micro Finance in North East India: A Comprehensive Review of Existing Literature. *Information Management and Business Review, 4*(3), 168-184.
de Mel, S., McKenzie, D., & Woodruff, C. (2011). Getting Credit to High Return Microentrepreneurs: The Results of an Information Intervention. *The World Bank Economic Review, 25*(3), 456.
De Meza, D., Irlenbusch, B., & Reyniers, D. (2008). Financial capability: A behavioural economics perspective. *Consumer research, 69*, 192-193.
Degryse, H., & Ongena, S. (2005). Distance, Lending Relationships, and Competition. *The Journal of Finance, 60*(1), 231-266.
Demirguc-Kunt, A., & Klapper, L. (2012). The Global Findex Database: Financial Inclusion in Sub-Saharan Africa. *THe World Bank, Findex Notes*(Note Number 04 July 2012), 1-4.
Detragiache, E., Garella, P., & Guiso, L. (2000). Multiple versus Single Banking Relationships: Theory and Evidence. *The Journal of Finance, 55*(3), 1133-1161.
Dev, S. M. (2006). Financial inclusion: Issues and challenges. *Economic and political weekly*, 4310-4313.
Di Bella, G. (2011). The Impact of the Global Financial Crisis on Microfiannce and Policy Implications *Western Hemisphere Department* (Vol. IMF Working Paper 11/75, pp. 1-40): International Monetary Fund.
Diamond, D. W., & Dybvig, P. H. (1986). Banking Theory, Deposit Insurance, and Bank Regulation. *The Journal of Business, 59*(1), 55-68.
DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education, 40*(4), 314-321.
Diener, E., & Biswas-Diener, R. (2002). Will Money Increase Subjective Well-Being? *Social Indicators Research, 57*(2), 119-169.

Economist-Intelligence-Unit. (2009). Global Microscope on the Microfinance Business Environment 2009. In MIF (Ed.), *The Economist*.
Economist-Intelligence-Unit. (2010). Global Microscope on the Microfinance Business Environment 2010. In MIF (Ed.), *The Economist*.
Economist-Intelligence-Unit. (2011). Global Microscope on the Microfinance Business Environment 2011. In MIF (Ed.), *The Economist*.
Economist-Intelligence-Unit. (2012). Global Microscope on the Microfinance Business Environment 2012. In MIF (Ed.), *The Economist*.
Economist-Intelligence-Unit. (2013). Global Microscope on the Microfinance Business Environment 2013. In MIF (Ed.), *The Economist*.
European-Microfinance-Network. (2013). Microfinance Sector In Italy. *European Microfinance Network*. from http://www.european-microfinance.org/pays_en.php?piId=22
Eichner, A. S. (2011). Role Of Micro Finance In Reducing Poverty: A Look At Social And Economic Factors. *International Journal of Business and Social Science, 2*(21), 21-32.
Eichner, A. S. (2012a). Determinates of Women Micro-entrepreneurship Development: An Empirical Investigation in Rural Bangladesh. *International Journal of Economics and Finance, 4*(5), 254-260.
Eichner, A. S. (2012b). Entrepreneurship through Micro Finance in North East India: A Comprehensive Review of Existing Literature. *Information Management and Business Review, 4*(3), 168-184.
Eisenberg, T. (2000). Empirical Methods and the Law. *Journal of the American Statistical Association, 95*(450), 665-669.
Ekpe, I., Norsiah Binti, M., & Razli Che, R. (2010a). The Effect Of Microfinance Factors On Women Entrepreneurs' Performance In Nigeria: A Conceptual Framework. *International Journal of Business and Social Science, 1*(2).
Ekpe, I., Norsiah Binti, M., & Razli Che, R. (2010b). The Mediating Effect Of Opportunity For Entrepreneurial Activity On Micro- Credit And Women Entrepreneur's Performence: A Conceptual Framework. *International Journal of Business and Social Science, 1*(3).
El-Zoghbi, M., Gahwiler, B., & Lauer, K. (2011). Cross-border Funding of Microfinance. *CGAP Microfinance Funder Survey, Focus Note*(70), 1-12.
Elliehausen, G. E., & Lawrence, E. C. (1990). Discrimination in Consumer Lending. *The Review of Economics and Statistics, 72*(1), 156-160.
Ellis, L. (2012). *Prudent Mortgage Lending Standards Help Ensure Financial Stability*. Paper presented at the Australian Mortgage Conference, Sydney.
Elster, J. (1989). Social norms and economic theory. *The Journal of Economic Perspectives, 3*(4), 99-117.
Emeni, F., & Kehinde, E. S. Q. (2008). Microfinance Institutions (MFI's) in Nigeria: Problems and Prospects: Questionnaire Survey Findings. *Journal of Financial Management & Analysis, 21*(1), 69-76.
EMF-Hypostat. (2010). A Review of Europe's Mortgage and Housing Markets. In A. Sciamarelli (Ed.): European Mortgage Federation.
Etzensperger, C. (2012). Peru - Model Market for Microfinance. *ResponsAbility: Leading Social Investments, Research Insight*(2012), 2-9.
Evans, D. B., Azene, G., & Kirigia, J. (1997). Should Governments Subsidize the Use of Insecticide-Impregnated Mosquito Nets in Africa? Implications of a Cost-Effectiveness Analysis. *Health Policy and Planning, 12*(2), 107-114.
Faure, M., & Smits, J. (2011). *Does Law Matter? On Law and Economic Growth*. Cambridge-Antwerp.
Felsenstein, D., & Schwartz, D. (1993). Constraints to small business development across the life cycle: some evidence from peripheral areas in Israel. *Entrepreneurship & Regional Development, 5*(3), 227-246.

Ferro Luzzi, G., & Weber, S. (2006). Measuring the Performance of Microfinance Institutions. *Centre de Recherche Appliquée en Gestion, CRAG – Haute Ecole de Gestion de Genève*(N° HES-SO/HEG-GE/C--06/1/3--CH).

