ISSUES IN THE SUSTAINABILITY OF MICROFINANCE

Three Empirical Essays at Micro and Macro Level

Dissertation zur Erlangung des wirtschaftswissenschaflichen Doktorgrades der Wirtschaftswissenschaftlichen Fakultät der Universität Göttingen

vorgelegt am 24.08.2009
von Ahmad Nawaz
aus Lahore, Pakistan

Eidesstattliche Erklärung

Hiermit versichere ich an Eides statt, dass ich die eingereichte Dissertation

"ISSUES IN SUSTAINABILITY OF MICROFINANCE: Three Empirical Essays at Micro and Macro Level"

selbständig verfasst habe. Anderer als der von mir angegebenen Hilfsmittel und Schriften habe ich mich nicht bedient. Alle wörtlich oder sinngemäß den Schriften anderer Autoren entnommenen Stellen habe ich kenntlich gemacht.

Göttingen, den 24. August 2009, Ahmad Nawaz

In loving memory of

Riffat Nawaz

Acknowledgements

I consider it a privilege to extend my deepest gratitude to my supervisor, Stephan Klasen, for his invaluable guidance and support throughout my doctoral studies. Without which, this dissertation would not have seen the daylight. I am greatly indebted to Bernhard Brümmer for his guidance and time when it mattered the most. I am also grateful to Carola Grün for her insightful comments which contributed significantly to the qualitative improvement in the final draft of the Thesis. I am also thankful to Prof. Jacob Yaron; Marek Hudon and Marc Labie of CERMi, Brussels and Roy Mersland of Agder University, Norway for their comments and suggestion during conferences.

I feel very privileged to have such wonderful and caring colleagues around during my stay that to single out any one or few of them would not do justice at all. I thank all of them for their advice, practical help and friendship.

I am thankful for the Higher Education Commission of Pakistan (HEC) and German Academic Exchange Program (DAAD) for funding my Doctoral studies and to my employment institute (PIDE) in Pakistan for keeping me intact on their pay-roll for the time of my Doctoral studies. I am also thankful to our chair for Development Economics, Göttingen Graduate School of Social Sciences (GGG) and KMU-network for providing me funds to attend different conferences, workshop and summer school during my doctoral studies.

Back home, I am greatly indebted to my father, Nawaz Khan for his love, affection, prayers, and blessings. He has always been a source of inspiration to me for his hard work and perseverance which really kept me going throughout particularly in testing times. I am also thankful to my siblings Ali and Ammara for

their love, prayers and affection. Finally my wife, Alina owes a lot to the successful completion of my doctoral studies and deserves special appreciation. She managed the home affairs to perfection and took excellent care of our two kids Ayaan and Rania, thus allowing me the maximum time to concentrate on my doctoral studies. Having such remarkable teachers, colleagues, friends and family, I surely had a time of my life in Germany.

Contents

List of Tables

List of Figures

Chapter 1

Introduction and Overview

Since the days in the early 1970s when Muhammad Yunus of Grameen Bank started giving credit to marginalized people to his acceptance of the Nobel peace prize for improving the lives of millions of people around the globe in 2008, microfinance has come a long way. With more than a billion dollars of outside investment pouring in each year, it might seem out of place to question the future of microfinance. Microfinance promises not only poverty reduction but also financial self-sustainability. The preservation of this dual commitment of microfinance institutions to both social and commercial goals of poverty reduction and profitability whilst ensuring their progressive integration into the financial market and phasing out of subsidies is an intense topic of debate. The sustainability stresses the importance of being able to cover the cost of lending money out of the income generated from the outstanding loan portfolio and to reduce these costs as much as possible. Among other things, this increased focus on financial self-sustainability and efficiency is due to a number of developments the microfinance business has been recently confronted with, such as the increasing competition among Microfinance Institutions (MFIs), the commercialization of microfinance (i.e. the interest of commercial banks and investors to finance MFIs), technological change that also has become available for, and implemented in microfinance, financial liberalization and regulation policies of the government. Not to mention the important debate over the controversial role

of subsidies in the efficiency of microfinance. The MIX 2006 benchmark data set of 704 MFIs reveals that 41% are not financially self-sustainable; they rely on donor support to keep afloat (Mersland and Strøm, 2009). Hence a deeper understanding of the true costs associated with subsidization of microfinance to the society, the determinants of subsidies and its impact on the financial and social efficiency of microfinance are required in order to evaluate the role of subsidies in the performance of microfinance institutions. Based on the cross-country data, this dissertation aims to provide evidence on the fulfillment of the dual mission of microfinance of reaching to poor and financial sustainability amid subsidization. Towards this aim, it contributes three empirical essays, measuring the social cost of subsidization to society, incorporating its role in the efficiency and productivity of microfinance and its impact on the financial performance of microfinance.

Traditionally the performance of MFIs has been measured by following either the welfarist approach or the institutionalist approach (Bhatt and Tang, 2001; Woller and Woodworth, 2001). Described by Morduch (2000) as "Microfinance Schism", the former put emphasis on assessing the impact on the welfare of the poor while later argues for the assessment in terms of the institutional success in achieving self-sustainability and breadth of outreach. However, economists have long been wondering about the true social cost of subsidization of development finance institutions to the society (Gittinger, 1982) and Microfinance Institutions are no exceptions. Frameworks for the quantitative analysis of subsidized MFIs include Christen (1997), Rosenberg et al. (1997), Von Pischke (1996b), Holtmann and Mommartz (1996), Alfaro (1996), Christen et al. (1995), SEEP (1995), IADB (1994), Rosenberg (1994), Benjamin (1994), and Yaron (1992a and 1992b). Nevertheless, the debate has not yet been settled to its logical conclusions. The social welfare concept associated with MFIs along with the shift towards commercialization warrants that their performance on the basis of traditional financial ratios without unearthing their degree of subsidy dependence provides only a partial and often meaningless or misleading picture of the social cost of maintaining the MFIs.

The first essay of this dissertation adds to this debate by estimating the sustainability of MFIs using the Yaron's Subsidy Dependence Index (SDI) (Yaron,

1992a and 1992b) which measures the social cost of subsidized MFIs to the society. Unlike traditional financial ratios of measuring sustainability, the subsidy dependence index has not spurred an intense debate among researchers since its inception in 1992 despite its tremendous importance in evaluation of the true social cost of subsidization of microfinance. There exist only a few studies based on measuring the subsidy dependence index (Hulme and Mosley, 1996; Schreiner, 1997; Yaron et. al., 1997; Khandker et. al., 1995; Schreiner and Yaron, 1999 and 2001; Congo, 2002). Nevertheless, it was when some researchers started questioning the role of subsidies in the performance of microfinance that the whole issue of subsidization of microfinance came to the front (see Morduch, 1999a, 1999b, 2000). The measurement of the social cost of Development financial Institutions matters because funds earmarked for development are scarce. Subsidies for DFIs are not problematic unless they could improve social welfare more somewhere else (Schreiner and Yaron, 1999). The existing studies on the SDI measurement are based on sample of one or maximum few microfinance institutions located in one country or a region. This essay has analyzed the issue on much broader scale by measuring SDI for 204 MFIs in 54 countries across the globe for two consecutive years. For the proponents of the Win-Win proposition i.e. microfinance reduces poverty and in the course of that becomes subsidy free or sustainable, the overall evidence is not a good one on the sustainability front. The results show that on average, the cost of subsidization of microfinance to the society exceeds that of benefits. This essay has also analyzed the composition of subsidization in microfinance notwithstanding their status, geographical location, lending methodology and other organizational variables. Which reveal that MFIs located in Africa and South Asia are more subsidy dependent on average than the rest of the regions while Latin American (LA) MFIs are far less subsidized. MFIs with status of “Bank” and “NGO” are more subsidy dependent on average than the others. Notwithstanding the lending methodology, MFIs with group (solidarity) lending methodology are more subsidy dependent while MFIs which lend to individuals are on average relatively less subsidy dependent. While MFIs providing other services i.e education and health etc. in addition to finacial serivices are on average more subsidy dependent. The essay also presents a comparative analysis

between the conventional financial ratios and their subsidy-adjusted values, thus showing the inability of the former to take into account the true social cost to society of the subsidization in microfinance sector. The essay also highlights the sensitivity of the SDI to the choice of interest rate by incorporating the risk of premium as described by Benjamin (1994) in the opportunuity cost of capital.

In retrospect, the conventional financial ratios have primarily been used to measure the efficiency and productivity in microfinance literature. Whereas in traditional banking literature, assessment of financial performance of an institution by employing non-parametric techniques, i.e. Data Envelopment Analysis (DEA) etc. (Charnes et al., 1978) has been widely employed in recent times (Sherman and Gold, 1985; Athanassopoulos, 1997; Seiford and Zhu, 1999 and Camanho and Dyson, 2005, among others). Like the traditional banking institutions, microfinance institutions do care for profits and sustainability, and therefore, on the same lines, some researchers have successfully replicated those non-parametric techniques to analyze the efficiency of microfinance institutions (see for example, Gutierrez-Nieto et. al, 2007; Balkenhol, 2007b and Hermes et al. 2008 among others). However the non-parametric efficiency analysis of MFIs based on conventional production and intermediation model approach is hard to grasp when it comes to subsidized MFIs. As pointed out by Cull et al. (2007), the overall equation linking capital and labor inputs into profits and social change still proves difficult to master without subsidy incorporation.

Against this backdrop, the second essay of this dissertation aims to investigate the impact of subsidies on the efficiency of microfinance by incorporating its role in the non-parametric efficiency analysis of MFIs. Further it empirically investigates the impact of different organizational, structural, financial and social variable on the efficiency of microfinance both with and without subsidies. In the course of that, the essay attempts to find out some specific relationships in the presence of subsidy. The way subsidy has been calculated in the first essay i.e. social cost of subsidized MFIs, allows us to successfully enter the positive subsidies as an input and negative subsidies as an output into the DEA efficiency specifications on the premise that the former distort public wealth while

the later creates it. A comparison of efficiency scores with and without subsidies for various specifications reveals important information. Generally, in most of the specifications, the average efficiency scores are improved albeit only marginally when subsidies enter into the DEA framework. Though, specifically, there exist numbers of MFIs which become 100% efficient once subsidies have been incorporated into the specifications as an input and output. Similarly there exist MFIs which were previously 100% efficient but become less efficient once subsidies have been removed.

The issue of how efficiency relates to various organizational and structural variables has been addressed by employing Tobit regression techniques for each year separately (2005 & 2006) and also collectively as a panel data set, taking efficiency scores as a left hand side variable. Hudon and Traca (2008) have found evidence that subsidies have contributed in raising the efficiency in the majority of their institutions in the sample, though to an extent. Beyond which the efficiency decreases. However their subsidy intensity variable only takes into account the subsidies in the equity. This essay finds most of the relationships between efficiency and other variables in line with the theory. The more MFIs become subsidy dependent, the more they become inefficient. The trade-off between costs and efficiency is also confirmed by the regression equations. Also evident is the fact that staff productivity and operational self sufficiency contribute towards the efficiency. An important result derived is that lending to women borrowers contributes towards efficiency. The coefficient of outreach variable as measured by the loan size/GNI per capita comes out as positive. Hence depicts that the more MFI's focus shifts away from the poor i.e. lending to well-off clients who can afford bigger loan sizes, the more it becomes efficient thus confirming the fact that lending to poor is relatively inefficient compared to well off clients.

The regression analyses have been further broken down into with and without subsidy equation. Important evidence obtained is that lending to women contributes to the financial efficiency in the presence of subsidies only, as the impact becomes insignificant without subsidies. This shows that MFIs exclusively targeting women tend to be financially efficient only because of the subsidies they

receive. Panel data results also confirm this relationship. Geographically MFIs located in South Asia and Middle East & North Africa and those having group lending methodology are found to be inefficient while those with individual lending methodology are efficient. MFIs with cooperative and Rural Bank status are less efficient while those having non-banking financial intermediary (NBFI) status are found to be efficient. Moreover MFIs with saving features tend to be less efficient while those providing other services in addition to financial services are efficient.

The first two essays in this dissertation focus on the subsidization of microfinance and its role in the financial efficiency and productivity of microfinance, where efficiency is defined in the context of non-parametric DEA paradigm. However, in microfinance sustainability literature, a number of interesting debates regarding some relationships and phenomenon are yet to reach to the logical conclusions. For example the determinants of the profitability of microfinance in general and its interest rate policy in particular, are an important area of research. Not to mention the determinants of the cost efficiency and productivity of MFIs. Last but not the least, an investigation into the "Mission drift" phenomenon, a tradeoff between outreach to the poor and profitability, is another topic of heated debate among researchers. The third and the last essay of this dissertation is an attempt to add to these debates by empirically investigating them using a high quality cross-country panel data set.

The role of interest rates in determining the sustainability of microfinance institution cannot be under-estimated. This formation of interest rate policy mainly depends on the financial performance and social objectives of an MFI. Consequently, the impact of financial and social efficiency of microfinance in shaping the interest rate policy, which ultimately has an effect on the sustainability of MFI, is a very interesting topic of research, as pointed out by Hudon and Traca, 2008. In addition to that, Armendariz and Szafarz (2009) call for integrating interest rates as a determinant of the sustainability while controlling for market structure is a step in the right direction, from an empirical standpoint. The third essay investigates the role of financial and social efficiency in determining the

interest rate policy of microfinance institutions which directly affects the sustainability. Moreover, the inclusion of social efficiency variables, i.e. loan size and women borrowers into the equation also lend support to the existence of mission drift in microfinance.

Investigation into the determinants of the profitability of microfinance is also an interesting research avenue in microfinance. Conventionally, profitability is defined in term of traditional financial ratio i.e. operational self-sufficiency and Return of Assets etc. The third essay goes beyond and takes also the Subsidy dependence Index (SDI) as a measure of profitability. Some MFIs charge their clients exorbitant interest rates. Lewis (2008) calls them Microloan Sharks involved in not micro-lending but microloan-sharking. Cull et al. (2007) found evidence that raising interest rates resulted in increased profitability for individual based lending MFIs whereas for Group based lenders, the reverse is true. This essay finds evidence that raising the interest rates lead to improved financial performance and profitability with lower subsidy dependence and higher operational self-sufficiency. Whereas rising costs are associated with lower profitability. An important result is that clients with smaller loan sizes (MFIs with predominantly women borrowers) pay higher interest rates relatively to the clients with large loans because increase in transaction costs induces MFIs to raise interest rates.

The last essay also addresses the implications of subsidization on the cost efficiency and staff productivity of MFIs (Barrès Isabelle, 2007; Hudon and Traca 2008). The empirical evidence shows the inefficiency of subsidized MFIs due to higher costs associated with larger loan sizes. Which suggest that subsidized MFIs are obliged to hire qualified staff, offer better and innovative products to the relatively well off clients which resulted in higher administrative cost.

Moreover, an empirical investigation of the validity of mission drift phenomena has also been presented in the last essay. Mission Drift is a concern for socially driven MFIs, where the pressure to achieve financial sustainability and profitability forces many institutions to drift away from their initial mission and to work with less needy people (See Dichter & Harper, 2007; Woodworth et al., 1999

and Woller, 2002 among others etc.). Nevertheless, some studies found no evidence of Mission Drift (Rhyne, 1998; Christen, R. p., 2001; Christen and Drake, 2002; Hishigsuren, G., 2007; Cull et al., 2007 and more recently Mersland and Strom, 2009). Even after correcting for possible endogeneity, the empirical evidence in this thesis does lend some support to the mission drift phenomena in microfinance. Our results confirm that investors are inclined to direct funds to those MFIs which cater to relatively well-off clients with a lower percentage of women borrowers.

The three empirical essays in this dissertation add to the general debate about the efficiency and sustainability issues in microfinance with particular emphasis on the role of subsidies. To start with, the first essay of this dissertation assesses the state of sustainability in microfinance by measuring the cost of subsidization in microfinance to the society. Moreover, the second essay investigates the role of subsidies in the efficiency and productivity of microfinance in the non-parametric efficiency analysis framework. Finally the third essay provides empirical evidence about the determinants of profitability and interest rate policy of microfinance. Moreover it also investigates the validity of mission drift phenomena in microfinance.

Chapter 2

Subsidization of Microfinance

Abstract

Unlike conventional finance institutions, Microfinance institutions (MFIs) strive for financial sustainability but also empowerment of the poor. This social nature of MFIs is mainly financed by subsidies from donors. This paper measures the extent of subsidization in MF sector for the years 2005 and 2006 using Yaron's Subsidy Dependence Index (SDI) which measures the social cost of subsidized MFIs in a short time frame. This latest data set has been generated from the audit reports of the 204 MFIs with 23 million borrowers in 54 Countries worldwide constituting a significant part of the microfinance outreach worldwide. Based on our subsidy calculations, for the year 2005, 153 MFIs out of 204 are subsidy dependent while for year 2006 it is 122 out of 179 MFIs. A with & with-out subsidy analysis of conventional financial ratios confirm the fact that MFIs financial performance declines substantially with-out subsidies.

2.1 Introduction

Microfinance promises poverty reduction without subsidization. After four decades into the business this promise is yet to be fulfilled as the role of subsidies still persists despite recent surge for commercialization of microfinance[1]. This

[1] See for example, Armendáriz de Aghion and Jonathan Morduch(2004, 2005); Morduch (1999a); Morduch (1999b); Goodman (2005); Cull et al. (2007)

social welfare concept associated with Microfinance Institutions (MFIs) along with the shift towards commercialization warrants that their performance on the basis of traditional financial ratios without unearthing their degree of subsidy dependence provides only a partial and often meaningless or misleading picture of the social cost of maintaining the MFIs (Yaron, 2004). Traditionally the performance of MFIs has been measured using either the welfarist or the institutionalist approach. The former put emphasis on assessing the impact on the welfare of the poor while later argues for the assessment in terms of the institution's success in achieving self-sustainability and breadth of outreach (Morduch, 2000). Basically, the institutionalist approach employs two measurements of success: outreach and sustainability. There is neither an agreed upon nor a widespread definition of a well-performing MFI. The performance criteria and indicators used vary significantly from one author to another or from one organization to another, since they depend on the methodological approach, which, in turn, depends on the determination to give priority to the supply side or to the demand side of the financial intermediation. This essay adopts an approach based on both performance criteria introduced by Yaron (1992b, 1997) and those proposed by CGAP (1996). These authors suggest two key criteria to evaluate the performance of MFIs: outreach and sustainability. Sustainability requires MFIs to have a positive return on equity (net of any subsidy received) while covering all transaction costs (loan losses, financial costs, administrative costs, etc.), and consequently to function without subsidies. The level of sustainability is measured through financial indicators such as the Subsidy Dependency Index (SDI), suggested by Yaron (1992a, 1997) or other more common measures such as the return on equity (ROE) or the return on assets (ROA). However the figures on the MFIs Profit and loss statements are questionable as most of the subsidy does not make it into the balance sheets of respective MFIs. Even if it does, the MFIs tend to under estimate the subsidy figures to make their accounts look more acceptable. Contrarily to the welfarist approach, subsidies adjustments are necessary under this approach, and they have to be reduced to a minimum level when an MFI is looking for sustainability (Rhyne, 1994). Notwithstanding these shortcomings, this paper calculates the sustainability of MFIs using the Yaron's Subsidy Dependence

Index (SDI) which measures the social cost of subsidized MFIs. The measurement of the social cost of Development financial Institutions matters because funds earmarked for development are scarce. Subsidies for DFIs are not problematic unless they could improve social welfare more somewhere else (Schreiner and Yaron, 1999). This quality financial information has been generated directly from the audit reports[2] of the 204 MFIs with 23 million borrowers in 54 Countries worldwide for years 2005 and 2006. This constitutes a significant part of the microfinance outreach worldwide.

For the proponents of the Win-Win proposition i.e. microfinance reduces poverty and in the course of that becomes subsidy free or sustainable, the overall evidence is not a good one on the sustainability front. Based on our SDI calculations for the year 2005, 153 MFIs out of 204 are subsidy dependent while for year 2006 it is 122 out of 179 MFIs. Further summary statics reveal that MFIs located in Africa and South Asia are more subsidy dependent on average than the rest of the regions while Latin American (LA) MFIs are far less subsidized. MFIs with status of "Bank" and "NGO" are more subsidy dependent on average than the others. Notwithstanding the lending methodology, MFIs with group (solidarity) lending methodology are more subsidy dependent while MFIs which lend to individuals are on average relatively less subsidy dependent. While MFIs providing other services i.e education and health etc. in addition to finacial serivices are on average more subsidy dependent. The study also shows the inability of conventional financial ratios i.e. ROA and ROE to take into account the true social cost to society of the subsidization in microfinance sector.

The paper is organized as follows. In the next section, a description of data and theoretical framework of calculating SDI is presented followed by the overall description of subsidy dependence of microfinance sector. Then a comparison between conventional nominal and subsidy-adjusted financial ratios is being presented. A conclusion is given at the end.

[2] The audit reports have been taken from the Mix Market Website (hhp://www.mixmarket.org). The MIX MARKET is a global, web-based microfinance information platform. It provides information to sector actors and the public at large on Microfinance Institutions (MFIs) worldwide, public and private funds that invest in microfinance, MFI networks, raters/external evaluators, advisory firms, and governmental and regulatory agencies

2.2 Data and Theoretical Framework

2.2.1 Description of the Data

Table 2.*1* gives an overview of variables used in the study along with summary statistics. It is summed up into two categories i.e. variables used in calculating SDI and variables depicting financial ratios. The definitions of the variables are also given as described by the Mixmarket website[3] and CGAP, 2005. Through this information exchange platform individual MFI can provide financial and outreach data and the Mixmarket ranks these data for quality using a 5-star system, where 5 is the most complete data available, while 1 is the least complete data available (usually the number of borrowers and some other outreach indicators but little financial information). After carefully reviewing the Audit Reports of more than 300 5-star MFIs taken from the Mixmarket website, 204 MFIs in 54 countries have been chosen based on the clarity of their respective Audit Reports in general and subsidy figures in particular. The most important variable to extract from the audit reports for subsidy calculations is the public debt/concessional borrowing. Therefore MFIs have been selected in large part on the quality and clarity of public debt figures in their respective audit reports. All the MFIs adhere to the International Accounting Standards (IAS) in compilation of their respective audit reports. The subsidy figures for the 25 MFIs for the year 2006 are missing due to the unavailability of the data. Therefore, the sample in Table 2.1 consists of 383 observations (204 for the year 2005 plus 179 for the year 2006). The summary statistics reveal some important information. The average interest rate paid by the MFIs to acquire loanable funds is 7.4%. Whereas, the average interest rate they charge by lending to the borrowers is 30.3%. Further, the average value of 0.214 for SDI suggests that overall the average interest rate from lending to the borrowers has to be increased by 21.4% to make the microfinance sector subsidy-free.

[3] http://www.mixmarket.org/en/glossary

Table 2.*1*

Variable Description and Summary Statistics

Variable used in subsidy calculations	***Obs***	***Definition***	***unit***	***Mean***	***Median***	***Min***	***Max***
Average annual assets (*A*)	383	Average of current year (*t*) and previous year (*t-1*) assets. It includes all asset accounts net of all contra-asset accounts, such as the loan-loss allowance and accumulated depreciation.	$	37000	12000	323	521000
Average annual equity (*E*)	383	Average of current (*t*) and previous year (*t-1*) equity. Total assets less total liabilities.	$	8229	3900	-1400[4]	180000
Subsidised equity	383	Average equity (*E*) ×Opportunity cost of capital (*m*)	$	1249	531	-140	27600
Average public debt (*A*)	383	Average annual outstanding concessionary-borrowed funds	$	10600	3300	0	100000
Interest cost on debt	383	Actual interest rate (c)× Average public debt (*A*)	$	779	267	0	8629
Actual interest rate(*c*)	383	interest cost paid on concessionary borrowed funds/ Average public debt (*A*)	%	7.4	7.2	0	32.1
Opportunity cost of capital (*m*)	383	Market lending rate[5]. Lending rate is the bank rate that usually meets the short and medium term financing needs of the private sector. This rate is normally differentiated according to the creditworthiness of borrowers and objectives of financing.	%	15.0	12.9	7.0	67.7
Discount on debt	383	*A×(m-c)*	$	709	155	-1044	13900
Revenue grants	383	Cash gifts except for the accounting choice to record them as revenues rather than as direct injection to equity.	$	526	1.144	0	79800
K	383	Sum of revenue grants and discount on expenses[6]	$	526	1.144	0	79800
Accounting profit	383	Total revenue less total expenses, operating and non-operating, Including all donations and taxes, if any	$	1793	510	-5643	41300
Tax	383	Includes all taxes paid on net income or other measure of profits as defined by local tax authorities. This item may also include any revenue tax.	$	282	0.403	-158	7078
Profit net of tax (*P*)	383	Accounting Profit – Taxes	$	1510	461	-5899	41300
Subsidy (*S*)	383	*[E× m + A (m - c) + K – P]*	$	967	220	-18100	76900
Average loan portfolio	383	Average annual outstanding loan portfolio	$	89100	8411	48	24100000
Revenues from loan portfolio	383	Revenue from interest earned, fees, and commissions (including late fees and penalties) on the gross loan portfolio only.	$	27700	2401	0	8040000

[4] Negative equity value for the MFI Kando Jagima of Mali.

[5] Market lending interest rate has been taken from the International Financial Statistics , IMF for the years 2005 and 2006

[6] For the sake of simplicity, the discount on expenses is assumed to be zero.

Intrest rate/Yield	383	Average on lending interest rate/yield on lending	%	30.3	26.7	0.02	128.1
Subsidy dependence index (*SDI*)	383	Subsidy(*S*)/ Revenue from lending (*R*)		0.214	0.122	-1.914	4.568[7]
Financial Ratios							
change in yield[8]	383	*SDI*×(actual yield from lending)	%	6.9	2.8	-76.6	171.5
Nominal subsidy free yield	383	Change in yield + actual yield on lending	%	37.2	30.8	-39.6	253.3
Inflation[9]	383	Indices shown for consumer prices are the most frequently used indicators of inflation and reflect changes in the cost of acquiring a fixed basket of goods and services by the average consumer	%	6.65	6.24	0.64	24.03
Real subsidy free yield	383	(Nominal subsidy free yield-inflation)/(1+inflation)	%	30.9	25.1	-33.7	229.6
True profit	383	Accounting profit- Profit grants	$	282	112	-50300	38500
Return on assets (*ROA*)	383	(Net operating income less Taxes)/ Period average assets	%	5.23	4.4	-68.5	61.6
Subsidy adjusted ROA (*SAROA*)	383	True profit/ Period average assets	%	0.64	1.20	-95.1	52.1
Return on equity (*ROE*)	383	(Net operating income, less taxes)/ Period average equity	%	14.56	16.94	-1723	853.5
Subsidy adjusted ROE (*SAROE*)	383	True profit/ Period average equity	%	-3.32	05.87	-1763.9	1468.3
Operational self sufficiency(*OSS*)	383	Financial revenue (Total)/ (Financial expense + Loan loss provision expense + Operating expense)	%	123.4	120.7	3.57	254.9

Source: Author´s own calculation based on the Audit Reports of MFIs taken from Microfinance Information eXange Inc website. All the values in USD are in `000s'. Exchange rates are also taken from Mixmarket website. Some definitions are taken from CGAP (2003)

The Dummy variables along with their categories used in this study have been presented in Table 2.2. The categories are based on the Mixmarket classification. Further, Table 2.3 highlights the definitions of their respective categories.

Table 2.*2*
Categorical Variables

Variables	***Description***
Region	Geographic region in which the MFI operates classified into 6 regions: Africa (*A*); East Asia and the Pacific (*EA&P*); Eastern Europe and Central Asia (*EE&CA*); Middle East and North Africa (*MENA*);

[7] The maximum value of SDI is 4.568 for MFI "PADME" of Benin.

[8] The actual yield after accounted for the SDI.

[9] taken from the World bank's World Development Indicators (WDI), 2005 & 2006

	Latin America and the Caribbean (*LAC*); South Asia (*SA*).
Lending Methodology	Lending methodology is classified into 4 categories: Individual (*I*); Individual & Solidarity/Group (*IS*); Group/Solidarity (*S*); Village banking (*V*).
Status	Classified into 5 categories: Nongovernmental organizations (*NGO*); Bank (*B*); Non-banking financial intermediaries (*NBFI*); Rural Bank (*RB*); Cooperatives (*Coop.*).
Other services	Whether MFI provides other services i.e. health, education etc in addition to providing financial services or not.
Saving	Whether saving (voluntary or Compulsory) is a feature of MFI or not.
Regulated	Whether MFI is regulated by some authority like central bank etc. or not.

*Data for all the categorical variables have been taken directly from the Mix market Website

Table 2.3

Definitions of Categorical variables

Lending Methodology	
Individual (*I*)	MFIs which give loans to individual borrowers.
Solidarity or Group (*S*)	MFIs which give loans to group of borrowers collectively.
Individual & Group both (*IS*)	MFIs which give loans to both individual borrowers and Group of borrowers.
Village Banking (*V*)	Village Banking methodology, developed by FINCA International, provides loan to informal self-help support group of 20-30 members, predominantly female heads-of-household.
Status of an MFI	
Non Governmental Organisation (*NGO*)	An organization registered as a non profit for tax purposes or some other legal charter. Its financial services are usually more restricted, usually not including deposit taking. These institutions are typically not regulated by a banking supervisory agency.
Bank (*B*)	A licensed financial intermediary regulated by a state banking supervisory agency. It may provide any of a number of financial services, including: deposit taking, lending, payment services, and money transfers.
Non-Banking Financial Intermediaries (*NBFI*)	An institution that provides similar services to those of a Bank, but is licensed under a separate category. The separate license may be due to lower capital requirements, to limitations on financial service offerings, or to supervision under a different state agency. In some countries this corresponds to a special category created for microfinance institutions.
Rural Bank (*RB*)	Banking institution that targets clients who live and work in non-urban areas and who are generally involved in agricultural-related activities.
Cooperative (*Coop.*)	A non profit, member-based financial intermediary. It may offer a range of financial services, including lending and deposit taking, for the benefit of its members. While not regulated by a state banking supervisory agency, it may come under the supervision of regional or national cooperative council.
Regulated (*R*)	Regulations on MFI can be in the form of entry restriction and /or some

	prudential supervision by some authority. Mostly regulated MFIs are allowed to collect deposits and increase their loanable funds (Campion and White, 1999). In most countries, typical banking regulations do not cover microfinance activities. Currently, MFIs can operate as regulated or nonregulated or, in some countries, can choose between being regulated and being unregulated. Overall, MFIs can be subject to either mandatory entry regulation, prudential regulation, or some sort of entry regulation and consequent monitoring (tiered regulation) (hartarska and Nadolnyak, 2007).
Saving	MFIs which collect savings (deposits). The data does not distinguish between compulsory savings and voluntary savings.
Other Services	MFIs which provide other services in addition to loans i.e. related to training, enterprise development, health, education, environment, agriculture etc.

Source: Mixmarket Website

Figure 2.*1* depicts graphical display of the nature of the data used in this study. NGOs (46%) dominate the microfinance sector followed by the NBFIs (29%). MFIs with "Bank" status constitute only 16.29% of total sample. Almost half

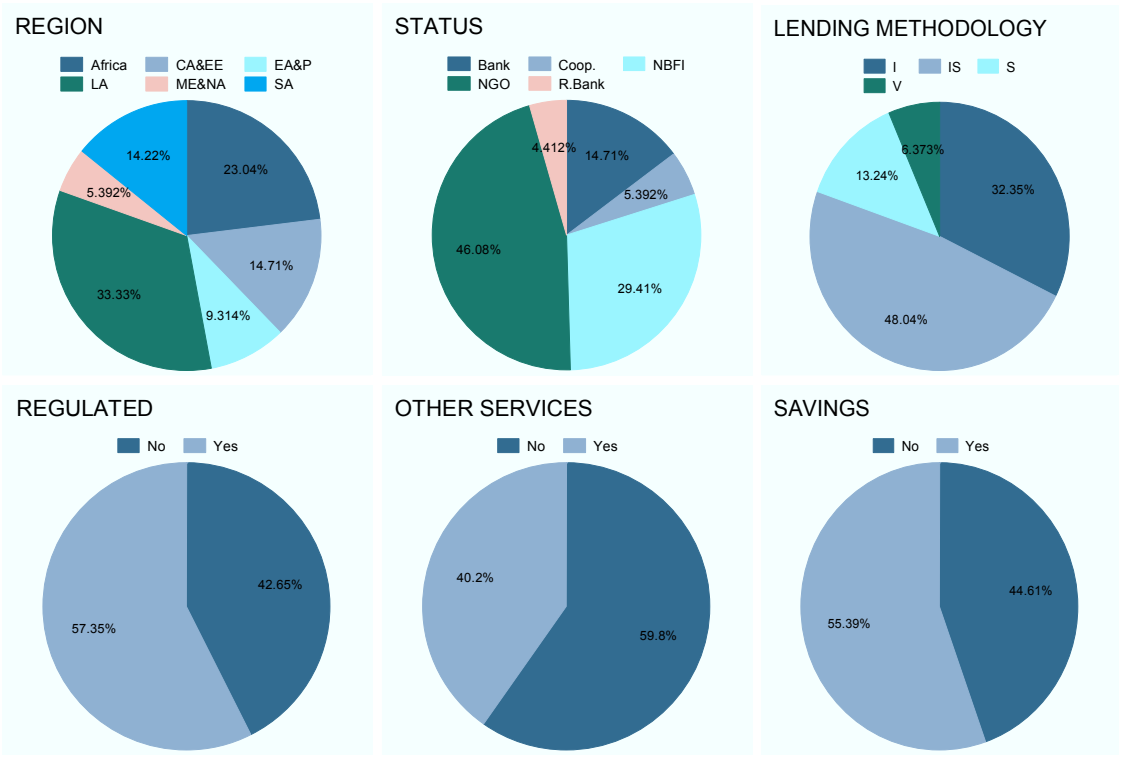

Figure 2.1 Descriptive analysis of Data

Source: Information taken from the mix market website based on the sample of 204 MFIs

*Individual (I); Individual & Solidarity (IS); Solidarity (S); Village Banking (V)

of the MFIs (48%) offer both group and individual lending services followed by MFIs which lend exclusively to the individuals (32%). Geographically one-third of MFIs locate in Latin America (33%) and almost one-fourth in Africa (23%). South Asian MFIs constitute only about 14% of the total MFIs in the sample. Majority of the MFIs in the sample are regulated (57%) and provide deposits/savings services (55%) to the clients. About 40% of the MFIs in the sample provide other services to the clients in addition to providing financial services. A complete list of the names of the 204 microfinance institutions in the sample is given at the end in ***Appendix A.***

2.2.2 The SDI Formula

This paper calculates subsidies using Yaron's Subsidy Dependence Index[10] (SDI) (Yaron, 1992a and 1992b) which measures the social cost of subsidized MFIs. The SDI is a summary measure of sustainability. It is the ratio of subsidy received by a MFI to revenue from loans to the target group; it indicates whether a MFI could compensate society for the opportunity cost of public funds used in a short time frame and still show a profit.

The Formula for SDI is:

$$SDI = \frac{Subsdies}{\text{Rev}enues\ from\ \ lending} = \frac{\left[E \times m + A(m-c) + K - P\right]}{(LP \times i)}$$

Where:

E = average annual equity;
m = Market Interest rate/Interest rate the MFI is assumed to pay for borrowed funds if access to concessional borrowed funds were eliminated.
A = Average annual outstanding concessionary-borrowed funds / Average public debt
c = interest rate paid on concessionary borrowed funds / Public debt
P = Reported annual profit / accounting profits

[10] To examine SDI calculations in past studies see for example Hulme and Mosley(1996); Schreiner (1997); Schreiner and Yaron (1999 and 2001); Jehangir (2005); Sharma (204); Congo (2002)

K = Other Subsidies i.e. Revenue Grant (*RG*) + Discount on Expenses (*DX*)
LP = Average annual outstanding loan portfolio of the MFI
i = lending interest rate / yield on lending

The SDI has a lower bound of -100 percent but no upper bound (Benjamin 1994). An SDI of zero means that an MFI has achieved full self-sustainability. An SDI of 100 percent indicates that a doubling of the prevailing average on-lending interest rate would be required to eliminate subsidies. A negative SDI indicates that an RFI has achieved full self-sustainability and that its annual profits exceeded the total annual value of any subsidies received by the MFI. Such an MFI could lower its average on-lending interest rate, eliminate all subsidies and remain self-sustainable.

In the above SDI formula, worth mentioning is what constitute subsidies and the choice of opportunity cost of MFIs concessional borrowings or the choice of Market interest rate.

2.2.3 What Constitute Subsidies[11]?

These are subsidized/public funds from government or donors and come in six forms as shown in Table 2*.4* below.

Table 2*.4*
Type of Subsidized Funds

TYPE	Notation	Type of grant
1. Direct Grant	*DG*	Equity Grant *(EG)*
2. Paid-up-capital	*PC*	
3. Revenue Grant	*RG*	Profit Grant *(PG)*
4. Discount on Public Debt	*A.(m-c)*	
5. Discount on Expenses	*DX*	
6. True Profit	*TP*	Equity Grant *(EG)*

Source: Schreiner and Yaron (1999)

[11] This section is primarily based on Schreiner and Yaron (1999)

Three are equity grants that increase net worth but do not directly change the accounting profit reported in the year received. The other three are *profit grants* that do directly increase the accounting profit reported in the year received since they inflate revenues and/or deflate expenses. This increases retained earnings at year-end and thus increases net worth. Compared with the case without the grant, all six forms of subsidized funds increase net worth one-for-one. All six forms have the same social opportunity cost. As in Yaron (1992b), the dividends and taxes on profits are ignored for simplicity.

2.2.3.1 Equity grants

The first two forms of subsidized funds are equity grants *EG*. These cash gifts increase net worth but do not change accounting profit directly. Equity grants are the sum of direct grants *DG* and paid-in capital *PC*:

$$\text{Equity grants} = \text{Direct grants} + \text{Paid in capital},$$

$$EG = DG + PC$$

Direct grants *DG* are cash gifts. Direct grants increase net worth, but they do not pass through the income statement, and hence they do not inflate accounting profit. Direct grants include both gifts in cash and gifts in kind such as computers or trucks that are recorded in the accounts.

Paid-in capital *PC* comes from sales of shares to donors or government. Such a sale is like a direct grant since public funds pay for the shares. Furthermore, most public entities do not act like private owners. We assume that all paid-in capital comes from public sources.

2.2.3.2 Profit grants

Profit grants *PG* are the third through fifth forms of subsidized funds (Table). Like all equity grants, all forms of profit grants increase net worth since they inflate accounting profit or reduce accounting loss and wind up in net worth through retained earnings at the end of the year. Profit grants distort accounting profit *P* and thus ROE since they depend on the arbitrary choices made in practice by administrators and accountants. Donors can and often do use profit grants to

nudge accounting profit higher. In contrast, the SDI recognizes the economic fact that a dollar treated as a profit grant has the same effect on the business performance of a DFI as a dollar treated as an equity grant.

Profit grants are the sum of revenue grants *RG*, discounts on public debt *A.* (*m-c*), and discounts on expenses *DX*:

Profit grants = Rev. grants + Discount public debt + Discount on expenses

$$PG = RG + A\,(m-c) + DX.$$

Revenue grants *RG* are cash gifts. They are just like equity grants except for the accounting choice to record them as revenue rather than as direct injections to equity. Revenue grants increase net worth, but only after they pass through the income statement and increase reported accounting profit. This is misleading since revenue grants are not the product of business operations.

Discounts on public debt $A\times(m-c)$ and discounts on expenses *DX* are the fourth and fifth forms of subsidized funds. They are non-cash gifts, expenses paid on behalf of the development finance institution (DFI) by someone else. Discounts increase the cash held by the DFI since they decrease the cash spent by the DFI.

The discount on public debt $A\times(m-c)$ is the opportunity cost of public debt less what the DFI paid, where *A* is average public debt, *c* is the rate paid by the DFI, and *m* is the opportunity cost of public debt for society:

Discount public debt = Average public debt (Opp. Cost of public debt - Rate paid)

$$= A\times(m-c)$$

Discounts on public debt are subsidized funds that inflate profit and boost net worth since they cut expenses. Public debt is like private debt linked to a grant of $A\times(m-c)$ (Inter-American Development Bank, 1994). Unlike the discount on public debt $A\times(m-c)$, public debt (A) itself does not increase net worth directly.

Discounts on expenses *DX* are costs absorbed by government or donors that the DFI does not record as expenses. Classic examples are technical assistance, free deposit insurance, coverage of organization costs or feasibility studies, debt

guarantees, consultant services, classes for loan officers, and travel for employees. This paper assumes *DX* to be zero in all cases as MFIs do not categorically disclose it in the audit reports.

2.2.3.3 True profit

True profit *TP*, a non-cash equity grant, is the sixth form of subsidized funds (Table 1.2). It is accounting profit (*P)* less profit grants:

True profit = Accounting profit - Profit grants,

$$TP = P - [RG + A\,(m\text{-}c) + DX]$$

All else constant, true profit is the change in retained earnings that would obtain in the absence of profit grants. Positive true profits are a benefit since society could withdraw them for use elsewhere. Negative true profits (true losses) are social costs.

2.2.4 Choice of Economic Opportunity cost of MFIs Concessional funds (*m*)

There is always a controversy about the best possible alternative for the use of MFIs concessional funds. Most researchers[12] in this context have followed the rate what Yaron (1992a, 1992b, 1994, and 1997) has prescribed from investors point of view where Finance Institution replaces public debt with deposits. He described it as the rate of interest on deposits[13] i.e. interest rate for treasury bills or, certificates of deposit with maturities of six months to one year. Or equivalently, the rate paid for time deposits by state-owned DFIs plus a mark-up for the expected cost of administration and reserve requirements, commonly assumed to be about two to three percentage points but adjustable to the specific

[12] Khandker, Khalily, and Khan, (1995) as Rate on three year Deposit (Bangladesh) ; Hashemi and Schuler (1997) as Transaction costs (3%) + Bangladesh Bank deposit rate (IMF) ; Morduch, (1999) as Bangladesh Bank deposit rate(IMF) + 3% transaction costs; Sacay, Randhawa, and Agabin, 1996 as deposit rate ; Yaron, Benjamin and Piprek (1997) as market deposit rate; Schreiner and Yaron (1999) as Deposit rate paid by MFI + 3% transaction costs

[13] Benchmark market rate for local currency obligations is the average deposit rate (line 60l) from the International Monetary Fund, International Financial Statistics

case. But scepticism abounds as only few MFIs take deposits. Even deposit taking MFIs replace some soft debt with market debt.

A point worth mentioning is that all the studies follow Yaron's (1992) approach assumes both the opportunity cost of Public debt and equity to be the same. However Benjamin (1994) adds a premium for risk to the local prime rate for the opportunity cost of debt on the premise that MFIs equity are more riskier than the debt and they draw private funds from their own markets (Von Pischke, 1991; Mehra and Prescott, 1985; Modigliani and Miller, 1958). Schreiner (1999, 2003) also based his calculations of market interest rate[14] *(m)* on the same lines. Where the risk premium is:

Premium for risk = *premium for age + premium for profitability*

Where *Premium for age is:*

$= (2/100/n)$

Where *n= Number of years of operation of an MFI*

And, *Premium of profitability is*:

If $ROE < 0$ then add 0.03

$0 < ROE <$ Prime rate then add 0.02

And the price of market equity is:

Price of Market Equity (r) = m (1.1 + 0.1 L)

Where

Leverage (L) = average liabilities / average equity

$r > m$, as equity is more riskier than debt

Besides that some other studies[15] opted for rate of inflation as proxy for opportunity cost of public fund. But as suggested by Schreiner (1997), this would mean a real opportunity cost of zero, and that is too low. Another proxy used in the literature for the opportunity cost of Public debt is "10%[16] in real terms" from poor or donors point of view. Most governments and donors such as the World

[14] 17% (Local prime rate + risk adjustment). Took lending rate (IFS) as local prime rate

[15] (Rosenberg, Christen, and Helms, 1997; Holtmann and Mommartz, 1996; Christen *et al*., 1995; SEEP, 1995; IADB, 1994

[16] (Belli, 1996; Katz and Welch, 1993; Gittinger, 1982; Sharma,2004)

Bank have used a rule of thumb of 10 or 12 percent per year in real terms. Nevertheless, no one knows about the true opportunity cost for the poor. It could be higher or lower, but 10 percent seems like a good rule of thumb. If this rate is too high, then it unjustly values people now and in the near future more than people in the distant future. In practice, the point is moot. MFOs compete for public funds now against all other projects funded by the budget earmarked to help the poor. To compare these projects, donors must use the same opportunity cost for all of them. This opportunity cost should be just high enough so the projects that pass a benefit-cost test exhaust all the funds earmarked to help the poor. The burden of proof for some other opportunity cost rests on the analyst (Gittinger, 1982).

The debate seems to be going on endlessly. According to Schreiner and Yaron (1999), the choice should meet four criteria. First, the number should be meaningful, that is, credibly close to the true opportunity cost. Second, all public-sector analyses should use the same opportunity cost because all public projects compete for public funds and because comparisons across projects require the use of a uniform opportunity cost. Third, higher rates are preferred to lower rates, all else constant. This protects society from those who would use low rates to give a false sense of rigor to support their pet projects. Fourth, the rate chosen must be credible.

Based on the above discussion, this study uses the cost of private debt (local prime rate i.e. lending rate[17]) as an opportunity cost for MFIs concessional borrowings in calculating subsidy dependence index (SDI) on the premise that private debt replaces public debt. For few countries where reliable estimates of Lending rate are not available, 10% rate is used as a proxy.

For comparative analysis purpose, in addition to using market lending rate (m), this paper also calculates SDI using Benjamin (1994) formula by adding the risk premium to the lending rate as described above. The calculated SDI values using Benjamin formula have been presented at the end in ***Appendix B***[18].

[17] Taken from the International Financial Statistics (IFS) 2005 & 2006.

[18] The detailed calculations of SDI according to Benjamin (1994) formula for all MFIs are available upon request

2.3 Microfinance Horizon

2.3.1 Subsidy Dependence Index (SDI)

Table 2.*5* depicts the calculated SDI values for years 2005 & 2006 using the lending rate as the market interest rate. A detailed set of calculations for all the MFIs are given at the end in ***Appendix C***. SDI values for 25 MFIs for the year 2006 are missing due to the unavailability of their Audit Reports for year 2006. Out of the total 204 MFIs in year 2005, 153 MFIs are subsidy dependent while for year 2006, it is 122 out of total 179 MFIs. All the values taken from the respective MFI's Audit reports have been converted into the USD using exchange rates provided by

Table 2.*5*

Subsidy Dependence Index (SDI)

MFIs	2005	2006	MFIs	2005	2006	MFIs	2005	2006	MFIs	2005	2006
AFRICA			**HORIZON**	0.124	0.076	**FIE**	0.218	0.099	**EDPY.EDYF**	0.230	0.436
CDS	0.161	0.109	**INECO**	-0.028	0.068	**FONCRESOL**	0.359	-	**FINCA-PER**	0.269	0.380
ACSI	-0.250	-0.388	**CRED-AGRO**	0.687	0.000	**FUNBODEM**	0.416	0.172	**FONDESURCO**	0.264	0.519
ADCSI	0.179	0.704	**ACCESS**	0.461	0.404	**PRODEM**	0.157	0.012	**IDESI-LL**	0.022	-
BG	0.809	0.026	**NORMICRO**	0.183	0.290	**PROMUJAR**	0.407	0.241	**MIBANCO**	-0.089	0.034
DECSI	-0.074	-0.108	**VIATOR**	-0.121	0.082	**CMM-BOG**	0.122	0.096	**MOVIM.-M-R**	0.114	0.222
OMO	0.484	-0.003	**EKI**	0.146	-0.173	**FINAMERICA**	0.121	0.170	**PROMUJER**	0.256	0.167
WISDOM	0.491	-0.061	**MIKROFIN**	-0.045	-0.354	**FMM-BUCA**	-0.174	-0.183	**MCHL**	0.490	-
NOVOBANCO	2.774	0.347	**PARTNER**	0.091	-0.125	**FMM-POP**	-0.135	0.047	**BANGENTE**	0.664	0.351
ALIDE	1.169	0.588	**SUNRISE**	0.021	-0.176	**WMM-MED**	0.212	0.023	**ME & NA**		
FECECAM	0.054	1.382	**C-FUND**	0.216	0.309	**WWB-CA**	0.020	0.075	**AL-TADAMUN**	0.975	-0.720
PADME	0.287	[19]4.565	**CONSTANTA**	0.548	0.369	**CREDIMUJER**	0.623	0.292	**DBACD**	0.242	0.025
VF	0.205	0.254	**CREDO**	0.728	0.426	**FUNDECOCA**	0.826	-	**LEAD**	1.330	-0.470
RCPB	-0.051	-0.094	**LAZIKA**	0.850	0.346	**ADEMI**	0.170	-	**Tamweelcom**	-0.062	-0.040
ACEP-CAM	1.246	-	**KMF**	-0.098	-0.097	**BANCO-SOL**	0.003	0.156	**MFW**	-0.125	0.010
KSF	0.196	-	**AIYL-BANK**	0.937	0.886	**COAC-JARDIN**	0.122	0.118	**AL-AMANA**	-0.008	0.012
OI-SASL	0.189	-0.092	**BTFF**	1.164	0.554	**COAC-S-JOSE**	0.045	0.147	**AL-KARAMA**	-0.110	0.011
PCRED GHA	-0.068	-0.028	**FMCC**	0.508	-0.004	**COAC-SAC**	0.137	0.140	**FONDEP**	-0.022	-0.330
SAT	-0.013	0.053	**CRED. MONGOL**	0.457	0.407	**D-MIRO**	-0.075	-0.278	**INMAA**	-0.004	-0.090
EBS	-0.238	-0.320	**KHAN-BANK**	0.052	-0.063	**FINCA-ECU**	-0.611	-0.275	**ZAKOURA**	-0.037	0.061
KADET	0.582	0.849	**FORUS**	0.095	0.332	**FODEMI**	-0.055	-0.091	**ENDA**	-0.044	-0.320
KREP	0.188	0.038	**AGROINVEST**	0.258	0.125	**FUNDACION-ES**	-0.315	-0.423	**SOUTH ASIA**		
KWFT	0.134	0.160	**BANK ESKHATA**	0.0075	0.272	**PROCRED-ECU**	0.055	-0.001	**ARMP**	0.653	0.182
MDSL	0.151	-1.914	**FMFB-TAJ**	1.509	0.815	**AMC-DE-RL**	0.164	0.401	**BRAC-AFG**	1.200	0.646
SMEP	0.232	0.309	**IMON**	0.824	0.301	**FUNDACION**	0.242	0.469	**FMFB-AFG**	1.034	0.077
FINCA-MAL	0.313	-	**MICROINVEST**	0.237	0.261	**FAFIDESS**	-0.117	-	**ASA**	-0.286	-0.226
KAN.JAGIMA	-0.380	-	**E. ASIA & PACIFIC**			**FUNDACION-M**	0.794	-	**BRAC-BAN**	1.035	0.859
SORO-Y	0.952	1.506	**ACLEDA**	0.099	0.066	**FUNDEA**	0.219	-	**B-TANGAIL**	-0.136	-0.023
FCC	1.46	0.180	**AMRET**	0.132	0.070	**GENESIS-EM**	0.131	0.155	**DESHA**	0.045	-

[19] A high SDI value here signifies large negative profit due to the sharp decline in revenues from the lending operations.

NOV.BANCO	0.377	-0.104	**SATHAPNA**	0.194	0.383	**ACME**	0.188	0.261	**IDF**	-0.071	-0.059
SOCREMO	0.350	0.193	**HKL**	0.242	0.086	**FINCA-HON**	0.194	0.124	**RDRS**	1.195	1.287
TCHUMA	0.255	0.217	**PRASAC**	0.347	0.301	**HDH**	0.240	0.890	**SHAKTI**	0.179	-0.008
LAPO	0.012	-0.072	**MBK-VENTU**	0.384	0.211	**WORLD-REL**	0.122	0.098	**TMSS**	0.753	0.591
SEAP	-0.180	-0.305	**ASHI**	0.331	0.082	**ACODEP**	-0.113	-0.154	**BANDHAN**	0.095	-0.215
SEF-ZAF	0.300	0.161	**BCB**	-0.272	-0.196	**FAMA**	-0.218	-	**BASIX**	0.119	0.088
ACEP	0.421	-	**BANGKO-KA**	-0.113	-0.157	**FDL**	-0.176	-0.051	**CASHPOOR**	0.746	0.386
CMS	0.361	0.313	**CBMO**	-0.227	-0.253	**BANEX**	0.006	-0.037	**ESAF**	0.243	-0.083
PAMECAS	0.052	-0.103	**DIGOS**	-0.010	-0.099	**FJN**	-0.149	-	**GK**	0.130	-0.059
FINCA-TAN	0.065	-	**GREEN**	-0.003	-	**FUNDENUSE**	-0.482	-	**IASC**	0.088	-
PRIDE	0.017	0.074	**IST-VALLEY**	0.1982	-0.234	**PROCRED-NIC**	0.031	0.116	**KBSLAB**	0.462	0.478
CBANK	0.009	-0.074	**NWFT**	0.0767	-0.013	**PRODESA**	-0.282	-0.311	**MAHASEMAN**	-0.100	-
CML	0.024	0.189	**SOLANO**	-0.241	-0.269	**FIELCO**	0.049	0.091	**SHARE-MF**	-0.116	0.158
FAULU	0.211	0.436	**TSPI**	-0.050	-0.070	**INTERFISA**	0.128	0.002	**SNFL**	0.639	0.531
FINCA-UGA	0.047	0.125	**SPBD**	0.503	0.371	**BANTRA**	0.053	0.158	**CBB**	0.296	-0.029
MEDNET	0.179	3.008	**CEP**	-0.070	-0.117	**CAJA-NOR**	0.030	0.087	**NIRDHAN**	0.250	0.265
UML	0.759	-	**TYM**	-0.110	-0.010	**CARITAS**	0.646	0.438	**NSSC**	0.105	-
CETZAM	2.342	0.830	**AGROCAPITAL**	0.615	0.265	**CMAC-ARQ**	-0.084	-0.073	**PGBB**	0.533	-
FINCA-ZAM	0.519	0.034	**LATIN AMERICA**			**CMAC-CUS**	-0.082	-	**VYCCU**	-0.182	-
C. ASIA & E. EUROPE			**BANCOSOL**	0.114	0.000	**CMAC-MAY**	0.078	0.070	**ASASAH**	0.211	1.015
BESA	0.2403	0.010	**BNACO-L-A**	0.311	0.124	**CMAC-TAC**	0.056	0.138	**FMBL**	2.125	0.514
PCRED-ALB	0.052	0.006	**CRECER**	0.039	-0.028	**CMAC-TRU**	0.033	0.018	**KASHF**	0.036	0.045
Opportunity	0.285	0.059	**ECO-FUTURO**	0.118	0.013	**EDPY.-C-T**	0.196	0.370			
ACBA	0.283	0.271	**FADES**	0.547	0.249	**EDPY.-COF.**	0.256	0.631			

Source: Author own calculations based on the Balance sheets of 204 MFIs for year 2005 & 2006

The Mixmarket website. The interpretation of SDI values is straight forward. Take the value of year 2005 of 1st MFI "CDS" in Table *1.3* for example. The positive value of 0.161 means that CDS is subsidy dependent as it distorts public wealth. It has to raise the interest rates on loans by 16.1% in order to become subsidy free. CDS is actually charging 19.3% interest rate on loans to borrowers. This suggests that CDS, in order to be subsidy free should charge 22.41% interest rate to borrowers on loans. On the other hand the 2nd MFI "ACSI" in 1st column has a negative value of -0.250 which shows that it is subsidy-free and thus creating public wealth. This suggests that it can reduce interest rate on loan by 25% and still remains subsidy-free. MFI "ACSI" actually charges 8.6% interest rate on loans to the borrowers. A 25% reduction in interest rate suggests that it can reduce interest rate to 6.45% and still remain subsidy-free.

Yaron et al. (1997) pin down four factors critical in eliminating subsidy dependence as adequate on-lending rates, high rates of loan collection, savings mobilization, and control of administrative costs. Calculating SDI for two

consecutive years enables us to track down the movement and causes of subsidization of each MFI.

