

DOES MICROFINANCE AFFECT REFUGEE LIVELIHOODS?
A STUDY OF BOSNIA AND HERZEGOVINA IN 2001

A Thesis
submitted to the faculty of
the Georgetown Public Policy Institute
in partial fulfillment of the requirements
for a Master of Public Policy degree

By

Kanishka Bhattacharya, B.A.

Washington, D.C.
April 8, 2009

**DOES MICROFINANCE AFFECT REFUGEE LIVELIHOODS?
A CASE STUDY OF BOSNIA AND HERZEGOVINA IN 2001**

**KANISHKA BHATTACHARYA, B.A.
THESIS ADVISOR: ANDREW DILLON, PHD**

ABSTRACT

The effective design and delivery of a program of microfinance is difficult under any circumstance. However, in conflicted-affected societies the task of these institutions that seek to provide financial stability to its most impoverished members the task is complicated manifold. Thus, the central question motivating this analysis is: How does microfinance affect refugee livelihoods? The analysis is also motivated, in part, because of a relative lack of thorough and rigorous empirical research on this topic. The analysis will look at a case study of Bosnia and Herzegovina in 2001. This paper conducts rigorous statistical analysis of the LSMS World Bank dataset to answer the two questions: First, what factors does access to microcredit depend on? And second, will access to microcredit impact the poverty of refugee and displaced populations?

The analysis shows that IDPs/refugees are statistically less likely to get loans than non-IDPs/refugees. Thus, from a policy perspective it is important to focus attention on these population groups which are most affected, and least able to pull themselves out of poverty. While the results do not definitively evidence a positive impact of loan-taking behavior on the consumption levels of IDP/refugee households, they do not, at the same time, definitively rule out that possibility. Beyond any doubt, the paper does certainly make enough of a quantitative case that any arbitrary ruling out of microfinance as a tool for the reconstruction and development of IDP/refugee livelihoods is premature and myopic.

CONTENTS

I.	INTRODUCTION	1
II.	LITERATURE REVIEW	4
	<i>a. Origin and Philosophy of Microfinance</i>	4
	<i>b. Microfinance in Post-Conflict Environments</i>	7
	<i>c. Microfinance for Refugees</i>	11
III.	DATA AND METHODS	14
	<i>a. Conflict background and history</i>	14
	<i>b. Basic economic information</i>	15
	<i>c. Data: Population and Survey Characteristics</i>	16
	<i>d. Research Methods: Hypothesis Questions</i>	18
	<i>e. Research Methods: Analysis Plan</i>	18
IV.	DESCRIPTIVE STATISTICS	24
V.	RESULTS AND ANALYSIS	28
VI.	CONCLUSION	40
VII.	REFERENCES	43

I. INTRODUCTION

The effective design and delivery of a program of microfinance is difficult under any circumstance. However, in conflicted-affected societies the task of these institutions that seek to provide financial stability to its most impoverished members the task is complicated manifold. Traditional best-practice paradigms of microfinance are inapplicable in these situations because of the rampant instability of the governmental and financial institutions, and lack of communal and social trust among individuals. Within these post-conflict environments, refugees, returnees and internally displaced populations (IDPs) are among the most marginalized and helpless of the affected groups. Providing microfinance to them is then perhaps the most challenging problem facing practioners and institutions engaged in this kind of relief and development work.

At the very outset these practioners face a crisis of functionality and motivation. Is microfinance a viable tool of development in post-conflict environments in general, and for refugees, returnees and IDPs in particular? Karen Doyle, who has conducted a comprehensive review on this very matter, seems to believe so. Underlying her assertion is Doyle's conviction that given the undeniable intersection of conflict and poverty, learning how to "facilitate development processes in environments coping with the impacts of war and unrest is a critical issue."¹ As a mechanism that has a stated directive and objective of targeting the most impoverished sections of society, the role of microfinance as one of, or the primary of, these development processes deserves critical attention and serious exploration. Doyle notes that the presence in refugee camps of a whole series of

¹ Doyle, Karen. Microfinance in the Wake of Conflict: Challenges and Opportunities. July 1998. Microfinance Best Practices Project. 4 Sept. 2008. 5. Available from <http://www.microfinancegateway.com/files/27399_file_Final_IA_Report_v._14.pdf>

spontaneous enterprises, both legal and illegal, that arise without formal credit services, as well as the affirmation of the affected people that being held accountable for a loan and empowered to invest represents a powerful return to normality are strong evidence of immense potential of microfinance in these situations.²

Thus, the central question motivating this analysis is: How does microfinance affect refugee livelihoods? The analysis is also motivated, in part, because of a relative lack of thorough and rigorous empirical research on this topic. The analysis will look at a case study of Bosnia and Herzegovina in 2001.

Bosnia-Herzegovina presents an example of a country that has endured protracted and violent conflict. Various micro-financial institutions are active in Bosnia-Herzegovina that struggle with providing services in such a challenging environment. An investigation into their work promises to uncover strategies that may be employed with the problems and successes of such endeavors.

The idea is to look beyond the usual anecdotal evaluation of the success (or failure) of microfinance programs. Indeed, these anecdotal evaluations which comprise “stories” collected by microfinance and donor institutions, although very illustrative and informative, provide little in the form of critical programmatic review and thus, are somewhat ineffective in terms of generating a list of general best-practices or, more importantly, even a list of program-specific changes. Generating this list of best-practices is beyond the purview of this paper. Rather the normative or prescriptive dimension of this paper is limited to simply quantitatively assess if there is a plausible case to be made for the application of

² Ibid 1, 19.

microfinance programs specifically tailored to IDP/refugee populations in the aftermath of violent and destructive conflict.

Indeed, the results of the regressions will tend only to prescribe a more conservative conclusion: that any arbitrary ruling out of microfinance as a tool for the reconstruction and development of IDP/refugee livelihoods is premature and myopic. The results will also show that IDPs/refugees are less likely to receive loans than other sections of society. This of course has important policy implications of its own. Eventually, while the results do not definitively evidence a positive impact of loan-taking behavior on the consumption levels of IDP/refugee households, they do not, at the same time, definitively rule out that possibility. In itself, that is a subtle, although not an insignificant conclusion.

Section II provides a comprehensive review of the pertinent literature on the origins of microfinance, microfinance in post-conflict environments and microfinance and refugees. Then, **Section III** first gives a brief background to the conflict in Bosnia and Herzegovina before providing a discussion of the regression models that will be utilized to conduct this analysis as well as the general characteristics of the LSMS surveys used to enable the regressions. **Section IV** then presents the descriptive statistics and the primary preliminary findings of this paper. The results and analysis of the regression models are presented in **Section V**. Finally, **Section VI** contains the conclusions of this paper.

II. LITERATURE REVIEW

Origin and philosophy of Microfinance

Microfinance, as a viable tool of development, began 1976 when Bangladeshi economist and social reformer Muhammad Yunus began lending small amounts of money to rural poor women of Jobra village to start or expand their businesses. That initial and modest foray into microcredit eventually culminated in the formal establishment in 1983 of the Grameen Bank based on principles of group-based lending of small-sized loans with zero collateral. Currently Grameen Bank has dissipated loans to 7.56 million borrowers of whom 97 percent are women.³

The advent of microfinance signaled a watershed in the field of development. Focusing specifically on the agency, entrepreneurial skills and innovation of the marginalized and poverty-stricken populations in developing countries, the “greatest triumph of microfinance [was] the demonstration that poor households [could] be reliable bank customers”⁴ Moreover, Yunus utilized microfinance to directly mitigate a significant and core problem in development economics: that the poor remain poor because they did not have access to productive capital to grow their way out of poverty.

