



**University of
Zurich^{UZH}**

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**The Effects of Consumer Lending and Consumer Loans on
Microfinance Institutions**

Master Thesis in Banking and Finance

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Full Text Version

CMF Thesis Series no. 10 (2011)

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Executive Summary

Problem Description and Objective Apart from loans to microentrepreneurs (*microcredit*) additional financial services, such as saving and insurance as well as loans for education, emergency or consumption are increasingly provided in the microfinance market. This report focuses on consumer loans in the microfinance market (*micro-consumer loans*) of Colombia, Bosnia and Herzegovina as well as Paraguay. Micro-consumer loans have been associated with repayment crises in the past. The most prominent example is Bolivia, where the provision of consumer loans to microentrepreneurs is partly blamed for the repayment crisis that hit in the late 1990s. The effect of micro-consumer loans on MFIs needs to be identified in order for risk to be properly assessed in the microfinance market. This is useful for regulators, investors and institutions active in the microfinance market. The hypothesis for this report is that micro-consumer loans decrease loan portfolio quality for MFIs active in the microfinance market of that country. How do micro-credits possibly have adverse effects on MFIs? To answer this, the micro-consumer loans and microcredit are compared. This identifies two main differences. First, they differ by the planned usage of the loan: Micro-consumer loans are used for the purchase of consumption goods for private (non-productive) use, for example a television. On the other side, microcredit is for productive purposes, such as the purchase of stock or tools for the microenterprise. Second, they differ in the lending methodologies. The lending methodologies are mainly distinguished in the application procedure, assessment of repayment capacity and the reaction upon late payment. The reason for the varying lending methodologies is that the two loan types typically target different clients. Whereas microcredit is disbursed to microentrepreneurs, micro-consumer loans target employed clients. Thus, the two loan types differ in their repayment source and formality: Microcredits are repaid using proceeds from the informal microenterprise while micro-consumer loans are repaid by regular wage income from a formal employment. This difference in the main repayment source allows the repayment incentives for loans to salaried clients to deviate from the methodology applied for credits to microentrepreneurs.

Available literature suggests that micro-consumer loans are not only provided to salaried employees but also to microentrepreneurs. This provision of loans with an inadequate lending methodology has been associated with repayment crises of microfinance markets in the past.

Two main institution types providing micro-consumer loans are identified. (i) Micro-finance institutions (MFIs) and (ii) traditional financial institutions. The latter are not specialized in the provision of loans in the microfinance market (non-microfinance specialized institutions, NMSIs) but are active in the formal banking sector. It is suggested that these NMSIs generally enter the microfinance market and provide loans to clients using the lending methodologies they also apply in the formal banking sector. On the other side, MFIs supply micro-consumer loans. It is noted in the literature that the MFIs adapt their lending methodologies in response to competition from NMSIs.

This report's aim is to identify if non-microfinance specialized lending methodologies are applied in the microfinance market due to the provision of micro-consumer loans, and if yes, how it affects existing MFIs. Multiple steps are carried out.

- Identification of the main institutions active in the micro-consumer loan markets
- Identification the micro-credit client
- Comparison of lending methodologies applied for the two loan types
- Comparison of risk for microcredits and micro-consumer loans
- Testing of the relationship between lending methodology and risk of the two loan types
- Testing if MFIs adapt lending methodologies as response to the involvement of traditional financial institutions in the microcredit market

Methodology The methodology of this report is divided into three parts. First, the microfinance and consumer loan markets in Colombia, Bosnia and Herzegovina as well as Paraguay are analyzed using country specific data. Both, NMSIs and MFIs are included. Second, to obtain information on the micro-consumer loan market primary data is collected with a questionnaire. This part includes both MFIs and traditional financial institutions. Third, secondary data is analyzed using panel data techniques. This only includes data on MFIs. The mix of quantitative and qualitative methodologies applied in the three parts are now described in more detail.

Data from regulators and associations are used to describe the development of the consumer loan market in the three countries. The microfinance market is analyzed using data from regulators, associations and the MIX Market. The analysis is mainly complicated by ambiguous definitions and restrictions on data availability.

Due to lack of publicly available data, information on micro-consumer loans is collected through a questionnaire. The objective is to gather information on target clients, lending methodologies and risk of micro-consumer loans. The questionnaire is sent to (i) MFIs in Colombia, Bosnia and Herzegovina as well as Paraguay and (ii) institutions in the solidarity sector (mainly cooperatives) in Colombia. This allows to obtain valuable insight into differences between traditional financial institutions and MFIs institutions. There are 80 valid replies of which 68 are from the solidarity sector in Colombia.

To estimate a possible relationship between loan portfolio performance and the provision of micro-consumer loans panel data analyses are carried out. Data reported by MFIs to the MIX Market for 2008 and 2009 is used for the analyses. Not all variables that possibly affect loan portfolio performance may be identified and are available for the inclusion in the analysis. To control for unobserved variables two different approaches are applied: a difference-in-differences estimation and a fixed-effects model. For the difference-in-differences estimation the sample is divided into two groups, the treatment and control group. The treatment is defined as consumer loans. The treatment group thus consists of MFIs offering consumer loans and MFIs that do not offer consumer loans are in the control group. The average changes of the dependent variable before and after the introduction of consumer loans are then compared. An alternative method to control for unobserved variables is the fixed-effect regression model. The main idea of this model is to include a fixed effect variable in the regressions for each year that captures all independent variables that do not change over time. The fixed-effect variable is removed by differencing the equations for the two years. The resulting *time-demeaned* equation is then estimated using pooled ordinary least square regression.

Findings A word on data availability: Micro-consumer loans are disbursed by MFIs and NMSIs in the three countries. It is not possible to identify the micro-consumer loan portfolio of NMSIs While information on consumer loans is available for MFIs since 2008, NMSIs do not identify the consumer loan portfolio dedicated to the microfinance market. Apart from the lack of data, nonuniform definitions of the traditional and the microfinance market complicate a classification of the two loan types. Additionally, it is suggested that definitions of regulators are not consistently followed, as for example observed in Colombia.

The analysis of country specific data on consumer loan and microfinance market identified three major interdependent factors influencing the micro-consumer loan market: the formation of the microfinance market, the state of the consumer loan market as well as

the extend and nature of competition in microfinance market. The formation of the microfinance market and the competition in the microfinance market mainly influence lending methodologies applied in the microfinance and the micro-consumer loan segment. On the other side, the state of the consumer loan market may directly or indirectly provide incentives for institutions to enter the micro-consumer loan market. Further analysis is needed to describe the effects of these three identified aspects for a broader dataset.

Results from the questionnaire provide insights into lending methodologies and micro-consumer loans as well as institutions active in the micro-consumer loan market. An overview of the existing literature suggests that micro-consumer loans are related to a shift of lending methodologies away from microfinance specific ones. The questionnaire identifies that in general different application procedures and loan terms are applied for micro-consumer loans and microcredit. However, the type of difference is not identified. Replies from the questionnaire confirm that the entire microfinance market is affected by the provision of micro-consumer loans. Regardless of offering micro-consumer loans, MFIs are mainly impacted by the provision of consumer loans by banks, MFIs, consumer lenders and consumer retail lenders. Especially the role of consumer retail lender merits closer attention: these institutions are close to the household and the loans may also be used for productive purposes. However, as retail lending is not regulated in most countries, data availability is severely limited. The most noted effect is the adaption of consumer lender methodology and that clients start to borrow simultaneously, this is however not representative.

Two statements about risk associated with the two loan types may be made with the findings of the questionnaire. Consumer loans are not generally considered more or less risky than microcredits. Also, there is a weak statistical relationship of application procedure and risk of micro-consumer loans and microcredits from the questionnaire sample.

The fixed-effect regression shows small negative statistically significant relationships between risk (sum of PAR 30 and write-off ratio) and micro-consumer loans as well as PAR 30 and micro-consumer loans. Thus, for the sample of the three countries for 2008 and 2009, more micro-consumer loans decreased risk for MFIs. The hypothesis that micro-consumer loans have an adverse effect on MFIs is thus rejected. The results are, however, to be considered with caution. The limited data availability constrain the use of statistical models and the control for model misspecification.

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List of Abbreviations

BCP	...	Central Bank of Paraguay
CBBH	...	Central Bank of Bosnia and Herzegovina
CFC	...	Commercial Financing Companies
CGAP	...	Consultative Group to Assist the Poor
CLMMS	...	Current Legal Minimum Monthly Salary
DiD	...	Difference-in-Differences
GDP	...	Gross Domestic Product
GLP	...	Gross Loan Portfolio
GNI	...	Gross National Income
INCOOP	...	Instituto Nacional de Cooperativismo
KfW	...	Kreditanstalt fuer Wiederaufbau
MFI	...	Microfinance Institution
MIX	...	Microfinance Information Exchange
MSC	...	Micro Service Consult
MSI	...	Microcredit Specialized Institution
NBFI	...	Non-banking Financial Institution
NPL	...	Non-performing Loans
NGO	...	Non-governmental Organization
NMSI	...	Non-Microcredit Specialized Institution
PAR	...	Portfolio-at-Risk
PNUD	...	Programa de las Naciones Unidas para el Desarrollo en Paraguay
ROA	...	Return on Assets
ROE	...	Return on Equity
WDI	...	World Development Indicators

1 Introduction

Muhammad Yunus started providing small credits for productive purposes to microentrepreneurs in Bangladesh applying innovative repayment incentives to overcome asymmetric information problems (Yunus, 1999). Since then, microfinance has spread to most parts of the world with the main business of providing microcredit¹. Nowadays, many microfinance institutions (MFIs) provide a diversified range of credit products including housing, education and consumer loans as well as insurance and saving services. So, in addition to credits for microentrepreneurs loans for non-productive purposes are provided by MFIs.

On the other side, consumer loans are disbursed to households in the context of traditional financial services². These traditional financial institutions are increasingly offering consumer loans in the microfinance market in numerous countries. The offering of micro-consumer loans³ by these two institution types has been associated with repayment crises of the microfinance market in the past. The most prominent example is Bolivia, where the provision of consumer loans to microentrepreneurs is partly blamed for the repayment crisis that hit Bolivia in the late 1990s (e.g. Gonzales, 2008; Rhyne, 2001). The effect of micro-consumer loans on MFIs needs to be identified in order for risk to be properly assessed in the microfinance market. This is useful for regulators, investors and institutions active in the microfinance market. The hypothesis for this report is that micro-consumer loans decrease loan portfolio quality for MFIs active in the microfinance market of that country. First, the microcredit and micro-consumer loan are compared. This leads to a possible explanation how micro-consumer loans may affect the microfinance market.

Rhyne and Christen (1999, p. 12) describe consumer credit as “a close cousin of microcredit”. However, even though the two loan types both disburse a large number of loans with a small loan amount to clients with a low income level they are fundamentally different. Most importantly, the source for repayment differs: Consumer loans are repaid by salaries and microcredit by the proceeds from microenterprise. This fundamental difference allows for different lending methodologies. The lending methodologies ensure that appropriate incentives for repayment are in place (e.g., Armendáriz & Murdoch, 2007). For example,

¹In this report *microentrepreneur loans* and *microcredit* are used as synonyms. The term *microfinance* refers to all loan types (i.e. microcredit, housing, educational, consumer) and other financial services (e.g. insurance and savings).

²The term *traditional* financial services refers to formal non-microfinance services.

³The term *micro-consumer loan* refers to consumer loans disbursed to potential or actual microfinance clients.

standardized lending methodologies such as credit scoring⁴ are most commonly used to assess the repayment capacity for consumer loans. In microfinance, individual case-by-case assessment of loan application is applied. (Rhyne, 2001)

Micro-consumer loans are provided by MFIs and traditional financial institutions. As long as consumer loans are disbursed to salaried employees, the lending methodology used by the traditional financial institutions is appropriate. However, there are suggestions in the existing literature that microentrepreneurs have access to consumer loans from traditional financial institutions. Further, MFIs (whose main client is the microentrepreneur) are observed to react to the competition from traditional financial institutions by adapting lending techniques from the traditional financial institutions. Traditional financial institutions are suspected to not only introduce consumer loans but more importantly affect borrowers' repayment morale in the entire microfinance market. The following research questions are addressed:

- Are micro-credits only disbursed to salaried clients?
- Do the lending methodologies for micro-consumer loans and microcredit differ?
- Does the introduction of micro-consumer loans in the microfinance market affect all MFIs, including MFIs that do not provide micro-consumer loans themselves?
- Is there a relationship between providing consumer loans and risk for MFIs?

The first question essentially tests if the microfinance definition (only salaried clients receive micro-consumer loans) is applicable for the sample. If this definition holds the use of lending methodologies as applied in the traditional financial market is justified. If microentrepreneurs also have access to micro-consumer loans, appropriate lending methodologies need to be in place (question two). In the case that microentrepreneurs have access to micro-credits, it is of interest in which ways MFIs are affected by this. It might be that the application of *more relaxed* lending methodologies undermine the repayment morale in the entire market (question three), thus also affecting MFIs that do not provide micro-consumer loans themselves. This might lead to increased risk for MFIs (question four).

The available literature consists predominately of case-studies focusing on one specific market. The repayment crisis in Bolivia has attracted attention from various researchers and the role of consumer lenders is identified (e.g. Gonzales, 2008; Marconi & Mosley, 2005; Rhyne, 2001; Vogelsang, 2003). Rhyne and Christen (1999) provide (mostly visionary)

⁴The usage of statistical analysis to determine the clients' creditworthiness.

descriptions of the role of consumer lenders in the microfinance market. To the author's knowledge, overviews of the micro-credit markets and estimates for relationships between risk and loan type are not available for Colombia, Bosnia and Herzegovina (BiH) as well as Paraguay. This report extends the existing literature as it identifies the difficulties of defining micro-consumer loan markets and describes micro-consumer loan markets. Also, empirical evidence on the relationship of micro-consumer loans and risk is provided.

The report uses a combination of qualitative and quantitative methods. Namely descriptive and empirical analyses of secondary data as well as collection of primary data through a questionnaire are carried out. The traditional consumer loan market is described by data provided by the central banks and financial institution associations. This is of importance as institutions active in the traditional consumer loan market are observed to enter the micro-consumer loan market. A description of the consumer loan market may thus provide important insight into the relation between the traditional consumer loan market and the micro-credit sector. The microfinance market is described using data available from regulators (if applicable), financial institutions associations and the MIX Market. The analysis of the microfinance market focuses mainly on size of the market and institutions active in the market. Any micro-consumer lending specific traits are elaborated in more detail. The degree of details in the country specific market analyses is heavily influenced by data availability. Responses from the questionnaire are mainly used for the description of the micro-consumer loan market. In order to identify the effect consumer loans have on risk and performance of microfinance institutions, data available from the Microfinance Information Exchange Market (MIX Market) is analyzed using panel data methods.

This report limits the estimation of effects to microfinance institutions and does not include traditional financial institutions. Also, the discussion about consumer lending methodologies used only applies to the provision of loans to microentrepreneurs. The consumer lending methodologies itself and potential related problems to this lending methodology are not subject of this report.

The loan products vary considerably from institution to institution and publicly available information is scarce. It is therefore not feasible to provide a detailed insight into the loan product. Lending methodologies are only described in general due to the same reason.

Further, the discussions of possible impacts of consumer lending on development objectives, "mission drift" or a move towards an inclusive financial system as proposed by (e.g., Helms, 2006) are outside of scope for this report.

This paper is organized as follows. Section 2 provides an overview of the consumer loan theory and the existing literature on micro-consumer loans. In section 3, the research methodology and data sources are described. The three selected countries, Colombia, BiH and Paraguay, are discussed in sections 4, 5 and 6. These sections provide overviews of the traditional consumer loan market, the microfinance market and examine aspects relevant for the micro-consumer market in more detail. Especially the microfinance market overviews focus on the description of the participants that are active in the microcredit as well as the micro-consumer loan market. Therefore, the relevant aspects in light of the micro-consumer loans market are highlighted, however, no extensive overview of the microcredit market is provided. Findings are presented in section 7 and section 8 concludes the report.

2 Literature Review

2.1 Consumer Finance Theory

This section gives a brief formal introduction of the intertemporal consumption choice models. Factors impacting credit demand and supply⁵, including behavioral aspects, are summarized in a non-technical fashion and possible relevance to low-income individuals are highlighted.

Intertemporal consumption choice models provide the theoretical framework for consumer finance. There are two main models describing savings and consumption decisions of individuals: The *life-cycle theory*, introduced by Modigliani and Brumberg (1954), and the *permanent income theory*, introduced by Friedman (1957). Both models assume forward-looking consumers, however, in Friedman's permanent income theory consumers effectively live forever whereas in the life-cycle theory individuals have a finite horizon. (Obstfeld & Rogoff, 1996, p. 147).

The hypothesis of utility maximization implies that the consumption decision of individuals depends more on the long run average of anticipated income than current income. Households have to decide how much to save and consume in each period with uncertainty about the future. Income is generally lower at the beginning of the individual's working life and higher at the end of the of it. Thus, young individuals finance their consumption needs through borrowing with the expectation of higher income in the future whereas older individuals increase saving as to prepare for the end of working life where income will be lower. (Vandone, 2009, p. 8)

As described by Bertola, Disney, and Grant (2006, p. 4 - 6), in the permanent income theory the representative individual maximizes the expected value of lifetime utility,

$$U_t = E_t \left\{ \sum_{s=0}^{\infty} \beta^s u(c_{t+s}) \right\} \quad (1)$$

where E_t is the household expectations conditional on information available at t . $\beta = 1/(1 + \delta)$ is the household's discount factor where δ is the subjective discount rate and c denotes consumption. This utility maximization is subject to intertemporal budget constraint

$$A_{t+1} = (1 + r_{t+1})(A_t + y_t - c_t) \quad (2)$$

⁵Vandone (2009, p. 22 Table 1.3) provides an overview of determinants of consumer credit and the possible relations to demand and supply as well as an extensive discussion of recent empirical findings.

where A is the level of assets or liabilities, r denotes the interest rate for assets and liabilities⁶, y_t is labor income at time t and c_t denotes consumption. In any period assets equal the assets in the previous period plus income (labor and return on assets) less consumption in that period. The Euler equation in the form of

$$u'(c_t) = E_t u'(c_{t+1}) [(1 + r_{t+1}) / (1 + \delta)] \quad (3)$$

is satisfied by the optimal solution to the maximization problem. If the individual tries to smooth consumption over time (consumption fluctuations are welfare decreasing), the marginal utility $u'()$ is a decreasing function of consumption. Assuming that marginal utility is approximately linear in consumption, a relationship between savings and the evolution of income over time may be described.

$$s_t = - \sum_{j=0}^{\infty} (1 + r)^{-j} E_t (y_{t+j} - y_{t+j-1}) \quad (4)$$

Thus, if present value of expected income is higher tomorrow, saving is negative. Negative saving may either be running down of assets or borrowing. If future income is expected to be negative, the household saves.

As described by Vandone (2009, p. 8) empirical analysis suggests to incorporate additional factors influencing credit demand and supply and that households may be not be able to borrow as much as they wish to. Bertola et al. (2006, p. 6 - 9) explain the following four extensions to the basic model.

Household size or demographic characteristics of members may act as taste shifters which changes the utility function of the household which, in the basic model, depends only on consumption flows. For example, consumption needs for a family with young children differ from that of a single households.

If expectations are uncertain, marginal utility of consumption is affected. Formally, this corresponds to a convex (as opposed to a linear) relationship between marginal utility and level of consumption. One additional unit of consumption is then valued higher if consumption level is low than when the consumption level is high. Uncertainty about expectations explains precautionary behavior such as the building up of a savings stock. This, for example, provides an explanation why generally, households with unstable income

⁶The assumption of identical savings and borrowing interest rate might be especially difficult to confirm for microfinance clients.

show less demand for credit than households with stable income.

Households may not be able to borrow as much as they want to as proposed by the model (*liquidity constraint*). There are three reasons for this: The interest rates of borrowing and lending are different, the interest rate increases with the amount borrowed and an upper limit on the level of borrowing exists. A liquidity constraint changes households' borrowing behavior not only when the credit constraint is binding but also when it is not binding. Overall, households borrow less than implied by the basic model and households also show a faster average growth and more vulnerability to income shocks under a credit constraint.

The purchase of durable goods (for example a house or car) is not only a consumption decision but is also part of the household's wealth in future periods. The stock of durables may have an effect on the marginal utility of non-durables and provides an explanation why, for example, young individuals borrow more than predicted by the basic model.

The presented extensions due to taste shifts, uncertainty and borrowing constraints provide explanations for lower borrowing than implied by the basic model. Especially the credit constraint may be (or have been) relevant for potential microfinance clients as they do not have access to the formal banking system. Nevertheless, demand for credit in the microfinance market is high, even though microcredit products have comparably high interest rates. One explanation is proposed by Bauer, Chytilová, and Murdoch (2010). They find that women with hyperbolic preferences (more impatient now than in the future) save less and are more likely to borrow from microfinance institutions. The microfinance specific lending methodologies thus provide a helpful structure for individuals with self-control problems. Hyperbolic preferences are also listed by Vandone (2009, p. 19 - 21) as one of three main psychological factors influencing consumer borrowing decisions. These, in the context of modern economic theory, "irrational" choices induce individuals to take on unsustainable amounts of debt in the moment of credit decision making. Other behavioral factors influencing consumers borrowing decisions are the overconfidence bias and the availability heuristics. The overconfidence bias describes the fact that individuals tend to overestimate their repayment capacity. The availability heuristics refers to the setting of events' probabilities on the basis of the availability of experience. The ease with which one can remember a certain event thus plays an important role in estimating the likelihood of an event's occurrence. For example, if a repayment crisis is not readily remembered, the likelihood of such a negative event is underestimated.

In above described model, credit supply is not restricted. It has already been noted that in reality credit constraints exist. In traditional finance, individual factors, such as

wealth and employment status, as well as institutional factors, mainly the efficiency of justice system and existence of information-sharing mechanisms, affect credit supply for an individual⁷. Why are financial institutions not providing enough credit for all consumers to fulfill their demand? Vandone (2009, p. 11 - 12) states that asymmetric information problems between lenders and borrowers are generally viewed as main reasons for financial institutions to decline loans.

Borrowers have different inherent riskinesses and therefore probability of default is different amongst borrowers. In this situation, and when borrowers are better informed about it than the lender, adverse selection is a problem. As borrowers with higher default probabilities exhibit smaller sensitivity to interest rates, higher interest rates pushes “good” clients out of the market. (Bertola et al., 2006, p. 12 - 13). As Stiglitz and Weiss (1981) argue, adverse selection leads to credit rationing for all individuals. Lenders set the interest rate as to attract “good” borrowers and limit the risk of default by “bad” borrowers.

Bertola et al. (2006, p. 13) state that moral hazard is also relevant for loans to individuals as the *willingness* of individuals (as opposed to the ability for producers) to repay loans may be affected. The implications of lack of repayment enforcement are the same or even more severe for individuals than for firms.

Retailers are increasingly offering credit products and there is evidence that potential microcredit clients also have access to these credit products (see section 2.4). Bertola et al. (2006, p. 15) outline the advantages of collaboration between retailers and lenders. They argue that it is less costly for lenders to extend credit through installment plans at point of sales mainly because information about the type of consumer good is available to the lender. As an example they mention that the purchase of a household appliance may be safer than the purchase of a fast motorcycle. Also, in case of default, the retailer has better usage for the collateral than banks.

To sum up, credit decisions of households depend not only on the relationship of households’ impatience and lifetime income pattern but also on possible credit constraint or uncertainty about expectations. Psychological aspects as described in behavioral approaches also have effects on credit demand. To the author’s knowledge no formal discussion of consumer lending in the microfinance market and the implications to the standard models for very low-income borrowers is yet available.

⁷The problems described for the traditional consumer loan are likely to hold or even be more severe in the microfinance market. For example, the ex post or *enforcement* moral hazard might be higher in countries where microfinance is especially active due to the high informality of markets and lack of legal enforcement may be observed.

2.2 Definition of Consumer Loans in the Microfinance Sector

This section discusses the definition for consumer credit in the microfinance market and in the traditional financial market and describes the differences to microentrepreneur credit. The following sections focus on Latin America and Eastern Europe.

A classification of credit products may generally be based on the recipient of credit, the main repayment source and the collateral (Gonzales, 2009). Alternatively, the usage of the loan may also be used to classify credit products. The traditional and microfinance market use different properties for the definitions. Consumer credit for the traditional banking sector is generally defined as credit to households or individuals to finance the purchase of consumer goods or services (e.g., Bertola et al., 2006; Vandone, 2009) using the recipient and usage of credit to define the loan product. This is different for the microfinance market. The MIX Market defines consumer loans as loans that use income from salary as the main repayment source. This is the most common definition found in the microfinance literature (e.g., Marulanda, 2006; Rhyne, 2001; Rosales, 2006). Other loan products are consistently defined according to the repayment source by the MIX Market, for example microenterprise loans are defined as loans with main repayment source from microenterprise profits. It is however, not the only definition found in the microfinance market. For instance, Gehrke and Martinez (2007) define consumer loans in the microfinance market as loans to individuals for the purchase of non-commercial goods. This is in line with the definition generally adapted by regulators. When regulators define microcredit and consumer loans the traditional and microfinance sector are combined. Regulators generally adopt the consumer loan definition of the traditional finance and microcredits are defined according to the loan amount and enterprise size which varies from country to country (see also section 4.4). For the purpose of this report, the following definitions are used.