Table 2.6
Subsidy-free MFIs in 2006 (subsidy-dependents in 2005)

MFIs	Contributing factors
OMO	Profits increased by almost 4 times. Revenues from lending almost doubled.
WISDOM	Profits increased by more than 6 times. Revenues from lending more than doubled.
Ol-SASL	Profits increased by almost 29 times.
MDSL	Profits increased by almost 18 times. Interest cost to loanable funds significantly decreased.
NOVO BANCO	Profits were negative in 2005. In year 2006 it has positive profits. Market lending rate decreased.
LAPO	No revenue grants for year 2006. In 2005, it was 467677 USD as operating grant. Market lending rate also decreased.
PAMECAS	Profits increased by more than double. Interest income increased too.
Centenary Bank	No concessional loans. Increased profits due to investment income by taking deposits and interest income.
EKI	Profits increased by 3 times last year. Market lending rate decreased in year 2006.
PARTNER	Profits increased by 3 times last year. Market lending rate decreased in year 2006.
SUNRISE	Profits doubled last year. Market lending rate decreased, making borrowing cheap.
FMCC	Profits more than tripled due to increase in investment income.
KHAN BANK	Profits more than doubled. Interest income from loans and investment both increased. Market lending rate decreased for year 2006.
1st VALLEY	Interest paid for borrowing was greater than market rate for 2006. Profit increased due to increased interest income and investment. Revenue grants also eliminated.
NWFT	Interest paid for borrowing was greater than market rate for 2006. Revenue grants eliminated.
CRECER	Market lending rate fell significantly in 2006 to 11% from 17% in 2005.
AL TADAMUN	Revenue grants decreased significantly. While interest income from lending increased.
LEAD	Revenue grants decreased. Interest income from loans increased sharply.
SHAKTI	Profits increased. Discount on borrowing also decreased in 2006.
BANDHAN	Profits in 2006 increased sharply.
ESAF	Revenue grants decreased. While revenue from lending increased significantly.
GK	Revenue grants decreased. While revenue from lending increased significantly.
CBB	Profit tripled.

Source: Author´s own calculation based on the Audit Reports of respective MFIs

Table 2.6 lists those MFIs which have enhanced their financial sustainability and become subsidy free in year 2006, but were previously subsidy dependent in year 2005. The contributing factors to this increase in financial sustainability are also listed for respective MFIs with the most important one as the increase in the overall profits. This increase in profits is mainly attributed to an increase in the revenues from lending and investments, a decrease in the market lending rate thus making borrowing cheaper and to do away with grants.

Similarly Table 2.7 lists those MFIs which have become worse in terms of financial sustainability by becoming subsidy dependent in year 2006, but were previously subsidy-free in year 2005. The contributing factors relevant to this decline in the financial sustainability (or become subsidy dependent) are also listed for the respective MFIs. The main contributing factors attribute to this decline in sustainability are decrease in the profits due to an increase in the administrative costs and also increase in the cost of loanable funds (borrowing).

Table 2.7
Subsidy-dependent MFIs in 2006 (subsidy-free in 2005)

MFIs	**Contributing factors**
SAT	Profits decreased to half in 2006.
INECO	Borrowing more than doubled which doubled the discount on borrowings. Increases in revenues from lending and investment did not offset that.
VIATOR	Discount on borrowing more than doubled due to decrease in actual cost of borrowing. Profit also decreased.
FMM POP	Profits decreased.
MIBANCO	Market lending rate increased by 30%.
MFW	Profit fell sharply due to increase in costs (Administrative and interest).
AL AMANA	Borrowing increased almost 4 times.
AL KARAMA	Revenue grants increased 4 times.
ZAKOURA	Actual cost of borrowing decreased.
SHARE MF	Profits decreased by almost 6 times the previous year mainly due to decrease in interest income from loans.

Source: Author´s own calculation based on the Audit Reports of respective MFIs

Table 2.*8* shows a comparison of MFIs by calculating SDI using the Benjamin (1994) formula, taking into account the risk premium in the market lending rate as

described in the previous section with SDI values by taking market lending rate as a proxy for opportunity cost to society. Out of 204 MFIs in year 2005, now 179 MFIs become subsidy dependent as compared to the 153 MFIs (only market

Table *2.8*
Opportunity cost of public debt comparison (No. of MFIs)

	Year 2005		**Year 2006**	
	SDI (Lending rate)	SDI (Benjamin, 1994)	SDI (Lending rate)	SDI (Benjamin, 1994)
	No risk premium	with risk premium	No risk premium	with risk premium
Subsidy Dependent	153	179	122	155
Subsidy Free	51	25	57	24
Total	204	204	179	179

Source: Author´s own calculation based on the Audit Reports of MFIs and Microfinance Information eXange Inc.

lending rate i.e. no risk premium) while for year 2006, it is 155 out of total 178 MFIs compared to 122 MFIs (no risk premium). This shows that using Benjamin (1994) formula by adding risk premium to the market interest rate, the number of subsidy free MFIs reduce to 25 from 51 and to 24 from 55 for years 2005 and 2006 respectively.

Table 2*.9*
Correlations

	Asset	**Equity**	**Debt**	**Debt Int**	**Debt Dis.**	**Grant**	**Profit**	**Subsidy**	**Loan**	**Revnue**	**SDI**	**Change yield**	**NSFY**	**R-SFY**	**True Profit**	**ROA**	**SAROA**	**ROE**	**SAROE**
Asset	1.00																		
Equity	0.798*	1.00																	
Debt	0.738*	0.535*	1.00																
Debt Int.	-0.076	-0.031	-0.011	1.00															
DebtDisc.	0.661*	0.436*	0.765*	-0.094	1.00														
Grant	0.476*	0.628*	0.298*	0.015	0.193*	1.00													
Profit	0.750*	0.727*	0.531*	-0.022	0.504*	0.461*	1.00												
Subsidy	0.537*	0.662*	0.383*	-0.002	0.378*	0.897*	0.292*	1.00											
Loan	0.015	0.020	0.006	-0.010	0.013	0.008	0.012	0.015	1.00										
Revenue	0.008	0.016	-0.000	-0.009	0.011	0.007	0.010	0.014	0.999*	1.00									
SDI	0.044	0.057	0.155*	-0.084	0.099	0.070	-0.054	0.138*	-0.013	-0.018	1.00								
chayield	-0.080	-0.024	-0.095	-0.120*	-0.020	0.095	-0.129*	0.156*	-0.022	-0.021	0.455*	1.00							
nomsfy	-0.139*	-0.075	-0.174*	0.085	-0.059	0.063	-0.120*	0.099	-0.012	-0.008	0.272*	0.849*	1.00						
realsfy	-0.123*	-0.071	-0.161*	0.066	-0.035	0.055	-0.108*	0.095	-0.000	0.003	0.257*	0.808*	0.974*	1.00					
trueprof	-0.186*	-0.255*	-0.169*	-0.003	-0.164*	-0.789*	0.097	-0.885*	-0.005	-0.005	-0.146*	-0.198*	-0.144*	-0.136*	1.00				
ROA	-0.077	0.001	-0.062	0.049	-0.045	0.025	0.132*	-0.086	0.001	0.002	-0.269*	-0.476*	-0.290*	-0.306*	0.110*	1.00			
SAROA	0.007	0.025	-0.014	0.157*	-0.072	-0.100*	0.135*	-0.185*	0.005	0.005	-0.412*	-0.823*	-0.654*	-0.653*	0.248*	0.694*	1.00		
ROE	0.001	0.013	0.026	0.000	0.021	0.003	0.074	-0.031	-0.001	-0.001	0.055	0.166*	0.115*	0.108*	0.051	-0.217*	-0.232*	1.00	
SAROE	0.014	0.029	0.021	0.040	-0.005	-0.000	0.076	-0.037	0.002	0.002	0.022	0.107*	0.061	0.056	0.065	-0.197*	-0.136*	0.892*	1.00

Source: Author´s own calculation based on the Audit Reports of MFIs and Microfinance Information eXange Inc.

*Refers to significant at 5% level of confidence**.**

The correlation matrix in Table 2.9 shows the strength of the relationship among the variables used to calculate SDI in this study. It is interesting to look at the relationship between some variables. SDI has significant positive relationship with accounting profit, public debt and nominal and real subsidy-free yield. On the other hand, it has a significant negative relationship with nominal and subsidy-adjusted ROA, real subsidy-free yield and true profits.

2.3.2 Composition of SDI

Figure 2.*2* depicts the SDI composition using the lending rate as a proxy for market interest rate. MFIs located in Africa and South Asia are more subsidy dependent on average than the rest of the regions. Latin American (LA) MFIs which constitute one-third of the sample are far less subsidized. MFIs with status

Fig. 2.2 Compositions of Subsidy Dependence Index (SDI)

Source: Based on authors own calculation from the data taken from audit reports of 204 MFIs

of Banks and NGOs are more subsidy dependent on average than the others. Rural Banks[20]are exception as they are on average subsidy free. Notwithstanding the lending methodology, MFIs with solidarity (group) lending methodology are more subsidy dependent. While, MFIs which lend to individuals are on average relatively less subsidy dependent. This is because lending to relatively poor clients with group lending features requires higher transaction costs which demands more subsidized credit. Whereas lending to relatively well off individual clients require less subsidised credit. Moreover, MFIs providing other services i.e education and health etc. in addition to finacial serivices are on average more subsidy dependent. Also evident is that Regulated MFIs are more subsidy denpendent on average than unregulated ones. While those MFIs with saving feature are on average slightly more subsidy dependent.

2.4 With and without subsidy comparisons

The financial performance of an MFI as depicted by its inflated financial ratios looks very rosy in the presence of subsidies. Therefore, a counterfactual question "What would have been MFIs performance had there been no subsidies?" is worthy to investigate. This essay attempts to answer that question notwithstanding a comparison between the traditional benchmark measures of financial performance of nominal values of the Return on Equity (ROE) and Assets (ROA) with their subsidy-adjusted values.

2.4.1 Return on Equity[21] (ROE) Vs Subsidy adjusted Return on Equity (SAROE)

ROE is the single most-common accounting measure of the financial performance of a private firm from the point of view of investors. It signals the rate of return earned on the invested equity and allows investors and donors to determine how their investment in a particular MFI compares against alternative investment. The ratio assumes importance as increasing numbers of MFIs seek

[20] All the rural banks exist in Philippines and comprised of only 4% of the whole sample.

[21] Albeit it is not a good measure of the financial performance of subsidized MFIs since it depends on the form accountants and donors give to subsidized funds (Schreiner and Yaron, 1999).

private funds. A subsidy adjusted ROE would compare not accounting profit but rather true profit with average Equity. Hence a negative SDI implies an SAROE higher than the social opportunity cost *m* and vice versa.

Fig. 2.*3* depicts a comparison between the average Return on Equity (ROE) figures and after adjusting for the subsidy (SAROE). The average values of Subsidy adjusted ROE are well below their nominal values for all the categories. African MFIs have negative ROE value on average, which becomes worse when adjusted for subsidy. South Asian MFIs suffer the most as the difference between the nominal and subsidy adjusted ROE is highest for them, while the decrease in the performance of Latin American MFIs seems less relative to the MFIs in other region. Notwithstanding the status of MFIs, Cooperatives are the worst performers having both negative nominal and subsidy adjusted values. However, NGOs seem to suffer most relatively to the others on average, as their performance decline sharply once accounted for subsidies. NBFIs too have negative ROE once accounted for the subsidies. Further the decrease in financial performance is particularly

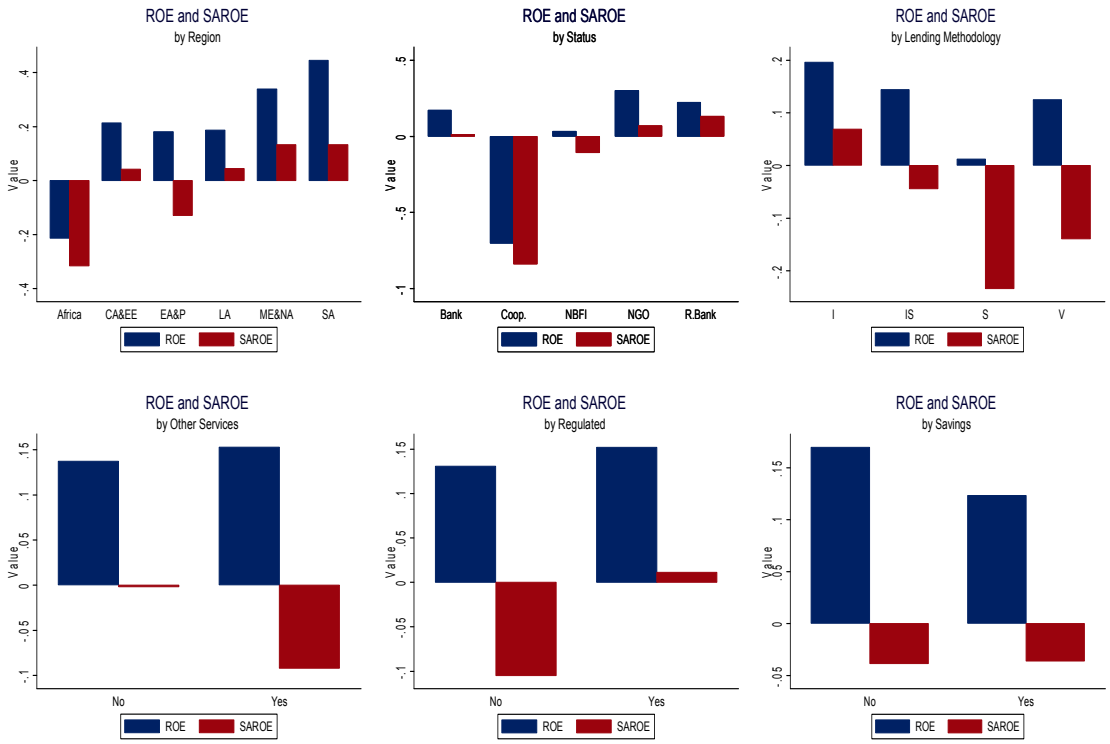

Fig.2.3 Return on Equity (ROE) & Subsidy Adjusted Return on Equity (SAROE)

Source: Based on authors own calculation from the data taken from audit reports of 204 MFIs

resounding for MFIs which are solidarity and village lending methodologies, other service providers, not regulated and for those with no saving features.

2.4.2 Return on Asset (ROA) Vs Subsidy adjusted Return on Asset (SAROA)

The return on assets (ROA) depicts how well an MFI has used its asset base to generate income. It measures the return on funds (total assets, which includes both liabilities and equity) that are owned by the MFI. While SAROA takes into account only true profits like SAROE. Fig. 2.*4* shows that when average nominal value of ROA is adjusted for subsidies, the subsidy adjusted ROA value decreases

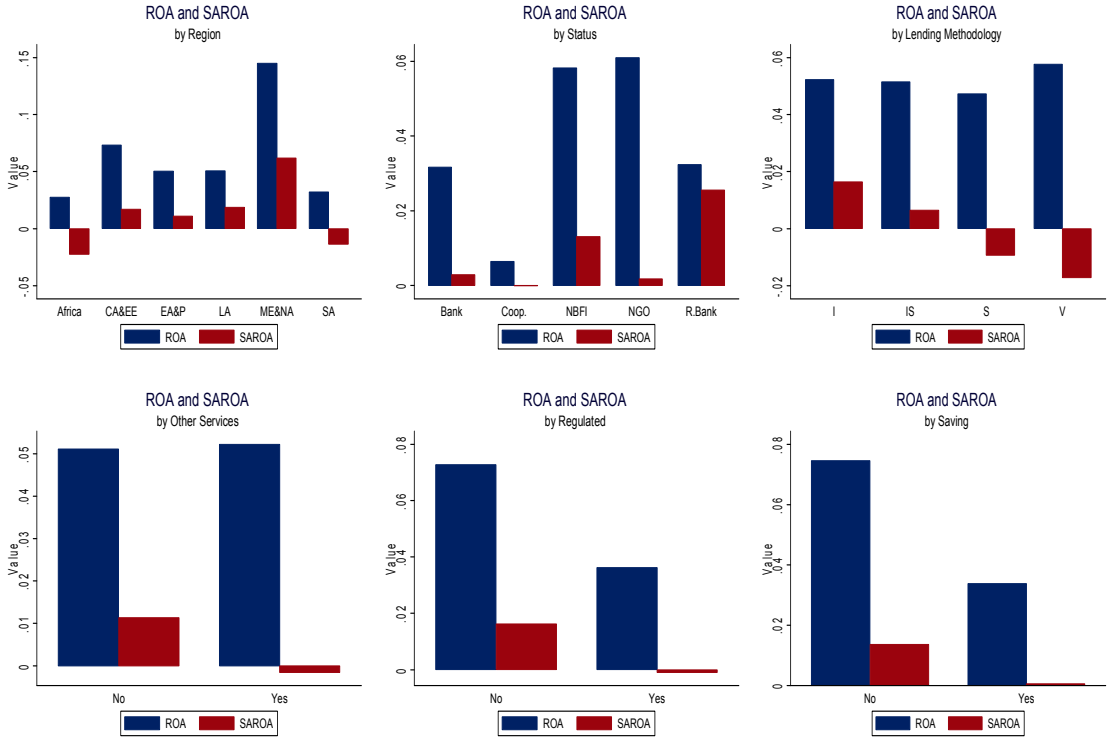

Fig.2.4 Return on Asset (ROA) & Subsidy Adjusted Return on Asset (SAROA)

Source: Based on authors own calculation from the data taken from audit reports of 204 MFIs

substantially for all the categories. Insight some points are note worthy. For African and South Asian MFIs on average, the returns turn positive to negative once subsidies are adjusted for. In fact these are the two most impoverished regions inhabiting the highest number of poverty stricken people. Therefore they

get more subsidized funds than any other region which are mainly directed towards the social uplift of the poor. Therefore, their financial performance declines substantially without subsidies. On the other hand, the decline in the performance for MFIs in Latin American region is less significant relative to the others due to the fact that most of them are deposit-taking commercially oriented institutions. MFIs having NGOs status have the largest drop in the performance followed by MFIs with NBFI and bank status. NGOs are non-profit institutions heavily rely on subsidized funds to carry on their social mission. Evidently their financial performance decline once subsidies are being stripped off. Notwithstanding the lending methodology, MFIs with Solidarity and Village banking Methodology have the highest drop in performance and their average returns turn positive to negative. Whereas, MFIs which lend to the individual borrowers, seem relatively less affected because their borrowers consists of mainly less poor clients. Moreover MFIs providing other services, those which are not regulated and those without saving features also have large substantial drop in their performance compared to their respective counterparts.

2.4.3 Actual yield (AY) Vs Subsidy Free Yield (SFY)

Fig. *1.5* shows the difference between the average Actual Yield *(AY)* and the average Nominal Subsidy-free Yield *(NSFY)*. Actual Yield is what the nominal yield or the interest rate on lending is, while Subsidy free yield is what yield or interest rate ought to be if all the subsidies are stripped away. In line with the previous analysis of returns, for all the categories, the average value of the subsidy-free yield is more than the actual yield thus showing overall subsidy dependence of MFIs. Notwithstanding the regions, MFIs located in SA and Africa have to increase the interest rates on lending more than MFIs in other regions to account for subsidies. Further, MFIs which are NGOs and those with village banking methodology have to raise interest rates on average more than the others in the absence of subsidies. Moreover, MFIs providing other services have to raise interest rates more than those MFIs which provide no other services in the

absence of subsidies. Interestingly, MFIs which collect deposits and saving need not to increase interest rates as much as those MFIs with no saving feature once subsidies are stripped off because of the extra income they generate by taking deposits.

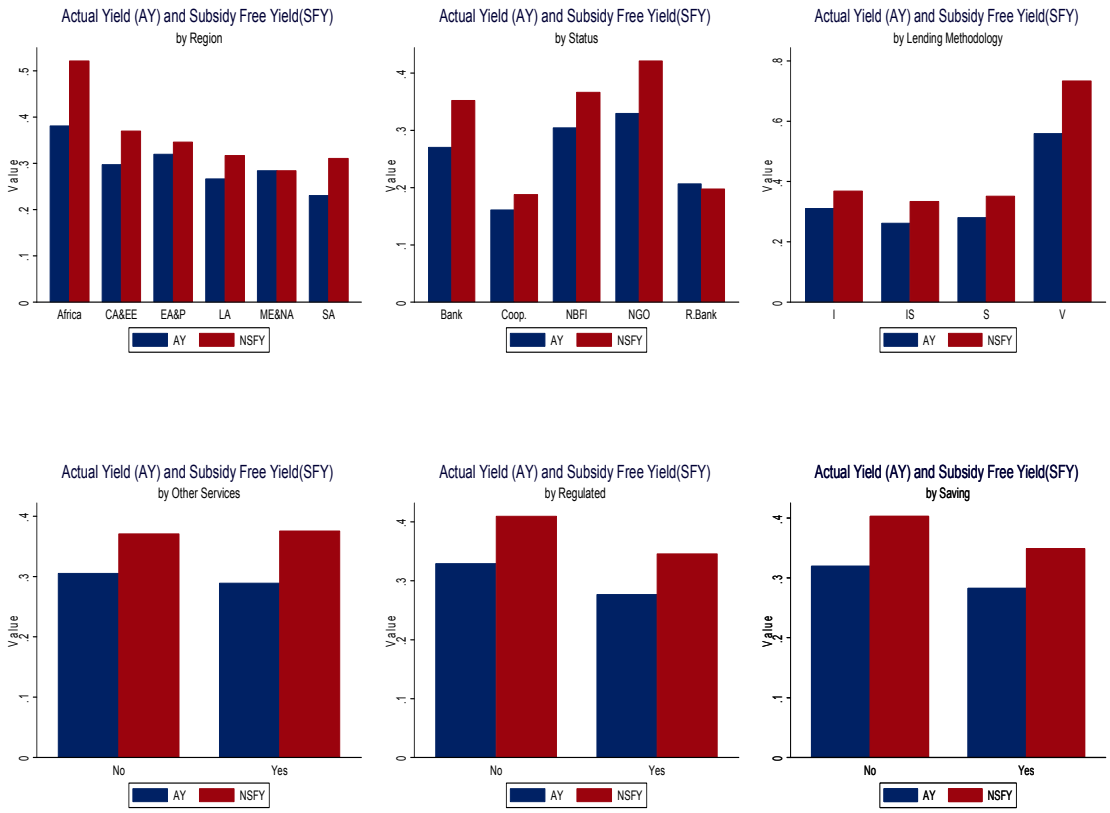

Fig. 2.5Actual Yield (AY) Vs Nominal Subsidy-free Yield (NSFY)

Source: Based on authors own calculation from the data taken from audit reports of 204 MFIs

2.5 CONCLUSION

The aim of this essay is to measure the sustainability of microfinance Sector. Towards this aim, Yaron's Subsidy Dependence Index (SDI) has been calculated which measures the social cost of the subsidization of microfinance sector to the society. This quality financial information has been obtained directly from the audit reports of the 204 MFIs with 23 million borrowers in 54 Countries worldwide for the years 2005 and 2006. This constitutes a significant part of the microfinance outreach worldwide. Nevertheless, the study has its limitations. The debate over the true social discount rate is far from being settled and rests more

on the researcher's discretion. As shown in this paper, using another discount rate can significantly change the results of the subsidy dependence index. Moreover, judging MFIs performance only from financial aspect would not do justice and should include the social impact analysis in the overall performance. However, in the context of presenting a broader picture of the financial sustainability of Microfinance Sector, this study is revealing in many aspects.

On the whole, the analysis suggests that Microfinance sector is highly subsidized. Using market lending rate as a discount rate in SDI calculations, out of the 204 MFIs in year 2005, 153 MFIs are subsidy dependent while for year 2006, it is 122 out of total 179 MFIs. This study also shows the SDI´s sensitivity to the changes in the discount rate. Where the overall subsidization increases further once a risk premium has been added to the market lending rate in SDI calculations. Based on the subsidy calculations, this essay also highlights the factors which are instrumental in causing substantial change (positive and negative) in the subsidy dependence index. Results depict that MFIs located in Africa and South Asia are more subsidy dependent on average than the rest of the regions while Latin American (LA) MFIs are less subsidized. MFIs with status of "Banks" and "NGOs" are more subsidy dependent on average than the others. The analysis further reveals that MFIs with solidarity (group) lending methodology are more subsidy dependent while MFIs which lend to individuals are on average relatively less subsidy dependent. Moreover MFIs providing other services i.e education and health etc. in addition to financial services are on average more subsidy dependent. Our results are in line with the ground reality. Majority of MFIs in South Asia and Africa follow group lending methodology and lend to the poor in general and to women in particular. Consequently they require more subsidized funds than their counterparts in Latin America, who predominantly lend to less poor individuals. By ccomparing the averages of the nominal financial ratios of return on assets (ROA) and return on equity (ROE) with their subsidy-adjusted ratios, this paper also highlights the inadequacy of the conventional financial ratios in measuring the financial performance of microfinance institutions by not taking into account the subsidies. And the results show that when adjusted for subsidies, the financial performance of MFIs decline substantially.

What are the policy implications of these findings and are there any wider lessons to be learned for the stakeholders in microfinance? We suggest four. First, for governments and donors, measurement of social cost of subsidization helps them taking informed policy decisions in making the best use of public funds earmarked for the poor. Second, for the microfinance practitioners in general and the practitioners for sample MFIs in this study in particular, the essay not only puts a price tag on their institution in terms of costs to the society but also pins down the important factors which contribute towards financial sustainability by reducing subsidy dependence. Third, for social investors, it serves as a guide to the in evaluating their investment in projects which increase the public wealth of the society at large. And finally for microfinance clients, it is awareness towards the importance of transparent prices in microfinance particularly for those clients to whom MFIs charge exorbitant interest rates.

Chapter 3

Efficiency and Productivity of Microfinance: Incorporating the Role of Subsidies

The social nature of MFIs is mainly financed by subsidies from donors. Therefore, the role of subsidies cannot be under estimated in MFIs efficiency and productivity analysis. This paper is a first attempt to measure the financial efficiency and productivity of Microfinance Institutions (MFIs) worldwide taking into account the subsidies received by MFIs by using the non-parametric Data Envelopment Analysis (DEA). Towards this aim, a three-stage analysis is carried out. Firstly, technical and pure efficiency scores are calculated by splitting subsidies into input and output and entered into the DEA framework specifications depending on whether they are generating benifits (negative subsidies) or cost (positive subsidies) to the society. Secondly DEA-based Malmquist indices are calculated to analyze the intertemporal productivity change. Thirdly, Tobit Regression analysis are carried out to test a series of hypotheses concerning the relationship between financial efficiency and other indicators related to MFIs productivity, organization, outreach, sustainability and social impact. Overall subsidies contribute to financial efficiency of MFIs albeit marginally. Results uphold the tradeoff between outreach to the poor and financial efficiency. Thus MFIs which cater to the poor tend to bemore inefficient than those with clients relatively well off. Also evident is the fact that lending to women is efficient only in the presence of subsidies. MFIs in South Asia and Middle East & North Africa tend to be less efficient than the others.

3.1 Introduction

Microfinance promises poverty reduction and financial self-sustainability[1]. Recently, from a research perspective, much focus has been shifted to the issues in

[1] Armendáriz de Aghion and Jonathan Morduch(2004); Morduch (1999a); Morduch (1999b); Goodman (2005): Cull etal. (2007)

financial sustainability and efficiency of Microfinance Institutions (MFIs). Among other things, this increased focus on financial sustainability and efficiency is an outcome of a number of developments the microfinance business has been recently confronted with, such as the increasing competition among MFIs, the commercialization of microfinance, technological change that also has become available for, and implemented in microfinance, and financial liberalization and regulation policies of the government (Rhyne and Otero, 2006). These developments have induced microfinance institutions to change their behavior, and to broaden their services and activities (Hermes, et al., 2008).

Like the conventional financial institutions, the efficiency and productivity of MFIs has generally been measured by conventional financial ratios. In addition to applying conventional financial ratios, their assessment can also be done by employing non-parametric efficiency techniques on the premise that like the conventional banking institutions, microfinance institutions also do care about their sustainability especially in recent times when private investors eye it as a good investment opportunity. In traditional Banking Literature, the evaluation of financial performance by using non parametric efficiency techniques i.e. Data Envelopment Analysis (DEA), is a very common practice[2]. However, its application to the microfinance institutions is more recent phenomenon. Nevertheless, some researchers have replicated these techniques for the efficiency analysis of MFIs[3].

However the efficiency analysis of MFIs based on conventional production and intermediation model approach in non-parametric efficiency analysis framework is hard to justify because of their reliance on subsidies. The overall equation linking capital and labor inputs into profits and social change still proves difficult to master without accommodating the subsidized inputs (Cull et al. 2007). Therefore, measuring their efficiency demands the role of subsidies to be accounted for, an area, largely neglected in the efficiency and productivity analysis of microfinance institutions. To date only a few studies have been done which have taken into account the role of subsidies into the assessment of financial

[2] Examples of the use of DEA in banking are Sherman and Gold (1985), Athanassopoulos (1997), Seiford and Zhu (1999), and Camanho and Dyson (2005) among others.

[3] See for example Gutierrez-Nieto et al. (2007, 2009); Balkenhol, 2007b; Hermes et a.l 2008

performance of MFIs by employing parametric techniques[4], let alone non-parametric efficiency analysis.

In this backdrop, this essay is a first attempt to addresses the issue of incorporating the role of subsidies in the efficiency and productivity analysis of MFIs. This quality financial information has been generated directly from the audit reports[5] of the 204 MFIs with 23 million borrowers in 54 Countries worldwide for years 2005 and 2006. This constitutes a significant part of the whole microfinance outreach worldwide. As a starting point, this essay calculates subsidies using Yaron's Subsidy Dependence Index[6] (SDI) which measures the social cost of subsidized MFIs.

With subsidy data at our disposal, this study aims to resolve some key issues. Can we incorporate these subsidies into the non-parametric DEA framework in order to gauge their impact on the financial efficiency of microfinance? Do these subsidies improve the performance of microfinance institutions by enhancing their efficiency? What is the impact of different organizational, structural, financial and social variable on the efficiency of microfinance both with and without subsidies? To that extent, this study aims to investigate in particular, some specific hypothesis related to the efficiency of microfinance by employing with and without subsidy analysis. Does staff productivity enhance the financial efficiency whereas financial costs reduce it? An interesting relationship to investigate is about the impact of outreach on MFIs efficiency. Where Loan size is used as a proxy for the outreach of MFI and the lower the loan size, the more MFI reaches to the poor (outreach). Another important relationship to be estimated is between the efficiency of MFIs with their financial sustainability and subsidization. The impact of lending to women borrowers on the financial efficiency of MFIs amid subsidies is another important issue to investigate. Last but not the least, the presence of many categorical

[4] Hudon & Traca, (2006, 2008); Cull et al.(2007) ; Hudon (2006)

[5] The audit reports have been taken from the Mix Market Website (hhp://www.mixmarket.org). The MIX MARKET is a global, web-based microfinance information platform. It provides information to sector actors and the public at large on Microfinance Institutions (MFIs) worldwide, public and private funds that invest in microfinance, MFI networks, raters/external evaluators, advisory firms, and governmental and regulatory agencies

[6] To examine SDI calculations in past studies see for example Congo (2002); Sharma (2004); Hulme and Mosley(1996); Schreiner (19977); Schreiner and Yaron (1999 and 2001) and Jehangir (2005)

variables allows us to find out the efficient MFIs notwithstanding their regional location, lending methodologies and organizational features i.e. status, regulations and savings.

For the proponents of the Win-Win proposition[7], the overall evidence is not a good one. Based on our subsidy calculations, for the year 2005, 153 MFIs out of 204 are subsidy dependent while for year 2006 it is 122 out of 179 MFIs. The DEA efficiency scores and Malmquist Productivity index show a marginal positive impact of subsidies on the financial efficiency of MFIs. However, the empirical evidence based on the regression analysis to identify the determinants of efficiency, is revealing in many respects. From a social perspective, the empirical evidence suggests that lending credit to the poor is financially inefficient. Further, MFIs which lend predominantly to women are found to be efficient only in the presence of subsidies. From financial perspective, the negative impact of costs and subsidization on the efficiency of microfinance is confirmed by the empirical evidence. On the other hand, staff productivity contributes to efficiency.

The paper is organized as follows. In the next section, to start off, some descriptive statistic about the inputs and output used in the efficiency analysis in general and subsidy dependence index (SDI) in particular are given. The third section provides the theoretical background of non parametric efficiency analysis followed by an overview of the efficiency of microfinance sector. The fourth section illustrates the role of subsidies into the non-parametric efficiency analysis of MFIs. The fifth section highlights the empirical evidence by employing the regression analysis. Finally, a conclusion is given at the end.

3.2 Microfinance Horizon

3.2.1 Subsidy Dependence Index (SDI)

After carefully reviewing the Audit Reports of more than 300 MFIs, 204 MFIs in 54 countries have been chosen based on the clarity of their respective

[7] That microfinance reduces poverty and in the course of that becomes subsidy free or sustainable

Balance sheets in general and subsidy[8] figures in particular. All the MFIs adhere to the International Accounting Standards (IAS). Subsidies have been calculated for the years 2005 and 2006 in a unique way using Yaron's Subsidy Dependence Index[9] (SDI) which measures the social cost of subsidized MFIs in a short time frame (Yaron, 1992a). Table 3.1 depicts the calculated SDI values for years 2005 & 2006.

Table 3.1

Subsidy Dependence Index (SDI)

AFRICA			MFIs	2005	2006	MFIs	2005	2006	MFIs	2005	2006
MFIs	**2005**	**2006**	**HORIZON**	0.124	0.076	**FIE**	0.218	0.099	**EDPY.EDYF**	0.230	0.436
CDS	0.161[10]	0.109	**INECO**	-0.028	0.068	**FONCRESOL**	0.359	-	**FINCA-PER**	0.269	0.380
ACSI	-0.250[11]	-0.388	**CRED-AGRO**	0.687	0.000	**FUNBODEM**	0.416	0.172	**FONDESURCO**	0.264	0.519
ADCSI	0.179	0.704	**ACCESS**	0.461	0.404	**PRODEM**	0.157	0.012	**IDESI-LL**	0.022	-
BG	0.809	0.026	**NORMICRO**	0.183	0.290	**PROMUJAR**	0.407	0.241	**MIBANCO**	-0.089	0.034
DECSI	-0.074	-0.108	**VIATOR**	-0.121	0.082	**CMM-BOG**	0.122	0.096	**MOVIM.-M-R**	0.114	0.222
OMO	0.484	-0.003	**EKI**	0.146	-0.173	**FINAMERICA**	0.121	0.170	**PROMUJER**	0.256	0.167
WISDOM	0.427	-0.061	**MIKROFIN**	-0.045	-0.354	**FMM-BUCA**	-0.174	-0.183	**MCHL**	0.490	-
NOVOBANCO	2.774	0.347	**PARTNER**	0.091	-0.125	**FMM-POP**	-0.135	0.047	**BANGENTE**	0.664	0.351
ALIDE	1.169	0.588	**SUNRISE**	0.021	-0.176	**WMM-MED**	0.212	0.023	**ME & NA**		
FECECAM	0.054	1.382	**C-FUND**	0.216	0.309	**WWB-CA**	0.020	0.075	**AL-TADAMUN**	0.975	-0.720
PADME	0.287	4.565	**CONSTANTA**	0.548	0.369	**CREDIMUJER**	0.623	0.292	**DBACD**	0.242	0.025
VF	0.205	0.254	**CREDO**	0.728	0.426	**FUNDECOCA**	0.826	-	**LEAD**	1.330	-0.470
RCPB	-0.051	-0.094	**LAZIKA**	0.850	0.346	**ADEMI**	0.170	-	**TAMWELCOM**	-0.062	-0.040
ACEP-CAM	1.246	-	**KMF**	-0.098	-0.097	**BANCO-SOL**	0.003	0.156	**MFW**	-0.125	0.010
KSF	0.196	-	**AIYL-BANK**	0.937	0.886	**COAC-JARDIN**	0.122	0.118	**AL-AMANA**	-0.008	0.012
OI-SASL	0.189	-0.092	**BTFF**	1.164	0.554	**COAC-S-JOSE**	0.045	0.147	**AL-KARAMA**	-0.110	0.011
PROCRED-GHA	-0.068	-0.028	**FMCC**	0.508	-0.004	**COAC-SAC**	0.137	0.140	**FONDEP**	-0.022	-0.330
SAT	-0.013	0.053	**CRED. MONGOL**	0.457	0.407	**D-MIRO**	-0.075	-0.278	**INMAA**	-0.004	-0.090
EBS	-0.238	-0.320	**KHAN-BANK**	0.052	-0.063	**FINCA-ECU**	-0.611	-0.275	**ZAKOURA**	-0.037	0.061
KADET	0.582	0.849	**FORUS**	0.095	0.332	**FODEMI**	-0.055	-0.091	**ENDA**	-0.044	-0.320
KREP	0.188	0.038	**AGROINVEST**	0.258	0.125	**FUNDACION-ES**	-0.315	-0.423	**SOUTH ASIA**		
KWFT	0.134	0.160	**BANK ESKHATA**	0.0075	0.272	**PROCRED-ECU**	0.055	-0.001	**ARMP**	0.653	0.182
MDSL	0.151	-1.914	**FMFB-TAJ**	1.509	0.815	**AMC-DE-RL**	0.164	0.401	**BRAC-AFG**	1.200	0.646

[8] Extracting subsidy information from the balance sheet needs deliberation. These are subsidized/public funds from government or donors and come in six forms :

Type	Notion	Type of Grant
1. Direct Grant	DG	Equity Grant (EG)
2. Paid-up-capital	PC	Equity Grant (EG)
3. Revenue Grant	RG	Profit Grant (PG)
4. Discount on Public Debt	A.(m-c)	Profit Grant (PG)
5. Discount on Expenses	DX	Profit Grant (PG)
6. True Profit	TP	Equity Grant (EG)

[9] SDI = subsidies (S) / revenues from lending (LP * i)
= (E * m + A (m - c) + K – P) / (LP * i)
Where: E = average annual equity; m = Market Interest rate/Interest rate the MFI is assumed to pay for borrowed funds if access to concessional borrowed funds were eliminated.; A = Average annual outstanding concessionary-borrowed funds/ Average public debt ; c = interest rate paid on concessionary borrowed funds/ interest rate paid on Public debt ; P = Reported annual profit /accounting profits; K = Other Subsidies received by the MFI i.e. Revenue Grant (RG) + Discount on Expenses (DX)
LP = Average annual outstanding loan portfolio of the MFI ;i = lending interest rate/ yield on lending

[10] SDI value of 0.161 means that the MFI has to raise the interest rates on loans by 16.1% to be subsidy free

[11] SDI value of -0.250 means that the MFI is subsidy free even if it reduces interest rate on loans by 25%

SMEP	0.232	0.309	**IMON**	0.824	0.301	**FUNDACION**	0.242	0.469	**FMFB-AFG**	1.034	0.077
FINCA-MAL	0.313	-	**MICROINVEST**	0.237	0.261	**FAFIDESS**	-0.117	-	**ASA**	-0.286	-0.226
KANDO-JAGIMA	-0.380	-	**E. ASIA & PACIFIC**			**FUNDACION-M**	0.794	-	**BRAC-BAN**	1.035	0.859
SORO-Y	0.952	1.506	**ACLEDA**	0.099	0.066	**FUNDEA**	0.219	-	**B-TANGAIL**	-0.136	-0.023
FCC	1.46	0.180	**AMRET**	0.132	0.070	**GENESIS-EM**	0.131	0.155	**DESHA**	0.045	-
NOVO-BANCO	0.377	-0.104	**SATHAPNA**	0.194	0.383	**ACME**	0.188	0.261	**IDF**	-0.071	-0.059
SOCREMO	0.350	0.193	**HKL**	0.242	0.086	**FINCA-HON**	0.194	0.124	**RDRS**	1.195	1.287
TCHUMA	0.255	0.217	**PRASAC**	0.347	0.301	**HDH**	0.240	0.890	**SHAKTI**	0.179	-0.008
LAPO	0.012	-0.072	**MBK-VENTU**	0.384	0.211	**WORLD-REL**	0.122	0.098	**TMSS**	0.753	0.591
SEAP	-0.180	-0.305	**ASHI**	0.331	0.082	**ACODEP**	-0.113	-0.154	**BANDHAN**	0.095	-0.215
SEF-ZAF	0.300	0.161	**BCB**	-0.272	-0.196	**FAMA**	-0.218	-	**BASIX**	0.119	0.088
ACEP	0.421	-	**BANGKO-KA**	-0.113	-0.157	**FDL**	-0.176	-0.051	**CASHPOOR**	0.746	0.386
CMS	0.361	0.313	**CBMO**	-0.227	-0.253	**BANEX**	0.006	-0.037	**ESAF**	0.243	-0.083
PAMECAS	0.052	-0.103	**DIGOS**	-0.010	-0.099	**FJN**	-0.149	-	**GK**	0.130	-0.059
FINCA-TAN	0.065	-	**GREEN**	-0.003	-	**FUNDENUSE**	-0.482	-	**IASC**	0.088	-
PRIDE	0.017	0.074	**IST-VALLEY**	0.1982	-0.234	**PROCRED-NIC**	0.031	0.116	**KBSLAB**	0.462	0.478
CBANK	0.009	-0.074	**NWFT**	0.0767	-0.013	**PRODESA**	-0.282	-0.311	**MAHASEMAN**	-0.100	-
CML	0.024	0.189	**SOLANO**	-0.241	-0.269	**FIELCO**	0.049	0.091	**SHARE-MF**	-0.116	0.158
FAULU	0.211	0.436	**TSPI**	-0.050	-0.070	**INTERFISA**	0.128	0.002	**SNFL**	0.639	0.531
FINCA-UGA	0.047	0.125	**SPBD**	0.503	0.371	**BANTRA**	0.053	0.158	**CBB**	0.296	-0.029
MEDNET	0.179	3.008	**CEP**	-0.070	-0.117	**CAJA-NOR**	0.030	0.087	**NIRDHAN**	0.250	0.265
UML	0.759	-	**TYM**	-0.110	-0.010	**CARITAS**	0.646	0.438	**NSSC**	0.105	-
CETZAM	2.342	0.830	**AGROCAPITAL**	0.615	0.265	**CMAC-ARQ**	-0.084	-0.073	**PGBB**	0.533	-
FINCA-ZAM	0.519	0.034	**LATIN AMERICA**			**CMAC-CUS**	-0.082	-	**VYCCU**	-0.182	-
C. ASIA & E. EUROPE			**BANCOSOL**	0.114	0.000	**CMAC-MAY**	0.078	0.070	**ASASAH**	0.211	1.015
BESA	0.2403	0.010	**BNACO-L-A**	0.311	0.124	**CMAC-TAC**	0.056	0.138	**FMBL**	2.125	0.514
PROCRED-ALB	0.052	0.006	**CRECER**	0.039	-0.028	**CMAC-TRU**	0.033	0.018	**KASHF**	0.036	0.045
Opportunity	0.285	0.059	**ECO-FUTURO**	0.118	0.013	**EDPY.-C-T**	0.196	0.370			
ACBA	0.283	0.271	**FADES**	0.547	0.249	**EDPY.-COF.**	0.256	0.631			

Source: Author own calculations based on the Balance sheets of 204 MFIs for year 2004 & 2005

SDI values for 26 MFIs for the year 2006 are missing due to the unavailability of their Audit Reports. Out of 204 MFIs in year 2005, 153 MFIs are subsidy dependent while for year 2006, it is 122 out of total 179 MFIs. We proceed further without going into the details of SDI calculation as it is beyond this paper's main theme (see chapter 2 of this dissertation).

3.2.2 Description of the Data

Table 3.2 presents a summary statistics of the variables used in this essay as an inputs and outputs in the DEA framework along with other social and organizational variables used in the regression framework. The subsidy figures for the 25 MFIs for the year 2006 are missing due to the unavailability of the data. Therefore, the sample in Table 2.1 consists of 383 observations (204 for the year 2005 plus 179 for the year 2006).

Table 3.2

Variable Description and Summary Statistics

Inputs & Outputs	***Obs***	***Definition***	***Unit***	***Mean***	***Med.***	***Min***	***Max***
Average annual asset (*A*)	383	Average of current year (*t*) and previous year (*t-1*) assets. It includes all asset accounts net of all contra-asset accounts, such as the loan-loss allowance and accumulated depreciation.	$	37000	12000	323	521000
Subsidy (*S*)	383	*[E× m + A (m - c) + K – P]*	$	967	220	-18100	76900
Average Loan Portfolio	383	Average annual outstanding loan portfolio	$	89100	8411	48	24100000
Fiancial Revenues	383	Revenue generated from the gross loan portfolio and from investments plus other operating revenue	$	85470	3100	71	149800
Operational cost (*C*)	383	Expenses related to operations, such as all personnel expenses, rent and utilities, transportation, office supplies, and depreciation	$	4400	1900	18	77300
Organizational variables							
GNI per capita (current)	383	Gross national income divided by the population.	$	1402	1000	160	10300
Borrowers	383	The number of individuals who currently have an outstanding loan balance with the MFI or are responsible for repaying any portion of the Gross Loan Portfolio	In `000‘	104	23	0.949	5163
MFI age	383	The years since MFI has started operations	No.	14.15	12	3	51
Women borrowers	371[12]	Percentage of borrowers who are women	%	64.47	61.5	8.6	100
Average loan size	383	Gross Loan Portfolio / Number of active borrowers	$	797.88	487	34	11198
Staff (*E*)	383	The number of individuals who are actively employed by the MFI.	No.	578	204	7	24457
Operating Cost per Staff	383	Operating cost per staff	$	12.127	11.906	3.89	47.714
Borrower per Staff*	383	Borrower per Staff	No.	143.89	136.74	2.83	454.8
Loansize/GNIpc	383	Average loan size/ GNI per capita	$	0.911	0.444	.026	33.93
Subsidy Dependence Index (*SDI*)	383	Subsidy(*S*)/ Revenue from lending(*R*)		0.214	0.122	-1.914	4.568
Operational Self Sufficiency(*OSS*)	383	Financial Revenue (Total)/ (Financial expense + Loan loss provision expense + Operating expense)	(%)	123.4	120.7	3.57	254.9
Intrest rate/Yield	383	Average on lending interest rate/yield on lending	(%)	30.2	26.7	0	1.281

Source: Author´s own calculation based on the Audit Reports of MFIs taken from Microfinance Information eXange Inc website. All the values in USD are in 000s. Exchange rates are also taken from Mixmarket website. Some definitions are taken from CGAP (2003)

Table 3.3 presents the categorical variables used in this essay. The classification of all the categorical variables is based on the information provided on the Mix Market web site.

[12] 12 observations have been reduced because Six MFIs have no women borrowers information available.

Table 3.*3*

Categorical Variables

Variables	***Description***
Region	Geographic region in which the MFI operates classified into 6 regions: Africa (*A*); East Asia and the Pacific (*EA&P*); Eastern Europe and Central Asia (*EE&CA*); Middle East and North Africa (*MENA*); Latin America and the Caribbean (*LAC*); South Asia (*SA*).
Lending Methodology	Lending methodology is classified into 4 categories: Individual (*I*); Individual & Solidarity/Group (*IS*); Group/Solidarity (*S*); Village banking (*V*).
Status	Classified into 5 categories: Nongovernmental organizations (*NGO*); Bank (*B*); Non-banking financial intermediaries (*NBFI*); Rural Bank (*RB*); Cooperatives (*Coop.*).
Other services	Whether MFI provides other services i.e. health, education etc in addition to providing financial services or not.
Saving	Whether saving (voluntary or Compulsory) is a feature of MFI or not.
Regulated	Whether MFI is regulated by some authority like central bank etc. or not.

*Data for all the categorical variables have been taken directly from the Mix market Website

Table 3.4

Correlations

	SDI	**Subsidy**	**OSS**	**Age**	**Women**	**Loan size**	**borr/ staff**	**cost/ staff**	**True Profit**	**Equity**	**Rev.**
SDI	1.00 (381)										
Subsidy	0.228* (381)	1.00 (381)									
OSS	-0.402* (378)	-0.029 (378)	1.00 (397)								
Age	-0.139* (381)	0.154* (381)	0.089 (397)	1.00 (406)							
Women	-0.033 (369)	0.046 (369)	-0.136* (384)	0.044 (389)	1.00 (389)						
Loan size[13]	0.047 (378)	0.004 (378)	0.069 (394)	-0.125* (399)	-0.270* (386)	1.00 (399)					
Borr/ Staff	-0.204* (381)	0.012 (381)	0.197* (397)	0.106* (402)	0.343* (389)	-0.315* (399)	1.00 (402)				
Cost/ Staff	-0.046 (381)	-0.053 (381)	-0.042 (390)	0.026 (393)	-0.380* (381)	0.001 (390)	-0.100* (393)	1.00 (393)			
True Profit	-0.273* (381)	-0.885* (381)	0.219* (380)	-0.067 (383)	-0.085 (371)	0.020 (380)	0.047 (383)	0.111* (383)	1.00 (383)		
Equity	0.017 (381)	0.664* (381)	0.319* (381)	0.219* (385)	-0.027 (373)	0.014 (382)	0.148* (385)	0.041 (384)	-0.259* (381)	1.00 (385)	
Rev.	-0.075 (381)	0.463* (381)	0.148* (386)	0.173* (389)	-0.111* (377)	0.021 (386)	-0.055 (389)	0.302* (389)	-0.113* (383)	0.720* (384)	1.00 (389)

Source: Authors own calculations

Numbers of Observations are in parentheses

*Significance level at 5% or better

[13] loan size divided by the GNI per capita is used as a porxy for he outreach. The lower the ratio, the higher the Outreach i.e. MFI caters to poor who can only afford small loan sizes

The correlation matrix in Table 3.4 reveals important relationships among the financial, organizational and social variables used in this study. Most of the relationships are in line with the theory. The next section describes the theory behind the non-parametric efficiency analysis and its application to the microfinance institutions.

3.3 Efficiency Analysis

For the efficiency analysis of the microfinance institutions, a two-stage analysis has been carried out. Firstly, Data Envelopment Analysis (DEA) approach is used to estimate technical and pure efficiency scores of the MFIs for the year 2005 and 2006 separately. Secondly, DEA-based Malmquist indices are calculated to analyze inter-temporal productivity change. The advantages of using the DEA technique to gauge efficiency are well documented in the literature. DEA framework can handle multiple outputs and inputs. Thus, in the context of MFIs efficiency analysis, it can incorporate both the outputs of outreach and sustainability along with other inputs into a single framework. Neither has it required any price information for the dual cost function nor parametric functional form for the production function. In the next subsections only a brief description of DEA approach and Malmquist productivity index will be given.

3.3.1 Methodology

3.3.1.1 Data Envelopment Analysis

DEA was first introduced by Charnes, Cooper and Rhodes (1978), famously known as the CCR model after their names, as a generalization of efficiency proposed by Farrell (1957). We assume that there are n Decision Making Units (DMUs), and each DMU has m inputs to produce s outputs. This model measures the relative efficiency ratio of a given DMU (h_o) by the sum of its weighted outputs to the sum of its weighted inputs. It can be formulated as follows, known as the input-oriented CCR model:

$$\max\ h_o = \frac{\sum_{r=1}^{s} u_r y_{ro}}{\sum_{i=1}^{m} v_i x_{io}}$$

subject to

$$\frac{\sum_{r=1}^{s} u_r y_{rj}}{\sum_{i=1}^{m} v_i x_{ij}} \le 1, \qquad (1)$$

$$u_r, v_i \ge 0,\ i = 1,\ldots,m,\quad j = 1,\ldots,n,\ r = 1,\ldots,s,$$

where h_o is the efficiency ratio of the DMU$_o$; v_i, u_r are virtual multipliers (weights) for the i th input and the r th output, respectively; m is the number of inputs, s is the number of outputs and n is the number of DMUs; x_{io} is the value of the input i for DMU$_o$, y_{ro} is the value of the output r for DMU$_o$.

The equation (1) is fractional programming and has an infinite number of solutions. It can be solved by adding an additional constraint, $\sum_{i=1}^{m} v_i x_{io} = 1$. The form then converts to the multiplier form of the DEA LP problem:

$$\max h_o = \sum_{r=1}^{s} \mu_r y_{ro}$$

subject to

$$\sum_{r=1}^{s} \mu_r y_{rj} - \sum_{i=1}^{m} v_i x_{ij} \le 0, \quad j = 1,\ldots,n, \qquad (2)$$

$$\sum_{i=1}^{m} v_i x_{io} = 1,$$

$$\mu_r, v_i \ge \varepsilon > 0,\ i = 1,\ldots,m,\ r = 1,\ldots,s,$$

To reflect the transformation, the variables from (u, v) have been replaced by (μ, v). ε is a non-Archimedean quantity defined to be smaller than any positive real number. The dual form of equation (2) can be written as an equivalent envelopment form as follows:

$$\min h_o = \theta_o - \varepsilon\left(\sum_{i=1}^{m} s_i^- + \sum_{r=1}^{s} s_r^+\right)$$

subject to

$$\sum_{j=1}^{n} x_{ij}\lambda_j + s_i^- = \theta x_{io,} \quad i = 1,...,m, \qquad (3)$$

$$\sum_{j=1}^{n} y_{rj}\lambda_j - s_r^+ = y_{ro,} \quad r = 1,...,s,$$

$$\lambda_j, s_i^-, s_r^+ \geq 0, \ \varepsilon > 0, \ j = 1,...,n,$$

Where θ_o is the proportion of DMU_o's inputs needed to produce a quantity of outputs equivalent to its benchmarked DMUs identified and weighted by the λ_j. s_i^- and s_r^+ are the slack variables of input and output respectively. λ_j is a ($n \times 1$) column vector of constants and can indicate benchmarked DMUs of DMU_o. If $h_o^* = 1$ is meant efficient and $h_o^* < 1$ is meant inefficient where the symbol "*" represents the optimal value.

However, the CCR model is calculated with the constant returns to scale (CRS) assumption. This assumption is not supportable in imperfectly competitive markets. The BCC model proposed by Banker, Charnes and Cooper (1984) modifies the CCR model by allowing variable returns to scale (VRS). The CRS LP problem can be easily modified to account for VRS by adding the convexity constraint

$\sum_{j=1}^{n} \lambda_j = 1$ to equation 3 to provide

$$\min h_o = \theta_o - \varepsilon(\sum_{i=1}^{m} s_i^- + \sum_{r=1}^{s} s_r^+)$$

subject to

$$\sum_{j=1}^{n} x_{ij}\lambda_j + s_i^- = \theta x_{io,} \quad i = 1,...,m, \qquad (4)$$

$$\sum_{j=1}^{n} y_{rj}\lambda_j - s_r^+ = y_{ro,} \quad r = 1,...,s,$$

$$\sum_{j=1}^{n} \lambda_j = 1,$$

$$\lambda_j, s_i^-, s_r^+ \geq 0, \ \varepsilon > 0, \ j = 1,...,n,$$

The Overall Technical Efficiency (*OTE*) from CCR model can be decomposed into Pure Technical Efficiency (*PTE*) and Scale Efficiency (*SE*). The *PTE* can be obtained

from BCC model. We can measure the *SE* for a DMU_o by using CCR and BCC model as follow:

SE = OTE / PTE, (5)

If the ratio is equal to 1 then a DMU_o is scale efficient, otherwise if the ratio is less than one then a DMU_o is scale inefficient.

3.3.1.2 The Malmquist Productivity Index

To define the Malmquist index, Fare et al. (1994) defined distance functions with respect to two different time periods:

$$D_0^{\,t}(x^{t+1}, y^{t+1}) = \inf\{\theta \mid (x^{t+1}, y^{t+1} / \theta) \in S^t\} \quad (6)$$

and

$$D_0^{\,t+1}(x^t, y^t) = \inf\{\theta \mid (x^t, y^t / \theta) \in S^{t+1}\} \quad (7)$$

The distance function in (6) measures the maximal proportional change in output required to make (x^{t+1}, y^{t+1}) feasible in relation to technology at time *t*. Similarly, the distance function in (7) measures the maximal proportional change in output required to make (x^t, y^t) feasible in relation to technology at time *t + 1*. The output Malmquist TFP productivity index can then be expressed as:

$$M_o(x^{t+1}, y^{t+1}, x^t, y^t) = \frac{D_o^{t+1}(x^{t+1}, y^{t+1})}{D_o^t(x^t, y^t)} \left[\frac{D_o^t(x^{t+1}, y^{t+1})}{D_o^{t+1}(x^{t+1}, y^{t+1})} \frac{D_o^t(x^t, y^t)}{D_o^{t+1}(x^t, y^t)} \right]^{\frac{1}{2}} \quad (8)$$

The term outside the brackets shows the change in technical efficiency while the geometric mean of the two ratios inside the brackets measures the shift in technology between the two period's *t* and *t + 1;* this could be called technological progress. So:

$$\text{Efficiency change} = \frac{D_o^{t+1}(x^{t+1}, y^{t+1})}{D_o^t(x^t, y^t)} \quad (9)$$

$$\text{Technical change} = \left[\frac{D_o^t(x^{t+1}, y^{t+1})}{D_o^{t+1}(x^{t+1}, y^{t+1})} \frac{D_o^t(x^t, y^t)}{D_o^{t+1}(x^t, y^t)} \right]^{\frac{1}{2}} \qquad (10)$$

3.3.2 DEA Model and Input Output Variable

Table 3.5 depicts the summary of inputs and outputs selected for this study. The main objective of estimating a production function is to explain the quantity of output produced given certain levels of inputs and other relevant factors that might explain the quantity of output produced. In traditional financial literature two models i.e. Production Model and Intermediation Model are popular depending upon what one thinks an institution do. The majority of the studies in banking efficiency literature are based on the input oriented constant returns to scale CCR model (Charnes *et al*, 1978). In the production model approach, financial institutions are treated as firms that use physical input, employees and expend money in order to obtain deposits, grant loans and collect revenues. We assume the output oriented Production model with variable returns to scale is better suited to microfinance institutions rather than constant returns to scale model. Because MFIs are more interested in increasing outreach i.e. lending loans to poor people which commensurate with not only their social mission but also contributes towards sustainability as well by collecting more revenues from lending. In addition to that they compete in an imperfect economic environment as the markets for MFIs are not as well developed as the conventional banking sector[14]. And they always have restricted amount of money and human resource (Inputs) to spend on unlike commercial banks which can generate money from shareholders. In the context of output oriented model, this essay asks a specific question "By how much the output quantities be proportionally expanded without altering the input quantities used?. The selection of specifications with correct inputs and outputs in the context of MFIs is very important. This study uses LR-ACE[15] as a general specification where gross loan portfolio and financial revenues are taken as an output and assets, operating costs and number of staff as an input.