Microfinance is defined by Otero as “the provision of financial services to low-income poor and very poor self-employed people.”⁵ Historically, microfinance programs have been developed and targeted to address the concerns and needs of poor households

³ Muhammad Yunus, “Grameen Bank At a Glance,” August 2004. Accessed 10 October 2004. Available from http://www.grameen-info.org/index.php?option=com_content&task=view&id=26&Itemid=0

⁴ Cull, Robert, Asli Demirguc-Kunt, and Jonathan Morduch. Microfinance Meets the Market. Working paper No. 4630. Development Research Group, The World Bank. 2008. 3-4. Accessed 8 Oct. 2008. Available from <http://www.worldbank.org>

⁵ Otero, Maria. BRINGING DEVELOPMENT BACK INTO MICROFINANCE. Rep.No. Accion International. Accion International, 1999-2000. 1.

that markets and governments fail to adequately confront. More specifically, according to Heen, the client-base of microfinance institutions includes female heads of households, pensioners, displaced persons, retrenched workers, small farmers, and micro-entrepreneurs, each of whom fall into one of four poverty levels: destitute, extreme poor, moderate poor, and vulnerable non-poor.⁶ These programs typically offer a wide range of financial services such as deposits, loans, savings, payment services, money transfers, and insurance to the poor and low-income households and their micro-enterprises who are excluded from the formal financial systems.⁷ According to Legerwood, microfinance institutions may also provide social intermediation services such as “group formation, development of self-confidence, and training in financial literacy and management capabilities among members of a group.” Thus, asserts Legerwood, microfinance is more than simple banking, it is a development tool.⁸

The seemingly unprecedented success of the microfinance development philosophy is evidenced by reports of the top microlenders which boast repayment rates of 98 percent and higher, all achieved without securing any collateral for the loans. This success is attributed, by Cull, Demirguc-Kunt and Morduch, to “new lending practices, especially “group lending” (also called “joint liability” lending)...” These authors describe this model in which “customers were typically formed into small groups and required to guarantee each others’ loan repayments, aligning their incentives with those of the bank.”⁹

⁶ Heen, Stacy. MICROFINANCE AND CONFLICT: TOWARD A CONFLICT-SENSITIVE APPROACH. Diss. Tufts University, 2004. Boston, MA: The Fletcher School, 2004. 1.

⁷ Swain, Ranjula, Nguyen Sanh, and Vo Tuan. "Microfinance and Poverty Reduction in the Mekong Delta in Vietnam." African and Asian Studies (2008): 191-215.

⁸ Legerwood, Joanna. Microfinance Handbook. An Institutional and Financial Perspective. Publication No. Sustainable Banking with the Poor, The World Bank. Washington DC: The World Bank, 199. 1.

⁹ Cull et al 4.

However, this is not to say that microfinance has been credited as an unprecedented success. Morduch's study of Grameen Bank in Bangladesh showed that initial positive returns to the microfinance project were largely driven by selection biases.

Once appropriate comparisons with control groups are made, access to the three microfinance programs does not yield meaningful increases in per capita consumption, the education of sons, nor the education of daughters. If anything, the levels are slightly lower than for control groups. The results are surprising and contradict frequent claims made about the programs in international discussions of microfinance.¹⁰

Microfinance programs are also debilitated by a serious and well-acknowledged lack of comprehensive and robust impact evaluations. Morduch bemoans this very fact in his "The Microfinance Promise." He writes that while "[a]necdotes abound about dramatic social and economic impacts,...there have been few impact evaluations with carefully chosen treatment and control groups (or with control groups of any sort), and those that exist yield a mixed picture of impacts."¹¹ In his summary of the problems confronting the microfinance industry Morduch contends that

The promise of microfinance was founded on innovation: new management structures, new contracts, and new attitudes. The leading programs came about by trial and error. Once the mechanisms worked reasonably well, standardization and replication became top priorities, with continued innovation only around the edges. As a result, most programs are not optimally designed nor necessarily offering the most desirable financial products.¹²

Finally, Elizabeth Rhyne best summarizes the common philosophies and goals driving the current microfinance movement as follows: using the clients' character rather

¹⁰ Morduch, Jonathan. Does Microfinance Really Help the Poor? New Evidence from Flagship Programs in Bangladesh. Working paper No. Department of Economics and HHID, Harvard University. 1998.

¹¹ Morduch, Jonathan. "The Microfinance Promise." Journal of Economic Literature XXXVII (1999).

¹² Ibid.

than collateral as the primary loan security, streamlining administrative processes to lower costs, responding rapidly to late payments, providing positive incentives for repayment, charging interest rates that approach or cover costs, and emphasizing the long-term sustainability of the lending organization.¹³

Microfinance in post-conflict environments

In an effort to maximize the development potential of microfinance, institutions and practitioners around the world, habituated to implementing programs in more normal development settings, are tending to apply and modify their knowledge of microfinance best practices in contexts that vary by “levels of violence and disruption, numbers of people displaced, quality of community relationships, and macroeconomic context.”¹⁴ This particular application of microfinance is emblematic of a shift, or rather, an evolution of ideas regarding the potential of microfinance as a development strategy. The fundamental point is, according to Karen Doyle, that

microfinance is being viewed as a tool that can serve multiple goals. Predominantly, it remains an economic development strategy that focuses on rebuilding and restarting local economies by providing needed financial services for enterprise creation. But there is also consideration of its use as a relief and survival strategy in the immediate wake of disaster, and as a tool for peace and reconciliation.¹⁵

¹³ Elisabeth Rhyne, MAINSTREAMING MICROFINANCE: HOW LENDING TO THE POOR BEGAN, GREW, AND CAME OF AGE IN BOLIVIA, Bloomfield, CT: Kumarian Press, 2001, 7.

¹⁴ Doyle, Karen. Microfinance in the Wake of Conflict: Challenges and Opportunities. July 1998. Microfinance Best Practices Project. 4 Sept. 2008. vii. Available from

<http://www.microfinancegateway.com/files/27399_file_Final_IA_Report_v._14.pdf>

¹⁵ Ibid.

However, Heen warns microfinance institutions coordinating post-conflict transitions, that in these situations, microfinance “presents both opportunities to contribute to conflict reduction, and risks of exacerbating conflict.”¹⁶ The opportunity, she writes, arises because microfinance programs are inherently grassroots in nature and focus on the empowerment of the poorest members of society.¹⁷ Rhyne corroborates this notion when she notes with respect to microfinance in Bolivia that “[t]he poor participate actively in their betterment. They are not passive recipients of assistance, not simply refugees from a failed formal sector, but economic actors out to improve the quality of their lives...”¹⁸ Thus, it would seem that by its very construct, microfinance, which puts ultimate emphasis on the agency and innovation of the poorest and most marginalized members of society, is well-acquainted to be at the vanguard of participatory development mechanisms in post-conflict reconstruction efforts.

At the same time, Heen believes that “just because microfinance programs focus on marginalized groups in a given society does not mean that microfinance automatically avoids the broader problems and risks of development,” and that “microfinance products and programs may, in fact, create conflicts in a number of ways.”¹⁹ According to her, microfinance programs may cause conflict in two ways—first, by reinforcing or creating new social divisions through client or geographical targeting, and second, by causing conflicts among clients especially if group lending mechanisms are used and one member of the group is unable to repay, and the whole group suffers as a consequence.²⁰

¹⁶ Heen 12.