Frame, W. S., Srinivasan, A., & Woosley, L. (2001). The Effect of Credit Scoring on Small-Business Lending. *Journal of Money, Credit and Banking, 33*(3), 813-825.

Frame, W. S., & White, L. J. (2004). Empirical Studies of Financial Innovation: Lots of Talk, Little Action? *Journal of Economic Literature, 42*(1), 116-144.

Francis, K. E. (2010). Rollover, Rollover: A Behavioral Law and Economics Analysis of the Payday-Loan Industry. *Texas Law Review, 88*(3), 611-638.

Gamerschlag, R., Möller, K., & Verbeeten, F. (2011). Determinants of voluntary CSR disclosure: empirical evidence from Germany. *Review of Managerial Science, 5*(2-3), 233-262.

Gibson, H. D., & Tsakalotos, E. (1994). The scope and limits of financial liberalisation in developing countries: A critical survey. *The Journal of Development Studies, 30*(3), 578-628.

Giné, X., Jakiela, P., Karlan, D., & Morduch, J. (2010). Microfinance games. *American Economic Journal: Applied Economics, 2*(3), 60-95.

Giné, X., & Karlan, D. (2009). Group versus individual liability: Long term evidence from philippine microcredit lending groups. *Yale Economics Department Working Paper No. 61*

Grameen-Bank. (2011). Grameen Bank's Response to the Various Issues Raised in the Review Committee Report as Reported in the Press. Bangladesh: Grameen Bank.

Green, J., & Britten, N. (1998). Qualitative research and evidence based medicine. *BMJ: British Medical Journal, 316*(7139), 1230.

Grossman, G. M., & Helpman, E. (1996). Electoral competition and special interest politics. *The Review of Economic Studies, 63*(2), 265-286.

Guest, G., Bunce, A., & Johnson, L. (2006). How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods, 18*(1), 59-84.

Hamdani, S. M. Q., & Naeem, H. (2012). The Impact of Microfinance on Social Mobility, an Empirical Evidence from Pakistan. *Interdisciplinary Journal of Contemporary Research In Business, 3*(9), 81-89.

Haq, M., Skully, M., & Pathan, S. (2010). Efficiency of Microfinance Institutions: A Data Envelopment Analysis. *Asia-Pacific Financial Markets, 17*(1), 63-97.

Hartarska, V., & Nadolnyak, D. (2007). Do regulated microfinance institutions achieve better sustainability and outreach? Cross-country evidence. *Applied Economics, 39*(10), 1207-1222.

Hartungi, R. (2007). Understanding the success factors of micro-finance institution in a developing country. *International Journal of Social Economics, 34*(6), 388-401.

Herd, R., Koen, V., Patnaik, I., & Shah, A. (2011). Financial Sector Reform in India: Time for a Second Wave? (Vol. Economics Department Working Papers No. 879, pp. 1-37): OECD.

Hermes, N., & Lensink, R. (2007). The empirics of microfinance: what do we know? *The Economic Journal, 117*(517), F1-F10.

Hoek-Smit, M. C. (2006). *Housing Finance and the Role of Government: Incentives without Distortions.* Paper presented at the FinMark Forum.

Hofstede, G. (1983). Culture's Consequences: International Diffferences in Work-Related Values. *Administrative Science Quarterly, 28*(4), 625-629.

Hollis, A. (1999). Women and Microcredit in History: Gender in the Irish Loan Funds (pp. 1-25). Unpublished: University of Calgary.

Holloway, S. R. (1998). Exploring the Neighborhood Contingency of Race Discrimination in Mortgage Lending in Columbus, Ohio. *Annals of the Association of American Geographers, 88*(2), 252-276.

Holvoet, N. (2004). Impact of Microfinance Programs on Children's Education. *Journal of Microfinance, 6*(2), 27-49.

Hossain, F., & Knight, T. (2008). Can micro-credit improve the livelihoods of the poor and disadvantaged? Empirical observations from Bangladesh. *International Development Planning Review, 30*(2), 155-175.

Hudon, M. (2009). Should Access to Credit be a Right? *Journal of Business Ethics, 84*(1), 17-28.

Hulme, D. (2008). The Story of the Grameen Bank: From Subsidised Microcredit to Market-based Microfinance. *Brooks World Poverty Institute, BWPI Working Paper 60*.

Hulsmann, J. G. (2006). The Political Economy of Moral Hazard. *Politicka Ekonomie, 1*(1), 35.

Hunt, K. H. M., Brimble, M., & Freudenberg, B. (2011). Determinants of Client-Professional Relationship Quality in the Financial Planning Setting. *Australiasian Accounting Business and Finance Journal, 5*(2), 69-100.

Hurst, E., & Stafford, F. (2004). Home Is Where the Equity Is: Mortgage Refinancing and Household Consumption. *Journal of Money, Credit and Banking, 36*(6), 985-1014.

Husain, J. (2008). Role of Micro-Finance Institutions in Reducing World Poverty: An Overview. *The Business Review, Cambridge, 11*(1), 38-42.

IMF. (2013). Report for Selected Countries and Subjects. *World Economic Outlook Database, April 2013*. Washington, DC: International Monetary Fund.

ING-DiBa. (2008). Netherlands.

ING. (2012). Microfinance. *ING for Something Better - Initiatives.* Retrieved 26th December 2012, from http://www.ingforsomethingbetter.com/initiatives/microfinance

Ismail, A. G. b., & Achmad, T. (2010). Islamic law and finance. *Humanomics, 26*(3), 178-199.

ITAA. (1997). Income Tax Assessment Act. *Act No. 38 of 1997*. Canberra, Australia: Australian Government.