[14] Stiglitz and Weiss (1983) provides the analytical underpinnings of the imperfect information paradigm

[15] The left part in all the specifications show outputs and the right part depict inputs.

In addition to that, we have also used specifications L-ACE and R-ACE, where the former put emphasis on granting loan as main objective of MFIs and latter signifies revenue collection as main objective of MFIs. The other specifications used are basically the different combination of treating subsidies as an input and output with the above general specifications.

Table 3.5

Inputs and Outputs in Efficiency Specifications

Variable	Variable name	Not.	Definition	Unit
Input	Total assets[16]	A	Total of all net asset accounts	($)
Input	Operating Cost[17]	C	Expenses related to operations, such as all personnel expenses, rent and utilities, transportation, office supplies, and depreciation	($)
Input	Number of Staff[18]	E	The number of individuals who are actively employed by the MFI. This includes contract employees or advisors who dedicate the majority of their time to the MFI, even if they are not on the MFI's roster of employees	No.
Input	Total subsidies	S^i	(E * m + A (m - c) + K – P) in case a positive value	($)
Output	Total subsidies	S^o	(E * m + A (m - c) + K – P) in case a negative value	
Output	Gross loan portfolio[19]	L	Outstanding principal balance of all of the MFI's outstanding loans including current, delinquent and restructured loans, but not loans that have been written off. It does not include interest receivable	($)
Output	Financial revenue[20]	R	Revenue generated from the gross loan portfolio and from investments plus other operating revenue	($)
Output	Revenue-Subsidy	R^s	Financial revenues without subsidies (R-S)	($)

Source: Authors own calculation based on data taken from audit reports and MixMarket website.

3.3.3 Incorporation of Subsidies into DEA Framework

In this study, subsidies have been splitted between the positive subsidies and negative subsidies. They have entered into the DEA framework on the premise that positive subsidies distort public wealth while negatives subsidies create it. Where positive subsidies have been treated as an input, while negative subsidies

[16] Berger and Humphrey (1997), Seiford and Zhu (1999) and Luo (2003).
[17] Athanassopoulos (1997), Berger and Humphrey (1997) and Pastor (1999).
[18] Athanassopoulos (1997), Berger and Humphrey (1997), Sherman and Gold (1985), Seiford and Zhu (1999) and Luo (2003) among others
[19] (Sherman and Gold, 1985; Athanassopoulos, 1997; Berger and Humphrey, 1997; Wheelock and Wilson, (1999).
[20] Pastor (1999) and Seiford and Zhu (1999)

as an output in all the efficiency specifications. This is due to the fact that our calculated subsidies are in fact the social cost to the society of subsidized MFIs. Where a positive subsidy (E * m + A (m - c) + K – P) > 0) means the MFI is distorting public wealth so it is entered into the efficiency model as an input. While a negative subsidy (E * m + A (m - c) + K – P) < 0) shows that MFI is creating public wealth so it is entered into the efficiency framework as an output. Subsidies as an input and output have been denoted by S^i and S^o respectively, where superscripts *i* and *o* refers to input and output respectively.

3.4 Efficiency Analysis

The efficiency analysis have been carried out for both years i.e. 2005 and 2006 separately and also jointly by calculating Malmquist productivity index for year 2006 relative to the year 2005. The results for technical efficiency have been bifurcated into constant returns to scale efficiency (crs), variable return to scale efficiency (vrs) and scale efficiency (Scale). In this paper, the focus of the analysis is on the variable returns to scale efficiency scores for the reasons as described in section 3.3.2. Nevertheless the average efficiency scores of constant returns to scale and scale efficiency have also been presented in the following figures.

Fig 3.1 shows the average efficiency scores for specification LR-ACE employing variable returns to scale. Latin American MFIs are the efficient ones while South Asians are the worst ones relatively. MFIs with Non-banking financial intermediary status are more efficient than others while MFIs with individual and village lending methodology are more efficient than others.

Fig 3.2 presents the average efficiency scores assuming constant returns to scale. The results are by and large same as with variable returns to scale. Latin American MFIs are found to be efficient ones whereas South Asian MFIs turn out to be less efficient than the rest. MFIs with status “NBFI” are the efficient one while MFIs with individual and village lending methodology are the efficient one relative to others. Again MFIs with no saving designs and are not regulated are more efficient than their counterparts.

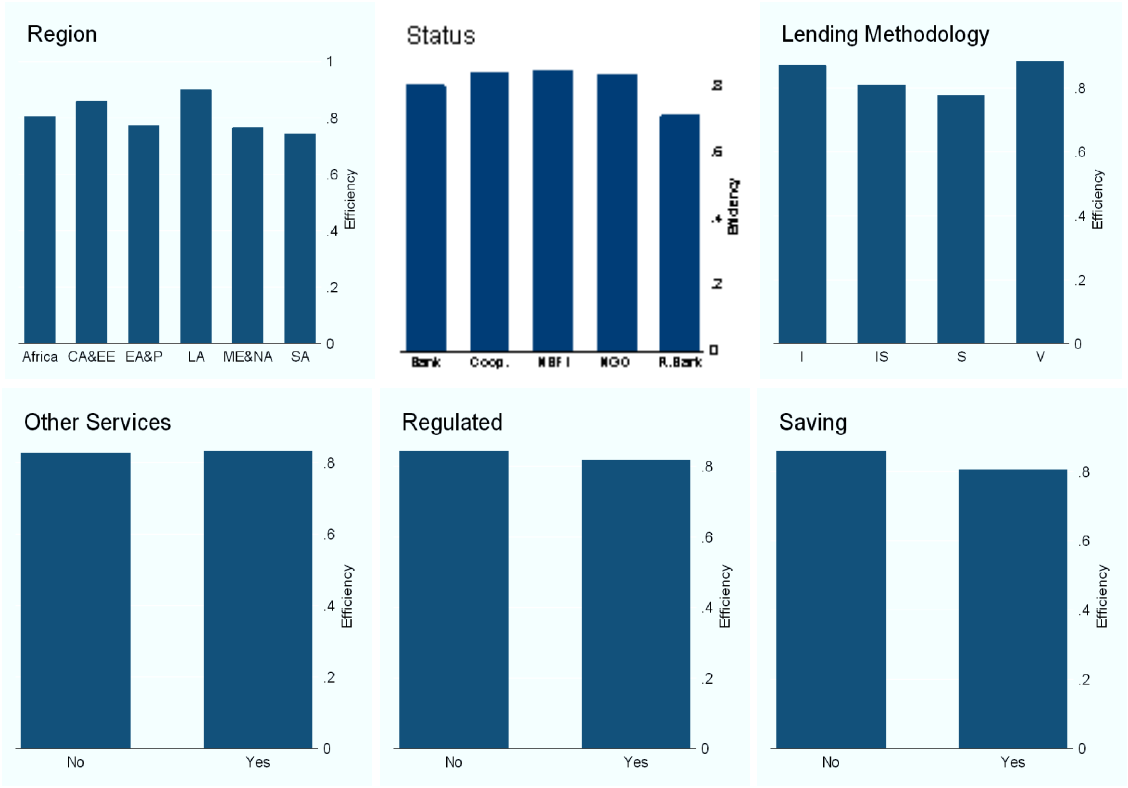

Fig.3.1 Composition of Efficiency Scores for Specification LR-ACE (vrs)
Source: Based on authors own calculations.

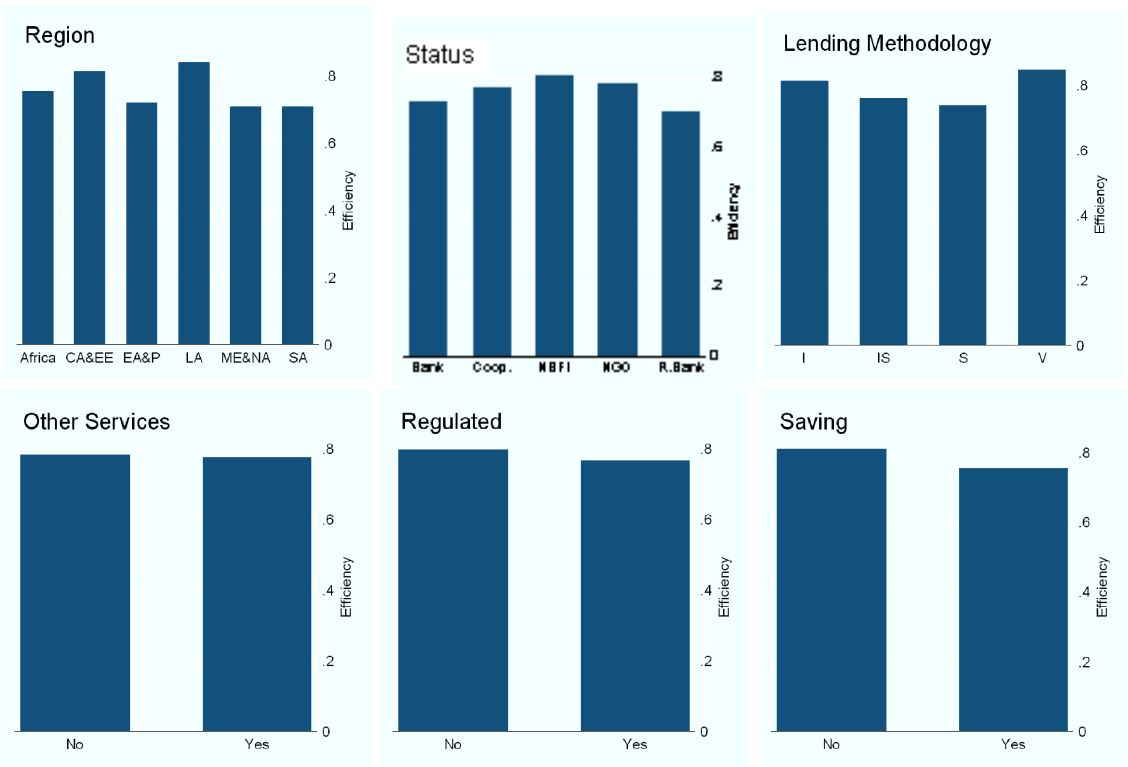

Fig.3.2 Composition of Efficiency Scores for Specification LR-ACE (crs)
Source: Based on authors own calculations.

The average scale efficiency scores have been presented in Fig. 3.3. The average scores show that NBFIs along with Rural Banks are scale efficient. MFIs located in South Asia are on average more scale efficient than others.

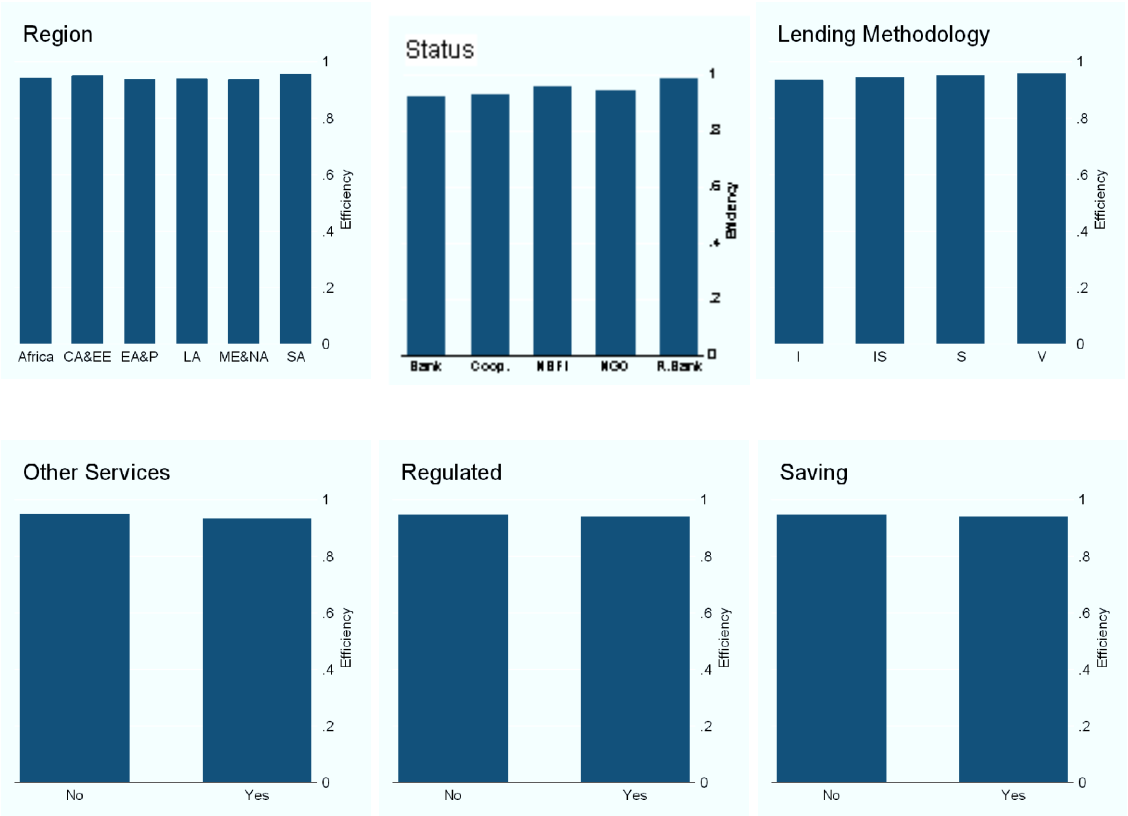

Fig.3.3 Composition of Efficiency Scores for Specification LR-ACE (scale)
Source: Based on authors own calculations.

3.5 With and Without Subsidy Analysis

3.5.1 Efficiency Analysis 2005

Table 3.6 presents the average values of the technical efficiency results of with and without subsidy specifications. The specifications entertained are LR-ACE vs. LR^{s}-ACE (without subsidies) and R-ACE vs. R^{s}-ACE (without subsidies). The sample consists of all the MFIs in the data for year 2005. The detailed efficiency results of all the MFIs are presented in Appendix **D**. Comparing the general specification LR-ACE vs. LR^{s}-ACE (without subsidies); averages of CRSTE, VRSTE and SE have decreased from 0.786, 0.833, and 0.945 to 0.700, 0.881 and 0.900

respectively. The average efficiency scores can also be interpreted in another way. For example, score of 0.833 shows that average output of MFIs can be increased by 16.7% with the same use of inputs assuming variable returns to scale. Considering specification R-ACE (where MFIs objective is to increase revenues), the decrease in efficiency is more resounding when subsidies have been subtracted from the revenues in specification R^s-ACE (without subsidy). MFIs which were previously 100% efficient under LR-ACE become less efficient after taking subsidies out of the revenues, are FADES, CredMujer, ADEMI, C Fund, ACME, FINCA-Mali, SEF-ZAF, Finca-UGA, PRIDE and CETZAM. The exceptions are INNMA and DIGOS which become 100% efficient by taking out subsidies. MFIs remained 100% efficient for both with and without subsidies are BESA, ASA, ALIDE, MIKROFIN, FMM Pop, WWB CA, Fundecoca, Bancosol, Coac Jardin, Coac Sac, FINCA-ECU, ADCSI, DECSI, KSF, AIYL Bank, Al AMANA, VYCCU, Prodesa, SEAP, BANTRA, CMAC Arq, CMAC Cus, Mibanco and ACEP.

Table 3.7 shows the average efficiency values of MFIs for year 2005 with positive subsidies entering into the specifications as an input. The sample consists of only subsidy dependent MFIs with positive subsidies. The detailed efficiency results of all the MFIs are presented in Appendix **E**. There is only a slight increase in the average efficiencies for specification LR-ACES^i where subsidy enters into the model as an input i.e. from 0.790, 0.843 and 0.939 to 0.812, 0.860 and 0.946 respectively. For other specifications of L-ACE and R-ACE, adding subsidies as an input also result in a small increase in the efficiencies. However considering the base specification LR-ACE, MFIs which become 100% efficient with subsidies are SUNRISE, Coac S Jose, C Fund, MDSL, FINDESA, ASASAH, FIELCO, Bank Eskhata and CMFL. For specification L-ACES, those MFIs are DESHA, SUNRISE, COAC S JOSE, NSSC, FINDESA and Bank Eskhata. While for specification R-ACE, HORIZON, MDSL, LAPO, BANTRA, Bank Eskhata and PRIDE become fully efficient.

Table 3.8 depicts average efficiency results for MFIs with negative subsidies entering into the model as an output. The sample consists of only those MFIs with negative subsidies. The detailed efficiency results of all the MFIs are presented in Appendix **F**. Again treating subsidies as an output only slightly improves the

average efficiency scores for all the specifications. Only Fundenuse becomes 100% efficient once subsidies enter into the specifications as an output for specifications LR-ACE and R-ACE. Whereas for specification L-ACE, FMM Pop, Finca-ECU, and Fundenuse become fully efficient.

Table 3.6

Efficiency Analysis 2005 (With and Without Subsidies)

	LR-ACE		**R-ACE**	
technical efficiency	with subsidies	without subsidies	with subsidies	without subsidies
constant (CRSTE)	0.786	0.700	0.707	0.222
variable (VRSTE)	0.833	0.781	0.735	0.369
scale efficiency (SE)	0.945	0.900	0.966	0.691

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

Table 3.7

Efficiency Analysis 2005 (Subsidies as an Input)

	LR-ACE		**L-ACE**		**R-ACE**	
technical efficiency	without subsidy	with subsidy Input	without subsidy	with subsidy Input	without subsidy	with subsidy Input
constant (CRSTE)	0.790	0.812	0.656	0.688	0.691	0.737
variable (VRSTE)	0.843	0.860	0.745	0.767	0.739	0.780
scale efficiency (SE)	0.939	0.946	0.889	0.903	0.940	0.948

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

Table 3.8

Efficiency Analysis 2005 (Subsidies as an Output)

	LR-ACE		**L-ACE**		**R-ACE**	
technical efficiency	without subsidy	with subsidy output	without subsidy	with subsidy output	without subsidy	with subsidy output
constant (CRSTE)	0.894	0.897	0.837	0.853	0.812	0.816
variable (VRSTE)	0.912	0.915	0.857	0.875	0.839	0.842
scale efficiency (SE)	0.980	0.980	0.977	0.973	0.968	0.969

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

3.5.2 Efficiency Analysis 2006

Like year 2005, the efficiency analysis has been carried out on the same lines for the year 2006. Table 3.9 presents the average efficiency results for all the MFIs in year 2006 with and without subsidies. The detailed efficiency analysis for all the MFIs in the sample for year 2006 has been presented in Appendix **G.** Again

average efficiencies decrease for both specifications LR-ACE and R-ACE once subsidies have been removed from the revenues. Like previous year analysis, for base specification LR-ACE, this decrease in efficiency is small. But for the specification R-ACE, the decrease in efficiency is more pronounced. The MFIs previously 100% efficient but after removing subsidies become less efficient are C FUND, INTERFISA, Promujer-PERU, IMON, and CETZAM for specification LR-ACE. Whereas for specification R-ACE, ASA, BRAC-BAN, C FUND, Interfisa and CETZAM become less efficient. MFIs which remain fully efficient irrespective of subsidies for specification LR-ACE are BESA, Cred. Agro, IDF, EKI, Mikrofin, Partner, Sunrise, WWB Ca, C Mujer-CR, Bancosol-ECU, C Jardin, Finca-ECU, ACSI, DECSI, Bandhan, SNFL, MDSL, SMEP, AIYL, Khan Bank, Al Amana, Fondep, Vovo Banco, Acodep, Bantra, Findesa, CMAC Arq, EDPY C Tac and Mibanco.

Average efficiency results for treating positive subsidies as an input is presented in Table 3.10. The detailed efficiency analysis for all the MFIs in the sample for year 2006 is being presented in Appendix **H.** The Specifications entertained are LR-ACE, L-ACE and R-ACE. The average efficiency scores increase slightly after adding subsidy input in all the specifications. The MFIs becoming 100% efficient after subsidy input for base specification LR-ACE are Procred-ALB, Horizon, Viator, BANCOSOL, FMM Pop, DBACD, BG, MFW, AL Karama, SEF-ZAF, PRIDE, and Finca-ZAM. For specification L-ACE, MFIs become 100% efficient with subsidy input are Procred-ALB, Bancosol, FMM Pop, BG and Al Karama. Similarly for specification R-ACE, Besa, Procred-ALB, Horizon, Bancosol, BG, DBACD, Al Karama, and Finca-ZAM have become fully efficient after subsidy input.

Table 3.9

Efficiency Analysis 2006 (With and Without Subsidies)

	LR-ACE		**R-ACE**	
technical efficiency	with subsidies	without subsidies	with subsidies	without subsidies
constant (CRSTE)	0.835	0.776	0.732	0.428
variable (VRSTE)	0.859	0.823	0.751	0.561
scale efficiency (SE)	0.973	0.944	0.976	0.773

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

Table 3.10

Efficiency Analysis 2006 (Subsidies as an Input)

	LR-ACE		**L-ACE**		**R-ACE**	
technical efficiency	without subsidy	with subsidy Input	without subsidy	with subsidy Input	without subsidy	with subsidy Input
constant (CRSTE)	0.844	0.864	0.758	0.768	0.758	0.783
variable (VRSTE)	0.864	0.881	0.793	0.806	0.776	0.799
scale efficiency (SE)	0.977	0.981	0.961	0.957	0.978	0.980

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

Table 3.11

Efficiency Analysis 2006 (Subsidies as an Output)

	LR-ACE		**L-ACE**		**R-ACE**	
technical efficiency	without subsidy	with subsidy output	without subsidy	with subsidy output	without subsidy	with subsidy output
constant (CRSTE)	0.868	0.868	0.778	0.786	0.765	0.773
variable (VRSTE)	0.901	0.901	0.825	0.839	0.801	0.809
scale efficiency (SE)	0.964	0.964	0.946	0.941	0.958	0.958

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

Average efficiency scores for treating negative subsidies as an output is presented in Table 3.11. The detailed efficiency analysis for all the MFIs in the sample for year 2006 is being presented in Appendix **I**. Overall the average efficiency scores remain the same for the base specification LR-ACE but increased marginally for specification L-ACE and R-ACE. For specification L-ACE, only EBS becomes 100% efficient after subsidy output whereas for specification R-ACE, Mikrofin and ACSI becomes 100% efficient after subsidy output.

3.5.3 Malmquist Productivity Index

Now we turn to the Panel Data efficiency analysis where the Malmquist Productivity indices are presented. All the efficiency scores in this analysis are for year 2006 relative to the previous year 2005. The five indices are technical efficiency change, technological change, pure technical efficiency change, scale efficiency change and total factor productivity (TFP) change. Table 3.12 presents the overall average efficiency scores for specifications LR-ACE, L-ACE and R-ACE. A

detailed efficiency analysis of all the MFIs is given in Appendix **J**. Average scores for all the indices have increased for 2006 relative to previous year except for technological change indices which has a value less than one.

Table 3.13 compares averages of Malmquist productivity indices with and without subsidies for base specification LR-ACE. A detailed efficiency analysis of all the MFIs is given in Appendix **K**. Taking subsidies out of the revenues decreases the average scores slightly for the technological change and total factor productivity indices. While for the technical efficiency, pure technical efficiency and scale efficiency, it actually increases the average efficiency score marginally. Moreover without subsidy, total factor productivity indices become less than one.

Table 3.14 depicts averages of malmquist indices for treating positive subsidies as an input into the specification LR-ACE and L-ACE. A detailed efficiency analysis of all the MFIs is given in Appendix **L**. For specification LR-ACE, average indices scores show little improvement when subsidy as an input enters into the model for all the efficiencies except scale efficiency. For specification L-ACE, the average productivity indices scores decrease with subsidy input except for technological change and total factor productivity indices.

Table 3.15 presents the average efficiency indices of treating negative subsidies as an output in to the specifications LR-ACE, L-ACE and R-ACE. A detailed efficiency analysis of all the MFIs is given in Appendix **M**. For all the three specifications, the magnitude of change in efficiency indices before and after

Table 3.12

Malmquist DEA indices for 2006

	LR-ACE	**L-ACE**	**R-ACE**
technical efficiency (CRS)	1.081	1.127	1.123
technological change	0.935	0.903	0.899
pure tech. efficiency (VRS)	1.034	1.049	1.059
scale efficiency	1.046	1.074	1.061
total factor productivity	1.011	1.017	1.011

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

subsidy output is same. For technical, pure technical and scale efficiencies, the average indices scores decrease with subsidy output. Whereas, for technological change and total factor productivity indices, average indices scores increase with subsidy input.

Table 3.13

Malmquist DEA indices for 2006 (with and without subsidy)

	LR-ACE	
	with subsidy	without subsidy
technical efficiency (CRS)	1.071	1.108
technological change	0.943	0.895
pure tech. efficiency (VRS)	1.029	1.041
scale efficiency	1.041	1.064
total factor productivity	1.010	0.992

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

Table 3.14

Malmquist DEA indices for 2006 (subsidy as an input)

	LR-ACE		**L-ACE**	
	without subsidy input	with subsidy input	without subsidy input	with subsidy input
technical efficiency (CRS)	1.074	1.076	1.158	1.134
technological change	0.929	0.943	0.866	0.903
pure tech. efficiency (VRS)	1.019	1.024	1.052	1.050
scale efficiency	1.054	1.051	1.101	1.080
total factor productivity	0.998	1.015	1.003	1.024

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

Table 3.15

Malmquist DEA indices for 2006 (subsidy as an output)

	LR-ACE		**L-ACE**		**R-ACE**	
	without subsidy output	with subsidy output	without subsidy output	with subsidy output	without subsidy input	with subsidy input
technical efficiency (CRS)	0.978	0.965	0.963	0.939	0.994	0.989
technological change	1.016	1.079	1.051	1.146	1.005	1.074
pure tech. efficiency (VRS)	0.986	0.979	1.001	0.976	1.013	1.010
scale efficiency	0.992	0.986	0.962	0.962	0.982	0.980
total factor productivity	0.993	1.041	1.013	1.076	0.999	1.062

Source: Author's own calculations. All values are average of the efficiencies of the total MFIs.

3.6 Tobit Regression Approach

3.6.1 Methodology

Tobit Regression analysis are carried out to test a series of hypotheses concerning the relationship between financial efficiency and other indicators related to MFIs productivity, organizational, outreach, sustainability and social impact amid subsidies. The model is *censored* if one can at least observe the exogenous variables and *truncated* if the observations outside a specified range are totally lost" (Amemiya,1984:3). In this case, a Tobit censored regression model is appropriate[21] because it can accommodate the censored DEA efficiency score since the values of the dependent variable lie between 0 and 1 with some values achieving the highest value of 1. This study has taken the output oriented technical efficiency as dependent variable for Tobit regressions for year 2005 and 2006.
The Equation is as follows

$$logEfficiency_i = \alpha + \beta_2 \log(cost/staff)_i + \beta_3 (OSS)_I + \beta_4(SDI) + \beta_5 \log(borrower/staff)_i + \beta_6 \log(Loan\ size/GNI\ per\ capita))_I + \beta_6 \log(age)_i + \beta_7 \log(women)_i + \gamma_3 C_i + \varepsilon_i \quad (1)$$

Where C_i are the controls for Region, Status, Lending Methodology, Saving, Regulated and Other services.

The omitted variable categories are: for region, Africa; for status, Non Banking Financial Institution (NBFI); for lending methodology, Individual lending; and others are MFIs with no saving feature, not regulated and no other services.

The base regression describes the correlates of efficiency with particular emphasis on the role of productivity variables i.e. cost per staff and borrowers per staff. Another important aspect to understand is the impact of outreach on the efficiency. Further also of interest is to know how efficiency relates to the subsidy dependence and sustainability.

[21] For literature see for example Chakraborty et al., 2001 ; McCarty and Yaisawarng, 1993; Gilen and lall, 1997 and Chilingerian, 1995 among others

For each year 2005 and 2006, we have started from the overall regressions with PTE score of LR-ACE as dependent variable followed by the Tobit regressions where dependent variable consists of specifications with and without subsidies. Then follow the equations where subsidies have been treated as an input and as an output. The relationship between financial efficiency and other indicators related to MFIs productivity, outreach, sustainability and social impact have been tested which reveal important information about the tradeoff between outreach to the poor and efficiency of MFIs and also about the inefficiencies which leads to lower productivity etc. Finally, Tobit random effect model has been employed to analyze the panel data.

3.6.2 Regression Results (2005)

Table 3.16 gives results from the estimation of equation (1) above. Regression (1) and (2) are overall regression equation with base specification LR-ACE as dependent variable and include all the 204 MFIs as sample. Regression 2 includes operational self sufficiency (OSS) and SDI as independent variables in addition to the other variables. The results showing the tradeoff between efficiency and cost per staff and positive relationship between efficiency and borrower per staff (productivity) are in line with the theory and also are significant. The regression equations confirm the negative association between subsidy dependence and efficiency of MFIs. While operational self sufficiency (OSS) contributes toward efficiency, though, the coefficient is significant only in Equation (2). The outreach indicator has significant positive impact on efficiency showing that as outreach increases i.e. lower loan size, the efficiency decreases. In other words, MFIs which cater to poor tend to be inefficient than those with relatively well off clients. However, lending to women borrowers significantly increases the efficiency. Impact of MFI age on efficiency is also positive though insignificant. Turning to covariates, MFIs with status of Rural Banks are inefficient ones while Non Banking financial intermediaries (NBFI) which is omitted variable category are efficient though not significant. The rest of MFIs with status as Banks, NGOs and

Table 3.16

Tobit Regression Analysis 2005

	Base Specification		with/without subsidies		+ve Subsidies (As Input)		-veSubsidies (As Output)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	LR-ACE	**LR-ACE**	**LR-ACE**	**LR^{s}-ACE**	**LR-ACE**	**LR-ACES^{i}**	**LR-ACE**	**LRS^{o}-ACE**
Cost / Staff	-0.085 (-4.01)***	-0.069 (-3.17)***	-0.066 (-3.18)***	-0.089 (-3.75)***	-0.040 (-1.71)*	-0.020 (-0.78)	-0.128 (-3.87)***	-0.13 (-4.04)***
SDI		-0.075 (-2.37)**	-0.09 (-2.86)***	-0.045 (-3.07)***	-0.067 (-1.83)*	-0.091 (-2.51)**	0,265 (1.72)*	0,23 (1.56)
Operational Self Sufficiency		0.064 (1.68)*	0.045 (1.23)	0.118 (1.07)	0.190 (2.49)**	0.222 (2.99)***	0,06 (2.06)**	0,06 (2.02)*
Loan Size/GNIpc	0.114 (4.10)***	0.092 (3.29)***	0.077 (2.86)***	0.127 (4.14)***	0.055 (1.77)*	0.035 (1.07)	0,08 (1.95)*	0.08 (2.02)*
Borrower/Staff	0.106 (3.82)***	0.078 (2.74)***	0.079 (2.88)***	0.165 (5.27)***	0.029 (0.90)	0.007 (0.17)	-0,01 (-0.29)	-0,01 (-0.26)
GNIpc	0.144 (4.17)***	0.127 (3.67)***	0.091 (2.71)***	0.156 (4.02)***	0.079 (2.14)**	0.059 (1.52)	0,11 (1.63)	0,11 (1.76)*
Age	0.043 (1.51)	0.028 (0.99)	0.019 (0.69)	0.027 (0.88)	0.016 (0.54)	0.019 (0.70)	-0,07 (-1.39)	-0,07 (-1.41)
Women Borrower	0.088 (2.48)**	0.072 (2.05)**	0.071 (2.27)**	0.035 (0.99)	0.095 (2.81)***	0.092 (2.71)***	-0,07 (-1.04)	-0,08 (-1.12)
Bank	-0.031 (-0.66)	-0.009 (-0.19)	-0.026 (-0.58)	-0.034 (-0.66)	0.023 (0.46)	0.009 (0.21)	-0,02 (-0.27)	-0,02 (-0.31)
Cooperatives	-0.063 (-0.95)	-0.055 (-0.85)	-0.036 (-0.58)	-0.043 (-0.60)	0.029 (0.40)	0.042 (0.60)	-0,22 (-2.18)**	-0,22 (-2.23)**
NGOs	-0.020 (-0.53)	-0.016 (-0.44)	-0.020 (-0.57)	0.002 (-0.04)	-0.018 (-0.43)	-0.034 (-0.85)	0,06 (1.39)	0,06 (1.42)
Rural Bank	-0.149 (-1.83)*	-0.148 (-1.87)*	-0.134 (-1.77)*	-0.190 (-2.18)**	0.119 (1.14)	0.096 (0.90)	-0.23 (-2.31)**	-0,24 (-2.42)**
Individual & Group	0.080 (-2.48)**	-0.075 (-2.37)**	-0.075 (-2.46)**	-0.063 (-1.81)*	-0.083 (-2.34)**	-0.093 (-2.61)**	-0,06 (-1.77)*	-0,06 (-1.82)*
Group	0.087 (-1.73)*	-0.066 (-1.34)	-0.064 (-1.35)	-0.075 (-1.36)	-0.030 (-0.58)	-0.017 (-0.23)	-0.09 (-1.58)	-0,09 (-1.58)
Village Banking	0.051 (0.82)	0.058 (0.97)	0.039 (0.64)	-0.031 (-0.44)	0.031 (0.48)	0.007 (0.08)	0,17 (2.04)*	0,16 (1.96)*
C.Asia & E.Europe	-0.038 (-0.62)	-0.054 (-0.91)	0.022 (0.37)	-0.008 (-0.12)	-0.058 (-0.89)	-0.072 (-1.13)	0,14 (1.21)	0,13 (1.13)
E. Asia & Pacific	-0.033 (-0.53)	-0.046 (-0.77)	-0.021 (-0.36)	0.026 (0.39)	-0.027 (-0.41)	-0.032 (-0.47)	0,20 (2.48)**	0,20 (2.52)**
Latin America	-0.037 (-0.68)	-0.054 (-1.02)	0.011 (0.21)	0.010 (0.17)	-0.033 (-0.58)	-0.049 (-0.85)	0,19 (1.77)*	0,18 (1.71)*
M. East & N. Africa	-0.185 (-2.49)**	-0.210 (-2.89)***	-0.090 (-1.25)	-0.107 (-1.30)	-0.341 (-3.14)***	-0.288 (-2.65)***	0,12 (1.10)	0,11 (1.02)
S. Asia	-0.159 (-3.01)***	-0.155 (-3.01)***	-0.126 (-2.52)**	-0.085 (-1.48)	-0.157 (-2.81)***	-0.160 (-2.75)***	0,16 (2.33)**	0,15 (2.27)**
Savings	-0.068 (-1.89)*	-0.075 (-2.12)**	-0.056 (-1.63)	-0.065 (-1.65)	-0.079 (-2.01)**	-0.072 (-1.88)*	0,01 (0.29)	0,01 (0.24)
Other Services	0.045 (1.51)	0.046 (1.58)	0.035 (1.24)	0.035 (1.10)	0.061 (1.89)*	0.074 (2.32)**	0,01 (0.33)	0,01 (0.40)
Regulated	0.031 (1.00)	0.032 (1.04)	0.018 (0.62)	0.046 (1.37)	0.025 (0.77)	0.013 (0.33)	0,003 (0.10)	0,00 (0.11)
Constant	-1.17 (-4.05)***	-1.263 (-3.79)***	-0.984 (-3.12)***	-1.552 (-4.30)***	-1.661 (-3.76)***	-1.721 (-3.91)***	0,57 (1.26)	0,58 (1.31)
Log Likelihood	67.53	72.48	80.53	54.30	60.56	59.58	54.94	56.09
LR Chi-Square	82.26	92.16	88.35	105.49	77.31	78.33	66.82	67.62
Prob > Chi-Square	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No. of Obs.	198[22]	198	193[23]	193	149[24]	149	49[25]	49

T-values in parentheses

*significant at 10%; ** significant at 5%; *** significant at 1%.

Source: Authors calculations based on data compiled from the audit reports of MFIs and from the Mix Market website.

[22] Six MFIs are dropped due to unavailability of women borrowers information

[23] 5 MFIs have been dropped for which subsidies exceed revenues in addition to the six MFIs

[24] 149 MFIs which are subsidy dependant i.e. they have positive subsidy value

[25] 49 MFIs are subsidy free i.e. they have negative subsidy value

Cooperatives are negatively related to efficiency though the relationship is insignificant. MFIs which cater to both individuals and groups are clearly inefficient. While those with only group lending feature are also inefficient but by adding SDI and OSS into the regression framework makes the impact insignificant. MFIs operating in South Asia and M. East & N. Africa are inefficient than the MFIs operating in the rest of the regions. African MFIs have positive efficiency but insignificant. MFIs promoting savings are significantly inefficient while the ones which are regulated and provide other services are efficient though the relationship is insignificant.

The next two regression equations (3) & (4) show a comparison between with and without subsidies. Where in the dependent variable LR^{s}-ACE in Equation (4), the subsidies have been deducted from the revenues. Comparing Equation (3) and (4), few differences are worth mentioning. Without subsidies, the positive impact of giving loans to women on financial efficiency has turned insignificant. Moreover the significance levels of Positive impact of staff productivity and negative impact of operational costs on financial efficiency. Notwithstanding the dummy variables, the inefficiency of South Asian MFIs becomes insignificant without subsidies.

Regression (5) and (6) depicts a comparison between general specification (LR-ACE) and treating positive subsidies as an input into the specification (LR-$ACES^{i}$). So the sample consists of only subsidy dependant MFIs. The negative relationship between costs and efficiency becomes insignificant once subsidies entered as an input into the specification. Positive impact of outreach on efficiency also becomes insignificant. On the covariate front, the significance level of the positive impact of MFIs providing other services on their efficiency is improved with subsidies.

Regression (7) and (8) present a comparison between general specification (LR-ACE) and incorporating negative subsidies as an output into the efficiency specification (LRS^{o}-ACE). In other words only subsidy free MFIs are included in the sample. There is not much difference between the two regressions however when compared to previous Regressions (1) to (6), the impact of SDI on efficiency

becomes positive which is due to the fact that the sample consists of only those MFIs which are subsidy free. Also the impact of women borrowers on efficiency turn negative though insignificant. Moreover MFIs with cooperative status become inefficient.

3.6.3 Regression Results (2006)

Table 3.17 presents the efficiency regressions for the year 2006. Regression equations (9) and (10) present the regression results of taking the base specification efficiency LR-ACE as dependant variable. Compared to the results in year 2005, the positive impact of lending to women on efficiency is no longer significant. MFIs with cooperative status become significantly inefficient while rural banks remain still inefficient though the impact is insignificant. MFIs located in ME&NA region are still inefficient but insignificant. The other results are same as in year 2005. Costs have a significant negative impact on the efficiency while Staff Productivity contributes significantly towards the efficiency. Lending to relatively well off clients which can afford larger loan sizes, again turns out to be efficient in 2006. MFIs which lend to both individual and groups and exclusively to groups are inefficient. Whereas MFIs which lend to individuals remain efficient. MFIs with saving feature and those located in South Asia and ME&NA region are again turned out to be inefficient.

Regression equations (11) and (12) depict a comparison of with and without subsidy regression equations. Where the efficiency scores of the specifications LR-ACE (revenues including subsidies) and LR^{s}-ACE (revenues excluding subsidies) have been treated as a dependent variables. Comparing Equations (11) and (12), the negative impact of SDI on the efficiency becomes significant once subsidies are deducted from the revenues. Whereas the positive impact of OSS on efficiency turns insignificant without subsidies. This shows that the conventional financial ratios look good only in the presence of subsidies. Regarding dummy variables, MFIs with village banking methodology become significantly inefficient without subsidies. Geographically, the inefficiency of SA MFIs becomes insignificant once subsidies are taken out from revenues. This

Table 3.17

Tobit Regressions Analysis 2006

	Base Specifications		with/without subsidies		+ve Subsidies (As Input)		-veSubsidies (As Output)	
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	LR-ACE	**LR-ACE**	**LR-ACE**	**LR^{s}-ACE**	**LR-ACE**	**LR-ACES^{i}**	**LR-ACE**	**LRS^{o}-ACE**
Cost / Staff	-0.09 (-4.91)***	-0.08 (-4.41)***	-0.068 (-4.12)***	-0.08 (-5.07)***	-0.09 (-4.62)***	-0.08 (-4.49)***	0.04 (1.03)	0.05 (1.10)
Operational Self Sufficiency		0.085 (1.31)	0.13 (2.18)**	0.08 (1.39)	-0.017 (-0.21)	0.009 (0.20)	0.70 (4.91)***	0.78 (4.97)***
SDI		-0.018 (-0.73)	-0.028 (-1.24)	-0.05 (-2.37)**	-0.00 (-0.16)	-0.02 (-0.80)	0.03 (0.10)	0.01 (0.14)
Loan Size/GNIpc	0.06 (2.72)***	0.061 (2.52)***	0.05 (2.20)**	0.09 (4.23)***	0.05 (1.82)*	0.03 (1.31)	-0.02 (-0.71)	-0.03 (-0.70)
Borrower/Staff	0.12 (4.82)***	0.105 (3.85)***	0.10 (3.69)***	0.16 (6.01)***	0.13 (4.33)***	0.11 (3.73)***	-0.05 (-0.97)	-0.05 (-0.97)
GNIpc	0.091 (3.18)***	0.090 (3.19)***	0.08 (3.34)***	0.12 (4.85)***	0.07 (2.24)**	0.05 (1.43)	0.08 (1.59)	0.06 (1.60)
Age	0.010 (0.41)	0.005 (0.23)	0.02 (0.48)	0.01 (0.88)	0.01 (0.44)	0.01 (0.48)	-0.07 (-1.64)	-0.09 (-1.62)
Women Borrower	0.05 (1.43)	0.053 (1.55)	0.03 (0.92)	0.03 (1.08)	0.09 (1.92)*	0.07 (1.66)*	-0.13 (-2.94)**	-0.16 (-2.98)**
Bank	-0.031 (-0.84)	-0.03 (-0.87)	-0.03 (-1.08)	-0.02 (-0.93)	0.01 (0.40)	0.01 (0.41)	0.05 (0.89)	0.07 (0.95)
Cooperatives	-0.17 (-3.10)***	-0.16 (-2.85)**	-0.13 (-2.57)**	-0.13 (-2.59)**	-0.12 (-1.94)*	-0.14 (-2.23)**	-0.14 (-1.54)	-0.14 (-1.58)
NGOs	-0.04 (-1.26)	-0.05 (-0.81)	-0.03 (-1.02)	-0.012 (-0.31)	-0.04 (-1.48)	-0.05 (-1.60)	-0.11 (-1.57)	-0.11 (-1.59)
Rural Bank	-0.04 (-0.53)	-0.07 (-0.69)	-0.07 (-1.10)	-0.11 (-1.50)	(dropped)	(dropped)	-0.04 (-0.55)	-0.04 (-0.57)
Individual & Group	-0.086 (-3.24)***	-0.07 (-2.74)***	-0.07 (-3.01)***	-0.07 (-2.68)***	-0.12 (-4.13)***	-0.10 (-3.33)***	-0.01 (-0.07)	-0.02 (-0.05)
Group	-0.13 (-2.99)***	-0.107 (-2.59)**	-0.08 (-2.13)**	-0.09 (-2.22)**	-0.23 (-4.62)***	-0.16 (-3.27)***	0.03 (-0.46)	-0.00 (-0.44)
Village Banking	-0.04 (-0.85)	-0.04 (-0.79)	-0.02 (-0.32)	-0.08 (-1.78)*	-0.07 (-1.42)	-0.03 (-0.81)	0.03 (0.40)	0.02 (0.43)
C. Asia & E. Europe	0.025 (0.43)	-0.00 (-0.08)	0.00 (0.01)	0.00 (0.02)	0.02 (0.28)	0.01 (0.11)	-0.20 (-2.21)**	-0.21 (-2.27)**
E. Asia & Pacific	0.032 (-0.67)	-0.05 (-1.04)	-0.06 (-1.53)	-0.05 (-1.23)	0.01 (0.09)	-0.02 (-0.60)	0.08 (0.88)	0.08 (0.90)
Latin America	0.038 (0.86)	0.025 (0.58)	0.00 (0.18)	0.00 (0.20)	0.00 (0.07)	0.014 (0.29)	-0.05 (-0.92)	-0.04 (-0.97)
M. East & N. Africa	-0.086 (-1.42)	-0.12 (-1.94)*	-0.11 (-2.12)**	-0.10 (-1.81)*	-0.06 (-0.91)	0.015 (-0.22)	-0.18 (-2.13)**	-0.14 (-2.15)**
S. Asia	-0.111 (-2.47)**	-0.12 (-2.65)***	-0.07 (-1.75)*	-0.02 (-0.49)	-0.22 (-4.54)***	-0.26 (-5.34)***	0.17 (1.81)*	0.18 (1.85)*
Savings	-0.062 (-2.05)**	-0.06 (-1.86)*	-0.03 (-1.36)	-0.01 (-0.49)	-0.08 (-2.81)**	-0.07 (-2.26)**	-0.03 (-0.63)	-0.03 (-0.65)
Other Services	0.038 (1.53)	0.047 (1.52)	0.03 (1.44)	0.02 (1.24)	0.04 (1.33)	0.04 (1.37)	0.17 (3.39)***	0.17 (3.43)***
Regulated	-0.003 (-0.09)	0.00 (0.33)	-0.00 (-0.23)	0.00 (0.27)	0.02 (0.53)	0.02 (0.42)	-0.10 (-2.25)**	-0.10 (-2.28)**
Constant	-0.64 (-2.51)***	-1.03 (-2.60)***	-0.08 (-0.49)	-0.44 (-1.19)	-0.54 (-1.27)	-0.42 (-0.94)	-3.32 (-5.01)***	-3.32 (-5.11)***
Log Likelihood	103.04	105.25	71.41	75.06	85.84	81.96	51.53	52.52
LR Chi-Square	95.35	98.80	104.91	122.34	92.65	87.17	59.17	60.06
Prob > Chi-Square	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No. of Obs.	173[26]	172	170	170	115	115	54	54

T-values in parentheses

*significant at 10%; ** significant at 5%; *** significant at 1%.

Source: Authors calculations based on data compiled from the audit reports of MFIs and from the Mix Market website.

[26] Out of total 179 MFIs, 9 have been dropped for 2006 analysis (5 MFIs with no women borrower info., 1 with no OSS info., and one MFIs as an outlier)

shows that subsidies do more harm than improving the financial efficiency for South Asian MFIs.

Regression (13) and (14) depicts the case where dependent variables consist of general efficiency specification LR-ACE and LR-ACES^{i} (treating positive subsidies as an input) respectively. Thus the sample consist of only those MFIs which have positive subsidies i.e. subsidy dependent MFIs. Comparing both regressions, the positive impact of average loan size per borrower on efficiency becomes insignificant when subsidies included as an input. Thus shows that subsidy input in ineffective if lending is directed to relatively well off individual clients or in other words, subsidy input works efficiently if the focus of lending is towards poor clients. In both regressions, the coefficient of women borrowers turns out to be positive and significant. This shows that lending to women contributes to efficiency.

Regression (15) and (16) compares the equation with dependent variables LR-ACE and LRS^{o}-ACE (subsidies enter into the specification as an output). Only those MFIs which are subsidy-free are considered in these regressions. Therefore, caution warrants to interpret these results in the context of subsidy free MFIs. Both equations have no significant difference as all the dependent variables behave in the same fashion. However unlike previous regressions, MFIs which lend to women become significantly inefficient. This result is driven by the fact that sample consists of only subsidy free MFIs which primarily lend to individual clients with fewer women borrowers. The regressions also provide evidence of the inefficiency of the regulated MFIs. Moreover, MFIs which provide other services in addition to the financial services become highly efficient. While MFIs located in CA &EE region become inefficient.

3.6.4 Panel data Results

The same sequence of regression equations have been tested for the both years as a panel data set using tobit random effect regression technique in Table

3.18. The Hausman test for all the equations have been conducted to choose between random and fixed effect model. The regression results are by and large in line with the previous tobit regression analysis for respective years.

Equations (17) & (18) present the overall regression equation with base efficiency specification LR-ACE. The sample consists of 179 MFIs for which we have both two year SDI values. Out of which 5 MFIs have been dropped due to unavailability of women borrower information. While 38 more MFIs have been dropped for further analysis of treating subsidies as an input and output because their subsidy values change signs between two years i.e. from +ve to –ve and vice versa. Like previous year wise tobit regression results, cost per staff significantly reduces the efficiency while staff productivity and lending to women significantly contribute towards efficiency. The negative relationship between subsidy dependence and efficiency is also confirmed by the regression equations. Again evidence is there that reducing the loan size i.e. reaching out to the poor, decreases the efficiency or lending to relatively well-off clients contributes towards efficiency. Moreover MFIs which are of cooperative status, lend to individuals and groups, those with saving features and those operating in South Asia and M. East and North Africa, are inefficient. Whereas, MFIs which lend exclusively to individual borrowers, those which provide other services and those with the status of non banking financial intermediaries (omitted variable category) are efficient.

Comparison between with and without subsidy regression equations (19) & (20) reveal important results. The positive impact of Lending to women on financial efficiency becomes insignificant once the subsidies have been removed from the revenue. Thus highlighting the fact that MFIs program's exclusively targeting women are highly subsidized which without subsidization become less financially efficient. Further the significantly inefficient MFIs with group lending methodology turn insignificant though still inefficient, once subsidies have been deducted from the revenues in equation (20). Moreover removing subsidies from the revenues further enhances impact of staff productivity on efficiency. Geographically the inefficiency of South Asian MFIs becomes insignificant without

Table 3.18

Tobit Regression Panel Analysis (Random Effect)

	Base Specification		with/without subsidies		+ve Subsidies (As Input)		-veSubsidies (As Output)	
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	LR-ACE	**LR-ACE**	**LR-ACE**	**LR^{s}- ACE**	**LR-ACE**	**LR-ACES^{i}**	**LR-ACE**	**LRS^{o}-ACE**
Cost / Staff	-0.08 (-4.60)***	-0.07 (-4.17)***	-0.08 (-4.85)***	-0.102 (-5.62)***	-0.07 (-3.57)***	-0.051 (-2.94)***	-0.01 (-2.02)**	-0.01 (-2.33)**
SDI		-0.03 (-1.92)*	-0.014 (-4.08)***	-0.099 (-4.68)**	-0.00 (-0.20)	-0.011 (-0.63)	0.145 (1.02)	0.09 (0.70)
Operational Self Sufficiency		0.03 (1.23)	0.03 (1.07)	0.03 (1.14)	0.0811 (1.25)	0.16 (1.92)*	0.31 (2.12)**	0.319 (2.31)**
Loan Size/GNIpc	0.08 (3.49)***	0.07 (3.13)***	0.06 (2.80)***	0.121 (4.94)***	0.029 (1.06)	0.00 (0.20)	0.09 (1.57)	0.08 (1.15)
Borrower/Staff	0.11 (4.68)***	0.09 (4.02)***	0.09 (4.33)***	0.167 (6.61)***	0.048 (1.56)	0.02 (0.65)	0.11 (0.54)	0.01 (0.13)
GNIpc	0.11 (3.91)***	0.10 (3.63)***	0.08 (3.20)***	0.159 (5.21)***	0.08 (2.46)***	0.05 (1.53)	0.201 (1.93)*	0.15 (1.55)
Age	0.02 (0.95)	0.02 (0.71)	0.01 (0.48)	0.02 (0.53)	0.01 (0.40)	0.01 (0.42)	0.098 (1.77)*	0.10 (1.85)*
Women Borrower	0.07 (2.60)**	0.08 (2.42)**	0.07 (2.30)**	0.06 (1.54)	0.097 (2.68)***	0.10 (2.33)**	-0.027 (-0.27)	-0.06 (-0.61)
Bank	-0.03 (-0.73)	-0.03 (-0.66)	-0.03 (-0.75)	-0.041 (-1.04)	0.01 (0.57)	0.01 (0.44)	-0.13 (-1.58)	-0.135 (-1.24)
Cooperatives	-0.13 (-2.29)**	-0.12 (-2.19)**	-0.114 (-2.25)**	-0.12 (-2.13)**	-0.021 (-0.34)	-0.01 (-0.23)	-0.29 (-2.31)**	-0.27 (-2.20)**
NGOs	-0.03 (-1.01)	-0.02 (-0.69)	-0.016 (-0.56)	0.013 (0.55)	-0.03 (-1.06)	-0.04 (-1.22)	0.09 (1.79)*	0.06 (1.37)
Rural Bank	-0.05 (-0.47)	-0.05 (-0.59)	-0.05 (-0.65)	-0.099 (-1.40)	Dropped	Dropped	-0.29 (-2.87)***	-0.28 (-2.86)***
Individual & Group	-0.09 (-3.25)***	-0.08 (-3.03)***	-0.091 (-3.08)***	-0.075 (-2.34)**	-0.106 (-3.45)***	-0.099 (-3.17)***	0.04 (0.85)	0.04 (0.55)
Group	-0.09 (-2.15)**	-0.08 (-1.89)*	-0.075 (-1.83)*	-0.072 (-1.70)*	-0.19 (-3.67)***	-0.168 (-3.11)***	0.16 (1.19)	0.09 (1.03)
Village Banking	-0.01 (-0.50)	-0.02 (-0.46)	-0.05 (-1.04)	-0.08 (-1.62)	-0.06 (-1.34)	-0.02 (-1.28)	0.17 (2.07)**	0.14 (1.74)*
C.Asia & E.Europe	0.02 (0.35)	0.009 (0.20)	0.040 (0.99)	-0.001 (-0.02)	-0.04 (-0.87)	-0.05 (-1.11)	-0.29 (-1.35)	-0.263 (-1.03)
E. Asia & Pacific	-0.04 (-0.76)	-0.04 (-0.91)	-0.04 (-0.87)	-0.02 (-0.26)	-0.01 (-0.26)	-0.016 (-0.68)	-0.13 (-1.18)	-0.170 (-1.04)
Latin America	0.01 (0.37)	0.01 (0.32)	0.04 (1.11)	0.008 (0.42)	-0.03 (-0.49)	-0.02 (-0.30)	-0.42 (-1.70)*	-0.33 (-1.40)
M. East & N. Africa	-0.12 (-2.21)**	-0.15 (-2.50)**	-0.05 (-1.29)	-0.077 (-1.65)*	-0.05 (-0.58)	-0.089 (-0.68)	-0.25 (-1.12)	-0.17 (-0.80)
S. Asia	-0.12 (-2.85)***	-0.12 (-2.87)***	-0.11 (-2.69)***	-0.061 (-1.28)	-0.24 (-4.52)***	-0.25 (-4.82)***	-0.07 (-0.61)	-0.07 (-0.55)
Savings	-0.05 (-1.76)*	-0.05 (-1.63)	-0.038 (-1.34)	-0.028 (-0.90)	-0.079 (-2.46)**	-0.069 (-2.11)**	-0.00 (-0.07)	0.00 (0.03)
Other Services	0.04 (1.63)*	0.04 (1.73)*	0.027 (1.15)	0.025 (0.94)	0.044 (1.51)	0.04 (1.60)	0.00 (0.05)	0.013 (0.31)
Regulated	0.02 (0.49)	0.01 (0.68)	0.00 (0.27)	0.028 (1.07)	0.024 (0.77)	0.02 (0.72)	-0.125 (-3.38)***	-0.129 (-3.62)***
Constant	-0.94 (-3.94)***	-1.02 (-3.78)***	-0.82 (-3.19)***	-1.44 (-4.91)***	-0.95 (-2.21)**	-0.909 (-2.06)**	-2.96 (-2.58)***	-2.45 (-2.22)**
No of Observations	346	345	335	335	212	212	57	57
No of Groups	174	174	169	169	107	107	29	29
Log likelihood	169.40	172.42	196.54	147.87	117.47	115.98	70.00	72.21
Wald chi2	127.25	138.88	170.54	206.45	119.67	113.16	136.90	145.70
Prob > chi-square	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
sigma_u	.11	.11	0.103	0.11	.09	.09	.06	.06
sigma_e	.11	.11	0.101	0.12	.11	.11	.07	.06
rho	0.50	0.49	0.51	0.45	.37	.39	.08	.01

t-values in parentheses

*significant at 10%; ** significant at 5%; *** significant at 1%.