¹⁷ Ibid.

¹⁸ Rhyne 216.

¹⁹ Heen 12-13.

²⁰ Ibid.

The most important point here, as Heen specifies, is that development achieved in post-conflict situations through the use of microfinance is, like the macro-process of development more generally, not linear, will necessarily be contentious and will in many cases seriously challenge the social status quo—none of which is necessarily bad. But, the recognition that, as Uvin argues, a purely economic-technical approach to development may help “to lay the groundwork for further inequality and mal- development, as well as structural, and, eventually, acute, violence” is crucially vital, especially when designing any intervention.²¹ This point is only further underscored by Doyle when she writes that microfinance professionals in conflict-affected environments must understand the dual imperative of being proactive as well as careful. While, doing “nothing or retreat[ing] could result in prolonged human suffering and the need for more extensive, costly, and difficult involvement down the road,” “act[ing] hastily or unwisely...could create unintended, potentially severe repercussions.”²²

Keeping the primacy of good preparation in mind, Doyle lists several “essential conditions” that must be in place to institute microfinance activities in a conflict-affected area. She then goes on to list several “preferred” conditions which while not entirely necessary, are still entirely desirable. Both the sets of conditions are presented in the figure below.²³

²¹ Uvin, Peter. "Development Aid and Structural Violence. The Case of Rwanda." *Development* 42, 3 (1999).

²² Doyle 1.

²³ Ibid 7-11. NOTE: Social capital refers to traditional social mechanisms that facilitate mutual obligations, contracts, and transactions which in turn facilitate program implementation in numerous ways. The breakdown of these mechanisms has serious implications for demand, scale, training needs, and operational efficiency (Doyle 11).

TABLE 1: ESSENTIAL AND PREFERRED CONDITIONS FOR INSTITUTION OF MICROFINANCE PROGRAMS IN POST-CONFLICT ENVIRONMENTS	
Essential Conditions	Preferred Conditions
1. Low Intensity of Conflict	1. Bare-Bones, Functioning Commercial Banking System
2. Reopening of Markets	2. Absence of Hyperinflation
3. Long-Term Displacement (of 18 months or longer)	3. Relatively Dense Population
	4. Enabling Legislation for Microfinance Institutions
	5. Skilled, Educated Workforce
	6. Social Capital ²³ above
	7. Trust in the Local Currency and Financial Institutions

Geetha Nagarajan contends that conditions in conflict-affected environments affect the area on three—micro, meso and macro—levels.²⁴ At the highest level, macro effects disrupt the national financial stability. The meso effects are derived from this macro-instability. Jessica Jacobson elaborates that when the overarching national systems are weak and unsound, so will be the local organizations that draw local communities into the national system. Finally, at the micro level, local citizens do not have a national government or financial system to place their trust in, their income may be subject to detrimental hyperinflation, and their local or regional institutions cannot intervene or represent for them. Consequently, Jacobson summarizes that “the macro, meso, and micro effects make

²⁴ Nagarajan, Geetha. Developing Micro-Finance Institutions in Conflict-Affected Countries: Emerging Issues, First Lessons Learnt and Challenges Ahead. International Labor Organization. Enterprise and Cooperative Development Department: 8. [Http://www.ilo.org/public/english/65entrep/papers/conflict.htm](http://www.ilo.org/public/english/65entrep/papers/conflict.htm)

establishing a business a daunting challenge for local residents and cause many potential micro-finance service providers to look upon the entry option warily.”²⁵

Microfinance for refugees

Even before enumerating the myriad challenges that would be inevitable to the implementation of a microfinance program for refugees, it is perhaps valuable to take one brief step back and discuss some more general constraints to the economic life of refugees. Karen Jacobsen, writes in her book that the abilities of refugees (and IDPs) in camps “to engage in viable economic activities that go beyond subsistence is determined by their access to productive assets such as arable land, economic infrastructure such as mills and storage facilities and perhaps most importantly, credit.”²⁶ Jacobsen goes onto list several factors which constrain access to these productive assets, chief among which is freedom of movement in and out of camps in order to pursue these economic activities.²⁷ Moreover, she writes, “refugees in protracted situations must also cope with shifts in attitude from the host community, which can affect both the willingness of authorities to implement restrictions, and refugees’ economic activities.”

In light of the above, in the post-conflict reconstruction and development world then, evaluating, designing and implementing a microfinance program for refugees, returnees and internally displaced populations (IDPs) presents an added layer of difficulty and complexity. Dominik Bartsch outlines some of these difficulties.²⁸ First, microfinance is

²⁵ Jacobson, Jessica. "UGANDA: THE PROVISION OF MICROFINANCE IN THE WAKE OF CONFLICT." Thesis: Johns Hopkins University, 1999. Baltimore, MD.

²⁶ Jacobsen, Karen. *The Economic Life of Refugees*, Kumarian P, 31.

²⁷ Ibid.

²⁸ Bartsch, Dominik. Microfinance and refugees. Issue briefNo. FMR 20, UNHCR.

oftentimes founded on a notion of group solidarity to replace the conventional banking requirement of a material or monetary collateral. It is exactly this group solidarity which is most conspicuously absent from refugee populations. Second, Bartsch contends that microfinance as an industry is more closely related to principles of banking than relief and will need to seriously review and also perhaps overhaul its modus operandi and measures of success. Third, while the provision of relief is supposed to benefit the poorest and most-affected populations, Bartsch contends that microfinance, in its current avatar, is bound to benefit only people already endowed with business acumen and, often enough, sufficient resources to sustain themselves. Finally, to be successful microfinance must be implemented as one strategy of an entire array of relief and development strategies such business training and, most importantly, an enabling environment. Thus, “Government restrictions on refugee mobility, for instance, directly impact on market access for refugee products and may therefore constitute a much bigger obstacle than the cost of financing.”

These obstacles notwithstanding, Doyle notes that, specifically in African refugee camps, practitioners are amazed at the spontaneous enterprises (often illegitimate or illegal) that arise without credit services. Thus, there is definitely the potential, and perhaps even the imperative for a well-designed microfinance intervention. However, keeping in mind the obstacles, and the critical need to be careful as well as proactive, Doyle notes several steps to be undertaken before embarking on microfinance refugee programs. These include, investigating the current political situation to learn whether refugees are likely to be repatriated within the next 12 months; ensuring that there are activities that can integrate refugees gradually and in a nonthreatening way into the local markets; asking refugees what

sort of financial services or non-financial services they most need now, then building a program around the existing situation; and, instilling confidence in the permanence of the microfinance services as long as refugees are in their current location to ensure repayment, and implement the program with a longer-term vision.²⁹

The main lessons that may be derived from the preceding literature review are summarized as follows. *First*, microfinance represents an immense potential for a bottom-up participatory development movement even in immediate post-conflict environments. *Second*, this potential is obviously tempered and curtailed by the structure and capacity of institutions, organizations and legal and financial ethos in the conflict-affected area. *Third*, the microfinance intervention must be intricately and individually designed to suit the needs and requirements of the refugee populations. *Fourth*, given the obstacles that surround the implementation of a microfinance program for refugees, it is very necessary to conduct a comprehensive *a priori* assessment of the situation to determine if microfinance is indeed the best utilization of ultimately scarce relief funding.