Jiwani, J. (2007). *Sustainable microfinance: The impact of pay for performance on key performance indicators.* D.B.A. Thesis, Argosy University/Chicago, United States, Illinois

John, K., Lynch, Anthony W., & Puri, M. (2003). Credit Ratings, Collateral, and Loan Characteristics: Implications for Yield. *The Journal of Business, 76*(3), 371-409.

Jones, N. (2008). Usury. *Economic History.* Retrieved 26th December 2012, from http://eh.net/encyclopedia/article/jones.usury

Jovanovic, B. (2001). Economic Growth: Theory. In N. J. Smelser & P. B. Baltes (Eds.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 4098-4101). Oxford: Pergamon

Kantorowicz, J. (2013). Are (fiscal) Rules Made to Be Broken? The Law and Economics Analysis of the Numerical Fiscal Constraints. EDLE. *Mimeo.*

Karlan, D. (2007). Social connections and group banking. *Economic Journal, 117*(1), 52-84.

Karlan, D., & Goldberg, N. (2007). Impact Evaluation for Microfinance: Review of Methodological Issues *Poverty Reduction and Economic Management: Thematic Group on Poverty Analysis, Monitoring and Impact Evaluation* (Vol. November 2007, pp. 1-37): The World Bank.

Karlan, D., & Mullainathan, S. (2009). Is microfinance too rigid? *forthcoming, QFinance*.

Karlan, D., & Zinman, J. (2008). Credit Elasticities in Less-Developed Economies: Implications for Microfinance. *The American Economic Review, 98*(3), 1040-1068.

Kevane, M., & Wydick, B. (2001). Microenterprise lending to female entrepreneurs: Sacrificing economic growth for poverty alleviation? *World Development, 29*(7), 1225-1236.

Khandker, S. R. (2005). Microfinance and Poverty: Evidence Using Panel Data from Bangladesh. *The World Bank Economic Review, 19*(2), 263-286.

Kinnier, R. T., Kernes, J. L., & Dautheribes, T. M. (2000). A Short List of Universal Moral Values. *Counselling and Values, 45*(1), 4-16.

Kiweu, J. M. (2011). Relaxing Financing Constraint In The Microfinance Industry: Is Commercialization The Answer? *Journal of Business & Economics Research, 9*(10), 87-104.

Kiva. (2012). About Us: Mission Statement. Retrieved 15th October 2012, from http://www.kiva.org/about

Klapper, L., Amit, R., Guillen, M. F., & Quesada, J. M. (2007). Entrepreneurship and Firm Formation Across Countries. *World Bank Policy Research Working Paper, Development Research Group*(WPS 4313, pp. 1-40).

Klapper, L., & Richmond, C. (2011). Patterns of Business Creation, Survival and Growth: Evidence from Africa. *The World Bank, Development Research Group: Finance and Private Sector Development Team*(Policy Research Working Paper 5828), 1-41.

Kolenikov, S., & Angeles, G. (2009). Socioeconomic status measurement with discrete proxy variables: Is principal component analysis a reliable answer? *Review of Income and Wealth, 55*(1), 128-165.

Krauss, N., & Walter, I. (2009). Can microfinance reduce portfolio volatility? *Economic Development and Cultural Change, 58*(1), 85-110.

Kuotsai Tom, L. (2007). Applying Good Governance Concept to Promote Local Economic Development: Contribution and Challenge. *International Journal of Economic Development, 9*(1/2), 1-32.

Kyereboah-Coleman, A., & Osei, K. A. (2008). Outreach and profitability of microfinance institutions: the role of governance. *Journal of Economic Studies, 35*(3), 236-248.

La Porta, R., Lopez-de-Silanes, F., Schleifer, A., & Vishny, R. W. (1998). Law and Finance. *The Journal of Political Economy, 106*(6), 1113-1155.

Laffont, J.-J., & Triole, J. (1990). Politics of Government Decision Making: Regulatory Institutions, *The Journal of Law Economics & Organisation., 6*, 1.

Law, M., Stewart, D., Letts, L., Pollock, N., Bosch, J., & Westmorland, M. (1998). Guidelines for critical review of qualitative studies. *McMaster University Occupational Therapy Evidence-Based Practice Research Group*.

Lee, K., & Kim, B.-Y. (2009). Both Institutions and Policies Matter but Differently for Different Income Groups of Countries: Determinants of Long-Run Economic Growth Revisited. *World Development, 37*(3), 533-549.

Linklater, A. (2007). Towards a sociology of global morals with an 'emancipatory intent'. *Review of International Studies, 33*(1), 135-150.

Lintner, B. (2009). A History of Modern Burma/ Fiery Dragons: Banks, Moneylenders and Microfinance in Burma. *Far Eastern Economic Review, 172*(3), 62-64.

Luoto, J., McIntosh, C., & Wydick, B. (2007). Credit information systems in less developed countries: A test with microfinance in Guatemala. *Economic Development and Cultural Change, 55*(2), 313-334.

Mahmood, S. (2011). Microfinance and women entrepreneurs in Pakistan. *International Journal of Gender and Entrepreneurship, 3*(3), 265-274.

Malegam, Y. H. (2011). 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 (pp. 1-57). Mumbai: Reserve Bank of India.

Malimba Musafiri, P., & Ganesan, P. (2009). Repayment behaviour in credit and savings cooperative societies. *International Journal of Social Economics, 36*(5), 608-625.

Margolis, J. D., & Walsh, J. P. (2001). *People and Profits? The Search for a Link between a Company's Social and Financial Performance*. Mahwah, NJ: Lawrence Erlbaum and Associates.

Marr, A., & Tubaro, P. (2013). The microfinance wholesale lending market: a comparative study of India, Peru and Tanzania. *International Journal of Economics and Business Research, 5*(1), 33-54.

Mayer, R. (2012). Loan Sharks, Interest-Rate Caps, and Deregulation. *Washington & Lee Law Review, 69*(2), 807-849.

Mayoux, L. (1999). Questioning virtuous spirals: micro-finance and women's empowerment in Africa. *Journal of International Development, 11*(7), 957-984.