- Microfinance Market: Consumer loans are loans to clients which use salaries as the main repayment source.
- Traditional Market: Consumer loans are loans to individuals or households to finance the purchase of a consumer good or service.

The difference according to these definitions is that in microfinance the microentrepreneur is excluded whereas in the traditional sector the entrepreneur may also receive consumer loans. Marulanda (2006, p. 100) argues that the focus on the recipient of the credit is sensible because microentrepreneur credit may be used for consumption purposes. She

describes that not the usage but the source of repayment is fundamentally different for consumer loans and microcredit.

Due to the diversity of institutions and loans, the consumer and microenterprise loan characteristics can vary significantly from institution to institution and from region to region. This report differentiates between the *microcredit methodology* and the *consumer credit methodology*, using a *typical* loan with a *typical* lending methodology by a *typical* institution. For this purpose, two terms are introduced.

- Microcredit Specialized Institution (MSI) refers to an institution historically using the *microcredit methodology* for the provision of microcredit. This may include but is not limited to MFIs (banks, NGOs, NBFIs...).
- Non-Microcredit Specialized Institution (NMSI) refers to an institution historically using the *consumer credit methodology* for the provision of consumer loans. This may include but is not limited to banks, consumer lenders or retail lenders.

This allows the classification and discussion of the two loan types. It does not imply that all institutions can be put strictly into one category as many different approaches are used in practice⁸. The following discussion of the two credit types adheres to this generality. Most literature on the two credit types is available for Bolivia where consumer lenders were involved in creating the over-indebtedness crisis (1999/2000).

The availability of formal information and collateral changes the risk profile of the typical consumer loan and microcredit client and influences the design of the two loan types. It is not as much the loan terms but the mechanisms in place to overcome asymmetric information problems, namely the repayment assessment procedure and the reaction upon late payment, that are different. This difference in lending methodology can be mostly attributed to the different repayment source and the availability of formal information of the target clients. For consumer loans, salaries are used as the main source of repayment and therefore consumer lenders use standardized repayment assessment procedures (such as credit scoring) which do not require specific knowhow of the loan officers. The loan officers selling the loans use aggressive marketing techniques and often receive a low fixed salary with commissions for every signed contract, thus creating incentives to disburse as many credits possible⁹. Also, loan officers gather basic information on the client but the

⁸and hybrid approaches are also possible (Marulanda, 2006, p. 87 Box 3.1).

⁹Marulanda (2006, p. 93) describes the case of Crediamigo, the microfinance program within the bank Banco do Nordeste in Brazil, where incentives focused only on credit disbursement and not repayment performance lead to high arrears.

assessment and collection of repayment is carried out by another division of the institution. To ensure repayment, either agreements with borrowers' employers or automatic deduction methods are set up so that no further repayment incentives are needed. Consumer lenders do not react upon late payment immediately. A penalty fee which has been built into their pricing which often makes short arrears profitable. This leads to a more relaxed attitude of the consumer lender towards late payments. (e.g., Berger, Otero, & Schor, 2006; Christen, 2001; Gonzales, 2008; Marulanda, 2006; Miller-Sanabria, 2006; Muriel, Muriel, Franco, & Martín, 2006; Rhyne & Christen, 1999; Rhyne, 2001; Rosales, 2006)

The lending methodologies of microcredit lenders are diametrical different in above mentioned points. Generally, no formal information nor collateral is available for microenterprises. The screening process is either carried out by specially trained loan officers or solidarity groups are used to ensure screening for "good" risk clients. The loan officers are involved if a client has a repayment problem and late payments are promptly dealt with, often within one day. So, one loan officers is responsible for the client from the day of the application until the loan is payed back. (e.g., Ledgerwood, 2000; Marulanda, 2006; Rhyne & Christen, 1999; Rhyne, 2001)

Table 1 summarizes the main differences between the two loan types *in general* using different parameters. The usage of the loan is the most apparent difference but the application procedure, tolerance for delinquency and the way of disbursing credits appear to be more important.

To sum up, the definition of the traditional finance market and the microfinance market focus on the usage and the recipient of the loan, respectively. In traditional finance all individuals and households may receive consumer loans. In the most popular definition of the microfinance market and the definition as used in this report only salaried clients are eligible. This difference in definition justifies the usage of distinct lending methodologies for the two loan types.

2.3 Are Consumer Loans and Microcredits Competing?

These presented definitions lead to the question how NMSIs compete with MSIs in practice. If NMSIs disburse credit to the self-employed and MSIs to entrepreneurs how do they compete? NMSIs compete with MSIs indirectly through salaried family members. These family members may take on loans that are used by a self-employed family member. NMSIs may also intentionally and unintentionally target microentrepreneurs when expanding aggressively. (Poyo & Young, 1999; Rhyne & Christen, 1999; Rhyne, 2001)

Table 1: Summary of Main Differences of Typical Consumer Loans and Microcredit

Parameter	Consumer Loan	Microcredit
Usage of Loan	Non-productive	Productive
Basic Philosophy	Information management	Trust and responsibility
Application Procedure	Standardized	Individual
Basis for loan approval	Wage slip	Estimated enterprise and household cash flows
Basis for repayment	Penalty Fee / Garnishing of wages	Exclusion from future loans
Staff	Assembly-line	One loan officer responsible for whole process
Reaction upon late payment	Letter in mail after 30 days	Immediate visit
Tolerance for delinquency	Certain amount of delinquency expected	Zero-tolerance policy

Source: Rhyne (2001, p. 143), adapted

Direct competition between consumer lenders and microlenders is described in Bolivia, Brazil, Chile and Georgia (Christen, 2001; Gonzales, 2008; Rhyne, 2001; Rhyne & Christen, 1999; MIX and CGAP, 2011). Poyo and Young (1999, p. 6) provide more insight into this for Bolivia. Most consumer lenders that had entered the Bolivian market started by offering loans to salaried clients. As this market became saturated, and attracted by the profitability of microfinance, they enlarged their client base and started offering loans to microentrepreneurs. The direct competition between consumer lenders and microlenders implies that the target markets of the two institutions overlap. Rhyne and Christen (1999, p. 12) provide evidence for this. They mention that consumer loans offered in the microfinance sector target clients with similar income levels and, compared to the traditional loan market, small loan sizes. In microfinance, loan amounts are often related to the objective of targeting the poor¹⁰. For the analysis in this report loan sizes are of importance as significantly higher loan sizes for one loan type indicate that even though both loan types

¹⁰For discussions on the relation of larger loan sizes to mission drift see e.g Christen (2001); Armendáriz and Szafarz (2009); Mersland and Strøm (2010).

are offered in the same market segment the target clients differ and include “less-poor” or upper and “more-poor” or lower end clients (Rhyne & Christen, 1999, p. 29). Hence, it may be that even though loan sizes are similar, they are different enough for NMSIs and MSIs to target unlike clients.

In order for microcredit and consumer loans to be competing for microfinance clients, the two loans need to be obtainable regarding, amongst other, loan terms and especially loan amounts. How do the loan amounts of consumer loans and microcredits compare in practice? An overview of the Latin American microfinance market for 2006 by Gehrke and Martinez (2007, p. 20, 22) finds that on average micro-consumer loans are smaller than microenterprise loans and different loan sizes by institution type and scale are identified. However, Marconi and Mosley (2005, p. 4) find the opposite and mention that consumer lenders entering the Bolivian market had higher loan sizes. This is supported by the Microfinance Information Exchange [MIX] (2007, p. 8) where loan sizes “tend to be larger” for institutions focusing on consumer loans and by Gonzales (2009) who finds that the median loan size of consumer loans is higher than for microcredit. In the Colombian Country Briefing of the MIX (2011a) a comparison of average loan balances per borrower and MFI’s credit type shows that consumer loan balances of *institutions* focusing on consumer lending are noticeably higher than for MFIs that offer only microcredits. This should be treated with caution: any MFI that has more than 50% of loan portfolio consumer loans is counted in the category “consumer lender”. A positive relationship between the size and credit type is found, so that larger MFIs are more often reported to offer consumer loans than smaller institutions. Thus the higher loan amount might also be due to the larger size of the institution and not directly related to micro-consumer loans. An indication for this is given as a positive relationship between institution size and average loan balance per borrower is identified. Further, Christen (2001) and Gonzales (2009) state that regulated institutions have higher loan sizes compared to unregulated institutions (NGOs). Gehrke and Martinez (2007) also confirm that consumer lender tend to be of large size and tend to focus more on consumer loans than smaller institutions. It remains unclear, whether higher loan sizes are due to the loan type or the institution type. Another factor that is making a comparison difficult is that often, average loan balances are reported. This lacks information on the distribution of loans sizes and a few large loans may heavily influence the average.

These examples show that no general conclusion on the loan size of microcredit and consumer loans in the microfinance market can easily be reached and it seems the loan size depend also on the type of institution (maybe even more than on the credit type). It is therefore not possible to state whether consumer loans and microcredits are available to the same clients in general.

2.4 Institutions Offering Consumer Loans in the Microfinance Sector

More and more, institutions are extending their product suite and are offering additional credit types and thus opening up to new target markets. As NMSIs the most important are banks, consumer finance companies, retail lenders and in some cases cooperatives. This section describes the most important institutions and their incentives to enter the micro-consumer loan market as well as the lending methodologies applied (if this information is available). Downscaling banks¹¹ have been observed to enter the microfinance markets with consumer loans in the past twenty years in, amongst others, Chile, Bolivia and Colombia (Marulanda, 2006; Rhyne & Christen, 1999; Rhyne, 2001; Rodríguez, 2009). This is often encouraged by the government to ensure wide-reaching and efficient coverage and increase competition of the microfinance sector¹², see also section 4.3 (Marulanda, 2006).

Banks already have the infrastructure and networks in place to deal with large volumes of loans. Mainly the profitability of the microfinance sector as well as the possibility for diversification encouraged banks to enter the microfinance sector (Christen, 2001; Marulanda, 2006). Marulanda (2006) states that downscaling banks mostly have appropriate lending methodologies in place and often the microcredit portfolio is completely separated from the traditional portfolio. This is not in line with the findings of Rodríguez (2009, p. 37) who states that most of the microcredits disbursed in the Colombian microfinance market by banks uses traditional lending methodologies. Commercial banks are considered valid competitors. According to Lascelles and Mendelson (2011, p. 23) one reason for the consumer lending boom is the competition from commercial banks.

Consumer finance companies give loans to salaried people (consumer loans) in the low-income market but also disburse credit to microentrepreneurs, which adhering to the defi-

¹¹Regulated financial institutions that are not focused on microcredit but added microcredit as a business line are described as downscalers (e.g., Navajas, Conning, & Gonzalez-Vega, 2003).

¹²During financial crises banks are often restricted from continuing engagement in the microfinance market, see Marulanda (2006) for more details.

nition presented in section 2.2, are classified as microcredits. Bolivian and South African consumer credit companies are mentioned by Rhyne and Christen (1999) to have added microenterprise credit to their product suite and Christen (2001, p. 7) and Microfinance Information Exchange [MIX] (2007) describe that consumer lenders are engaged in the microcredit market in Latin America. These consumer credit companies often do not have appropriate lending methodologies in place as observed in Bolivia and Chile. For example, Rhyne and Christen (1999, p. 13) describe that Financiera FUSA, a consumer lender in Chile, started offering microenterprise loans with its consumer credit technology in 1992. What are the incentives for consumer lenders to enter the microfinance market? Two main reasons are identified. First, the high repayment rates reported in the microfinance sector attracted consumer lenders for example in Bolivia (Marconi & Mosley, 2005; Rhyne, 2001). Second, lending to microfinance clients may be profitable for consumer lenders as they can charge high interest rates (Rhyne & Christen, 1999, p. 29). Consumer lenders are well equipped for the microfinance sector due to their experience in providing very small loans with high volumes and quick loan processing (Rhyne & Christen, 1999; Christen, 2001, p. 12 - 13).

Retail lenders (stores offering credit for their clients) are also increasingly observed to offer consumer loans in the microfinance market. Rodríguez (2009, p. 69) mentions the involvement in the microfinance market in Colombia. Retail lenders are sometimes even encouraged by microlenders: Gehrke and Martinez (2007, p. 26) state that in Peru Banco del Trabajo, the largest microlender, formed a strategic alliance with large retailers for business and private use. The data available on retail lenders in the microfinance market is scarce and no information on lending methodology is available.

MFIs are also offering consumer loans, for example in Eastern Europe, Central Asia and Latin America (MIX and CGAP, 2011; Microfinance Information Exchange [MIX], 2007, p. 7). Gehrke and Martinez (2007) show that at the end of 2006, 48.1% of loans in Latin American market by MFIs that report to the MIX Market were consumer loans. 49.2% were microenterprise credits and the rest were commercial and mortgage loans. This shows that MFIs are heavily involved in the provision of consumer loans. However, in a few markets, notably in Georgia and Kazakhstan, a decrease in consumer loan portfolio is reported for NBFIs for 2009 (MIX and CGAP, 2011, p. 7). For institutions in general but in this case namely MFIs, the benefits of product diversification (i.e. consumer loans) include cross-selling, increasing operating efficiency and reducing risk by building monogamous lending relationships (Gehrke & Martinez, 2007, p. 25).

Regulations and especially changes in regulation play a crucial role in the development of the financial sector and the incentives for financial services provider to enter or exit a financial sector. A prominent example is Bolivia in the late 1990 as consumer lender entered the microfinance market encouraged by the regulator¹³ (e.g., Loubière et al., 2004). Rhyne and Christen (1999, p. 3) also point out that the liberalization of the financial sector supports the entrance of traditional finance institutions into the microfinance market.

2.5 Loans for Consumption Purposes in the Microfinance Market

As described in section 2.2, consumer loans are per definition non-productive loans. This is, apart from lending methodologies an important difference. It allows households to receive lump sums to finance a variety of goods and services. This does not necessarily have to be limited to employed individuals. Ledgerwood (2000, p. 67) argues that for a household with a self-employed provider any loan, productive or non-productive, generates a cash inflow. It does thus not matter what type of loan a self-employed borrower receives and either loan type may be preferred in certain situations. Ledgerwood (p. 3) further states that loans are needed for household, enterprise and hybrid usages. Rutherford (1999, p. ix) defines financial services for the poor as “basic personal financial intermediation” pointing out the transformation of small sums into lump sum¹⁴. He describes that large sums of money are not only needed to run a microenterprise but also by households to cover for life-cycle needs, emergencies and opportunities such as to buy land or purchase a good to make life more comfortable (1999, p. viii). This availability of lump sums for consumption smoothing (also in case of emergencies) is also mentioned by e.g., Matul and Tsilikounas (2004, p. 11) when they describe that consumer loans could smooth “basic needs expenses” (e.g. emergencies and fire wood purchase). Morduch (1998) identified that households participating in microfinance programs have less volatile consumption streams. Even though this does not reduce poverty, it reduces the impact of it.

Brusky and Sales Magalhães (2007, p. 3) mention the increasing use of microcredits

¹³Due to the complexity and differences of regulatory systems across countries an in-depth analysis of the role of regulation of micro-consumer loans is out of scope. For extensive discussions see Loubière, Devaney, and Rhyne (2004); Rosales (2006).

¹⁴Rutherford (1999, p. lix) states that “the poor don’t have a ‘natural’ preference for savings over loans, or vice versa”. Also, Christen (2001, p. 13) describes the ‘credit bias’ of MFIs and describes that households need lump sums for emergencies which could also be served through savings. Saving oneself out of a credit constraint is also mentioned by Armendáriz and Murdoch (2007, p. 158) and may present an alternative to (especially) household loans. The thorough discussion of this issue is outside of scope of this report.

for consumption purposes in Brazil. Burki (2010, p. 10) finds the misuse of microcredits for non-productive purposes even if it was not intended in Pakistan and he suggests that “borrowers patch their loans to meet both consumption and business needs”. As main reasons for the diverted usage of loans mainly emergency uses such as medical expenses are identified (Burki, 2010; Mugwang’a & Cracknell, n.a.; Roesch & Héliés, 2007). The “mis-usage” is also reported the other way around, using consumer loans for productive purposes (e.g., Gehrke & Martinez, 2007; Miller-Sanabria, 2006). For example, Caja Libertad in Mexico, a cooperative that focuses on consumer lending, estimates that 25% of consumer loans are used for productive purposes (Gehrke & Martinez, 2007, p. 26).

Why is it important that loans are used for the specified usage? Navajas et al. (2003) found that the lending methodology should match with the market segment served. The development of loan products for specific purposes, i.e consumer good financing as well as the implementation of appropriate risk management tools are proposed in order to reduce lending risk (e.g., Burki, 2010; Marulanda, 2006; Mugwang’a & Cracknell, n.a.). A sight at the microfinance industry shows that a distinction between private and commercial use is often not possible due to the closeness of the household and enterprise budgets as repeatedly mentioned in the literature (e.g. Hartarska & Nadolnyak, 2008; Ledgerwood, 2000; Microfinance Information Exchange [MIX], 2007). Schicks (2010, p. 17) presents the argument that the actual usage of microcredit loans can not be separated between productive and non-productive uses in practice. Consumer loans may end up having productive consequences in certain situations. Thus, lending for productive purposes only is not feasible and MFIs should therefore offer consumer credit.

She points to an interesting topic with this argument. Should loans for non-productive uses be offered simply because clients demand it? Ledgerwood (2000, p. 35) describes that MFIs need to consider the *debt capacity* as opposed to following a *credit need* approach¹⁵. The need for credit and the ability to repay do not necessarily match and the reliable estimation of the repayment capacity may be difficult. This leads us to the next section. What are possible implications of offering credit products to a market with sufficient demand but insufficient repayment capacity? And how is this linked to consumer loans in microfinance?

¹⁵Arguably, may be a trait linked with development objectives.

2.6 How Consumer Loans Change the Microfinance Market Environment

As Berger et al. (2006, p. 75) mention nicely: “A key question and challenge is how to diversify and compete without distorting the basic microcredit product”. Marulanda (2006, p. 99) also points out the importance of microcredit specific tools to achieve financial sustainability. As described also NMSIs started offering micro-consumer loans. The problem of this shift away from specialized products is that the methodologies in place do not necessarily match risk associated with the credit type. Rosales (2006) describes the inappropriateness of lending methodology as one of the most common errors of downscaling banks and Miller-Sanabria (2006) links it to systemic crises. According to Marconi and Mosley (2005, p. 4) applying the assessment procedure of consumer lenders in the microfinance market may lead to an improperly determined repayment capacity.

The more relaxed attitude of consumer lenders towards arrears affects the credit culture of the consumer lender clients. However, it may also affect the entire microfinance sector. A prominent example is Bolivia where the portfolios of all MFIs were affected and eventually most consumer lenders collapsed. (Berger et al., 2006; Gonzales, 2008; Marulanda, 2006; Muriel et al., 2006; Rhyne & Christen, 1999; Rhyne, 2001; Rosales, 2006).

Since the introduction of consumer loans generally coincides with increased competition it is difficult to disentangle the effects of competition and consumer loans. Risk measures, such as portfolio-at-risk, may increase in a saturated market when competition drives lender to supply riskier borrowers or if existing clients change their behavior as mentioned by Navajas et al. (2003). Vogelsang (2003) identifies that for Bolivia competition does not increase repayment difficulties *per se*. She identifies three enabling factors to control risk in the presence of high competition: Functioning credit information system, mature markets with efficient regulations, adaptation of MFIs growth strategies (to ensure not more risky clients are targeted).

However, a connection between worsening of repayment rates and change of lending methodologies away from microcredit tailored methodologies has often been mentioned in crises. Maurer and Pytkowska (2010) mention less thorough assessment of repayment capacity and increased reliance on personal guarantors as changes in lending methodologies due to increased competition in Bosnia. They attribute the increased demand of loans for consumption purposes and for raising their standard of living as one factor that contributed to over-indebtedness in Bosnia. A change in lending methodology due to increased competition was also observed in Morocco and is believed to have lead to high loan delinquency

(Reille, 2009). As mentioned in section 2.4, in Latin America consumer lenders have entered the microfinance market in numerous countries and in some cases the repayment capacities were not properly assessed (Marulanda, 2006).

There is also evidence that the provision of micro-consumer loans by traditional financial institutions does not pose problems. Marulanda (2006) mentions successful downscaling financial institutions in Chile, Paraguay and Peru and points out that these generally incorporated appropriate microfinance lending methodologies in some way. Christen and Miller (2006, p. 262) state that in these three countries institutions using consumer lending methodologies to disburse micro-consumer loans claim that risk is the same as for specialized MFIs. Using credit scoring for microfinance lending is discussed in the literature and Schreiner (2000) finds that an adapted version of credit scoring can work for microfinance. Karlan and Zinman (2010) find indications that consumer credits may be welfare increasing and beneficial for both the borrower and the lender.

The literature on risk associated with different loan types is scarce. Gonzales (2009) examined whether changes in combinations of loan products¹⁶ affect MFI performance. He uses a sample of MFIs from Latin America that report to the MIX Market. He finds that MFIs with higher shares of consumption loans compared to with microcredits are associated with lower portfolio quality and higher profitability. Interestingly, when examining product types themselves and not portfolio combinations these relationships are lost.

Vogelsang (2003) who estimated various effects on the repayment behavior in Bolivia mentions that consumer loans may result in higher arrears due to the higher loan sizes because clients' repayment capacity is more likely to be exceeded. However she did not test for this as no data is available.

In a study on the informal sector in Colombia by Cano, Peñaranda, and Romero (2007) financial institutions (of the formal sector) were asked to rank credit types according to risk. Only banks reported that microcredits have slightly lower risk than consumer loans. CFCs and cooperatives both reported that risk associated with microcredit is higher than for consumer credit .

Consumer lenders are also related to a decrease in microfinance markets' reputation. Lascelles and Mendelson (2011) report that consumer lending is not only associated with multiple lending and overindebtedness of microfinance clients but also with reputation risk and "mission drift" by practitioners, investors, regulators and observers. This is also mentioned by Rhyne and Christen (1999, p. 14).

¹⁶e.g. 50% microenterprise and 50% consumer loans versus 86% microenterprise and 14% consumer loans using the loan types microenterprise, consumer, mortgage and commercial

3 Research Methodology and Data

3.1 Definitions

To identify effects consumer loans and consumer lending have on MFIs four definitions are needed, namely definitions for *the microfinance market*, *consumer loans*, *institutions targeting the microfinance market* and *effect*.

Firstly, the microfinance sector has to be defined. Characteristics such as the employment status (self-employed or employed), the size of the business, the monthly income of the client or the size of the loan may be used to define the microfinance sector. For the purpose of this report the microfinance sector is considered well-defined.

The definition of consumer loans is not straightforward as two definitions collide. As presented in section 2.2 the traditional consumer finance market defines consumer loans by the usage of the loan and the microfinance market by the recipient of the loan. Traditional consumer finance providers are therefore likely to target (micro) entrepreneurs as well. For the secondary data analysis information from the MIX Market is used. The definition of the MIX Market is adapted and consumer loans are defined as loans with the main repayment source from salaries.

To provide an overall view of the consumer loan market, MSIs and NMSIs offering consumer loans have to be identified and narrowed down to the institutions targeting microfinance clients. For MSIs, it is assumed that all institutions reporting to the MIX Market provide consumer loans in the microfinance market. This assumption seems reasonable as the MIX Market is an institution for microfinance. The MIX Market reports the gross loan portfolio split up by product type for 2008 and 2009 for reporting MFIs. The identification of consumer loans disbursed in the microfinance sector by NMSIs poses data availability issues for several reasons. The MIX Market does not generally include NMSIs that offer consumer loans to the microfinance sector. If NMSIs are regulated, data is reported to the regulator. However, the portfolio of consumer loans is not split up into financial sectors that are served (i.e. the microfinance sector) but reported for all customers. There are also generally institutions providing consumer credit that are not regulated, for example retail finance companies, for which no data is readily available. Consumer loan amounts may be used as proxy to identify the share of consumer loans that is distributed to the microfinance sector by NMSIs. One of the reasons microentrepreneurs have been excluded from the traditional financial sector is the demand for small loan sizes compared to other commercial loans. It may therefore be assumed that microfinance clients demand smaller

loan sizes. If data on loan types as well as loan sizes is available, consumer loan size may be taken as proxy to identify whether the microfinance sector is targeted. However, data on loan amounts and especially on the distributions is not available. It is not possible to identify and quantify the NMSIs and micro-consumer loan portfolios. The empirical analysis focuses on MSIs' data as reported to the MIX Market and does not include micro-consumer loans offered by NMSIs. The objective of this report is to capture the effect of consumer lending on *MFIs* and therefore obtaining information from MSIs provides valuable insight.