Source: Authors calculations based on data compiled from the audit reports of MFIs and from the Mix Market website.

subsidies while M East & N African MFIs turn significantly inefficient without subsidies.

Regression equations (21) and (22) provide a comparison between general efficiency specification (LR-ACE) and treating positive subsidy as an input into the specification (LR-ACES^{i}) respectively. In other words it takes into account only subsidy dependant MFIs. Therefore, the sample consists of only 107 MFIs which have positive subsidies in both years i.e. they are subsidy dependant. Evidence generated shows that OSS significantly contributes to efficiency once subsidies are added as an input. Also the inclusion of subsidies as an input makes the positive impact of per capita income on the efficiency insignificant. The rest of the variables behave in the same fashion.

Regression equations (23) and (24) present a comparison between the general base specification (LR-ACE) and the specification where negative subsidies have been treated as an output (LRS^{o}-ACE) respectively. Thus the sample for the regressions consists of only 29 subsidy-free MFIs. Again the inclusion of subsidies as an output makes the positive impact of per capita income on the efficiency insignificant. Moreover, the positive coefficient for NGO becomes insignificant with the inclusion of subsidies as an output. Geographically, the inefficiency of LA MFIs turns insignificant with subsidies included as an output. Unlike previous regressions, the coefficient of group lending methodology turns positive though insignificant once only the subsidy-free MFIs are considered.

3.7 Conclusion

At the outset of this paper, we endeavored to resolve few key issues. How to incorporate the subsidies into the non parametric DEA framework to investigate the efficiency of microfinance institutions? What factors are important in determining the efficiency of microfinance and how much of these factors are driven by the subsidies in determining the efficiency of MFIs? In other words, How efficiency relates to the various organizational and structural variables amid the

presence of subsidies? The way subsidy has been calculated in this paper i.e. social cost of subsidized MFIs, allows us to successfully enter the positive subsidies as an input and negative subsidies as an output in to the DEA efficiency specifications on the premise that the former distort public wealth while the later creates it. A comparison of efficiency scores with and without subsidies for various specifications reveals important information. Generally, in most of the specifications, the average efficiency scores are improved albeit only marginally when subsidies enter into the DEA framework. However specifically, there exist numbers of MFIs which become 100% efficient once subsidies have been incorporated into the specifications as an input and output. Conversely, there exist MFIs which were previously 100% efficient but become less efficient once subsidies have been removed.

The issue of how efficiency relates to various organizational, social and structural variables has been addressed by employing Tobit regression technique for each year (2005 & 2006) separately and also as panel data, taking efficiency as a left hand side variable. Notwithstanding the general regression equations, most of the relationships between efficiency and other variables are in line with the theory. The regression equations strongly confirm the trade-off between costs and efficiency. The evidence of negative association between subsidy dependence and efficiency is also established. Also evident is the fact that staff productivity significantly contributes to the financial efficiency of MFIs. Overall, operational self sustainability (OSS) does not significantly contribute to efficiency except for subsidy-free MFIs. From social perspective, lending to women borrowers contribute to efficiency as suggested by its significant positive coefficient in regression. The outreach variable (loan size/GNI per capita) has significant positive coefficient. This depicts that as the outreach increases i.e. loan size decreases, the financial efficiency also decreases. In other words, the more MFI's focus shifts away from the poor i.e. lending to well-off clients who can afford bigger loan sizes, the more it becomes efficient thus confirming the fact that lending to poor is relatively inefficient compared to well off clients.

However once we compare the regressions with and without subsidies, the results become quite revealing in some aspects. Important evidence obtained is that lending to women contributes to the financial efficiency in the presence of subsidies only, as the impact becomes insignificant without subsidies. Thus showing that MFIs exclusively targeting women tend to be financially efficient only because of the subsidies they receive. Once we take out the subsidies from the equation, the positive impact of lending to women on the efficiency turns insignificant. The panel data results also confirm this relationship. Not surprisingly, treating subsidies as an input into the specification makes the negative relationship between costs and efficiency insignificant. Moreover, the positive impact of catering to wealthy clients on efficiency also becomes insignificant. The same sequence of regression equations has been tested for the both years as a panel data set using tobit Random effect model technique and the results are by and large in line with the previous tobit regression analysis for respective years.

Notwithstanding the categorical variables, geographically, MFIs located in South Asia and Middle East & North Africa are tended to be inefficient. MFIs with group lending methodology are found to be inefficient while those with individual lending methodology are efficient. MFIs with cooperative and Rural Bank status are less efficient while those with non-banking financial intermediary's status are found to be efficient. Also found is some evidence for MFIs with saving features to be less efficient while those providing other services in addition to financial services as being efficient.

This essay adds to the existing literature by taking on the issue of subsidies for the first time in evaluating the efficiency of microfinance by generating data for 204 MFIs worldwide. From policy perspective, valuable lessons can be drawn for the entire stakeholder in microfinance Industry on the basis of this research work. For microfinance practitioners, it serves as a performance evaluation guide to enhance the efficiency and in the course of that meeting the dual objectives of outreach and sustainability. A with and without subsidy analysis based on the efficiency scores of their respective MFIs can help them identify the efficiency-

enhancing role of subsidies. In particular, the message is very clear for those socially driven MFIs with outreach to women borrowers, to devise new income enhancing and enterprise development schemes which can go a long way in enhancing efficiency without subsidies. From private investor's perspective, it identifies those MFIs which are successful in achieving maximum efficiency by a proper mix of inputs and outputs. Even the social investors can benefit by analyzing mission-driven MFIs in the sample which have successful in increasing their outreach. For academics and researchers, this research opens a new avenue of research by bringing the subsidy issue to the forefront. Future research in this context should be directed to specifically investigate the role of subsidies in the social efficiency of microfinance.

Chapter 4

Sustainability of Microfinance: An Empirical Investigation

Abstract

The social nature of Microfinance Institutions (MFIs) is mainly financed by subsidies received from the donors. This paper investigates the relationship between the sustainability and the efficiency of microfinance. Using Yaron's Subsidy Dependence Index (SDI) as a measure of sustainability, a panel data set has been generated from the audit reports of the 179 MFIs worldwide. This essay empirically investigates some important relationships and phenomenons in microfinance. Even after correcting for the endogeneity bias, the results lend some support to the existence of mission drift tendency in microfinance. Notwithstanding interest rate policy, evidence is found that MFIs do charge higher interest rate to women borrowers with small loan sizes. Further, the determinants of MFIs profitability and sustainability have also been identified. Furthermore the evidence does not support the trade-off between outreach and sustainability, however, the trade-off between costs and sustainability of MFIs is well supported. While the productivity and efficiency of MFIs contributes towards sustainability.

4.1 Introduction

Microfinance promises not only poverty reduction but also financial sustainability. After almost four decades into the business this promise is yet to be

fulfilled because the role of the subsidies still persists which hinders the Microfinance Institutions (MFIs) to achieve self-sustainability[1]. According to CGAP research, the stock of foreign capital investment in the microfinance sector more than tripled to $4 billion between year 2004 and 2006, much of it drawn by microfinance strong profit growth and reputation for doing good. This interest is driving big changes in the industry: it is forcing MFIs to become more commercial, to restructure them, to come to terms with a wider world (MBB, issue 16).

This paper attempts, in general, to address the key issues notwithstanding the twin objective of microfinance institutions of poverty reduction and financial sustainability. Towards this aim, the paper empirically investigates the determinants of the profitability of microfinance, Mission drift tendency, subsidization and efficiency relationship and interest rate implication on the financial performance of microfinance in particular. These issues have spurred intense debate in recent times. Nevertheless, there exist only a few studies that have empirically investigated the validity of those phenomenons. Cull et el. (2008) found evidence of the possibility of earning profits while serving poor, but a trade-off emerges between profitability and serving the poorest using data of the 124 MFIs in 49 countries. They have defined the sustainability by the traditional financial ratios of Operational Self-sustainability (OSS) and Return on Assets (ROA) in their paper. Hudon and Traca (2008) look at the issue from purely financial aspect by investigation the effects of subsidization on the financial efficiency of 79 microfinance institution where the subsidy intensity covers only subsidies in the form of equity. The main drawback of all the existing studies is lack of reliability of the data due to small sample size mainly concentrating in one region and the accuracy of the subsidy figures in measuring sustainability. Bank on the high quality cross-country panel data set for 179 MFIs in 54 countries worldwide, this paper attempts to fill that void by taking on these issues in more definitive way on much larger scale.

Traditionally, the performance of microfinance institutions has been measured following either the welfarist approach or the institutionalist approach.

[1] Armendáriz de Aghion and Jonathan Morduch (2004); Morduch (1999a; 1999b); Morduch (2004); Goodman (2005) and Cull et.al (2007) are skeptical about the subsidization. On the other hand some see its role in reaching poor borrowers (Zeller and Meyer ,2002) and in covering start up costs .i.e. the notion of smart subsidies (Armendáriz and Morduch, 2005; Morduch, 2005 & 2007)

The former put emphasis on assessing the impact on the welfare of the poor while the latter argues for the assessment in terms of the institution success in achieving self-sustainability and breadth of outreach (Morduch, 2000). To start with, this paper estimates the sustainability of MFIs by employing the Yaron's Subsidy Dependence Index (SDI) (Yaron, 1992a and 1992b) which measures the social cost of subsidized MFIs. Based on the data of 179 MFIs, 139 MFIs are found to be subsidy dependent for year 2005, whereas it is reduced to 122 MFIs for the year 2006[2].

The role of interest rates in determining the sustainability of MFIs cannot be under-estimated. Resultantly, what drives an MFI to devise its interest rate policy becomes a question of immense importance. This formation of interest rate policy mainly depends on the financial performance and social objectives of an MFI. Consequently, the impact of financial and social efficiency of microfinance in shaping the interest rate policy, which ultimately has an effect on the sustainability of MFI, is a very interesting topic of research, as pointed out by Hudon and Traca, 2008. In addition to that, Armendariz and Szafarz (2009) call for integrating interest rates as a determinant of the sustainability while controlling for market structure is a step in the right direction, from an empirical standpoint. This essay investigates the role of financial and social efficiency in determining the interest rate policy of MFIs which directly affects the sustainability. Moreover, the inclusion of social efficiency variables i.e. Loan size and women borrowers into the equation also lend support to the existence of mission drift in microfinance.

Investigation into the determinants of the profitability of microfinance is also an interesting research avenue in microfinance. Conventionally, profitability is defined in term of traditional financial ratio i.e. operational self-sufficiency and return of assets etc. This paper goes beyond and takes also Subsidy Dependence Index (SDI) as a measure of profitability. Some MFIs charge their clients exorbitant interest rates. Lewis (2008) calls them Microloan Sharks involved in not micro lending but microloan-sharking. Cull et al. (2007) found evidence that raising interest rates resulted in increased profitability for individual based

[2] See chapter 2 for detailed SDI measurement.

lending MFIs whereas for solidarity based lenders, the reverse is true. This paper also found evidence that raising the interest rates lead to improved financial performance and profitability with lower subsidy dependence and higher operational self-sufficiency. Whereas rising costs are associated with lower profitability. An important result is that clients with smaller loan sizes (MFIs with predominantly women borrowers) pay higher interest rates relatively to the clients with large loans because increase in transaction costs induces MFIs to raise interest rates.

The paper also addresses the implications of subsidization on the cost efficiency and staff productivity of MFIs as measured by cost per borrowers and borrowers per staff respectively[3]. In line with the results of Hudon and Traca (2008), the productivity regressions show the inefficiency of subsidized MFIs due to higher costs associated with larger loan sizes. This suggests that subsidized MFIs are obliged to hire qualified staff and offer better and innovative products to relatively well off clients which contributes towards higher administrative cost. The results also lend support to the trade-off between staff productivity and subsidy dependence.

This essay also addresses the mission drift phenomenon in microfinance, a concern for socially driven MFIs, where the pressure to achieve financial sustainability forces many institutions to drift away from their initial mission and to work with less needy people. Most surprising and controversial are those microfinance institutions that have been transformed from charities to profitable companies through hugely successful initial public offerings. The most notorious, Mexico's Compartamos ("Let's Share") used a $6m investment to turn itself into a billion-dollar company in less than a decade, expanding rapidly while charging very high rates to borrowers. What was once an idealistic movement is now a fast-growing industry which is rapidly losing its innocence. The majority of microfinance practitioners, eager to gain access to capital and commercial expertise are concerned that competitive market forces may not help the poorest[4].

[3] Importance of efficiency and productivity measures in MFIs performance has been stressed by many authors. See for example Barrès Isabelle (2007)

[4] Financial times, December 6, 2008 www.ft.com; MFI Solutions (2008). For case studies in commercialization issues, see for example, Charitonenko (2003); Charitonenko and Rahman (2002) and Charitonenko et al. (2004) among others.

Even the two pioneers of group-based lending (the Grameen Bank of Bangladesh and Bancosol of Bolivia) have now started individual-based lending models (Cull et. al. 2007). Armendariz and Szafarz (2009), by employing one-period framework, argue that this tendency is not driven by transaction cost minimization alone. Instead, poverty–oriented microfinance institutions could potentially deviate from their mission by extending larger loan sizes neither because of "progressive lending" nor because of "cross–subsidization" but because of the interplay between their own mission, the cost differentials between poor and unbanked wealthier clients, and region-specific characteristics pertaining the heterogeneity of their clientele. More recently, Mersland and Strøm (2009) investigated mission drift using average loan size, MFIs lending methodology, main market, and gender bias as proxies for the mission drift measures by employing a large data set of rated MFIs spanning 11 years. They found no evidence of mission drift as the average loan size has not increased in the industry as a whole, nor is there a tendency toward more individual loans or a higher proportion of lending to urban costumers.

After correcting for the possible endogeneity bias, the empirical estimates in this chapter provide some evidence of the existence of mission drift phenomenon. Where investors tend to direct funds to those MFIs which cater to well-off clients which can afford to pay back higher loans. And in this process they lend increasingly fewer loans to women borrowers and hence deviate from their mission of serving the poor clients.

The essay is structured as follows. In the next section, a description of data and theoretical framework has been given. Then a discussion over the hypotheses and the empirical estimation has been presented. A conclusion is presented at the end.

4.2 Data and Empirical Framework

4.2.1 Description and source of the Data

Table 4.1 gives an overview of variables used in this essay along with their summary statistics. The definitions of the variables are also given as described by

the Mix market website and CGAP, 2003. After carefully reviewing the Audit Reports of more than 300 MFIs, 204 MFIs in 54 countries have been chosen based on the clarity of their respective Audit Reports in general and subsidy figures in particular. These audit reports have been taken from the MixMarket website[5].

Table 4.1

Variable Description and Summary Statistics

Variable used in subsidy calculations	***Obs***	***Definition***	***unit***	***Mean***	***Med.***	***Min***	***Max***
Yield/ interest rate on loan	358	revenues from loan/average of loans	(%)	30.6	27.4	2.8	128.1
Real interest rate	358	Nominal interest rate - rate of inflation	(%)	24	20.7	-7.3	109.7
Subsidy Dependence Index	358	Subsidy(S)/ Revenue from lending(R)	(%)	21.42	12.23	-191.4	456.8
Inflation[6]	358	Indices shown for Consumer Prices are the most frequently used indicators of inflation and reflect changes in the cost of acquiring a fixed basket of goods and services by the average consumer	(%)	6.6	6.0	0.64	24.03
Admn. cost per staff	358	Administrative cost per staff	($)	12166	11937	389	47714
Admn. cost per borrower	358	Administrative cost per borrower	($)	131.09	90.42	3.48	1694
GNI per capita (ppp)	358	Gross national income divided by the population. Calculated by Purchasing poverty parity method (ppp)	($)	3476	3200	630	12810
GNI per capita (current)	358	Gross national income divided by the population (current USD).	($)	1385	1045	160	6070
borrower/staff	358	borrowers per staff (staff productivity)	No.	143	137	2.8	407
MFI age	358	The years since MFI has started operations	No.	14.15	12	3	51
Women borrowers	348	Percentage of women borrowers out of total	(%)	64.07	61.0	8.6	100
Average loan size	358	Gross Loan Portfolio / Number of active borrowers	($)	808	491	34	11198
Loan size/GNIpc (ppp)	358	Average Loan Size/ GNI per capita (ppp)		0.3095	0.170	0.112	7.831
Loan size/GNIpc (curr.)	358	Average loan size/ GNI per capita		0.9281	0.4442	0.0261	33.933
Return on assets (ROA)	358	(Net Operating Income. less Taxes)/ Period average assets	(%)	5.26	4.43	-68.49	61.61
Financial cost	358	interest rate paid on the borrowing or debt	(%)	7.30	7.16	0	32.11
Admn. cost/asset	358	Administrative cost / Average of asset	($)	0.1767	0.1455	.0183	0.9964
Financial cost/asset	358	Interest paid on borrowing / Average of asset	($)	0.0280	0.0217	0	0.1699
Loans/asset	358	Gross loan portfolio / average of asset	($)	9.4013	0.7668	.0004	3104.1
Operational Self Sufficiency(OSS)	358	Financial Revenue (Total)/ (Financial Expense + Loan Loss Provision Expense + Operating Expense)	(%)	123.0	120.78	3.57	254.88

Source: Author´s own calculation based on the Audit Reports of MFIs taken from Microfinance Information eXange Inc website. Definitions are taken from the Micro banking Bulletin and CGAP (2003)

[5] The MIX MARKET is a global, web-based microfinance information platform. It provides information to sector actors and the public at large on Microfinance Institutions (MFIs) worldwide, public and private funds that invest in microfinance, MFI networks, raters/external evaluators, advisory firms, and governmental and regulatory agencies

[6] taken from the World bank's World Development Indicators (WDI)

The most important variable to extract from the audit reports for subsidy calculations is the public debt/concessional borrowing. Therefore MFIs have been selected in large part on quality and clarity of public debt variable. All the MFIs adhere to the International Accounting Standards (IAS) for their audit reports. The data has been generated for two years i.e. 2005 and 2006. For year 2006, only 179 MFIs have been included in the sample due to the unavailability of the data to calculate the subsidy figures for 25 MFIs. Therefore in the final panel data analysis our sample has been restricted to 179 MFIs with each institution has two values for each year. A complete list of the names of the microfinance institutions used in the sample is given at the end as ***Annex. B.*** The summary statistics reveal some important information. Average interest rate paid by the MFIs to acquire loanable funds is 7.3%. While the average interest rate they charge to the borrowers is 30.6%. Average value of SDI comes out as 0.2142 with maximum value of 4.568 for MFI "PADME" of Benin. The means and medians for profitability variables i.e. ROA and OSS are all within the expected range though the minimum and maximum values suggest a wide range for each variable. Information about the women borrowers for 5 MFIs is missing due to the unavailability.

Table 4.*2*

Categorical Variables

Variables	***Description***
Region	Geographic region in which the MFI operates classified into 6 regions: Africa (*A*); East Asia and the Pacific (*EA&P*); Eastern Europe and Central Asia (*EE&CA*); Middle East and North Africa (*MENA*); Latin America and the Caribbean (*LAC*); South Asia (*SA*).
Lending Methodology	Lending methodology is classified into 4 categories: Individual (*I*); Individual & Solidarity/Group (*IS*); Group/Solidarity (*S*); Village banking (*V*).
Status	Classified into 5 categories: Nongovernmental organizations (*NGO*); Bank (*B*); Non-banking financial intermediaries (*NBFI*); Rural Bank (*RB*); Cooperatives (*Coop.*).
Other services	Whether MFI provides other services i.e. health, education etc in addition to providing financial services or not.
Saving	Whether saving (voluntary or Compulsory) is a feature of MFI or not.
Regulated	Whether MFI is regulated by some authority like central bank etc. or not.

*Data for all the categorical variables have been taken directly from the Mix market Website

The categorical variables along with their description used in this study have been presented in Table 4.2. Omitted variable categories in the following regression analysis have also been presented.

Figure 4.1 depicts graphical display of the nature of the data used in this study. NGO (43%) dominates the microfinance sector followed by the NBFIs (31%). MFIs with "Bank" status constitute only 15% of total sample. Almost half of the MFIs offer both group and individual lending services (47%) followed by MFIs which lend specifically to individuals (34%). Geographically almost one-third of MFIs locate in Latin America (31%) and one-fourth in Africa (23%). South Asian MFIs represent only about 13% of the overall MFIs in the sample. Majority of the MFIs in the sample are regulated (59%) and provide deposits/savings services (58%) to the clients. Moreover only 37% of the MFIs in the sample provide other services to the clients in addition to providing financial services.

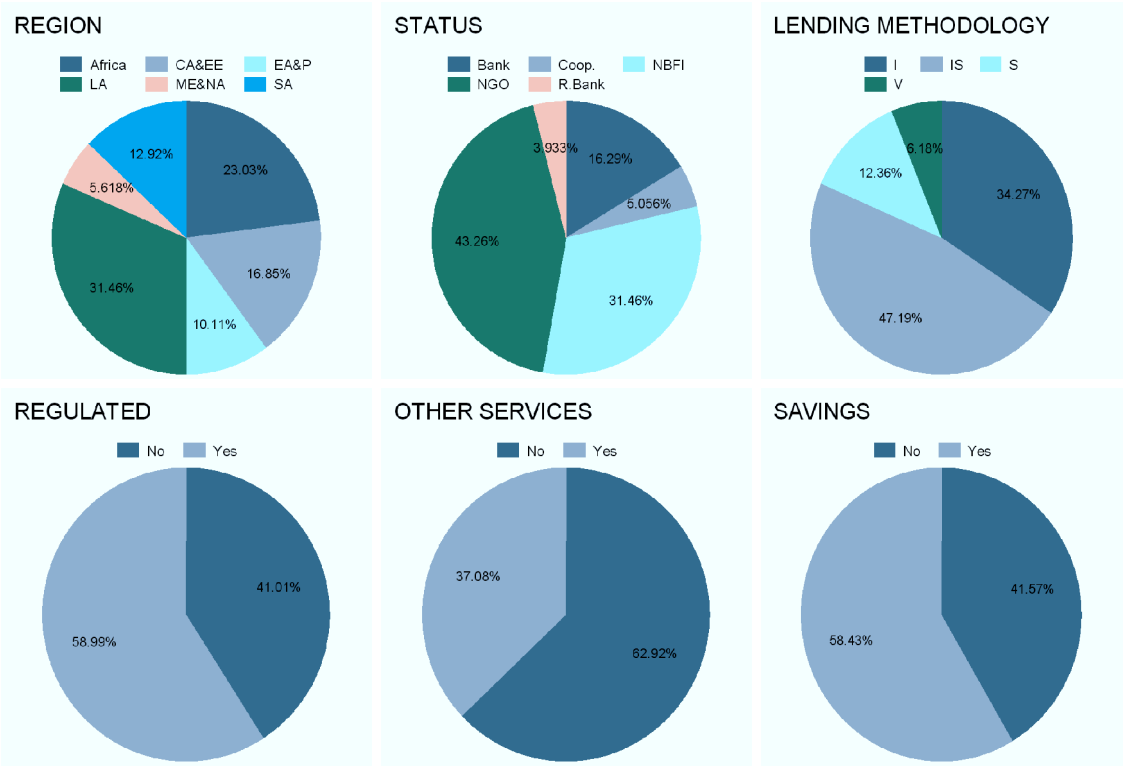

Figure 4.1 Descriptive analysis of Data

Source: Information taken from the mix market website based on the sample of 204 MFIs

*Individual (I); Individual & Solidarity (IS); Solidarity (S); Village Banking (V)

4.2.2 Measuring Sustainability

Table 4.3 depicts the calculated SDI values of 179 MFIs for years 2005 & 2006. SDI values for 25 MFIs for the year 2006 are missing due to the unavailability of their Audit Reports. Those MFIs have been dropped for the empirical analysis in this paper to make the balanced panel data for 179 MFIs. For the year 2005, 139 MFIs are subsidy dependent while for year 2006, it has been

Table 4.3

Subsidy Dependence Index (SDI)

MFIs	2005	2006	MFIs	2005	2006	MFIs	2005	2006	MFIs	2005	2006
AFRICA			**MICROINVEST**	0.237	0.261	**CEP**	-0.070	-0.117	**CAJA NOR**	0.030	0.087
CDS	0.161[7]	0.109	**ACBA**	0.283	0.271	**TYM**	-0.110	-0.010	**CARITAS**	0.646	0.438
ACSI	-0.250[8]	-0.388	**HORIZON**	0.124	0.076	**AGROCAPITAL**	0.615	0.265	**CMAC ARQ**	-0.084	-0.073
ADCSI	0.179	0.704	**INECO**	-0.028	0.068	**LATIN AMERICA**			**CMAC MAY**	0.078	0.070
BG	0.809	0.026	**CRED-AGRO**	0.687	0.000	**BANCOSOL**	0.114	0.000	**CMAC TAC**	0.056	0.138
DECSI	-0.074	-0.108	**ACCESS**	0.461	0.404	**BNACO L. A**	0.311	0.124	**CMAC TRU**	0.033	0.018
OMO	0.484	-0.003	**NORMICRO**	0.183	0.290	**CRECER**	0.039	-0.028	**EDPY C. T.**	0.196	0.370
WISDOM	0.427	-0.061	**VIATOR**	-0.121	0.082	**ECO-FUTURO**	0.118	0.013	**EDPY COF.**	0.256	0.631
NOVOBANCO	2.774	0.347	**EKI**	0.146	-0.173	**FADES**	0.547	0.249	**EDPY.EDYF**	0.230	0.436
ALIDE	1.169	0.588	**MIKROFIN**	-0.045	-0.354	**FIE**	0.218	0.099	**FINCA-PER**	0.269	0.380
FECECAM	0.054	1.382	**PARTNER**	0.091	-0.125	**FUNBODEM**	0.416	0.172	**FONDESURCO**	0.264	0.519
PADME	0.287	4.565	**SUNRISE**	0.021	-0.176	**PRODEM**	0.157	0.012	**MIBANCO**	-0.089	0.034
VF	0.205	0.254	**C-FUND**	0.216	0.309	**PROMUJAR**	0.407	0.241	**MOVIM.-M-R**	0.114	0.222
RCPB	-0.051	-0.094	**CONSTANTA**	0.548	0.369	**CMM-BOG**	0.122	0.096	**PROMUJER**	0.256	0.167
OI-SASL	0.189	-0.092	**CREDO**	0.728	0.426	**FINAMERICA**	0.121	0.170	**BANGENTE**	0.664	0.351
PROCRED-GHA	-0.068	-0.028	**LAZIKA**	0.850	0.346	**FMM-BUCA**	-0.174	-0.183	**ME & NA**		
SAT	-0.013	0.053	**KMF**	-0.098	-0.097	**FMM-POP**	-0.135	0.047	**AL-TADAMUN**	0.975	-0.720
EBS	-0.238	-0.320	**AIYL-BANK**	0.937	0.886	**WMM-MED**	0.212	0.023	**DBACD**	0.242	0.025
KADET	0.582	0.849	**BTFF**	1.164	0.554	**WWB-CA**	0.020	0.075	**LEAD**	1.330	-0.470
KREP	0.188	0.038	**FMCC**	0.508	-0.004	**CREDIMUJER**	0.623	0.292	**Tamweelcom**	-0.062	-0.040
KWFT	0.134	0.160	**CRED. MONGOL**	0.457	0.407	**BANCO-SOL**	0.003	0.156	**MFW**	-0.125	0.010
MDSL	0.151	-1.914	**KHAN BANK**	0.052	-0.063	**COAC-JARDIN**	0.122	0.118	**AL-AMANA**	-0.008	0.012
SMEP	0.232	0.309	**FORUS**	0.095	0.332	**COAC-S-JOSE**	0.045	0.147	**AL-KARAMA**	-0.110	0.011
SORO-Y	0.952	1.506	**AGROINVEST**	0.258	0.125	**COAC-SAC**	0.137	0.140	**FONDEP**	-0.022	-0.330
FCC	1.46	0.180	**BANK ESKHATA**	0.0075	0.272	**D-MIRO**	-0.075	-0.278	**INMAA**	-0.004	-0.090
NOVO-BANCO	0.377	-0.104	**FMFB TAJ**	1.509	0.815	**FINCA-ECU**	-0.611	-0.275	**ZAKOURA**	-0.037	0.061
SOCREMO	0.350	0.193	**IMON**	0.824	0.301	**FODEMI**	-0.055	-0.091	**ENDA**	-0.044	-0.320
TCHUMA	0.255	0.217	**E. ASIA & PACIFIC**			**FUNDACION ES**	-0.315	-0.423	**SOUTH ASIA**		
LAPO	0.012	-0.072	**ACLEDA**	0.099	0.066	**PROCRED ECU**	0.055	-0.001	**IDF**	-0.071	-0.059
SEAP	-0.180	-0.305	**AMRET**	0.132	0.070	**AMC DE RL**	0.164	0.401	**RDRS**	1.195	1.287
SEF-ZAF	0.300	0.161	**SATHAPNA**	0.194	0.383	**FUNDACION**	0.242	0.469	**SHAKTI**	0.179	-0.008
CMS	0.361	0.313	**HKL**	0.242	0.086	**GENESIS EM.**	0.131	0.155	**TMSS**	0.753	0.591

[7] SDI value of 0.161 means that the MFI has to raise the interest rates on loans by 16.1% to be subsidy free

[8] SDI value of -0.250 means that the MFI is subsidy free even if it reduces interest rate on loan by 25%

PAMECAS	0.052	-0.103	**PRASAC**	0.347	0.301	**ACME**	0.188	0.261	**BANDHAN**	0.095	-0.215
PRIDE	0.017	0.074	**MBK-VENTU**	0.384	0.211	**FINCA-HON**	0.194	0.124	**BASIX**	0.119	0.088
CBANK	0.009	-0.074	**ASHI**	0.331	0.082	**HDH**	0.240	0.890	**CASHPOOR**	0.746	0.386
CML	0.024	0.189	**BCB**	-0.272	-0.196	**WORLD-REL**	0.122	0.098	**ESAF**	0.243	-0.083
FAULU	0.211	0.436	**BANGKO-KA**	-0.113	-0.157	**ACODEP**	-0.113	-0.154	**GK**	0.130	-0.059
FINCA-UGA	0.047	0.125	**CBMO**	-0.227	-0.253	**FDL**	-0.176	-0.051	**KBSLAB**	0.462	0.478
MEDNET	0.179	3.008	**DIGOS**	-0.010	-0.099	**BANEX**	0.006	-0.037	**SHARE-MF**	-0.116	0.158
CETZAM	2.342	0.830	**IST-VALLEY**	0.1982	-0.234	**PROCRED-NIC**	0.031	0.116	**SNFL**	0.639	0.531
FINCA-ZAM	0.519	0.034	**NWFT**	0.0767	-0.013	**PRODESA**	-0.282	-0.311	**CBB**	0.296	-0.029
C. ASIA & E. EUROPE			**SOLANO**	-0.241	-0.269	**FIELCO**	0.049	0.091	**NIRDHAN**	0.250	0.265
BESA	0.2403	0.010	**TSPI**	-0.050	-0.070	**INTERFISA**	0.128	0.002	**ASASAH**	0.211	1.015
PROCRED-ALB	0.052	0.006	**SPBD**	0.503	0.371	**BANTRA**	0.053	0.158	**FMBL**	2.125	0.514
			B-TANGAIL	-0.136	-0.023	**ARMP**	0.653	0.182	**KASHF**	0.036	0.045
						ASA	-0.286	-0.226	**BRAC-AFG**	1.200	0.646
						BRAC-BAN	1.035	0.859	**FMFB-AFG**	1.034	0.077

Source: Author own calculations based on the Balance sheets of 204 MFIs for year 2004 & 2005

reduced to 122 MFIs. All the values taken from the respective MFI's audit reports have been converted into the USD using exchange rates provided by the Mix Market website. SDI values have been calculated using the lending rate as a proxy for opportunity cost of capital.

Table 4.*4*
Correlations

	SDI	GNIpc	Loansize	cost/staff	Borr/staff	women	inflation	Age	interest on loan	fin. cost	cost/bor	OSS	ROA
SDI	1.000												
GNIpc	-0.1931*	1.000											
Loansize	0.1020*	-0.3660*	1.000										
cost/staff	-0.0720	0.5230*	0.2954*	1.000									
borr/staff	-0.1966*	0.1158*	-0.6272*	-0.0539	1.000								
Women	-0.0297	0.0020	-0.6622*	-0.3953*	0.3383*	1.000							
Inflation	0.1154*	-0.5097*	0.2080*	-0.2420*	-0.2138*	-0.0086	1.000						
Age	-0.1380*	0.1197*	-0.1189*	0.0333	0.1857*	0.0499	-0.1055*	1.000					
interest on loans	0.0592	-0.0970*	-0.1368*	0.0651	-0.1831*	0.2494*	0.2782*	-0.1511*	1.000				
fin. Cost	-0.1359*	-0.0457	0.0161	0.0293	-0.1273*	0.0682	0.1140*	0.0241	0.2650*	1.000			
cost/borr	0.0616	0.3349*	0.6019*	0.8036*	-0.6376*	-0.5064*	-0.0592	-0.0850	0.1594*	0.0993*	1.000		
OSS	-0.4223*	0.0770	0.0230	-0.1216*	0.1551*	-0.1031*	-0.0590	0.1009*	-0.1872*	-0.0796	-0.1862*	1.000	
ROA	-0.4203*	0.1313*	-0.1932*	-0.0522	0.1393*	0.0972*	0.0374	-0.0794	0.0466	0.0496	-0.1233*	0.3391*	1.000

Source: Author´s own calculation based on the Audit Reports of MFIs and Microfinance Information eXange Inc.

*Refers to significant at 10% level of confidence**.**

The correlation matrix in Table 4.*4* shows the strength of the relationship among some important variables used in this study. SDI has a negative significant relationship with both financial ratios (OSS and ROA), financial cost of acquiring loans, age and staff productivity. On the other hand it has a significant positive relationship with outreach (loan size/GNIpc) and inflation. Relationship between women borrowers and outreach is negative and significant thus showing the fact that women are predominantly the borrowers of small loans. Interest rate charged to the clients has significant negative relationship with outreach variable while a significant positive relationship with women variable. This highlights the fact that MFIs tend to charge higher rates to poor clients which are predominantly women. Regression analysis allow us to investigate these relationships after controlling for various covariates i.e. region, lending methodology and status etc.

4.2.3 Empirical approach

The empirical approach regarding all the relationships is discussed separately in their respective sections below. As we have one value for each two years for all the variables, therefore, regression analysis have been carried out by employing Panel data Random effect model for 179 MFIs dropping 25 MFIs for which the subsidy figures are unavailable for year 2006. Hausman test has been carried out for each specification separately to choose between fixed effect model and random effect model.

In the regression analysis throughout the paper we have used the same set of categorical variables as described in detail in Table 4.2. The omitted variable categories are: Non-banking Financial Institutions (NBFIs) for MFIs formal status category; Individual lending methodology for the lending methodology category: Africa for Regional dummy and in addition to that dummies for MFIs with saving features, regulated and those providing other services have been used.

4.3 Interest rate policy

The impact of efficiency on the interest rate policy of microfinance, though a topic of immense importance, is an issue not addressed at length in the microfinance literature so far probably due to the data limitations (Hudon and Trace, 2008). Most recently Armendariz and Szafarz (2009) in their paper on "Mission Drift in Microfinance" stress the importance of the inclusion of interest rates into the equation to investigate the mission drift phenomenon. The case of real interest rates charged by the MFI taken as a dependent variable is presented in the regressions below. The idea is to identify the variables important in determining the interest rate policy of MFIs. Administrative cost per borrower and costs incurred to access the loanable funds are used as a proxy for financial efficiency. While Loansize/GNIpc and percentage of women borrowers represent the social efficiency variables measuring the outreach of MFIs.

$$Real\ InterestRate_{ij} = \alpha + \beta_1\ loansize/GNIcapita_{ij} + \beta_2\ Admn.\ Costs_{ij} + \beta_3\ Gender_{ij} + \beta_4 Age_{ij} + B_5 GNICapita_{ij} + \beta_6\ Inflation_{ij} + \beta_7\ FinacialCost_{ij} + \beta_8 Status_{ij} + \beta_9\ LendingType_{ij} + \beta_{10} Region_{ij} + \beta_{11} Savings_{ij} + \beta_{12} OtherServices_{ij} + \beta_{13} Regulated_{ij} + \varepsilon_i \quad (1)$$

Where real interest rate is actual interest rate minus the rate of inflation. The control variables are administrative cost, financial cost to loanable funds including the rate of inflation, which determine MFIs unit cost. The study also control for characteristics of the client base including women borrowers, GNI per capita and average loan size. As usual, the same set of dummy variables is included. In addition to that, the dummies for region of MFI, their status and their lending methodology are included with Africa, Non-banking Financial Intermediaries (NBFIs) and Individual lending as the omitted categories respectively. Moreover three other dummies are included whether MFI is regulated, have saving design and provide other services.

4.3.1 Results

The regression results of the above specification *(1)* are presented in equations (1-5) in Table 4.5 below. The significant negative coefficient of Loan size

in all the equations depict the fact that clients with smaller loan sizes have to pay higher interest rates relatively to the clients with large loan size. In other words, MFIs tend to charge higher interest rates for small loan sizes. This is due to fact that delivering small loans are considered to be expensive because of the higher transaction costs associated with it, a fact well documented in microfinance literature. Both the cost variables (administrative cost and cost of acquiring loanable funds) have significant positive coefficients, thus suggesting that increase in administrative cost and cost of borrowing induce MFIs to raise interest rates on loans to the borrowers. The coefficient of women borrowers is positive and significant in all the regression even after controlling for loan size. This confirms the fact that the MFIs which have predominantly women borrower, charge higher interest rates to their clients. The significant negative coefficient of age in Eq (2) and (3) depicts that with the passage of time, MFIs tend to charge lower interest rates. Moreover, microfinance borrowers in relatively poor countries pay higher interest rates as shown by the significant negative coefficient of per capita income variable. Or this may be due the fact that on average MFIs in poor countries lend to the marginally better off poor rather than to very poor people. Interestingly, the dummy for the "Other Services" turn up to be insignificant in all the regression estimates. The possible reason is that MFIs normally finance their provision of other service through subsidies which is irrespective of the interest rates charged to the borrowers. The results above also strongly support the notion of the importance of interest rate policy in the "Mission Drift" phenomena in microfinance. Notwithstanding the dummy variable, MFIs with cooperative status charge lower interest rates while those which are NBFIs charge higher interest rates. Lending methodology dummies suggest that MFIs with group lending features charge lower while those with individual and village banking lending methodology charge higher interest rates. Except African MFIs, MFIs in other regions charge lower interest rates. Moreover MFIs which collect savings/deposits do charge lower interest rates to their clients.

Table 4.5

Interest Rate Policy Regressions

	Real Interest rate on loans				
	(1)	(2)	(3)	(4)	(5)
Loansize/GNIpc	-0.086 (-6.16)***	-0.022 (-1.86)*	-0.021 (-1.91)*	-0.077 (-5.38)***	-0.075 (-5.28)***
Admn.Cost/borrower	0.077 (6.35)***			0.076 (6.10)***	0.072 (5.90)***
Women		0.059 (3.19)***	0.060 (3.28)***	0.062 (3.45)***	0.062 (3.50)***
Age of an MFI		-0.040 (-2.10)**	-0.045 (-2.36)**	-0.022 (-1.25)	-0.026 (-1.50)
GNI per capita	-0.059 (-3.18)***	0.013 (0.77)	0.010 (0.58)	-0.053 (-2.76)***	-0.052 (-2.76)***
Inflation	0.577 (4.09)***	0.583 (4.05)***	0.580 (4.10)***	0.618 (4.25)***	0.614 (4.31)***
Financial cost			0.298 (3.51)***		0.284 (3.30)***
Bank	-0.043 (-1.47)	-0.005 (-0.16)	-0.002 (-0.05)	-0.037 (-1.23)	-0.032 (-1.08)
Cooperatives	-0.110 (-2.56)***	-0.081 (-1.63)	-0.072 (-1.46)	-0.074 (-1.71)*	-0.067 (-1.54)
NGOs	0.007 (0.32)	0.014 (0.51)	0.011 (0.43)	0.001 (0.05)	-0.000 (-0.02)
Rural Bank	-0.115 (-2.21)**	-0.051 (-0.78)	-0.049 (-0.77)	-0.077 (-1.37)	-0.076 (-1.35)
Individual & Group	-0.055 (-2.58)***	-0.071 (-2.89)***	-0.069 (-2.85)***	-0.061 (-2.81)***	-0.059 (-2.75)***
Group	-0.033 (-2.87)***	-0.132 (-3.38)***	-0.126 (-3.27)***	-0.121 (-3.52)***	-0.114 (-3.36)***
Village Banking	0.132 (3.26)***	0.138 (2.97)***	0.138 (3.02)***	0.110 (2.70)***	0.112 (2.77)***
C. Asia & E. Europe	-0.083 (-2.28)*	-0.125 (-2.93)***	-0.123 (-2.92)***	-0.079 (-2.07)**	-0.080 (-2.09)**
E. Asia & Pacific	-0.001 (-0.03)	-0.026 (-0.59)	-0.022 (-0.52)	-0.002 (-0.07)	-0.001 (-0.02)
Latin America	-0.125 (-3.76)***	-0.167 (-4.52)***	-0.162 (-4.43)***	-0.124 (-3.70)**	-0.122 (-3.67)**
M. East & N. Africa	-0.095 (-2.01)**	-0.163 (-3.02)***	-0.157 (-2.94)***	-0.103 (-2.15)**	-0.101 (-2.10)**
S. Asia	-0.090 (-2.60)***	-0.172 (-4.64)***	-0.172 (-4.73)***	-0.091 (-2.62)**	-0.095 (-2.75)***
Savings	-0.035 (-1.46)	-0.045 (-1.63)	-0.048 (-1.75)*	-0.039 (-1.62)	-0.042 (-1.74)*
Other Services	-0.024 (-1.16)	-0.017 (-0.76)	-0.015 (-0.66)	-0.024 (-1.18)	-0.021 (-1.07)
Regulated	-0.001 (-0.05)	-0.006 (-0.28)	-0.008 (-0.35)	-0.001 (-0.08)	-0.003 (-0.17)
Constant	0.416 (3.89)***	0.204 (1.49)	0.212 (1.58)	0.197 (1.53)	0.199 (1.56)
Observations	358	348	348	348	348
No of Groups	179	174 [9]	174	174	174
R-Square	0.52	0.40	0.41	0.53	0.54
Wald chi2	179	120	136	190	202
Prob >	0.00	0.00	0.00	0.00	0.00

z-values in parentheses

*significant at 10%; ** significant at 5%; *** significant at 1%.

Source: Authors calculations based on data taken from audit reports directly and from the Mix Market website

[9] The no. of groups reduce to 174 MFIs because the women borrower information for 5 MFIs is not available

4.4 Profitability Regressions

This study uses Subsidy dependence index (SDI), Return on Asset (ROA) and Operational Self-sufficiency (OSS) as a proxy for the profitability of MFIs and have been taken as a left hand side variables. Where increase in profitability and sustainability is associated with decrease in SDI and increase in ROA and OSS figures. Notwithstanding the determinants of the profitability and sustainability, the regression specifically focuses on its relationship with the cost (administrative), interest rates charged on the loans to borrowers, MFIs age and women borrowers among others. In addition to that, the regression Eq (2) below also aims to investigate the relationship between outreach and sustainability. The existing literature provide evidence of the existence of trade-off between outreach and sustainability (see for example Navajas et al., 2002, Schreiner, 2002, Rhyne, 1998, Von Pischke, 1998). As argued by Manos and Yaron, 2009, Sustainability is important in the long run for improving outreach. However, in the short run, MFI performance reflects the best use of knowledge, technology, pricing of financial product and modes of operations in serving the target clientele. Thus in the short term, an MFI must reduce its financial sustainability in order to increase outreach and vise versa.

$$SDI_{ij} = \alpha + \beta_1 Yield_{ij} + \beta_2 loansize/GNIcapita_{ij} + \beta_3 Admn.\ Cost/asset_{ij} + \beta_4 loan/asset_{ij} + \beta_5 Age_{ij} + \beta 6 Women_{ij} + \beta_7 Status_{ij} + \beta_8 LendingType_{ij} + \beta_9 Region_{ij} + \beta_{10} Savings_{ij} + \beta_{11} OtherServices_{ij} + \beta_{12} Regulated_{ij} + \varepsilon_{ij} \quad (2)$$

Where *SDI* is subsidy dependence index of microfinance institution *i*. The same set of explanatory variables has also been regressed on return on assets (ROA) and operational self-sufficiency (OSS). Yield is the interest rate faced by the borrowers of MFIs. The summary statistics of all the variables are given in Table *1* and the mean and median values fall in the expected range. The microfinance institution's business practice is best described by three variables: the ratio of loans to assets, the average loan size and the dummy variable of MFIs formal status with Non-banking Financial Institutions (NBFIs) as the omitted category. In

addition to that, as usual, the dummies for region and lending methodology are included with Africa and Individual lending as the omitted category respectively along with three other dummies for saving, other services and regulations.

4.4.1 Results

The results of the estimation of specification *(2)* above are presented in equations (6-8) in table 4.*6* below. It shows that raising the yield or interest rates on loan leads to improved financial performance as the interest rate coefficient in both SDI and OSS equations is significant. Thus higher interest rates are associated with lower subsidy dependence and higher OSS. Increase in the administrative cost leads to reduced profitability in all their profitability measures with higher subsidy dependence and reduced OSS and ROA. MFIs age significantly contributes to the financial performance by improving their profitability with lower Subsidy dependence and higher OSS. On the other hand, giving credit to women has no significant impact on the profitability. The loan size variable does explain variation in Profitability. Where increase in loan size leads to lower profitability and sustainability with higher subsidy dependence and lower ROA. This is due to the fact that clients which afford higher loan sizes require better services. Hence this relationaship also confirms the trade-off between outreach and sustainability of microfinance. The dummy for "status" explain some variation in financial profitability. NGO are found to be less profitable with high dependence on subsidies along with the Cooperatives which are less profitable with significantly lower OSS. On the other hand, NBFIs, the omitted variable category, seem more profitable with significant positive coefficients of ROA and OSS. Dummy for "lending methodology" also exhibits some variations where MFIs where group lending leads to less profitability with lower OSS while Individual lending is profitable with significant positive coefficients for ROA and OSS. Notwithstanding the regional dummies, Middle East & North African MFIs have better profitability in terms of OSS and ROA. Moreover, the regulated MFIs exhibit lower profitability

Table 4.6

Profitability Regressions

	SDI	ROA	OSS
	(6)	(7)	(8)
Interest rate (Yield)	-0.483 (-1.72)*	0.053 (1.23)	0.299 (1.98)**
Loansize/GNIpc	0.088 (2.12)**	-0.015 (-2.35)**	-0.020 (-0.84)
Cost/asset	1.206 (3.30)***	-0.194 (-3.40)***	-1.175 (-6.35)***
Loan/asset	-0.000 (-0.68)	-0.000 (-0.32)	0.000 (0.52)
Age of an MFI	-0.115 (-1.67)*	-0.010 (-0.97)	0.086 (2.19)**
Women	-0.098 (-1.08)	0.015 (1.09)	0.006 (0.12)
Bank	-0.036 (-0.34)	-0.006 (-0.38)	-0.101 (-1.62)
Cooperatives	-0.081 (-0.52)	-0.025 (-1.05)	-0.234 (-2.55)**
NGOs	0.252 (2.94)***	-0.020 (-1.50)	-0.043 (-0.86)
Rural Bank	-0.194 (-0.95)	-0.005 (-0.15)	0.021 (0.18)
Individual & Group	0.119 (1.50)	-0.015 (-1.27)	-0.074 (-1.60)
Group	0.114 (0.88)	-0.026 (-1.29)	-0.165 (-2.18)**
Village Banking	0.090 (0.60)	-0.008 (-0.30)	-0.036 (-0.42)
C. Asia & E. Europe	-0.006 (-0.05)	0.017 (0.87)	0.168 (2.25)**
E. Asia & Pacific	-0.038 (-0.28)	0.002 (0.06)	-0.022 (-0.28)
Latin America	-0.042 (-0.40)	-0.018 (-1.17)	-0.003 (-0.05)
M. East & N. Africa	-0.197 (-1.15)	0.061 (2.35)**	0.177 (1.76)*
S. Asia	0.161 (1.31)	-0.029 (-1.47)	0.015 (0.20)
Savings	0.040 (0.45)	-0.017 (-1.32)	0.014 (0.28)
Other Services	-0.040 (-0.55)	-0.009 (-0.77)	0.009 (0.20)
Regulated	0.101 (1.39)	-0.034 (-3.05)***	-0.006 (-0.15)
Constant	0.668 (1.68)*	0.082 (1.34)	1.146 (5.10)***
Observations	348	348	348
No of Groups	174	174	174
R-Square	0.16	0.23	0.32
Wald chi2	52	79	103
Prob >	0.00	0.00	0.00

z-values in parentheses. *significant at 10%; ** significant at 5%; *** significant at 1%.

Source: Authors calculations based on data taken from audit reports directly and from the Mix Market website

with low return on assets[10]. The existing evidence of the impact of regulations on the profitability of MFI is mixed as it has both positive and negative consequences. Non- involvement by the regulators makes establishing and operating an MFI easier. This is exactly what 'immensely' helped MFIs in some Latin American Countries in their early stages and helped create the sector (Christen and Rosenberg, 2000). On the other hand, regulatory ambiguity leaves MFI vulnerable to regulatory discretion in the interpretation of the legal basis for lending activity, as in the case of Russia (Safavian, et al. 2000).

4.5 Efficiency and productivity

Theoretically the effect of subsidies on the efficiency of microfinance can be positive and negative. The arguments for negative impact on subsidies rest on the effects of soft-budget constraints where donor-funded bailouts of poorly performing MFIs reduce the incentive for cost-cutting and hence decrease the efficiency (Dewatripont and Maskin, 1995; Kornai et al., 2003). Moreover the moral hazard argument where staff of the MFIs takes advantage of the lack of costly monitoring by donors to shirk, gather perks or extract wage-rent. Thus results in decreased efficiency due to higher costs. On the other hand, subsidies may contribute to efficiency by increasing opportunities for the MFIs to invest in capacity building, develop and expand the infrastructure and quality of services.

MFIs have to incur costs in various forms in order to continue their loan granting activities to the clients. These costs include among others, the financial cost to the accessible loans, administrative costs in the provision of credit and some fixed costs for the whole organization. For simplicity, like Hudon and Traca, 2008, we assume that all the administrative expenses comprise of relationship costs with borrowers. In theory, these costs will depend on the actual number of borrowers, the numbers of loans provided to each, and the value of each loan. However, once a relationship with a client is established, the marginal costs of providing additional or larger loans amount only to the financial cost of the funds

[10] The result in not surprisingly. Hartarska and Nadolnyak (2007) among others find no evidence that regulated MFIs perform better in terms of either sustainability of outreach as compared to non-regulated MFIs.

lent, while the marginal administrative cost is small. Thus cost per borrower is an efficiency indicator that neutralizes the effect of loan size (Christen, 2000). Moreover, notwithstanding the various lending methodologies in microfinance, the costs incurred in the process of borrower´s monitoring, information and payment collection are vital in gauging the efficiency on microfinance. Hence the following Eq (3) has been estimated taking administrative cost per borrowers as a dependent variable.

$$Admn.\ Cost/borrowers_{ij} = \alpha + \beta_1\ loansize/GNIcapita_{ij} + \beta_2\ SDI_{ij} + \beta_3 Gender_{ij} + \beta_4 GNIcapita_{ij} + \beta_5 Age_{ij} + \beta_6 Status_{ij} + \beta_7\ LendingType_{ij} + \beta_8 Region_{ij} + \beta_9 Savings_{ij} + \beta_{10} OtherServices_{ij} + \beta_{11} Regulated_{ij} + \varepsilon_{ij} \quad (3)$$

The effect of subsidization on the staff cost can ultimately has an impact on staff productivity. That effect relates to the impact of subsidization on the incentives for effort and innovation by managers and staff, as well as availability of funds to finance key investment on human resource and physical assets (Hudon and Traca, 2008). Hence the staff productivity as measured by borrowers per staff has also been used as a dependent variable in the following Eq (4).

$$Borrowers/staff_{ij} = \alpha + \beta_1\ loansize/GNIcapita_{ij} + \beta_2\ SDI_{ij} + \beta_3 Gender_{ij} + \beta_4 GNIcapita_{ij} + \beta_5 Age_{ij} + \beta_6 Status_{ij} + \beta_7\ LendingType_{ij} + \beta_8 Region_{ij} + \beta_9 Savings_{ij} + \beta_{10} OtherServices_{ij} + \beta_{11} Regulated_{ij} + \varepsilon_{ij} \quad (4)$$

4.5.1 Results

Equations (9) & (10) below in Table 4.7 present the regression results of the above specification (3) by taking administrative costs as a dependent variable. Overall the R^2 is high and most of the covariates have statistically significant signs in line with the predictions. Though simple correlation in table 4.3 depicts an insignificant relationship between cost and SDI, nevertheless, the regression estimates below depict a highly significant positive relationship. This suggests that the subsidy dependent MFIs are less efficient because of the higher costs associated with granting loans. The evidence further shows that an increase in the loan size raises

Table 4.7

Efficiency and Productivity Regressions

	Admn. Costs per Borrower		Borrowers per staff	
	(9)	(10)	(11)	(12)
Loan size/GNIpc	0.692 (14.95)***	0.703 (14.88)***	-0.421 (-9.57)***	-0.448 (-7.52)***
SDI	0.151 (5.68)***	0.140 (5.17)***	-0.068 (-2.60)***	-0.058 (-1.52)
Women		-0.007 (-0.10)		-0.112 (-1.27)
Age of an MFI		-0.212 (-2.65)***		0.246 (2.64)***
GNI per capita	0.833 (12.39)***	0.878 (12.53)***	-0.114 (-1.80)*	-0.164 (-2.32)**
Bank	0.434 (3.21)***	0.424 (3.04)***	-0.136 (-1.08)	-0.149 (-1.21)
Cooperatives	-0.063 (-0.32)	-0.037 (-0.18)	0.109 (0.60)	0.021 (0.11)
NGOs	0.082 (0.74)	0.119 (1.06)	-0.138 (-1.35)	-0.165 (-1.62)
Rural Bank	0.158 (0.64)	0.372 (1.41)	-0.030 (-0.13)	-0.328 (-1.08)
Individual & Group	-0.180 (-1.78)*	-0.167 (-1.65)*	0.139 (1.50)	0.131 (1.52)
Group	-0.156 (-0.99)	-0.193 (-1.21)	-0.061 (-0.42)	0.018 (0.13)
Village Banking	0.355 (1.88)*	0.327 (1.72)*	-0.248 (-1.43)	-0.178 (-1.06)
C. Asia & E. Europe	-0.480 (-2.87)***	-0.564 (-3.22)***	-0.363 (-2.36)**	-0.259 (-1.27)
E. Asia & Pacific	-0.322 (-1.79)*	-0.299 (-1.67)*	-0.307 (-1.86)*	-0.329 (-2.11)**
Latin America	-0.532 (-3.54)***	-0.533 (-3.54)***	-0.089 (-0.64)	0.077 (0.49)
M. East & N. Africa	-0.648 (-2.97)***	-0.736 (-3.33)***	-0.126 (-0.63)	-0.018 (-0.09)
S. Asia	-1.05 (-6.93)***	-1.070 (-7.09)***	-0.139 (-1.00)	-0.118 (-0.81)
Savings	-0.132 (-1.16)	-0.083 (-0.73)	0.006 (0.06)	-0.026 (-0.24)
Other Services	0.051 (0.54)	0.082 (0.86)	-0.026 (-0.30)	-0.057 (-0.65)
Regulated	-0.027 (-0.29)	-0.065 (-0.69)	-0.023 (-0.26)	0.005 (0.06)
Constant	-0.395 (-0.88)	-0.148 (-0.28)	5.39 (12.84)***	5.56 (10.04)***
Observations	358	346	358	348
No of Groups	179	173	179	174
R-Square	0.80	0.80	0.52	0.55
Wald chi2	777	780	221	267
Prob >	0.00	0.00	0.00	0.00

Z-values in parentheses. Values for GNIpercapita for Samao and Veitnam for 2006 are proxies by the last year values
*significant at 10%; ** significant at 5%; *** significant at 1%.
Source: Authors calculations based on data taken from audit reports directly and from the Mix Market website

the cost per borrowers thus suggesting that borrowers having larger loans require higher and better level of services which leads to higher costs. With experience, MFIs learn to reduce cost per borrowers as depicted by the significant negative age coefficient. Furthermore, MFIs operating in high income per capita countries do incur higher costs per borrower and they have lower staff productivity because of the lower outreach. Notwithstanding the dummy variables, MFIs with "Bank" status are clearly less efficient due to the high costs per borrower. But this result is driven by the fact that Banks mainly cater to wealthy individual clients which keep their per borrower cost always high. Regional dummies depict that African MFIs are less efficient with higher per borrower cost compared to the other regions. Estimates further suggest that MFIs with village lending methodology are less efficient while those with group lending features are relatively more efficient.