²⁹ Doyle 14-20.

III. DATA AND RESEARCH METHODS

*Conflict background and history*³⁰

The Internally Displaced persons Monitoring Center website reports that over one million people were internally displaced and up to as many fled abroad during the violent conflict that erupted in Bosnia and Herzegovina (*Bosna i Hercegovina*, BiH) in 1992, after the collapse of the Socialist Federal Republic of Yugoslavia. Serb paramilitary units, militia and police forces, in response to Bosnia's declaration of independence, began a campaign of ethnic cleansing throughout the country, supported by the predominantly Serb Yugoslav Army. The objective of the Serb forces was to create an ethnic Serbian nation which would bridge the Serb-majority areas of Bosnia and Herzegovina and neighboring Serbia. They would aim to accomplish this by the expulsion of Bosnian Muslims (Bosniacs), Croats and other ethnic minorities. This forced expulsion manifested itself during the three years of conflict in the form of widespread violations of humanitarian and human rights law against the civilian population which ranged from "massacres and systematic rape to indiscriminate attacks and large-scale forced displacement."

The conflict was ended by the signing of the Dayton Peace Agreement (DPA) of December 1995 which established BiH as a federal republic made up of two "entities": the (mainly Bosnian Serb) Republika Srpska (RS) and the (mainly Bosniac and Croat) Federation of Bosnia and Herzegovina (FBiH). According to the DPA each entity had its own government, president, parliament and police, and until 2005, each had its own army. The

³⁰ The information for the Conflict background and history section is primarily taken from the Internally Displaced persons Monitoring Center website www.internal-displacement.org.

north-eastern Brčko district is a self-governing administrative unit with territory in both FBiH and Republika Srpska.

In the aftermath of the war, the international community set out to establish a peaceful, multi-ethnic state, by stabilizing the country militarily, by promoting the return of displaced people and by reforming national institutions. The DPA provided for a strong international presence including a NATO-led military force, and the Office of the High Representative to oversee the civil implementation of the DPA. Specific to refugees and internally displaced people, the DPA focused on the right of the displaced to return to their homes and reclaim their properties. It designated UNHCR as the lead implementing agency and provided for the creation of the Commission for Real Property Claims (taken over by the national government in 2004) to ensure the enforcement of property rights of the displaced.

By June 2008, the number of IDPs estimated by UNHCR and the Ministry of Human Rights and Refugees (MHRR) had dropped from 1,200,000 to around 125,000 (UNHCR, June 2008 citing government figures), indicating that over one million refugees and IDPs had returned to their pre-war residence.

Basic economic information

Bosnia and Herzegovina reported measurable economic recovery following the war. Even in the two years following the Dayton Peace Accord, per capita gross domestic product (GDP) doubled. However, after 1997, growth in per capita GDP began to slow and in 2001, the time of the LSMS survey per capita GDP was 1,263 dollars, which placed BiH in the group of lower middle-income countries.

Inflation rates had been falling for a few years when this survey was conducted, continuing into the 2002 fiscal year. Unemployment levels in BiH remained fairly high in the medium term aftermath of the war. Some reasons for high unemployment include the fact that “the country’s structure of employment was still in a transitional phase away from heavy reliance on state sector employment when the transformation was interrupted by the outbreak of the war,”³¹ and that the post-war environment included severe challenges such as the employment of repatriated refugees, IDPs and demobilized soldiers.³² Although, because of the unreliability of data collection processes in post-conflict environments, it is notoriously difficult to estimate an exact unemployment rate, it is generally agreed that the unemployment rate ranged anywhere between 20% and 40%. In such an environment, self-employment through a microenterprise might be the only viable employment option.

Data: Population and survey characteristics

This particular assessment derives its data from the Living Standards Measurements Survey conducted by the World Bank in Bosnia and Herzegovina in 2001. Between 1999 and 2004 the people of BiH were in the slow process of post-conflict reconstruction and development, after a devastating civil war, and before that a war of independence. Moreover, the economy was in the process of transition from a traditional to a market-based economy. Thus, the population of BiH is well-suited for a study into paths of economic development after a conflict. The sub-sample of this population that this study is specifically interested in observing is the refugee, returnee and displaced people of BiH.

³¹ Dunn, Elizabeth, and Josip Tvrkovic. Clients of Microcredit Organizations in Bosnia and Herzegovina: Report on Baseline Survey. Rep. Prism Research.

³² Ibid.

The LSMS in Bosnia-Herzegovina is a multi-topic household survey covering a wide range of topics that affect welfare: housing, education, health, labor, migration, credit, vouchers, social assistance, consumption, agricultural and non-agricultural activities. Among other things, the LSMS in BiH was designed to measure welfare in both monetary and non-monetary terms. Detailed information was collected on household consumption (expenditures, home production, use value of housing and durables), on social assistance such as old age pensions, war veterans pensions, assistance received by orphans, widows, and on sources of income. Non-monetary measures include information on housing, and access to, and the use of, public services such as education and health. In a normative sense, the LSMS was designed to collect the information required for an assessment of living standards and to provide the key indicators required for social and economic planning.

In so far as the dataset contains information on two key areas—demographic information regarding perceived refugee or IDP status, and information regarding credit modules including number of loans taken, institution borrowed from and value of loans—it is best-suited for this evaluation of microfinance as an economic tool of post-conflict development.

Overall, the response rate in the survey was 82 percent. For each enumeration area, four replacement households were selected prior to the field work. Using these replacement households as needed (a total of 938 households); the final sample size was 5,402 households interviewed.

Research Methods: Hypothesis questions

This assessment is intended to evaluate the two following questions:

1. What factors does access to credit depend on? [Here individual characteristics are mapped]
2. Will access to credit impact the poverty of refugee and displaced populations? [Here household characteristics are mapped]

A close examination of each of these two questions follows below.

Research Methods: Analysis Plan

1. What factors does access to credit depend on?

Regression model

$$LOAN\ TAKEN = \beta_0 + \beta_1\ MIGRATION\ STATUS + \beta_j X_j + E_i$$

Dependent variable

The impact or outcome variable in this case is a dummy variable which equals 1 if at least one loan has been taken in the last 12 months and 0 otherwise. The LSMS survey lists several sources from which loans may be taken. But for the purposes of this part of the study—examining the factors on which microfinance depends—loans borrowed from credit unions and banks, cooperatives and NGOs are the most pertinent.

Independent variables

The primary independent variable of interest here is the migration status. The study wishes to particularly evaluate whether the status of a refugee, returnee or a displaced person has, on average, a positive or negative effect on the chances of getting a microfinance loan,

given other factors. The hypothesis is that individuals with IDP/refugee status are, *ceteris paribus*, less likely to get a loan than non-IDP/refugee individuals.

Other independent variables will form the control factors. These will include gender, age, marital status and education level of the respondent. In this first regression education level is measured in term of level of education obtained, so that an individual who has obtained only primary school education and not any higher is represented by a variable *Primary*=1, and so on and so forth. Variables such as location of residence (urban, rural, mixed), and monetary value of durable goods have the potential of significantly impacting the decision whether to award a loan or not. Urban or rural settings could be important especially depending on the type of credit institution awarding the loan, and also depending on the extent of post-conflict destruction in the area. The value of household assets in the form of durable goods may serve as indicators of current economic wealth and also as an indicator of the ability to repay a loan, and thus may prove to be vital in the decision to award a loan. A full list of independent variables (for both models) along with specifications is listed in **Table 2** below.