Masciandaro, D., Nieto, M. J., & Prast, H. (2007). Who pays for banking supervision? Principles and trends. *Journal of Financial Regulation and Compliance, 15*(3), 303-326

McWilliams. (2006). Corporate Social Responsibility: Strategic Implications. *Journal of Management Studies, 43*(1), 1-18.
Mercy-Corps. (2006). The History of Microfinance. *Global Envision: The Confluence of Global Markets and Poverty Alleviation.* Retrieved 15th October 2012, from http://www.globalenvision.org/library/4/1051/
Mersland, R. (2011). The governance of non-profit micro finance institutions: lessons from history. *Journal of Management & Governance, 15*(3), 327-348.
Mesarina, N. (2012). Alternative Channels in Microfinance, ACCION. Retrieved 8th October, 2012, from http://www.accion.org/page.aspx?pid=808
Microfinance-Information-Exchange. (2010). Asia 2009 *Microfinance Analysis and Benchmarking Report* (Vol. March 2010, pp. 21): Microfinance Information Exchange.
Microfinance-Summit. (2013). Microfinance Summit Campaign: Seal of Excellence, from http://www.microcreditsummit.org/news/26/seal-of-excellence-will-help.html
Microfinance-Transparency. (2013). About Us. Retrieved November 23rd 2013, from http://www.mftransparency.org/about-our-organization/
Millenium-Challenge-Corporation. (2013). Access to Credit. *Country Scorecards*.
MIX. (2012). Microfinance Information Exchange (MIX). Washington, DC: MIX.
MIX. (2013). Microfinance Information Exchange (MIX). Washington, DC: MIX.
Mogale, M. T. (2007). Local governance and poverty reduction in South Africa II. *Progress in Development Studies, 7*(4), 345-355.
Molyneux, C., Hutchison, B., Chuma, J., & Gilson, L. (2007). The role of community-based organizations in household ability to pay for health care in Kilifi District, Kenya. *Health Policy and Planning, 22*(6), 381-392.
Mori, N. (2010). Roles Of Stakeholders In Strategic Decision-Making Of Microfinance Organizations. *The International Business & Economics Research Journal, 9*(7), 51-63.
Mouzas, S., Henneberg, S. & Naude, P. . (2007). Trust and Reliance in Business Relationships. *European Journal of Marketing, 41*(9), 1016-1032.
Muhammad Kashif Khan, D., Usman, A., Malik, M. I., & Shafiq, A. (2011). Role Of Micro Finance In Reducing Poverty: A Look At Social And Economic Factors. *International Journal of Business and Social Science, 2*(21).
Mwenda, K. K., & Muuka, G. N. (2004). Towards best practices for micro finance institutional engagement in African rural areas: Selected cases and agenda for action. *International Journal of Social Economics, 31*(1/2), 143-158.
Narayan-Parker, D. (2005). *Measuring empowerment: cross-disciplinary perspectives*: World Bank Publications.
Nawaz, S., McKinnon, R., & Webb, R. (2002). Informal and formal money transfer networks: Financial service or financial crime? *Journal of Money Laundering Control, 5*(4), 330-337.
NCCP. (2009). National Consumer Credit Protection Act. *C2012C00083*. Canberra, Australia: Australian Government.
North, D. C. (1986). The new institutional economics. *Journal of Institutional and Theoretical Economics (JITE)/Zeitschrift für die gesamte Staatswissenschaft, 142*(1), 230-237.
North, D. (1989). Institutions and economic growth: An historical introduction. *World Development, 17*(9), 1319-1332.
North, D. (1990). *Institutions, Institutional Change and Economic Performance (Political Economy of Institutions and Decisions)*: Cambridge University Press.
NY-Daily-News. (2012). Bangladesh minister accuses Muhammad Yunus of smear campaign, *NY Daily News*.
O'Donnell, G. A. (2004). Why the Rule of Law Matters. *Journal of Democracy, 15*(4), 32-46.
Ogus, A. (1994). *Regulation: Legal form and economic theory* (Vol. 152): Clarendon Press Oxford.
Ogus, A. (1995). Rethinking self-regulation. *Oxford Journal of Legal Studies*, 97-108.

Oison, M. (1996). Big bills left on the sidewalk: Why some nations are rich, and others are poor. *Journal of Economic Perspectives, 10*(2), 3-25.

Ohnesorge, J. (2009). Legal Origins and the Tasks of Corporate Law in Economic Development: A Preliminary Exploration. *Brigham Young University Law Review, 2009*(6), 1619-1634.

Okeahalam, C. (2007). Economics of access in a developing country: an analysis of firm-conduct in financial services. *International Journal of Social Economics, 34*(12), 923-942.

Ono, A., & Uesugi, I. (2009). Role of Collateral and Personal Guarantees in Relationship Lending: Evidence from Japan's SME Loan Market. *Journal of Money, Credit and Banking, 41*(5), 935-960.

Opoko, E., Dzene, R., Caria, S., Teal, F., & Zeitlin, A. (2009). *Impacts of group-based microfinance in agriculture: Evidence from Ghana's Cocoa Abrabopa Association*. Paper presented at the CSAE Conference 2009: Economic Development in Africa, St Catherine's College, Oxford.

Pait, S. (2009). The Microfinance Sector in Peru: Opportunities, Challenges and Empowerment with Gender Mainstreaming *Women's Empowerment Mainstreaming and Networking for Gender Justice in Economic Development (WEMAN)* (Vol. Oxfam Novib Program in Economic Justice, pp. 1-27): Oxfam Novib for WEMAN Program.

Parlour, C. A., & Rajan, U. (2001). Competition in Loan Contracts. *The American Economic Review, 91*(5), 1311-1328.

Parvin, L., Rahman, M. W., & Jia, J. (2012). Determinates of Women Micro-entrepreneurship Development: An Empirical Investigation in Rural Bangladesh. *International Journal of Economics and Finance, 4*(5), 254-260.