The last two equations (11) and (12) present estimates of specification (4) above taking borrowers per staff member, a measure of staff's productivity as a dependent variable. Like the simple correlation in Table 4.3, regression estimates reveal a significant negative relationship between staff productivity and subsidization in Eq (11). However once controlled for age and women borrowers, the impact becomes insignificant. The estimates also lend support to the trade-off between outreach and productivity. Where lower outreach (increase in the loan size) is associated with lower staff productivity because fewer clients can afford to borrow larger loans. And in return clients demand higher attention and better level of services from the institution which also results in higher costs as well. Further, significant positive coefficient of age variable suggests that the productivity increases over time. Furthermore, MFIs operating in higher income countries have lower staff productivity than the others because their clients consist of few individual borrowers. Regarding "status" dummy variable, there is some evidence that NBFIs are relatively productive than the rest. Regional dummies show that MFIs located in the EA&Pacific and CA&EE regions are less productive while those in Africa are productive.

4.6 Mission drift

Mission drift is a concern of socially driven MFIs. As clients mature and develop their businesses they should be able to increase the loan size and their income should rise. In other words, it is a tendency reviewed by numerous microfinance institutions to extend larger average loan sizes in the process of scaling-up. It is a shift in the composition of new clients, or a re-orientation from poorer to wealthier clients among existing clients (Cull et al. 2007; Armendariz and Szafarz, 2009). In microfinance literature, the depth of outreach is commonly be used as a proxy for the poverty level. In the absence of any other decent measure of poverty due to data limitations, this study uses the average loan size divided by the GNI per capita as a proxy for measuring the depth of outreach. The assumption is that the smaller the loan size, the deeper is the outreach or the poorer the clients. Consistent with the other cross country studies[11], the Average loan size variable can also be deflated by GNI per capita calculated by purchasing poverty parity (ppp) method in order to normalize it to provide an adjustment for the overall wealth of a country. Because microfinance programs are usually associated with low income countries with higher income inequalities in their societies. A more consistent approach is to divide the average loan size by the income per capita of poorest 20 % of the population to normalize the inconsistencies caused by the higher income inequalities. However the criticism of using the average loan size as a proxy for poverty level is also very well documented in the microfinance literature[12]. Nevertheless, some recent studies find no significant differences in the empirical evidence between average loan size divided by the per capita income and per capita income of the poorest 20 % households (cull et al. 2007; Olivares-Polanco, 2004)[13]. Fig 4.2 depicts the composition of the average share of Outreach in different categories where the average loan size over GNI per capita (PPP) has been used as a proxy for the outreach. ME & NA MFIs and SA MFIs have done better in terms of outreach to the poor, whereas, CA & EE MFIs and African MFIs have less outreach. The status category suggests that NGOs and rural banks are

[11] See for example Balkenhol, 2007a; Hudon and Traca, 2008; Christen, 2007

[12] See for example Schreiner 2001; Woller & Woodworth, 2001; Dunford, 2002; Hatch & Frederick, 1998 and more recently Beatriz Armendariz & Ariane Szafarz (2009)

[13] This study also confirms this phenomena.The regressions have been estimated using the average loan size divided by the GNIpc PPP(purchasing power parity) but the results have not been significantly different.

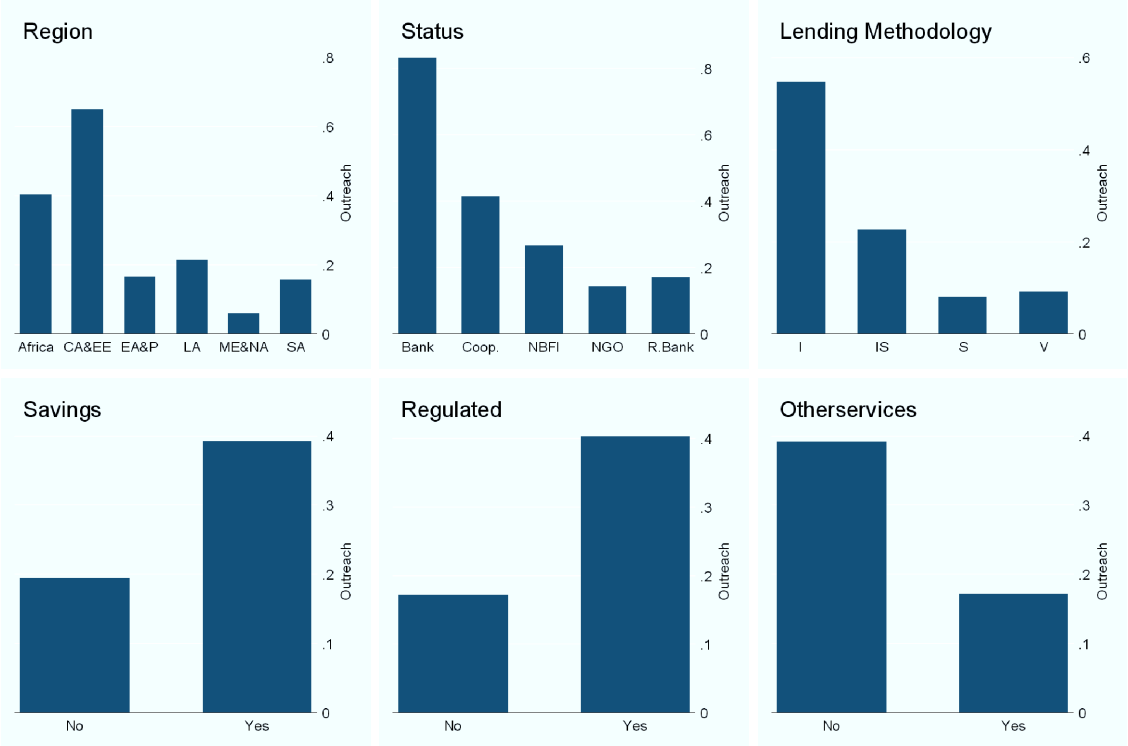

Fig. 4.2 Composition of Avg. Loan Size/GNI per capita

Source: Authors own calculations based on the data from MixMarket website

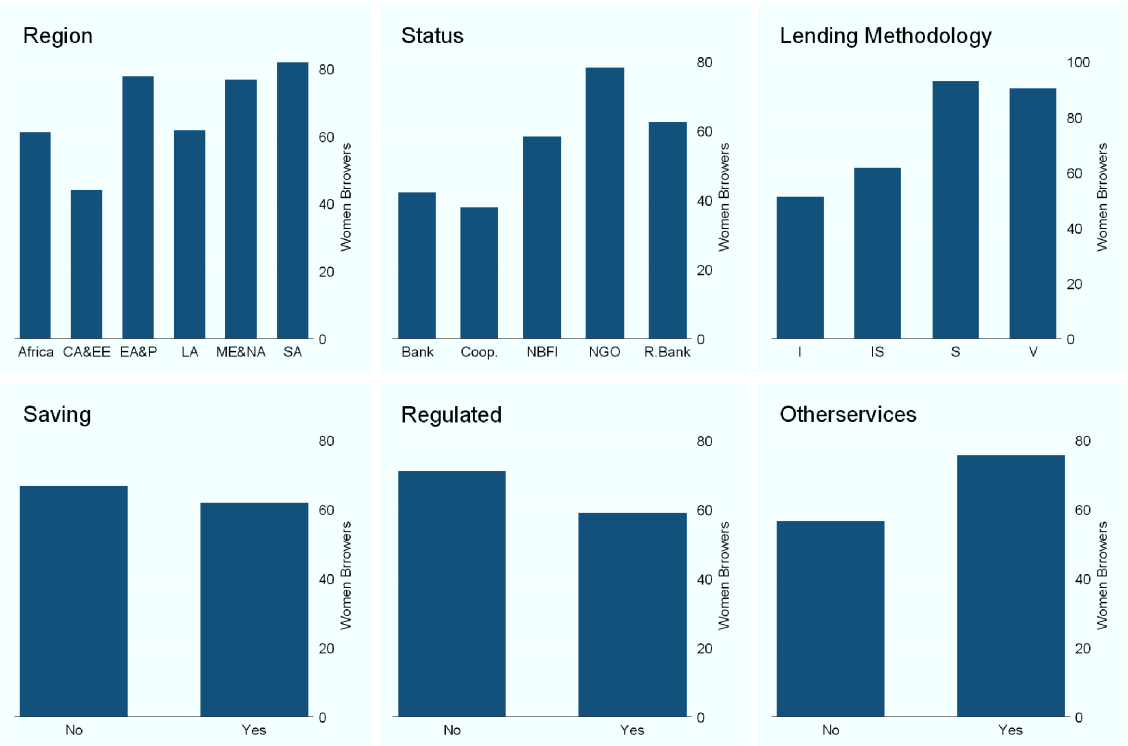

Fig. 4.3 Composition of Women Borrowers

Source: Authors own calculations based on the data from MixMarket website

better in reaching to poor while Banks have the lowest outreach as they cater to less poor clients. Similarly MFIs with Group lending features are better in reaching to poor as apposed to MFIs which lend to individuals. Further MFIs which do not provide savings, those not regulated and provide other services have better outreach to poor. In addition to using loan size, percentage of female borrowers has also been used as a proxy for outreach which is also consistent with the social objective of MFIs from gender perspective. Fig 4.3 highlights the share of women borrowers bifurcated into different categories. South Asian MFIs have on average highest share of female borrowers. While MFIs with NGO and Rural Bank status have more share of women borrowers. Further MFIs with group lending and village banking methodology have more female borrowers than the others. Furthermore, MFIs with no saving feature, are not regulated and those providing other services have more women borrowers than the others.

In this backdrop, this essay empirically estimates the following equations (5) and (6) taking loan size and women borrowers as dependent variable respectively.

$$Loansize/GNIpc_{ij} = \alpha + \beta_1 Women_{ij} + \beta_2 SDI_{ij} + \beta_3 Age_{ij} + \beta_4 Status_{ij} + \beta_5 LendingType_{ij} + \beta_6 Region_{ij} + \beta_7 Savings_{ij} + \beta_8 OtherServices_{ij} + \beta_9 Regulated_{ij} + \varepsilon_{ij} \quad (5)$$

$$Women_{ij} = \alpha + \beta_1 SDI_{ij} + \beta_2 Age_{ij} + \beta_3 Status_{ij} + \beta_4 LendingType_{ij} + \beta_5 Region_{ij} + \beta_6 Savings_{ij} + \beta_7 OtherServices_{ij} + \beta_8 Regulated_{ij} + \varepsilon_{ij} \quad (6)$$

4.6.1 Instrumental Variables

A main issue in the above regression equations arises because of the possible endogeneity of MFIs subsidy dependence. It can be argued that MFIs providing credit to relatively poor clients with small loan sizes tend to get more subsidies because of the donors preferences. In other words, donors have a bias to inject subsidies to those less sustainable and high transaction cost MFIs which give loans to poor and primarily to women.

To account for this endogeneity, this study adopts a two-stage procedure of correcting for this endogeneity given in Hudon and Traca (2008) paper. In the first stage, the components of subsidy dependence index orthogonal to the sustainability of MFI are computed. In the second-stage, those are used in estimating equations (1) and (2) above.

The estimates of first-stage regression are as follows:

$$SDI = 3.162 - 0.6178 \ln OSS \qquad Adj\ R^2 = 0.1451,\ n = 358$$
$$(8.38) \quad (-7.84)$$

The signs of the coefficients are as expected and significant at 1%. Further a new variable of subsidy dependence index has been constructed : *SDI(IV) = e_i – min(e_i), where e_i is the residual of the above regression for MFI_i and SDI(IV) > 0.* The new variable become orthogonal to lnOSS and is unaffected by the desire of donors to support MFIs which cater to poor and thus are less sustainable.

4.6.2 Results

Columns 13-16 in Table 3.8 show results about the relationship between profitability and outreach as measured by the average loan size/GNI per capita (ppp). Unlike the simple correlations case in Table *3*, the regression result in equation (14) show that the Subsidy dependence is significantly related to the outreach measure. Further, when instrumented with the new SDI explanatory variable in Equation (15) and (16), the impact becomes more significant. Further, the coefficient of women borrower turns out to be significantly negative which shows that the women borrowers get smaller loan sizes or in other words, beneficiaries of larger loan are predominantly males rather than women borrowers. The above empirical evidence lend support to the Mission drift phenomena where more funds are directed to those MFIs which cater to relatively well-off clients with capacity to afford higher loan sizes. However, the fact that MFIs reaching to well off clients (higher loan size) with the time is also not supported by our estimates as the age variable does not explain any significant variation in outreach. Equation (17) and (18) present estimates of taking women

Table 4.8

Mission Drift

	Loan Size/ GNIpc				% women borrowers	
			IV			IV
	(13)	(14)	(15)	(16)	(17)	(18)
Women borrower	-0.239 (-2.69)***		-0.241 (-2.71)***			
SDI	0.042 (1.43)	0.048 (1.67)*	0.054 (1.71)*	0.060 (1.91)*	-0.035 (-1.69)*	-0.033 (-1.46)
Age of an MFI	0.015 (0.14)	-0.028 (-0.28)	0.015 (0.15)	-0.028 (-0.28)	0.055 (1.03)	0.058 (1.10)
Bank	0.534 (2.69)***	0.554 (2.82)***	0.536 (2.71)***	0.556 (2.84)***	-0.261 (-2.89)***	-0.263 (-2.93)***
Cooperatives	0.077 (0.27)	0.203 (0.70)	0.082 (0.28)	0.209 (0.72)	-0.520 (-3.98)***	-0.524 (-4.02)***
NGOs	-0.411 (-2.56)***	-0.464 (-2.86)***	-0.412 (-2.57)**	-0.464 (-2.87)***	0.208 (2.84)***	0.206 (2.83)***
Rural Bank	0.138 (0.36)	0.211 (0.57)	0.138 (0.36)	0.209 (0.56)	-0.341 (-1.94)*	-0.342 (-1.96)*
Individual & Group	-0.265 (-1.81)*	-0.293 (-1.98)**	-0.263 (-1.80)*	-0.292 (-1.98)**	0.129 (1.94)*	0.128 (1.93)*
Group	-0.834 (-3.69)***	-0.948 (-4.17)***	-0.824 (-3.67)***	-0.943 (-4.15)***	0.413 (4.04)***	0.410 (4.02)***
Village Banking	-0.706 (-2.62)***	-0.817 (-3.00)***	-0.700 (-2.61)***	-0.813 (-3.00)***	0.427 (3.50)***	0.426 (3.49)***
C. Asia & E. Europe	0.121 (0.53)	0.113 (0.50)	0.113 (0.50)	0.106 (0.47)	-0.204 (-1.95) *	-0.199 (-1.91)*
E. Asia & Pacific	-0.759 (-2.99)***	-0.787 (-3.05)***	-0.759 (-2.99)***	-0.791 (-3.06)***	0.177 (1.53)	0.177 (1.53)
Latin America	-0.460 (-2.62)***	-0.459 (-2.57)***	-0.462 (-2.63)***	-0.463 (-2.58)***	0.019 (0.24)	0.021 (0.26)
M. East & N. Africa	-1.17 (-3.93)***	-1.232 (-4.08)***	-1.172 (-3.94)***	-1.24 (-4.11)***	0.118 (0.87)	0.124 (0.92)
S. Asia	-0.352 (-3.51)***	-0.770 (-3.52)***	-0.758 (-3.53)***	-0.774 (-3.55)***	0.078 (0.80)	0.081 (0.83)
Savings	0.152 (0.92)	0.103 (0.62)	0.153 (0.91)	0.104 (0.63)	0.070 (0.92)	0.071 (0.94)
Other Services	-0.091 (-0.65)	-0.100 (-0.71)	-0.091 (-0.65)	-0.101 (-0.71)	0.065 (1.01)	0.064 (1.01)
Regulated	0.044 (0.32)	0.061 (0.44)	0.044 (0.31)	0.062 (0.43)	0.029 (0.47)	0.029 (0.46)
Constant	0.767 (1.60)	-0.031 (-0.09)	0.662 (1.35)	-0.146 (-0.40)	3.685 (21.33)***	3.738 (20.58)***
Observations	348	358	348	358	358	358
No of Groups	174[14]	179	174	179	179	179
R-Square	0.57	0.55	0.57	0.55	0.50	0.50
Wald chi2	219	210	220	211	168	168
Prob >	0.00	0.00	0.00	0.00	0.00	0.00

Z-values in parentheses.

*significant at 10%; ** significant at 5%; *** significant at 1%.

Source: Authors calculations based on data taken from audit reports directly and from the Mix Market website

[14] Sample reduced to 174 MFI because of the 6 MFIs missing values on women borrowers

borrowers as dependent variable. The coefficient of SDI turns out to be negative and significant at 10% in Equation (17), thus suggesting that more subsidy dependent MFIs tend to concentrate more on male borrowers. In other words, most of the subsidies are directed to MFIs which cater less to women borrowers which leads to lower sustainability because wealthy clients require better services which increase the costs. However, after correcting for the endogeneity bias in Equation (18) with instrumented SDI variable, the negative coefficient of SDI becomes insignificant. These results should be interpreted with caution. The argument for the existence of the mission drift phenomena in microfinance literature is based on the high transaction costs associated with giving small amount of credit to poor, particularly to women. Therefore, from commercial perspective, more funds are directed to those MFIs which lend large loans to relatively well-off male borrowers. Notwithstanding the dummy variables, MFIs with `Banks' status have less outreach as they lend relatively higher loan sizes and their clients consist of predominantly male borrowers. While NGOs, on the other hand, primarily lend to female borrowers with small loan sizes. Considering lending methodology, MFIs with Group lending and Village banking methodology have better outreach as they lend small amount of loans to predominantly women borrowers. While individual lending is mainly directed to relatively well-off clients who could afford to pay back big loans. Notwithstanding the regional dummies, MFIs located in Latin America, ME & NA, South Asia and EA & Pacific, all have significant outreach because of small loan sizes.

4.7 CONCLUSION

This essay aims to contribute to the ongoing debate on the sustainability issues in microfinance in the wake of increasing commercialization. Unlike the current literature on these issues, this essay goes beyond the traditional financial ratios by incorporating the subsidy dependence index (SDI) as a measure of sustainability into the empirical framework. To this extent, empirical evidence about important relationships and phenomenon related to sustainability issues in

microfinance literature, have been investigated amid high quality data set comprised of 179 MFIs in 54 Countries worldwide.

The empirical evidence lends support to the importance of financial and social efficiency in determining the interest rate policy of microfinance Institutions. On the social efficiency front, delivering credit to the poor in small sizes tend to be costly with higher transaction cost. Thus inducing MFIs to charge higher interest rates to poor borrowers with small loan sizes. Consequently an important evidence found is that MFIs which lend predominantly to women borrowers who require small loan sizes, charge higher interest rates to their clients. Nevertheless these high interest rates seldom translate into profits. In other words, these results also support the notion of the importance of interest rate policy in the "Mission Drift" in microfinance. From the financial efficiency perspective, increase in both the administrative cost and cost of acquiring loanable funds induce MFIs to raise interest rates on loans to the borrowers.

Concerning the importance of interest rates and cost in determining the profitability of microfinance, the evidence shows that raising the interest rates charged on loans to the clients leads to improved financial performance by lowering subsidy dependence and improving sustainability. On the other hand, Increase in the administrative cost reduces the profitabilty. Further, the regression results do not support the trade-off between sustainability and outreach. Where lending in small loan sizes (greater outreach) to relatively more poor borrowers leads to an increase in the profitability and sustainability of MFIs with lowering the subsidy dependence and increasing the ROA. However, lending to women borrowers do not explain any variation in the profitability of an MFI.

The evidence about the determinants of efficiency and productivity of microfinance are by and large, in line with the theory. The results confirm that subsidization of microfinance leads to cost-inefficiencies and decrease in the staff productivity. The fact that more the MFIs cater to well-off clients with large loan sizes, the more their costs rise, suggests that MFIs having customers with larger loans require better and high level of services.

Last but not the least, this essay also empirically examines the validity of mission drift tendency in microfinance. Having corrected for the endogeneity bias,

the empirical evidence lend some support to the existence of mission drift phenomenon. Due to the commercialization of microfinance, investors are increasingly directing their funds to those MFIs which serve the relatively less poor or well-off clients who can afford to pay back larger loan sizes. Moreover, evidence has also been found that beneficiaries of larger loans are predominantly male borrowers rather than the women borrowers who require relatively small loans. Further, those relatively well-off borrowers require better and improved services in return of their higher loan sizes which leads to increase in subsidy dependence due to an increase in the costs of providing those services. In other words, the evidence found runs contrary to the trade off between sustainability and outreach of microfinance.

The findings in this paper have policy implications and there are lessons to be learned for the stakeholders in microfinance. It is high time for practitioners and social investors to realize that cost efficiencies as a result of good governance and management can significantly contribute towards expanding the outreach to poor. Whereas, lending to well-off clients in larger loan sizes, and thus gradually deviating from their social mission in anticipation of reaping exorbitant profits, can not guarantee profitability because it ultimately leads to the increase in costs. Resultantly MFI´s subsidy dependence increases and the Return on Asset (ROA) declines. Policies and trainings related to small scale income generating activities and enterprise development which in the long run can contribute to profitability of lending to women should be encouraged. This will not only help in increasing the profitability of an MFI but also go a long way in stemming the higher interest rates charged from the women borrowers.

APPENDIX A MICROFINANCE INSTITUTIONS

PAKISTAN
KASHF- *Kashf Foundation*
FMFB- *First Microfinance Bank Ltd. Pakistan*
ASASAH- *Asasah*
NEPAL
NSSC- *Neighbourhood Society Service Centre*
VYCCU- *VYCCU Saving & Credit Cooperative Society Ltd.*
NIRDHAN- *Nirdhan Utthan Bank Ltd.*
PGBB- *Western Region Grameen Bikas Bank*
CBB- *Chhimek Bikas Bank Ltd.*
INDIA
BANDHAN- *Bandhan (Society and NBFC)*
BASIX- *Bhartiya Samruddhi Finance Limited*
SHARE- *SHARE Microfin Ltd.*
MAHASEMAN- *Mahasemam-SMILE*
CASHPOR- *Cashpor Microcredit*
IASC- *Indian Association for Savings and Credit*
KBSLAB- *Krishna Bhima Samruddhi Local Area Bank Limited*
ESAF- *Evangelical Social Action Forum*
SNF- *Sarvodaya Nano Finance Limited*
GK- *Grameen Koota*
BANGLADESH
BURO- *BURO Bangladesh*
DESHA – *DESHA*
ASA- *ASA*
BRAC- *Bangladesh Rural Advancement Committee*
RDRS- *RDRS Bangladesh*
Shakti- *Shakti Foundation for Disadvantaged Women*
TMSS- *Thengamara Mohila Sabuj Sangha*
IDF- *Integrated Development Foundation*
AFGHANISTAN
FMFB - *The First MicroFinanceBank – Afghanistan*
BRAC- *BRAC Afghanistan*
ARMP- *Afghanistan Rural Microcredit Programme*
AFRICA
KENYA
K-REPK-*Rep Bank*
EBS-*Equity Bank*
KADET-*Kenya Agency to Development of Enterprise and Technology*
KWFT-*Kenya Women Finance Trust*
MDSL-*Microenterprise Development Services Ltd*
SMEP-*Small and Micro Enterprise Project*
BURKINA FASO
RCPB-*Réseau des caisses populaires du Burkin*a
SENEGAL
PAMECAS-*Programme d'Appui aux Mutuelles d'Épargne et de Crédit au Sénégal*
ACEP-*Alliance de Credit et d'Epargne pour la Production*
CMS
MALI
SORO Y-*Soro Yiriwaso*
KANDO JAGIM-*Kondo Jigima*
CAMEROON
ACEP-*Agence de Crédit pour l'Entreprise Privée Cameroun*
CDS-Crédit du Sahel
GHANA
PROCREDIT -*ProCredit SLC Ghana*
KSF -*Kraban Support Foundation*
OISL -*Opportunity International Savings and Loans Limited*
SAT -*Sinapi Aba Trust*
BENIN
ALIDE- *Association de Lutte pour la promotion des Initiatives de Développement*
VF -*Vital Finance*
PADME -*Association pour la Promotion et l' Appui au Développement de MicroEntreprises*
FACECAM -*Fédération des caisses d'épargne et de crédit agricole mutuel*
ANGOLA
NovoBanco - *NovoBanco Angola*
ETHIOPIA
DECSI- *Dedebit Credit and Savings Institution*
ADCSI- *Addis Credit & Savings Institution*
ACSI- *Amhara Credit and Savings Institution*
WISDOM- *Wisdom*
OMO- *Omo Microfinance Institution*
BG- *Buusaa Gonofaa*
TANZANIA
PRIDE - *PRIDE Tanzania*
FINCA -*FINCA Tanzania*
UGANDA
CML- *Commercial Microfinance Limited*
FAULA - *Faulu Uganda*
MED-*Net- Micro Enterprise Development Network*
FINCA- *Finca Uganda*
UML- *Uganda Microfinance Limited*
CENTENARY- *Centenary Rural Development Bank Ltd.*
MALAWI
FINCA- *FINCA Malawi*
MOZAMBIQUE
SOCREMO- *Banco de Microfinanças de Moçambique*
FCC- *Fundo de Credito Comunitario*
Tchuma- *Tchuma Cooperativa de Crédito e Poupança*
NovoBanco - *NovoBanco Mozambique*
NIGERIA
LAPO- *Lift Above Poverty Organisation*
SEAP- *Self-Reliance Economic Advancement Programme*
SOUTH AFRICA
SEF-ZAF- *Small Enterprise Foundation South Africa*
ZAMBIA
CETZAM- *CETZAM Opportunity*
FINCA - *FINCA Zambia*
LATIN AMERICA
BOLIVIA
ProMujer - *Pro Mujer in Bolivia*
CRECER- *Crédito con Educación Rural*
PRODEM- *Fondo Financiero Privado PRODEM*
FIE- *Financiero Privado paral Fomentoa Iniciativas Economicas*
ProCredit - *Banco Los Andes ProCredit*
FADES- *Fundación para Alternativas de Desarrollo*
AgroCapital- *Fundación AgroCapital*
FONCRESOL- *foncresol*
FUNBODEM- *Fundación Boliviana para el Desarrollo de la Mujer*
BancoSol- *BancoSol*

Fundación CAMPO- *Fundación CAMPO*
AMC de R.L.- *Sociedad Cooperativa de Ahorro y Crédito R.L.*
HONDOROUS
HdH OPDF- *Fundación Microfinanciera Hermandad de Honduras OPDF*
World Relief - *World Relief Honduras*
FINCA-*FINCA Honduras*
TIRINIDAD & TOBBAGO
MCHL- *Microfin Caribbean Holdings Limited*
VENEZEULA
BANGENTE *Banco De La Gente Emprendedora*
PERU
CMAC Tacna- *Caja Municipal de Ahorro y Crédito de Tacna*
MIBANCO- *MiBanco*
BANTRA- *Banco del Trabajo*
CMAC Maynas- *Caja Municipal de Ahorro y Crédito de Maynas*
EDPYME Confianza- *EDPYME Confianza*
IDESI La Libertad- *Instituto de Desarrollo del Sector Informal para La Libertad*
FONDESURCO- *Fondo de Desarrollo Regional*
EDPYME EDYFICAR- *EDPYME Edyficar S.A.*
Caritas- *Caritas del Perú*
CMAC Cusco- *Caja Municipal de Ahorro Crédito de Cusco*
ProMujer - *Pro Mujer in Peru*
CMAC Arequipa- *Caja Municipal de Ahorro y Crédito de Arequipa*
FINCA - *FINCA Peru*
CMAC Trujillo- *Caja Municipal de Ahorro y Crédito de Trujillo*
CRAC Caja Nor- *Caja Nor Perú*
CMAC Tacna- *Caja Municipal de Ahorro y Crédito de Tacna*
Movimiento M R- *Movimiento Manuela Ramos*
ECUADOR
BANCOSOL-
COAC Sac Aiet- *Cooperativa de Ahorro y Crédito Sac Aiet*
D-miro - *D-miro*
FODEMI - *Fondo de Desarrollo Microempresarial*
ProCredit -*Banco ProCredit Ecuador*
ECLOF - *Ecumenical Church Loan Fund – Ecuador*
COAC San José - *Cooperativa de Ahorro y Crédito - San José*
Fundación Espoir -*Fundación Espoir*
FINCA –*FINCA ECU*
COAC Jardín Azuayo- *Cooperativa de Ahorro y Crédito Jardín Azuayo*
COSTA RICA
CREDIMUJER – *CREDIMUJER*
FUNDECOCA- *Fundación Unión y Desarrollo de Comunidades Campesinas*
COLOMBIA
FMM Popayán- *Fundación Mundo Mujer Popayán*
Finamerica- *Financiera América*
WWB – Medellín- *Women's World Banking – Medellín*
WWB-CALI-
CMM Bogotá-*Corporación Mundial de la Mujer Colombia – Bogotá*
FMM Bucaramanga-*Fundación Mundial de la Mujer Bucaramanga*
Eco Futuro- *Eco Futuro Fondo Financiero Privado*
EL SALVADOR
saeca
FIELCO- *Financiera El Comercio*
HAITI
ACME- *Association Pour la Cooperation avec la Micro Enterprise*
DOMINICAN REPUBLIC
Banco ADEMI-*Banco ADEMI*
NICRAGUA
FUNDENUSE- *Fundación para el Desarrollo de Nueva Segovia*
PRODESA- *Fundacion Para La Promocion y el Desarrollo*
FAMA- *Financiera FAMA*
ACODEP- *Asociación de Consultores para el Desarrollo de la Pequeña. Mediana y Microempresa*
FJN- *Fundación José Nieborowski*
FDL- *Fondo de Desarrollo Local*
ProCredit - *Banco ProCredit Nicaragua*
BANEX (Ex FINDESA)- *Banco del Éxito. ex FINDESA*
GAUTEMALA
FAFIDESS- *Fundación de Asesoría Financiera a Instituciones de Desarrollo y Servicio Social*
FUNDEA- *Fundación para el Desarrollo Empresarial y Agrícola*
Génesis Empresarial-*Fundación Génesis Empresarial*
Fundación MICROS- *Fundación para el Desarrollo de la Microempresa*
EAST ASIA & PACIFIC
COMBODIA
PRASAC- *PRASAC MFI Ltd.*
AMRET- *AMRET Co., Ltd.*
SATHAPANA- *SATHAPANA LIMITED*
HKL-*Hattha Kaksekar Ltd.*
ACLED-*AACLEDA Bank Plc.*
SAMAO
SPBD-*South Pacific Business Development*
PHILIPINES
GREEN-*Rural Green Bank of Caraga, Inc.*
BCB-*Bukidnon Cooperative Bank*
ASHI-*Ahon Sa Hirap, Inc.*
TSPI-*TSPI Development Corporation*
NWFT- *Negros Women for Tomorrow Foundation, Inc.*
Ist VALLEY- *1st Valley Bank*
CBMO- *Cooperative Bank of Misamis Oriental, Inc.*
DIGOS- *Rural Bank of Digos, Inc.*
SOLANO- *Rural Bank of Solano, Inc.*
BANK KA- *Bangko Kabayan (Ibaan Rural Bank, Inc.)*
VIETNAM
TYM- *TYM FUND*
CEP- *Capital Aid Fund for Employment of the Poor*
INDONESIA
MBK VENTU- *PT Mitra Bisnis Keluarga Ventura*
CENTRAL ASIA & EASTERN EUROPE
ALBANIA
BESA- *BESA Fund*
PROCREDIT- *ProCredit Bank Albania*
PHSM- *Opportunity Albania(formerly PSHM)*
MONGOLIA
KHAN BANK- *Khan Bank (Agricultural Bank of Mongolia LLP)*
CREDIT MONGOL- *Credit Mongol*
TAJIKSTAN
FMFB- *The First MicroFinanceBank - Tajikistan*
BANK ESHKTA- *Bank Eskhata*

MICROINVEST- *Microloan Fund MicroInvest* **AGROINVEST-** *OJSC Agroinvestbank* **PARAGUAY** **Interfisa-** *grupo internacional de finanzas interfisa financiera* **IMON-** *LLC Microlending organization"IMON NTERNATIONAL"* **RUSSIA** **FORUS-** *FORUS Bank* **KYRGYSTAN** **AIYL BANK-** *Aiyl Bank* **FMCC-** *FINCA MicroCredit Company* **BTFF-** *Bai Tushum* **ARMENIA** **INECO-** *INECO Bank* **ACBA-** *ACBA-CREDIT AGRICOLE BANK CJSC* **HORIZON-** *'Nor Horizon' UCO LLC* **AZERBAIJAN** **CRED AGRO-** *CredAgro Non-Banking Credit Institution* **ACCESS-** *Access bank* **NORMICO-** *Norwegian Microcredit LLC* **VIATOR-** *Viator Microcredit Azerbaijan LLC* **BOSNIA & HEZGOVENIA** **MIKROFIN-** *MIKROFIN Banja Luka* **PARTNER-** *Partner* **SUNRISE-** *Microcredit Organization Sunrise* **EKI-** *EKI* **KAZAKHSTAN** **KMF**- *"KazMicroFinance" LLC (formerly KLF)* **GEORGIA** **CREDO-** *VF Credo Foundation* **LAZKA Capital-** *formerly SBDF* **CRYSTAL FUND-** *JSC MFO Crystal formerly Crystal Fund* **CONSTANTA-** *Constanta Bank* **MIDDLE EAST & EAST AFRICA** **EGYPT** **DBACD-** *Dakahlya Businessmen's Association for Community Development* **LEAD-** *Lead Foundation* **AL TADAMUN-** *Al Tadamun* **JORDAN** **TAMWEELCOM-** *formerly JMCC* **MFW-** *Microfund for Women* **MORROCO** **AL AMANA-** *Association Al Amana for the Promotion of Micro-Enterprises Morocco* **FONDEP-** *FONDEP Micro-Crédit* **ZAKOURA-** *Fondation Zakoura* **INMMA-** *Institution Marocaine d'Appui a la Micro-entreprise* **AL KARAMA-** *Association Al Karama de Micro Credit* **TUNISIA** **ENDA-** *enda inter-arabe*	

APPENDIX B SDI Calculations (Benjamin Formula)

ASIA	SDI			SDI			SDI			SDI	
MFI	2005	2006	MFI	2005	2006	MFI	2005	2006	MFI	2005	2006
KASHF	0.184	0.114	DECSI	-0.101	0.003	Caritas	1.054	0.505	Ist Valley	1.937	0.447
FMBL	2.985	0.844	ADCSI	0.596	1.267	CMAC Cus	0.112	-	CBMO	1.280	1.288
ASASAH	0.226	1.037	ACSI	-0238	-0.329	CMAC Tac	0.312	0.293	DIGOS	0.844	0.681
NSSC	0.254	-	WISDOM	0.773	0.097	Caja Nor	0.236	0.228	SOLANO	1.474	1.926
VYCCU	-0.104	-	OMO	0.565	0.119	FINCA	0.399	0.490	Bangko Ka	1.523	1.254
NIRDHAN	0.339	0.313	BG	1.072	0.194	Movim. M R	0.192	0.298	TYM	2.671	2.927
PGBB	0.775	-	PRIDE	0.078	0.154	Promujer	0.498	0.273	CEP	2.247	2.180
CBB	0.443	0.086	FINCA	0.122	-	CMAC Arq	0.047	0.043	MBK Ventu	0.644	0.373
BANDHAN	0.183	-0.146	CML	0.121	0.370	CMAC Tru	0.278	0.150	C. ASIA & E. EUROPE		
BASIX	0.298	0.221	FAULU	0.322	0.622	Interfisa	0.295	0.128	BESA	0.363	0.108
SHARE MF	-0.037	0.392	MEDNET	0.317	2.988	FIELCO	0.106	0.152	ProCredit	0.245	0.215
Mahaseman	-0.003	-	FINCA	0.111	0.190	FUNDENUSE	-0.407	-	PSHM	0.504	0.144
Cashpoor	1.045	0.396	UML	1.039	-	Prodesa	-0.148	-0.212	Khan Bank	0.202	0.038
IASC	0.338	-	Centenary	0.211	0.112	FAMA	0.088	-	CredMongol	0.639	0.569
KBSLAB	0.683	0.704	FINCA	0.388	-	ACODEP	-0.074	-0.111	FMFB	2.129	1.186
ESAF	0.306	-0.013	SOCREMO	0.323	0.300	FJN	0.028	-	Bank Eskhata	0.247	0.555
SNFL	1.037	0.930	FCC	1.555	0.296	FINDESA	0.068	0.009	MicroInvest	0.383	0.420
GK	0.200	-0.007	TCHUMA	0.275	0.334	FDL	0.012	0.059	Agroinvest	0.470	0.337
B TANGAIL	-0.044	0.072	N BANCO	0.428	-0.033	ProCredit	0.112	0.246	IMON	1.308	0.378
DESHA	0.121	-	LAPO	0.068	0.017	Fafidess	-0.008	-	FORUS	0.237	0.519
ASA	-0.190	0.538	SEAP	-0.124	-0.215	Fundea	0.384	-	AIYL Bank	1.270	1.210
BRAC	1.225	0.999	SEF-ZAF	0.368	0.214	Genesis Em	0.267	0.294	FMCC	0.256	0.044
RDRS	1.580	1.623	CETZAM	2.526	1.064	Fundacion M	1.176	-	BTFF	1.591	0.778
SHAKTI	0.372	0.092	FINCA	0.568	0.148	Banco Sol	0.167	0.406	INECO	0.175	0.271
TMSS	0.900	0.681	LATIN AMERICA			COAC SAC	0.273	0.289	ACBA	0.548	0.504
IDF	0.019	0.038				PROcredit	0.251	0.083	HORIZON	0.189	0.146
FMFB	1.335	0.189	ProMujar	0.564	0.382	Coac S Jose	0.189	0.321	C AGRO	0.916	0.000
BRAC	1.274	0.804	CRECER	0.114	0.055	Fundacion E	-0.205	-0.316	ACCESS	0.683	0.621
ARMP	0.873	0.250	PRODEM	0.284	0.115	D-Miro	0.117	-0.063	NORMICR	0.302	0.434
AFRICA			FIE	0.358	0.217	COAC Jardin	0.264	0.274	Viator	-0.028	0.172
K-REP	0.372	0.193	Bnaco L A	0.501	0.210	FODEMI	0.116	0.075	MIKROFIN	0.105	-0.284
EBS	-0.015	-0.153	FADES	0.754	0.324	Finca	-0.544	-0.081	PARTNER	0.226	-0.071
Kadet	0.653	0.915	Agrocapital	0.841	0.461	Fundecoca	1.137	-	SUNRISE	0.117	-0.137
KWFT	0.241	0.250	Foncresol	0.596	-	CrediMujer	0.813	0.408	EKI	0.221	-0.124
MDSL	0.150	-1.857	FunBodem	0.613	0.288	FMM Pop	-0.013	0.173	KMF	-0.054	-0.046
SMEP	0.412	0.467	BANCOSOL	0.260	0.118	Finamerica	0.254	0.312	CREDO	0.881	0.597
RCPB	0.100	0.038	Eco Futuro	0.250	0.103	CMM Bog	0.252	0.229	LAZIKA	1.038	0.503
Pamecas	0.194	0.038	Fundacion C	0.467	0.725	FMM Buca	-0.149	-0.160	C FUND	0.312	0.447
ACEP	0.594	-	AMC de RL	0.280	0.221	WWB Ca	0.144	0.203	Constanta	0.685	0.581
CMS	0.560	0.520	ACME	0.302	0.386	WMM Med	0.385	0.150	M. EAST & N. AFRICA		
Soro Y	1.176	2.029	HDH	0.413	1.151	ADEMI	0.273	-	DBACD	0.492	0.175
K. Jagima	-0.403	0.179	World Rel	0.243	0.215	E.ASIA & PACIFIC			LEAD	1.497	-0.341
ACEP	1.658	-	Finca	0.284	0.216	PRASAC	2.636	1.879	Al Tadamun	2.044	0.411
CDS	0.441	0.430	MCHL	0.720	-	AMRET	1.066	0.789	Tamwelcom	0.033	0.052
ProCredit	-0.024	0.017	BanGente	0.965	0.591	SATHA	0.954	1.194	MFW	-0.093	0.082
KSF	0.347	-	Edpy. C Tac	0.644	0.532	HKL	1.479	0.860	AL AMANA	0.091	0.097
Opportunity	0.318	-0.019	MiBanco	0.092	0.143	ACLEDA	1.165	1.113	Fondep	0.078	-0.295
Sat	0.051	0.134	Bantra	0.219	0.269	SPBD	-3.255	-2.785	Zakoura	0.046	0.171
Alide	1.24	0.666	CMAC May	0.303	0.181	GREEN	0.611	-	Inmaa	0.029	-0.056
VF	0.405	0.427	Edpy. Cofian	0.767	0.848	BCB	0.359	0.343	Al Karama	-0.043	0.087
PADME	0.481	5.834	IDESI LL	0.271	-	ASHI	2.565	1.971	Enda	0.096	-0.234
FECECAM	0.185	1.443	Fondesurco	0.673	0.698	TSPI	0.784	0.664			
NovoBanco	3.344	1.387	EDPY.Edyf	0.667	0.559	NWFT	0.706	0.562			

Source: Author own calculations based on the Balance sheets of 204 MFIs for year 2005 & 2006

APPENDIX C Subsidy Dependence Index Calculations

	PAKISTAN			NEPAL					INDIA	
MFIs	**KASHF**	**FMBL**	**ASASAH**	**NSSC**	**VYCCU**	**NIRDHAN**	**PGBB**	**CBB**	**BANDHAN**	**BASIX**
Avg. Assets, 2005	17608749	22210207	758361	2289996	633430	7860265	9373834	3207017	5587633	21286800
Avg. Assets, 2006	26912556	25998850	2349083	2789798	877182	10091829	9215449	4494839	19753756	31972598
Ave. Equity (E), 2005	9576291	11658707	-100065	102731	79774	470611	956637	190753	289202	5510323
Ave. Equity (E),2006	12996676	11695891	-196428	94678	96983	597779	928396	288479	1503931	5943501
Opp. Cost of society (m), 2005	0.11	0.11	0.11	0.08125	0.08125	0.08125	0.08125	0.08125	0.1075	0.1075
Opp. Cost of society(m), 2006	0.11	0.11	0.11	0.08	0.08	0.08	0.08	0.08	0.1119	0.1119
Subsidy on Equity. E*m, 2005	1053392	1282458	-11007	8347	6482	38237	77727	15499	31089	592360
Subsidy on Equity. E*m, 2006	1429634	1286548	-21607	7574	7759	47822	74272	23078	168290	665078
Ave. Public debt (A), 2005	7347530	803583	795309	1876833	33919	5198146	6969816	2470314	4078123	12755419
Ave. Public debt (A),2006	12923550	803583	2360773	-	-	6565411	-	3309558	14708114	20918123
Exp. Int. Public debt. A*c , 2005	275455	8982	128880	100750	2339	225985	167047	100967	301076	1156719
Exp. Int. Public debt. A*c , 2006	586969	58186	200944	0	-	256822	-	126589	1383559	1781165
Rate paid public debt (c), 2005	0.037	0.011	0.162	0.054	0.069	0.043	0.024	0.041	0.074	0.091
Rate paid public debt (c), 2006	0.045	0.072	0.085	-	-	0.039	-	0.038	0.094	0.085
Disc. Public debt. A*(m-c), 2005	532773	79412	-41396	51742	417	196364	399250	99746	137323	214489
Disc. Public debt. A*(m-c), 2006	834621	30208	58741	-	-	268411	-	138175	262278	559573
Rev. Grants (RG), 2005	315931	242265	22257	0	0	151834	0	0	70228	30326
Rev. Grants (RG), 2006	1460171	44437	213222	0	0	107907	0	0	95448	0
K (RG + DX), 2005	315931	242265	22257	0	0	151834	-	0	70228	30326
K (RG + DX), 2006	1460171	44437	213222	0	0	107907	-	0	95448	0
Accounting Profit (P), 2005	1793615	33223	-77551	43985	18944	190658	128252	80025	126649	626830
Accounting Profit (P), 2006	3486377	493658	-154041	0	0	152580	-	245185	1422331	1088988
Taxes, 2005	0	21130	1150	0	0	27252	39822	37019	0	289678
Taxes, 2006	0	173656	2371	0	-	39546	-	72330	0	417688
Acc. profit less Taxes (AP), 2005	1793615	12093	-78702	43985	18944	163406	88430	43007	126649	337151
Acc. profit less Taxes (AP), 2006	3486377	320002	-156413	0	-	113034	-	172856	1422331	671301
Subsidy. S {E*m+A(m-c)+K-AP} 05	108481	1592041	48556	16104	-12045	223030	388547	72238	111991	500024
Subsidy. S {E*m+A(m-c)+K-AP}06	238049	1041191	406768	-	-	311107	-	-11602	-896315	553350
Ave. Loan port (net) LP, 2005	10382474	4750703	419140	734596	496007	4591939	4682632	1343421	5057057	17833248
Ave. Loan port (net) LP, 2006	18696545	8906457	1298048	-	-	6360390	-	2202891	18254340	25245331
Rev. From lending (LP*i) , 2005	2990136	749071	230058	152516	66053	890185	728579	243385	1172776	4182719
Rev. From lending (LP*i), 2006	5233457	2023666	400415	0	-	1169663	-	387691	4160964	6263409
Yield on lending (i), 2005	0.288	0.158	0.549	0.208	0.133	0.194	0.156	0.181	0.232	0.235
Yield on lending (i), 2006	0.280	0.227	0.308	-	-	0.184	-	0.176	0.228	0.248
SDI (S/LP*i), 2005	0.036	2.125	0.211	0.106	-0.182	0.251	0.533	0.297	0.095	0.120
SDI (S/LP*i), 2006	0.045	0.515	1.016	-	-	0.266	-	-0.030	-0.215	0.088
Change in Yield, 2005	0.010	0.335	0.116	0.022	-0.024	0.049	0.083	0.054	0.022	0.028
Change in Yield, 2006	0.013	0.117	0.313	-	-	0.049	-	-0.005	-0.049	0.022
Nominal Subsidy free yield, 2005	0.298	0.493	0.665	0.230	0.109	0.242	0.239	0.235	0.254	0.263
Nominal Subsidy free yield, 2006	0.293	0.344	0.622	-	-	0.233	-	0.171	0.179	0.270
Inflation, 2005	0.091	0.091	0.091	0.068	0.068	0.068	0.068	0.068	0.043	0.043
Inflation, 2006	0.079	0.079	0.079	0.076	0.076	0.076	0.076	0.076	0.058	0.058
Real Subsidy- free yield, 2005	0.191	0.369	0.526	0.151	0.038	0.163	0.159	0.156	0.203	0.211
Real Subsidy- free yield, 2006	0.198	0.245	0.503	-	-	0.146	-	0.088	0.114	0.200
True Profit, 2005	944911	-309584	-59563	-7758	18527	-184793	-310820	-56739	-80902	92336
True Profit, 2006	1191585	245357	-428375	-	-	-263285	-	34681	1064605	111728
Return on Assets (ROA), 2005	0.102	0.001	-0.104	0.019	0.030	0.021	0.009	0.013	0.023	0.016
Return on Assets (ROA), 2006	0.130	0.012	-0.067	0.000	0.000	0.011	-	0.038	0.072	0.021
Subsidy-adjusted ROA, 2005	0.054	-0.014	-0.079	-0.003	0.029	-0.024	-0.033	-0.018	-0.014	0.004
Subsidy-adjusted ROA, 2006	0.044	0.009	-0.182	-	-	-0.026	-	0.008	0.054	0.003
Return on Equity (ROE), 2005	0.187	0.001	0.787	0.428	0.237	0.347	0.092	0.225	0.438	0.061
Return on Equity (ROE), 2006	0.268	0.027	0.796	0.000	0.000	0.189	-	0.599	0.946	0.113
Subsidy-adjusted ROE, 2005	0.099	-0.027	0.595	-0.076	0.232	-0.393	-0.325	-0.297	-0.280	0.017
Subsidy-adjusted ROE, 2006	0.092	0.021	2.181	-	-	-0.440	-	0.120	0.708	0.019

	INDIA								BANGLADESH	
MFIs	**SHARE**	**M`man**	**C`poor**	**IASC**	**KBSLAB**	**ESAF**	**SNFL**	**GK**	**TANGAIL**	**DESHA**
Avg. Assets, 2005	71581967	3809349	11400591	4701233	5261030	3801892	8450623	4456509	17514700	1983869
Avg. Assets, 2006	99905948	-	18846991	-	8866516	9557650	13349553	9910050	22544752	-
Ave. Equity (E), 2005	6811304	280877	242656	233952	1243794	26619	2555963	195423	6957322	275994
Ave. Equity (E),2006	7914527	-	-59344	-	1301187	238625	2929703	613022	7985354	-
Opp. Cost of society (m), 2005	0.1075	0.1075	0.1075	0.1075	0.1075	0.1075	0.1075	0.1075	0.14	0.14
Opp. Cost of society(m), 2006	0.1119	0.1119	0.1119	0.1119	0.1119	0.1119	0.1119	0.1119	0.1533	0.1533
Subsidy on Equity. E*m, 2005	732215	30194	26085	25150	133708	2861	274766	21008	974025	38639
Subsidy on Equity. E*m, 2006	885636	-	-6641	-	145603	26702	327834	68597	1224155	0
Ave. Public debt (A), 2005	36487587	3003896	6354329	4029946	1635879	3121284	5778011	3668549	3392200	1116302

Ave. Public debt (A),2006	50290131	-	12108259	-	2887036	7596364	10339405	8576228	4764398	-
Exp. Int. Public debt. A*c , 2005	4616065	326683	779899	394035	182231	224398	481789	308560	358911	52940
Exp. Int. Public debt. A*c , 2006	4592068	0	1060615	-	301140	835956	843267	775531	693650	0
Rate paid public debt (c), 2005	0.127	0.109	0.123	0.098	0.111	0.072	0.083	0.084	0.106	0.047
Rate paid public debt (c), 2006	0.091	-	0.088	-	0.104	0.110	0.082	0.090	0.146	-
Disc. Public debt. A*(m-c), 2005	-693649	-3765	-96809	39184	-6374	111140	139347	85809	115997	103343
Disc. Public debt. A*(m-c), 2006	1035397	-	294299	-	21919	14077	313713	184149	36733	-
Rev. Grants (RG), 2005	13560	78878	566490	2241	227805	104026	107318	331345	2718	15818
Rev. Grants (RG), 2006	0	-	70516	0	408390	70624	111012	121772	0	0
K (RG + DX), 2005	13560	78878	566490	2241	227805	104026	107318	331345	2718	15818
K (RG + DX), 2006	0	-	70516	-	408390	70624	111012	121772	0	0
Accounting Profit (P), 2005	3231017	174905	-645270	30139	40477	111272	64552	340681	1683330	139125
Accounting Profit (P), 2006	370501	-	-506555	-	69389	242759	133884	486426	1390117	-
Taxes, 2005	1647181	0	0	23759	0	0	35593	0	0	0
Taxes, 2006	149117	-	0	-	0	0	49576	0	0	-
Acc. profit less Taxes (AP), 2005	1583836	174905	-645270	6380	40477	111272	28959	340681	1683330	139125
Acc. profit less Taxes (AP), 2006	221385	-	-506555	-	69389	242759	84308	486426	1390117	-
Subsidy. S {E*m+A(m-c)+K-AP} 05	-1531709	-69597	1141036	60195	314662	106755	492473	97481	-590589	18674
Subsidy. S {E*m+A(m-c)+K-AP}06	1699648	-	864730	-	506523	-131356	668250	-111908	-129229	-
Ave. Loan port (net) LP, 2005	61141854	2712690	8786812	3763564	3470237	1977482	7006393	3324699	14841347	1029730
Ave. Loan port (net) LP, 2006	86883559	-	15566085	-	5424679	6890359	11652467	7964135	19808984	-
Rev. From lending (LP*i) , 2005	13200801	693025	1529481	677772	680535	438239	769831	745263	4342429	410091
Rev. From lending (LP*i), 2006	10689914	-	2237638	0	1058356	1567886	1258431	1892928	5530700	0
Yield on lending (i), 2005	0.216	0.255	0.174	0.180	0.196	0.222	0.110	0.224	0.293	0.398
Yield on lending (i), 2006	0.123	-	0.144	-	0.195	0.228	0.108	0.238	0.279	-
SDI (S/LP*i), 2005	-0.116	-0.100	0.746	0.089	0.462	0.244	0.640	0.131	-0.136	0.046
SDI (S/LP*i), 2006	0.159	-	0.386	-	0.479	-0.084	0.531	-0.059	-0.023	-
Change in Yield, 2005	-0.025	-0.026	0.130	0.016	0.091	0.054	0.070	0.029	-0.040	0.018
Change in Yield, 2006	0.020	-	0.056	-	0.093	-0.019	0.057	-0.014	-0.007	-
Nominal Subsidy free yield, 2005	0.191	0.230	0.304	0.196	0.287	0.276	0.180	0.253	0.253	0.416
Nominal Subsidy free yield, 2006	0.143	-	0.199	-	0.288	0.208	0.165	0.224	0.273	-
Inflation, 2005	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.070	0.070
Inflation, 2006	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.058	0.068	0.068
Real Subsidy- free yield, 2005	0.142	0.180	0.251	0.147	0.234	0.224	0.132	0.202	0.170	0.323
Real Subsidy- free yield, 2006	0.080	-	0.134	-	0.218	0.142	0.101	0.157	0.192	-
True Profit, 2005	2263924	99792	-1114951	-35045	-180954	-103894	-217707	-76473	1564614	19965
True Profit, 2006	-814013	-	-871370	-	-360920	158058	-340416	180505	1353384	-
Return on Assets (ROA), 2005	0.022	0.046	-0.057	0.001	0.008	0.029	0.003	0.076	0.096	0.070
Return on Assets (ROA), 2006	0.002	-	-0.027	-	0.008	0.025	0.006	0.049	0.062	-
Subsidy-adjusted ROA, 2005	0.032	0.026	-0.098	-0.007	-0.034	-0.027	-0.026	-0.017	0.089	0.010
Subsidy-adjusted ROA, 2006	-0.008	-	-0.046	-	-0.041	0.017	-0.026	0.018	0.060	-
Return on Equity (ROE), 2005	0.233	0.623	-2.659	0.027	0.033	4.180	0.011	1.743	0.242	0.504
Return on Equity (ROE), 2006	0.028	-	8.536	-	0.053	1.017	0.029	0.793	0.174	-
Subsidy-adjusted ROE, 2005	0.332	0.355	-4.595	-0.150	-0.145	-3.903	-0.085	-0.391	0.225	0.072
Subsidy-adjusted ROE, 2006	-0.103	-	14.683	-	-0.277	0.662	-0.116	0.294	0.169	-