2. Will access to microcredit impact the poverty of refugee and displaced populations?

Regression model

$$ANNUAL\ CONSUMPTION = \beta_0 + \beta_1 IDP\ STATUS + \beta_2 LOAN\ TAKEN + \beta_3 LOAN\ TAKEN * MIGRATION\ STATUS + \beta_j X_j + E_i$$

Dependent variable

An important goal of this study was to assess effectiveness of microcredit in helping to improve the household welfare of borrowers. Household welfare has many dimensions, but this study focused on the economic dimension of household welfare. Specifically, the variable used to represent household is **total per capita household consumption adjusted for cost of living**. This variable is included in the LSMS dataset.

A plot of the distribution of the total per capita household consumption adjusted for cost of living variable revealed that it was distinctly skewed to the left, and thus not a particularly normal distribution. Subsequently, the natural log values of the outcome variable and the continuous independent variables (such as *Age*, *Asset value*, etc.) were used to ensure a linear relationship.

Independent variables

Table 2 below provides a full list of the independent variables that will be used and their specifications based on the LSMS survey design and the requirements of this study. Justifying the use of the three main instrumental variables, *migration status*, *credit history* and *loan size* are easy. These three variables are obviously the focus of this particular question. We are interested to evaluate whether refugees who take loans are, on average, better off than refugees who do not take loans, holding other factors constant. The above equation will also provide us a comparison between the welfare effects of taking a loan of refugee versus non-refugee populations.

The study essentially wishes to indentify whether taking a loan is of direct and significant benefit to IDP/refugee households. It is for this reason that the above model

includes the interaction term between *Loan* and *Migration status*. This independent variable will capture the additional effect on the consumption of IDP/refugee households of access to credit i.e. of taking a loan. The central hypothesis of this paper is that this effect will prove to be positive. More will be expounded in this in the Results section of this paper.

The other independent variables are included, fundamentally, to control for factors such as age, gender, urban versus rural residence, education, and household wealth among others.

TABLE 2: INDEPENDENT VARIABLES AND THEIR SPECIFICATIONS	
Variable	Specification
<i>Individual Characteristics</i>	
Gender of primary respondent	1=female; 0=male
Age of primary respondent	Years
Marital status	1=married; 0=single
Migration status	1=refugee, IDP, returnee; 0=non-displaced resident
Education level of primary respondent	No School, Primary, Secondary, Junior College, Undergraduate, Masters, PhD.
<i>Household Characteristics</i>	
Number of Household members	Persons
Region of residence	1=Urban; 2=Rural; 3=Mixed
Value of assets	Amount in KM
Size of loan	0=loan size <=1000; 1=otherwise
Municipality of residence	mun1=1 for residence in municipality 1, and so on.
Gender of Head of Household	1=female; 0=male
Education	Number of years of education

The next section contains the some of the preliminary findings of this paper in the nature of the primary descriptive statistics.

IV. DESCRIPTIVE STATISTICS

Table 3 below displays the number of observations, the mean and the standard deviations of the dependent variable, and some of the primary independent variables for the household characteristics of the data. These variables are, as have already been mentioned, at the center of the analysis of this paper and pertinent to the analysis of the effect of loan-taking on the consumption levels of IDP/refugee households.

TABLE 3: DESCRIPTIVE STATISTICS OF HOUSEHOLD-LEVEL VARIABLES				
Variable	Specification	N	Mean	Standard Deviation
Loan status	1=loan taken; 0=no loan	5402	0.2289	0.420
IDP status	1=IDP; 0=non-IDP	5402	0.174	0.379
Education	Years attended school	5402	5.663	2.371
Number of Household members	Persons	5402	3.1452	1.542
Household Head Gender	1=male; 2=female	5402	1.2491	0.432
Asset value	Amount in dollars	5402	65079.4	218379
Annual per capita consumption (dependent variable)	Amount in KM*	5402	4112.84	2413
*1 KM=0.457 Dollars in 2001 exchange rate terms.				

First, only 17.4% of surveyed population, or 940 out of 5402 households reportedly belong to the category of IDP/refugee households. Moreover, only 22% of the total surveyed households (5402) reported to have taken a loan in the past year. Thus, one may

already presume that the number of IDP/refugee households which had access to credit was not very large. This information is presented in **Table 4** below.

TABLE 4: THE NUMBER OF IDP/REFUGEE HOUSEHOLDS WHICH TOOK LOANS			
Refugee Status IDP=1			
Loan Status	Frequency	Percentage	Cumulative Frequency
Loan=0	718	76.38	76.38
Loan=1	222	23.62	100.0

Clearly, according to **Table 4**, only 23.62% (222 in number) of the 940 IDP/refugee households reported in the survey to have taken loans. This amounted to a mere 4.1% of the total number of households surveyed to compile the LSMS dataset. Immediately, this table informs us about certain unassailable limitations to the analysis conducted by this paper. Not only will the results of this paper be constrained by the low number of IDP/refugee households with access to credit, but the external validity of even significant results, or more simply, the ability to generalize the outcomes reported in this paper over a wider population of IDPs/refugees is also critically encumbered. Of course, this does not imply that the results reported in this paper are redundant, only that they warrant further and deeper research with greater access to appropriate data.

To gain a broader understanding of the household characteristics, the data has been disaggregated and presented in various tables below. First, **Table 5** below shows the consumption profiles of IDP/refugee households relative to non-IDP/refugee households in the survey.

TABLE 5: CONSUMPTION LEVEL OF IDP COMPARED TO NON-IDP HOUSEHOLDS			
	Annual per capita Consumption (in KM)		
Refugee Status	Number	Mean	Standard Deviation
IDP=0	4462	4282.28	2499.64
IDP=1	940	3307.89	1742.27

As is noticeable, and expected, the consumption level of IDP/refugee households are lower than that of non-IDP/refugee households, numerically by 974.39KM (672.32 dollars). The total per capita household consumption adjusted for cost of living for refugees is 3307.89KM or approximately 2282.22 dollars. Although this is not clearly a destitute figure, this value is still considerably lower than corresponding consumption levels of developed European nations.

The next **Table 6** disaggregates the surveyed households into four quartiles based on their level of per capita household consumption adjusted for cost of living and then looks at the number of IDP/refugee households contained in each quartile.

TABLE 6: IDP/REFUGEE HOUSEHOLD IN EACH CONSUMPTION QUARTILE		
	IDPs in each Quartile	
Quartiles	Number	Percentage (of Quartile)
Q1	376	40.00
Q2	231	24.57
Q3	199	21.17
Q4	134	14.26

The results from **Table 6** seem to be more aligned with the intuition and expectation that a greater proportion of refugee/IDP households will be poor. We observe that the lowest quartile in terms of total per capita household consumption adjusted for cost of living contains 379 families classified as IDP/refugee. This constitutes 40% of the number of all families in that consumption quartile. We also note that the ratio of IDP/refugee households

to all households in each quartile reduces quite significantly as we move into the second, third and fourth consumption quartiles. Only 14.26% of the total number of households in the richest quartile is IDP/refugee households.

In the next **Table 7**, below, the data is, once again, disaggregated into consumption quartiles, and the aim this time is to look at the number of loans dispersed to households within each consumption quartile. The expectation is that, all other things equal, more loans should be dispersed to households in the higher quartiles, because these households would typically be more financially secure and able to repay loans within the stipulated time period, and/or be able to provide asset-backed collaterals.