Patton, M. Q. (2005). *Qualitative research*: Wiley Online Library

Pearlman, S. (2010). Flexibility matters: Do more rigid loan contracts reduce demand for microfinance? (Vol. September 2010). Department of Economics, Vassar College, Poughkeepsie, NY 12604, United States: Working paper.

Pereiro, L. E. (2001). The valuation of closely-held companies in Latin America. *Emerging Markets Review, 2*(4), 330-370.

Perkins, E. J. (2003). Hamilton Unbound: Finance and the Creation of the American Republic. *The Journal of Economic History, 63*(3), 897-898.

Petersen, M. A., & Rajan, R. G. (1995). The Effect of Credit Market Competition on Lending Relationships. *The Quarterly Journal of Economics, 110*(2), 407-443.

Polillo, S. (2011). Money, Moral Authority, and the Politics of Creditworthiness. *American Sociological Review, 76*(3), 437-464.

Pollinger, J. J., Outhwaite, J., & Cordero-Guzmán, H. (2007). The Question of Sustainability for Microfinance Institutions. *Journal of Small Business Management, 45*(1), 23-23.

Posner, R. A. (1987). The law and economics movement. *American Economic Review, 77*(2), 1-13.

PTA. (2013). Annual Cellular Mobile Teledensity. *Telecom Indicators* (Vol. Nov 2012): Pakistan Telecommunications Authority.

Punch, K. F. (2005). *Introduction to social research: Quantitative and qualitative approaches*: Sage.

Rahman, M. W., & Luo, J. (2011). The Development Perspective of Finance and Microfinance Sector in China: How Far Is Microfinance Regulations? *International Journal of Economics*

Rodríguez-Meza, J. L. (2000). Group and Individual Microcredit Contracts: A Dynamic Numberical Analysis. *Dissertation: Ohio State University. and Finance, 3*(1), 160-170.

Rogerson, C. M. (2001). Investment-led Entrepreneurship and Small Enterprise Development in Tourism: Lessons for SDIS from the International Experience. *South African Geographical Journal, 83*(2), 105-114.

Rojas, M. (2009). Enhancing Poverty-Abatement Programs: a Subjective Well-Being Contribution. *Applied Research in Quality of Life, 4*(2), 179-199.

Roodman, D., & Morduch, J. (2009). The impact of microcredit on the poor in Bangladesh: Revisiting the evidence. *Center for Global Development Working Paper*(174).

Roper, K. (2005). Pro Poor Microfinance. *Appropriate Technology, 32*(1), 3.

Rosseel, P., De Corte, E., Blommaert, J., & Verniers, E. (2012). Approaches to North-South, South-South and North-South-South Collaboration: A Policy Document. *KU Leuven University Policy Papers*.

Roth, A. E., Prasnikar, V., Okuno-Fujuwara, M., & Zamir, S. (1991). Bargaining and market behavior in Jerusalem, Ljubljana, Pittsburgh, and Tokyo: an experimental study. *American Economic Review, 81*(1), 1068-1095.

Ryan, R. B., Engel, W. J., & Melamed, S. (2001). United States Patent No. US 6,304,859 B1.

Sa-Dahn. (2013). Sustainability in Microfinance. *The Association of Community Development Finance Institutions,http://www.sa-dhan.net/Adls/Microfinance/Miscellaneous/SustainabilityInMicrofinance.pdf*.

Sachs, J. D., & Bajpai, N. (2001). The Decade of Development: Goal Setting and Policy Challenges in India. *Center for International Development at Harvard University, 62*.

Sarr, F. (2006). Funding of Non Governmental Organizations in Senegal: Constraints and Opportunities. *Development, 49*(2), 108-115.

Sanyal, P. (2009). From Credit to Collective Action: The Role of Microfinance in Promoting Women's Social Capital and Normative Influence. *American Sociological Review, 74*(4), 529-550.

Satta, T. A. (2003). Enterprise characteristics and constraints in developing countries: Evidence from a sample of Tanzanian micro and small-scale enterprises. *International Journal of Entrepreneurship and Innovation, 4*(3), 175-184.

Satta, T. A. (2004). Microfinance regulation influence on small firms' financing in Tanzania. *Journal of Financial Regulation and Compliance, 12*(1), 64-75.

SBP. (2007). Policy Paper on Regulatory Framework for Mobile Banking in Pakistan. Pakistan: Lahore: State Bank of Pakistan.

SBP. (2011). Branchless Banking Regulations for Financial Institutions Desirous to undertake Branchless Banking. Pakistan: Banking Policy and Regulations Department, State Bank of Pakistan.

Schreiner, M. (2009). A Simple Poverty Scorecard for Pakistan. *Progress out of Poverty Index, September 2009*, 1-282.

Schreiner, M. (2012). A Simple Poverty Scorecard for India. *Progress out of Poverty Index, http://www.progressoutofpoverty.org/india*.

Schwartz, S. H. (2007). Universalism Values and the Inclusiveness of Our Moral Universe. *Journal of Cross-Cultural Psychology, 38*(6), 711-728.

Sen, A. (2001). Culture and Development. *World Bank Tokyo Meeting, 13 December 2000*, 1-27.

Sen, A. (2002). How to Judge Globalisation. *The American Prospect, 13*(1), 1-8.

Shafi, M., & Medabesh, A. H. (2012). Financial Inclusion in Developing Countries: Evidences from an Indian State. *International Business Research, 5*(8), 116-122.

Shah, M. (2011). Regulating Pakistan's Non-Bank Microfinance Institutions. *MicroNote: Pakistan Microfinance Network, 14*(1), 1-16.

Shankar, S. (2007). Transaction costs in group microcredit in India. *Management Decision, 45*(8), 1331-1342.

Sharma, M. (2005). Emerging Contours of Micro Finance: Where Do We Go From Here? *The Business Review, Cambridge, 4*(1), 288-295.