		BANGLADESH					**AGHANISTAN**		
MFIs	**ASA**	**BRAC**	**RDRS**	**SHAKTI**	**TMSS**	**IDF**	**FMFB**	**BRAC**	**ARMP**
Avg. Assets, 2005	282427681	455553076	16565143	13247931	28038026	3351500	16999311	10005745	6366986
Avg. Assets, 2006	326696475	520794762	18487496	15219390	36146687	4011832	28428091	22870780	15310880
Ave. Equity (E), 2005	145680852	154814306	10740226	5294703	6579242	911247	5643801	1488650	4592441
Ave. Equity (E),2006	180348377	173625278	10318542	4408283	7558775	1123831	6439358	4029111	7427257
Opp. Cost of society (m), 2005	0.14	0.14	0.14	0.14	0.14	0.14	0.09	0.09	0.09
Opp. Cost of society(m), 2006	0.1533	0.1533	0.1533	0.1533	0.1533	0.1533	0.09	0.09	0.09
Subsidy on Equity. E*m, 2005	20395319	21674003	1503632	741258	921094	127575	507942	133978	413320
Subsidy on Equity. E*m, 2006	27647406	26616755	1581833	675790	1158760	172283	579542	362620	668453
Ave. Public debt (A), 2005	41362661	71299951	1906768	1286150	11252959	654789	203459	6663664	1710000
Ave. Public debt (A),2006	23416865	89420491	3755089	1097475	15206284	674993	2720657	15840680	6975179
Exp. Int. Public debt. A*c , 2005	2974149	6638143	36269	88587	390988	30044	1255	317578	106534
Exp. Int. Public debt. A*c , 2006	1384442	7392855	75247	94866	535365	17446	161559	1044603	377152
Rate paid public debt (c), 2005	0.072	0.093	0.019	0.069	0.035	0.046	0.006	0.048	0.062
Rate paid public debt (c), 2006	0.059	0.083	0.020	0.086	0.035	0.026	0.059	0.066	0.054
Disc. Public debt. A*(m-c), 2005	2816624	3343850	230678	91474	1184426	61627	17057	282152	47366
Disc. Public debt. A*(m-c), 2006	2205363	6315306	500408	73376	1795758	86030	83300	381058	250614
Rev. Grants (RG), 2005	0	62499161	354337	143488	2699696	10503	949945	2126166	361132
Rev. Grants (RG), 2006	0	79767488	781664	151943	3205956	14553	672461	3010996	1827116
K (RG + DX), 2005	0	62499161	354337	143488	2699696	10503	949945	2126166	361132
K (RG + DX), 2006	0	79767488	781664	151943	3205956	14553	672461	3010996	1827116
Accounting Profit (P), 2005	41311257	16737712	370060	561614	1395858	252833	174323	312284	104992
Accounting Profit (P), 2006	47585559	36748507	463568	927121	2356265	324256	1284376	0	2197798
Taxes, 2005	0	437901	0	0	0	0	85925	0	0
Taxes, 2006	40768	956702	0	0	0	0	256875	0	0

Acc. profit less Taxes (AP), 2005	41311257	16299811	370060	561614	1395858	252833	88398	312284	104992
Acc. profit less Taxes (AP), 2006	47544791	35791805	463568	927121	2356265	324256	1027501	0	2197798
Subsidy. S {E*m+A(m-c)+K-AP} 05	-18099314	71217203	1718587	414606	3409358	-53128	1386546	2230012	716826
Subsidy. S {E*m+A(m-c)+K-AP}06	-17692022	76907745	2400337	-26012	3804210	-51389	307802	3754674	548385
Ave. Loan port (net) LP, 2005	228239856	235842760	9324321	12039428	19632595	3071859	5276316	5292134	5636813
Ave. Loan port (net) LP, 2006	280323700	289105574	10385324	14150373	27547590	3539746	12697195	13390898	12187088
Rev. From lending (LP*i) , 2005	63111619	68750683	1437714	2304428	4526169	741154	1340680	1857641	1096065
Rev. From lending (LP*i), 2006	78168091	89437885	1864762	3101635	6436718	863810	4017199	5811962	3017715
Yield on lending (i), 2005	0.277	0.292	0.154	0.191	0.231	0.241	0.254	0.351	0.194
Yield on lending (i), 2006	0.279	0.309	0.180	0.219	0.234	0.244	0.316	0.434	0.248
SDI (S/LP*i), 2005	-0.287	1.036	1.195	0.180	0.753	-0.072	1.034	1.200	0.654
SDI (S/LP*i), 2006	-0.226	0.860	1.287	-0.008	0.591	-0.059	0.077	0.646	0.182
Change in Yield, 2005	-0.079	0.302	0.184	0.034	0.174	-0.017	0.263	0.421	0.127
Change in Yield, 2006	-0.063	0.266	0.231	-0.002	0.138	-0.015	0.024	0.280	0.045
Nominal Subsidy free yield, 2005	0.197	0.593	0.339	0.226	0.404	0.224	0.517	0.772	0.322
Nominal Subsidy free yield, 2006	0.21	0.575	0.411	0.217	0.372	0.230	0.341	0.714	0.293
Inflation, 2005	0.070	0.070	0.070	0.070	0.070	0.070	0.110	0.110	0.110
Inflation, 2006	0.068	0.068	0.068	0.068	0.068	0.068	0.163	0.163	0.163
Real Subsidy- free yield, 2005	0.118	0.489	0.250	0.145	0.312	0.143	0.367	0.597	0.191
Real Subsidy- free yield, 2006	0.139	0.476	0.321	0.140	0.285	0.152	0.153	0.474	0.111
True Profit, 2005	38494633	-49543200	-214956	326653	-2488264	180703	-878604	-2096034	-303506
True Profit, 2006	45339428	-50290990	-818504	701802	-2645450	223673	271739	-3392054	120067
Return on Assets (ROA), 2005	0.146	0.036	0.022	0.042	0.050	0.075	0.005	0.031	0.016
Return on Assets (ROA), 2006	0.145	0.069	0.025	0.061	0.065	0.081	0.036	0.000	0.144
Subsidy-adjusted ROA, 2005	0.136	-0.109	-0.013	0.025	-0.089	0.054	-0.052	-0.209	-0.048
Subsidy-adjusted ROA, 2006	0.139	-0.097	-0.044	0.046	-0.073	0.056	0.010	-0.148	0.008
Return on Equity (ROE), 2005	0.284	0.105	0.034	0.106	0.212	0.277	0.016	0.210	0.023
Return on Equity (ROE), 2006	0.263	0.206	0.045	0.210	0.312	0.289	0.160	0.000	0.296
Subsidy-adjusted ROE, 2005	0.264	-0.320	-0.020	0.062	-0.378	0.198	-0.156	-1.408	-0.066
Subsidy-adjusted ROE, 2006	0.251	-0.290	-0.079	0.159	-0.350	0.199	0.042	-0.842	0.016

	KENYA						**B. FASO**	**SENEGAL**		
MFIs	**KREP**	**EBS**	**Kadet**	**KWFT**	**MDSL**	**SMEP**	**RCPB**	**Pamecas**	**ACEP**	**CMS**
Avg. Assets, 2005	43621978	122442953	3774798	29620584	1372488	8256376	80570447	32783228	34919188	82244252
Avg. Assets, 2006	63567785	222815952	5621035	42455331	1592243	9002177	88179575	43812513	-	108570060
Ave. Equity (E), 2005	10419189	19222018	1522918	9475538	477110	2508572	10071131	8994961	24042592	14730557
Ave. Equity (E),2006	11905982	26801022	2583405	12309389	56928	2734088	12887180	10485234	-	21438442
Opp. Cost of society (m), 2005	0.129	0.129	0.129	0.129	0.129	0.129	0.100	0.100	0.100	0.100
Opp. Cost of society(m), 2006	0.136	0.136	0.136	0.136	0.136	0.136	0.100	0.100	0.100	0.100
Subsidy on Equity. E*m, 2005	1342304	2476373	196198	1220734	61466	323179	1007113	899496	2404259	1473056
Subsidy on Equity. E*m, 2006	1623976	3655659	352376	1679001	7765	372930	1288718	1048523	-	2143844
Ave. Public debt (A), 2005	6683483	0	973005	7722858	773600	2969243	1534359	311712	3132613	5634636
Ave. Public debt (A),2006	10454191	3484925	1151850	13461374	924176	2671380	1534359	1145312	-	12788539
Exp. Int. Public debt. A*c , 2005	582264	0	104881	383506	88668	275828	0	1372	214959	451230
Exp. Int. Public debt. A*c , 2006	1240258	0	76955	520600	73057	257234	0	16743	0	1508730
Rate paid public debt (c), 2005	0.087	0.000	0.108	0.050	0.115	0.093	0.000	0.004	0.069	0.080
Rate paid public debt (c), 2006	0.119	0.000	0.067	0.039	0.079	0.096	0.000	0.015	-	0.118
Disc. Public debt. A*(m-c), 2005	278770	0	20471	611429	10995	106699	153436	29799	98303	112233
Disc. Public debt. A*(m-c), 2006	185693	475344	80157	1315531	53000	107142	153436	97788	-	229876
Rev. Grants (RG), 2005	0	0	1073108	386504	52748	0	249438	3104	12813	680455
Rev. Grants (RG), 2006	0	0	1415189	522605	97931	0	0	14598	-	921331
K (RG + DX), 2005	0	0	1073108	386504	52748	0	249438	3104	12813	680455
K (RG + DX), 2006	0	0	1415189	522605	97931	0	0	14598	-	921331
Accounting Profit (P), 2005	664182	6908654	745678	1515356	-52443	184468	1737088	702757	0	680455
Accounting Profit (P), 2006	2181881	15834501	895558	2109996	999440	61206	2219745	1755711	-	921331
Taxes, 2005	214658	2152298	98229	58499	0	56804	0	0	0	0
Taxes, 2006	733037	5018047	158537	78207	18449	29892	0	0	-	0
Acc. profit less Taxes (AP), 2005	449524	4756356	843907	1456858	52443	127664	1737088	702757	0	680455
Acc. profit less Taxes (AP), 2006	1448844	10816454	1054095	2031788	980992	31314	2219745	1755711	-	921331
Subsidy. S {E*m+A(m-c)+K-AP} 05	1171550	-2279983	445870	761810	54719	302214	-327101	229643	2515375	2946199
Subsidy. S {E*m+A(m-c)+K-AP}06	360825	-6685451	793627	1485348	-837824	448758	-777592	-594800	-	3756630
Ave. Loan port (net) LP, 2005	30153957	56709918	1768378	16624856	1054104	5259086	49763922	25345692	32461617	40342587
Ave. Loan port (net) LP, 2006	43893534	116586067	2847450	24901368	1184939	6055916	59786903	30024780	-	65259209
Rev. From lending (LP*i) , 2005	6226777	9559696	766081	5648266	360573	1299403	6291836	4334768	5961295	8151021
Rev. From lending (LP*i), 2006	9490007	20871012	934107	9236248	437512	1448866	8205702	5733122	-	11989370
Yield on lending (i), 2005	0.206	0.169	0.433	0.340	0.342	0.247	0.126	0.171	0.184	0.202
Yield on lending (i), 2006	0.216	0.179	0.328	0.371	0.369	.240	0.137	0.191	-	0.184
SDI (S/LP*i), 2005	0.188	-0.238	0.582	0.135	0.152	0.233	-0.052	0.053	0.422	0.361
SDI (S/LP*i), 2006	0.038	-0.320	0.850	0.161	-1.914	0.310	-0.095	-0.104	-	0.313
Change in Yield, 2005	0.039	0.040	0.252	0.046	0.052	0.057	0.007	0.009	0.077	0.073
Change in Yield, 2006	0.008	0.057	0.279	0.060	-0.766	.074	0.013	-0.020	-	0.058
Nominal Subsidy free yield, 2005	0.245	0.128	0.685	0.386	0.394	0.305	0.120	0.180	0.261	0.275

Nominal Subsidy free yield, 2006	0.224	0.122	0.607	0.431	-0.396	0.313	0.124	0.171	-	0.241
Inflation, 2005	0.103	0.103	0.103	0.103	0.103	0.103	0.064	0.017	0.017	0.017
Inflation, 2006	0.145	0.145	0.145	0.145	0.145	0.145	0.023	0.021	0.021	0.021
Real Subsidy- free yield, 2005	0.129	0.023	0.528	0.256	0.264	0.183	0.052	0.160	0.240	0.254
Real Subsidy- free yield, 2006	0.224	0.122	0.607	0.431	-0.396	0.313	0.124	0.171	-	0.241
True Profit, 2005	170754	4756356	249672	458924	-116185	20965	1334214	669853	111116	1473144
True Profit, 2006	1263151	10341110	441251	193653	899424	-75828	2066310	1643324	-	1612786
Return on Assets (ROA), 2005	0.010	0.039	0.224	0.049	0.038	0.015	0.022	0.021	0.000	0.008
Return on Assets (ROA), 2006	0.023	0.049	0.188	0.048	0.616	0.003	0.025	0.040	-	0.008
Subsidy-adjusted ROA, 2005	0.004	0.039	0.066	0.015	-0.085	0.003	0.017	0.020	0.003	0.018
Subsidy-adjusted ROA, 2006	0.020	0.046	0.078	0.005	0.565	0.008	0.023	0.038	-	0.015
Return on Equity (ROE), 2005	0.043	0.247	0.554	0.154	0.110	0.051	0.172	0.078	0.000	0.046
Return on Equity (ROE), 2006	0.122	0.404	0.408	0.165	-17.23	0.011	0.172	0.167	-	0.043
Subsidy-adjusted ROE, 2005	0.016	0.247	-0.164	0.048	0.244	0.008	0.132	0.074	0.005	0.100
Subsidy-adjusted ROE, 2006	0.106	0.386	-0.171	0.016	-14.58	-0.028	0.160	0.157	-	0.075

	MALI		**CAMEROON**		**GHANA**				**BENIN**	
MFIs	**Soro Y**	**K. Jagima**	**ACEP**	**CDS**	**P.Cred.**	**KSF**	**Opp.**	**SAT**	**ALIDE**	**VF**
Avg. Assets, 2005	1626794	6894969	4067141	11074192	8654646	430535	5495897	5359851	323198	9854034
Avg. Assets, 2006	2157989	10934243	-	13821889	14708064	-	13772384	7652886	538100	9668823
Ave. Equity (E), 2005	1176395	-1400382	3804466	832358	2573290	351837	2886077	3632247	159405	3890365
Ave. Equity (E),2006	1092883	-1169578	-	936689	3276167	-	4725700	4687988	287523	4074355
Opp. Cost of society (m), 2005	0.100	0.100	0.177	0.177	0.100	0.100	0.100	0.100	0.100	0.100
Opp. Cost of society(m), 2006	0.100	0.100	0.153	0.153	0.100	0.100	0.100	0.100	0.100	0.100
Subsidy on Equity. E*m, 2005	117639	-140038	672135	147053	257329	35184	288608	363225	15940	389037
Subsidy on Equity. E*m, 2006	109288	-116958	-	143594	327617	-	472570	468799	28752	407435
Ave. Public debt (A), 2005	187756	1652344	1430	2256415	1353262	60346	1527602	812419	0	4320666
Ave. Public debt (A),2006	713333	3151113	-	2943243	1632825	-	4136795	1201266	22989	3851362
Exp. Int. Public debt. A*c , 2005	15894	28635	0	333140	240433	5988	150927	60499	0	307692
Exp. Int. Public debt. A*c , 2006	46583	80023	-	391996	187552	0	732949	248470	597	354374
Rate paid public debt (c), 2005	0.085	0.017	0.000	0.148	0.178	0.099	0.099	0.074	-	0.071
Rate paid public debt (c), 2006	0.065	0.025	-	0.133	0.115	-	0.177	0.207	0.026	0.092
Disc. Public debt. A*(m-c), 2005	2882	136599	253	65501	105107	46	1833	20743	0	124375
Disc. Public debt. A*(m-c), 2006	24751	235088	-	59203	24270	-	319270	-128344	1702	30762
Rev. Grants (RG), 2005	161804	162380	0	38297	0	0	45939	210530	88157	0
Rev. Grants (RG), 2006	14424	-	-	14916	0	0	0	110926	94613	0
K (RG + DX), 2005	161804	162380	0	38297	0	0	45939	210530	88157	0
K (RG + DX), 2006	14424	-	-	14916	0	0	0	110926	94613	0
Accounting Profit (P), 2005	54221	333250	166148	78967	632756	16205	45091	704984	28364	188843
Accounting Profit (P), 2006	79310	-	-	82934	697986	0	832633	409996	50546	27495
Taxes, 2005	0	0	0	0	227846	0	24025	88617	0	0
Taxes, 2006	5161	-	-	0	237057	0	210600	85557	364	0
Acc. profit less Taxes (AP), 2005	54221	333250	166148	78967	404910	16205	21066	616367	28364	188843
Acc. profit less Taxes (AP), 2006	84471	-	-	82934	460929	0	622033	324439	50182	27495
Subsidy. S {E*m+A(m-c)+K-AP} 05	228104	174309	506240	171884	-252688	19025	315314	-21869	75733	324568
Subsidy. S {E*m+A(m-c)+K-AP}06	232935	-	-	134780	-157582	-	-468733	126942	74885	410702
Ave. Loan port (net) LP, 2005	1207161	3392114	3862264	5514785	5733253	362375	2877678	3063204	231574	7964406
Ave. Loan port (net) LP, 2006	1745503	-	-	7677888	10103990	-	9120134	5060796	419164	7136151
Rev. From lending (LP*i) , 2005	239533	458224	406226	1064078	3669247	96599	1662133	1633530	64761	1576154
Rev. From lending (LP*i), 2006	154663	-	-	1230413	5569896	-	5081296	2359175	127176	1611192
Yield on lending (i), 2005	0.198	0.135	0.105	0.193	0.640	0.267	0.578	0.533	0.280	0.198
Yield on lending (i), 2006	0.089	-	-	0.160	0.551	-	0.557	0.466	0.303	0.226
SDI (S/LP*i), 2005	0.952	0.380	1.246	0.162	-0.069	0.197	0.190	-0.013	1.169	0.206
SDI (S/LP*i), 2006	1.506	-	-	0.110	-0.028	-	-0.092	0.054	0.589	0.255
Change in Yield, 2005	0.189	0.051	0.131	0.031	0.044	0.053	0.110	-0.007	0.327	0.041
Change in Yield, 2006	0.133	-	-	0.018	0.016	-	0.051	0.025	0.179	0.058
Nominal Subsidy free yield, 2005	0.387	0.084	0.236	0.224	0.596	0.319	0.687	0.526	0.607	0.239
Nominal Subsidy free yield, 2006	0.222	-	-	0.178	0.536	-	0.506	0.491	0.482	0.283
Inflation, 2005	0.064	0.064	0.020	0.020	0.151	0.151	0.151	0.151	0.054	0.054
Inflation, 2006	0.015	-	0.051	0.051	0.109	0.109	0.109	0.109	0.038	0.038
Real Subsidy- free yield, 2005	0.304	0.019	0.212	0.200	0.386	0.146	0.466	0.326	0.525	0.176
Real Subsidy- free yield, 2006	0.222	-	-	0.178	0.536	-	0.506	0.491	0.482	0.283
True Profit, 2005	110465	34271	165895	24831	510017	16158	26706	385094	59793	64469
True Profit, 2006	123646	-	-	8815	485198	-	941303	341856	46133	3267
Return on Assets (ROA), 2005	0.033	0.048	0.041	0.007	0.047	0.038	0.004	0.115	0.088	0.019
Return on Assets (ROA), 2006	0.039	-	-	0.006	0.031	-	0.045	0.042	0.093	0.003
Subsidy-adjusted ROA, 2005	0.068	0.005	0.041	0.002	0.059	0.038	0.005	0.072	0.185	0.007
Subsidy-adjusted ROA, 2006	0.057	-	-	0.001	0.033	-	0.068	0.045	0.086	0.000
Return on Equity (ROE), 2005	0.046	0.238	0.044	0.095	0.157	0.046	0.007	0.170	0.178	0.049
Return on Equity (ROE), 2006	0.077	-	-	0.089	0.141	-	0.132	0.069	0.175	0.007
Subsidy-adjusted ROE, 2005	0.094	0.024	0.044	0.030	0.198	0.046	0.009	0.106	0.375	0.017
Subsidy-adjusted ROE, 2006	0.113	-	-	0.009	0.148	-	0.199	0.073	0.160	0.001

	BENIN		ANGOLA	ETHIOPIA					
MFIs	**PADME**	**FECAM**	**NBANCO**	**DECSI**	**ADCSI**	**ACSI**	**WISDOM**	**OMO**	**BG**
Avg. Assets, 2005	50065365	65954580	6915311	80266115	11659250	60566391	3320157	10653517	954638
Avg. Assets, 2006	50253971	60029419	10865508	110809729	17960913	81886961	9898018	15013429	1449933
Ave. Equity (E), 2005	18640445	2254349	5040325	21701844	8837801	19906848	2183908	1387509	670072
Ave. Equity (E),2006	17703702	370582	4934945	24463191	12814543	25359601	2451838	1672033	961110
Opp. Cost of society (m), 2005	0.100	0.100	0.677	0.070	0.070	0.070	0.070	0.070	0.070
Opp. Cost of society(m), 2006	0.100	0.100	0.195	0.070	0.070	0.070	0.070	0.070	0.070
Subsidy on Equity. E*m, 2005	1864045	225435	3413207	1519129	618646	1393479	152874	97126	46905
Subsidy on Equity. E*m, 2006	1770370	37058	962847	1712423	897018	1775172	171629	117042	67278
Ave. Public debt (A), 2005	23529281	8653225	0	32621145	0	13604672	311068	3932065	153758
Ave. Public debt (A),2006	24492969	8326087	495172	56433820	497997	17326856	1143735	6888517	271199
Exp. Int. Public debt. A*c , 2005	983328	348657	0	1328511	0	712019	9290	62162	6276
Exp. Int. Public debt. A*c , 2006	1406872	381216	39614	1897332	29880	875489	46181	141148	14885
Rate paid public debt (c), 2005	0.042	0.040	-	0.041	-	0.052	0.030	0.016	0.041
Rate paid public debt (c), 2006	0.057	0.046	0.080	0.034	0.060	0.051	0.040	0.020	0.055
Disc. Public debt. A*(m-c), 2005	1369600	516666	0	1933603	0	648448	218160	331044	9099
Disc. Public debt. A*(m-c), 2006	1042425	451393	56998	2053036	4980	337391	33881	341049	4099
Rev. Grants (RG), 2005	114932	199128	0	0	0	684742	39249	3272	0
Rev. Grants (RG), 2006	143466	185942	0	0	0	544204	39062	16317	0
K (RG + DX), 2005	114932	199128	0	0	0	684742	39249	3272	0
K (RG + DX), 2006	143466	185942	0	0	0	544204	39062	16317	0
Accounting Profit (P), 2005	1092735	888227	211421	4014498	481214	4589773	44927	103437	44467
Accounting Profit (P), 2006	3248146	5643630	42792	4723924	310270	7024607	289941	478258	64914
Taxes, 2005	0	231116	42132	0	0	0	0	0	0
Taxes, 2006	222304	256039	0	0	0	0	0	0	1681
Acc. profit less Taxes (AP), 2005	1092735	657110	253553	4014498	481214	4589773	44927	103437	44467
Acc. profit less Taxes (AP), 2006	3470450	5899669	42792	4723924	310270	7024607	289941	478258	63233
Subsidy. S {E*m+A(m-c)+K-AP} 05	2255842	284119	3666760	-561765	137432	-1863104	169011	328005	100471
Subsidy. S {E*m+A(m-c)+K-AP}06	6426711	6574063	977054	-958465	591728	-4367840	-45369	-3850	8144
Ave. Loan port (net) LP, 2005	39488961	34682010	2704428	59064956	8884008	43196349	2568405	5842419	567205
Ave. Loan port (net) LP, 2006	32993041	27873871	5606416	78252475	13422490	63886896	4104064	9973216	1021184
Rev. From lending (LP*i) , 2005	7853635	5234490	1321529	7493522	765961	7451712	344416	677409	124053
Rev. From lending (LP*i), 2006	1406872	4734166	2812734	8827640	839355	11231999	742107	1226722	309468
Yield on lending (i), 2005	0.199	0.151	0.489	0.127	0.086	0.173	0.134	0.116	0.219
Yield on lending (i), 2006	0.043	0.170	0.502	0.113	0.063	0.176	0.181	0.123	0.303
SDI (S/LP*i), 2005	0.287	0.054	2.775	-0.075	0.179	-0.250	0.491	0.484	0.810
SDI (S/LP*i), 2006	4.568	1.389	0.347	-0.109	0.705	-0.389	-0.061	-0.003	0.026
Change in Yield, 2005	0.057	0.008	1.356	0.010	0.015	0.043	0.057	0.056	0.177
Change in Yield, 2006	0.195	0.236	0.174	0.012	0.044	0.068	-0.011	-0.000	0.008
Nominal Subsidy free yield, 2005	0.256	0.159	1.844	0.117	0.102	0.129	0.191	0.172	0.396
Nominal Subsidy free yield, 2006	0.237	0.406	0.676	0.101	0.107	0.107	0.170	0.123	0.311
Inflation, 2005	0.054	0.054	0.240	0.116	0.116	0.116	0.116	0.116	0.116
Inflation, 2006	0.038	0.038	0.117	0.136	0.136	0.136	0.136	0.136	0.136
Real Subsidy- free yield, 2005	0.192	0.100	1.293	0.001	0.013	0.012	0.067	0.050	0.251
Real Subsidy- free yield, 2006	0.237	0.406	0.676	0.101	0.107	0.107	0.170	0.123	0.311
True Profit, 2005	391797	58684	253553	2080895	481214	3256583	5678	-230879	53566
True Profit, 2006	4656341	6537004	14206	2670888	305290	6143012	216998	120893	59133
Return on Assets (ROA), 2005	0.022	0.010	0.037	0.050	0.041	0.076	0.014	0.010	0.047
Return on Assets (ROA), 2006	0.069	0.098	0.004	0.043	0.017	0.086	0.029	0.032	0.044
Subsidy-adjusted ROA, 2005	0.008	0.001	0.037	0.026	0.041	0.054	0.002	-0.022	0.056
Subsidy-adjusted ROA, 2006	0.093	0.109	0.001	0.024	0.017	0.075	0.022	0.008	0.041
Return on Equity (ROE), 2005	0.059	0.291	0.050	0.185	0.054	0.231	0.021	0.075	0.066
Return on Equity (ROE), 2006	0.196	15.920	0.009	0.193	0.024	0.277	0.118	0.286	0.066
Subsidy-adjusted ROE, 2005	0.021	0.026	0.050	0.096	0.054	0.164	0.003	-0.166	0.080
Subsidy-adjusted ROE, 2006	0.263	17.640	0.003	0.109	0.024	0.242	0.089	0.072	0.062

	TAZANIA		UGANDA						MALAWI
MFIs	**PRIDE**	**FINCA**	**CML**	**FAULU**	**MEDNET**	**FINCA**	**UML**	**C`nary**	**FINCA**
Avg. Assets, 2005	12778961	6406658	7527438	5153390	3841072	7935389	16545587	112327803	2211132
Avg. Assets, 2006	16309044	-	11723245	6323821	3041731	10524707	-	138516560	-
Ave. Equity (E), 2005	3514060	1852642	1264561	1213724	837829	1383184	3879603	15432277	195060
Ave. Equity (E),2006	3650140	-	1332762	1126056	386457	2118496	-	18868648	-
Opp. Cost of society (m), 2005	0.151	0.151	0.196	0.196	0.196	0.196	0.196	0.196	0.331
Opp. Cost of society(m), 2006	0.154	0.154	0.187	0.187	0.187	0.187	0.187	0.187	0.323
Subsidy on Equity. E*m, 2005	531150	280027	248423	238436	164592	271726	762148	3031671	64532
Subsidy on Equity. E*m, 2006	562487	0	249227	210572	72267	396159	0	3528437	-
Ave. Public debt (A), 2005	1080423	2340523	1799971	2470972	1289758	3072019	7158988	0	583264
Ave. Public debt (A),2006	3735512	-	4259825	3218917	990650	2705318	-	0	-

Exp. Int. Public debt. A*c , 2005	117180	277469	279471	384876	213629	566273	512077	0	37602
Exp. Int. Public debt. A*c , 2006	465113	0	626277	460629	2456	90682	-	0	0
Rate paid public debt (c), 2005	0.108	0.119	0.155	0.156	0.166	0.184	0.072	-	0.064
Rate paid public debt (c), 2006	0.125	-	0.147	0.143	0.002	0.034	-	-	-
Disc. Public debt. A*(m-c), 2005	46126	76301	74134	100547	39744	37225	894307	0	155360
Disc. Public debt. A*(m-c), 2006	110530	-	170310	141308	182795	415212	-	0	-
Rev. Grants (RG), 2005	11538	79918	0	221127	921	82894	12150	0	142446
Rev. Grants (RG), 2006	0	-	0	5747	625821	175838	-	0	-
K (RG + DX), 2005	11538	79918	0	221127	921	82894	12150	0	142446
K (RG + DX), 2006	0	0	0	5747	625821	175838	-	0	0
Accounting Profit (P), 2005	495818	191464	270719	270212	15901	254509	148101	4228168	87299
Accounting Profit (P), 2006	225647	-	99946	353376	2072474	426753	-	6017655	-
Taxes, 2005	0	0	0	94829	0	62237	50856	1329718	0
Taxes, 2006	0	-	0	16360	10906	102086	-	1079632	-
Acc. profit less Taxes (AP), 2005	495818	191464	270719	175383	15901	192272	97244	2898450	87299
Acc. profit less Taxes (AP), 2006	225647	0	99946	369736	2083380	324667	-	4938022	-
Subsidy. S {E*m+A(m-c)+K-AP} 05	92995	244781	51837	384727	189356	199574	1571360	133221	449636
Subsidy. S {E*m+A(m-c)+K-AP}06	447370	-	519483	727363	2819729	662542	-	-1409585	-
Ave. Loan port (net) LP, 2005	11779655	4826915	4106754	3210230	2478155	5604097	10616046	47812259	1812905
Ave. Loan port (net) LP, 2006	14509939	-	7692288	3343003	1653315	6823122	-	67321850	-
Rev. From lending (LP*i) , 2005	5377351	3740325	2084254	1816118	1053350	4216410	2068980	14014209	1433737
Rev. From lending (LP*i), 2006	6011296	-	2742221	1667902	937409	5263164	0	18976732	0
Yield on lending (i), 2005	0.456	0.775	0.508	0.566	0.425	0.752	0.195	0.293	0.791
Yield on lending (i), 2006	0.414	-	0.356	0.499	0.567	0.771	-	0.282	-
SDI (S/LP*i), 2005	0.017	0.065	0.025	0.212	0.180	0.047	0.759	0.010	0.314
SDI (S/LP*i), 2006	0.074	-	0.189	0.436	3.008	0.126	-	-0.074	-
Change in Yield, 2005	0.008	0.051	0.013	0.120	0.076	0.036	0.148	0.003	0.248
Change in Yield, 2006	0.031	-	0.068	0.218	1.706	0.097	-	-0.021	-
Nominal Subsidy free yield, 2005	0.464	0.826	0.520	0.686	0.501	0.788	0.343	0.296	1.039
Nominal Subsidy free yield, 2006	0.445	-	0.424	0.717	2.272	0.868	-	0.261	-
Inflation, 2005	0.086	0.086	0.082	0.082	0.082	0.082	0.082	0.082	0.155
Inflation, 2006	0.064	0.064	0.066	0.066	0.066	0.066	0.066	0.066	0.140
Real Subsidy- free yield, 2005	0.348	0.681	0.406	0.559	0.388	0.653	0.242	0.198	0.765
Real Subsidy- free yield, 2006	0.445	-	0.424	0.717	2.272	0.868	-	0.261	-
True Profit, 2005	438155	35246	196586	146291	24764	72153	809212	2898450	385105
True Profit, 2006	115117	-	270256	516791	2891996	266383	-	4938022	-
Return on Assets (ROA), 2005	0.039	0.030	0.036	0.034	0.004	0.024	0.006	0.026	0.039
Return on Assets (ROA), 2006	0.014	-	0.009	0.058	0.685	0.031	-	0.036	-
Subsidy-adjusted ROA, 2005	0.034	0.006	0.026	0.028	0.006	0.009	0.049	0.026	0.174
Subsidy-adjusted ROA, 2006	0.007	-	0.023	0.082	0.951	0.025	-	0.036	-
Return on Equity (ROE), 2005	0.141	0.103	0.214	0.145	0.019	0.139	0.025	0.188	0.448
Return on Equity (ROE), 2006	0.062	-	0.075	0.328	5.391	0.153	-	0.262	-
Subsidy-adjusted ROE, 2005	0.125	0.019	0.155	0.121	0.030	0.052	0.209	0.188	1.974
Subsidy-adjusted ROE, 2006	0.032	-	0.203	0.459	7.483	0.126	-	0.262	-

	MOZAMBIQUE				**NIGERIA**		**S. AFRICA**	**ZAMBIA**	
MFIs	**SOCREMO**	**FCC**	**TCHUMA**	**N BANCO**	**LAPO**	**SEAP**	**SEFZAF**	**CETZAM**	**FINCA**
Avg. Assets, 2005	6771644	1286543	3280577	10987764	4055066	341411	4524450	1708123	1243396
Avg. Assets, 2006	10763070	1271222	3304176	13715963	7515169	470914	5758416	1860369	2085092
Ave. Equity (E), 2005	2417384	753651	1926489	3339394	1881269	41181	2110209	1366870	663744
Ave. Equity (E),2006	3258026	782104	1840952	3304627	2712789	73594	2376422	1508049	1038728
Opp. Cost of society (m), 2005	0.195	0.195	0.195	0.195	0.179	0.179	0.106	0.282	0.282
Opp. Cost of society(m), 2006	0.186	0.186	0.186	0.186	0.169	0.169	0.112	0.232	0.232
Subsidy on Equity. E*m, 2005	470665	146736	375087	650180	337650	7391	224210	385594	187242
Subsidy on Equity. E*m, 2006	604690	145158	341681	613339	458461	12437	265446	349113	240466
Ave. Public debt (A), 2005	2428257	11452	764234	2146025	968408	55665	2177943	0	0
Ave. Public debt (A),2006	4174558	34864	891158	2161488	2962696	54543	3076417	0	396489
Exp. Int. Public debt. A*c , 2005	182396	144	124633	209564	5283	10798	230212	0	0
Exp. Int. Public debt. A*c , 2006	445157	16	150234	286348	215698	9330	243608	0	20257
Rate paid public debt (c), 2005	0.075	0.013	0.163	0.098	0.005	0.194	0.106	-	-
Rate paid public debt (c), 2006	0.107	0.000	0.169	0.132	0.073	0.171	0.079	-	0.051
Disc. Public debt. A*(m-c), 2005	620944	3644	128198	500406	168527	-807	1194	0	0
Disc. Public debt. A*(m-c), 2006	329641	6455	15165	114824	284998	-112	100028	0	71530
Rev. Grants (RG), 2005	0	302242	35077	0	467677	0	451191	680023	609104
Rev. Grants (RG), 2006	0	56441	15476	0	0	0	444401	396516	0
K (RG + DX), 2005	0	302242	35077	0	467677	0	451191	680023	609104
K (RG + DX), 2006	0	56441	15476	0	0	0	444401	396516	0
Accounting Profit (P), 2005	151520	415287	216587	-265058	954951	32516	265320	0	292545
Accounting Profit (P), 2006	174596	113510	109441	1658267	915927	628007	345726	0	271904
Taxes, 2005	48487	0	10170	0	0	0	0	0	12109
Taxes, 2006	71507	0	21314	267295	0	0	0	0	403
Acc. profit less Taxes (AP), 2005	103034	415287	206417	265058	954951	32516	-	0	280436

Acc. profit less Taxes (AP), 2006	103090	113510	88127	1390972	915927	62801	345726	0	271501
Subsidy. S {E*m+A(m-c)+K-AP} 05	988575	867909	331946	1415644	18903	-25932	676595	1065617	515911
Subsidy. S {E*m+A(m-c)+K-AP}06	831241	94544	284195	-662809	-172468	-50476	464149	745629	40495
Ave. Loan port (net) LP, 2005	4684205	576055	2552237	7668575	2580376	261063	3619405	621281	774655
Ave. Loan port (net) LP, 2006	7472786	505705	2600183	10523562	5523219	357367	4728765	1201108	1020639
Rev. From lending (LP*i) , 2005	2820434	591339	1301712	3748603	1501244	143437	2251886	454997	992188
Rev. From lending (LP*i), 2006	4292632	523057	1308881	6332662	2369948	165537	2867394	898047	1178354
Yield on lending (i), 2005	0.602	1.027	0.510	0.489	0.582	0.549	0.622	0.732	1.281
Yield on lending (i), 2006	0.574	1.034	0.503	0.602	0.429	0.463	0.606	0.748	1.155
SDI (S/LP*i), 2005	0.351	1.468	0.255	0.378	0.013	-0.181	0.300	2.342	0.520
SDI (S/LP*i), 2006	0.194	0.181	0.217	-0.105	-0.073	-0.305	0.162	0.830	0.034
Change in Yield, 2005	0.211	1.507	0.130	0.185	0.007	-0.099	0.187	1.715	0.666
Change in Yield, 2006	0.111	0.187	0.109	0.063	-0.031	-0.141	0.098	0.621	0.040
Nominal Subsidy free yield, 2005	0.813	2.533	0.640	0.673	0.589	0.450	0.809	2.448	1.947
Nominal Subsidy free yield, 2006	0.686	1.221	0.613	0.539	0.398	0.322	0.705	1.368	1.194
Inflation, 2005	0.072	0.072	0.072	0.072	0.135	0.135	0.034	0.183	0.183
Inflation, 2006	0.132	0.132	0.132	0.132	0.082	0.082	0.046	0.090	0.090
Real Subsidy- free yield, 2005	0.692	2.297	0.530	0.561	0.400	0.278	0.750	1.914	1.491
Real Subsidy- free yield, 2006	0.686	1.221	0.613	0.539	0.398	0.322	0.705	1.368	1.194
True Profit, 2005	517910	721173	43142	-765464	318747	33323	452385	680023	328669
True Profit, 2006	226552	50614	57486	1276148	630930	62913	198702	396516	199971
Return on Assets (ROA), 2005	0.015	0.323	0.063	-0.024	0.235	0.095	0.000	0.000	0.226
Return on Assets (ROA), 2006	0.010	0.089	0.027	0.101	0.122	1.33	0.060	0.000	0.130
Subsidy-adjusted ROA, 2005	0.076	0.561	0.013	-0.070	0.079	0.098	0.100	0.398	0.264
Subsidy-adjusted ROA, 2006	0.021	0.040	0.017	0.093	0.084	1.33	0.035	0.213	0.096
Return on Equity (ROE), 2005	0.043	0.551	0.107	-0.079	0.508	0.790	0.000	0.000	0.423
Return on Equity (ROE), 2006	0.032	0.145	0.048	0.421	0.338	0.853	0.145	0.000	0.261
Subsidy-adjusted ROE, 2005	0.214	0.957	0.022	-0.229	0.169	0.809	0.214	0.498	0.495
Subsidy-adjusted ROE, 2006	0.070	0.065	0.031	0.386	0.233	0.853	0.084	0.263	0.193

	BOLIVIA									
MFIs	**PMujar**	**CRECER**	**PRODEM**	**FIE**	**Procredit**	**FADES**	**AgroC**	**F`SOl**	**F Bodem**	**B SOL**
Avg. Assets, 2005	11606647	14553352	123018548	73804409	159346236	17543819	17989573	1770063	4195589	156655139
Avg. Assets, 2006	15398134	22423709	160035557	108322336	209338962	21863930	21363587	1961172	5178477	201233718
Ave. Equity (E), 2005	7540209	6216810	10339789	8728598	16555682	4819006	10152455	1402758	1728469	19307591
Ave. Equity (E),2006	8487753	7915212	13201077	11822853	20940749	5943657	10629008	1579107	1986147	20353917
Opp. Cost of society (m), 2005	0.16615	0.16615	0.16615	0.16615	0.16615	0.16615	0.16615	0.16615	0.16615	0.16615
Opp. Cost of society(m), 2006	0.1189	0.1189	0.1189	0.1189	0.1189	0.1189	0.1189	0.1189	0.1189	0.1189
Subsidy on Equity. E*m, 2005	1252806	1032923	1717956	1450256	2750727	800678	1686830	233068	287185	3207956
Subsidy on Equity. E*m, 2006	1009194	941119	1569608	1405737	2489855	706701	1263789	187756	236153	2420081
Ave. Public debt (A), 2005	3667464	6978828	38088773	32078806	54020932	14438089	7149265	222563	2378619	40419036
Ave. Public debt (A),2006	5891600	13026723	46791309	46257772	67730302	14974097	9865511	-	3091211	46975028
Exp. Int. Public debt. A*c , 2005	139966	434788	2465199	1999797	2660359	779395	531298	16029	98455	2696134
Exp. Int. Public debt. A*c , 2006	346291	929275	3787972	3149827	4095446	918016	770847	0	124314	3340847
Rate paid public debt (c), 2005	0.038	0.062	0.065	0.062	0.049	0.054	0.074	0.072	0.041	0.067
Rate paid public debt (c), 2006	0.059	0.071	0.081	0.068	0.060	0.061	0.078	-	0.040	0.071
Disc. Public debt. A*(m-c), 2005	469383	724744	3863251	3330097	6315218	1619493	656553	20950	296753	4019489
Disc. Public debt. A*(m-c), 2006	354220	619602	1775514	2350222	3957687	862405	402162	-	243232	2244484
Rev. Grants (RG), 2005	523024	67821	0	0	0	0	0	66588	0	0
Rev. Grants (RG), 2006	474582	63430	0	0	0	0	0	0	0	0
K (RG + DX), 2005	523024	67821	0	0	0	0	0	66588	0	0
K (RG + DX), 2006	474582	63430	0	0	0	0	0	0	0	0
Accounting Profit (P), 2005	1048787	1605463	2979799	2707268	1824985	367996	326433	217634	229855	5565039
Accounting Profit (P), 2006	927856	1806482	3833746	2698403	3315934	559463	644781	0	291512	5990168
Taxes, 2005	0	0	675000	742216	384033	0	0	0	0	1236881
Taxes, 2006	0	0	826653	695851	736726	0	0	0	0	1348206
Acc. profit less Taxes (AP), 2005	1048787	1605463	2304799	1965052	1440952	367996	326433	217634	229855	4328158
Acc. profit less Taxes (AP), 2006	927856	1806482	3007093	2002552	2579208	559463	644781	0	291512	4641962
Subsidy. S {E*m+A(m-c)+K-AP} 05	1196426	220025	3276408	2815302	7624994	2052175	2016950	102972	354083	2899287
Subsidy. S {E*m+A(m-c)+K-AP}06	910140	-182331	338029	1753408	3868334	1009643	1021170	-	187872	22602
Ave. Loan port (net) LP, 2005	8806394	12017485	95538188	61437616	126852597	17185395	13794406	1256864	3674539	115408792
Ave. Loan port (net) LP, 2006	11913956	19166740	120454698	84700242	165557267	18764309	16154465	701469	4673543	142365138
Rev. From lending (LP*i) , 2005	2939545	5640463	20741501	12875728	24441057	3750150	3275659	286620	849139	25348565
Rev. From lending (LP*i), 2006	3772437	6455583	26650215	17638841	31075487	4048587	3843060	0	1088035	30832954
Yield on lending (i), 2005	0.334	0.469	0.217	0.210	0.193	0.218	0.237	0.228	0.231	0.220
Yield on lending (i), 2006	0.317	0.337	0.221	0.208	0.188	0.216	0.238	0.000	0.233	0.217
SDI (S/LP*i), 2005	0.407	0.039	0.158	0.219	0.312	0.547	0.616	0.359	0.417	0.114
SDI (S/LP*i), 2006	0.241	-0.028	0.013	0.099	0.124	0.249	0.266	-	0.173	0.001
Change in Yield, 2005	0.136	0.018	0.034	0.046	0.060	0.119	0.146	0.082	0.096	0.025
Change in Yield, 2006	0.081	-0.013	0.003	0.021	0.024	0.054	0.063	-	0.040	0.000

Nominal Subsidy free yield, 2005	0.470	0.488	0.251	0.255	0.253	0.338	0.384	0.310	0.327	0.245
Nominal Subsidy free yield, 2006	0.397	0.324	0.224	0.229	0.212	0.270	0.301	-	0.273	0.217
Inflation, 2005	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
Inflation, 2006	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
Real Subsidy- free yield, 2005	0.394	0.411	0.187	0.191	0.189	0.269	0.313	0.243	0.259	0.181
Real Subsidy- free yield, 2006	0.340	0.269	0.174	0.179	0.162	0.218	0.248	-	0.220	0.167
True Profit, 2005	56380	812898	-1558452	-1365045	-4874267	-1251497	-330120	130096	-66898	308669
True Profit, 2006	99053	1123450	1231579	-347671	-1378479	-302942	242619	-	48281	2397479
Return on Assets (ROA), 2005	0.090	0.110	0.019	0.027	0.009	0.021	0.018	0.123	0.055	0.028
Return on Assets (ROA), 2006	0.060	0.081	0.019	0.018	0.012	0.026	0.030	0.000	0.056	0.023
Subsidy-adjusted ROA, 2005	0.005	0.056	-0.013	-0.018	-0.031	-0.071	-0.018	0.073	-0.016	0.002
Subsidy-adjusted ROA, 2006	0.006	0.050	0.008	-0.003	-0.007	-0.014	0.011	-	0.009	0.012
Return on Equity (ROE), 2005	0.139	0.258	0.223	0.225	0.087	0.076	0.032	0.155	0.133	0.224
Return on Equity (ROE), 2006	0.109	0.228	0.228	0.169	0.123	0.094	0.061	0.000	0.147	0.228
Subsidy-adjusted ROE, 2005	0.007	0.131	-0.151	-0.156	-0.294	-0.260	-0.033	0.093	-0.039	0.016
Subsidy-adjusted ROE, 2006	0.012	0.142	0.093	-0.029	-0.066	-0.051	0.023	-	0.024	0.118

	BOLIVIA	**EL SALVADOR**		**HAITI**	**HONDOROS**			**T & T**	**VENZ**	**PERU**
MFIs	**E Futuro**	**Fund C**	**AMC RL**	**ACME**	**HDH**	**W. Rel**	**FINCA**	**MCHL**	**BanGente**	**Ed. C T**
Avg. Assets, 2005	20009819	2345214	7509094	4114458	5069360	6497866	4375596	3741015	23439645	8618713
Avg. Assets, 2006	26684967	2964846	10374065	5401569	5565637	8625197	4875627	-	38224530	11797308
Ave. Equity (E), 2005	2142293	2129182	1737848	2240257	2582377	4653272	1898301	1147138	3917214	1925885
Ave. Equity (E),2006	2918306	2253529	2345475	2624782	1928874	5403175	1955507	-	4561688	2473121
Opp. Cost of society (m), 2005	0.16615	0.1	0.1	0.27375	0.18831	0.18831	0.18831	0.09104	0.16809	0.2553
Opp. Cost of society(m), 2006	0.1189	0.1	0.1	0.2824	0.1744	0.1744	0.1744	0.1092	0.1548	0.2393
Subsidy on Equity. E*m, 2005	355942	212918	173785	613270	486287	876258	357469	104435	658444	491678
Subsidy on Equity. E*m, 2006	346987	225353	234547	741238	336396	942314	341040	-	706149	591818
Ave. Public debt (A), 2005	2689163	168381	5616304	1696719	1804109	1025071	875046	2077291	11185390	6415240
Ave. Public debt (A),2006	4051673	646527	7800594	2540108	2541671	2753139	1476448	-	13119726	9096688
Exp. Int. Public debt. A*c , 2005	106622	3975	407202	343433	318295	170707	177600	100789	454065	537045
Exp. Int. Public debt. A*c , 2006	265311	22469	619080	388473	263439	335510	267458	-	413570	985772
Rate paid public debt (c), 2005	0.040	0.024	0.073	0.202	0.176	0.167	0.203	0.049	0.041	0.084
Rate paid public debt (c), 2006	0.065	0.035	0.079	0.153	0.104	0.122	0.181	-	0.032	0.108
Disc. Public debt. A*(m-c), 2005	340182	12863	154428	121044	21437	22324	-12820	88327	1426087	423124
Disc. Public debt. A*(m-c), 2006	216433	42184	160979	328854	179829	144638	-9966	-	1617364	1191065
Rev. Grants (RG), 2005	0	0	122792	76464	181835	0	26461	140558	0	0
Rev. Grants (RG), 2006	0	0	76195	97351	22953	0	4161	-	0	0
K (RG + DX), 2005	0	0	122792	76464	181835	0	26461	140558	0	0
K (RG + DX), 2006	0	0	76195	97351	22953	0	4161	-	0	0
Accounting Profit (P), 2005	255209	137988	281891	484766	368341	628739	44026	-1832	471111	688283
Accounting Profit (P), 2006	497756	78844	434733	537398	-249009	791781	97283	-	1001864	816317
Taxes, 2005	0	0	67234	0	0	0	0	1574	296963	258964
Taxes, 2006	0	0	150289	0	0	0	0	-	357193	308243
Acc. profit less Taxes (AP), 2005	255209	137988	214657	484766	368341	628739	44026	-3407	174148	429319
Acc. profit less Taxes (AP), 2006	497756	78844	284444	537398	-249009	791781	97283	-	644672	508074
Subsidy. S {E*m+A(m-c)+K-AP} 05	440915	87793	236348	326011	321218	269843	327084	336727	1910384	485484
Subsidy. S {E*m+A(m-c)+K-AP}06	65663	188693	187278	630046	788186	295170	237953	-	1678841	1274809
Ave. Loan port (net) LP, 2005	15879357	2021982	5643823	3209982	3940481	4551670	3238388	2455679	18928445	7319741
Ave. Loan port (net) LP, 2006	20802681	2388280	7939094	3930724	4357245	6607984	3831948	-	31892177	10529860
Rev. From lending (LP*i) , 2005	3713252	361380	1433961	1731873	1333092	2208761	1682856	686508	2874027	2474183
Rev. From lending (LP*i), 2006	4808242	401948	2006439	2410319	885990	2985184	1906797	-	4774433	3442837
Yield on lending (i), 2005	0.234	0.179	0.254	0.540	0.338	0.485	0.520	0.280	0.152	0.338
Yield on lending (i), 2006	0.231	0.168	0.253	0.613	0.203	0.452	0.498	-	0.150	0.327
SDI (S/LP*i), 2005	0.119	0.243	0.165	0.188	0.241	0.122	0.194	0.490	0.665	0.196
SDI (S/LP*i), 2006	0.014	0.469	0.093	0.261	0.890	0.099	0.125	-	0.352	0.370
Change in Yield, 2005	0.028	0.043	0.042	0.102	0.082	0.059	0.101	0.137	0.101	0.066
Change in Yield, 2006	0.003	0.084	0.024	0.141	0.301	0.048	0.065	-	0.053	0.125
Nominal Subsidy free yield, 2005	0.262	0.222	0.296	0.641	0.420	0.545	0.621	0.417	0.253	0.404
Nominal Subsidy free yield, 2006	0.234	0.252	0.276	0.754	0.504	0.500	0.562	-	0.203	0.452
Inflation, 2005	0.054	0.047	0.047	0.157	0.088	0.088	0.088	0.069	0.160	0.016
Inflation, 2006	0.043	0.040	0.040	0.131	0.056	0.056	0.056	0.083	0.137	0.020
Real Subsidy- free yield, 2005	0.197	0.167	0.238	0.418	0.305	0.419	0.489	0.325	0.080	0.382
Real Subsidy- free yield, 2006	0.184	0.204	0.227	0.552	0.425	0.421	0.480	-	0.059	0.424
True Profit, 2005	-84973	125125	-62563	287259	165069	606415	30385	-232292	-1251939	6195
True Profit, 2006	281323	36660	47270	111193	-451791	647143	103088	-	-972692	-682991
Return on Assets (ROA), 2005	0.013	0.059	0.029	0.118	0.073	0.097	0.010	-0.001	0.007	0.050
Return on Assets (ROA), 2006	0.019	0.027	0.027	0.099	-0.045	0.092	0.020	-	0.017	0.043
Subsidy-adjusted ROA, 2005	-0.004	0.053	-0.008	0.070	0.033	0.093	0.007	-0.062	-0.053	0.001
Subsidy-adjusted ROA, 2006	0.011	0.012	0.005	0.021	-0.081	0.075	0.021	-	-0.025	-0.058
Return on Equity (ROE), 2005	0.119	0.065	0.124	0.216	0.143	0.135	0.023	-0.003	0.044	0.223

Return on Equity (ROE), 2006	0.171	0.035	0.121	0.205	-0.129	0.147	0.050	-	0.141	0.205
Subsidy-adjusted ROE, 2005	-0.040	0.059	-0.036	0.128	0.064	0.130	0.016	-0.202	-0.320	0.003
Subsidy-adjusted ROE, 2006	0.096	0.016	0.020	0.042	-0.234	0.120	0.053	-	-0.213	-0.276

	PERU									
MFIs	**MiBanco**	**Bantra**	**C Maynas**	**Edpy. Cofi**	**IDESI LL**	**Fondsurco**	**ED.Edyf**	**Caritas**	**C Cusco**	**C Tacna**
Avg. Assets, 2005	204431029	346163953	29289123	22760767	929386	1625918	58622651	7590386	86185265	51687146
Avg. Assets, 2006	319464851	393993555	38612177	40882214	-	2005581	81254531	9794496	-	62902239
Ave. Equity (E), 2005	40083604	37406584	4369272	3973619	257697	872633	9691252	1473316	15125770	8188704
Ave. Equity (E),2006	47601847	37809129	5924799	6274155	-	1017571	13755347	3617355	-	10397595
Opp. Cost of society (m), 2005	0.2553	0.2553	0.2553	0.2553	0.2553	0.2553	0.2553	0.2553	0.2553	0.2553
Opp. Cost of society(m), 2006	0.2393	0.2393	0.2393	0.2393	0.2393	0.2393	0.2393	0.2393	0.2393	0.2393
Subsidy on Equity. E*m, 2005	10233344	9549901	1115475	1014465	65790	222783	2474177	376138	3861609	2090576
Subsidy on Equity. E*m, 2006	11391122	9047724	1417804	1501405	-	243505	3291654	865633	-	2488145
Ave. Public debt (A), 2005	35134814	68504345	6494638	18303772	607490	729357	47290572	5937059	6936907	8789669
Ave. Public debt (A),2006	84054666	84110962	7465602	34133630	-	902040	65302396	5956712	-	10381654
Exp. Int. Public debt. A*c , 2005	2577823	3727033	242084	1328552	59091	48297	3016091	5807	237566	576068
Exp. Int. Public debt. A*c , 2006	6553258	6187030	410664	3061404	0	75623	4619987	36898	0	758772
Rate paid public debt (c), 2005	0.073	0.054	0.037	0.073	0.097	0.066	0.064	0.001	0.034	0.066
Rate paid public debt (c), 2006	0.078	0.074	0.055	0.090	-	0.084	0.071	0.006	-	0.073
Disc. Public debt. A*(m-c), 2005	2680804	6526012	729968	1410973	31832	60866	4061889	882792	800681	739482
Disc. Public debt. A*(m-c), 2006	13561023	13940723	1375855	5106774	-	140235	11006876	1388544	-	1725558
Rev. Grants (RG), 2005	0	0	0	0	0	0	0	452939	0	0
Rev. Grants (RG), 2006	0	0	0	0	-	20148	0	208808	-	0
K (RG + DX), 2005	0	0	0	0	0	0	0	452939	0	0
K (RG + DX), 2006	0	0	0	0	0	20148	0	208808	-	0
Accounting Profit (P), 2005	18594207	15498245	1994258	1431239	88640	180913	4198069	342044	9246343	3533938
Accounting Profit (P), 2006	22213033	3965852	3042228	1237155	-	130558	6144424	966711	-	4008772
Taxes, 2005	349035	5254827	711733	540080	0	0	1515506	0	3239321	1243125
Taxes, 2006	526003	684211	938177	499373	-	0	2239035	0	-	1419173
Acc. profit less Taxes (AP), 2005	18245173	10243417	1282525	891159	88640	180913	2682563	342044	6007022	2290813
Acc. profit less Taxes (AP), 2006	21687030	3281642	2104051	737782	-	130558	3905388	966711	-	2589599
Subsidy. S {E*m+A(m-c)+K-AP} 05	-5331024	5832496	562919	1534279	8982	102736	3853502	1369824	-1344732	539245
Subsidy. S {E*m+A(m-c)+K-AP}06	3265115	19706806	689608	5870398	-	273329	10393142	1496274	-	1624103
Ave. Loan port (net) LP, 2005	164376185	287147011	21167839	17649764	666538	1434591	46793425	5227103	62454947	36461947
Ave. Loan port (net) LP, 2006	259697139	317183786	28741908	29589402	-	1835010	65376626	8521272	-	47281821
Rev. From lending (LP*i) , 2005	59759801	109366881	7149420	5974194	397854	387931	16688707	2120102	16228496	9565535
Rev. From lending (LP*i), 2006	95339599	124394110	9766221	9288847	0	526317	23802005	3413508	-	11703321
Yield on lending (i), 2005	0.364	0.381	0.338	0.338	0.597	0.270	0.357	0.406	0.260	0.262
Yield on lending (i), 2006	0.367	0.392	0.340	0.314	-	0.287	0.364	0.401	-	0.248
SDI (S/LP*i), 2005	-0.089	0.053	0.079	0.257	0.023	0.265	0.231	0.646	-0.083	0.056
SDI (S/LP*i), 2006	0.034	0.158	0.071	0.632	-	0.519	0.437	0.438	-	0.139
Change in Yield, 2005	-0.032	0.020	0.027	0.087	0.013	0.072	0.082	0.262	-0.022	0.015
Change in Yield, 2006	0.012	0.060	0.024	0.214	-	0.140	0.156	0.178	-	0.036
Nominal Subsidy free yield, 2005	0.331	0.401	0.364	0.425	0.610	0.342	0.439	0.668	0.238	0.277
Nominal Subsidy free yield, 2006	0.380	0.453	0.364	0.528	-	0.427	0.520	0.578	-	0.284
Inflation, 2005	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016
Inflation, 2006	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
Real Subsidy- free yield, 2005	0.310	0.379	0.343	0.403	0.585	0.321	0.416	0.641	0.219	0.257
Real Subsidy- free yield, 2006	0.352	0.424	0.337	0.498	-	0.399	0.490	0.547	-	0.259
True Profit, 2005	15564368	3717405	552556	-519814	56808	120047	-1379326	-993687	5206341	1551331
True Profit, 2006	8126007	-10659081	728196	-4368992	-	-29825	-7101487	-630641	-	864041
Return on Assets (ROA), 2005	0.089	0.030	0.044	0.039	0.095	0.111	0.046	0.045	0.070	0.044
Return on Assets (ROA), 2006	0.068	0.008	0.054	0.018	-	0.065	0.048	0.099	-	0.041
Subsidy-adjusted ROA, 2005	0.076	0.011	0.019	-0.023	0.061	0.074	-0.024	-0.131	0.060	0.030
Subsidy-adjusted ROA, 2006	0.025	-0.027	0.019	-0.107	-	-0.015	-0.087	-0.064	-	0.014
Return on Equity (ROE), 2005	0.455	0.274	0.294	0.224	0.344	0.207	0.277	0.232	0.397	0.280
Return on Equity (ROE), 2006	0.456	0.087	0.355	0.118	-	0.128	0.284	0.267	-	0.249
Subsidy-adjusted ROE, 2005	0.388	0.099	0.126	-0.131	0.220	0.138	-0.142	-0.674	0.344	0.189
Subsidy-adjusted ROE, 2006	0.171	-0.282	0.123	-0.696	-	-0.029	-0.516	-0.174	-	0.083