TABLE 7: LOANS IN EACH CONSUMPTION QUARTILE		
Quartiles	Number	Percentage (of Quartile)
Q1	336	27.16
Q2	309	24.98
Q3	298	24.09
Q4	294	23.77

Table 7 evidences that the results are contrary to expectations. The proportion of loan takers in each of the four consumption quartiles remains more or less constant across the four quartiles. In fact, numerically, the first quartile, signifying the lowest consumption standards, contains the most number of loan-takers with 336 households taking loans. These results might lead to the conclusion that credit-markets were active in the aftermath of the conflict, and that even the relatively poverty-stricken had a good level of access to these markets, or at least that access to credit markets did not critically depend on wealth-status.

V. RESULTS AND ANALYSIS

This following section forms the core of this paper and contains the results of the regression models which were introduced and described above. However, before proceeding with the analysis three points must be made. *First*, the dataset for the initial regression (outcome variable: loan) utilizes observations made at the individual level, while the dataset for the latter regression (outcome variable: per capita household consumption) utilizes observations made at the household level.

Second, even at the very outset it should be stated that the independent variable for loan taking behavior (1= if loan was taken) is quite possibly an endogenous variable in the second regression model (outcome variable: per capita household consumption). This means that the value of this independent variable may be dependent on the value of other predictor variables. Because of this endogeneity, significant correlation can exist between the unobserved factors contributing to both the endogenous independent variable and the dependent variable, which results in biased estimators (incorrect regression coefficients). In a sense, the first regression which attempts to derive the determinants of loan-taking behavior tries to account for this endogeneity. One method to circumscribe the endogeneity issue is to operationalize an instrumental variable to substitute for the endogenous variable. An instrumental variable is one that is highly correlated with independent endogenous variable, but one that has no direct effect on the dependent variable. For example, a potentially coherent case could be made for “distance of household from bank/microfinance institution” to be a valid instrument for loan-taking behavior. However, the LSMS dataset did not have the level of detail necessary for the formulation of an effective instrumental

variable. More will be discussed about endogeneity in the section dedicated to analysis of the second regression model.

Third, both sets of regressions controlled for regional effects. The population of the Bosnia-Herzegovina LSMS dataset was divided into 25 municipalities. The baseline category for each regression represented people from the first municipality, Banja Luka.

1. The Effect of IDP/refugee status on loan-taking behavior

Outcome Variable: Loan (1=loan was taken)

Given the binary (1/0) nature of the dependent variable, a PROBIT functional form was utilized to estimate the results of this regression. The main advantage of using a PROBIT model rather than a linear probability model (LPM), which uses standard OLS regression to estimate coefficients, is that in the former the predicted values of the dependent variable are restricted to between 0 and 1. This is important because the coefficients in models with binary dependent variables are interpreted in terms of an increase or decrease in the *probability* of “success” (in this case, *loan=1*) given a marginal increase the independent or predictor variable. Thus, the use of the PROBIT functional form precludes the existence of meaningless coefficient estimates of probabilities less than 0 and greater than 1 that LPM models might project.

The results of this model are summarized in **Table 8** below. It should be noted that the model assigns each individual a level of education variable depending, obviously, on the level of education that was reported for each individual in the LSMS dataset. The baseline category represented individuals with no formal level of education. The baseline category also represented individuals who were male, married and living in rural areas.

TABLE 8: REGRESSION RESULTS SHOWING THE EFFECT OF IDP STATUS ON LOAN-TAKING BEHAVIOR

Dependent variable: *loan* (1=individual took loan)

Independent variables	Estimates
<i>IDP Status</i> (1=individual was IDP or refugee)	-0.018 (2.01)*
<i>Primary school education</i>	-0.006 (0.52)
<i>Secondary school education</i>	-0.005 (0.46)
<i>Junior college education</i>	-0.002 (0.11)
<i>Undergraduate education</i>	-0.008 (0.38)
<i>Masters education</i>	-0.037 (0.55)
<i>PhD education</i>	0.013 (0.14)
<i>Value of assets</i>	0.006 (0.26)
<i>Age</i>	0.003 (2.99)**
<i>Age²</i>	-0.000 (4.02)**
<i>Single</i>	-0.016 (1.65)
<i>Female</i>	0.007 (0.87)
<i>Urban</i>	-0.078 (1.95)
<i>Mixed</i>	-0.018 (0.37)

5761 observations; Absolute value of z statistics in parentheses; * significant at 5%; ** significant at 1%; the regression also accounted for variances across regions by including municipality variables, the coefficients of which are not included in the table. This model was computed using the STATA software package, using the command *dprobit*, which automatically computes changes in predicted probabilities given a marginal change in the independent variable, given that the other variables are held at their mean values.

As expected, the coefficient of the primary independent variable of interest, *IDP status*, is significant at the 5% level. Moreover, the nature of the negative relationship is also as was intuitively expected. Thus, we are able to conclude that, given all other independent

variables are held at their mean values, an individual with IDP/refugee status is 1.8% (significant at the 95% level) less likely to get a loan than an individual who is not an IDP/refugee.

The only other statistically significant variable is *Age*, the coefficient of which is positive. This is, once again, as expected. Thus, we may interpret at the 1% significance level that yearly increases in age cause the probability of getting a loan to increase by 0.3 percent. The significance and negative sign of the coefficient of Age^2 further illuminates that the relationship between the age of the individual and loan-taking behavior is not exactly linear. Thus, after a certain age the probability of getting a loan decreases.

None of the other variables are statistically significant either at the 1% or 5% levels. This is especially surprising for the independent variable *Asset Value*. The *a priori* intuition is that individuals with higher asset values would be more likely to get loans, since assets could effectively fulfill the role of providing collateral for these loans. One possible explanation for this statistical insignificance could be, especially for low-value loans, which the lending institutions, in the aftermath of devastating conflict, preferred to use alternative evaluation methods to determine the viability and ability of repayment by the borrower. One such method, as described earlier, is the employment of group lending schemes, which relies on a concept of tribal or communal responsibility based upon traditional and longstanding communal linkages to ensure repayment of the loan, rather than the availability of asset-based collateral.

Although, the variable *Urban*, signifying individuals living in urban residential areas, is not significant at the 5% level, the z-score (given in brackets) suggests that we may interpret

at least at the 10% significance level that urban residents are up to 7.8% less likely to get a loan than a rural resident, which is the baseline category. This is an interesting observation.

2. *The Effect of Taking a Loan on the Consumption of IDPs/refugees*

Outcome variable: Total per capita household consumption adjusted for cost of living

OLS regression was used to evaluate this model. The distribution of the outcome variable was plotted and was observed to be extremely skewed. Therefore, the natural log forms of the continuous variables in the model were used in this regression.

The results of this model are summarized in **Table 9** below. Two regressions have been estimated. The first regression is the most important for this analysis and represents the answer to the central question of this paper: Do IDPs/refugee households reap positive standard of living benefits (in terms of higher consumption levels) by taking loans? The second regression represents a simple test of endogeneity, and this will be expounded upon shortly.

In the first regression the three critical variables to examine are *IDP status*, *loan* and the interaction term variable between *IDP status* and *loan*. The first two are more or less self-explanatory. The interaction term is meant to capture the additional impact of taking a loan on specifically IDP/refugee households. The intuition and the expectation driving the analysis is that this coefficient will be positive thereby indicating the positive returns to consumption for IDP/refugee households taking loans.