Sharma, M., & Zeller, M. (1997). Repayment performance in group-based credit programs in Bangladesh: an empirical analysis. *World Development, 25*(10), 1731-1742.

Sharpe, S. A. (1990). Asymmetric Information, Bank Lending and Implicit Contracts: A Stylized Model of Customer Relationships. *The Journal of Finance, 45*(4), 1069-1087

Shukran, K., & Rahman, F. (2011). *A Grameen Bank Concept: Micro-credit and Poverty Alleviation Program in Bangladesh*. Paper presented at the International Conference on Emerging Trends in Computer and Image Processing (ICETCIP), Bangkok.

Singh, N. (2008). Transaction costs, information technology and development. *Indian Growth and Development Review, 1*(2), 212-236.

Spahr, R. W., Ashraf, M., Scannell, N., & Korobov, Y. I. (2011). The governance of non-profit micro finance institutions: lessons from history. *Journal of Management & Governance, 15*(3), 327-348.

Stigler, G. J. (1961). The Economics of Information. *Journal of Political Economy, 69*(3), 213-225.

Stiglitz, J. E., & Weiss, A. (1981). Credit Rationing in Markets with Imperfect Information. *The American Economic Review, 71*(3), 393-410.

Strauss, J., & Thomas, D. (1998). Health, Nutrition, and Economic Development. *Journal of Economic Literature, 36*(2), 766-817.

Stroebel, J. (2011). The impact of asymmetric information about collateral values in mortgage lending. [Job Market Paper]. *Stanford University Research Paper*, 79.

Struyk, R. J., & Roy, F. (2006). Kyrgyzstan's "Squatter Communities" and the Potential of Housing Micro Finance to Support Upgrading. *Housing Finance International, September 2006*(1), 6.

Sumner, A., & Tribe, M. (2008). *International Development Studies: Theories and Methods in Research and Practice*. London: Sage.

Sykes, B. W., & Quesenberry, L. G. (2009). The State of the Art: Experiences in Cape Town. *Online Journal of International Case Analysis, 1*(2), 12.

Thakor, A. V. (2005). Do Loan Commitments Cause Overlending? *Journal of Money, Credit and Banking, 37*(6), 1067-1099.

The-Heritage-Foundation. (2013). The Rule of Law. *Index of Economic Freedom 2013*.

The-World-Bank. (2003). Microfinance.

The-World-Bank. (2009). Poverty. *World Bank Issue Brief*: The World Bank.

The-World-Bank. (2012). Poverty & Equity Data. Retrieved 5th December 2012, from http://povertydata.worldbank.org/poverty/home/

The-World-Bank. (2013). Measuring Poverty. Washington: The World Bank.

The-World-Bank. (2013a). The Little Data Book on Financial Development 2013. *Development Economics Vice Presidency of the World Bank*. Washington, DC: The World Bank.

The-World-Bank. (2013b). Doing Business: Smarter Regulations for Small and Medium-Size Enterprises (Vol. 10th Edition). Washington, DC: The World Bank.

The-World-Bank. (2013c). Economic Growth Indicators 1961-2011.

The-World-Bank. (2013d). Entrepreneurship Data Collection. *Doing Business*.

The-World-Bank. (2013e). GDP Ranking. *World Development Indicators*: The World Bank.

Tomer, J. F. (2007). What is behavioral economics? *The Journal of Socio-Economics, 36*(3), 463-479.

Torkestani, M. S., & Pari, A. (2008). Readiness assessment of Islamic micro-finance institution to implement micro-insurance concept (case of Iran). *International Journal of Islamic and Middle Eastern Finance and Management, 1*(3), 249-261.

TRAI. (2012). Overall Wireless Teledensity. *Highlights on Telecom Subscription Data as on 30th November 2012* (Vol. 11th January 2013). New Dehli: Telecom Regulatory Authority of India.

Transparency-International. (2008). Persistently high corruption in low-income countries amounts to an "ongoing humanitarian disaster". *Berlin, Germany*.

Transparency-International. (2013). Corruption Perceptions Index. *2001-2012*. Retrieved 24th May 2013, from http://www.transparency.org/cpi2012/results

Trevinyo-Rodríguez, R. N., & Chamiec-Case, L. (2012). Pursuing Financial Inclusion of Family Firms at the Base of the Pyramid (BoP): The Case of Convenience Stores and Microenterprises in Nuevo León, Mexico. *Journal of Small Business and Entrepreneurship, 25*(2), 231-248,253-254.

Trussel, J. M., & Parsons, L. M. (2007). Financial reporting factors affecting donations to charitable organizations. *Advances in Accounting, 23*, 263-285.