	PERU						**PARAGAUY**		**NICARAGUA**	
MFIs	**Caja Nor**	**FINCA**	**Mov.M R**	**Promujer**	**C Arq**	**C Truj**	**Interfisa**	**FIELCO**	**FNUSE**	**Prodesa**
Avg. Assets, 2005	36483058	1599410	2133358	3744194	160881416	146082611	27086422	16036043	7102745	10292270
Avg. Assets, 2006	46622565	1876943	2259531	5128152	198356663	200966625	32867527	23964517	-	14324336
Ave. Equity (E), 2005	4637061	1516676	440996	2134103	29410999	22836727	2670789	3429237	2998340	3531655
Ave. Equity (E),2006	5995212	1732196	1257503	2908242	37577942	30107446	3680611	4691881	-	5549440
Opp. Cost of society (m), 2005	0.2553	0.2553	0.2553	0.2553	0.2553	0.2553	0.2991	0.2991	0.12101	0.12101
Opp. Cost of society(m), 2006	0.2393	0.2393	0.2393	0.2393	0.2393	0.2393	0.3014	0.3014	0.1158	0.1158
Subsidy on Equity. E*m, 2005	1183842	387207	112586	544836	7508628	5830216	798833	1025685	362829	427366

Subsidy on Equity. E*m, 2006	1434654	414515	300921	695942	8992402	7204712	1109336	1414133	0	642625
Ave. Public debt (A), 2005	4355122	63384	265891	1375360	4191164	29835975	687370	1010818	3756924	6475272
Ave. Public debt (A),2006	4830489	115582	259571	1940312	4249242	29385501	880262	2291030	-	8339743
Exp. Int. Public debt. A*c , 2005	208894	5386	3359	60556	310708	1779307	16473	39887	351311	444939
Exp. Int. Public debt. A*c , 2006	351817	9322	17282	158988	720238	4122183	96253	126671	-	616791
Rate paid public debt (c), 2005	0.048	0.085	0.013	0.044	0.074	0.060	0.024	0.039	0.094	0.069
Rate paid public debt (c), 2006	0.073	0.081	0.067	0.082	0.169	0.140	0.109	0.055	-	0.074
Disc. Public debt. A*(m-c), 2005	442937	4100	36437	145294	316584	2686244	189120	262449	103314	338634
Disc. Public debt. A*(m-c), 2006	804119	18336	44833	305329	296606	2909767	169058	563845	-	348951
Rev. Grants (RG), 2005	0	0	0	208379	0	0	0	0	0	0
Rev. Grants (RG), 2006	0	0	0	111956	0	0	0	0	-	0
K (RG + DX), 2005	0	0	0	208379	0	0	0	0	0	0
K (RG + DX), 2006	0	0	0	111956	0	0	0	0	-	0
Accounting Profit (P), 2005	2271796	216174	62099	593787	16136630	11607436	306518	1286405	1085257	1040759
Accounting Profit (P), 2006	2297306	124415	137345	805740	19849937	14392455	1419505	1694976	-	1546052
Taxes, 2005	873318	0	0	0	5202458	4142735	43763	173803	0	0
Taxes, 2006	935150	0	0	0	7078634	5102197	157478	245597	-	0
Acc. profit less Taxes (AP), 2005	1398479	216174	62099	593787	10934172	7464701	262756	1112602	1085257	1040759
Acc. profit less Taxes (AP), 2006	1362155	124415	137345	805740	12771303	9290258	1262027	1449378	-	1546052
Subsidy. S {E*m+A(m-c)+K-AP} 05	228300	175134	86925	304723	-3108961	1051759	725197	175532	-619113	-274760
Subsidy. S {E*m+A(m-c)+K-AP}06	876618	308435	208409	307487	-3482296	824221	16367	528600	-	-554476
Ave. Loan port (net) LP, 2005	24677907	1032346	1710902	2977834	120465382	116274152	19491891	11494319	6230011	9448855
Ave. Loan port (net) LP, 2006	32833826	1270229	1895147	4380810	152506631	96497005	23367411	16987232	-	12822532
Rev. From lending (LP*i) , 2005	7564365	649169	756547	1187808	36710357	31256419	5648775	3520054	1282311	973120
Rev. From lending (LP*i), 2006	10057957	810400	937616	1834223	47242794	44046154	7897081	5763957	-	1777546
Yield on lending (i), 2005	0.307	0.629	0.442	0.399	0.305	0.269	0.290	0.306	0.206	0.103
Yield on lending (i), 2006	0.306	0.638	0.495	0.419	0.310	0.456	0.338	0.339	-	0.139
SDI (S/LP*i), 2005	0.030	0.270	0.115	0.257	-0.085	0.034	0.128	0.050	-0.483	-0.282
SDI (S/LP*i), 2006	0.087	0.381	0.222	0.168	-0.074	0.019	0.002	0.092	-	-0.312
Change in Yield, 2005	0.009	0.170	0.051	0.102	-0.026	0.009	0.037	0.015	-0.099	-0.029
Change in Yield, 2006	0.027	0.239	0.098	0.067	-0.022	0.005	0.001	0.028	-	-0.032
Nominal Subsidy free yield, 2005	0.316	0.798	0.493	0.501	0.279	0.278	0.327	0.322	0.106	0.074
Nominal Subsidy free yield, 2006	0.333	0.877	0.593	0.486	0.287	0.461	0.339	0.367	-	0.107
Inflation, 2005	0.016	0.016	0.016	0.016	0.016	0.016	0.068	0.068	0.096	0.096
Inflation, 2006	0.020	0.020	0.020	0.020	0.020	0.020	0.096	0.096	0.091	0.091
Real Subsidy- free yield, 2005	0.295	0.770	0.469	0.477	0.259	0.257	0.243	0.237	0.010	-0.020
Real Subsidy- free yield, 2006	0.307	0.840	0.562	0.456	0.262	0.433	0.221	0.248	-	0.014
True Profit, 2005	955542	212074	25662	240113	10617588	4778458	73636	850153	981942	702126
True Profit, 2006	558036	106079	92512	388455	12474698	6380491	1092969	885533	-	1197101
Return on Assets (ROA), 2005	0.038	0.135	0.029	0.159	0.068	0.051	0.010	0.069	0.153	0.101
Return on Assets (ROA), 2006	0.029	0.066	0.061	0.157	0.064	0.046	0.038	0.060	-	0.108
Subsidy-adjusted ROA, 2005	0.026	0.133	0.012	0.064	0.066	0.033	0.003	0.053	0.138	0.068
Subsidy-adjusted ROA, 2006	0.012	0.057	0.041	0.076	0.063	0.032	0.033	0.037	-	0.084
Return on Equity (ROE), 2005	0.302	0.143	0.141	0.278	0.372	0.327	0.098	0.324	0.362	0.295
Return on Equity (ROE), 2006	0.227	0.072	0.109	0.277	0.340	0.309	0.343	0.309	-	0.279
Subsidy-adjusted ROE, 2005	0.206	0.140	0.058	0.113	0.361	0.209	0.028	0.248	0.327	0.199
Subsidy-adjusted ROE, 2006	0.093	0.061	0.074	0.134	0.332	0.212	0.297	0.189	-	0.216

	NICRAGUA						**GAUTEMALA**			
MFIs	**FAMA**	**ACODEP**	**FJN**	**BANEX**	**FDL**	**ProCredit**	**Fafidess**	**Fundea**	**Gen Em**	**Fund M**
Avg. Assets, 2005	21528055	16071309	15515604	61571226	33313561	66964869	4005974	7481605	31438580	1188871
Avg. Assets, 2006	-	26617653	-	96391196	48716064	96963820	-	9079499	39481428	1437154
Ave. Equity (E), 2005	8481120	4037574	3793335	6770607	6501037	10419893	2694242	6387717	6528873	617873
Ave. Equity (E),2006	-	6221517	-	10536484	8701131	13524628	-	7165802	7070748	704527
Opp. Cost of society (m), 2005	0.12101	0.12101	0.12101	0.12101	0.12101	0.12101	0.13033	0.13033	0.13033	0.13033
Opp. Cost of society(m), 2006	0.1158	0.1158	0.1158	0.1158	0.1158	0.1158	0.1276	0.1276	0.1276	0.1276
Subsidy on Equity. E*m, 2005	1026300	488587	459031	819311	786691	1260911	351141	832511	850908	80527
Subsidy on Equity. E*m, 2006	-	720452	-	1220125	1007591	1566152	-	914356	902227	89898
Ave. Public debt (A), 2005	12422120	7034132	10652795	37767974	25175990	33748939	662470	580978	23397828	441390
Ave. Public debt (A),2006	-	13683136	-	57923958	37666631	46736110	-	548682	30689059	599513
Exp. Int. Public debt. A*c , 2005	904006	513870	985981	3083897	2002830	2283491	60975	31532	2398470	35520
Exp. Int. Public debt. A*c , 2006	0	1106171	-	5083042	3061084	3103529	0	-	2900570	0
Rate paid public debt (c), 2005	0.073	0.073	0.093	0.082	0.080	0.068	0.092	0.054	0.103	0.080
Rate paid public debt (c), 2006	-	0.081	-	0.088	0.081	0.066	-	0.000	0.095	0.000
Disc. Public debt. A*(m-c), 2005	599195	337330	303114	1486406	1043717	1800468	25365	44187	650969	22007
Disc. Public debt. A*(m-c), 2006	-	478336	-	1624552	1300712	2308512	-	70012	1015354	76498
Rev. Grants (RG), 2005	0	0	972211	0	0	0	54150	21046	148462	12000
Rev. Grants (RG), 2006	-	0	-	0	0	0	-	-	118297	0
K (RG + DX), 2005	0	0	972211	0	0	0	54150	21046	148462	12000
K (RG + DX), 2006	-	0	-	0	0	0	-	-	118297	0
Accounting Profit (P), 2005	2005470	1432070	1923230	3167408	2284003	3677749	526420	637613	790912	28079
Accounting Profit (P), 2006	-	2408590	-	5181817	2603978	1953382	-	-	588316	0

Taxes, 2005	0	0	0	954843	0	1160575	0	103044	231220	0
Taxes, 2006	-	0	-	1545179	0	690192	-	-	147914	0
Acc. profit less Taxes (AP), 2005	2005470	1432070	1923230	2212565	2284003	2517173	526420	534569	559692	28079
Acc. profit less Taxes (AP), 2006	-	2408590	-	3636637	2603978	1263191	-	-	440402	0
Subsidy. S {E*m+A(m-c)+K-AP} 05	-379974	-606153	-188873	93152	-453596	544206	-95765	363175	1090646	86456
Subsidy. S {E*m+A(m-c)+K-AP}06	-	-1209802	-	-791960	-295675	2611474	-	-	1595476	166396
Ave. Loan port (net) LP, 2005	18411633	12246121	12798777	46568016	27878711	54830469	3640724	5706404	28810231	810324
Ave. Loan port (net) LP, 2006	-	21751444	-	74288324	40789718	77822112	-	-	35916427	489381
Rev. From lending (LP*i) , 2005	1737355	5335100	1262424	13571259	2567751	17453679	812390	1656044	8302988	108850
Rev. From lending (LP*i), 2006	-	7823219	-	21383646	5709976	22370458	-	-	10246853	0
Yield on lending (i), 2005	0.094	0.436	0.099	0.291	0.092	0.318	0.223	0.290	0.288	0.134
Yield on lending (i), 2006	-	0.360	-	0.288	0.140	0.287	-	-	0.285	0.000
SDI (S/LP*i), 2005	-0.219	-0.114	-0.150	0.007	-0.177	0.031	-0.118	0.219	0.131	0.794
SDI (S/LP*i), 2006	-	-0.155	-	-0.037	-0.052	0.117	-	-	0.156	-
Change in Yield, 2005	-0.021	-0.049	-0.015	0.002	-0.016	0.010	-0.026	0.064	0.038	0.107
Change in Yield, 2006	-	-0.067	-	-0.011	-0.005	0.037	-	-	0.045	-
Nominal Subsidy free yield, 2005	0.074	0.386	0.084	0.293	0.076	0.328	0.197	0.354	0.326	0.241
Nominal Subsidy free yield, 2006	-	0.292	-	0.277	0.135	0.325	-	-	0.330	-
Inflation, 2005	0.096	0.096	0.096	0.096	0.096	0.096	0.084	0.084	0.084	0.084
Inflation, 2006	0.091	0.091	0.091	0.091	0.091	0.091	0.065	0.065	0.065	0.065
Real Subsidy- free yield, 2005	-0.020	0.265	-0.011	0.180	-0.018	0.212	0.104	0.249	0.223	0.145
Real Subsidy- free yield, 2006	-	0.184	-	0.170	0.040	0.214	-	-	0.250	-
True Profit, 2005	1406275	1094740	647904	726159	1240287	716706	446905	469336	-239738	-5928
True Profit, 2006	-	1930254	-	2012085	1303266	-1045322	-		-693249	-76498
Return on Assets (ROA), 2005	0.093	0.089	0.124	0.036	0.069	0.038	0.131	0.071	0.018	0.024
Return on Assets (ROA), 2006	-	0.090	-	0.038	0.053	0.013	-	0.000	0.011	0.000
Subsidy-adjusted ROA, 2005	0.065	0.068	0.042	0.012	0.037	0.011	0.112	0.063	-0.008	-0.005
Subsidy-adjusted ROA, 2006	-	0.073	-	0.021	0.027	-0.011	-	-0.008	-0.018	-0.053
Return on Equity (ROE), 2005	0.236	0.355	0.507	0.327	0.351	0.242	0.195	0.084	0.086	0.045
Return on Equity (ROE), 2006	-	0.387	-	0.345	0.299	0.093	-	0.000	0.062	0.000
Subsidy-adjusted ROE, 2005	0.166	0.271	0.171	0.107	0.191	0.069	0.166	0.073	-0.037	-0.010
Subsidy-adjusted ROE, 2006	-	0.310	-	0.191	0.150	-0.077	-	-0.010	-0.098	-0.109

	ECUADOR								
MFIs	**Banco S**	**CO SAC**	**PROcredit**	**Coac S J**	**Fund E**	**D-Miro**	**C Jardin**	**FODEMI**	**Finca**
Avg. Assets, 2005	277128518	6639549	67150050	9935534	4491310	5987431	37043748	2702434	17323000
Avg. Assets, 2006	319364370	8154551	107103291	13005691	6465463	7606689	55458231	3724529	23647000
Ave. Equity (E), 2005	22141828	1814370	9987622	2395373	1247615	4111210	6554978	1610094	5323500
Ave. Equity (E),2006	28457597	2108446	10481296	2810407	1606931	5485953	8671147	2148398	9019000
Opp. Cost of society (m), 2005	0.09338	0.09338	0.09338	0.09338	0.09338	0.09338	0.09338	0.09338	0.09338
Opp. Cost of society(m), 2006	0.0952	0.0952	0.0952	0.0952	0.0952	0.0952	0.0952	0.0952	0.0952
Subsidy on Equity. E*m, 2005	2067604	169426	932644	223680	116502	383905	612104	150351	497108
Subsidy on Equity. E*m, 2006	2709163	200724	997819	267551	152980	522263	825493	204527	858609
Ave. Public debt (A), 2005	56389850	1226775	42524951	318506	3243695	1031189	337691	343068	3243500
Ave. Public debt (A),2006	72855782	1377185	55326951	864321	4858532	1486782	607470	849697	8922000
Exp. Int. Public debt. A*c , 2005	4052395	123281	3415167	25715	274652	59616	21665	14224	316000
Exp. Int. Public debt. A*c , 2006	5392732	141514	4273000	0	460621	91320	22951	59107	722000
Rate paid public debt (c), 2005	0.072	0.100	0.080	0.081	0.085	0.058	0.064	0.041	0.097
Rate paid public debt (c), 2006	0.074	0.103	0.077	0.000	0.095	0.061	0.038	0.070	0.081
Disc. Public debt. A*(m-c), 2005	1213289	-8725	555813	4027	28244	36676	9869	17812	-13122
Disc. Public debt. A*(m-c), 2006	1543138	-10406	994126	82283	1911	50222	34880	21784	127374
Rev. Grants (RG), 2005	0	0	0	0	0	30000	0	12587	0
Rev. Grants (RG), 2006	0	0	0	0	0	27500	0	0	0
K (RG + DX), 2005	0	0	0	0	0	30000	0	12587	0
K (RG + DX), 2006	0	0	0	0	0	27500	0	0	0
Accounting Profit (P), 2005	4552492	23684	1678049	235239	293039	501194	170668	198736	2259000
Accounting Profit (P), 2006	350717	28939	2727000	193002	425592	816433	347203	275095	2284000
Taxes, 2005	1354614	6804	645345	62172	0	2196	58614	1000	626000
Taxes, 2006	437162	10719	718000	45239	0	6726	168397	7585	605000
Acc. profit less Taxes (AP), 2005	3197878	16880	1032704	173067	293039	498998	112054	197736	1633000
Acc. profit less Taxes (AP), 2006	-86445	18220	2009000	147763	425592	809707	178806	267510	1679000
Subsidy. S {E*m+A(m-c)+K-AP} 05	83015	143821	455753	54640	-148293	-48417	509918	-16987	-1149014
Subsidy. S {E*m+A(m-c)+K-AP}06	4338747	172098	-17055	202071	-270701	-209723	681567	-41198	-693017
Ave. Loan port (net) LP, 2005	182462559	5218977	55343613	8064480	3879317	5119670	28392239	2489242	15086000
Ave. Loan port (net) LP, 2006	214526414	6389970	39904613	10166670	5675566	6386896	43769287	3489004	20451500
Rev. From lending (LP*i) , 2005	23429507	1047336	8170018	1190138	470364	640865	4176361	305990	1880000
Rev. From lending (LP*i), 2006	27701173	1223544	12143000	1367249	638825	753406	5758262	449110	2519000
Yield on lending (i), 2005	0.128	0.201	0.148	0.148	0.121	0.125	0.147	0.123	0.125
Yield on lending (i), 2006	0.129	0.191	0.304	0.134	0.113	0.118	0.132	0.129	0.123
SDI (S/LP*i), 2005	0.004	0.137	0.056	0.046	-0.315	-0.076	0.122	-0.056	-0.611
SDI (S/LP*i), 2006	0.157	0.141	-0.001	0.148	-0.424	-0.278	0.118	-0.092	-0.275
Change in Yield, 2005	0.000	0.028	0.008	0.007	-0.038	-0.009	0.018	-0.007	-0.076

Change in Yield, 2006	0.020	0.028	0.000	0.022	-0.051	-0.035	0.017	-0.011	-0.034
Nominal Subsidy free yield, 2005	0.129	0.228	0.156	0.154	0.083	0.116	0.165	0.116	0.048
Nominal Subsidy free yield, 2006	0.149	0.220	0.304	0.156	0.061	0.083	0.149	0.117	0.089
Inflation, 2005	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024	0.024
Inflation, 2006	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030	0.030
Real Subsidy- free yield, 2005	0.102	0.199	0.129	0.127	0.058	0.089	0.138	0.090	0.024
Real Subsidy- free yield, 2006	0.115	0.184	0.266	0.122	0.030	0.051	0.115	0.085	0.057
True Profit, 2005	1984589	25605	476891	169040	264795	432322	102185	167337	1646122
True Profit, 2006	-1629583	28626	1014874	65480	423681	731985	143926	245726	1551626
Return on Assets (ROA), 2005	0.012	0.003	0.015	0.017	0.065	0.083	0.003	0.073	0.094
Return on Assets (ROA), 2006	0.000	0.002	0.019	0.011	0.066	0.106	0.003	0.072	0.071
Subsidy-adjusted ROA, 2005	0.007	0.004	0.007	0.017	0.059	0.072	0.003	0.062	0.095
Subsidy-adjusted ROA, 2006	-0.005	0.004	0.009	0.005	0.066	0.096	0.003	0.066	0.066
Return on Equity (ROE), 2005	0.144	0.009	0.103	0.072	0.235	0.121	0.017	0.123	0.307
Return on Equity (ROE), 2006	-0.003	0.009	0.192	0.053	0.265	0.148	0.021	0.125	0.186
Subsidy-adjusted ROE, 2005	0.090	0.014	0.048	0.071	0.212	0.105	0.016	0.104	0.309
Subsidy-adjusted ROE, 2006	-0.057	0.014	0.097	0.023	0.264	0.133	0.017	0.114	0.172

	COSTA RICA		**COLOMBIA**						**DOM. REP.**
MFIs	**Fundcoca**	**Cred Muj**	**FMM P**	**Finamer**	**CMM Bog**	**FMM Buca**	**WWB Ca**	**WMM Med**	**ADEMI**
Avg. Assets, 2005	1197286	660748	41881039	37709541	19743718	33986060	94054220	15056841	96521375
Avg. Assets, 2006	-	588192	67794193	52617509	29176968	63157638	135497260	25065323	105920332
Ave. Equity (E), 2005	685397	179390	21797351	6658916	4427149	6546221	24693642	4001064	11519717
Ave. Equity (E),2006	-	180042	28519260	7597426	5783452	11093742	32978149	5013946	14736931
Opp. Cost of society (m), 2005	0.24656	0.24656	0.14561	0.14561	0.14561	0.14561	0.14561	0.14561	0.24109
Opp. Cost of society(m), 2006	0.2219	0.2219	0.1289	0.1289	0.1289	0.1289	0.1289	0.1289	0.1948
Subsidy on Equity. E*m, 2005	168992	44230	3173912	969605	644637	953195	3595641	582595	2777289
Subsidy on Equity. E*m, 2006	-	39951	3676133	979308	745487	1429983	4250883	646298	2870754
Ave. Public debt (A), 2005	488379	460043	19424696	7264579	14829665	25271114	67849085	10806128	31423556
Ave. Public debt (A),2006	-	394409	38218613	8537576	22607293	49031436	100401088	19637792	-
Exp. Int. Public debt. A*c , 2005	103117	50886	1934445	364225	1425490	2801060	7178600	1039340	1718829
Exp. Int. Public debt. A*c , 2006	0	40065	3933268	341127	1982533	4415220	8629585	1849713	0
Rate paid public debt (c), 2005	0.211	0.111	0.100	0.050	0.096	0.111	0.106	0.096	0.055
Rate paid public debt (c), 2006	-	0.102	0.103	0.040	0.088	0.090	0.086	0.094	-
Disc. Public debt. A*(m-c), 2005	17298	62542	893985	693570	733858	878666	2700905	534141	5857077
Disc. Public debt. A*(m-c), 2006	-	47454	993111	759366	931547	1904933	4312115	681598	-
Rev. Grants (RG), 2005	0	4979	0	0	0	0	26241	0	0
Rev. Grants (RG), 2006	-	592	0	0	0	0	0	0	-
K (RG + DX), 2005	0	4979	0	0	0	0	26241	0	0
K (RG + DX), 2006	-	592	0	0	0	0	0	0	-
Accounting Profit (P), 2005	28718	-13963	5379180	979183	885220	3040296	5918637	454756	5906534
Accounting Profit (P), 2006	-	36216	4071553	453346	1165313	5445930	6643381	1203240	-
Taxes, 2005	0	0	55901	187798	17099	0	22667	0	1534935
Taxes, 2006	-	0	99113	215943	29557	2973	49508	0	-
Acc. profit less Taxes (AP), 2005	28718	-13963	5323280	791385	868121	3040296	5895970	454756	4371599
Acc. profit less Taxes (AP), 2006	-	36216	3972439	237403	1135756	5442957	6593873	1203240	-
Subsidy. S {E*m+A(m-c)+K-AP} 05	157571	125715	-1255382	871790	510375	-1208434	426817	661980	4262766
Subsidy. S {E*m+A(m-c)+K-AP}06	-	51780	696805	1501271	541279	-2108041	1969126	124655	-
Ave. Loan port (net) LP, 2005	844369	566584	37271686	31864634	17974025	28113671	80944722	13212365	71284934
Ave. Loan port (net) LP, 2006	-	486496	62406497	44897047	27111209	54447235	119158423	22895330	-
Rev. From lending (LP*i) , 2005	190567	201737	9275796	7191565	4170921	6934929	20822769	3117305	24969467
Rev. From lending (LP*i), 2006	-	177311	14523166	8795543	5596554	11477776	26160602	5228836	-
Yield on lending (i), 2005	0.226	0.356	0.249	0.226	0.232	0.247	0.257	0.236	0.350
Yield on lending (i), 2006	-	0.364	0.233	0.196	0.206	0.211	0.220	0.228	-
SDI (S/LP*i), 2005	0.827	0.623	-0.135	0.121	0.122	-0.174	0.020	0.212	0.171
SDI (S/LP*i), 2006	-	0.292	0.048	0.171	0.097	-0.184	0.075	0.024	-
Change in Yield, 2005	0.187	0.222	-0.034	0.027	0.028	-0.043	0.005	0.050	0.060
Change in Yield, 2006	-	0.104	0.012	0.039	0.022	-0.045	0.019	0.006	-
Nominal Subsidy free yield, 2005	0.412	0.578	0.215	0.253	0.260	0.204	0.263	0.286	0.410
Nominal Subsidy free yield, 2006	-	0.468	0.245	0.234	0.229	0.166	0.239	0.234	-
Inflation, 2005	0.138	0.138	0.051	0.051	0.051	0.051	0.051	0.051	0.042
Inflation, 2006	0.115	0.115	0.043	0.043	0.043	0.043	0.043	0.043	0.076
Real Subsidy- free yield, 2005	0.241	0.387	0.157	0.193	0.200	0.146	0.202	0.224	0.353
Real Subsidy- free yield, 2006	-	0.317	0.193	0.184	0.178	0.117	0.188	0.183	-
True Profit, 2005	11420	-81484	4429295	97815	134263	2161630	3168824	-79385	-1485478
True Profit, 2006	-	-11829	2979328	-521963	204208	3538025	2281758	521642	-
Return on Assets (ROA), 2005	0.024	-0.021	0.127	0.021	0.044	0.089	0.063	0.030	0.045
Return on Assets (ROA), 2006	-	0.062	0.059	0.005	0.039	0.086	0.049	0.048	0.000
Subsidy-adjusted ROA, 2005	0.010	-0.123	0.106	0.003	0.007	0.064	0.034	-0.005	-0.015
Subsidy-adjusted ROA, 2006	-	-0.020	0.044	-0.010	0.007	0.056	0.017	0.021	-
Return on Equity (ROE), 2005	0.042	-0.078	0.244	0.119	0.196	0.464	0.239	0.114	0.379
Return on Equity (ROE), 2006	-	0.201	0.139	0.031	0.196	0.491	0.200	0.240	0.000

Subsidy-adjusted ROE, 2005	0.017	-0.454	0.203	0.015	0.030	0.330	0.128	-0.020	-0.129
Subsidy-adjusted ROE, 2006	-	-0.066	0.104	-0.069	0.035	0.319	0.069	0.104	-

	PHILIPINES									
MFIs	**GREEN**	**BCB**	**ASHI**	**TSPI**	**NWFT**	**Ist Valley**	**CBMO**	**DIGOS**	**SOLANO**	**Bangko Ka**
Avg. Assets, 2005	27026126	3698346	1928059	10612229	9346342	15991589	6303909	4427255	4291449	21726223
Avg. Assets, 2006	-	4437864	2559700	14132176	10985633	24477895	7780781	5734154	4781483	25441566
Ave. Equity (E), 2005	3422816	472059	877923	4036764	1571892	2265262	1584987	557522	945496	3382158
Ave. Equity (E),2006	-	612187	1137348	5075999	1691182	3158722	1909281	682717	1238221	4105317
Opp. Cost of society (m), 2005	0.102	0.102	0.102	0.102	0.102	0.102	0.102	0.102	0.102	0.102
Opp. Cost of society(m), 2006	0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.098	0.098
Subsidy on Equity. E*m, 2005	348614	48079	89416	411144	160097	230717	161431	56784	96299	344473
Subsidy on Equity. E*m, 2006	-	59872	111233	496433	165398	308923	186728	66770	121098	401500
Ave. Public debt (A), 2005	4510630	1570647	658420	1098835	4908240	4161134	2118632	522721	122771	263243
Ave. Public debt (A),2006	-	1840645	884446	1172591	5549371	6305544	2528942	735322	87494	418872
Exp. Int. Public debt. A*c , 2005	488301	230372	129053	43172	447884	268436	213094	38459	3770	10605
Exp. Int. Public debt. A*c , 2006	0	210842	81403	243034	656503	1228794	250563	68647	4737	21599
Rate paid public debt (c), 2005	0.108	0.147	0.196	0.039	0.091	0.065	0.101	0.074	0.031	0.040
Rate paid public debt (c), 2006	-	0.115	0.092	0.207	0.118	0.195	0.099	0.093	0.054	0.052
Disc. Public debt. A*(m-c), 2005	-28894	-70402	-61993	68744	52021	155375	2689	14780	8734	16206
Disc. Public debt. A*(m-c), 2006	-	-30827	5096	-128354	-113774	-612112	-3233	3268	3820	19367
Rev. Grants (RG), 2005	0	0	221476	178750	59023	229606	118	0	0	0
Rev. Grants (RG), 2006	-	0	185005	187362	1804	0	0	0	0	0
K (RG + DX), 2005	0	0	221476	178750	59023	229606	118	0	0	0
K (RG + DX), 2006	-	0	185005	187362	1804	0	0	0	0	0
Accounting Profit (P), 2005	483199	160864	130742	879574	86463	433547	379122	166864	313519	811282
Accounting Profit (P), 2006	-	230652	256552	994816	92072	1038047	466694	219109	374573	1126249
Taxes, 2005	146411	0	0	0	0	54680	0	89189	88867	240329
Taxes, 2006	-	0	0	0	0	359118	0	70859	112658	292706
Acc. profit less Taxes (AP), 2005	336788	160864	130742	879574	86463	378867	379122	77674	224652	570953
Acc. profit less Taxes (AP), 2006	-	230652	256552	994816	92072	678929	466694	148250	261915	833543
Subsidy. S {E*m+A(m-c)+K-AP} 05	-17068	-183186	118157	-220936	184678	236831	-214885	-6110	-119619	-210274
Subsidy. S {E*m+A(m-c)+K-AP}06	-	-201607	44782	-439376	-38644	-982117	-283200	-78212	-136997	-412676
Ave. Loan port (net) LP, 2005	17244619	2421623	1190092	7228220	5922787	12992413	4057537	2716347	2835560	8384635
Ave. Loan port (net) LP, 2006	-	2752581	1649109	9347679	7289683	18608111	5165674	3629306	2646700	10355036
Rev. From lending (LP*i) , 2005	5154412	672771	356336	4355633	2406093	1194739	945789	592803	494857	1858336
Rev. From lending (LP*i), 2006	-	1026408	543860	6232225	2850749	4184513	1119197	789756	509013	2624921
Yield on lending (i), 2005	0.299	0.278	0.299	0.603	0.406	0.092	0.233	0.218	0.175	0.222
Yield on lending (i), 2006	-	0.373	0.330	0.667	0.391	0.225	0.217	0.218	0.192	0.253
SDI (S/LP*i), 2005	-0.003	-0.272	0.332	-0.051	0.077	0.198	-0.227	-0.010	-0.242	-0.113
SDI (S/LP*i), 2006	-	-0.196	0.082	-0.071	-0.014	-0.235	-0.253	-0.099	-0.269	-0.157
Change in Yield, 2005	-0.001	-0.076	0.099	-0.031	0.031	0.018	-0.053	-0.002	-0.042	-0.025
Change in Yield, 2006	-	-0.073	0.027	-0.047	-0.005	-0.053	-0.055	-0.022	-0.052	-0.040
Nominal Subsidy free yield, 2005	0.298	0.202	0.399	0.572	0.437	0.110	0.180	0.216	0.132	0.197
Nominal Subsidy free yield, 2006	-	0.300	0.357	0.620	0.386	0.172	0.162	0.196	0.141	0.214
Inflation, 2005	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076	0.076
Inflation, 2006	0.062	0.062	0.062	0.062	0.062	0.062	0.062	0.062	0.062	0.062
Real Subsidy- free yield, 2005	0.206	0.117	0.300	0.461	0.336	0.031	0.096	0.130	0.052	0.112
Real Subsidy- free yield, 2006	-	0.300	0.357	0.620	0.386	0.172	0.162	0.196	0.141	0.214
True Profit, 2005	365682	231266	-28740	632081	-24581	-6114	376316	62894	215918	554747
True Profit, 2006	-	261479	66451	935809	204042	1291040	469927	144982	258095	814176
Return on Assets (ROA), 2005	0.012	0.043	0.068	0.083	0.009	0.024	0.060	0.018	0.052	0.026
Return on Assets (ROA), 2006	-	0.052	0.100	0.070	0.008	0.028	0.060	0.026	0.055	0.033
Subsidy-adjusted ROA, 2005	0.014	0.063	-0.015	0.060	-0.003	0.000	0.060	0.014	0.050	0.026
Subsidy-adjusted ROA, 2006	-	0.059	0.026	0.066	0.019	0.053	0.060	0.025	0.054	0.032
Return on Equity (ROE), 2005	0.098	0.341	0.149	0.218	0.055	0.167	0.239	0.139	0.238	0.169
Return on Equity (ROE), 2006	-	0.377	0.226	0.196	0.054	0.215	0.244	0.217	0.212	0.203
Subsidy-adjusted ROE, 2005	0.107	0.490	-0.033	0.157	-0.016	-0.003	0.237	0.113	0.228	0.164
Subsidy-adjusted ROE, 2006	-	0.427	0.058	0.184	0.121	0.409	0.246	0.212	0.208	0.198

	CAMBODIA					**SOMAO**	**VIETNAM**		**INDONESIA**
MFIs	**PRASAC**	**AMRET**	**SATHA**	**HKL**	**ACLEDA**	**SPBD**	**TYM**	**CEP**	**MBK Ventu**

Avg. Assets, 2005	11267676	12899465	5830234	3667092	107722619	694580	3477510	8989815	490348
Avg. Assets, 2006	19645402	19177850	10230152	5435837	175606211	882944	4197151	11309940	978851
Ave. Equity (E), 2005	9184320	4388086	1404744	1454118	30008802	-904775	2046015	5059229	37568
Ave. Equity (E),2006	9628782	4806694	2379568	1386827	40362227	-924103	2354975	6187063	74843
Opp. Cost of society (m), 2005	0.173	0.173	0.173	0.173	0.173	0.098	0.110	0.110	0.141
Opp. Cost of society(m), 2006	0.164	0.164	0.164	0.164	0.164	0.098	0.112	0.112	0.160
Subsidy on Equity. E*m, 2005	1592010	760631	243498	252057	5201726	-88216	225573	557780	5279
Subsidy on Equity. E*m, 2006	1579024	788250	390225	227426	6619002	-90100	263286	691714	11960
Ave. Public debt (A), 2005	1366866	7549124	4035716	1800785	19194259	1569701	40284	1521179	420487
Ave. Public debt (A),2006	7473995	12468449	7238674	3040766	29565709	1771309	87168	1694814	832545
Exp. Int. Public debt. A*c , 2005	69065	660851	415729	136965	1895744	22456	0	71868	0
Exp. Int. Public debt. A*c , 2006	576940	1086513	195327	267968	2603286	35581	0	76968	0
Rate paid public debt (c), 2005	0.051	0.088	0.103	0.076	0.099	0.014	0.000	0.047	0.000
Rate paid public debt (c), 2006	0.077	0.087	0.027	0.088	0.088	0.020	0.000	0.045	0.000
Disc. Public debt. A*(m-c), 2005	167868	647714	283822	175183	1431388	130590	4441	95842	59083
Disc. Public debt. A*(m-c), 2006	648721	958188	991743	230687	2245194	137121	9745	112512	133041
Rev. Grants (RG), 2005	13282	79433	60000	72510	51392	27792	0	1057245	0
Rev. Grants (RG), 2006	10085	1367	0	123686	0	21747	0	217624	0
K (RG + DX), 2005	13282	79433	60000	72510	51392	27792	0	1057245	0
K (RG + DX), 2006	10085	1367	0	123686	0	21747	0	217624	0
Accounting Profit (P), 2005	771384	1209762	343315	326241	5422371	-34404	302539	1847348	16182
Accounting Profit (P), 2006	841711	1670811	509725	565898	8386541	-22400	280518	1303133	78423
Taxes, 2005	154254	248241	65950	65903	1100607	0	0	0	2801
Taxes, 2006	170445	332345	106601	117533	1697499	0	0	0	19902
Acc. profit less Taxes (AP), 2005	617129	961521	277366	260337	4321764	-34404	302539	1847348	13381
Acc. profit less Taxes (AP), 2006	671266	1338466	403123	448365	6689043	-22400	280518	1303133	58521
Subsidy. S {E*m+A(m-c)+K-AP} 05	1156031	526257	309954	239412	2362742	104571	-72524	-136481	50981
Subsidy. S {E*m+A(m-c)+K-AP}06	1566564	409339	978846	133434	2175153	91168	-7487	-281283	86479
Ave. Loan port (net) LP, 2005	9659063	9812099	5105299	3010935	84617443	494316	2802571	7789705	259023
Ave. Loan port (net) LP, 2006	16433021	14539024	9293352	4776086	129128320	594285	3218109	9404809	680904
Rev. From lending (LP*i) , 2005	3330233	3976590	1592250	988848	23668741	207693	654550	1943379	132573
Rev. From lending (LP*i), 2006	5203450	5787902	2555557	1543893	32573917	246022	712471	2400775	409357
Yield on lending (i), 2005	0.345	0.405	0.312	0.328	0.280	0.420	0.234	0.249	0.512
Yield on lending (i), 2006	0.317	0.398	0.275	0.323	0.252	0.414	0.221	0.255	0.601
SDI (S/LP*i), 2005	0.347	0.132	0.195	0.242	0.100	0.503	-0.111	-0.070	0.385
SDI (S/LP*i), 2006	0.301	0.071	0.383	0.086	0.067	0.371	-0.011	-0.117	0.211
Change in Yield, 2005	0.120	0.054	0.061	0.080	0.028	0.212	-0.026	-0.018	0.197
Change in Yield, 2006	0.095	0.028	0.105	0.028	0.017	0.153	-0.002	-0.030	0.127
Nominal Subsidy free yield, 2005	0.464	0.459	0.373	0.408	0.308	0.632	0.208	0.232	0.709
Nominal Subsidy free yield, 2006	0.412	0.426	0.380	0.351	0.269	0.567	0.219	0.225	0.728
Inflation, 2005	0.057	0.057	0.057	0.057	0.057	0.018	0.084	0.084	0.105
Inflation, 2006	0.047	0.047	0.047	0.047	0.047	0.038	0.077	0.077	0.131
Real Subsidy- free yield, 2005	0.386	0.381	0.299	0.333	0.238	0.602	0.114	0.136	0.547
Real Subsidy- free yield, 2006	0.412	0.426	0.380	0.351	0.269	0.567	0.219	0.225	0.728
True Profit, 2005	435979	234374	-66456	12644	2838984	-192786	298098	694261	-45702
True Profit, 2006	12460	378911	-588620	93992	4443848	-181269	270773	972997	-74520
Return on Assets (ROA), 2005	0.055	0.075	0.048	0.071	0.040	-0.050	0.087	0.205	0.027
Return on Assets (ROA), 2006	0.034	0.070	0.039	0.082	0.038	-0.025	0.067	0.115	0.060
Subsidy-adjusted ROA, 2005	0.039	0.018	-0.011	0.003	0.026	-0.278	0.086	0.077	-0.093
Subsidy-adjusted ROA, 2006	0.001	0.020	-0.058	0.017	0.025	-0.205	0.065	0.086	-0.076
Return on Equity (ROE), 2005	0.067	0.219	0.197	0.179	0.144	0.038	0.148	0.365	0.356
Return on Equity (ROE), 2006	0.070	0.278	0.169	0.323	0.166	0.024	0.119	0.211	0.782
Subsidy-adjusted ROE, 2005	0.047	0.053	-0.047	0.009	0.095	0.213	0.146	0.137	-1.217
Subsidy-adjusted ROE, 2006	0.001	0.079	-0.247	0.068	0.110	0.196	0.115	0.157	-0.996

	ALBANIA			**MONGOLIA**		**TAJIKSTAN**				
MFIs	**BESA**	**ProCredit**	**Opport.**	**Kh. Bank**	**Credit M**	**FMFB**	**Bank Esk**	**MicInv.**	**Agroinv.**	**IMON**
Avg. Assets, 2005	21502386	213202833	13036610	143742162	2207852	6842992	10975914	935077	57819833	3195091
Avg. Assets, 2006	25488658	258704658	22120554	231188532	2857739	12354475	19870002	1871169	86249035	6377869
Ave. Equity (E), 2005	10425376	20774478	7672550	10368813	1151743	4212094	3624565	711780	10781893	1337930
Ave. Equity (E),2006	12724750	22029586	9180060	20046236	1162721	5491045	5827365	800282	14744946	885741
Opp. Cost of society (m), 2005	0.131	0.131	0.131	0.236	0.236	0.233	0.233	0.233	0.233	0.233
Opp. Cost of society(m), 2006	0.129	0.129	0.129	0.214	0.214	0.244	0.244	0.244	0.244	0.244
Subsidy on Equity. E*m, 2005	1363118	2716263	1003186	2442685	271328	980112	843400	165624	2508839	311323
Subsidy on Equity. E*m, 2006	1646583	2850628	1187900	4297913	249287	1338168	1420129	195029	3593343	215855
Ave. Public debt (A), 2005	9899503	14969602	5231820	12181699	911031	299496	1935027	172515	12530747	1787301
Ave. Public debt (A),2006	11913045	13088094	12369437	15778285	1524213	1774655	6100520	898207	15564279	5310399
Exp. Int. Public debt. A*c , 2005	321850	479668	407861	239669	137211	9518	127456	25324	685313	18174
Exp. Int. Public debt. A*c , 2006	476170	414319	1333606	268755	191529	154549	427027	128681	1354698	227168

Rate paid public debt (c), 2005	0.033	0.032	0.078	0.020	0.151	0.032	0.066	0.147	0.055	0.010
Rate paid public debt (c), 2006	0.040	0.032	0.108	0.017	0.126	0.087	0.069	0.143	0.087	0.043
Disc. Public debt. A*(m-c), 2005	972510	1477607	276199	2630095	77410	60172	322805	14818	2230467	397713
Disc. Public debt. A*(m-c), 2006	1065378	1279280	266999	3114110	135262	277934	1059669	90212	2438316	1066977
Rev. Grants (RG), 2005	293309	0	285166	0	0	0	0	30138	0	44567
Rev. Grants (RG), 2006	167234	0	1765255	0	0	0	0	36076	0	18614
K (RG + DX), 2005	293309	0	285166	0	0	0	0	30138	0	44567
K (RG + DX), 2006	167234	0	1765255	0	0	0	0	36076	0	18614
Accounting Profit (P), 2005	1522298	4510667	835244	5772064	93111	275562	1544166	129731	3445184	276556
Accounting Profit (P), 2006	2810819	5611277	2915723	15306118	57962	590026	2401509	199661	6192906	904043
Taxes, 2005	0	1291728	0	2001097	26746	10129	387567	0	890602	100296
Taxes, 2006	0	1606979	0	5013762	21635	185512	612988	49913	1773180	257154
Acc. profit less Taxes (AP), 2005	1522298	3218939	835244	3770967	66365	265434	1156599	129731	2554582	176260
Acc. profit less Taxes (AP), 2006	2810819	4004298	2915723	10292355	36327	404514	1788521	149748	4419726	646889
Subsidy. S {E*m+A(m-c)+K-AP} 05	1106639	974932	729307	1301813	282373	774850	9607	80850	2184723	577343
Subsidy. S {E*m+A(m-c)+K-AP}06	68375	125611	304430	-2880332	348223	1211588	691278	171569	1611934	654556
Ave. Loan port (net) LP, 2005	19665249	99683029	11440218	87182226	1815055	2082239	4144571	763558	33821338	3036217
Ave. Loan port (net) LP, 2006	24631931	105577206	19372585	158251775	2431495	5443087	8064444	1535067	49727124	6017066
Rev. From lending (LP*i) , 2005	4603423	18606911	2553277	24944849	616965	513286	1274470	339934	8444496	700045
Rev. From lending (LP*i), 2006	6569957	20927660	5075287	45317200	853746	1485451	2544545	656717	12870566	2172367
Yield on lending (i), 2005	0.234	0.187	0.223	0.286	0.340	0.247	0.308	0.445	0.250	0.231
Yield on lending (i), 2006	0.267	0.198	0.262	0.286	0.351	0.273	0.316	0.428	0.259	0.361
SDI (S/LP*i), 2005	0.240	0.052	0.286	0.052	0.458	1.510	0.008	0.238	0.259	0.825
SDI (S/LP*i), 2006	0.010	0.006	0.060	-0.064	0.408	0.816	0.27	0.261	0.125	0.301
Change in Yield, 2005	0.056	0.010	0.064	0.015	0.156	0.372	0.002	0.106	0.065	0.190
Change in Yield, 2006	0.003	0.001	0.016	-0.018	0.143	0.223	0.08	0.112	0.032	0.109
Nominal Subsidy free yield, 2005	0.290	0.196	0.287	0.301	0.495	0.619	0.310	0.551	0.314	0.421
Nominal Subsidy free yield, 2006	0.270	0.199	0.278	0.268	0.494	0.495	0.401	0.540	0.291	0.470
Inflation, 2005	0.024	0.024	0.024	0.127	0.127	0.095	0.095	0.095	0.095	0.095
Inflation, 2006	0.024	0.024	0.024	0.051	0.051	0.095	0.095	0.095	0.095	0.095
Real Subsidy- free yield, 2005	0.261	0.169	0.257	0.154	0.327	0.478	0.196	0.417	0.200	0.297
Real Subsidy- free yield, 2006	0.270	0.199	0.278	0.268	0.494	0.495	0.401	0.540	0.291	0.470
True Profit, 2005	256479	1741331	273879	1140872	-11045	205262	833793	84774	324116	-266020
True Profit, 2006	1578207	2725018	883469	7178245	-98935	126579	728850	23460	1981410	-438701
Return on Assets (ROA), 2005	0.071	0.015	0.064	0.026	0.030	0.039	0.105	0.139	0.044	0.055
Return on Assets (ROA), 2006	0.110	0.015	0.132	0.045	0.013	0.033	0.090	0.080	0.051	0.101
Subsidy-adjusted ROA, 2005	0.012	0.008	0.021	0.008	-0.005	0.030	0.076	0.091	0.006	-0.083
Subsidy-adjusted ROA, 2006	0.062	0.011	0.040	0.031	-0.035	0.010	0.040	0.013	0.023	-0.069
Return on Equity (ROE), 2005	0.146	0.155	0.109	0.364	0.058	0.063	0.319	0.182	0.237	0.132
Return on Equity (ROE), 2006	0.221	0.182	0.318	0.513	0.031	0.074	0.307	0.187	0.300	0.730
Subsidy-adjusted ROE, 2005	0.025	0.084	0.036	0.110	-0.010	0.049	0.230	0.119	0.030	-0.199
Subsidy-adjusted ROE, 2006	0.124	0.124	0.096	0.358	-0.085	0.023	0.125	0.029	0.134	-0.495

	RUSIA	**KYRGYSTAN**			**ARMENIA**			**AZERBAIJAN**			
MFIs	**FORUS**	**A Bank**	**FMCC**	**BTFF**	**INECO**	**ACBA**	**HOZON**	**C AGRO**	**ACCES**	**NMICRO**	**Viator**
Avg. Assets, 2005	28924470	44560466	11348483	8045470	20736132	66288713	1388225	4805007	15346385	1543750	2254215
Avg. Assets, 2006	49701336	53673564	18898921	13393974	49037694	111737516	1824331	7767155	38605695	2175590	2956073
Ave. Equity (E), 2005	12892275	13749093	2534062	3820620	9868360	15082806	300957	4349024	6454633	1091386	2090569
Ave. Equity (E),2006	14018138	16569775	4108399	4602882	14657130	33639789	520117	4937601	6785567	1327625	2723646
Opp. Cost of society (m), 2005	0.107	0.266	0.266	0.266	0.180	0.180	0.180	0.170	0.170	0.170	0.170
Opp. Cost of society(m), 2006	0.104	0.232	0.232	0.232	0.165	0.165	0.165	0.179	0.179	0.179	0.179
Subsidy on Equity. E*m, 2005	1377282	3657259	674060	1016285	1774726	2712492	54124	740552	1099095	185841	355982
Subsidy on Equity. E*m, 2006	1461391	3844188	953149	1067869	2422824	5560657	85975	881856	1211902	237114	486443
Ave. Public debt (A), 2005	15620139	25392445	6671359	4028671	4667377	25291678	1066231	398829	8434336	306551	125000
Ave. Public debt (A),2006	19565895	31406736	11708404	8557333	9573947	37007274	1285262	2649862	29575393	705726	175000
Exp. Int. Public debt. A*c , 2005	1186980	1143027	1062351	276441	280025	2245687	28413	7158	760666	22305	12070
Exp. Int. Public debt. A*c , 2006	446876	1824484	1424000	1005748	533084	3711293	44327	177938	2580941	34273	11900
Rate paid public debt (c), 2005	0.076	0.045	0.159	0.069	0.060	0.089	0.027	0.018	0.090	0.073	0.097
Rate paid public debt (c), 2006	0.023	0.058	0.122	0.118	0.056	0.100	0.034	0.067	0.087	0.049	0.068
Disc. Public debt. A*(m-c), 2005	481719	5459009	672202	771014	559357	2302768	163338	60754	675533	29895	9215
Disc. Public debt. A*(m-c), 2006	1592869	5461879	1292350	979553	1049490	2406009	168126	295327	2701224	91770	19355
Rev. Grants (RG), 2005	0	55496	0	51065	0	0	0	53478	0	14215	264133
Rev. Grants (RG), 2006	0	51235	0	24883	0	0	0	41116	0	17527	197535
K (RG + DX), 2005	0	55496	0	51065	0	0	0	53478	0	14215	264133
K (RG + DX), 2006	0	51235	0	24883	0	0	0	41116	0	17527	197535
Accounting Profit (P), 2005	1784176	3325981	881317	574479	3051892	3231167	209699	209413	219690	176699	717654
Accounting Profit (P), 2006	666553	3076459	2532000	862752	3853241	5414558	248933	584658	238806	202002	616413
Taxes, 2005	681048	568232	210375	146634	606345	712822	53975	947	73375	42408	0
Taxes, 2006	139107	319116	257000	159138	777791	1325851	32869	134082	40184	44440	0
Acc. profit less Taxes (AP), 2005	1103128	2757748	670942	427845	2445547	2518346	155724	208466	146315	134291	717654
Acc. profit less Taxes (AP), 2006	527445	2757343	2275000	703614	3075450	4088707	216063	450576	198622	157562	616413
Subsidy. S {E*m+A(m-c)+K-AP}	755873	6414016	675321	1410519	-111464	2496914	61739	646318	1628313	95660	-88324

05											
Subsidy. S {E*m+A(m-c)+K-AP}06	2526815	6599959	-29502	1368690	396863	3877960	38039	767723	3714504	188848	86920
Ave. Loan port (net) LP, 2005	21627297	40251299	10179767	4980330	17819279	42917221	1214405	4476259	12228732	1405104	1805270
Ave. Loan port (net) LP, 2006	31438855	48316828	14979574	8293740	27252171	71110146	1549614	24110263913	32019417	2023173	2583647
Rev. From lending (LP*i) , 2005	7933649	6843559	4475424	1211429	3876012	8821435	497822	940147	3525677	522077	727280
Rev. From lending (LP*i), 2006	7599734	7442295	7166000	2468857	5785436	14277920	494847	8041607348	9180253	649192	1053936
Yield on lending (i), 2005	0.367	0.170	0.440	0.243	0.218	0.206	0.410	0.210	0.288	0.372	0.403
Yield on lending (i), 2006	0.242	0.154	0.478	0.298	0.212	0.201	0.319	0.334	0.287	0.321	0.408
SDI (S/LP*i), 2005	0.095	0.937	0.151	1.164	-0.029	0.283	0.124	0.687	0.462	0.183	-0.121
SDI (S/LP*i), 2006	0.332	0.887	-0.004	0.554	0.069	0.272	0.077	0.000	0.405	0.291	0.082
Change in Yield, 2005	0.035	0.159	0.066	0.283	-0.006	0.058	0.051	0.144	0.133	0.068	-0.049
Change in Yield, 2006	0.080	0.137	-0.002	0.165	0.015	0.055	0.025	0.000	0.116	0.093	0.034
Nominal Subsidy free yield, 2005	0.402	0.329	0.506	0.526	0.211	0.264	0.461	0.354	0.421	0.440	0.354
Nominal Subsidy free yield, 2006	0.322	0.291	0.476	0.463	0.227	0.255	0.344	0.334	0.403	0.414	0.442
Inflation, 2005	0.127	0.044	0.044	0.044	0.006	0.006	0.006	0.116	0.116	0.116	0.116
Inflation, 2006	0.097	0.056	0.056	0.056	0.029	0.029	0.029	0.083	0.083	0.083	0.083
Real Subsidy- free yield, 2005	0.244	0.274	0.443	0.463	0.204	0.256	0.451	0.214	0.274	0.290	0.213
Real Subsidy- free yield, 2006	0.322	0.291	0.476	0.463	0.227	0.255	0.344	0.334	0.403	0.414	0.442
True Profit, 2005	621409	-2756757	-1260	-394234	1886190	215577	-7615	94234	-529218	90181	444306
True Profit, 2006	-1065424	-2755771	982650	-300821	2025960	1682698	47937	114133	-2502602	48265	399523
Return on Assets (ROA), 2005	0.038	0.062	0.059	0.053	0.118	0.038	0.112	0.043	0.010	0.087	0.318
Return on Assets (ROA), 2006	0.011	0.051	0.120	0.053	0.063	0.037	0.118	0.058	0.005	0.072	0.209
Subsidy-adjusted ROA, 2005	0.021	-0.062	0.000	-0.049	0.091	0.003	-0.005	0.020	-0.034	0.058	0.197
Subsidy-adjusted ROA, 2006	-0.021	-0.051	0.052	-0.022	0.041	0.015	0.026	0.015	-0.065	0.022	0.135
Return on Equity (ROE), 2005	0.086	0.201	0.265	0.112	0.248	0.167	0.517	0.048	0.023	0.123	0.343
Return on Equity (ROE), 2006	0.038	0.166	0.554	0.153	0.210	0.122	0.415	0.091	0.029	0.119	0.226
Subsidy-adjusted ROE, 2005	0.048	-0.201	0.000	-0.103	0.191	0.014	-0.025	0.022	-0.082	0.083	0.213
Subsidy-adjusted ROE, 2006	-0.076	-0.166	0.239	-0.065	0.138	0.050	0.092	0.023	-0.369	0.036	0.147