The *effect* needs to be more precisely defined. The effect may be manifold, for example it may be measured as changes in profitability, risk or the fulfillment of social goals. On the other side it may also relate to changes in methodologies or organizational structures of institutions. The secondary data analysis focuses on the changes in risk and profitability due to consumer loans. As risk measurement the sum of the portfolio-at-risk over 30 days¹⁷ (PAR 30) and the write-off ratio¹⁸ is used adhering to the MIX Market's definitions of the two measures. These two indicators have slightly different denominators. Thus, their sum provides only a rough approximation. However, as these two measures influence one another, a combination should be used to measure risk¹⁹. This provides information on the riskiness of the portfolio. However a riskier portfolio is not *per se* undesirable: if coupled with appropriate risk management and (high enough) interest rates it may translate into high rates of return. Therefore, ROA and ROE are used as indicators for profitability and also incorporated in the empirical analysis. Nevertheless, the main focus is on risk keeping in mind that credit risk is a main factor of consideration for all financial institutions. In the questionnaire, *effect* is not only defined as risk but also includes changes in other qualitative indicators such as lending methodology.

3.2 Selection of Countries

For the countries Colombia, BiH and Paraguay, there is anecdotal evidence that micro-consumer loans are offered. This is supported by data reported to the MIX Market which shows that the majority of MFIs in these three countries offer consumer loans. However, the three markets differ in the types of institutions offering microfinance and potentially micro-credit. BiH was a successful microfinance market until risk increased tremendously in 2007/2008 and consumer lending is suggested to play a role in this sudden worsening of

¹⁷Outstanding balance, portfolio overdue > 30 Days + renegotiated portfolio divided by adjusted GLP.

¹⁸Adjusted value of loans written off divided by adjusted average GLP.

¹⁹For an elaborate discussion see Gaul (2011).

portfolio quality. Paraguay is referred to as a case of successful involvement of traditional consumer lenders in the microfinance market. In Colombia, consumer loans play an important part of household financing. The comparison of the three countries should thus reveal insight into different micro-consumer loans markets and ways to introduce micro-loans.²⁰

3.3 Data Sources

3.3.1 Primary Data Analysis

A questionnaire was sent to institutions reporting to the MIX Market²¹ for Colombia, Bosnia and Paraguay. Additionally, institutions from the solidarity sector (cooperatives, employees' funds and mutual associations) in Colombia were contacted. As described in section 4.1 cooperatives in Colombia are divided into financial and non-financial cooperatives. The solidarity sector in Colombia focuses mainly on the financing of households but the institutions are close to the microfinance client and are increasingly engaged in the microfinance sector (see section 4.1). As the examination of loan amounts of Table 10 on page 50 shows, non-financial cooperatives have lower loan amounts than financial cooperatives and the loan amounts for microcredit and consumer credit are more similar. Therefore, institutions from the solidarity sector that are regulated by the Supersolidarity and are classified as saving and credit cooperatives are included in the sample. The institutions that were contacted could not be drilled down to the ones that offer microcredit as this information is not available. So it may be that some or even all reporting institutions do not offer microcredit at all but provide consumer loans with loan amounts in a similar range as microcredit is provided.

3.3.2 Secondary Data Analysis

As described in section 3.1 data from the MIX Market is used for MSIs. The MIX Market is an on line database for the microfinance industry with over 1'900 MFIs from over 110 developing countries reporting annual data on a variety of indicators²². Data reported to the MIX Market is prone to certain biases, most importantly that the MFIs²³ reporting to the MIX Market are not a random sample of MFIs (Gonzales, 2007, p. 3). For 2008 and

²⁰See chapters 4, 5 and 6 for literature references.

²¹As of 1 March 2011.

²²As of March 2011

²³Note that *MFIs* are generally classified as *MSI* as described in section 2.2.

2009, the gross loan portfolio of MFIs is distinguished by products. Retail loans are split into microenterprise loans and household financing with the subsections *consumption*, *education*, *mortgage housing* and *household other*. The information for the institutions was double checked with the Social Performance Report which is also available from the MIX Market.

The data on product type might be prone to additional biases. Larger institutions might be more likely to have information systems that allow for product type differentiation. Another issue is the reliability of the data. As stated by Kappel, Krauss, and Lontzek (2010, p. 45) it is suggested that consumer loans might be underreported due to the perception that they do not belong in the microfinance market. Consumer loans might also be mis-categorized as other household financing loans, e.g. household other²⁴. This might be especially true for institutions requiring donor funding. Overall, data from the MIX presents a biased sample and is limited to MSIs offering consumer loans.

3.4 Methodology

3.4.1 Primary Data Analysis

A questionnaire was sent to the institutions in the three countries in English or Spanish²⁵. Institutions were asked a series of questions about consumer loans in the microfinance sector. The full questionnaire is available in Appendix A. The following hypotheses are tested:

- Microcredits are already used for non-business purposes.
- MFIs start offering consumer loans because of competition.
- Consumer loans are not limited to salaried clients.
- The credit approval procedure for consumer loans is fundamentally different from the microcredit methodology.
- The loan terms for consumer loans and microcredits are different.
- The disbursement of consumer credits in the microfinance market affects both MFIs that offer consumer loans and MFIs that do not offer consumer loans.
- Risk for consumer loans and microcredits are different and related to the applied lending methodology.

²⁴For some MFIs it is observed that consumer loans are only offered in 2008 and not in 2009. In 2009, however, household other or education loans are offered (which were not offered in 2008).

²⁵The author would like to thank Diego Browarnik for the translation from English to Spanish.

The questionnaire was set up using the guidelines of Iarossi (2006). Questions about the effects of consumer loans are asked in a neutral way to limit underreporting. Participants were asked to provide, if available, PAR 30 and write-off ratios for the two loan types. Additionally, participants were asked to compare risk for the two loan types without providing data on the risk measures. This is a less precise measure but it is expected that more responses for this indirect comparison may be obtained. An indirect style is also applied when asking about the institutions affecting MFIs, where participants provide answers to how MFIs *in general* are affected by the provision of consumer loans. The focus of the *effect* is on risk and not on performance. Estimates of impacts on risk may be more easily and accurately provided by institutions than for performance because performance depends on many factors (and risk is one of them).

There are 119 replies of which 80 are valid. This corresponds to a response rate of 21% for MFIs and 3% for cooperatives in Colombia. For Paraguay, the response rate is 50% as only six institutions are reporting to the MIX Market. Table 2 shows respondents by country and institution type. For Bosnia, four institutions reported and the majority are Non-banking Financial Institutions (NBFI). The three answers from Paraguay are from one bank, NGO and NBFI. In Colombia, most respondents are from the solidarity sector. The institutions from the solidarity sector sum up to 83.75% of respondents from all three countries. The inclusion of the solidarity sector allows the differentiation of MSIs and NMSIs for Colombia. Also, the large number of cooperatives in Colombia serve a relatively small number of clients as more thoroughly described in section 4.1. For NMSIs, the sample is thus biased. Nevertheless, important insights into the differences between the two institution types can be gained.

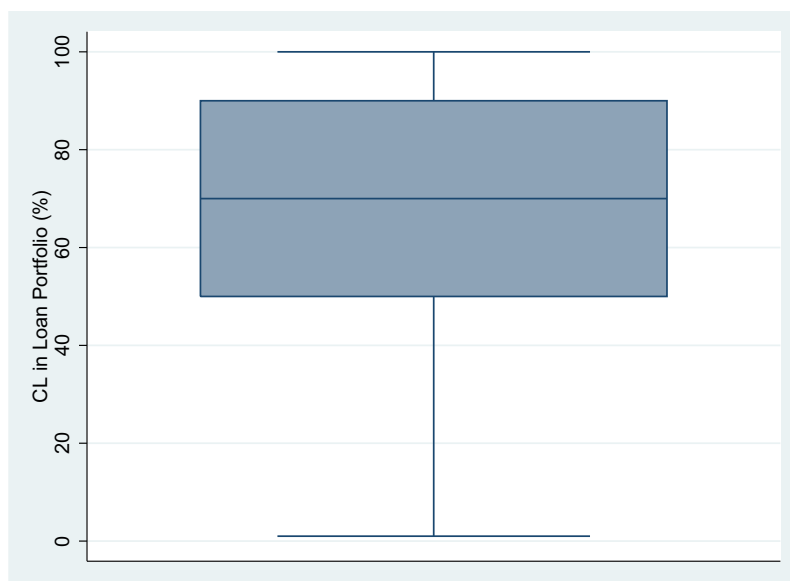
Table 2: Questionnaire Respondents by Country and Institution Type

	Bank	NGO	NBFI	Cooperative	Employee's Fund	Mutual Association	Total
Colombia	1	4	0	46	21	1	73
Bosnia	0	1	3	0	0	0	4
Paraguay	1	1	1	0	0	0	3
Total	2	6	4	46	21	1	80

Source: own research

87.5% of the sample offer consumer loans. Figure 1 shows that for the majority of respondents consumer loans are an important part of the institutions loan portfolios and the median is roughly 70%.

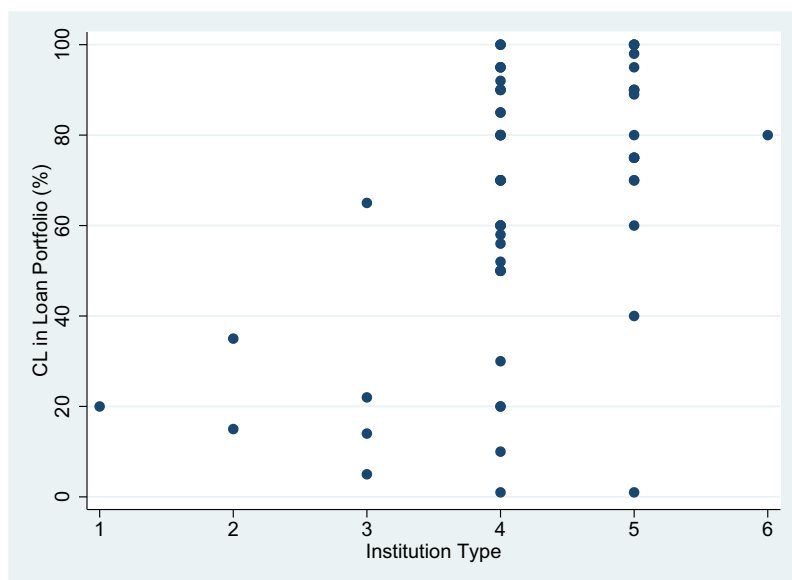
Figure 1: Consumer Loan Share in Loan Portfolio of Questionnaire Respondents (in %)



Source: own research

This high share of consumer loans in the loan portfolio may be explained by the institution type. As mentioned in section 4.3 institutions from the solidarity sector in Colombia have relatively high shares of consumer loans in their portfolio. This also holds for the sample: In Figure 2 the share of consumer loans in portfolio is depicted on the y-axis and the institution type (1=banks, 2=NGO, 3=NBFI, 4=cooperative, 5=employees' fund, 6=municipal Association) on the x-axis. The highest consumer loan shares in loan portfolio are observed for cooperatives and employees' funds. The highest share for non-solidarity sector institutions is roughly 60%.

Figure 2: Institution Type and Consumer Loan Portfolio Share of Questionnaire Respondents (in %)



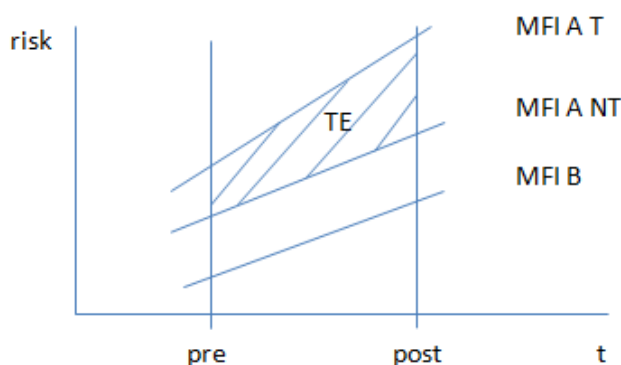
Source: own research, institution Type: 1=Bank, 2=NGO, 3=NBFI, 4=Cooperative, 5=Employees' fund, 6=Mutual Association

3.4.2 Secondary Data Analysis

Two different approaches, namely Difference-in-differences and fixed effects are used to find evidence for the effect of consumer loans on microfinance institutions.

Difference-in-Differences To study the effect of the introduction of consumer loans a Difference-in-differences analysis is carried out. This approach uses two groups, a treatment and a control group, and compares the average difference of risk over time for the two groups. However, these groups are, unlike in a true experiment, not randomly chosen. Therefore, two data points are used to control for self-selection problems. (Wooldridge, 2009, p. 453) The idea of this type of analysis is that if consumer loans would not have been introduced the difference of unobserved variables of the MFIs that offer consumer loans (treatment group) and MFIs that do not offer consumer loans (control group) remain unchanged. The key identifying assumption is therefore that the *trends* remained unchanged if consumer loans would not have been introduced. This controls for selection bias. (Angrist & Pischke, 2009) This is shown in figure 3 where MFI A belongs to the treatment group and MFI B to the control group. The treatment effect is measured as the difference in risk between the *hypothetical* outcome of MFI A (MFI A NT) if it were not treated and the actual (treated) outcome of MFI A (MFI A T). In order to make a statement about the hypothetical outcome of MFI A, it is assumed that the trend compared to MFI B remains unchanged.

Figure 3: The Identification of the Treatment Effect in the DiD Approach



Source: Manning (2008/2009), adapted

One main benefit of the Difference-in-Differences estimation is that an estimate of the effect of the introduction of consumer loans can be obtained without explaining much of the variation of the dependent variable. So even a model with a low explanatory power can lead to a fairly precise estimate of the variables. However, a relatively large sample size is required. (Wooldridge, 2009, p. 455)

The equation of interest is

$$Y = \beta_0 + \theta_0 \text{time}_t + \beta_1 \text{treat} + \theta_1 \text{timetreat} + \text{other factors} \quad (5)$$

where time and treat are dummies which equal unity if post-treatment and treated, respectively. Here, β_0 is the average risk of the control group at the pre-treatment time. θ_0 captures the change in risk for all MFIs between the two dates. β_1 measures the effect on risk that is not due to the introduction of consumer loans. Of most interest is the parameter θ_1 which measures the effect of risk due to the implementation of consumer loans in the market. (Wooldridge, 2009, p. 451 - 452)

Let μ_{it} be the average risk in group i at time t . Manning (2008/2009) describes the difference-in-differences estimator without other factors in the regression as:

$$\hat{\theta}_1 = (\mu_{11} - \mu_{01}) - (\mu_{10} - \mu_{00}) \quad (6)$$

with

$$i = \begin{cases} 1, & \text{treatment group} \\ 0, & \text{control group} \end{cases}$$

and

$$t = \begin{cases} 1, & \text{post-treatment} \\ 0, & \text{pre-treatment} \end{cases}$$

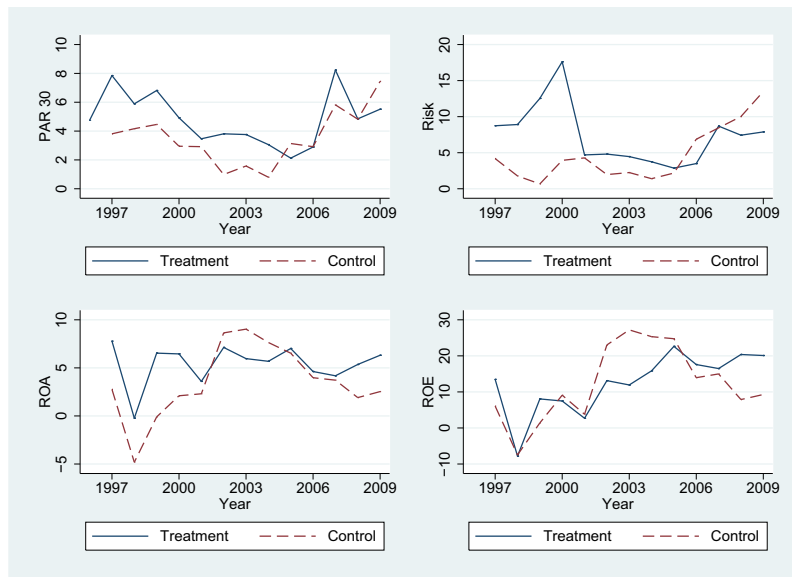
The difference-in-differences analysis is carried out using the Stata software module from Villa (2011) which estimates the difference-in-differences estimator (DiD estimator) as described by (Manning, 2008/2009). The dependent variables PAR 30, risk (sum of PAR 30 and write-off ratio, see section 3.1), ROA and ROE are tested for different time periods. Limitations of the methodology apply due to the small sample size, namely autocorrelation and heteroskedasticity. The section on fixed effects describes these issues in more detail. With the data available from the MIX Market no control groups are available for Bosnia

and Paraguay. For Colombia, a control group and a treatment group can be identified. The treatment group consists of MFIs that report consumer loans to the MIX in 2008 and 2009 or only in 2009. The control group is composed of MFIs that do not report consumer loans to the MIX for both years 2008 and 2009 (see also section 3.3.2). The restriction on the reporting dates reduces the available sample to a total of six institutions of which four belong to the treatment and two to the control group. Table B.1 gives an overview of the institutions in each group.

The definition of the pre-treatment date is not straightforward and the treatment date need not be identical for all MFIs in the treatment group. Results from the questionnaire show that in the sample consumer loans have been offered since 1950 nevertheless some institutions just recently started to offer consumer loans. As the questionnaire is anonymous the date of the introduction of consumer loans per institution cannot be identified. The questionnaire answers of MSIs suggests that consumer loans have been introduced in the microfinance market between 1995 and 2000. The difference-in-differences estimator calculates the averages of the differences of the two groups at two points in time. Figure 4 shows PAR 30, risk, ROA and ROE from 1997 to 2009. For PAR 30, the treatment group has higher values except for 2005 and 2009 and for risk, the treatment group has higher values until 2005 than the control group. For ROA and ROE, until 2001/2002 the treatment group had higher values which is followed by a period where the control group reports better return indicators. From 2005 until 2009, the treatment group again reports higher values than the control group. The analysis is carried out for four time periods using different pre- and post-treatment dates (1998 and 2008, 1998 and 2009, 2000 and 2008, 2000 and 2009) as the treatment date may not be identified precisely. This test the robustness of the results. For ROE, the choice of the pre-treatment date (1998 or 2000) affects results as in 2000, the control group reports slightly higher values than the treatment group whereas in 1998 the opposite is true.

The historical development of the dependent variable of the two groups should follow the same trends (Angrist & Pischke, 2009, p. 231). This cannot be confirmed for the available dataset mainly due to the lack of history available to observe a long-term trend *before* the introduction of consumer loans.

Figure 4: Mean PAR 30, Risk, ROA and ROE over Time for Treatment and Control Group in Colombia



Source: own research

Unobserved Effects Models Fixed effects model differentiate between independent variables that vary and that stay constant over time. The idea is that the variable that stays constant over time, the fixed effect a_i , includes unobserved time-constant variables. (Wooldridge, 2009)

There are three methods to estimate unobserved effects models: First differencing, fixed effects and random effects. These model have in common that they want to eliminate the fixed effect, a_i . The specialty of the random effects model is that the time-constant effect has to be uncorrelated with all explanatory variables in every time period. This assumption is not made in the first differencing and fixed effects models. This is not considered to be valid in our case: the unobserved effect, for example the institution's risk appetite may well correlate with the explanatory variable (share of consumer loans). The usage of the fixed effects model as opposed to the random effects model is formally tested with the Hausman-Test. If there is only two years of data the first differencing and fixed effects methods result in the same estimates and test statistics. (Wooldridge, 2009).

The fixed effects model estimation is presented as described by Wooldridge (2009, p. 481 - 483). Consider a model with a single explanatory variable $consl$ which is defined as consumer loans share in gross loan portfolio. a_i is the time-constant variable for every MFI, i . The dependent variable $risk$ is defined as sum of PAR 30 and Write-off ratio. t equals one or two in our case. For each i ,

$$risk_{it} = \beta_1 consl_{it} + a_i + u_{it} \quad (7)$$

The fixed-effect a_i does not change over time. Now, this is averaged for each i over time

$$\overline{risk}_i = \beta_1 \overline{consl}_i + a_i + \overline{u}_i \quad (8)$$

where

$$\begin{aligned} \overline{risk}_i &= 1/T \sum_{t=1}^T risk_{it} \\ \overline{consl}_i &= 1/T \sum_{t=1}^T consl_{it} \\ \overline{u}_i &= 1/T \sum_{t=1}^T u_{it} \end{aligned}$$

Equation (8) is subtracted from (7) to get

$$risk_{it} - \overline{risk}_i = \beta_1(\overline{consl}_{it} - \overline{consl}_i) + u_{it} - \overline{u}_i \quad (9)$$

or

$$\widetilde{risk}_i = \beta_1 \widetilde{consl}_i + \widetilde{u}_i \quad (10)$$

where \widetilde{risk}_i , \widetilde{consl}_i and \widetilde{u}_i are the *time-demeaned data* on *risk*, *consl* and *u*, respectively. The unobserved effect, a_i , has been eliminated. This transformation is also called the within transformation. Equation 10 can now be estimated using pooled ordinary least square (OLS) and the OLS estimator is called the fixed-effects or within estimator.

Manual White Tests are performed to test for heteroskedasticity and heteroskedasticity robust standard errors are applied if applicable (e.g., Stock & Watson, 2007, p. 164). As outlined by Angrist and Pischke (2009, p. 293) variables are likely to autocorrelate in panel data. Due to insufficient data points autocorrelated fixed-effects regressions²⁶ may not be carried out. One way to control for this is to allow for variables to correlate *within* groups (known as *clusters*). For example, if penetration rate is high today, it is also likely to be high tomorrow. However, to sufficiently control for autocorrelation within clusters over 40 clusters are necessary Angrist and Pischke (2009, p. 319). In the dataset there are only three countries, thus three clusters are built. If not enough cluster are available, correlation is underestimated. There is also autocorrelation within MFI variables, for example consumer loans today is positively correlated with consumer loans tomorrow. Even though it is suggested that groups are built at the *highest* (in our case on country level) level this would lead to only three groups and underestimated autocorrelation. There is no generally accepted way of controlling for too little clusters (p. 320). Clusters are built on MFI level where between 20 and 25 clusters are available and correlation is still underestimated. Results need to be interpreted in light of this drawback. Autocorrelation between country variables are not fully controlled for and the standard errors of these variables need to be considered with caution.

A logarithmic transformed model is estimated to allow for the interpretation of the coefficients in percentage changes and to capture possible non-linearities. (Stock & Watson, 2007, p. 267 - 274). The situation of lending to more risky clients upon saturation of the market is an example for non-linear trends. Various equations are estimated with a

²⁶Such as *xtregar* (fixed- and random-effects linear models with an AR(1) disturbance) in Stata (StataCorp., 2009).

combination of variables for the entire sample and subsamples of the three countries. Table B.4 on page XV in the Appendix displays the descriptive statistics of the variables included in the models. Not all variables may be included in the regression due to too small sample sizes. For example, the combination of penetration rate and $risk_{t-1}$ in one regression leads to insufficient data points.

One important assumption of the model is the strict exogeneity: the explanatory variables are not allowed to be correlated with the idiosyncratic errors u_{it} in both time periods. This assumption is violated if time-varying variables are omitted or if $consl_{it}$ is the lagged variable $risk_{it-1}$. Another assumption is that there is enough variation in $\widetilde{consl_{it}}$. This fails if the explanatory variable does not change over time or changes by the same amount for every observation. (Wooldridge, 2009, p. 458, 482)

Table 3 lists some variables that may influence risk. The unobserved effect, a_i captures all variables that are constant over time. As the estimation includes only two years, namely 2008 and 2009 many variables may be assumed to roughly remain the constant over this short period of time. Loan requirements and reputation are examples of time-constant MFI specific variables over two years (indicated by a y in column *Time-constant over two years*).

Variables that are not time constant include age, age², GDP growth and GNI per capita. Age² is included to capture a possible learning curve. The data on age of MFIs is taken from Gonzales (2010b), however not all MFIs are included in the sample. GDP Growth and GNI per capita data are taken from the World Bank's World Development Indicators (WDI). These two may not both be included in the analysis due to collinearity. The growth rate of GNI per capita is included in the regressions. If less income is available debt servicing is more difficult (in the absence of saving or assets). Thus, an increase in the growth rate is expected to decrease risk.

Remittances may also affect risk. If the reliance on remittances in a country is high (high level of remittances) a sharp and quick decrease in remittances is likely to increase risk. However, these data are only available on a country level and it may not be identified which citizens receive these remittances. The variable is included especially because BiH is a country with a high level of remittances (Oruc, 2011). From 2008 to 2009 remittances decreased by 23% in BiH (World Bank, 2011). Remittances are collinear to GNI per capita growth and may thus not be included in the fixed-effect regression simultaneously.

Gonzales (2010a) showed that local growth (adding more borrowers per branch) may have more adverse effects on portfolio quality than expansive growth (adding more branches).