Uhlig, H. (2010). A model of a systemic bank run. *Journal of Monetary Economics, 57*(1), 78-96.
United-Prosperity. (2012). United Prosperity. Retrieved 1st November 2012, from http://www.unitedprosperity.org/us/about_us
van Bastelaer, T. (2000). Imperfect Information, Social Capital and the Poor's Access to Credit (Vol. IRIS Centre). University of Maryland, College Park, MD: Centre for Institutional Reform and the Informal Sector.
Van Greuning, H., Gallardo, J., & Randhawa, B. (1998). A framework for regulating microfinance institutions. *World Bank Policy Research Working Paper*(2061).
Vayanos, D., & Wang, J. (2011). Liquidity and Asset Returns Under Asymmetric Information and Imperfect Competition. *Review of Financial Studies*.
Wagle, U. (2002). Rethinking poverty: definition and measurement. *International Social Science Journal, 54*(171), 155-165.
Waweru, N., & Spraakman, G. (2012). The use of performance measures: case studies from the microfinance sector in Kenya. *Qualitative Research in Accounting and Management, 9*(1), 44-65.
Waziri, K. M. (2012). Industrial Property Rights Protection and Entrepreneurship Development in Nigeria: The Economic Implication. *Journal of Politics and Law, 5*(1), 93-99.
Viner, J. (1927). Adam Smith and Laissez Faire. *Journal of Political Economy, 35*(2), 198-232.
Webb, D., Kristiani, N., & Olaru, D. (2009). Investigating the Key Criteria for Micro Loan Provider Selection: The Case of the Poor in Kedungjati, Indonesia. *The IUP Journal of Bank Management., 8*(3), 14-21.
Webley, L. (2010). Qualitative approaches to empirical legal research.
Weiss, A., Montgomery, H., & Kurmanalieva, E. (2003). Microfinance and poverty reduction in Asia: what is the evidence? . *MPRA Paper 33140, University Library of Munich, Germany*.
Weiss, J., Montgomery, H., & Kurmanalieva, E. (2003). Micro Finance and Poverty Reduction in Asia: What is the Evidence? *ABD Institute Research Paper No. 53 53*(1), 24.
Wenner, M. (1995). Group credit: a means to improve information transfer and loan repayment performance. *Journal of Development Studies, 32*(2), 263-281.
Wilkinson-Ryan, T. (2011). Breaching the Mortgage Contract: The Behavioral Economics of Strategic Default. *Vanderbilt Law Review, 64*(5), 1545-1583.
World-Values-Survey. (2013). World Values Survey.
Yoong, F. J., See, B. L., & Baronovich, D.-L. (2012). Financial Literacy Key to Retirement Planning in Malaysia. *Journal of Management and Sustainability, 2*(1), 75-86.
Zapalska, A. M., Brozik, D., & Rudd, D. (2007). The success of micro-financing. *Problems and Perspectives in Management, 5*(4), 84-91.
Zeller, M., & Meyer, R. (2002). The Triangle of Microfinance: Financial Sustainability, Outreach, and Impact. *International Food Policy Research Institute, 40*(1), 1-3.
Zhang, G. (2008). The choice of formal or informal finance: Evidence from Chengdu, China. *China Economic Review, 19*(4), 659-678.

1. Appendix A: List of Interviewees

Name	Institution	Position	Country
Suresh Krishna	Grameen India	Managing Director	India
Manish Parashar	Reserve Bank of India	Deputy General Manager, Department of non-banking supervision	India
Alok Prasad	Microfinance Institutions Network	CEO	India
Ankur Kumar	Sargam Sanstha (NGO)	CEO	India
Mr Vasudevan	Equitas	CEO	India
Mr Srinivasan	MFI Consultant	CEO	India
Mr Ghosh	Bhandan MFI	CEO	India
Professor Pande	Harvard University	Professor	India/USA
Ali Atif	Kashf Foundation (MFI)	Regional Manager Sindh	Pakistan
Noor Ahmed	State Bank of Pakistan	Senior Joint Director	Pakistan
Qazi Shoaib Ahmed	State Bank of Pakistan	Director	Pakistan
Syed Mohsin Ahmed	Pakistan Microfinance Network	CEO	Pakistan
Amir Khan	First Microfinance Bank	CEO	Pakistan
Nadeem Hussain	Tameer Microfinance Bank	CEO	Pakistan
Khalid Hussain	Pakistan Institute of Management	Managing Director	Pakistan
Asif Jameel Qureshi	VIS Credit Ratings Company	Senior Consultant	Pakistan
Faheem Ahmad	VIS Credit Rating Company	Founder VIS Group	Pakistan
Muhammad Saleem Shaikh	APNA MFB	President and CEO	Pakistan
Tanguy Gravot	Advans MFB	COO and Deputy CEO	Pakistan
Mukitul Islam	BURO Bangladesh	Director	Bangladesh
Mosharrof Hossain	BURO Bangladesh	Head of Finance	Bangladesh
Professor Baqui Khalily	Institute of Microfinance	CEO/ Professor	Bangladesh
Alamgir Dewan	Microfinance Consultant	MD	Bangladesh
Abdul Kareem	PKSF	CEO	Bangladesh
Khandakar Muzharul Haque	Microfinance Regulatory Authority	Executive Vice-Chairman	Bangladesh
Mostafizur Rahman	City Bank	Senior Executive Officer	Bangladesh
Professor Rutherford	SafeSave/ Harvard	Professor	Bangladesh

2. Appendix B: Interview Questions (Pakistan)

Interview Questions:

Background

Please tell me a bit about your background

What is your particular interest in microfinance?

Please tell me a bit about the microfinance sector in your country and the changes which have happened to the industry. For example, how important is microfinance, how did it develop, who are the main players, have any MFI's exited the market?

Please tell me about the tiered regulatory structure in Pakistan and how it relates to your business.

Policy Goals behind the black letter law

In your opinion, what is the goal of the regulator in your country when they make microfinance laws?

What is the social relevance of the policy goals behind microfinance law?

Current relevant problems

Tell me about how the regulation provides **practical** ways which **support** MFI's in carrying on their business.

Please tell me about any **restrictions** on MFI operations which are a result of the legislation. What are the **practical effects** of the restrictive regulation on MFI's in your country?

Country – Specific regulation questions

What was the effect of low competition up until 2009 (there were only 4 MFB's until then)?

What was the effect of capital requirements differing depending in where the MFI was registered? Was there regulatory arbitrage by MFB's because of that?

As the SBP lifted maximum microfinance loan amounts from PRs150,000 to PRs300,000, what have been the effects of this?

Was financial risk increased or decreased by the restriction on foreign currency debt sources in 2011?

How was market competition impacted by the increase in minimum capital requirements in 2011?

In contrast, how did branchless banking allow existing banks to extend financial services and microfinance to the poor?

What were the practical effects of the Consumer Protection Code of 2009?

What are the effects of the PRs500,000 limit (a 2012 law) for loans to microenterprise?

MFI's must only lend less than 40% of their total loan portfolio for loans to microenterprises. What are the practical effects of this law on MFI operations?