TABLE 9: REGRESSION RESULTS SHOWING THE EFFECT OF LOAN ON THE CONSUMPTION OF IDP/REFUGEES

Dependent variable:	(1) <i>Yearly consumption</i>	(2) <i>Yearly consumption</i>
Independent variables	Estimate (1)	Estimate (2)
<i>IDP status</i>	-0.147 (9.08)**	-0.148 (10.39)**
<i>Loan</i>	0.040 (2.96)**	
<i>IDP*Loan (interaction)</i>	0.001 (0.03)	
<i>Female head of household</i>	-0.027 (2.02)*	-0.027 (1.98)*
<i>log(Household head age)</i>	-0.154 (7.31)**	-0.162 (7.78)**
<i>log(Household size)</i>	-0.545 (43.68)**	-0.542 (43.55)**
<i>log(Years of Education)</i>	-0.128 (9.17)**	-0.127 (9.13)**
<i>Single head of household</i>	-0.010 (0.42)	-0.010 (0.41)
<i>log(Asset value)</i>	0.042 (19.14)**	0.042 (19.07)**
<i>Urban residential</i>	-0.110 (1.99)*	-0.106 (1.92)
<i>Mixed residential</i>	-0.308 (3.69)**	-0.298 (3.57)**
<i>Constant</i>	9.539 (88.58)**	9.576 (89.38)**
Observations	5003	5003
R-squared	0.49	0.49

Absolute value of t statistics in parentheses;* significant at 5%; **significant at 1%; the regression also accounted for variances across regions by including municipality type variables, the coefficients of which are not included in the table; the second regression removes *loan* from the regression as a test for endogeneity.

The *IDP status* variable is significant at the 1% level. Thus, we may interpret at this level of certainty that, on average, an IDP/refugee household is predicted to have a per capita household consumption level which is 14.7% lower than a non-IDP/refugee household. Clearly, this is in line with the expectations expressed earlier in this paper, and with results in the descriptive statistics section. Moreover, the *loan* variable is also significant at the 1% level. From this, we may interpret that, on average, a loan-taking household is predicted to have a per capita household consumption level which is 4% higher than a non-loan-taking household and that this result is 99% significant. Once again, this result is in line with the expectations of this paper.

In fact, the fundamental assumption of this paper is exactly that, in a general sense, loan-taking in the aftermath of conflict, leads to higher consumption standards for the entire affected population, and more specifically, this effect, of higher consumption standards, will be especially true for IDP/refugee households which take loans. While the first part of that fundamental assumption seems to be borne out by the results in **Table 9**, the second part specific to IDP/refugee households, does not. This may be interpreted from observing the coefficient of the critical interaction term between *IDP status* and *loan*. This coefficient is clearly not significant. While this result is somewhat disappointing, it is not entirely unexpected. In the descriptive statistics section it was observed that only 222 IDP/refugee households out of a total of 5402 households surveyed in Bosnia and Herzegovina by the World Bank received loans. In percentage terms, IDP/refugee households taking loans represented a mere 4.1% of the total number of households surveyed. Thus, it is not entirely surprising that we are unable to make any substantial statistical judgments regarding the

effectiveness of loan-taking behavior on the consumption patterns of IDP/refugee households. Very simply, there is not enough statistical power to identify the relationship.

Among the other significant variables in this regression, notably, higher levels of education are associated with lower levels of consumption, and urban residents are associated with, on average, 11% lower consumption levels than rural households. Both these results might convey that households in urban areas, which are generally associated with higher education standards, were more adversely affected by the debilitating effects of the war than households in rural areas.

The **second regression**, as mentioned before serves as a simple test of endogeneity of the *loan* variable. To test how robust the model is, the *loan* variable and the interaction term were both left out of the second regression. As is observed, the coefficients of the other variables suffered statistically insignificant changes. Most importantly, omitting the *loan* and the interaction variable does not affect the point estimate for *IDP status*. Thus, we may be reasonably certain that omitting the loan variable does not create an omitted variable bias and that the stability of the point estimate is robust to different specifications, including the inclusion of a potentially endogenous variable. Thus, while we are unable to rule out every potential source of endogeneity for this analysis, we are reasonably certain that the model does not suffer from any significant omitted variable bias.

Finally, since the paper could not adequately address the effect of loan-taking behavior on IDP/refugee households by observing the interaction term between *IDP status* and *loan* in the above regression, **Table 10** below disaggregates consumption levels by households that took loans and households that did not. The underlying idea is to compare the coefficients of *IDP status* in the first and second regressions, representing IDP/refugee

households which did not take loans (regression 1) and IDP/refugee households which took loans (regression 2), and account for any observed difference in those estimates.

TABLE 10: REGRESSION RESULTS SHOWING DIFFERENTIAL EFFECTS OF LOAN-TAKING ON IDPs/REFUGEES

Dependent variable:	(1) [<i>loan=0</i>] <i>Yearly consumption</i>	(2) [<i>loan=1</i>] <i>Yearly consumption</i>
Independent variables	Estimate (1)	Estimate (2)
<i>IDP status</i>	-0.154 (9.34)**	-0.134 (4.67)**
<i>Female head of household</i>	-0.033 (2.14)*	-0.005 (0.18)
<i>log(Household head age)</i>	-0.174 (7.16)**	-0.097 (2.28)*
<i>log(Household size)</i>	-0.540 (38.10)**	-0.565 (21.31)**
<i>log (Years of education)</i>	-0.130 (8.17)**	-0.113 (3.93)**
<i>Single head of household</i>	-0.029 (1.04)	0.051 (1.03)
<i>log(Asset value)</i>	0.038 (15.24)**	0.054 (11.78)**
<i>Urban</i>	-0.141 (2.24)*	-0.046 (0.32)
<i>Mixed</i>	-0.420 (5.15)**	-0.397 (2.24)*
<i>Constant</i>	9.675 (76.94)**	9.212 (39.84)**
Observations	3804	1199
R-squared	0.50	0.51

Absolute value of t statistics in parentheses; * significant at 5%; ** significant at 1%; the regression also accounted for variances across regions by including municipality type variables, the coefficients of which are not included in the table.

Straightaway, it is observed from **Table 10** that the coefficient of *IDP status* in both regression 1 and regression 2 are statistically significant. Of course, both estimates are also negative, which is expected for reasons already discussed earlier in the paper. However, it is also noticed that the estimate in regression 2, in other words, the estimate for IDP/refugee households which took loans is less negative than the parallel estimate for IDP/refugee households which did not take loans. Specifically, IDP/refugee households which took loans, according to this analysis, have, on average 2% higher per capita household consumption levels than corresponding IDP/refugee households which did not take loans. This is generally supportive of the fundamental thesis of this overall analysis which is, at the risk of being repetitive, that access to credit markets, in the form of small microfinance loans may have a significant and positive impact on the living standards of refugees and IDPs. At the very least, this analysis shows that the idea of credit tailored specifically for IDPs/refugees to engender their economic development and self-sufficiency in the immediate aftermath of war or violent conflict deserves greater and more in-depth exploration.

One further test of the statistical power of this model was conducted: The **difference** between the coefficient estimates of *IDP status* in both regression 1 and regression 2 of 2% was tested for statistical significance. An estimated a p-value of 0.56 was not enough to definitively rule out the possibility that the difference between the two estimates was actually zero. Thus, while we cannot effectively prove any positive effect of loans on consumption standards of IDP/refugee households, we may not, at the same time, prove that there is no such effect.