He also finds that high penetration rates are associated with a deterioration of portfolio quality. Looking at these three variables in the dataset (Gonzales, 2010b) it is evident that they cannot be considered constant over the course of two years. However, the dataset only includes data until 2007. Data for local and expansive growth are not available for 2008 and 2009. Therefore, they are dropped from the analysis. Penetration rates are included and are expected to have a negative effect on risk. High penetration rates may indicate higher competition and may lead institutions to serve riskier clients or relax lending standards. This report uses data from the MIX Market and the WDI to calculate the penetration rate as number of borrowers served divided by the number of potential borrowers in the poor population. The poverty headcount ratio at national poverty line from the WDI is taken to identify the poor population. However, no general definition of penetration rates exists and variations in the definition of the denominator leads to highly different penetration rates, especially in the case of multiple lending, as outlined by Kappel et al. (2010). The penetration rates are available in Table B.2 on page XIII in the Appendix. For the fixed effects estimation, the difference between the countries and years is more important than the level of the ratio. The number of potential borrowers is defined as citizen below the National Poverty Line.

The number of MFIs may be taken as proxy for competition. Data on the number of reporting MFIs for different years are available from the MIX Market. For the two years of interest, the number of MFIs reporting to the MIX Market did not change notably. Further, the micro-consumer loan market is of interest where traditional financial institutions are also active. A proxy for competition would thus need to include data on these providers as well, which also includes unregulated providers such as retail lenders. These data are not available.

Inflation rates may also effect repayment behavior of clients and thus influence portfolio risk of MFIs. However, the effect of changing inflation rates is unclear. On one side, higher inflation rates decrease the level of debt and thus makes it easier to service debt. On the other side, cost of living increases if wages do not adjust in the same speed as goods. The effect of inflation is thus ambiguous.

$risk_{it-1}$ is likely to be correlated with risk. It is included in the equations to capture this effect. However, due to missing data it may not be used in combination with all other variables. The expected sign of $risk_{it-1}$ is positive: If risk yesterday was high, risk today is expected to be high as well.

What is the expected sign for micro-consumer loans? An overview of the existing literature as well as indications from the examination of the microfinance markets in the three selected countries suggest that micro-consumer loans are related to more relaxed lending standards. The application of inappropriate lending methodologies are likely to increase risk, especially if repayment capacity is not properly assessed as proposed by existing literature. The sample of the MIX Market only includes MFIs. Results from the questionnaire indicate that MFIs are likely to adapt lending method as response to the involvement of traditional financial institutions in the micro-consumer loan market. On the other hand, if consumer loans are only disbursed to salaried clients they are backed up with salaries. Micro-consumer loans may then be considered less risky and vulnerable to exogenous shocks than microcredit. However, it is suggested in the available literature that microentrepreneurs also have access to micro-consumer loans. Overall, the expected sign for the independent variable consumer loans is negative.

The estimations for the country subsamples includes less variables. GNI per capita, penetration rate and remittances are only available on a country level. As outlined by Sapundzhieva (2011) for BiH penetration rates may vary for different regions in a country and are also likely to change within two years. However, this data is not available.

Table 3: Predicted Influence of Independent Variables for Fixed-Effects Estimation on Risk

Variable	Predicted Effect on Risk	Time-constant over 2 years	Source
Market Level			
Annual GDP Growth	-	n	WDI
GNI per capita	-	n	WDI
Penetration Rate	+	n	WDI, MIX
Multiple Lending	+	n	n/a
Competition	+	n	n/a
Credit Bureau	-	y	MIX
Remittances	-	n	WDI
Inflation Rate	?	n	WDI
Institution Level			
Consumer Loans	+	n	MIX
Age	-	n	MIX
Age ²	-	n	MIX
Reputation	-	y	n/a
Local Growth	+	n	n/a
Expansive Growth	+	n	n/a
MFS Lending Methodology	-	y	n/a
Loan Requirements	-	y	n/a
$risk_{t-1}$	+	n	MIX
Client Level			
Rural	+	y	n/a
Urban	-	y	n/a
Women	-	y	n/a
Men	+	y	n/a
Credit Morale	-	y	n/a
Avg. Loan Balance (% of GNI)	+	n	MIX

Source: own research. Example: A higher penetration rate is expected to increase risk *ceteris paribus*(+) and the penetration rate may be considered roughly time-constant for two years (y).

4 Colombia

4.1 The Financial Institutions and the Development of the Loan Portfolio in Colombia

The data available from the two relevant Colombian regulators differs. Therefore, the regulators and the regulated institutions are briefly described. There are two regulators for institutions providing financial services, the Superintendencia financiera de Colombia (Superfinanciera) and the Superintendencia de la Economía Solidaria (Supersolidarity). The financial institutions that offer microfinance and are regulated by the Superfinanciera are:

- Banks
- Commercial Financing Companies (CFC, *Compañías de financiamiento comercial*)
- Cooperative organizations of financial character (*Entidades Cooperativas de Carácter Financiero*)
- Cooperative organization with superior degree (*Cooperativas de Grado Superior*)

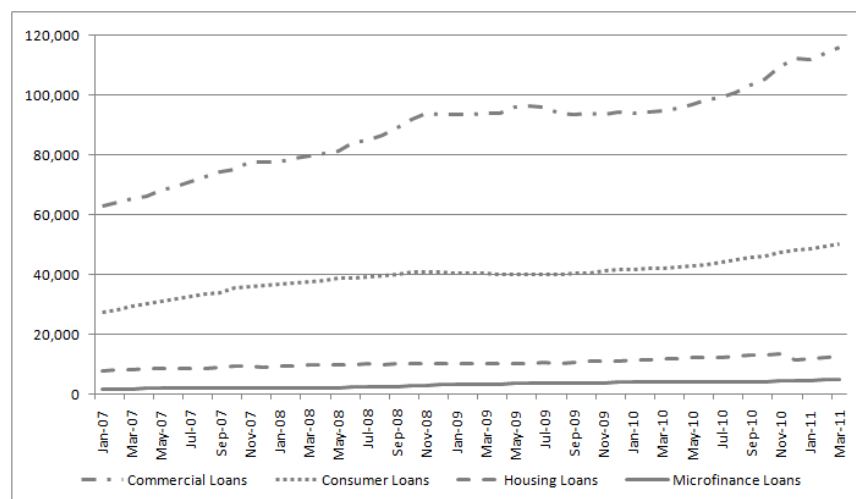
All other cooperatives are regulated by Supersolidarity.

How is the general development of the loan portfolio in Colombia? Institutions regulated by the Superfinanciera have a gross loan portfolio²⁷ (GLP) of USD 98 billion in March 2011. The Superfinanciera categorizes loans into commercial, consumer, housing and microfinance. Figure 5 shows the GLP of the loan categories in Colombian Pesos to observe the trend without any exchange rate effects. The GLP of the four loan types has been increasing over the past four years and commercial loans have always been and still are the most prominent loan type. Consumer loans have the second highest GLP followed by housing and microfinance loans. The GLP for consumer credits and microcredits of these institutions is USD 26 billion and 2.6 billion, respectively for March 2011.

The institutions active in the microfinance market and the traditional consumer loan market are listed in the following paragraphs and the main providers are mentioned. The focus is on institutions that are present in both markets.

²⁷The gross loan portfolio is taken to describe the loan market as this information is readily available for most institutions. One drawback is that as microfinance has small loan sizes, the importance of microcredits may be underestimated by solely relying on loan amounts. The number of loans disbursed is however not available for all institutions.

Figure 5: Development of Loan Portfolio by Loan Type in Colombia from 2007 - 2010 (in billion COL)



Source: Superintendencia Financiera de Colombia (2011a). Note: this is the loan portfolio of the institutions regulated by the Superfinanciera.

Banks and CFCs In March 2011 there are 20 banks, with two newly established ones, Banco WWB and Banco Finandina. Half of the banks in Colombia are engaged in the consumer loan as well as the microcredit market. CFCs, of which there are 23 in March 2011²⁸, with the exception of Finamérica, are mainly involved in commercial consumer finance but also offer microcredits. (Superintendencia Financiera de Colombia, 2011a)

The largest consumer finance provider considering loan disbursement in the past nine years are Davivienda, Banco Popular, Bancolombia, Citibank, BBVA Colombia and Banco Bogotá and the largest CFC is Pichincha. Banca Agrario has the largest microcredit portfolio followed by Bancamía, Banco WWB and BCSC and the largest CFC is Finamérica in the microfinance market in March 2011. (Superintendencia Financiera de Colombia, 2011b)

²⁸The two CFCs Pichincha and Falbella as well as the Financial Cooperative Coomeva will transform into banks in 2011 after having received approval from the Superfinanciera. The main focus of the two CFCs is on consumer lending.

The majority of banks active in the microfinance market have downscaled. There are also upgraders²⁹, such as Bancamía and Banco WWB. For example, as stated on their website, Bancamía (2011) was established by two NGOs (Corporación Mundial de la Mujer Colombia and Corporación Mundial de la Mujer de Medellín) together with BBVA Microfinance.

NGOs NGOs are mostly active in the microfinance market and also offer consumer credit (Rodríguez, 2009, p. 43). The NGOs are organized in the network Emprender. In September 2010, the largest NGO was FMM Popayán followed by WWB Colombia (which has since transformed into the bank WWB Colombia) and F.Delamujer (Emprender and Asomicrofinanzas, 2010b, p. 8).

Solidarity sector The solidarity sector consists of cooperatives, employees' fund and mutual associations. In 2009, there were 10'380 entities in the solidarity sector with 78% cooperatives, 20% employees fund and 2% mutual associations. The cooperatives are organized in the network Confecoop and Ascoop. The cooperative sector is divided into financial cooperatives (authorized to offer credit) and non-financial cooperatives. In 2009, of the 203 financial cooperatives, 8 were supervised by the Superfinanciera and the rest by a special finance division at the Supersolidarity. But the credit activity is not limited to the financial cooperatives: a large number of non-financial cooperatives receive funding from associates and provide credits themselves. The loan portfolio is an important part in the cooperatives balance sheets and has been increasing steadily over the past years. Cooperatives offer consumer and microfinance loans with a focus on the financing of households. Lately the share in the microfinance market has been increasing, however, almost only financial cooperatives offer microfinance. (Confecoop, 2009, p. 67).

Even though there is a large number of cooperatives providing credit, the loan portfolio in the whole market only amounts to 8.01% in 2010 for financial cooperatives. In 2010, the total participation (share of number of loans) of the financial cooperatives in the financial market was 5.32% and 13.8% for the consumer loan market. (Confecoop, 2011, p. 22)

²⁹Upgraders refers to unregulated institutions that transformed into a regulated institution. The term greenfielder is used to describe institutions that have always been operating as regulated MFI. e.g., Navajas et al. (2003)

Informal sector The informal sector in Colombia is sizable. According to a study on the informal sector in 2007 by USAID and Programa MIDAS, of 7 million households that participated in the study 6.8 million had credit sometimes. 83% of these credits were informal. Of the 1.6 million surveyed microenterprises, 81% had credit with 73% being informal. It was found that formal credit is more used for long-term projects whereas informal credit (mainly friends/family and moneylenders for households and friends/family, supplier and moneylenders for microenterprises) is more often used in emergencies. Also, 69% of households and 50% of microenterprises combine formal and informal credit. (Cano et al., 2007)

4.2 The Development and Current State of the Consumer Loan Market in Colombia

This section describes the historical and current share of consumer loans in the financial market. Also, the importance of the different institution types active in the consumer loan market are identified. As mentioned in section 2.4, institutions active in the consumer loan market may enter the microfinance market. The consumer loan market is thus described to as it may provide important insight into the relation to the micro-credit sector.

The share of consumer loans of total GLP (including commercial, housing, consumer and microfinance loans) for institutions regulated by the Superfinanciera increased from 15% in December 2002 to 27% in December 2010 (see Table 4). Until 2007 consumer loans had been steadily gaining market share³⁰ reaching a highest share of 29% in December 2007. In the past three years the market share was slightly decreasing. The absolute GLP steadily increased every year with the smallest increase in 2008 to 2009.

Table 4: Consumer Gross Loan Portfolio and Share in Total Gross Loan Portfolio in Colombia for 2002 - 2010 (in million USD and %)

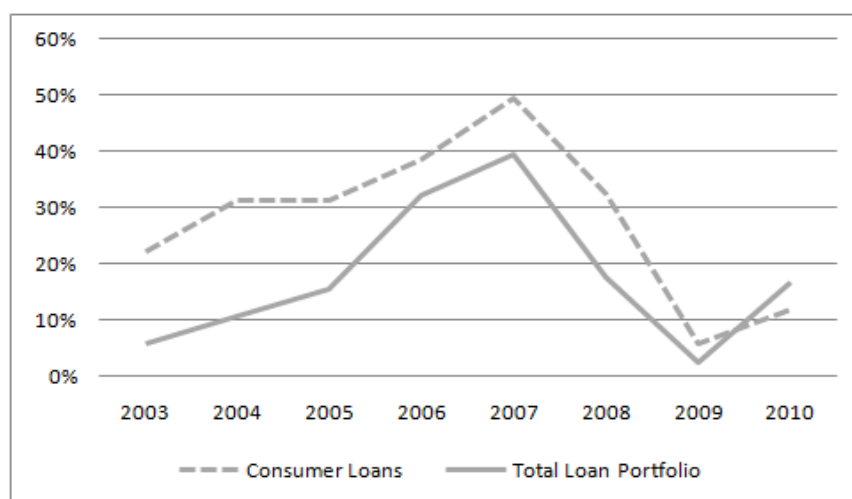
	Dec 02	Dec 03	Dec 04	Dec 05	Dec 06	Dec 07	Dec 08	Dec 09	Dec 10
GLP	2'739	3'449	5'352	7'624	11'630	18'065	18'147	20'260	25'092
Share	15%	18%	21%	25%	29%	29%	27%	27%	27%

Source: Superintendencia Financiera de Colombia (2011a), author's own calculations. Note: this is the loan portfolio of the institutions regulated by the Superfinanciera.

³⁰The market share is defined as share of GLP of total GLP.

The relation between total loan growth and consumer loan growth is further investigated in Figure 6. Annual growth rates for consumer loans and for total loan portfolio for institutions regulated by the Superfinanciera are shown. In 2006, consumer loans reached the highest annual growth rate (49.43%), exceeding total loan market growth by 17.31 percentage points. Hamilton, Muñoz, and Medrano (2010) describe the increased participation of banks in the credit market as well as the identification of microfinance clients as potential clients by banks as the main reason for the credit boom from 2004 to 2007. Since then, consumer loan growth has been decreasing. The lowest growth was 5.64% in 2008 when total loan market growth was 17.68%.

Figure 6: Annual Growth Rates Consumer and Total Loan Market for Colombia from 2003 - 2010 (in %)



Source: Superintendencia Financiera de Colombia (2011a), author's own calculations. Note: this is the loan portfolio of the institutions regulated by the Superfinanciera.

As mentioned, above values include only the consumer loans of the institutions reporting to the Superfinanciera. NGOs and the majority of cooperatives do not report to the Superfinanciera and therefore, their consumer loan supply is not included in the loan portfolio reported by the Superfinanciera. For NGOs, however, no data is available. Confecoop, the cooperatives' network, provides information on the cooperatives' consumer loan portfolio. In Confecoop's Annual Report 2009 the consumer loan portfolio is reported to amount to USD 3'638 million for both financial and non-financial cooperatives for the reporting

cooperatives³¹. The financial cooperatives' (including the eight cooperatives reporting to the Superfinanciera) consumer loan portfolio was USD 2'418 million and the non-financial cooperatives USD 919 million in December 2009. Table 5 provides an overview of consumer GLP from the different sources. Banks and CFCs are by far the largest provider of consumer loans in Colombia.

Table 5: Consumer Gross Loan Portfolio by Institution Type in Colombia for December 2009 (in million USD)

Institution Type	Consumer Loans
Banks & CFC	20'260
Cooperatives	3'638
	Financial
	2'718
	Non-Financial
	919
NGOs	n/a

Source: Confecoop (2009); Superintendencia Financiera de Colombia (2011a). Note: for banks and CFC this is the loan portfolio of the institutions regulated by the Superfinanciera and for Cooperatives the loan portfolio of the institutions reporting to Confecoop.

As stated by Confecoop (2009, p. 65), consumer loans are the major loan type for cooperatives (79.86% of all loans) in 2009 and have been taken on to solve households' financial problems. Confecoop argues that the cooperatives' consumer loan portfolio was steadily growing until 2006/2007 when traditional banks started to engage strongly in this market as interest rates were increased by the Superfinanciera and liquidity in the market was high. According to Confecoop (2009) and Rodríguez (2009), this resulted in an indebtedness of the system³².

Rodríguez (2009, p. 69) mentions that retail stores are increasingly offering financing for consumer goods (retail lenders). As providing consumer credit is not regulated in Colombia any store can offer retail lenders. This sort of consumer good financing is not included in above consumer loan estimates as no data is available.

In conclusion, the consumer loan market experienced high growth rates from 2004 to 2007. Consumer loans are mainly provided by banks and CFCs and cooperatives as well as retail lenders are also active in the market.

³¹See Confecoop (2009, p. 157) for the reporting cooperatives.

³²However, no definition of indebtedness is provided.

4.3 A Brief Overview of the Microcredit Market in Colombia

This section first describes measures by the Colombian national government to increase the engagement of traditional financial institutions in the microfinance market. The size as well as the institutions active in the market are then identified. In recent years, the Colombian national government has taken numerous measures to increase access of financial services for the poor. As these measures affect the institutions serving the microfinance market, an overview of the main initiatives follows.

- The Colombian development bank Bancóldex provides funding for institutions ranging from banks and financial corporations to cooperatives and MFIs without any involvement in the credit approval process (Bancóldex, 2011b).
- Bancóldex Business Centers (*Centros Empresariales Bancóldex*) offer consulting for micro and small entrepreneurs about financing and credits are then processed through banks, for example BCSC and Bancamía (Bancóldex, 2011a).
- Bank of Opportunities (*Banca de las Oportunidades*) was established in 2007 and is a policy of the Colombian national government. According to the website, the main objective is to “promote access to credit and other financial services to the unbanked Colombian population, specially to the low-income families, micro and medium-sized enterprises and entrepreneurs” (Banca de las Oportunidades, 2011a). It promotes regulations, stabilizes the financial market and supports its network which consists of banks, credit unions and NGOs (Banca de las Oportunidades, 2011b).
- The Nation Fund of Guarantees provides guarantees for micro, small and medium entrepreneurs if certain requirements are met. This allows banks to venture into a market (i.e. microfinance) in which they have no expertise (Fondo Nacional de Garantías S.A., 2011; Rodríguez, 2009, p. 49).

To estimate the microfinance loan supply, data from microfinance institutions from different sources are gathered. The microfinance portfolio as shown in Figure 5 on page 38, which includes the loan portfolio of the institutions that are regulated by the Superfinanciera, corresponds to approximately 70% of the total microcredit portfolio (Emprender and Asomicrofinanzas, 2010b). The remaining loan supply is provided by NGOs and cooperatives not regulated by the Superfinanciera. In Table 6, total microcredit supply

according to Emprender and Asomicrofinanzas (2010b) is shown. The loan portfolio has increased by more than three times in five years and amounted to USD 3'197 million in September 2010. The microcredit market had the highest growth rate in 2006 and is since declining. In September 2010, the microfinance sector has a market share of 3.3%³³. Infor-

Table 6: Microcredit Portfolio in Colombia from 2005 - 2010 (in million USD and %)

	Sept 05	Sept 06	Sept 07	Sept 08	Sept 09	Sept 10
Microcredit Portfolio	758	1'032	1'878	2'026	2'671	3'197
Annual Growth Rate		42%	32%	25%	25%	11%

Source: Emprender and Asomicrofinanzas (2010b, p. 2), author's own calculations.

mation on the micro-consumer loan portfolio of MSIs is available from the MIX Market. The micro-consumer loan portfolio amounted to USD 974 million in 2008 and USD 1'026 in 2009. The share of consumer loans of GLP has decreased from 36.4% to 32% from 2008 to 2009.

Which institutions are the main microcredit providers? In the beginning of the microcredit market unregulated NGOs were the main providers as stated by Rodríguez (2009). Microcredit as a sector of the financial system was not regulated (Loubière et al., 2004, p. 16). Through above described measures, especially the Bank of Opportunities, and changes in regulation the Colombian national government successfully encouraged large commercial banks to enter the microfinance market. This coincided with the increased interest of private banks to find market niches (Rhyne & Christen, 1999, p. 3). This resulted in today's microcredit market to be characterized by banks and CFCs holding significant shares of the GLP. Table 7 depicts the GLP shares and annual growth rates of banks and CFCs, NGOs and cooperatives. Banks and CFCs hold approximately 70% of total GLP share and had the highest growth rates in December 2008. As stated by Emprender (2008) until 2007, NGOs had been steadily increasing their market share at the expense of commercial banks' shares. In the middle of 2008, this situation changed and commercial banks started to grow on account of NGOs. This can be seen in Table 7. NGOs growth rates are negative in 2008 and 2009 while banks and CFCs are growing. This high involvement of banks in the microfinance sector is also described by Lascelles and Mendelson: In the Mi-

³³The GLP reported by the Superfinanciera for commercial, consumer and housing loans was USD 89'829 million in September 2010. Adding the consumer loan portfolio of cooperatives (USD 3'638 million, Table 5) and the microcredit portfolio (USD 3'197 million, Table 6), total GLP is USD 96'664 million.

crofinance Banana Skins report (2011, p. 21) a managing director of an MFI in Colombia reported that “the number of microlenders to the average MFI customer had grown from 1.5 to 4, and that 75% of MFI customer were borrowing from other institutions, mostly commercial banks which had entered the field”.

Table 7: Microcredit Market GLP Share and Growth Rates by Institution Type in Colombia from 2007 - 2010 (in %)

GLP Share						
	Dec 07	Sept 08	Dec 08	Sept 09	Dec 09	Sept 10
Banks and CFCs	56.56	57.88	68.62	71.39	71.36	69.99
NGOs	38.92	37.62	27.24	24.21	24.08	24.83
Cooperatives	4.52	4.5	4.14	4.41	4.56	5.18
Growth Rates						
	Sept 08	Dec 08	Sept 09	Dec 09	Sept 10	
Banks and CFCs		2.33	18.56	4.04	-0.04	-1.92
NGOs		-3.34	-27.59	-11.12	-0.54	2.99
Cooperatives		-0.44	-8.00	6.52	3.40	13.60

Source: Emprender and Asomicrofinanzas (2010b, p. 5), author’s own calculations.

As reported to the Superintendencia Financiera de Colombia (2011b) roughly 50% of the market share for banks and CFCs belongs to Banco Agrario, the only state-owned bank. According to Confecoop (2009, p. 67) the microcredits are mainly aimed at small-scale farmers.

The cooperatives’ share in the microfinance sector ranged from 4% to 5% and has been steadily growing over the past two years (Table 7). According to Confecoop’s Annual Report 2009 the gross loan portfolio of the cooperative sector in 2009 is USD 45 million. However, only 3% are microcredit loans and 91% of the microcredits were given out by the financial cooperatives. Confecop explains that cooperatives focus on financing of households due to the need of special technical knowledge.

Table 8 shows the 10 largest institutions which hold 90.13% of the GLP in September 2010. The remaining 9.87% market share is divided amongst 40 institutions. Of these top 10 institutions (including banks, CFCs, cooperatives and NGOs), Banco Agrario had a market share of 37.72% of the GLP in September 2010. There are a few large players in the market that hold most of the market share. This is also confirmed when classifying the institutions according to their size (i.e. large, medium, small and micro, see Table 9) where the large institutions hold the majority of the loan portfolio (Emprender and Asomicrofinanzas, 2010a).

Table 8: Gross Loan Portfolio and Market Share of the Top 10 Institutions in Colombia for September 2010 (in million USD and %)

Institution	Gross Loan Portfolio	Market Share	Cumulative Market Share
Banco Agrario	1'206	37.72%	37.72%
Bancamia	318	9.97%	47.69%
WWB Colombia	290	9.09%	56.78%
BCSC	284	8.90%	65.68%
FMM Popayán	273	8.54%	74.22%
F. Delamujer	155	4.85%	79.07%
Bancolombia	133	4.19%	83.26%
B/co Bogotá	112	3.5%	86.76%
Finamérica	68	2.16%	88.92%
Fianciera Comultrasain	38	1.21%	90.13%

Source: Emprender and Asomicrofinanzas (2010a, p. 8), author's own calculations.

To sum up, the microfinance market is increasingly served by banks and CFCs who received incentives from the national government to enter the market. The microfinance market has one large bank, Banco Agrario, which focuses on lending to small farmers. The rest of the market is concentrated in about ten large institution. Numerous cooperatives also provide microcredit. The GLP of NGOs was decreasing in the past three years. This does however not necessarily mean that less loans are disbursed. The loan sizes of NGOs may also be small than the loan sizes of banks (see also section 4.5).