Future

Do you think that banks are better suited to providing microfinance services than MFI's?

Is there a simpler way to reduce interest rates on microfinance loans? For example government guarantee of collateral instead?

What are your suggestions for the regulation for the future?

Summary

Microfinance may be the poster-boy of international development, but the facts remain that 100 million borrowers are in poverty and most Microfinance Institutions (MFI's) are not financially self-sustainable. This means that there are systemic faults with the industry which do not allow the goals of microfinance to be consistently achieved. This thesis considers the interaction between regulation and the goals of microfinance being achieved in the long term through financially self-sustainable MFI's. Regulation has the potential to directly affect the financial sustainability of MFI's through restricting or supporting their business operations regarding obtaining capital and product design. Given that financially self-sustainable MFI's may increase long term access to financial services without reliance on donations, the influence of regulation in this sector is a critical area for study. Despite the importance of the topic, little research has discussed this. In order to consider the law and economics of microfinance this thesis will present the results of research which considers the issue from different methodological perspectives.

The current research focus is important enough to warrant an empirical, rather than anecdotal, discussion. In light of this, the current thesis presents six chapters of unique research which build a foundation by considering previous publications on the topic of microfinance and culminating in a presentation of the results of legal comparison and empirical interviews.

This thesis begins by considering the dreams and reality of the microfinance sector, addressing the history and current situation of microfinance in developing countries. This analysis finds that although microfinance results in consistent increases in female empowerment of borrowers, the economic impact of the microfinance initiative is inconsistent at best and non-existent at worst. A following chapter considers specifically the law and economics of microfinance which entails the role of microfinance in completing the financial market and the challenges that microfinance institutions face in providing their services in a financially sustainable manner. The thesis continues by providing a focus on the previous empirical research on microfinance, which primarily entail bottom-up considerations of the effect of microfinance on borrowers through field experiments. However, among the empirical literature, none has focussed on the impact of microfinance regulation on the financial self-sustainability of MFI's – a gap in the literature the current thesis addresses by focusing the comparison on regulations which affect MFI operations.

The current thesis provides further original research results by directly comparing microfinance regulation in Italy, Pakistan, India, and Bangladesh. After a consideration of the potential trends in quantitative data which are reflective of these regulatory differences, the current thesis presents the results of empirical semi-structured interviews conducted in the field in the countries of interest. The fieldwork interviews were conducted with CEO's and MD's of MFI's along with heads of department of the relative regulatory departments of government, and with stakeholders such as NGO's and Self-Regulatory Institutions. The results of the current research show that the existence of regulation of MFI's is positive and that the creation of CIB's (Credit Information Bureaus) and self-regulatory institutions increases the long term financial self-sustainability of MFI's, as does the ability of MFI's to enter into equity partnerships and to receive micro-savings. The current research completes a gap in the literature regarding the law and economics of microfinance and informs policy makers regarding nuances in microfinance regulation.

Samenvatting

Microfinance kan dan wel de belichaming van internationale ontwikkelingshulp zijn, feit blijft dat 100 miljoen kredietnemers in armoede leven en de meeste microfinance instellingen (MFI's) niet financieel duurzaam zijn. Dit betekent dat er structurele verschillen zijn met de markt, die verhinderen dat de doelstellingen van microfinance worden bereikt. Dit proefschrift onderzoekt de interactie tussen regelgeving en de doelstellingen van microfinance die op de lange termijn door middel van financieel duurzame MFI's worden bereikt. Regelgeving heeft de potentie om de financiële duurzaamheid van MFI's direct te beïnvloeden door toepassing van restricties of stimuleringsmaatregelen voor de bedrijfsvoering voor het verkrijgen van kapitaal en productontwikkeling. Gegeven het feit dat financieel duurzame MFI's lange termijn toegang tot financiële diensten (zonder dat op giften vertrouwd hoeft te worden) kunnen verhogen, is de invloed van regelgeving op deze sector een terrein dat aan een kritisch onderzoek onderworpen dient te worden. Ondanks het belang van het onderwerp is hier weinig onderzoek naar gedaan. In dit proefschrift worden de resultaten van onderzoek naar de rechtseconomische aspecten van microfinance vanuit verschillende methodologische perspectieven besproken.

De huidige onderzoeksfocus is belangrijk genoeg om een empirische, in plaats van een beschrijvende, discussie te garanderen. Met het oog hierop bestaat dit proefschrift uit zes hoofdstukken met als basis de resultaten van uniek onderzoek, waarbij eerdere publicaties over microfinance worden meegenomen, wat resulteert in een overzicht van de uitkomsten van rechtsvergelijking en interviews.

Dit proefschrift start met een bespreking van de dromen en de realiteit van de microfinance sector door een overzicht te geven van de geschiedenis en de huidige situatie van microfinance in ontwikkelingslanden. Uit deze analyse blijkt dat, ondanks dat microfinance resulteert in een zekere toename van de zelfstandigheid van vrouwelijke kredietnemers, de economische impact van het microfinance initiatief in het beste geval dubieus is of in het slechtste geval zelfs helemaal ontbreekt.

Een volgend hoofdstuk bespreekt met name de rechtseconomische kant van microfinance, oftewel de rol van microfinance om een volledige financiële markt te creëren en de uitdagingen die microfinance instellingen ondervinden om hun dienstverlening op een financieel duurzame wijze aan te bieden. Het proefschrift geeft vervolgens een toelichting op eerder empirisch onderzoek naar microfinance, dat voornamelijk bottom-up overwegingen behelst over het effect van microfinance op kredietnemers door experimenten uitgevoerd in de praktijk. In de bestaande empirische literatuur is nooit aandacht besteed aan het effect van microfinance regelgeving op de financiële duurzaamheid van MFI's – een gat in de literatuur dat dit proefschrift behandelt door zich met name te richten op de vergelijking van regelgeving die MFI activiteiten beïnvloedt.