Why do we find no significant statistical effect here? First, as stated before, there is the problem of data. Only 222 IDP/refugee households reported to taking loans, from an overall sample size of 5402. Thus, there aren't enough relevant data points. But are there more qualitative reasons which contribute to this result and which deserve further scrutiny? While we may not be certain, certain characteristics and demographics of the population allow for informed conjecturing. For example, a survey of microfinance activities in BiH in 2003³³ estimated that most entrepreneurial activity occurred in the trade sector which is fundamentally dependent, especially in post-conflict environments, on formal and informal networks. IDP/refugee households are already severely disorientated and would find it very difficult to adjust to a new environment and then immediately set up business networks. Thus, even with loans IDP/refugee households may not be adequately supplied to succeed in post-conflict environments. This is merely one possible rationale.

³³ Dunn et al 28.

VI. CONCLUSION

In some ways this analysis had two separate but parallel motivations. First, there exists in development studies, as documented by Morduch, a general lack of robust evaluations of microfinance programs, especially in terms of their utility in combating poverty or raising consumption standards. In this regard, this paper aimed to fill the quantitative gap in the literature. Second, the nexus of microfinance as a tool of development and its use in immediate post-conflict environments, especially its use by and for the development of refugee/IDP populations is still at a very nascent stage. Practitioners point to positive anecdotal evidence and support the use of microfinance programs for refugees/IDPs. Academics point to the lack of robust quantitative evidence to support this thesis. Once again, this paper aims to at least begin to bridge the divide between the practitioners and academics by providing some quantitative evidence in support of microfinance for the development of refugees/IDPs.

Ultimately the ability of this paper to make any bold policy suggestions is constrained by a lack of pertinent data which diminishes the statistical power of the regressions and the results. Still, there were some important conclusions. To be sure, the first regression model (summarized in **Table 8**) showed that IDPs and refugees are statistically less likely to get loans than non-IDPs and refugees. This, in conjunction with descriptive statistics which proved that IDPs and refugees tend, in terms of household consumption, be the poorest sections of society in the aftermath of a conflict, has significant policy implications. Chief amongst those, and very fundamentally, that these IDPs and refugees, by being less likely to gain access to credit, are therefore less likely to be able to pull themselves out of poverty.

Thus, policymakers must pay special attention to refugees and IDPs in the aftermath of a conflict.

Then, the final table showed that, even with the current data, there is sufficient evidence that IDP/refugee households which have access to credit markets, and thereby are able to harness entrepreneurial ability in the aftermath of conflict, will, on average, have higher living standards (in this case at least 2% higher) than those IDP/refugee households that do not take loans. Thus, microfinance as a tool of development of these IDP/refugee households may not be arbitrarily ruled out. In fact, as mentioned above, given the lack of the state capacity to create jobs in post-conflict environments, microfinance institutions, by giving access to credit to these marginalized populations might fulfill a critical role in generating labor capacity, at least in the short term.

Finally, from this paper we may begin to design a better and more comprehensive evaluation. A more complete analysis would obviously be able to better answer some key policy questions. Clearly, a more robust analysis would compare outcomes between control group and treatment group made up of refugees and non-refugees, and between people with access to loans and those without this access, which are otherwise similar. Going along with the general rules of implementation of microfinance programs, this analysis would have been better served by a detailed analysis of pre- and post-conflict labor force skills and pre- and post-conflict banking sector coverage and outreach, and post-conflict political and security stability. Important also, would be the analysis of whether the microfinance institutions in this post-conflict environment were specifically targeting refugees versus other population subgroups. If so, this occurrence would clearly tend to generate endogeneity issues which

would overestimate the effect of loan-taking behavior on the consumption standards of refugee/IDPs.

VII. REFERENCES

Works Cited

- Bartsch, Dominik. Microfinance and refugees. Issue brief No. UNHCR. UNHCR.
- Cull, Robert, Asli Demirguc-Kunt, and Jonathan Morduch. Microfinance Meets the Market. Working paper No. 4630. Development Research Group, The World Bank. 2008. 3-4. The World Bank. The World Bank. 8 Oct. 2008.
- Doyle, Karen. Microfinance in the Wake of Conflict: Challenges and Opportunities. July 1998. Microfinance Best Practices Project. 4 Sept. 2008.
- Dunn, Elizabeth, and Josip Tvrtkovic. Clients of Microcredit Organizations in Bosnia and Herzegovina: Report on Baseline Survey. Rep. Prism Research.
- Dunn, Elizabeth. Impact Assessment/ Research and Development Component Local Initiatives (Microfinance) Project II. Rep.No. Impact LLC.
- Fagen, Patricia. "Remittances in Conflict and Crises." Access Finance May 2006. The World Bank Group. 7 Sept. 2008 <http://www-wds.worldbank.org/external/default/wdscontentserver/iw3p/ib/2007/03/12/000020439_20070312144749/rendered/pdf/389570af110fagen01public1.pdf>.
- Goronja, N. The Evolution of Microfinance in a Successful Post-Conflict Transition: The Case Study for Bosnia-Herzegovina. Microfinance Gateway. ILO. 14 Oct. 2008 <<http://www.microfinancegateway.org/content/article/detail/2473>>.
- Heen, Stacy. MICROFINANCE AND CONFLICT: TOWARD A CONFLICT-SENSITIVE APPROACH. Diss. Tufts University, 2004. Boston, MA: The Fletcher School, 2004.

- Jacobson, Jessica. "UGANDA: THE PROVISION OF MICROFINANCE IN THE WAKE OF CONFLICT." Thesis.
- Jacobson, Karen. The Economic Life Of Refugees. Kumarian P.
- Legerwood, Joanna. Microfinance Handbook. An Institutional and Financial Perspective. PublicationNo. Sustainable Banking with the Poor, The World Bank. Washington DC: The World Bank, 199. 1.
- Maggiano, Grey. The Impact of Rural Microfinance: Measuring Economic, Social and Spiritual development in Kabale, Uganda. Diss. Georgetown University, 2006. 9 June 2006. 14 Sept. 2008 <<http://hdl.handle.net/1961/3707>>.
- Marino, Pascal. Beyond Economic Benefits: The contribution of microfinance to postconflict recovery in Asia and the Pacific. Apr. 2005. Foundation for Development Cooperation. 4 Sept. 2008 <<http://http://www.fdc.org.au/files/microfinance/microfinance%20and%20conflict%20in%20asia%20and%20the%20pacific.pdf>>.
- Morduch, Jonathan. Does Microfinance Really Help the Poor? New Evidence from Flagship Programs in Bangladesh. Working paperNo. Department of Economics and HHID, Harvard University. 1998.
- Morduch, Jonathan. "The Microfinance Promise." Journal of Economic Literature XXXVII (1999).
- Otero, Maria. BRINGING DEVELOPMENT BACK INTO MICROFINANCE1. Rep.No. Accion International. Accion International, 1999-2000. 1.
- Swain, Ranjula, Nguyen Sanh, and Vo Tuan. "Microfinance and Poverty Reduction in the Mekong Delta in Vietnam." African and Asian Studies (2008): 191-215.

Uvin, Peter. "Development Aid and Structural Violence. The Case of Rwanda."

Development 42 (1999).