4.4 The Difficulties of Differentiating Consumer Loans and Microcredit

Navajas and Tejerina (2006) estimated the demand in Colombia to 8.7 million microenterprises. According to the microcredit portfolio estimation of USD 1032 million in 2006 (Table 6 on page 44) this corresponds to 412'800 loans assuming a loan amount of USD 2'500. This would leave the majority of microentrepreneurs with no access to credit. The microcredit portfolio has increased to 3'197 million in 2009, however, assuming that the number of microenterprises has not decreased, microenterprises still remain largely without access to credit. These figures might however be misleading. As Rodríguez (2009, p. 25) states, microcredit loans are often classified as consumer loans. To understand the incentives for this misclassification a closer look at regulation³⁴ is necessary.

In Decree 519 (2007) by the *Ministerio de Hacienda y Crédito Público*, a consumer credit is defined as a loan to an individual with the purpose of financing a consumer good or payment of non-commercial or business services regardless of the loan amount.

A microcredit is defined as a credit which is payed back mainly by the proceeds of a microenterprise (Decree 519). How is a microenterprise classified? Companies are classified by law into Micro, Small, Medium and Large enterprises. As shown in Table 9 the relation of total assets to the current legal minimum monthly salary (CLMMS), which is USD 290 in 2011, as well as the number of employees are criteria.

Table 9: Company Classification by Size in Colombia

Size	Total Assets CLMMS	Employees
Micro	less than 500	less than 10
Small	501-5000	11-50
Medium	5001-30000	51-200
Large	more than 30000	more than 200

Source: Law 590 (2000), modified by Law 905 (2004) from the Colombian Congress.

³⁴For a discussion of supportive regulatory frameworks and a recommendation for microcredit definitions see Loubière et al. (2004, p. 36)

Until 2008, the financial institutions had to classify a loan as microcredit if the loan amount was less than 25 times the current legal minimum monthly salary (CLMMS) and the client's loan balance with one institution was never allowed to exceed this amount. With the Decree 919 (2008), the maximum loan balance amount was increased to 120 CLMMS. This definition has to be followed by all regulated institutions.³⁵

Rodríguez (2009) notes that a reclassification of microcredit to consumer loans occurred when the maximum loan amount was exceeded. Once the Decree 919 was in effect, the involvement of banks in microcredit soared. The credit disbursement reported to the Superfinanciera increased from below 60'000 to 110'000 in one month and the gross loan portfolio of banks increased from roughly USD 800 to 933 million in four months (Superintendencia Financiera de Colombia, 2011a, 2011c). The microcredit disbursements did not increase for (unregulated) NGOs upon the change of this definition. There more ways of misclassified loans are mentioned in the literature by Rodríguez (2009) As already mentioned (section 4.2) a recent development of retail consumer credit is described. He states that these credits might also classify as microcredits as microentrepreneurs often use credit to buy business assets such as electronic goods. He further argues that a significant part of credit from cooperatives is classified as consumer loan even though they are credits for microenterprises due to lack of information available to the cooperatives to differentiate the two loan types (p. 39).

4.5 Cost of Loans and Loan Sizes: Are Consumer Loans and Microcredit competing in Colombia?

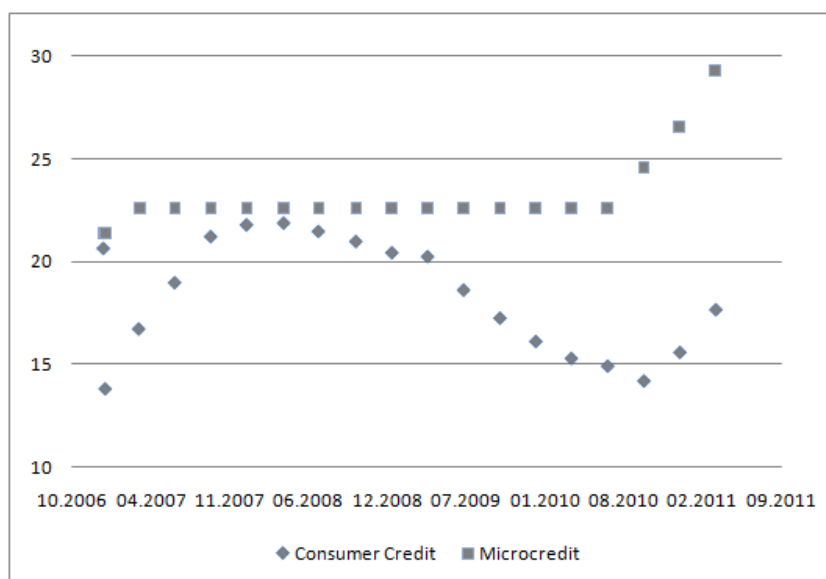
The interest rates are set by the Superfinanciera in Colombia. As this differentiates between consumer and microcredit, the development of the rates are described. Fees are also briefly outlined to highlight differences between the two loan types. As already mentioned (section 3.1, loan sizes may be used as proxy to identify which consumer loans are targeted to the microcredit sector. Data on loan sizes are thus also presented.

³⁵It may be confusing that essentially two definitions are used. The microenterprise is defined as repayment source and the loan amount is also set. At least, microcredit uses the definition of the microenterprise to classify the loan. If the loan amount is high, additional limitations apply as to when the loan needs to be reclassified.

Cost of Loans The interest rates for consumer and ordinary loans as well as microcredits and the interest rates that apply in case of arrears are set by the Superintendencia Financiera de Colombia (2011b) and are valid for three months. For the time period 1 January 2011 to 31 March 2011 the interest rates valid for consumer and ordinary loans is 15.61% and for microcredits 26.59%. In 2008, the difference is 0.7 basis points between the two rates and since then the consumer and ordinary loan rates have been decreasing while the interest rates for microcredit increased (see Figure 7). The highest difference (10.38 bp) is in Q4 of 2010. The difference between the two interest rates are thus considerable and varied from almost zero difference to a 10 basis point difference.

The highest rate the institutions can charge (also in case of arrears) is limited to 1.5 times this set interest rate of the Superfinanciera. The rates charged by institutions are therefore somewhere between this interest rate and the interest rate cap. Rodríguez (2009, p. 68) states that the higher interest rates have not affected microcredit demand.

Figure 7: History of Interest Rates by Loan Type in Colombia from 2006 - 2011 (in %)



Source: Superintendencia Financiera de Colombia (2011b)

Fees for services vary significantly between institutions and loan sizes. A comparison of average fees for the two loan types shows that fees for microcredits are higher (Superintendencia Financiera de Colombia, 2011b) for institutions regulated by the Superfinanciera. Microfinance institutions can additionally ask for an upfront fee which is not

included in the calculation for the usury limit for microcredit loans. For the other loan types such a fee would be calculated into the usury limit. (Rodríguez, 2009, p. 68)

Loan size Loan sizes for both consumer loans and microcredit vary by institution type (NGO, cooperatives as well as banks and CFCs). When looking at the loan amounts of NGOs for the second trimester 2008 (Emprender, 2008, 14), over 95% of disbursed microcredit have a loan amount of less than USD 2'300 (which corresponds to 11 CLMMS) with 24% of loan amount of less than USD 229. The operations of USD 2'291 - 9'163 barely reach 4%. For cooperatives, the average loan balances are depicted in Table 10 for consumer and microfinance loans. The average loan balances for financial cooperatives are higher than for non-financial cooperatives for both loan types. The microfinance loan amount of the financial cooperative is close to the consumer loan amount of non-financial cooperatives. Judging by loan amount, these two types of loan are competing. However only 8% of non-financial cooperatives offer microfinance loans and it is unclear whether financial and non-financial cooperatives offer services in the same geographical areas and to the same clientele.

Table 10: Average Consumer Loan for Cooperatives in Colombia (in USD)

	Avg. Consumer Loan	Avg Microfinance Loan
Financial Cooperatives	2'153	1'419
Non-Financial Cooperatives	1'233	978

Source: Confecoop (2009, p. 65)

For banks and CFCs no data on loan amounts is publicly available. However, as described in section 4.4 when the regulator increased the maximum loan amount for microcredits, the involvement of banks and CFCs in the microcredit market increased. As mentioned by Emprender (2008, p. 14), even though there is no evidence that the increased credit amount is the reason for the higher involvement of banks, it is an indication that banks operate mainly in the higher microfinance loan segment.

To sum up, microcredits have higher interest rates and fees than consumer credits. During most of 2007 and 2008 the interest rates for the two loan types were approximately identical. The interest rates set by the Superfinanciera only have to be followed by regulated

institutions. There are indications that banks are more active in the higher and NGOs in the lower microfinance loan segment while cooperatives operate in the middle segment. For cooperatives, a distinction between consumer and microfinance loans is available and indicates that consumer loans have higher loan amounts than microcredits³⁶.

4.6 A Closer Look at Risk for Consumer Loans and Microcredits in Colombia

How does risk for the two loan types compare? As not data is available for all institutions active in the microfinance and consumer loan market the information is gather from various sources. Table 11 summarizes the risk measures for the different institutions for the two loan types. According to the Country Briefing of the MIX Market (MIX, 2011a), the risk measures for the credit type consumption are lower than for microenterprises. For financial cooperatives the two risk measures are comparable with slightly higher rates for microcredit. For NGOs and banks only data for the microfinance portfolio is available.

Table 11: Risk^a for Consumer Loans and Microcredits for different Institution Types in Colombia (in %)

Source	Date	Institution Type	Microcredit Risk	Consumer Loan Risk
MIX Market	Dec 2009	MFIs	5.9	3.8
Supersolidarity	June 2010	Financial Cooperatives	4.9	4.6
Emprender	Sept 2010	NGO	3.6	n/a
Emprender	Sept 2010	Banks	5.3	n/a

Source: Emprender and Asomicrofinanzas (2010b); MIX (2011a); Superintendencia de la Economía Solidaria (2011), author's own calculation.

^aFor MFIs, the risk measure for microcredit is the average PAR 30 of *Microenterprise* and *Microenterprise Only* credit types. For MFIs, the risk measure for consumer loans is the PAR 30 for *Consumption* credit type. For financial cooperatives, NGOs and banks risk classes B, C, D and E are included in the risk measure (Risk Classes A=Normal, B=Acceptable, C=Appreciable, D=Significant, E=Irrecoverable).

³⁶However, average numbers need to be treated with care as outliers may heavily influence average values.

Risk measures from the MIX Market, Supersolidarity and Emprender³⁷ are, however, not directly comparable. The MIX Market reports PAR 30, PAR 90 and write-off ratio whereas the regulators in Colombia use risk classes³⁸. The write-offs for the MIX Market data is not included in the risk measure. When a loan is written off it is taken off the balance sheet. The risk measures from the regulated institutions do also not include written off loans. Further, the MIX Market classifies an institution in the credit type consumption if more than 50% of the loan portfolio are consumer loans (see also section 2.3). The Supersolidarity and Emprender use the definition of the regulator to classify consumer loans and microcredits (see Table 9 on page 47). The risk measures for the institution types from the different sources indicate that, with the available data, no general conclusion on the risk of the two credit types microcredit and consumer loan may be reached.

However, risk measures seem to depend on the institution type: A comparison of the average loan portfolio risk between NGOs and banks in the microcredit sector over the past three years shows that banks were able to decrease their risk by 170 basis points (Table 12). The risk for NGOs has been increasing from 2007 to 2010 but still remains considerably lower than the risk for banks. Since risk varies considerably within the same institution type average risk measures have to be considered with caution: In September 2008, the risk of the portfolio for BCSC (bank) was 8.9%. For FMM Popayá (NGO) on the other side the risk was as low as 2%. However, the two banks Bancamía and Banca Agrario had risk values of 3.5% and 4.2%, respectively. This difference of risk amongst banks may potentially be explained by the institution type: BCSC is a downscaler, Bancamía an upgrader and Banca Agrario a greenfielder. This might indicate that the risk for banks which have experience in the microfinance sector is smaller, however further investigation is needed. Nevertheless, the development of the average risk measures indicates a trend for the two institution type which may be considered consistent. Rodríguez (2009, p. 69) explains the differences in risk for the banks and NGOs mainly by a learning curve for institutions in the microfinance market which does, however, not explain the increasing risk for NGOs.

³⁷The results from Emprender and Asomicrofinanzas (2010b) are the most recent available data and include the 50 top institutions in the microfinance market, including banks, CFCs, cooperatives and NGOs. No raw data is published.

³⁸Using the definition of the Superfinanciera this corresponds to the portfolio of risk class B, C, D, E divided by the GLP (Risk Class A=Normal, B=Acceptable, C=Appreciable, D=Significant, E=Irrecoverable).

Table 12: Development of Microcredit Loan Portfolio Risk for NGOs and Banks in Colombia from 2007 - 2010 (in %)

	Sept 07	Sept 08	Sept 09	Sept 10
NGOs	1.8	3.4	4.4	3.6
Banks	7.0	7.6	6.2	5.3

Source: Emprender and Asomicrofinanzas (2010b, p. 20)

Does institution size matter for risk? The MIX as well as Emprender and Asomicrofinanzas report risk measures for different institution sizes. The findings are contradictory. Emprender and Asomicrofinanzas find a negative relationship between institution size and risk whereas the MIX Market finds that large institutions have the highest risk and medium sized institutions the lowest risk (Table 13). The same limitations to the comparison apply as for Table 11. Further, the MIX Market does not specify how the classification into the size categories is defined. Emprender and Asomicrofinanzas (2010b, p. 4) use the size definitions presented in Table 9 on page 47.

Table 13: Loan Portfolio Risk by Institution Size for Colombia 2010 (in %)

Size	Emprender ^a Risk ^b	MIX Market Risk ^c
Large	4.7	7
Medium	6.3	2.5
Small	7.4	5

Source: MIX (2011a); Emprender and Asomicrofinanzas (2010a, p. 6)

^aIncludes the 50 largest institutions in the Microfinance Market in September 2010

^bRisk classes

^cPAR 30

To sum up, risk measures from risk from the different sources vary in their definitions which complicates a comparison. There are indications that risk depends on institutions type and varies with institution size. There are no reliable estimates for risk differentiated by loan type (consumer and microcredit) available for the majority of institutions. For the financial cooperatives, where such a comparison is possible, risk is similar.

5 Bosnia and Herzegovina

5.1 The Financial Institutions and the Development of the Loan Portfolio in BiH

Bosnia and Herzegovina (BiH) consists of two entities, the Federation of Bosnia and Herzegovina and the Republic Srpska. Banks are regulated by the Banking Agency of the Federation of Bosnia and Herzegovina and the Banking Agency of the Republic Srpska according to the location of the bank. Since 2006, the two Banking Agencies also regulate microcredit organizations (MFIs³⁹). Regulated financial institutions (including microfinance institutions) report data to the Banking Agencies which in turn provide data to the Central Bank of Bosnia and Herzegovina (CBBH). In 2009, the Central Registry of Credits was established. Banks report data on a mandatory basis and MFIs on a voluntary basis. (MIX, 2011b)

By the end of 2009 there are 30 commercial banks. The five major banks (UniCredit Group, Hypo Alpe Adria Group, NLB Group, Volksbank International and Poteza Adriatic Fund Amsterdam) contribute 61.8% of loan market in 2009 (CBBH, 2009b, p. 24). A high percentage of banks in BiH are foreign banks (Wisniwski, 2003, p. 3),

According to the laws on microfinance, which are in place since 2007, microcredit organizations (MCOs) have to transform into either non-profit or for-profit institutions. The laws of the two Banking Agencies are similar and amongst other, set a maximum loan amount. It is USD 7'000 and USD 35'000 for non-profit and for-profit institutions, respectively. (MIX, 2011b) As reported by CBBH (2009b, p. 60) at the end of 2009 there are 26 licensed microcredit organizations of which 22 are non-profit foundations and four are for-profit companies.

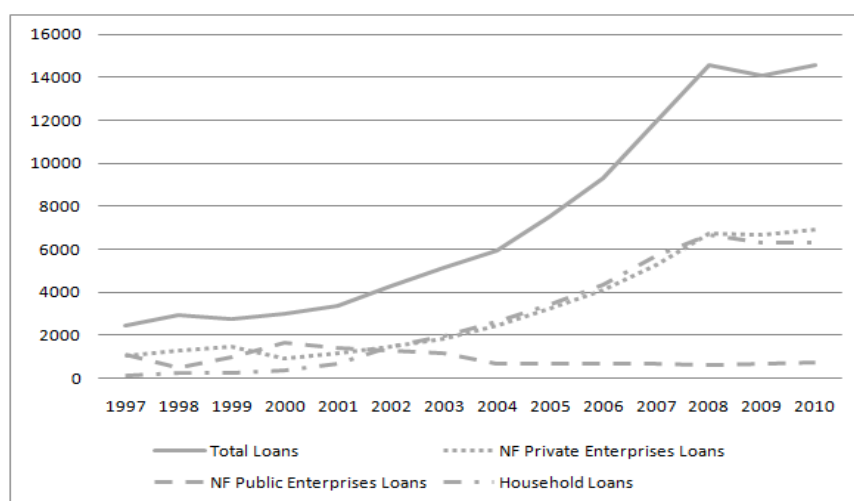
Which are the main institutions in the microfinance and the traditional consumer loan market? The CBBH does not report loan portfolios of the institutions separately and moreover, the microcredit portfolio is not reported. It is therefore not possible to identify the major providers of consumer loans and microcredit from NMSIs with the data from the CBBH. How does the microfinance market look like? As reported to the MIX Market, ProCredit Bank and MIKROFIN have the largest microcredit portfolio in 2010 followed by EKI. But not only MFIs are active in the microfinance market. As reported by Pytkowska, Koryński, and Mach (2009, p. 54) the commercial banks ABS, Fima Bank, Intesa Sanpaolo,

³⁹To avoid introducing another abbreviation for microfinance institutions, the microcredit organizations in BiH are referred to as MFIs. In the literature the abbreviation MCO is generally used.

NLB Tuzlanska Bank, Nova Banka Banja Luka, Raiffeisen Bank, UniCredit Bank and Volksbank are also active in the microfinance sector. The micro-consumer loan portfolio for MFIs reporting to the MIX Market is identified. The MIX Market data for 2009 show that MIKROFIN has the largest micro-consumer loan portfolio followed by ProCredit Bank and Partner. In 2008, Lok Microcredit foundation also reported micro-consumer loans, amounting to the second highest reported figure.

Figure 8 shows the development of the Bosnian total loan portfolio. This provides a general description of the financial sector in BiH. The total loan portfolio as well as the categories public non-financial enterprise (NF Public Enterprise), private non-financial enterprise (NF Private Enterprise) and household loans⁴⁰ are depicted. The GLP of the loan categories is shown in Bosnian Mark to observe the trend without any exchange rate effects. Total loan portfolio has steeply increased until 2008 when the loan portfolio contracted. Private Enterprise and household loans show similar developments since 1997 and also both started to decrease in 2008.

Figure 8: The Development of the Loan Portfolio in BiH from 1997 - 2010 (in million KM)



Source: CBBH (2010), author's own calculations. Note: this is the loan portfolio of regulated institutions.

⁴⁰This is a selection of available categories, they thus do not sum up to total loans.

5.2 The Development and Current State of the Consumer Loan Market in BiH

This section provides an overview of the development of consumer loan. The identification of consumer loans is not straightforward. Only the share of loans dedicated to households is reported to the CBBH by all institutions. This includes amongst other consumer loans. To describe the development of the consumer loan market the proxy household loans is used.

As described by Wisniwski (2003, p. 11) demand from households for consumer goods is high in the aftermath of war. This high demand meets the perception of banks that households with stable wage income are less risky than businesses. Further, especially the foreign banks are experienced in providing consumer loans.

The CBBH publishes data on loans to the household sector. Data on consumer loans is not published separately for regulated institutions. The information of the share of consumer loans is gathered by examining data of a few major banks. In the Annual Report 2010 of the CBBH it is stated that at the end of 2009 81.8% of household loans are consumer loans⁴¹. The share of consumer loans in household loans was 68.5% in 2007 and stayed roughly constant (68.3% for 2008 and 67.3% for 2009) until 2010 when it increased to 81.8% CBBH (2007, 2008a, 2009a, 2010).

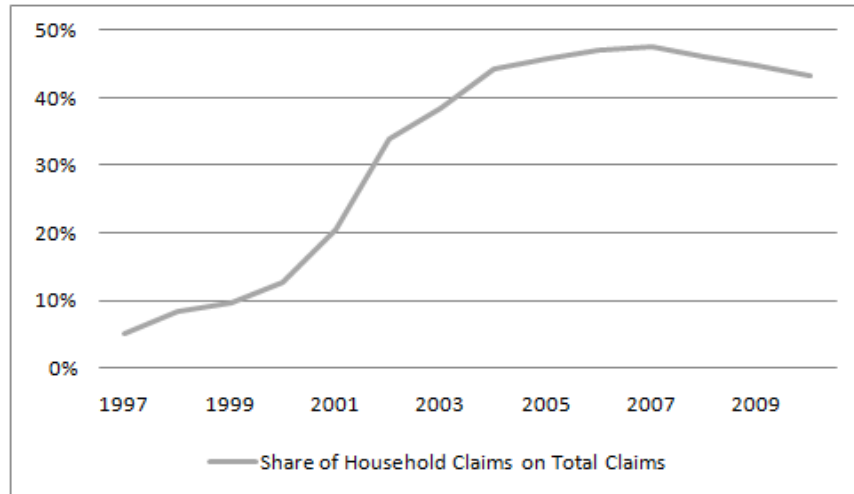
The household loan category includes, apart from consumer loans, loans related to housing (9.3%), business start-ups (2.9%) and credit cards (6%) for the end of 2010. As the largest share of loans is for consumption purposes (81.8%), household loans may be used as a proxy for the development of consumer loans. (CBBH, 2010, p. 85)

For 2010, the share of household loan of total loans amounts to 43.3%. The share of the household sector of total loans has been increasing since the beginning of the CBBH in 1997 and reached the highest level in 2007 (Figure 9). Since 2007, the share of the household sector has decreased. However, as noted above, the share of consumer loans in the household portfolio has increased. The share of consumer loans of total loan portfolio decreased from 2008 to 2009 (from 31.4% to 30%) but increased from 2009 to 2010 by 5.4 percentage points⁴².

⁴¹As reported by seven major banks which at the end of 2009 contributed to 71.7% of all household claims (CBBH, 2009b, p. 37)

⁴²In 2008, the share of household loans of total portfolio is 46% and consumer loans hold 68.3% of household loan portfolio, thus the share of consumer loans of total loan portfolio is 46% multiplied by 68.3%. In 2009 and 2010, household share is 44.71% and 43.31% while consumer loans share is 67.3% and 81.8%, respectively and consumer loan shares on total loan portfolio are calculated similarly as for 2008.

Figure 9: Share of Loans to Households on Total Loan Portfolio in BiH from 1997 - 2010 (in %)



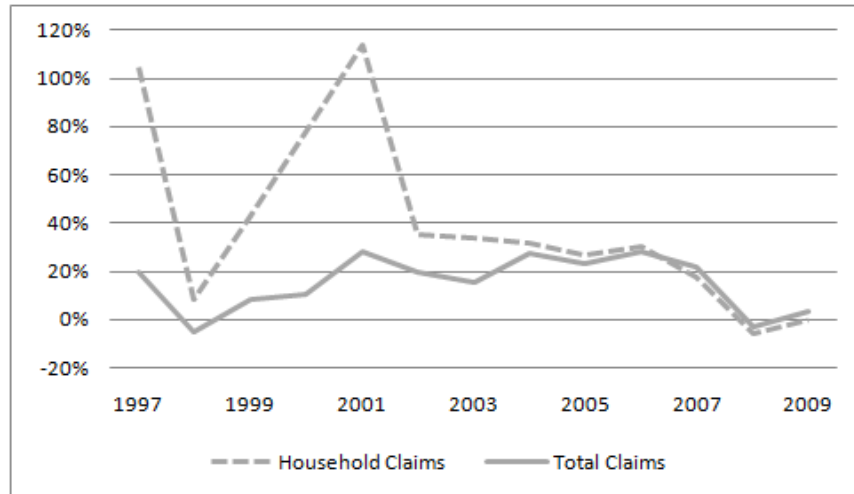
Source: CBBH (2010, p. 173), author's own calculations. Note: This is the loan portfolio of regulated institutions.

Comparing growth rates of total loan portfolio and household loan portfolio provides further insight into the development of the household loan portfolio. Figure 10 displays growth rates from 1997 to 2009 for the household portfolio and total loan portfolio. The growth rate of household claims has been steadily growing between 1998 and 2001 reaching highest growth rates of over 100% in 2001. From 2001 to 2002 a deep contraction of growth rates is observed and from 2002 onwards the household portfolio grew at approximately the same speed as total loan portfolio. In 2008, negative growth rates are reported for both, total and household loan portfolio.

A negative relationship between size of bank and loan portfolio growth is found: Small banks reported high loan portfolio growth rates whereas large banks reported negative loan portfolio growth for 2009. As mentioned by CBBH (2009b) this “may indicate unrealistic assessment of customer risk” (p. 35) and might prove to be a challenge in the future.

To sum up, the consumer loans market accounts for over 40% of total loan portfolio in 2010 and its importance has been increasing over the past ten years. Growth rates were exceptionally high in the late 1990s and early 2000s. Since 2005, the loan portfolio for households follows similar growth rates as total financial sector. Since 2007, the entire loan portfolio experienced negative growth rates.

Figure 10: Annual Growth Rates Household and Total Loan Market in BiH from 1997 - 2009 (in %)



Source: CBBH (2009b), author's own calculations. Note: This is the loan portfolio of regulated institutions.

5.3 A Brief Overview of the Microfinance Market in BiH

After the 1992 - 1995 Yugoslav war ended with the Dayton Peace Agreement international agencies promoted microfinance to develop the post-conflict economy⁴³. Most institutions active in the microfinance market today started operations in 1997. (Berryman & Pytkowska, 2003, p. 1 - 2)

The CBBH and the MIX Market provide data on the gross loan portfolio of the microfinance industry (Table 14). The values of the regulator and the MIX Market are not identical but similar. Both identify a sharp contraction in microfinance portfolio between 2008 and 2010. The gross loan portfolio reported to the CBBH (2008b, 2009b) amounted to USD 778 million in 2008 and USD 611 million in 2009 which corresponds to a 18.5% decrease in loan portfolio. The MIX Market reports a total gross loan portfolio of USD 463 million for the end of 2010. This corresponds to a contraction of roughly 30% compared to 2009.

Data on micro-consumer loans is available from the MIX Market and the CBBH and some further insights into the micro-consumer loan market are presented by previous researches. Data from the MIX Market shows the micro-consumer loan portfolio amounts

⁴³For a discussion of the development programs see e.g. Welle-Strand, Kjøllesdal, and Sitter (2010).

Table 14: Microcredit Loan Portfolio in BiH from 2007 - 2010 (in million USD)

Year	2007	2008	2009	2010
CBBH	592	778	611	n/a
MIX Market	883	777	659	463

Source: CBBH (2007, 2009b); MIX and CGAP (2009); MIX (2011b)

to USD 65 million for 2008 and USD 45 million for 2009 for reporting MFIs. The share of micro-consumer loans in the GLP has stayed roughly constant for 2008 and 2009 at 10%. Thus, micro-consumer loans contracted in the same extend as GLP. At the end of 2008, as reported by CBBH (2008b, p. 36) MCOs' share of loans to individuals is 14%. By the end of 2009 the share decreased to 12.7%. This information is available from the Credit Registry which, at the end of 2009, MCOs still update on a voluntary basis. Therefore, the share of loans from MCOs reported here does not include all MCOs. Nevertheless, according to CBBH (2009b, p. 35) the availability of data from more MCOs indicates that the importance of MCOs was underestimated in previous years. Thus, the data reported to the MIX Market may be considered a lower bound. The study from Maurer and Pytkowska (2010) confirms the increased borrowing for consumption purposes. Chen Chen and Chivalkul (2008, p. 13) describe consumption needs as the main reason to take on a loan and Matul and Tsilikounas (2004, p. 14) find that households take consumer loans from MFIs and department stores. Commercial banks enter the microfinance market through consumer lending and are positioned in the upper microfinance market as described by Wisniwski (2003, p. 7 - 8, 14).

Until 2008, the Bosnian microfinance market was considered a poster child for the industry. However, especially Bateman (2010) points out the lack of development of the small and medium sized entrepreneur sector. The majority of development initiatives was concentrated in the microfinance sector. This is often referred to as the *loan gap*. This refers to the unserved entrepreneurs for which microcredits are too small and commercial business loans are out of reach mainly due to the too high loan sizes. Barrès (2001, p. 32) notes that in search for new clients, some MCOs have decided to enter this market and that clients may take on concurrent loans to reach their desired loan amount. To sum up, the microfinance market is experiencing negative growth in loan portfolio since 2008 which is continuing through until today.

5.4 How Competition Changed the Microcredit Environment in BiH

The Bosnian microfinance sector is characterized by intense competition between MCOs as well as from commercial banks. In many regions, microfinance clients have access to more than one lender and microfinance lenders are in direct competition. Sapundzhieva (2011) investigated into growth and penetration rates in sub-regions of Bosnia and Herzegovina. She found that the high growth rates in 2007 mainly concentrated in a few large sub-regions and that the market in these large sub-regions is close to or has already reached its saturation point.

Commercial banks play an important role in the growth of the microfinance market. Barrès (2001); Berryman and Pytkowska (2003) report that commercial banks started offering loans with lower loan amounts. Commercial banks are also active in the microfinance market. Berryman and Pytkowska (2003, p. 3) show that in 1999, commercial banks lowest loan amount was USD 11'904 whereas MCOs had average loan balances of USD 1'146. In 2001, commercial banks have decreased their minimum loan amount and disburse credits for USD 2'673. This is still a bit higher than for MSIs but the loan amounts may be considered within reach for clients in the microfinance sector. Maurer and Pytkowska (2010, p. 8) find that commercial banks offer micro-consumer loans and microenterprise loans and 14% of microfinance borrowers have loans from commercial banks and another 38% hold loans from commercial banks and MCOs. Further, loans from commercial banks have more desirable loan terms than loans from MCOs. To the author's knowledge, there is no general information available as to the lending method of the commercial banks in the microfinance sector. For example, on the website of UniCredit Group (2011) a loan for micro-business in agriculture asks for one or two guarantors depending on the size of the loan. This suggests that non-microfinance specific lending methodologies are used to disburse credits to microentrepreneurs by commercial banks but no general statement may be made.

The increased competition has lead many microfinance institutions to adopt policies and take measures to counteract the effects of increased competition. The adaption of existing products, creation of new products and extension into new markets as results from competition are mentioned by Barrès (2001); Berryman and Pytkowska (2003). For example, MCOs started to provide loans to salaried clients and pensioners. According to Maurer and Pytkowska (2010, p. 8) the share of MCO clients that are employed or in pension amounts to 33%.

MFI's also make changes to improve productivity and to decrease operating costs. Berryman and Pytkowska (2003) mention that MFI's deviate from the zero tolerance delinquency policy in order to decrease operating costs. Barrès (2001, p. 32) observes measures to improve productivity to include a departure from microfinance specific lending methodologies, for example faster application, disbursement and collection procedures. Also, deviations from loan terms are observed (e.g. decreasing repayment frequency). One major deviation from microcredit specialized lending methodologies (such as enterprise cash flow analysis) is the almost unique reliance on guarantors. Maurer and Pytkowska (2010, p. 6) find that the majority of loans are backed up by guarantors with a stable income and the development of an "easy credit culture" (p. 8) is noted as a factor influencing the microfinance market in BiH.

Changes in lending methodology are thus observed as a reaction to increased competition. The observed changes are generally away from microfinance specific lending methods. So, both MSI and NMSI use non-microfinance specific lending methods to serve the microfinance market. Nevertheless, the Bosnian microfinance sector had low arrears for a long time (up until about 2008). Barrès (2001, p. 32 - 33) mentions that the delinquency management of MFI's and the general good credit culture have helped keeping arrears low. However, she also notes that clients start to take on multiple loans and that communication between MFI's is starting to cease due to competition, which in absence of a formal information sharing institution (such as a credit bureau), might contribute to an incorrect assessment of clients' repayment capacity.

Since late 2008 and continuing until today, the loan portfolio quality is deteriorating. This leads to growth of loan write-offs and losses for MFI's. According to the CBBH (2009b, p. 59) the high level of funds, lack of supervision as well as poor lending methodologies, in combination with pressure from the economic crisis, lead to decreasing portfolio quality.

This development is shown in Table 15 for the total banking and microfinance market. Two different risk measures are used by the CBBH and the MIX Market. The CBBH reports non-performing loans (NPL) as well as NPL including write-offs (losses which are off balance sheet). In the measure *NPL* the risk categories C (substandard asset) and D (dubious asset) are included, the measure *NPL incl. Write-off* additionally includes all written-off loans. The measures including write-offs are only available until 2006 and show that considerable amounts were written off in 2006. It is not clear how these two measures are to be compared. The NPL for the total banking sector was decreasing until 2007 when the risk measure started to increase. The same development may be observed for the microfinance sector.

Table 15: Risk Measures for the Total Banking Market and the Microfinance Sector in BiH from 2005 - 2010 (in%)

Year	2005	2006	2007	2008	2009	2010
Total Banking Sector						
NPL ^a	5.3	4	3	3.1	5.9	n/a
NPL incl. Write-off ^b	6.9	10.2	n/a	n/a	n/a	n/a
Microfinance Sector ^c						
PAR 30	1.2	0.8	1.3	2.5	8.2	8.6

Source: CBBH (2009b); MIX and AMFI (2009); MIX (2011b).

^aThe NPL includes the risk categories C (substandard asset) and D (dubious asset).

^bWrite-off includes the risk categorie E (loss - off balance sheet)

^cFor MFIs reporting to the MIX Market

The Country Briefing of the MIX reports a PAR 30 of 8.6% in 2010. When looking at the data reported to the MIX Market by the individual MFIs, average, median and weighted PAR 30 are roughly two percentage points higher. Further, reported write-off ratios are as high as 24.2% with average write-off ratio of 10.56% (median of 8.59%) in 2010. It is not identified, how the MIX arrived at the estimate of 8.6% for 2010. As an approximation, total risk is calculated (sum of PAR 30 and write-off ratio). In 2010, the median risk for MFIs reporting data to the MIX Market is 18.95% and the average is 21.41%. Average weighted risk with gross loan portfolio is 17%. All measures are considerably higher than the reported figure in the MIX Market Country Briefing. For the MFIs reporting to the CBBH PAR 30 is available for 2008 and 2009. The amount of loans that are 30 days late

almost tripled from 2008 to 2009. The same can be observed for loans late more than 90 days. (CBBH, 2009b, p. 60) Even though the different measures may not necessarily be compared a sharp decrease in loan portfolio quality is observed since 2008.

The study from Maurer and Pytkowska (2010) finds that overindebtedness amongst microcredit clients is as high as 17% and another 11% are severely indebted and at risk of becoming overindebted⁴⁴. This includes both microfinance clients from MFIs and commercial banks. They find that a higher percentage of commercial bank microfinance clients is at risk of becoming overindebted or is overindebted than for MFIs.

To conclude, competition in the Bosnian microfinance market is high and commercial banks play an important role. Risk was historically low but increased notably in 2008 and continues to be high. With the available data systematic differences in lending methodologies between MFIs and commercial banks may not be confirmed. The background and the entrance of commercial banks into the microfinance market by lowering loan amounts might indicate that lending methodologies do differ. As described, MFIs deviate from microcredit specialized lending methodologies. There is no differentiation between entrepreneur and consumer microcredits available neither for the traditional nor microfinance market.

⁴⁴The different levels of indebtedness are defined according to the percentage of the net household income used (100% for overindebtedness and 75% for at risk of becoming overindebted) to service debt (p. 3)

6 Paraguay

6.1 The Financial Institutions and Development of the Loan Portfolio in Paraguay

This section presents the two regulators relevant for the examination of the consumer loan and microfinance market and the institutions active in the two markets are identified. Further, an estimation of total loan portfolio is provided and the involvement of the different institution types is described.

There are two regulators for financial institutions: Banks and financial companies (*financieras*) are regulated by the Superfinanciera which is a division of the Central Bank of Paraguay (BCP). Cooperatives are regulated and supervised by the Nation Institute for Cooperatives (*Instituto Nacional de Cooperativismo*, INCOOP). NGOs providing financial services are not regulated. The Superfinanciera reports the loan portfolio for different loan types (e.g. consumer loans, agriculture loans, wholesale commercial loans) but does not report on microcredit. INCOOP reports the loan portfolio in total and does not differentiate the loan types.

Banks As of May 2011, there are 15 banks in Paraguay and all offer consumer loans. Banco Itaú has the largest consumer loan portfolio (34% of total consumer loan portfolio in May 2011). Banco Continental, Banco Familiar and Visión Banco are the next largest consumer lenders. In May 2011, Banco Familiar has the highest share of the loan portfolio dedicated to consumer loans followed by Banco Itaú and Banco Atlas. These four banks are specialized consumer lenders, focusing mainly on this credit type. (Superfinanciera Paraguay, 2011)

According to the MIX Market, two banks offer microcredit in March 2011. Visión Banco has the largest gross loan portfolio followed by Banco Familiar. These two banks therefore offer both loan types, consumer and microcredit, and are large players in both markets.

Financial Companies INTERFISA has the largest consumer loan portfolio as of May 2011 followed by El Comercio and Solar. Tu Financiera is the only financial company that offers only consumer loans and no other traditional loans. FINEXPAR and Financiera Rio dedicate around 50% of their loan portfolio to consumer loans. (Superfinanciera Paraguay, 2011)

As reported to the MIX Market, INTERFISA and El Comercio are both active in the microfinance market. These two institutions thus provide consumer loans and microcredit. Christen (2001, p. 7) mentions that a notable amount of financial companies offer both consumer and microenterprise credit. This indicates that more financial companies offer microcredit, however, no data is available to investigate this further.

Cooperatives INCOOP classifies cooperatives by size applying a weighting system⁴⁵ into the three categories type A, B and C. Type A are the largest and Type C the smallest cooperatives. Cooperatives are further divided into categories, for example financial (*cooperativas de ahorro y crédito*), production (*cooperativas de producción*) and other cooperatives. As reported by Instituto Nacional de Cooperativismo [INCOOP] (2011) there are 26 type A, 52 type B and 515 type C financial cooperatives in 2011. Cooperatives are active in the microcredit as well as the consumer loan market. It is, however, difficult to determine which cooperatives offer microcredit (Programa de las Naciones Unidas para el Desarrollo en Paraguay [PNUD], 2010, p. 90). INCOOP does not publish data on its member in a disaggregated form neither for consumer- nor microloans. The Cooperativa Universitaria (which is a Cooperative Type A) reported to the MIX Market until 2007. Medalla Milagrosa as well as the Cooperative San Cristóbal also offer microcredit (Micro Service Consult and Kreditanstalt fuer Wiederaufbau [MSC and KfW], 2005)

NGOs PNUD (2010, p. 90) mentions that NGOs are active in the microfinance sector and are reaching the poor. They also provide funding to community banks. As NGOs are not regulated no data is centrally available. It is thus not straightforward to identify NGOs offering microcredits or consumer loans. For example, Fundación Paraguaya states in the Annual Report 2010 that consumer loans are offered. This is confirmed by MSC and KfW (2005, p. 25), which finds that Fundación Paraguaya is the only NGO that provides microcredit on a large scale. The MIX (2011c) also lists KV Bank and Fundación Microsol as NGOs providing microcredit.

⁴⁵for detailed information see INCOOP (2010c, p. 70).

Other As described by PNUD (2010, p. 91) there are private lenders, credit houses (*casas de crédito*) and consumer credit houses (*casas de consumo*) that offer credit to the poor. The credit houses and private lenders do not generally offer financing for consumption goods but for operating capital. Consumer credit houses provide mostly electronic appliances and furniture for the household. These three financial service providers do not generally distinguish consumer and microloans and do not have any microfinance specific lending methodologies. (PNUD, 2010, p. 91)

As these institutions do not have the same regulator, an estimation of total loan portfolio is not readily available. Therefore, information from the Superfinanciera and INCOOP is gathered to arrive at an estimate of total loan portfolio (Table 16). By the end of 2010, banks have the largest loan portfolio (USD 5'726). The sum of the loan portfolio of banks, financial companies and cooperatives Type A amounts to USD 7'341 million, or 97.6% of total loan portfolio (BCP, 2010, p. 25). Cooperatives are an important provider of loans with a total loan portfolio for cooperatives Type A and Type B of USD 1425 million. This is considerably higher than the loan portfolio for financial companies (USD 367 million). The loan portfolio of the financial cooperatives has grown by 29.9% during 2010, which is almost three times higher growth rate than for 2009. Of the USD 1'248 million loan portfolio for cooperatives type A the financial cooperatives of type A have a loan portfolio of USD 910 million at the end of 2010, contributing 72.9% of loan portfolio. Thus, even though the financial cooperatives hold a high percentag of loans provided by cooperatives, other cooperatives also provide loans. (INCOOP, 2010a) To gain insight into the other cooperatives providing loans, an approximation is applied. For 2010, only data on the financial cooperatives and the non-financial cooperatives are available. In order to distinguish the type A non-financial cooperatives' loan portfolios the relations as of March 2011 are used in Table 16 (which is for December 2010). For March 2011, financial cooperatives type A contribute 74.9% of the total loan portfolio and 24.6% is provided by cooperatives for production (INCOOP, 2011). It is of interest that roughly 25% of loans of cooperatives type A are disbursed by production cooperatives. These may likely be used for business purposes and might also be used by microentrepreneurs. The size of the loan portfolios of production cooperatives type A is similar to the financial companies'. Cooperatives of type B also provide loans through financial financial, production, center and other cooperatives. (INCOOP, 2010b) No data is available for NGOs.

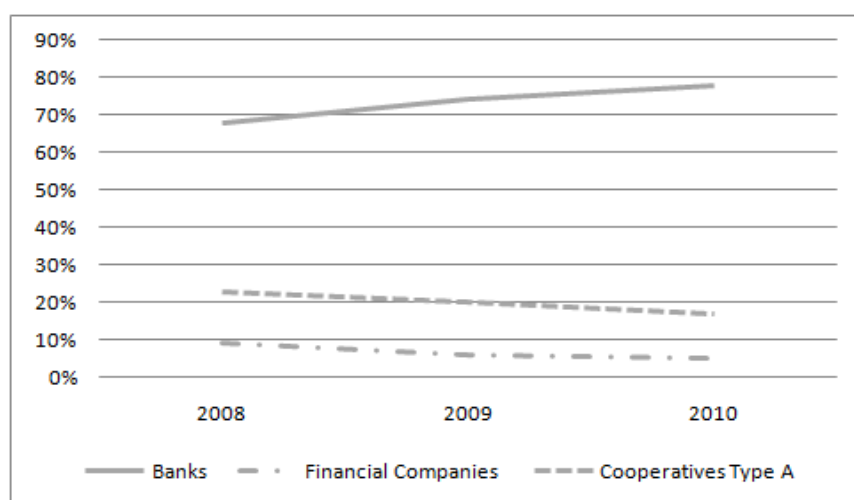
Table 16: Loan Portfolio in the Paraguayan Financial System in December 2010 (in million USD and %)

Institutions	Loan Portfolio	Share of Total Loan Portfolio
Banks	5'726	76.1%
Financial Companies	367	4.8%
Cooperatives Type A	1'248	16.6%
Financial*	934	
Production*	307	
Other*	6	
Cooperatives Type B	177	2.4%
Financial	147	
Centers	16	
Production	10	
Other	2	
Cooperatives Type C	n/a	
NGOs	n/a	
Total	7'518	100%

* This uses the relations as of March 2011 applied on the loan portfolio of December 2010 due to lack of data. Source: BCP (2010); INCOOP (2010a, 2010b, 2011), author's own calculations.

The involvement of banks, financial companies and cooperatives type A may be compared over time. The development of the loan portfolio shares the three institutions types are shown in Figure 11 for 2008 to 2010. The share of banks is increasing while the shares of financial companies and cooperatives Type A are decreasing. Banks are increasing their importance in the total financial market more and more.

Figure 11: Loan Portfolio Shares of Banks, Financial Companies and Cooperatives Type A in Paraguay from 2008 - 2010 (in %)



Source: BCP (2009, 2010); INCOOP (2010a, 2010b, 2011). Note: this is the loan portfolio of the institutions reporting to the Superfinanciera and INCOOP.

6.2 The Development and Current State of the Consumer Loan Market in Paraguay

For institutions reporting to the Superfinanciera (banks and financial companies) the loan portfolio is differentiated by loan types (i.e. consumer loans). However, for cooperatives reporting to INCOOP this is not the case and it may not be identified on a general basis which cooperatives offer consumer loans. This section therefore focuses on the consumer credit market as served by banks and financial companies.

Table 17 depicts the share of consumer loans of total, banks' and financial companies' loan portfolio. The share of total credit disbursed by banks and financial companies su-

pervised by the Superfinanciera has been steadily increasing since 2007 and amounts to 12.3% at the end of 2010. This share indicates that 12.3% of total loan portfolio of the two institutions types are dedicated to consumer loans. The share for banks and financial companies show the share of their respective total loan portfolios that are allocated to consumer loans. For example, 8.6% share of consumer loan for banks in December 2006 describes the relation of consumer loans from banks to the total loan portfolio of *banks*. Thus, the shares of the two institution types do not add up to the total. The consumer credit share of total loan portfolio for banks and financial companies supervised by the Superfinanciera shows that banks are increasing their involvement in consumer credit whereas the share of financial companies has roughly remained constant over the past four years.

Table 17: Consumer Credit Share of Total Loan Portfolio for Paraguay from 2006 - 2010 (in %)

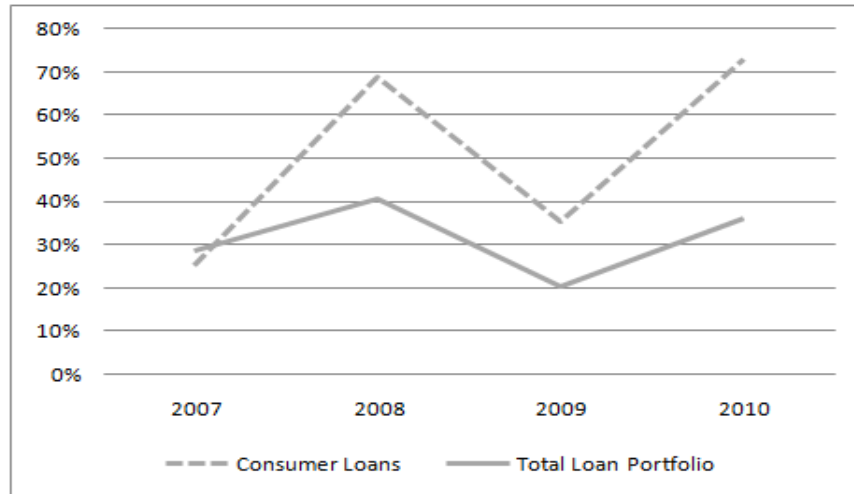
Institution	Dec 2006	Dec 2007	Dec 2008	Dec 2009	Dec 2010
Banks	8.6	8.3	9.5	10.4	13.0
Financial Companies	32.2	28.9	33.9	29.6	31.0
Total Loan Portfolio	7.3	7.2	8.6	9.6	12.3

Source: Superfinanciera Paraguay (2011), author's own calculation. Note: This includes the portfolio of banks and financial companies regulated by the Superfinanciera. The shares indicate the share of total loan portfolio for the two institution types dedicated to consumer loans. For example, 8.6% indicates that this amount of total loan portfolio of *banks* is dedicated to consumer loans. The row *Total* combines the consumer loan portfolio of both institution types and calculates the share of total loan portfolio.

The data on consumer credit includes consumer loans and credit cards. Credit cards amounted to 5% of total loan portfolio in 2010 and are not restricted for private use but may also be used for commercial purposes. The values reported on consumer credit are thus not restricted to usage of households.

Figure 12 shows growth rates for consumer credit and total loan market for 2006 to 2010 for banks and financial companies regulated by the Superfinanciera. The consumer loan portfolio shows almost twice as high growth rates for the time period 2006 to 2010. The high growth rates during 2010 is attributable to the increased consumer loan portfolio of banks, as opposed to financial companies, Superfinanciera Paraguay (2011).

Figure 12: Annual Growth Rates Consumer and Total Loan Market for Paraguay from 2006 - 2010 (in %)



Source: Superfinanciera Paraguay (2011), author's own calculation.
 Note: this is the loan portfolio of the banks and financial companies regulated by the Superfinanciera.

To sum up, the banks are increasing their involvement in the Paraguayan consumer loan market. The consumer loan portfolio of banks and financial companies regulated by the Superfinanciera amounts to 12.3% of total loan portfolio at the end of 2010. However, the cooperatives, which report to INCOOP are not included in the analysis because loans are not classified into different loan types. Cooperatives also show high engagement in the loan market but the shares allocated to consumer loans is not identified.

6.3 A Brief Overview of the Microfinance Market in Paraguay

The analysis of the microfinance market is complicated by the fact that microfinance is not regulated. Data available from predominately two sources are gathered and institutions active in the microfinance market are identified. For some MFIs a distinction of micro-consumer loans and microcredit is available and presented in this section.

A unique definition for microenterprises and microcredit does not exist. Most institutions use the amount of sales as criteria to identify microcredit. The ranges vary but are always below USD 85'000 sales per year. Frequently, the number of employees of the enterprise is used, often in combination with sales. The Microfinance Network (*Red de Microfinanzas*) defines microcredits as loans with loan size below USD 10'600 to en-

terprises with up to ten employees and annual sales below USD 95'000. (PNUD, 2010, p. 68, 70, 93 - 94)

How did the microfinance market develop? The first institution providing microfinance in Paraguay was an NGO (Fupacodes). However, the market remained small. PNUD (2010, p. 88) identified the informality of the microfinance market, credit risk as well as high operating costs as main barriers to enter the microfinance market. As many existing institutions were not willing to take on the uncertainties associated with adding a new product, assistance was provided by external institutions. In 1994, Micro Global Program (*Programa Global de Crédito para la Microempresa*) was started⁴⁶. It was supported by the Inter-American Development Bank and led to a broader establishment of the microfinance market in Paraguay. The program worked with established institutions: One state-owned bank and several privately owned financial companies participated. The participating financial companies were heavily engaged in the consumer loan market before the start of the program. There was consensus that microcredit specific lending methodologies were necessary to properly and successfully offer credit to microentrepreneurs. The program therefore provided not only credit lines to participating organizations but, more importantly, technical assistance and direct support for setup costs. (Christen, 2001; PNUD, 2010; Terberger, 2003) At the time when the program was initiated, high competition and delinquency in the traditional market as well as increased demand in the microfinance market provided incentives for the institutions to downscale. (Marulanda, 2006; PNUD, 2010, p. 82)

How does the market look like now? Data available on the microfinance sector is scarce. As outlined by PNUD (2010, p. 92 - 93) regulated institutions do not publish the portfolio dedicated to the microenterprise sector. It is therefore difficult to obtain reliable estimates of the microfinance sector. A study from PNUD (*Programa de las Naciones Unidas para el Desarrollo en Paraguay*) used surveys and direct contact with financial institutions to arrive at an estimate of the microcredit loan portfolio in 2009. Table 18 shows the share of institutions regulated by the Superfinanciera and INCOOP that provide microcredit. It was estimated that 42% of formal financial entities offer microcredit. In 2001, financial companies had the highest share (75%) followed by banks and cooperatives type A.

⁴⁶For elaborate discussions and descriptions of the program see e.g. Straub and Sosa (1999).

Table 18: Share of Regulated Institutions providing Microfinance Services in Paraguay (in %)

Institution	Share
Bank	67
Financial Companies	75
Cooperatives Type A	61
Cooperatives Type B	57
Cooperatives Type C	23
Total	42

Source: PNUD (2010, p. 68)

For financial companies type A, loans with a maturity higher than one year account for 43.6% of loan portfolio in 2010 and have grown by 42.5% from 2009 to 2010. (INCOOP, 2010a). This might be an indication of a move away from microcredits as the maturity of microloans is generally short. As mentioned in section 6.1, NGOs also provide microfinance services. According to MSC and KfW (2005, p. 25) Fundación Paraguaya is the only NGO that provides microcredit on a large scale. NGOs are, however, not included in the supply estimation of PNUD. Table 19 depicts data of the microfinance sector from PNUD and MIX Market. The results of the PNUD supply estimation are depicted in columns two to four and the MIX Market estimates in columns five and six in Table 19.

Table 19: Estimation of Microcredit Portfolio in Paraguay as of 31 December 2009
(in thousand USD)

Institution	PNUD			MIX Market	
	Microcredit Share ^a	Data Availability ^b	Loan Portfolio	N°	GLP
Banks	10/15	2/10	95'241	2	355'738
Financial Companies	9/12	4/9	242'883	2	147'220
Cooperatives Type A	14/20	5/14	5'324	n/a	n/a
Cooperatives Type B	n/a	n/a	708	n/a	n/a
Cooperatives Type C	n/a	n/a	n/a	n/a	n/a
NGOs	n/a	n/a	15'298	2	13'850
Total	33/47	11/33	359'457	6	516'710

Source: MIX (2009, 2011c); PNUD (2010, p. 92 - 93), author's own calculation

^aThe share of institutions offering microcredit

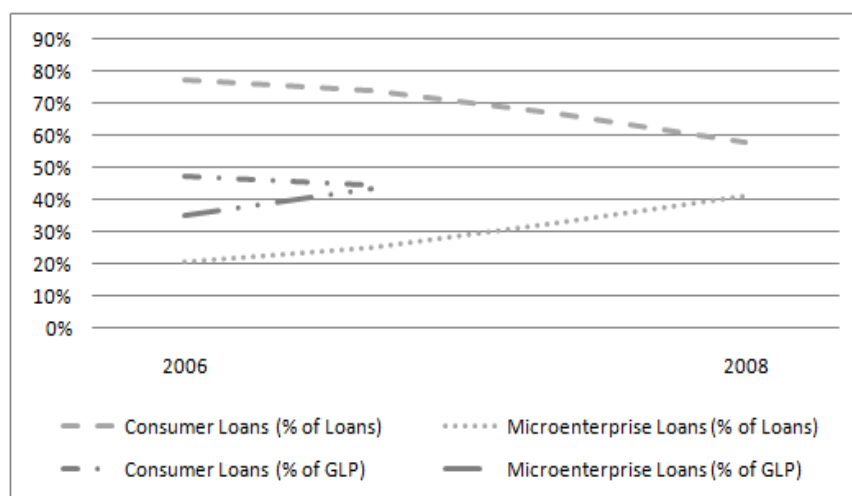
^bThe share of institutions offering microcredit that shared data with PNUD

For 2009, the loan portfolio of the microfinance sector is estimated to USD 359 million by PNUD. Financial companies hold the largest loan portfolio followed by banks and cooperatives type A. The *Microcredit Share*, which is the share of institutions offering microcredit, is between 66% and 75% for the involved institutions. The PNUD study only had access to a third of data available as described in column *Data Availability*. Thus, the loan portfolio may be considered a lower bound. In the last two columns the number of institutions reporting to the MIX Market as well as the GLP is noted. There are six MFIs reporting data for 2009. The six institutions reporting to the MIX Market have a considerably higher loan portfolio than the 11 institutions from the PNUD research. The main difference is for banks where the MIX Market reports a 3.7 times higher amount than PNUD. 8 of 10 banks that are providing microcredit do not report data to neither the MIX Market nor the PNUD research: The values is thus likely to be higher. The Cooperativa Universitaria, which is not included in the estimations, states in the Annual Report 2010 (p. 10) that loans for the microfinance sector amount to USD 150 million. This and the fact that 9 of 14 cooperatives Type A did not report indicates that the estimations, especially for cooperative type A, are also a lower bound. To sum up, the loan portfolios presented here serve as lower bounds especially for banks and cooperatives Type A. The identification of the *Microcredit Share* shows that NMSIs are active in the microfinance market. This may partly be explained by the above described development of the microfinance market.

For the MFIs that report to the MIX Market, the loan portfolio dedicated to micro-consumer loans and microcredit is reported. Figure 13 displays data from the MIX benchmark reports on the share of consumer loans and microenterprise loans in GLP and number of loans. Data is only available for the time period 2006 to 2008. The information available from the benchmark reports is inconsistent: For 2007, two different estimates are given. Nevertheless, a trend towards more microenterprise and less consumer loans may be identified. This trend is continuing in 2009 as mentioned in MIX (2011c) where a decrease of consumer loans by 51% and a 48% increase in microcredits is noted. However, the method of differentiating the two product types is not transparent and before 2008 no detailed data is published on the MIX Market. The approach of classifying the two loan types may be the same as described in section 2.3 and the same drawbacks would apply.

The micro-consumer loan portfolio of MFIs is available from the MIX Market. For 2008, a micro-consumer loan portfolio of USD 100 million and for 2009 of USD 132 million is reported to the MIX Market. The share of micro-consumer loans of GLP was 29% in 2008 and decreased to 25.5% in 2009. Thus, the trend of a decreasing share of micro-consumer loans in GLP as shown in Figure 13 continued until 2009.

Figure 13: Development of Shares in Loan Types for MFIs in Paraguay from 2006 - 2008 (in %)



Source: MIX (2007, 2008, 2010). Note: this is the loan portfolio of the institutions reporting to the MIX Market.

MSC and KfW (2005) also list a distinction between consumer loans and microcredit (Table 20). The microcredit shares are as high as 75% for the financial company El Comercio and 70 % for the bank Visión. Shares contributed to consumer credit amount to a maximum of 49%.

To sum up, the microcredit market is not regulated and data availability is limited. The consumer loan portfolio constitutes around 50% of loan portfolio of institutions offering consumer loans and microcredit but an increased focus on microcredit is observed.

Table 20: Financial Companies' and Banks' Involvement in Consumer Loans and Microcredit in Paraguay in 2004

Institution	Share Microcredit	Share Consumer Loans ^a
Visión S.A. de Finanzas	70.3%	27.7%
Financiera Familiar	40.2%	46.7%
Interfisa ^b	48%	49%
Financiera El Comercio	75%	21%

Source: MSC and KfW (2005, p. 27 Table 13)

^aincl. credit cards where applicable

^bData for 2003

6.4 Lending Methodologies, Loan Sizes and Risk in Paraguay

As described, the microfinance market has been initiated by the development program Micro Global. An important part of this program is the introduction of microfinance specific lending methodologies to the financial institutions. Before entering the Micro Global program the participating institutions were serving the traditional market and often focused on consumer loans. This section describes lending methodologies applied in the microfinance market by the different institution types. Loan sizes and risk are examined to describe differences between the two loan types

Lending Methodology The BCP⁴⁷ established basic minimum rules (proof of identification) for loan disbursements which are the same for all credit types. PNUD (2010, p. 47, 81, 97) finds that institutions providing microcredit request proof of identification and payment of business license tax and that the time it takes to proceed a loan is the same for microcredits and consumer loans (average of 3 days).

According to PNUD (2010, p. 68), 56% of observed institutions have a specifically developed product for microenterprises and also use different credit policies than for consumer credit. The institutions that do not have a designated microcredit product offer credits to the microfinance sector with the consumer loan lending method. However, they adapt the requirements depending if the client is self-employed or a salaried worker and the planned usage of the credit is frequently identified. There is, however, a difference of the availability of a microcredit specific product depending on the institution type. Banks, financial companies and cooperatives type A all have microcredit specific products. For coopera-

⁴⁷BCP Resolution No. 1, Act 60 of 28.09.2007

tives type B and C, only 45% and 22%, respectively have microcredit specific products. Nevertheless, class B cooperatives are found to better adopt lending practices (such as loan terms and frequencies) to suit the need of the poor than other institutions. They also explicitly allow informal microentrepreneurs to take credit and cooperatives type B and C more often serve informal microentrepreneurs than other banks or financial companies. (PNUD, 2010, p. 82)

If requirements are not met or the loan amount is high co-signing (*codeudoría*) is most commonly used to reduce uncertainty (PNUD, 2010, p. 80).

MSC and KfW (2005, p. 30, 31) mention that due to the Micro Global program lending methodologies are more or less standardized and that cash-flow analysis is the most frequently used tool to assess the repayment capacity for individual microcredits. The microcredit specific trait that one loan officer is responsible for the whole lending process is also observed. Cooperatives use more diversified lending methodologies as already mentioned.

To sum up, lending methodologies for microfinance loans seem to be largely adapted to suit the need of microentrepreneurs. There are also indications that the microfinance definition of consumer loans is followed. For example, the NGO Fundación Paraguaya states in its Annual Report (2010, p. 17) that consumer loans are disbursed to low-income salaried clients only.

Loan Sizes As described by Rhyne and Christen (1999, p. 20) loan sizes have decreased on average by 30 percent over the period 1995 to 1998. The average loan size reported in the MIX Market is USD 1191 for 2009. However, a closer look at the data in the MIX Market shows that the average loan sizes for different institutions vary from USD 304 to USD 3550. In the PNUD (2010) study the average loan size was about USD 1'900. This is higher than the amount reported to the MIX Market. The spread of loan amounts is also observed for the Paraguayan study (PNUD, 2010, p. 95 Table 47). About 33% of loans have a loan balance below USD 1'000, the number of disbursed loans is the largest for these small loans. The largest portfolio is for loans with amounts between USD 2'000 and USD 4'000. There are also a few microcredits disbursed with loan amounts between USD 6'000 and USD 10'000. PNUD (2010, p. 73) states that cooperatives have lower loan amounts than banks and finance companies, indicating that the loan amounts differ for institution types. The data from the MIX Market for 2009 partly supports this finding. The two NGOs have the lowest loan sizes (Microsol USD 304 and Fundación Paraguaya

USD 350). For banks the average loan sizes vary. For example, Visión Bank has the highest average loan amount (USD 3'550) but Bank Familiar's average loan amount is only USD 770. Loan sizes vary considerably between different institutions but no general conclusion on institution type and loan size can be reached.

There is no data available on the distribution of loan amount of microcredits and consumer loans. As shown in Figure 13 (on page 75) the GLP share of consumer loans is considerably lower than the number of consumer loan shares. The opposite holds for microcredit. This indicates that consumer loan amounts are generally smaller than the loan balance for microcredits for the years 2006 to 2008.

Risk Total risk for institutions offering microcredit is higher compared to their peer groups (e.g. MSC and KfW, 2005; MIX, 2007, 2008, 2010). When the risk is split up into the different credit types it is observed that risk for microcredits is lower than for the rest of the portfolio. For example, the financial company El Comercio reports a PAR 30 of 3.3% for the microcredit portfolio and 8.3% for the consumer loan portfolio (MSC and KfW, 2005, p. 33). PNUD (2010, p. 88, 93, 110) find that average PAR 90 is 5.84% for the total portfolio and 2.1% for microcredits. However, PAR 90 for microcredits ranged from 0.6% to 5%. The available data suggest that generally risk for microcredits tends to be lower than for consumer loans. However, as MSC and KfW (2005); PNUD (2010) note, most credits are for working capital or purchase of fixed assets for the microenterprise and the majority of institutions do not finance start-up enterprises.

7 Findings

7.1 Micro-Consumer Lending Methodologies and Loan Terms

In the available literature it is suggested that traditional lending methodologies are used to provide micro-consumer loans especially in BiH and Colombia (see sections 5.4 and 2.4). One important trait of the traditional lending methodology is the quick and standardized credit decision as opposed to the case-by-case examination of microcredit. This is tested in the questionnaire and 64.5% of respondents state that the application procedure (credit approval) for consumer loans and microcredits is different. There is no clear tendency whether the application procedure is faster or slower. Thus, it may not be confirmed that micro-consumer loans are disbursed more quickly than microcredit. The results may be differentiated for cooperatives and NGOs. 65% of cooperatives report that the application procedure is different for the two loan types and it is stated that cooperatives use microcredit specific application procedures such as visiting the applicant and the thorough analysis of business related documents (such as business plans or income statements). NGOs report that the application procedure is the same for microcredit and micro-consumer loans, however, this is not representative due to the small sample size. In conclusion, it remains ambiguous if traditional lending methods are applied for micro-consumer loans by the institutions in the sample.

Other mentioned differences of the two loan types in the literature are loan sizes and the reliance on guarantors for micro-consumer loans. The majority reports that in general loan terms are different for the two loan types. For loan amounts the answers from MFIs differs from the cooperatives'. The former report that loan amounts are identical while the latter state different loan amounts without consensus which loan type has the higher loan amount. The hypothesis that micro-consumer loans have higher loan amounts and are disbursed to the upper microfinance market segment (as presented in section 2.3) may thus not be answered with the available data. For BiH, it is reported that the use of guarantors is different for microcredit and micro-consumer loans but the sample size is too small as to be representative.

In Colombia, interest rates charged for consumer loans are ambiguous: 44.4% charge higher, 44.4% lower and 11.1% the same interest rate for consumer loans compared to microcredits. This is interesting because the Superfinanciera sets interest rates for consumer loans and microcredit for regulated institutions with considerably higher interest rates for microcredit than consumer credit (see Figure 7 on page 49). The solidarity sector that took

part in the questionnaire is not regulated by the Superfinancieri but the Supersolidarity. Thus, it may not be assumed that microcredit interest rates are generally higher than consumer credits (as one might when observing the interest rates of the Superfinancieri). In BiH and Paraguay, interest rates are reported to be mostly higher or the same for consumer loans compared to microcredit.

To sum up, results from the questionnaire confirm that the application procedure as well as loan terms generally differ for micro-consumer loans and microcredit. However, the type of difference is not identified.

7.2 Comparison of the Micro-Consumer Loan Environments

The two main providers of micro-consumer loans are MFIs and traditional financial institutions. For MFIs, the consumer loan portfolio is reported to the MIX Market on a voluntary basis since 2008. The traditional consumer loan provider do not specify the loan portfolio dedicated to the micro-finance market. One approach to identify the micro-consumer loan portfolio of traditional financial institutions is to take loan amounts as proxies. The share of consumer loans dedicated to the low-income segment is then identified by small (and comparable to microcredit) loan amounts. Data on loan amounts and, importantly, on the distribution of loan amounts is, however, not available. Thus, this approach may not be followed and it is not feasible to provide an estimate for the micro-consumer loan portfolio of traditional financial institutions.

For MFIs data on the micro-consumer loan portfolio is available from the MIX Market. The micro-consumer loan shares decreased approximately by 4 percentage points for Colombia and by 3.5 percentage points for Paraguay amounting to 32% and 25%, respectively. For BiH, the GLP contracted by 18.5% from 2008 to 2009 but the share of micro-consumer loans remained constant (10%). Thus, the micro-consumer loan portfolio decreased proportionally to the GLP. As only two year of data is available this does not provide much insight into the micro-consumer loan market.

Even though the micro-consumer loan market may not be quantified, it is suggested that the micro-consumer loan environment in the three countries is influenced by the microcredit and traditional consumer loan market. The following three aspects are identified: The formation of the microcredit market, the extend and nature of competition in microcredit market as well as the state of the traditional consumer loan market.

While the first two aspects mainly influence lending methodologies, the state of the consumer loan market may directly or indirectly provide incentives for institutions to enter the micro-consumer loan market.

Formation of the Microcredit Market The three countries each had a distinct way of formation of the microfinance market. In Colombia, the microfinance market was initially served by mostly NGOs. Upon incentives mainly provided by the Colombian national government traditional financial institutions started to enter the market. In BiH, microfinance was started in a post-conflict situation with the assistance of international development agencies who also provided guidance in the setup of microfinance-specific lending methodologies. Similarly, in Paraguay the development of the microfinance market was supported by international agencies to increase access to financial systems for the poor and the introduction was also accompanied by technical assistance to implement microfinance-specific lending methodologies. One major difference in BiH and Paraguay is observed: In BiH, existing NGOs and newly created institutions started offering microcredit whereas in Paraguay, existing *traditional* financial institutions participated in the microfinance development projects. Thus, potential competition from traditional financial institutions through consumer lending is inherently different in Paraguay than in BiH.

Competition in the Microcredit Market In the microfinance markets in Colombia and BiH there is empirical evidence that competition is high amongst microfinance institutions and, importantly, from downscaling traditional financial institutions, mainly banks. Further, BiH has one of the highest penetration rates in microfinance and it is suggested that the market has reached its saturation point in certain regions. In Paraguay, banks and financial companies seem to provide the highest share of microcredit although this may not be confirmed with the available dataset as the share of cooperatives and NGOs may not be identified.

Growth of Traditional Consumer Loan Market As shown in Figure 6 (page 41), Figure 10 (page 58) and Figure 12 (page 70) all three countries experienced periods of high consumer loan growth rates compared to total loan growth. For Colombia and BiH, consumer loan growth has decreased and has been more in line with total loan growth for the past few years. For Paraguay, consumer loan growth rates are still higher than total growth at the end of 2010. In all three countries an extensive and sizable traditional consumer loan market is present.

How does the micro-consumer loan market look like in the three countries? Which institutions are active and what are the reasons for their involvement? Responses from the questionnaire are used to gain valuable, but not representative, insight into the structure of the market. Especially data availability for BiH and Paraguay is limited with only four and three MFIs participating, respectively. In all three countries, the micro-consumer market is described as dominated by a few large institutions by the majority of participants. For Colombia, over 70 % of respondents state that the market structure in the micro-consumer loan market has changed and the increased involvement of traditional banks is often noted. For BiH it is indicated that competition is a reason to start offering micro-consumer loans and competition from banks, MFIs and retail lenders is noted. For Paraguay, competition is also suggested to play a role in the provision of micro-consumer loans and competition from banks, MFIs, consumer finance companies, cooperatives as well as retail lenders is mentioned. NGOs have been less in contact with micro-consumer loans in the past but are expecting an increase in the importance in the future.

7.3 Micro-Consumer Loans and Risk

How are microfinance markets impacted by the provision of consumer loans? Only anecdotal information is available in the existing literature. In this section, the questionnaire results related to impacts of micro-consumer loans as well as results from differences-in-difference and fixed-effects model are discussed.

Questionnaire As mentioned, it is often suggested in the available literature that the provision of micro-consumer loans affects the entire microfinance market. Replies from the questionnaire provide evidence that MFIs are affected by other institutions offering micro-consumer loans even if they do not offer micro-consumer loans themselves. MFIs were asked to agree or disagree to the impact of the provision of micro-consumer loans by banks, MFIs, consumer lenders and consumer retail lenders on MFIs that offer and MFIs that do not offer micro-consumer. Table 21 shows the percentage of responses for the different MFIs. MFIs that also provide micro-consumer loans are impacted (*Strongly agree* and *Agree*) by banks (92%) and consumer lenders (91%) followed by MFIs (88%) and retail lenders (77%). The percentage that answered *Strongly agree* and *Agree* is similar for MFIs that provide and MFIs that do not provide micro-consumer loans. MFIs that do not offer micro-consumer loans are impacted by the provision of micro-consumer loans by other MFIs (90%), consumer lenders (87%), banks (83%) and also retail lenders (78%).

Table 21: Questionnaire Responses on Impact of Provision of Micro-Consumer Loans by other Institutions(in %)

MFIs that provide consumer loans are impacted by the provision of consumer loans by...

	Banks	MFIs	Consumer Lenders	Retail Lenders
Strongly agree	51	42	44	33
Agree	41	46	47	44
Disagree	4	7	5	18
Strongly Disagree	2	3	3	3

MFIs that do NOT provide consumer loans are impacted by the provision of consumer loans by...

	Banks	MFIs	Consumer Lenders	Retail Lenders
Strongly agree	63	45	57	47
Agree	20	45	30	31
Disagree	16	10	11	21
Strongly Disagree	0	0	0	0

Source: own research

The high percentage of retail lenders is surprising. In the literature, retail lenders were mentioned in Colombia (see section 4.2) but not in the other countries. There are only one and two respondents from BiH and Paraguay, so no representative statement may be made. But all respondents agreed that retail lenders impact MFIs offering and MFIs that do not offer micro-consumer credit. Further evidence that consumer retail lenders are also active in the micro-consumer loan market is provided by another question where all respondents from Paraguay and 75% of respondents from BiH indicated that retail lenders target their actual or potential clients. However, there are only three and four total responses for BiH and Paraguay, respectively, so the sample size is too small to allow for a representative statement. For comparison, only 28% of respondents from Colombia listed retail lenders as competition. The most noted effects are the adaption of the consumer lender methodology and that clients start to borrow simultaneously for micro-consumer loan offering and non-offering MFIs. For some cases the effect was even stronger for non-consumer loan offering institutions. However, due to the small and biased sample no concrete statement may be made. The offering of micro-consumer loans by traditional financial institutions increases

competition in the microfinance market. Especially multiple borrowing of clients may also be related to the increased number of institutions serving the market and not directly linked to the loan type. Even though there are suggestions that the effects are due to micro-consumer loan specific characteristics (especially lending methodology), it may not be identified if they are attributable to micro-consumer loans or competition.

Questionnaire participants were asked to estimate if microcredit or consumer loans are more risky. Risk was defined as PAR 30. In general, the responses are ambiguous. There is, however, a tendency that consumer loans are more risky than microcredit for NGO and consumer loans are less risky than microcredits for the solidarity sector. Interesting is the reasons given for the differences: The main reasons for the lower consumer loan risk are the vulnerability of the microenterprise especially to macroeconomic shocks and the informality of the microenterprise. Consumer loans are also believed to be less risky as they are backed up by salaries and can be recovered more safely. These results are, however, mostly given from the solidarity sector in Colombia who may be considered not traditionally involved in the microfinance sector. It suggests that NMSIs realize that the microfinance sector requires special attention due to the informality and the vulnerability. Whenever consumer loans are associated with higher risk, the saturation of the credit market is mentioned. Another interesting finding is that the NGOs, which state that microcredit is less risky than consumer credit, mention the productive use of the microcredit as reason.

There is a relationship of the application procedure (see also section 7.1) and the comparison of risk for the two loan types. Data on risk measures for the two loan types are not publicly available. Participants were asked if they have risk measures for consumer loans and microcredit separately. Of the 48 respondents that offer consumer loans, 30 replied that risk measures for the two loan types are available separately. However, only four institutions reported the risk measures for consumer loans and micro-credits. On the other side, 36 participants⁴⁸ compared risk for consumer loans and microcredit. This indirect question, even though less precise, allows important insights into the difference in risk of the two loan types. As confirmed by a Fisher⁴⁹ test (p-Value 0.068) there exists a statistical relationship at the 10% significance level. The relative frequencies for answers are given in Table 22. If the application procedure is the same for both loan types, PAR 30 of micro-consumer loans and microcredits are reported to be identical by 61.54% of

⁴⁸Six institutions that do not have separate risk estimates for the two loan types also compared the risk, assumable based on experience.

⁴⁹Independence is tested using the Fisher test as opposed to the Chi-square test because less than five observations are expected for some fields.

respondents. If the application is different the majority (56.52%) reports that PAR 30 for consumer loans is lower than for microcredit loans. The type of the difference of the application procedure (e.g that micro-consumer loans are disbursed more quickly) may not be identified unambiguously with the available data.

Table 22: Relative Frequencies for Application Procedure and Risk Comparison of Questionnaire Respondents (in %)

PAR	Application Procedure for Microcredit and Consumer Loan	
	Same	Different
Consumer Loan = Microcredit	61.54	21.74
Consumer Loan > Microcredit	7.69	21.74
Consumer Loan < Microcredit	30.77	56.52

Source: own research

Fixed Effects The fixed-effect regressions reveal small but statistically significance relationships between micro-consumer loan portfolio and risk as well as PAR 30. Table B.5 on page XVI in the Appendix depicts the results. An increase in micro-consumer loans by 1% leads to a change in risk of -0.47% or -0.81% for the different models *ceteris paribus*. The negative effect on PAR 30 is even larger. A 1% increase in the micro-consumer loan portfolio is associated with a change in PAR 30 of -1% or -1.2%. The results need to be considered in light that the analysis only includes data from 2008 and 2009. In this dataset, BiH experienced a decrease in micro-consumer loans and an increase in risk. This might have effects on the results. Country specific regression might provide further insights, however, the models and variables are not statistically significant. The extension of the data set to include more years and possibly more MFIs may considerably increase the explanatory power. As described in section 3.4.2 there may be some autocorrelation between error terms left which influences the standard errors.

No statistical significance is found for ROA or ROE as dependent variables or micro-consumer loans expressed in percentage of GLP as independent variable.

Difference-in-Differences The results for different pre- and post-treatment dates are depicted in Table B.3 in the Appendix. The number of observations varies between 8 and 11 and no effects are statistically significant.

The statistical insignificance may be explained by the following methodological and data drawbacks:

- **Small sample size:** As described in section 3.4.2 one benefit of the DiD estimator is that an estimate of the effect may be achieved without explaining much of the variance of the dependent variable. However, a large sample size is needed. The available sample for Colombia is, however, small with only six institutions.
- **Data issues:** The institutions may be wrongly classified as treatment or control group. This could be the case if not all MFIs that provide micro-consumer loans report this to the MIX Market.
- **Treatment date:** It is difficult to pinpoint the introduction of consumer loans to one exact date. Also, the data may not necessarily be the same for all institutions or even branches within one institution. For example, consumer loans may be introduced in urban areas before they are offered in rural areas. This is confirmed by the questionnaire where numerous consumer loan introduction dates are reported for one country.
- **Model Specification:** The limits of the analysis as outlined in section 3.4.2 may lead to incorrect estimates.

7.4 Revisiting the Microfinance Consumer Loan Definition

As described in section 2.2, through the involvement of traditional financial institutions and MFIs in the microfinance market two definitions of consumer loans collide. A precise definition is crucial to allow an integrated analysis and discussion of micro-consumer loans and their impact. If MSIs and NMSIs follow their respective definitions different clients are targeted and the loans are not comparable.

Does the definition of consumer loans of the microfinance market (clients are salaried employees) hold in practice? The majority of MSIs reported in the questionnaire that only salaried employees receive consumer loans. However, for cooperatives (NMSIs) the disbursement of consumer loans to salaried employees as well as to the self-employed is more often reported. Due to the small and biased sample these findings are not representative.

Nevertheless, it suggests that MSIs adhere to the definition of the microfinance sector and NMSIs do not necessarily, even when operating in the microfinance sector.

Adhering to the definitions presented in section 2.2 there are two reasons for microfinance clients to have access to consumer loans and it is important to clearly distinguish the two cases. (i) MSIs lend to salaried clients either using a “microcredit” or a designated consumer loan product thereby extending the client base. (ii) NMSIs offer consumer loans to low-income clients regardless of their employment status. Figure C in the Appendix on page XVII illustrates the consequence of the microfinance and traditional consumer loan market definitions. In the microfinance market there are either microcredit specialized (MSI) or non-microcredit specialized (NMSI) institutions offering credit that is either productive or non-productive⁵⁰. Following the definition of the microfinance sector, loans to salaried clients are classified as consumer loans (CL) and loans that are repaid mainly by the proceeds from microenterprises are classified as microcredit (MC). The question is how loans to microentrepreneurs for private usages are classified. In traditional finance, thus focusing on the planned usage of the loan, these are consumer loans. In the microfinance industry, which focuses on the main repayment source, any loans to microentrepreneurs are classified as microcredits regardless of their usage.

Two main issues relating to the definitions are identified. (i) In the microfinance definition, loans to microentrepreneurs are always classified as microcredit. There is evidence that these loans are not always strictly used for productive purposes only as outlined in section 2.5. The loans are still classified as microcredits and microfinance specific lending methodologies are applied. (ii) In the traditional consumer loan definition, all households or individuals receive consumer loans and the same lending methodology is applied - regardless of the employment status.

Importantly, the discussion about consumer lending methods only applies to non-productive loans for the microentrepreneur and not for salaried employees. In the literature it is often unclear which clients receive consumer loans. If MFIs extend their client base by lending to salaried clients, this presents a new loan product and should be treated independently from other loan products, i.e. microcredit.

⁵⁰The loan type focuses on the *planned* usage of the loan and hybrid usages (both productive and non-productive) are excluded for illustration purposes. However, usages of productive loans for non-productive purposes (such as emergencies and education) as well as the purchase of hybrid goods are reported in the questionnaire.

8 Conclusions and Further Research

The findings from the questionnaire identify that the MFIs are impacted by the provision of other institutions active in the micro-consumer loan market but does not unambiguously identify *how* they are affected. The analysis of MFI data reveals a positive effect of micro-consumer loans on risk and PAR 30. More micro-consumer loans are related to decreased risk for the period 2008 and 2009. The hypothesis that micro-consumer loans have an adverse effect on MFIs is thus rejected. The results are, however, to be considered with caution. The limited data availability constrain the use of statistical models and the control for model misspecification.

The combination of the analysis of data available from regulators and the collection of primary data identified the following three suggestions for further research.

Further analysis of the relation of institution type (e.g. downscaler, greenfielder), lending methodology and loan type with the three identified aspects of the micro-consumer loan market is needed. The mere presence of downscaling financial institutions does not indicate that consumer lending methodologies are used, as the downscaling financial institutions in Paraguay suggest. In a first step it is useful to include the institution type in an analysis to gain important insights. For this, however, a broader set of data is needed. The data from the MIX Market includes only specialized microfinance institutions and important players are missed, especially downscaling banks. Especially the role of consumer retail lender merits closer attention: these institutions are close to the household, loans may also be used for productive or hybrid purposes and retail lenders are often not regulated. However data availability is severely limited.

A uniform definition of micro-consumer loans as well as the identification of all involved institutions are necessary as the the traditional and microfinance market are coming closer. On one hand, this allows a comprehensive analysis of the micro-credit market. On the other, regulators need to be aware of the loan portfolio dedicated to the microfinance sector and the associated lending methodology. This allows regulators to observe arising issues timely and to act accurately.

Further research on the reasons for consumer goods by microfinance clients is needed. Do they borrow for consumer purposes simply because they can and want to reach a higher level of consumption? Are consumer goods used for emergencies or for productive purposes? Is consumption-smoothing the main reason? As proposed by traditional theory, the legal framework and information-sharing methods need to be in place to counteract moral hazard.

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A Questionnaire

Dear participant

We kindly appreciate your participation in this survey on *Consumer credit in Microfinance*, and we would like to thank you for sharing with us your views and opinions.

Please note that the survey is strictly anonymous. The record kept of your responses to the survey does not contain any identifying information about you. Please feel free to skip any questions that you cannot or do not want to answer. We are grateful that you share your expertise with us.

Please be aware that not all questions will apply to your organization. Your survey will therefore contain less than the 39 questions indicated below. To start the survey, please click “next”.

There are 39 questions in this survey

Part I.

Question 1. In which country does your institution offer microfinance loans?

Question 2. When was your institution established (Year)?

Question 3. Please classify your institution.

Please choose only one

- Bank
- NGO
- Non-banking Financial Institution
- Credit Union / Cooperative
- Rural Bank
- Other

Question 4. In your experience, are microcredits used exclusively for business purposes?

- Yes
- No

Question 5. What are microcredits also used for?

Only answer this question if the following condition is met: Answer was 'No' at question 4 (In your experience, are microcredits used exclusively for business purposes?)

- Food
- Private emergencies (such as illness)
- Education
- Consumer goods that have both,
a private and business purpose (e.g. motorcycle)
- Consumer goods that have only a private purpose
- Other

Question 6. Does your MFI offer consumer loans?

- Yes
- No

Question 7. When did you start offering consumer loans?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 6 (Does your MFI offer consumer loans?)

Question 8. What were your reasons for starting to offer consumer loans?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 6 (Does your MFI offer consumer loans?)

- Profitable business
- Competitors offering consumer loans
- Demand from customers
- Other

Question 9. Please estimate the percentage share of consumer loans in your loan portfolio at the moment

Only answer this question if the following conditions are met: Answer was 'Yes' at question 6 (Does your MFI offer consumer loans?)

Question 10. Please describe the development of the share of consumer loans since their introduction

Only answer this question if the following conditions are met: Answer was 'Yes' at question 6 (Does your MFI offer consumer loans?)

- Increased
- Decreased
- Remained the same

Question 11. When did the strongest changes occur?

Only answer this question if the following conditions are met: Answer was 'Increased' or 'Decreased' at question 10 (Please describe the development of the share of consumer loans since their introduction)

Question 12. Who are your target clients for consumer loans?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 6 (Does your MFI offer consumer loans?)

- All existing clients
- Only existing clients with good repayment history
- New clients that are employed (receive a salary)
- New clients that are self-employed
- Other

Question 13. Is the application (credit approval) procedure for consumer loans different than for microcredit loans?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 6 (Does your MFI offer consumer loans?)

- Yes
- No

Question 14. How?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 13 (Is the application (credit approval) procedure for consumer loans different than for microcredit loans?)

- Faster
- Slower
- Other

Question 15. Why?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 13 (Is the application (credit approval) procedure for consumer loans different than for microcredit loans?)

Question 16. Are the terms for consumer loans different from the terms for microcredit loans?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 6 (Does your MFI offer consumer loans?)

- Yes
- No

Question 17. How are they different?

Only answer this question if the following condition is met: Answer was “Yes” at Question 16 (Are the terms for consumer loans different from the terms for microcredit loans?)

	Lower	Higher	Same
Interest Rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loan Maturity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Repayment Frequency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Credit Amount	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collateral / Guarantor requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 18. Please specify any other eligibility criteria that are different

Only answer this question if the following conditions are met: Answer was ‘Yes’ at question 16 (Are the terms for consumer loans different from the terms for microcredit loans?)

Question 19. What type of other loans does your institution offer and since when have you been offering them?

- Business loans
- Agricultural loans
- Housing loans
- Education loans
- Emergency loans
- Commercial Non-Cash credit
- Other

You have already answered 50% of the survey. Thank you. Please press Next to continue to the next section.

Question 20. Do your clients have access to consumer loans from other consumer loan providers?

- Yes
- No

Question 21. In which year approximately have consumer loans first been offered to potential or actual clients of your organization?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 20 (Do your clients have access to consumer loans from other consumer loan providers?)

Question 22. On a scale from 1 to 4, please describe the importance of consumer loans in your country.

	not important		very important	
	1	2	3	4
In the past	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At present	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 23. What are the drivers for the consumer loan market?

- Client demand
- Competition
- Lacking savings opportunity
- Regulation
- Other

Question 24. Which institutions offer consumer loans for potential or actual microfinance clients?

- Banks
- MFIs
- Consumer credit companies
- Consumer retail stores
- Other

Question 25. Do these institutions target your clients?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 20 (Do your clients have access to consumer loans from other consumer loan providers?)

	Yes	No	Not applicable
Banks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MFIs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consumer credit companies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consumer retail stores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 26. Do you agree or disagree with

"MFIs that also provide consumer loans are impacted by the provision of consumer loans by..."

	Strongly Agree	Agree	Strongly Disagree	Disagree	No opinion/ Not applicable
Banks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MFIs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consumer credit companies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consumer retail stores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 27. How does it impact these MFIs?

Only answer this question if the following conditions are met: Answer was not 'No opinion / Not applicable' for all institutions at question 26 (Which institutions offer consumer loans for potential or actual microfinance clients?)

- MFIs adapt lending methodologies of consumer credit companies
- MFI clients leave and borrow from consumer credit companies
- MFI clients start to simultaneously borrow from consumer credit companies
- MFI's products change
- MFI borrowers' repayment morale worsens
- Other

Question 28. Do you agree or disagree with

"MFIs that *do not* provide consumer loans are impacted by the provision of consumer loans by..."

	Strongly Agree	Agree	Strongly Disagree	Disagree	No opinion/ Not applicable
Banks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MFIs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consumer credit companies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consumer retail stores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 29. How does it impact these MFIs?

Only answer this question if the following conditions are met: Answer was not 'No opinion / Not applicable' for all institutions at question 28 (Which institutions offer consumer loans for potential or actual microfinance clients?)

- MFIs adapt lending methodologies of consumer credit companies
- MFI clients leave and borrow from consumer credit companies
- MFI clients start to simultaneously borrow from consumer credit companies
- MFI's products change
- MFI borrowers' repayment morale worsens
- Other

Question 30. Please describe the consumer loan market structure

- Dominated by one institution, please specify the institutions
- Dominated by a few large institutions, please specify the institutions
- Many small institutions, please specify a few institutions
- Other, please specify

Make a comment on your choice here:

Question 31. Has the market structure changed in the last years?

- Yes
- No

Question 32. How? Please specify

Only answer this question if the following conditions are met: Answer was 'Yes' at question 31 (Has the market structure changed in the last years?)

Question 33. Since when? Please specify the year

Only answer this question if the following conditions are met: Answer was 'Yes' at question 31 (Has the market structure changed in the last years?)

Question 34. Do you have an estimate on your PAR for consumer loans only?

Only answer this question if the following conditions are met: Answer was 'Yes' at question 6 (Does your MFI offer consumer loans?)

- Yes
- No

Question 35. Please estimate the relationship of the PAR for consumer loans with the PAR for other loans.

- PAR for consumer loans is higher than for microcredit loans
- PAR for consumer loans is lower than for microcredit loans
- There is no difference in PAR

Question 36. Please specify the reasons for this difference in your opinion

Only answer this question if the following conditions are met: Answer was 'PAR for consumer loans is higher than for microcredit loans' or 'PAR for consumer loans is lower than for microcredit loans' at question 35 (Please estimate the relationship of the PAR for consumer loans with the PAR for other loans.)

The next questions are about risk indicators of your MFI. Please be once more reassured that the survey is strictly anonymous and the record kept of your response to the survey does not contain any identifying information about you. Should you feel uncomfortable answering the following questions please scroll to the bottom and press Submit.

Question 37. Please provide your overall PAR 30 and Write-offs (leave blank if not applicable or available)

Year	Overall PAR 30	Write-offs	Year	Overall PAR 30	Write-offs
2010			2003		
2009			2002		
2007			2000		
2006			1999		
2005			1998		
2004			1997		

Question 38. Please provide your PAR 30 and Write-offs for consumer loans (leave blank if not applicable or available)

Only answer this question if the following conditions are met: Answer was 'Yes' at question 6 (Does your MFI offer consumer loans?) and Answer was 'Yes' at question 35 (Do you have an estimate on your PAR for consumer loans only?)

PAR 30 for			PAR 30 for		
Year	Consumer Loans	Write-offs	Year	Consumer Loans	Write-offs
2010			2003		
2009			2002		
2007			2000		
2006			1999		
2005			1998		
2004			1997		

Question 39. What is your gross loan portfolio (approximately) for 2010? Please indicate the currency.

Thank you very much for your time. The CMF team.

B Secondary Data Analysis

B.1 MFIs in Treatment and Control Group including Main Indicators for 2009 (in USD and %)

MFI	Group	GLP	Consumer Loans	Average Loan Balance (% of GNI per capita)	PAR	Active Borrowers
Actuar Tolima	Treatment	4'386'847	96'564	11.57%	6.18%	7'596
FinAmérica	Treatment	80'293'496	6'950'024	40.46%	8.75%	42'575
FMM Bucaramaga	Treatment	128'800'411	3'683'541	18.07%	3.54%	152'943
FMM Popayán	Treatment	203'894'018	13'612'685	14.92%	4.26%	293'079
Interactuar	Control	36'480'363	0	26.47%	7.54%	29'565
WWB Cali	Control	229'075'349	0	25.55%	7.35%	179'701

Source: MIX Market

B.2 Penetration Rates for Colombia, BiH and Paraguay for 2008 - 2009

	National Poverty Line ⁵¹	
	2008	2009
BiH	0.84	0.73
Colombia	0.09	0.10
Paraguay	0.12	0.18

Source: MIX Market, WDI, author's own calculation.

B.3 Difference-in-Differences Estimation Results for PAR 30, Risk, ROA, ROE for Different Time Periods

Pre-Treatment = 1998 and Post-Treatment = 2008				
	PAR 30	Risk	ROA	ROE
DiD Estimator	-1.703	-9.72	-1.135	12.836
Standard Error	3.948	7.938	8.311	20.904
Number of Observations	12	9	11	11
R ²	0.05291	0.25934	0.32671	0.47741

Pre-Treatment = 1998 and Post-Treatment = 2009				
	PAR 30	Risk	ROA	ROE
DiD Estimator	-3.653	-12.737	-0.802	11.15
Standard Error	4.173	7.856	9.178	20.939
Number of Observations	11	8	10	10
R ²	0.12512	0.47523	0.34553	0.48979

Pre-Treatment = 2000 and Post-Treatment = 2008				
	PAR 30	Risk	ROA	ROE
DiD Estimator	-1.95	-16.26	-0.91	12.424
Standard Error	5.084	14.943	18.94	41.896
Number of Observations	11	9	12	12
R ²	0.03601	0.26492	0.02199	0.04226

Pre-Treatment = 2000 and Post-Treatment = 2009				
	PAR 30	Risk	ROA	ROE
DiD Estimator	-3.901	-19.277	-0.577	12.424
Standard Error	5.41	16.417	20.791	45.138
Number of Observations	10	8	11	11
R ²	0.15377	0.27854	0.02177	0.03302

Source: own research

B.4 Descriptive Statistics for Fixed-Effects Regression

Variable	Obs	Mean	Std.Dev	Min	Max
Risk	85	9.68	6.63	0.59	32.52
PAR30	85	6.10	4.18	0.33	23.92
ROE	85	-0.57	39.01	-240.21	51.56
ROA	85	-0.08	7.52	-30.34	10.89
Consumer Loans	51	4.6e+07	1.5e+08	2223	8.3e+08
Age	64	18.83	9.15	2.99	42.99
Penetration Rate	96	0.30	0.31	0.09	0.84
GNI p.c. Growth	96	2.65	5.77	-5.36	23.12
GDP Growth	96	0.01	0.03	-0.03	0.05
Avg. Loan Balance per Borrower	95	34.82	25.91	1.93	163.7
Remittance	96	3443.47	1437.24	587	4884

Source: MIX Market, WDI, own research

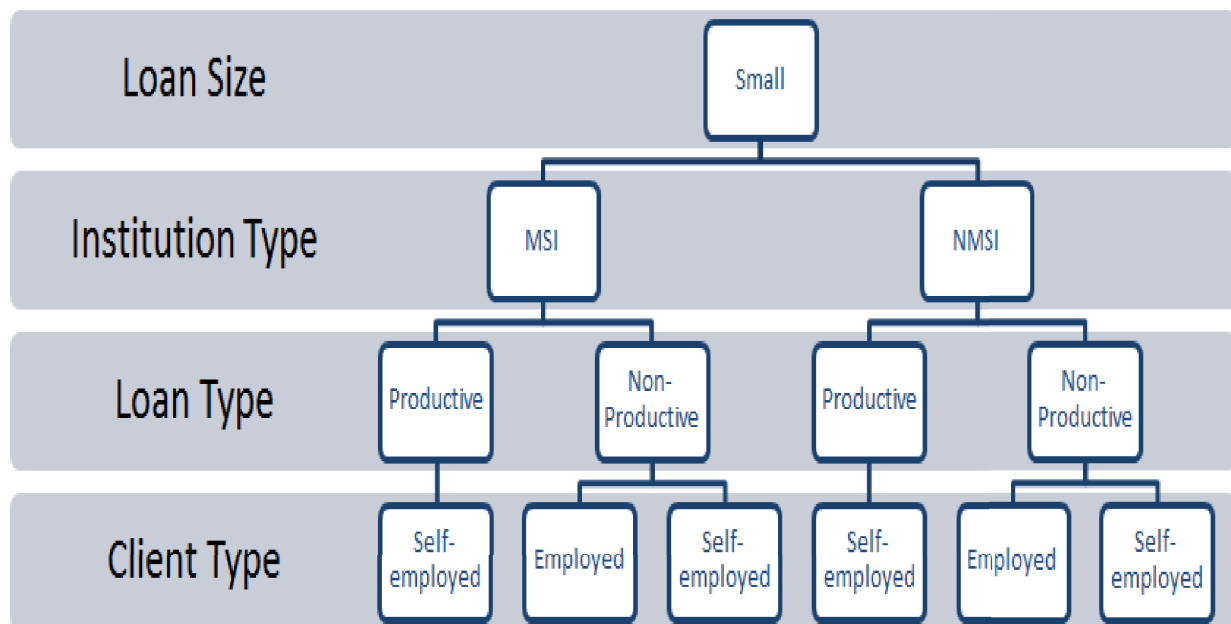
B.5 Fixed-Effects Regression Results

Independent Variables	Dependent Variables		
	Log(Risk)	Log(PAR 30)	Log(PAR 30)
Log(Consumer Loans)	-0.81** (0.29)	-0.47* (0.25)	-1.2*** (0.38)
Log(Age)	-20.28 (26.89)	-0.28 (2.6)	-9.72 (30.41)
Log(Age) ²	6.70 (7.72)		3.39 (8.81)
Log(Avg. Loan Balance per Borrower)	0.04 (0.94)	-0.31 (0.50)	0.53 (1.22)
Log(Penetration rate)	-1.93 (3.33)		-0.02 (4.02)
Log(Remittances)	2.11 (5.00)		0.61 (5.63)
Log(GNI p.c. Growth)		0.14 (0.30)	0.24 (0.34)
Constant	-3.47 (43.89)	11.1 (10.89)	15.04 (49.0)

N° Obs. = 74	N° Obs. = 28	N° Obs. = 28	N° Obs. = 41
N° Clusters = 25	N° Clusters = 20	N° Clusters = 20	N° Clusters = 25
F(6,24)=2.43*	F(4,19)=2.99**	F(4,19)=4.48**	F(6,24)=2.69**
Within R ² =0.60	Within R ² =0.48	Within R ² =0.72	Within R ² =0.53

Source: own research, standard errors in parenthesis, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

C Traditional and Microfinance Definition of Micro-Consumer Loans



Source: own research

D Exchange Rates

Colombia

31 March 2011	USD 1	=	COL 1871
31 December 2010	USD 1	=	COL 1920
30 September 2010	USD 1	=	COL 1801
31 December 2009	USD 1	=	COL 2043
30 September 2009	USD 1	=	COL 1929
31 December 2008	USD 1	=	COL 2248
30 September 2008	USD 1	=	COL 2182
31 December 2007	USD 1	=	COL 2017
28 September 2007	USD 1	=	COL 2023
29 December 2006	USD 1	=	COL 2239
29 September 2006	USD 1	=	COL 2394
30 December 2005	USD 1	=	COL 2286
30 September 2005	USD 1	=	COL 2289
31 December 2004	USD 1	=	COL 2352
31 December 2003	USD 1	=	COL 2779
31 December 2002	USD 1	=	COL 2866

Source: Datastream (2011a)

Paraguay

31 March 2011	USD 1	=	PYG 4115
31 December 2010	USD 1	=	PYG 4645
31 December 2009	USD 1	=	PYG 4695

Source: Datastream (2011b)

Bosnia - Average Rates

1998	BAK 1	=	0.567 USD
1999	BAK 1	=	0.545 USD
2000	BAK 1	=	0.472 USD
2001	BAK 1	=	0.458 USD
2002	BAK 1	=	0.482 USD
2003	BAK 1	=	0.577 USD
2004	BAK 1	=	0.635 USD
2005	BAK 1	=	0.636 USD
2006	BAK 1	=	0.641 USD
2007	BAK 1	=	0.700 USD
2008	BAK 1	=	0.748 USD
2009	BAK 1	=	0.711 USD
2010	BAK 1	=	0.677 USD

Source: CBBH (2010, p. 188)