	BOSNIA				KAZTAN	GEORGIA			
MFIs	MIKROFIN	PARTNER	SUNRISE	EKI	KMF	CREDO	Lazika	C FUND	Constanta
Avg. Assets, 2005	34669400	35079439	15032974	31570118	10805891	2129818	820822	1111535	7493648
Avg. Assets, 2006	56254421	51538989	23384935	47976734	27516518	4008172	1297400	1869970	20081106
Ave. Equity (E), 2005	12401952	11222901	4866110	7612796	4515763	1354136	646445	602160	6317600
Ave. Equity (E),2006	16199471	14717787	6279300	11534285	6118309	1625513	758545	702355	7109821
Opp. Cost of society (m), 2005	0.096	0.096	0.096	0.096	0.110	0.216	0.216	0.216	0.216
Opp. Cost of society(m), 2006	0.080	0.080	0.080	0.080	0.110	0.188	0.188	0.188	0.188
Subsidy on Equity. E*m, 2005	1192200	1078857	467779	731818	496734	292940	139845	130265	1366686
Subsidy on Equity. E*m, 2006	1297578	1178895	502972	923896	673014	304784	142227	131692	1333091
Ave. Public debt (A), 2005	21858559	23477852	10079781	22504437	6197970	690188	160964	438328	1145424
Ave. Public debt (A),2006	39617704	34873772	16816647	35505986	21160162	2263525	543004	986263	12695278
Exp. Int. Public debt. A*c , 2005	1186688	1098655	470439	551604	579944	38748	0	38986	94891
Exp. Int. Public debt. A*c , 2006	2406351	1863163	1031337	1522596	1830587	149507	1748	95801	1285714
Rate paid public debt (c), 2005	0.054	0.047	0.047	0.025	0.094	0.056	0.000	0.089	0.083
Rate paid public debt (c), 2006	0.061	0.053	0.061	0.043	0.087	0.066	0.003	0.097	0.101
Disc. Public debt. A*(m-c), 2005	914576	1158271	498531	1611748	101833	110560	34821	55837	152899
Disc. Public debt. A*(m-c), 2006	767027	930227	315676	1321433	497031	274904	100066	89124	1094650
Rev. Grants (RG), 2005	0	0	0	97283	160112	372857	32811	45832	314430
Rev. Grants (RG), 2006	0	2056143	0	2244744	109242	83156	11759	8132	377259
K (RG + DX), 2005	0	0	0	97283	160112	372857	32811	45832	314430
K (RG + DX), 2006	0	2056143	0	2244744	109242	83156	11759	8132	377259
Accounting Profit (P), 2005	2360346	1669935	887381	1700701	1564107	388324	18882	172835	379562
Accounting Profit (P), 2006	5262830	5404960	1954999	6127307	2968049	189208	140159	40691	1267638
Taxes, 2005	0	0	0	0	437973	0	0	30305	28636
Taxes, 2006	0	0	0	0	873141	0	20446	8138	276968
Acc. profit less Taxes (AP), 2005	2360346	1669935	887381	1700701	1126134	388324	18882	142530	350926
Acc. profit less Taxes (AP), 2006	5262830	5404960	1954999	6127307	2094907	189208	119713	32553	990671
Subsidy. S {E*m+A(m-c)+K-AP} 05	-253571	567193	78928	740148	-367455	388034	188596	89405	1483089
Subsidy. S {E*m+A(m-c)+K-AP}06	-3198225	-1239696	-1136351	-1637234	-815620	473636	134340	196394	1814331
Ave. Loan port (net) LP, 2005	32266905	31260781	13866672	28965943	8437069	1748963	761400	942252	6190463
Ave. Loan port (net) LP, 2006	49917814	45995206	21056289	45200187	18534925	3452107	1265167	1370416	13813998
Rev. From lending (LP*i) , 2005	5631183	6194038	3700191	5068151	3718422	532996	221690	412287	2704660
Rev. From lending (LP*i), 2006	9030445	9889844	6435483	9410923	8333076	1109658	387183	633892	4909038
Yield on lending (i), 2005	0.175	0.198	0.267	0.175	0.441	0.305	0.291	0.438	0.437
Yield on lending (i), 2006	0.181	0.215	0.306	0.208	0.450	0.321	0.306	0.463	0.355
SDI (S/LP*i), 2005	-0.045	0.092	0.021	0.146	-0.099	0.728	0.851	0.217	0.548
SDI (S/LP*i), 2006	-0.354	-0.125	-0.177	-0.174	-0.098	0.427	0.347	0.310	0.370
Change in Yield, 2005	-0.008	0.018	0.006	0.026	-0.044	0.222	0.248	0.095	0.240
Change in Yield, 2006	-0.064	-0.027	-0.054	-0.036	-0.044	0.137	0.106	0.143	0.131
Nominal Subsidy free yield, 2005	0.167	0.216	0.273	0.201	0.397	0.527	0.539	0.532	0.676
Nominal Subsidy free yield, 2006	0.117	0.188	0.252	0.172	0.406	0.459	0.412	0.606	0.487
Inflation, 2005	0.036	0.036	0.036	0.036	0.076	0.082	0.082	0.082	0.082

Inflation, 2006	0.036	0.036	0.036	0.036	0.086	0.082	0.082	0.082	0.082
Real Subsidy- free yield, 2005	0.126	0.174	0.228	0.159	0.299	0.411	0.422	0.416	0.549
Real Subsidy- free yield, 2006	0.117	0.188	0.252	0.172	0.406	0.459	0.412	0.606	0.487
True Profit, 2005	1445771	511664	388851	-8330	864189	-95093	-48750	40860	-116403
True Profit, 2006	4495803	2418591	1639323	2561130	1488634	-168852	7888	-64703	-481239
Return on Assets (ROA), 2005	0.068	0.048	0.059	0.054	0.104	0.182	0.023	0.128	0.047
Return on Assets (ROA), 2006	0.094	0.105	0.084	0.128	0.076	0.047	0.092	0.017	0.049
Subsidy-adjusted ROA, 2005	0.042	0.015	0.026	0.000	0.080	-0.045	-0.059	0.037	-0.016
Subsidy-adjusted ROA, 2006	0.080	0.047	0.070	0.053	0.054	-0.042	0.006	-0.035	-0.024
Return on Equity (ROE), 2005	0.190	0.149	0.182	0.223	0.249	0.287	0.029	0.237	0.056
Return on Equity (ROE), 2006	0.325	0.367	0.311	0.531	0.342	0.116	0.158	0.046	0.139
Subsidy-adjusted ROE, 2005	0.117	0.046	0.080	-0.001	0.191	-0.070	-0.075	0.068	-0.018
Subsidy-adjusted ROE, 2006	0.278	0.164	0.261	0.222	0.243	-0.104	0.010	-0.092	-0.068

	EGYPT			**JORDON**		**MORROCO**					**TUNSIA**
MFIs	**DBACD**	**LEAD**	**Al TAD.**	**Tamwl.**	**MFW**	**AL AMA.**	**Fondep**	**Zakoura**	**Inmaa**	**Al KAR.**	**Enda**
Avg. Assets, 2005	16383646	6187250	2292461	6089330	5554616	69531686	9340710	18991401	1409057	1040007	5538500
Avg. Assets, 2006	18969678	10802774	2936538	7923125	8247182	170225364	21358952	62711806	1743082	1677725	10323297
Ave. Equity (E), 2005	9583425	4294533	872478	3228597	4483606	23707753	3879317	13088207	116140	801515	4327381
Ave. Equity (E),2006	10963573	7259072	1357669	3689117	5574406	29253461	6745270	15635049	276909	1035319	5891100
Opp. Cost of society (m), 2005	0.131	0.131	0.131	0.076	0.076	0.115	0.115	0.115	0.115	0.115	0.100
Opp. Cost of society(m), 2006	0.126	0.126	0.126	0.082	0.082	0.115	0.115	0.115	0.115	0.115	0.100
Subsidy on Equity. E*m, 2005	1259454	564388	114661	245599	341068	2726392	446121	1505144	13356	92174	432738
Subsidy on Equity. E*m, 2006	1381410	914643	171066	301770	455986	3364148	775706	1798031	31845	119062	589110
Ave. Public debt (A), 2005	6303188	1892717	1379978	1674871	987268	28184137	4745052	9399395	570922	212575	900012
Ave. Public debt (A),2006	7581328	3543817	1500638	2577730	2502950	89798500	12712146	32520524	662298	591969	3570235
Exp. Int. Public debt. A*c , 2005	715535	227029	58729	40116	55637	2161583	207008	846096	18001	4187	30118
Exp. Int. Public debt. A*c , 2006	784817	342184	80449	127181	195650	6398839	806754	2030561	26635	18052	267470
Rate paid public debt (c), 2005	0.114	0.120	0.043	0.024	0.056	0.077	0.044	0.090	0.032	0.020	0.033
Rate paid public debt (c), 2006	0.104	0.097	0.054	0.049	0.078	0.071	0.063	0.062	0.040	0.030	0.075
Disc. Public debt. A*(m-c), 2005	112830	21711	122628	87292	19465	1079592	338673	234835	47655	20259	59883
Disc. Public debt. A*(m-c), 2006	170430	104336	108632	83678	9091	3927988	655143	1709299	49529	50025	89554
Rev. Grants (RG), 2005	0	3915064	364137	10011	1062294	130759	27363	226584	89803	5560	199260
Rev. Grants (RG), 2006	0	2209428	25359	4355	42313	0	31325	254087	22942	18098	144285
K (RG + DX), 2005	0	3915064	364137	10011	1062294	130759	27363	226584	89803	5560	199260
K (RG + DX), 2006	0	2209428	25359	4355	42313	0	31325	254087	22942	18098	144285
Accounting Profit (P), 2005	799977	3580116	573277	419408	1636490	4076465	869133	2281635	152729	162726	732777
Accounting Profit (P), 2006	1473946	3909284	350694	455780	484087	6898484	4172427	2891021	155248	180643	1309410
Taxes, 2005	0	0	0	0	0	3894	0	0	0	0	0
Taxes, 2006	0	0	0	0	0	6633	0	0	0	0	0
Acc. profit less Taxes (AP), 2005	799977	3580116	573277	419408	1636490	4072572	869133	2281635	152729	162726	732777
Acc. profit less Taxes (AP), 2006	1473946	3909284	350694	455780	484087	6891850	4172427	2891021	155248	180643	1309410
Subsidy. S {E*m+A(m-c)+K-AP} 05	572307	921046	28149	-76506	-213664	-135829	-56975	-315072	-1915	-44732	-40895
Subsidy. S {E*m+A(m-c)+K-AP}06	77895	-680877	-45636	-65977	23303	400286	-2710254	870395	-50932	6541	-486462
Ave. Loan port (net) LP, 2005	7533015	2148561	1017671	4494323	4221606	65987339	7389409	29055179	1037396	894027	4950225
Ave. Loan port (net) LP, 2006	10011149	3894247	1659206	6652702	6724517	151222408	18767114	58557979	1439862	1449883	8769785
Rev. From lending (LP*i) , 2005	2359061	692139	28849	1218705	1706924	16953493	2485507	8316461	404339	405660	922497
Rev. From lending (LP*i), 2006	3122343	1449345	63363	1766717	2442661	32635631	8200320	14247809	575964	581240	1542361
Yield on lending (i), 2005	0.313	0.322	0.028	0.271	0.404	0.257	0.336	0.286	0.390	0.454	0.186
Yield on lending (i), 2006	0.312	0.372	0.038	0.266	0.363	0.21	0.437	0.243	0.400	0.401	0.176
SDI (S/LP*i), 2005	0.243	1.331	0.976	-0.063	-0.125	-0.008	-0.023	-0.038	-0.005	-0.110	-0.044
SDI (S/LP*i), 2006	0.025	-0.470	-0.720	-0.037	0.010	0.012	-0.331	0.061	-0.088	0.011	-0.315
Change in Yield, 2005	0.076	0.429	0.028	-0.017	-0.051	-0.002	-0.008	-0.011	-0.002	-0.050	-0.008
Change in Yield, 2006	0.008	-0.175	-0.028	-0.010	0.003	0.003	-0.144	0.050	-0.035	0.005	-0.055
Nominal Subsidy free yield, 2005	0.389	0.751	0.056	0.254	0.354	0.255	0.329	0.275	0.388	0.404	0.178
Nominal Subsidy free yield, 2006	0.320	0.197	0.011	0.256	0.367	0.218	0.293	0.258	0.365	0.405	0.120
Inflation, 2005	0.049	0.049	0.049	0.035	0.035	0.010	0.010	0.010	0.010	0.010	0.020
Inflation, 2006	0.076	0.076	0.076	0.063	0.063	0.033	0.033	0.033	0.033	0.033	0.045
Real Subsidy- free yield, 2005	0.325	0.670	0.007	0.212	0.308	0.243	0.316	0.263	0.374	0.390	0.155
Real Subsidy- free yield, 2006	0.226	0.112	-0.061	0.182	0.286	0.179	0.251	0.218	0.321	0.361	0.072
True Profit, 2005	687147	-356659	86513	322105	554732	2862220	503097	1820216	15271	136906	473634
True Profit, 2006	1303516	1595520	216703	367747	432683	2963862	3485960	927635	82777	112521	1075572
Return on Assets (ROA), 2005	0.049	0.579	0.250	0.069	0.295	0.059	0.093	0.120	0.108	0.156	0.132
Return on Assets (ROA), 2006	0.078	0.362	0.119	0.058	0.059	0.040	0.195	0.046	0.089	0.108	0.127
Subsidy-adjusted ROA, 2005	0.042	-0.058	0.038	0.053	0.100	0.041	0.054	0.096	0.011	0.132	0.086
Subsidy-adjusted ROA, 2006	0.069	0.148	0.074	0.046	0.052	0.017	0.163	0.018	0.047	0.067	0.104
Return on Equity (ROE), 2005	0.083	0.834	0.657	0.130	0.365	0.172	0.224	0.174	1.315	0.203	0.169
Return on Equity (ROE), 2006	0.134	0.539	0.258	0.124	0.087	0.236	0.619	0.185	0.561	0.174	0.222
Subsidy-adjusted ROE, 2005	0.072	-0.083	0.099	0.100	0.124	0.121	0.130	0.139	0.131	0.171	0.109
Subsidy-adjusted ROE, 2006	0.119	0.220	0.160	0.100	0.078	0.101	0.517	0.059	0.299	0.109	0.183

Appendix D DEA Efficiencies for R^s (R-S) for 2005

MFIs	Coun	LR-ACE				LR^s -ACE				R-ACE				R^s -ACE			
		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale	
ARMP	AFG	0.676	0.766	0.882	drs	0.676	0.766	0.882	drs	0.401	0.402	0.998	irs	0.043	0.071	0.605	drs
FMFB AFG	AFG	0.341	0.350	0.976	drs	0.286	0.315	0.906	drs	0.324	0.326	0.997	irs	0.076	0.089	0.851	drs
BESA	ALB	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.771	0.800	0.964	irs	0.437	0.452	0.968	drs
ProCred ALB	ALB	0.655	0.745	0.878	drs	0.601	0.745	0.807	drs	0.645	0.680	0.949	drs	0.407	0.602	0.677	drs
PSHM	ALB	0.778	0.859	0.906	drs	0.774	0.858	0.902	drs	0.647	0.650	0.996	irs	0.228	0.248	0.919	drs
ACBA	ARM	0.654	0.715	0.914	drs	0.628	0.708	0.888	drs	0.633	0.665	0.952	drs	0.253	0.435	0.581	drs
HORIZON	ARM	0.891	0.956	0.932	irs	0.710	0.753	0.943	irs	0.862	0.940	0.917	irs	0.190	0.218	0.871	irs
INECO	ARM	0.847	0.909	0.932	drs	0.638	0.699	0.913	drs	0.847	0.909	0.932	drs	0.301	0.585	0.514	drs
CRED AGRO	AZE	0.868	0.874	0.993	drs	0.868	0.874	0.993	drs	0.658	0.668	0.985	irs	0.055	0.056	0.996	-
MFBA	AZE	0.691	0.807	0.856	drs	0.691	0.807	0.856	drs	0.549	0.549	1.000	-	0.078	0.176	0.445	drs
NORMICRO	AZE	0.912	0.969	0.941	irs	0.753	0.789	0.955	irs	0.868	0.941	0.922	irs	0.193	0.207	0.930	irs
Viator	AZE	0.897	0.921	0.974	irs	0.754	0.763	0.988	irs	0.862	0.892	0.966	irs	0.252	0.252	1.000	-
ASA	BAN	0.993	1.000	0.993	drs	0.916	1.000	0.916	drs	0.993	1.000	0.993	drs	0.391	1.000	0.391	drs
BRAC BAN	BAN	0.793	0.975	0.813	drs	0.700	0.975	0.718	drs	0.732	0.798	0.917	drs	0.000	0.001	0.224	drs
B TANGAIL	BAN	0.864	0.894	0.966	drs	0.805	0.907	0.888	drs	0.812	0.812	1.000	-	0.219	0.459	0.476	drs
DESHA	BAN	0.750	0.777	0.965	irs	0.720	0.727	0.990	irs	0.661	0.697	0.948	irs	0.141	0.157	0.902	irs
IDF	BAN	0.801	0.813	0.985	irs	0.787	0.787	0.999	-	0.701	0.722	0.972	irs	0.167	0.170	0.986	irs
RDRS	BAN	0.581	0.605	0.961	drs	0.581	0.605	0.961	drs	0.411	0.411	1.000	-	0.002	0.003	0.672	drs
SHAKTI	BAN	0.859	0.925	0.928	drs	0.859	0.926	0.927	drs	0.614	0.615	0.999	-	0.125	0.208	0.600	drs
TMSS	BAN	0.661	0.756	0.875	drs	0.659	0.756	0.872	drs	0.534	0.534	1.000	-	0.040	0.101	0.396	drs
FECECAM	BEN	0.508	0.559	0.908	drs	0.424	0.556	0.764	drs	0.481	0.485	0.992	drs	0.114	0.420	0.273	drs
ALIDE	BEN	0.697	1.000	0.697	irs	0.669	1.000	0.669	irs	0.359	1.000	0.359	irs	0.011	1.000	0.011	irs
PADME	BEN	0.741	0.815	0.909	drs	0.709	0.806	0.880	drs	0.697	0.703	0.992	drs	0.198	0.389	0.509	drs
VF	BEN	0.758	0.761	0.997	drs	0.722	0.745	0.968	drs	0.711	0.715	0.995	irs	0.229	0.229	1.000	-
RCPB	BF	0.681	0.800	0.851	drs	0.681	0.800	0.851	drs	0.460	0.466	0.987	drs	0.125	0.403	0.311	drs
Agrocapital	BOL	0.717	0.796	0.900	drs	0.714	0.796	0.898	drs	0.569	0.571	0.996	irs	0.129	0.148	0.867	drs
BANCOSOL	BOL	0.737	0.910	0.810	drs	0.730	0.910	0.802	drs	0.648	0.682	0.951	drs	0.293	0.574	0.510	drs
Bnaco L A	BOL	0.759	0.985	0.771	drs	0.759	0.985	0.771	drs	0.561	0.596	0.941	drs	0.197	0.406	0.485	drs
CRECER	BOL	0.857	0.930	0.921	drs	0.743	0.911	0.815	drs	0.804	0.840	0.958	drs	0.214	0.496	0.431	drs
Eco Futuro	BOL	0.705	0.795	0.887	drs	0.705	0.802	0.878	drs	0.607	0.607	1.000	-	0.206	0.319	0.647	drs
FADES	BOL	0.839	1.000	0.839	drs	0.820	0.993	0.826	drs	0.668	0.668	1.000	-	0.094	0.219	0.429	drs
FIE	BOL	0.786	0.943	0.833	drs	0.786	0.943	0.833	drs	0.632	0.641	0.985	drs	0.165	0.449	0.368	drs
Foncresol	BOL	0.893	0.937	0.953	irs	0.893	0.937	0.953	irs	0.719	0.780	0.921	irs	0.120	0.151	0.795	irs
FunBodem	BOL	0.845	0.861	0.981	irs	0.700	0.700	0.999	-	0.781	0.808	0.966	irs	0.196	0.214	0.920	irs
PRODEM	BOL	0.701	0.902	0.777	drs	0.676	0.902	0.749	drs	0.622	0.645	0.965	drs	0.190	0.544	0.348	drs
ProMujar	BOL	0.737	0.813	0.906	drs	0.674	0.791	0.852	drs	0.651	0.652	0.999	irs	0.093	0.183	0.509	drs
EKI	BOS	0.863	0.963	0.896	drs	0.863	0.963	0.896	drs	0.592	0.593	0.997	drs	0.267	0.356	0.752	drs
MIKROFIN	BOS	0.992	1.000	0.992	drs	1.000	1.000	1.000	-	0.730	0.731	0.999	irs	0.484	0.523	0.925	drs
PARTNER	BOS	0.906	0.952	0.952	drs	0.912	0.956	0.954	drs	0.725	0.729	0.995	drs	0.402	0.455	0.884	drs
SUNRISE	BOS	0.838	0.926	0.906	drs	0.817	0.934	0.876	drs	0.721	0.725	0.994	irs	0.334	0.400	0.834	drs
ACEP	CAM	0.923	0.932	0.990	irs	0.796	0.803	0.992	irs	0.839	0.864	0.971	irs	0.123	0.128	0.956	irs
CDS	CAM	0.548	0.549	1.000	-	0.472	0.522	0.904	drs	0.521	0.521	0.999	irs	0.139	0.187	0.746	drs
CMM Bog	COL	0.847	0.956	0.886	drs	0.765	0.955	0.801	drs	0.762	0.762	1.000	-	0.221	0.469	0.472	drs
Finamerica	COL	0.797	0.921	0.865	drs	0.721	0.922	0.782	drs	0.713	0.713	1.000	-	0.253	0.522	0.484	drs
FMM Buca	COL	0.898	0.910	0.986	drs	0.785	0.921	0.852	drs	0.883	0.884	1.000	-	0.390	0.737	0.530	drs
FMM Pop	COL	1.000	1.000	1.000	-	0.872	1.000	0.872	drs	1.000	1.000	1.000	-	0.361	0.835	0.433	drs
WMM Med	COL	0.897	0.937	0.957	drs	0.869	0.926	0.938	drs	0.848	0.848	1.000	-	0.192	0.328	0.587	drs
WWB Ca	COL	0.946	1.000	0.946	drs	0.907	1.000	0.907	drs	0.922	0.946	0.975	drs	0.484	0.829	0.583	drs
ACLEDA	COM	0.704	0.858	0.820	drs	0.651	0.858	0.759	drs	0.630	0.646	0.976	drs	0.126	0.556	0.227	drs
AMRET	COM	0.794	0.810	0.981	drs	0.619	0.748	0.828	drs	0.776	0.777	0.999	irs	0.159	0.346	0.461	drs
CEB	COM	0.798	0.798	1.000	-	0.728	0.760	0.958	drs	0.718	0.721	0.996	irs	0.127	0.167	0.763	drs
HKL	COM	0.755	0.759	0.995	irs	0.707	0.710	0.996	irs	0.661	0.671	0.985	irs	0.125	0.125	1.000	-
PRASAC	COM	0.755	0.848	0.890	drs	0.696	0.822	0.847	drs	0.650	0.655	0.992	drs	0.118	0.230	0.513	drs
CrediMujer	CR	0.854	1.000	0.854	irs	0.652	0.895	0.728	irs	0.825	1.000	0.825	irs	0.154	0.539	0.286	irs
Fundecoca	CR	0.764	1.000	0.764	irs	0.654	1.000	0.654	irs	0.750	1.000	0.750	irs	0.129	1.000	0.129	irs
ADEMI	DOM	1.000	1.000	1.000	-	0.875	0.982	0.891	drs	1.000	1.000	1.000	-	0.605	0.955	0.634	drs
Banco Sol	ECU	0.878	1.000	0.878	drs	0.839	1.000	0.839	drs	0.878	1.000	0.878	drs	0.678	1.000	0.678	drs
COAC Jardin	ECU	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.796	0.807	0.986	drs	0.344	0.407	0.845	drs
Coac S Jose	ECU	0.884	0.889	0.995	irs	0.884	0.890	0.994	irs	0.577	0.587	0.983	irs	0.289	0.306	0.944	irs
COAC SAC	ECU	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.831	0.862	0.964	irs	0.311	0.343	0.908	irs

MFIs	Coun	LR-ACE				LR^s -ACE				R-ACE				R^s -ACE			
		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale	
D-Miro	ECU	0.869	0.870	0.999	irs	0.747	0.803	0.929	drs	0.813	0.821	0.991	irs	0.259	0.287	0.900	drs
Finca	ECU	1.000	1.000	1.000	-	0.820	1.000	0.820	drs	0.988	0.994	0.994	drs	0.444	0.733	0.606	drs
FODEMI	ECU	0.737	0.746	0.988	irs	0.741	0.752	0.985	irs	0.606	0.637	0.952	irs	0.168	0.186	0.905	irs
Fundacion Es	ECU	0.898	0.899	1.000	-	0.785	0.812	0.967	drs	0.841	0.848	0.992	irs	0.272	0.292	0.931	drs
PROcredit	ECU	0.867	1.000	0.867	drs	0.876	1.000	0.876	drs	0.724	0.734	0.987	drs	0.413	0.633	0.653	drs
Al Tadamun	EGY	0.700	0.728	0.962	irs	0.417	0.426	0.981	irs	0.700	0.728	0.962	irs	0.156	0.164	0.949	irs
DBACD	EGY	0.662	0.668	0.991	drs	0.530	0.550	0.963	drs	0.662	0.668	0.991	drs	0.172	0.226	0.760	drs
AMC de RL	ELS	0.722	0.730	0.988	drs	0.625	0.698	0.895	drs	0.664	0.667	0.996	irs	0.152	0.204	0.744	drs
Fundacion	ELS	0.695	0.733	0.948	irs	0.695	0.733	0.948	irs	0.576	0.627	0.918	irs	0.159	0.211	0.753	irs
ACSI	ETH	0.831	0.898	0.925	drs	0.838	0.917	0.914	drs	0.702	0.749	0.937	drs	0.309	0.603	0.513	drs
ADCSI	ETH	0.994	1.000	0.994	drs	0.994	1.000	0.994	drs	0.592	0.594	0.998	irs	0.195	0.197	0.988	irs
BG	ETH	0.604	0.678	0.892	irs	0.604	0.678	0.892	irs	0.354	0.397	0.892	irs	0.027	0.037	0.727	irs
DECSI	ETH	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.436	0.732	0.596	drs
OMO	ETH	0.687	0.709	0.969	drs	0.687	0.709	0.969	drs	0.401	0.401	1.000	-	0.094	0.094	0.999	-
WISDOM	ETH	0.739	0.742	0.996	drs	0.739	0.742	0.996	drs	0.501	0.517	0.969	irs	0.084	0.085	0.989	irs
KSF	GHA	0.700	1.000	0.700	irs	0.677	1.000	0.677	irs	0.537	1.000	0.537	irs	0.122	1.000	0.122	irs
OI SASL	GHA	0.570	0.611	0.934	drs	0.492	0.548	0.897	drs	0.538	0.557	0.966	drs	0.146	0.212	0.690	drs
ProCredit	GHA	0.800	0.834	0.958	drs	0.621	0.726	0.855	drs	0.798	0.834	0.957	drs	0.274	0.466	0.588	drs
Sat	GHA	0.606	0.609	0.994	irs	0.506	0.506	1.000	-	0.582	0.589	0.988	irs	0.132	0.139	0.955	drs
C FUND	GOE	0.923	1.000	0.923	irs	0.742	0.798	0.930	irs	0.892	0.990	0.901	irs	0.208	0.236	0.878	irs
Constanta	GOE	0.844	0.893	0.945	drs	0.701	0.785	0.893	drs	0.685	0.782	0.876	drs	0.138	0.209	0.658	drs
CREDO	GOE	0.642	0.645	0.996	irs	0.625	0.637	0.982	irs	0.510	0.527	0.969	irs	0.037	0.037	1.000	-
SBDF	GOE	0.797	0.882	0.903	irs	0.774	0.869	0.890	irs	0.584	0.684	0.854	irs	0.034	0.045	0.759	irs
Fafidess	GUA	0.864	0.864	1.000	-	0.781	0.788	0.991	drs	0.793	0.803	0.987	irs	0.269	0.270	0.999	-
Fundacion M	GUA	0.537	0.582	0.923	irs	0.533	0.582	0.916	irs	0.427	0.469	0.911	irs	0.062	0.077	0.799	irs
Fundea	GUA	0.759	0.769	0.987	drs	0.640	0.709	0.903	drs	0.711	0.713	0.997	irs	0.147	0.212	0.695	drs
Genesis Em	GUA	0.824	0.957	0.861	drs	0.745	0.950	0.785	drs	0.742	0.750	0.988	drs	0.188	0.505	0.373	drs
ACME	HAI	1.000	1.000	1.000	-	0.754	0.766	0.985	drs	1.000	1.000	1.000	-	0.339	0.339	0.999	-
Finca	HON	0.870	0.871	0.999	irs	0.668	0.676	0.989	drs	0.861	0.863	0.998	irs	0.242	0.242	0.999	-
HDH	HON	0.702	0.717	0.979	drs	0.658	0.681	0.965	drs	0.604	0.605	0.998	irs	0.126	0.143	0.883	drs
World Rel	HON	0.751	0.792	0.948	drs	0.673	0.736	0.914	drs	0.676	0.676	1.000	-	0.184	0.249	0.740	drs
BANDHAN	IND	0.921	0.939	0.982	drs	0.921	0.939	0.981	drs	0.583	0.585	0.995	irs	0.157	0.157	1.000	-
BASIX	IND	0.733	0.834	0.879	drs	0.692	0.837	0.826	drs	0.649	0.650	1.000	-	0.130	0.373	0.349	drs
Cashpoor	IND	0.448	0.463	0.967	drs	0.352	0.416	0.847	drs	0.427	0.427	0.999	-	0.047	0.095	0.493	drs
ESAF	IND	0.661	0.674	0.980	drs	0.656	0.672	0.977	drs	0.503	0.505	0.997	irs	0.144	0.147	0.981	irs
GK	IND	0.663	0.669	0.991	drs	0.659	0.668	0.987	drs	0.540	0.545	0.991	irs	0.128	0.129	0.999	-
IASC	IND	0.833	0.842	0.989	drs	0.833	0.842	0.989	drs	0.734	0.737	0.996	irs	0.236	0.242	0.974	irs
KBSLAB	IND	0.617	0.619	0.997	irs	0.574	0.580	0.990	drs	0.573	0.579	0.991	irs	0.099	0.099	0.994	drs
Mahaseman	IND	0.753	0.760	0.990	drs	0.621	0.633	0.980	drs	0.730	0.730	1.000	-	0.284	0.285	0.999	-
SHARE MF	IND	0.799	0.913	0.875	drs	0.773	0.909	0.850	drs	0.739	0.741	0.998	drs	0.198	0.678	0.292	drs
SNFL	IND	0.949	0.977	0.972	drs	0.949	0.977	0.972	drs	0.545	0.546	0.998	irs	0.078	0.079	0.987	irs
MBK Ventu	IND	0.631	0.792	0.797	irs	0.513	0.670	0.766	irs	0.593	0.792	0.749	irs	0.090	0.243	0.370	irs
JMCC	JOR	0.671	0.687	0.977	drs	0.651	0.694	0.939	drs	0.582	0.586	0.992	irs	0.148	0.183	0.810	drs
MFW	JOR	0.755	0.756	0.999	irs	0.622	0.673	0.925	drs	0.729	0.734	0.992	irs	0.203	0.250	0.813	drs
KLF	KAZ	0.893	0.893	1.000	-	0.688	0.812	0.848	drs	0.892	0.893	0.999	irs	0.242	0.464	0.521	drs
EBS	KEN	0.572	0.602	0.950	drs	0.298	0.633	0.470	drs	0.572	0.602	0.950	drs	0.265	0.633	0.418	drs
Kadet	KEN	0.427	0.428	0.996	irs	0.372	0.373	0.998	irs	0.387	0.392	0.988	irs	0.028	0.028	1.000	-
K-REP	KEN	0.585	0.691	0.846	drs	0.554	0.689	0.804	drs	0.521	0.521	1.000	-	0.146	0.367	0.400	drs
KWFT	KEN	0.643	0.671	0.958	drs	0.505	0.645	0.783	drs	0.619	0.619	1.000	-	0.168	0.412	0.407	drs
MDSL	KEN	0.777	0.849	0.915	irs	0.653	0.702	0.931	irs	0.734	0.815	0.900	irs	0.192	0.268	0.715	irs
SMEP	KEN	0.622	0.637	0.976	drs	0.537	0.601	0.894	drs	0.573	0.576	0.995	irs	0.131	0.180	0.728	drs
AIYL Bank	KYR	0.972	1.000	0.972	drs	0.972	1.000	0.972	drs	0.660	0.704	0.938	drs	0.017	0.039	0.438	drs
BTFF	KYR	0.625	0.628	0.996	drs	0.621	0.627	0.991	drs	0.597	0.597	1.000	-	0.012	0.012	0.940	drs
FMCC	KYR	0.918	1.000	0.918	drs	0.826	0.983	0.840	drs	0.794	0.882	0.900	drs	0.219	0.433	0.505	drs
FINCA	MAL	1.000	1.000	1.000	-	0.677	0.681	0.994	irs	1.000	1.000	1.000	-	0.349	0.349	1.000	-
Kando Jagima	MAL	0.371	0.402	0.923	drs	0.376	0.409	0.919	drs	0.253	0.254	0.998	irs	0.071	0.105	0.680	drs
Soro Y	MAL	0.643	0.675	0.953	irs	0.643	0.675	0.953	irs	0.298	0.306	0.974	irs	0.024	0.024	1.000	-
CreditMongol	MON	0.803	0.826	0.973	irs	0.689	0.706	0.976	irs	0.736	0.765	0.961	irs	0.104	0.107	0.975	irs
Khan Bank	MON	0.838	0.873	0.960	drs	0.665	0.784	0.849	drs	0.838	0.873	0.960	drs	0.241	0.742	0.325	drs
AL AMANA	MOR	0.801	1.000	0.801	drs	0.807	1.000	0.807	drs	0.651	0.651	0.999	-	0.148	0.604	0.244	drs
Al Karama	MOR	0.850	0.932	0.912	irs	0.789	0.848	0.931	irs	0.777	0.859	0.904	irs	0.260	0.292	0.890	irs

MFIs	Coun	LR-ACE				LR^s -ACE				R-ACE				R^s -ACE			
		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale	
Fondep	MOR	0.773	0.834	0.928	drs	0.758	0.846	0.896	drs	0.677	0.678	0.999	irs	0.155	0.284	0.547	drs
Inmaa	MOR	0.673	0.706	0.953	irs	1.000	1.000	1.000	-	0.583	0.649	0.899	irs	1.000	1.000	1.000	-
Zakoura	MOR	0.787	0.974	0.808	drs	0.772	0.985	0.784	drs	0.659	0.701	0.941	drs	0.180	0.553	0.325	drs
NVO BANCO	MOZ	0.792	0.856	0.926	drs	0.624	0.728	0.857	drs	0.766	0.829	0.923	drs	0.187	0.333	0.562	drs
SOCREMO	MOZ	0.795	0.801	0.992	drs	0.562	0.624	0.901	drs	0.793	0.801	0.990	drs	0.161	0.230	0.699	drs
TCHUMA	MOZ	0.866	0.866	0.999	irs	0.703	0.706	0.996	irs	0.751	0.756	0.992	irs	0.222	0.222	0.999	-
CBB	NEP	0.635	0.640	0.993	irs	0.484	0.492	0.984	drs	0.635	0.640	0.993	irs	0.186	0.196	0.950	irs
NIRDHAN	NEP	0.622	0.632	0.985	drs	0.617	0.631	0.978	drs	0.500	0.501	0.997	irs	0.117	0.122	0.962	drs
NSSC	NEP	0.626	0.634	0.988	irs	0.398	0.409	0.972	drs	0.626	0.634	0.988	irs	0.210	0.230	0.915	irs
PGBB	NEP	0.608	0.615	0.988	drs	0.596	0.611	0.976	drs	0.534	0.534	0.999	-	0.118	0.118	0.996	irs
VYCCU	NEP	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.924	1.000	0.924	irs	0.404	1.000	0.404	irs
ACODEP	NIC	0.960	0.963	0.998	drs	0.723	0.887	0.815	drs	0.957	0.961	0.996	drs	0.391	0.664	0.589	drs
FAMA	NIC	0.891	0.897	0.994	drs	0.778	0.889	0.875	drs	0.872	0.872	1.000	-	0.271	0.551	0.492	drs
FDL	NIC	0.763	0.847	0.901	drs	0.720	0.852	0.845	drs	0.703	0.703	1.000	-	0.195	0.552	0.353	drs
FINDESA	NIC	0.878	0.890	0.987	drs	0.758	0.878	0.864	drs	0.878	0.889	0.989	drs	0.407	0.764	0.533	drs
FJN	NIC	0.874	0.889	0.983	drs	0.747	0.874	0.855	drs	0.840	0.840	0.999	irs	0.248	0.465	0.534	drs
FUNDENUSE	NIC	0.952	0.955	0.997	irs	0.809	0.858	0.942	drs	0.938	0.943	0.995	irs	0.331	0.380	0.870	drs
ProCredit	NIC	0.884	0.946	0.934	drs	0.775	0.948	0.818	drs	0.849	0.851	0.998	drs	0.392	0.773	0.507	drs
Prodesa	NIC	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.475	0.487	0.976	irs
LAPO	NIG	0.746	0.747	0.998	irs	0.560	0.578	0.969	drs	0.745	0.747	0.997	irs	0.212	0.224	0.946	drs
SEAP	NIG	0.974	1.000	0.974	irs	0.766	1.000	0.766	irs	0.974	1.000	0.974	irs	0.462	1.000	0.462	irs
ASASAH	PAK	0.910	0.924	0.985	irs	0.754	0.819	0.921	irs	0.725	0.731	0.993	irs	0.298	0.337	0.883	irs
FMBL	PAK	0.336	0.337	0.997	drs	0.243	0.256	0.949	drs	0.336	0.337	0.997	drs	0.019	0.036	0.527	drs
KASHF	PAK	0.681	0.681	1.000	-	0.621	0.664	0.935	drs	0.681	0.681	1.000	-	0.188	0.321	0.586	drs
FIELCO	PAR	0.872	0.872	1.000	-	0.640	0.783	0.818	drs	0.871	0.871	0.999	irs	0.197	0.468	0.421	drs
Interfisa	PAR	0.899	0.900	1.000	-	0.663	0.792	0.837	drs	0.899	0.900	1.000	-	0.203	0.532	0.380	drs
Bantra	PER	0.942	1.000	0.942	drs	0.732	1.000	0.732	drs	0.917	1.000	0.917	drs	0.312	1.000	0.312	drs
Caja Nor	PER	0.737	0.772	0.955	drs	0.662	0.767	0.863	drs	0.707	0.707	1.000	-	0.236	0.501	0.471	drs
Caritas	PER	0.758	0.796	0.952	drs	0.679	0.742	0.915	drs	0.618	0.623	0.992	drs	0.073	0.102	0.713	drs
CMAC Arq	PER	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.864	1.000	0.864	drs
CMAC Cus	PER	1.000	1.000	1.000	-	0.941	1.000	0.941	drs	1.000	1.000	1.000	-	0.613	0.947	0.648	drs
CMAC May	PER	0.798	0.839	0.951	drs	0.674	0.827	0.816	drs	0.754	0.754	1.000	-	0.270	0.500	0.541	drs
CMAC Tac	PER	0.830	0.863	0.962	drs	0.807	0.858	0.941	drs	0.796	0.808	0.985	drs	0.417	0.565	0.738	drs
CMAC Tru	PER	0.903	0.997	0.905	drs	0.899	0.997	0.901	drs	0.819	0.836	0.979	drs	0.551	0.764	0.721	drs
Edpy. C Tac	PER	0.893	0.894	0.999	irs	0.766	0.828	0.925	drs	0.831	0.841	0.988	irs	0.289	0.290	0.998	irs
Edpy. Cofian	PER	0.810	0.829	0.978	drs	0.700	0.795	0.881	drs	0.781	0.781	1.000	-	0.237	0.366	0.646	drs
EDPY.Edyf	PER	0.815	0.895	0.910	drs	0.666	0.874	0.762	drs	0.769	0.769	1.000	-	0.185	0.540	0.344	drs
FINCA	PER	0.803	0.844	0.952	irs	0.584	0.602	0.971	irs	0.803	0.844	0.952	irs	0.250	0.250	1.000	-
Fondesurco	PER	0.782	0.827	0.946	irs	0.724	0.763	0.949	irs	0.692	0.756	0.915	irs	0.113	0.146	0.774	irs
MiBanco	PER	0.850	1.000	0.850	drs	0.766	1.000	0.766	drs	0.803	0.914	0.879	drs	0.395	0.991	0.398	drs
Movim. M R	PER	0.828	0.848	0.976	irs	0.722	0.737	0.979	irs	0.725	0.750	0.967	irs	0.228	0.228	1.000	-
Promujer	PER	0.883	0.888	0.994	irs	0.704	0.705	0.999	drs	0.856	0.864	0.991	irs	0.197	0.198	0.999	-
ASHI	PHI	0.629	0.630	0.998	irs	0.538	0.548	0.982	irs	0.556	0.568	0.978	irs	0.159	0.159	1.000	-
Bangko Ka	PHI	0.564	0.577	0.976	drs	0.446	0.482	0.925	drs	0.564	0.577	0.976	drs	0.192	0.328	0.584	drs
BCB	PHI	0.847	0.864	0.980	irs	0.623	0.626	0.996	irs	0.847	0.864	0.980	irs	0.223	0.223	0.997	irs
CBMO	PHI	0.731	0.733	0.997	irs	0.622	0.633	0.983	drs	0.721	0.725	0.994	irs	0.191	0.222	0.858	drs
DIGOS	PHI	0.655	0.660	0.992	irs	1.000	1.000	1.000	-	0.624	0.634	0.984	irs	1.000	1.000	1.000	-
GREEN	PHI	0.693	0.727	0.954	drs	0.545	0.694	0.785	drs	0.682	0.687	0.993	drs	0.169	0.489	0.345	drs
Ist Valley	PHI	0.838	0.850	0.985	drs	0.756	0.842	0.898	drs	0.799	0.799	1.000	-	0.193	0.383	0.503	drs
NWFT	PHI	0.694	0.719	0.965	drs	0.539	0.626	0.861	drs	0.687	0.701	0.980	drs	0.191	0.325	0.587	drs
SOLANO	PHI	0.780	0.807	0.967	irs	0.689	0.692	0.994	irs	0.780	0.807	0.967	irs	0.278	0.334	0.832	irs
TSPI	PHI	0.748	0.903	0.828	drs	0.614	0.759	0.809	drs	0.709	0.903	0.784	drs	0.284	0.621	0.458	drs
FORUS	RUS	0.688	0.734	0.937	drs	0.590	0.726	0.812	drs	0.648	0.648	1.000	-	0.216	0.451	0.479	drs
SEF-ZAF	SA	1.000	1.000	1.000	-	0.742	0.758	0.979	drs	1.000	1.000	1.000	-	0.316	0.317	0.999	-
SPBD	SAM	0.708	0.876	0.809	irs	0.551	0.803	0.686	irs	0.681	0.876	0.777	irs	0.125	0.527	0.236	irs
ACEP	SEN	1.000	1.000	1.000	-	0.991	1.000	0.991	drs	0.823	0.835	0.986	drs	0.306	0.357	0.855	drs
CMS	SEN	0.672	0.751	0.895	drs	0.656	0.751	0.873	drs	0.586	0.595	0.985	drs	0.260	0.393	0.662	drs
Pamecas	SEN	0.654	0.826	0.792	drs	0.654	0.828	0.790	drs	0.505	0.505	1.000	-	0.161	0.360	0.447	drs
MCHL	T&T	0.656	0.686	0.957	irs	0.635	0.667	0.951	irs	0.521	0.569	0.916	irs	0.142	0.172	0.829	irs
Agroinvest	TAJ	0.809	0.810	0.999	drs	0.599	0.709	0.845	drs	0.809	0.810	0.999	drs	0.169	0.563	0.300	drs
Bank Eskhata	TAJ	0.899	0.900	0.999	irs	0.402	0.430	0.935	drs	0.899	0.900	0.999	irs	0.226	0.351	0.643	drs

FMFB TAJ	**TAJ**	0.430	0.431	0.998	irs	0.358	0.364	0.981	drs	0.430	0.431	0.998	irs	0.029	0.032	0.901	drs
IMON	**TAJ**	0.835	0.839	0.995	irs	0.694	0.697	0.996	irs	0.778	0.787	0.989	irs	0.114	0.114	1.000	-
MicroInvest	**TAJ**	0.809	0.884	0.914	irs	0.684	0.740	0.923	irs	0.765	0.847	0.903	irs	0.183	0.211	0.866	irs
FINCA TAN	**TAN**	0.914	0.960	0.953	drs	0.733	0.820	0.894	drs	0.883	0.936	0.943	drs	0.321	0.449	0.715	drs
PRIDE	**TAN**	0.917	1.000	0.917	drs	0.806	0.967	0.834	drs	0.839	0.890	0.943	drs	0.283	0.569	0.498	drs
Enda	**TUN**	0.836	0.873	0.958	drs	0.778	0.835	0.932	drs	0.763	0.763	0.999	irs	0.223	0.280	0.799	drs
CERUDEB	**UGA**	0.611	0.643	0.951	drs	0.408	0.614	0.665	drs	0.611	0.643	0.951	drs	0.241	0.614	0.392	drs
CMFL	**UGA**	0.837	0.843	0.992	drs	0.510	0.580	0.880	drs	0.837	0.843	0.992	drs	0.250	0.366	0.683	drs
FAULU	**UGA**	0.763	0.763	0.999	-	0.527	0.555	0.950	drs	0.763	0.763	0.999	-	0.214	0.241	0.891	drs
FINCA UGA	**UGA**	0.989	1.000	0.989	drs	0.733	0.837	0.876	drs	0.989	1.000	0.989	drs	0.401	0.586	0.684	drs
MEDNET	**UGA**	0.660	0.662	0.997	irs	0.552	0.555	0.995	drs	0.626	0.631	0.992	irs	0.144	0.144	1.000	-
UML	**UGA**	0.839	0.959	0.875	drs	0.598	0.730	0.820	drs	0.839	0.959	0.875	drs	0.208	0.460	0.452	drs
BanGente	**VEN**	0.864	0.946	0.914	drs	0.720	0.911	0.790	drs	0.806	0.828	0.974	drs	0.206	0.493	0.418	drs
CEP	**VIET**	0.699	0.797	0.877	drs	0.710	0.815	0.872	drs	0.578	0.579	0.998	irs	0.143	0.244	0.586	drs
TYM	**VIET**	0.715	0.718	0.996	drs	0.723	0.724	0.999	-	0.549	0.564	0.973	irs	0.143	0.144	0.992	irs
CETZAM	**ZAM**	1.000	1.000	1.000	-	0.686	0.703	0.975	irs	1.000	1.000	1.000	-	0.078	0.078	1.000	-
FINCA ZAM	**ZAM**	0.883	0.886	0.996	irs	0.623	0.651	0.957	irs	0.824	0.833	0.989	irs	0.122	0.122	1.000	-
Mean		**0.786**	**0.833**	**0.945**		**0.700**	**0.781**	**0.900**		**0.707**	**0.735**	**0.966**		**0.222**	**0.369**	**0.691**	

Appendix E DEA Efficiencies for treating positive Subsidy as an input for 2005

MFIs	cou	LR-ACE				LR-ACES[i]				L-ACE				L-ACES[i]				R- ACE				R-ACES[i]			
		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale	
ARMP	**AFG**	0.676	0.766	0.882	drs	0.676	0.766	0.882	drs	0.676	0.766	0.882	drs	0.676	0.766	0.882	drs	0.380	0.383	0.994	irs	0.397	0.404	0.981	irs
BRAC AFG	**AFG**	0.423	0.491	0.860	drs	0.423	0.491	0.860	drs	0.409	0.485	0.844	drs	0.409	0.485	0.844	drs	0.267	0.311	0.860	drs	0.287	0.315	0.911	drs
FMFB AFG	**AFG**	0.344	0.351	0.978	drs	0.344	0.351	0.978	drs	0.286	0.316	0.904	drs	0.286	0.316	0.904	drs	0.316	0.318	0.994	drs	0.325	0.327	0.993	irs
BESA	**ALB**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.822	0.838	0.982	irs	0.822	0.838	0.982	irs
ProCred ALB	**ALB**	0.800	0.837	0.956	drs	0.811	0.837	0.969	drs	0.526	0.837	0.629	drs	0.732	0.837	0.875	drs	0.790	0.824	0.958	drs	0.804	0.824	0.975	drs
PSHM	**ALB**	0.782	0.859	0.910	drs	0.782	0.859	0.910	drs	0.774	0.858	0.902	drs	0.774	0.858	0.902	drs	0.635	0.637	0.997	irs	0.656	0.665	0.986	irs
NovoBanco	**ANG**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.453	0.488	0.928	drs	0.453	0.488	0.928	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
ACBA	**ARM**	0.769	0.770	0.999	drs	0.769	0.770	0.999	drs	0.626	0.725	0.864	drs	0.626	0.725	0.864	drs	0.769	0.770	0.999	drs	0.769	0.770	0.999	drs
HORIZON	**ARM**	0.887	0.970	0.914	irs	0.912	1.000	0.912	irs	0.677	0.720	0.940	irs	0.677	0.721	0.938	irs	0.796	0.909	0.875	irs	0.884	1.000	0.884	irs
CRED AGRO	**AZE**	0.880	0.896	0.983	irs	0.880	0.896	0.983	irs	0.878	0.891	0.985	irs	0.878	0.891	0.985	irs	0.685	0.718	0.955	irs	0.685	0.718	0.955	irs
MFBA	**AZE**	0.693	0.807	0.859	drs	0.693	0.807	0.859	drs	0.693	0.807	0.859	drs	0.693	0.807	0.859	drs	0.539	0.541	0.996	drs	0.552	0.556	0.994	irs
NORMICRO	**AZE**	0.908	0.958	0.947	irs	0.920	0.975	0.943	irs	0.722	0.756	0.955	irs	0.722	0.756	0.955	irs	0.784	0.883	0.888	irs	0.867	0.962	0.902	irs
BRAC BAN	**BAN**	0.814	1.000	0.814	drs	0.819	1.000	0.819	drs	0.702	1.000	0.702	drs	0.702	1.000	0.702	drs	0.720	0.928	0.776	drs	0.720	0.928	0.776	drs
DESHA	**BAN**	0.764	0.818	0.934	irs	0.884	1.000	0.884	irs	0.710	0.758	0.937	irs	0.884	1.000	0.884	irs	0.648	0.709	0.913	irs	0.733	0.822	0.892	irs
RDRS	**BAN**	0.598	0.605	0.989	drs	0.598	0.607	0.985	drs	0.591	0.605	0.976	drs	0.591	0.607	0.973	drs	0.467	0.470	0.995	irs	0.467	0.470	0.995	irs
SHAKTI	**BAN**	0.866	0.925	0.936	drs	0.866	0.950	0.912	drs	0.866	0.925	0.936	drs	0.866	0.950	0.912	drs	0.632	0.640	0.989	irs	0.643	0.655	0.982	irs
TMSS	**BAN**	0.675	0.769	0.878	drs	0.675	0.769	0.878	drs	0.665	0.769	0.864	drs	0.665	0.769	0.864	drs	0.548	0.548	1.000	-	0.548	0.548	1.000	-
FECECAM	**BEN**	0.512	0.564	0.907	drs	0.592	0.610	0.970	drs	0.405	0.558	0.725	drs	0.544	0.580	0.938	drs	0.456	0.483	0.943	drs	0.575	0.586	0.981	drs
ALIDE	**BEN**	0.697	1.000	0.697	irs	0.697	1.000	0.697	irs	0.669	1.000	0.669	irs	0.669	1.000	0.669	irs	0.359	1.000	0.359	irs	0.359	1.000	0.359	irs
PADME	**BEN**	0.795	0.823	0.966	drs	0.795	0.823	0.966	drs	0.717	0.816	0.878	drs	0.717	0.820	0.874	drs	0.742	0.743	0.999	irs	0.742	0.743	0.999	irs
VF	**BEN**	0.809	0.819	0.987	irs	0.809	0.819	0.987	irs	0.728	0.733	0.994	drs	0.728	0.743	0.980	drs	0.751	0.769	0.977	irs	0.754	0.776	0.973	irs
Agrocapital	**BOL**	0.717	0.796	0.900	drs	0.717	0.796	0.900	drs	0.714	0.796	0.898	drs	0.714	0.796	0.898	drs	0.551	0.555	0.993	drs	0.564	0.567	0.994	irs
BANCOSOL	**BOL**	0.765	0.947	0.808	drs	0.779	0.947	0.823	drs	0.720	0.947	0.760	drs	0.741	0.947	0.782	drs	0.698	0.810	0.863	drs	0.699	0.810	0.863	drs
Bnaco L A	**BOL**	0.759	1.000	0.759	drs	0.759	1.000	0.759	drs	0.759	1.000	0.759	drs	0.759	1.000	0.759	drs	0.589	0.691	0.853	drs	0.591	0.691	0.856	drs
CRECER	**BOL**	0.854	0.935	0.913	drs	0.986	0.992	0.994	irs	0.701	0.847	0.827	drs	0.845	0.909	0.929	drs	0.718	0.816	0.880	drs	0.960	0.963	0.997	irs
Eco Futuro	**BOL**	0.728	0.796	0.914	drs	0.742	0.842	0.881	drs	0.709	0.796	0.891	drs	0.741	0.842	0.881	drs	0.612	0.612	0.999	irs	0.639	0.642	0.995	irs
FADES	**BOL**	0.839	1.000	0.839	drs	0.839	1.000	0.839	drs	0.820	0.993	0.826	drs	0.820	0.993	0.826	drs	0.610	0.649	0.939	drs	0.654	0.660	0.991	drs
FIE	**BOL**	0.802	0.965	0.832	drs	0.808	0.967	0.836	drs	0.793	0.965	0.823	drs	0.793	0.967	0.821	drs	0.664	0.670	0.990	drs	0.668	0.670	0.996	drs
Foncresol	**BOL**	0.894	0.988	0.905	irs	0.894	0.988	0.905	irs	0.894	0.985	0.908	irs	0.894	0.985	0.908	irs	0.695	0.782	0.889	irs	0.721	0.842	0.856	irs
FunBodem	**BOL**	0.848	0.861	0.985	irs	0.850	0.865	0.982	irs	0.697	0.700	0.995	irs	0.697	0.700	0.995	irs	0.746	0.771	0.968	irs	0.774	0.815	0.950	irs
PRODEM	**BOL**	0.722	0.911	0.792	drs	0.722	0.911	0.792	drs	0.679	0.911	0.745	drs	0.683	0.911	0.749	drs	0.622	0.682	0.911	drs	0.647	0.682	0.948	drs
ProMujar	**BOL**	0.735	0.813	0.904	drs	0.735	0.813	0.904	drs	0.674	0.791	0.852	drs	0.674	0.791	0.852	drs	0.610	0.611	0.997	drs	0.640	0.646	0.992	irs
EKI	**BOS**	0.863	0.969	0.891	drs	0.880	0.988	0.891	drs	0.863	0.969	0.891	drs	0.880	0.988	0.891	drs	0.606	0.607	0.998	drs	0.618	0.622	0.994	irs
PARTNER	**BOS**	0.906	0.953	0.951	drs	0.972	0.991	0.981	drs	0.902	0.953	0.947	drs	0.952	0.991	0.960	drs	0.797	0.804	0.991	irs	0.797	0.809	0.985	irs
SUNRISE	**BOS**	0.835	0.926	0.903	drs	1.000	1.000	1.000	-	0.780	0.903	0.864	drs	1.000	1.000	1.000	-	0.680	0.687	0.990	drs	0.910	0.943	0.965	irs
ACEP	**CAM**	0.930	0.947	0.982	irs	0.930	0.948	0.981	irs	0.796	0.805	0.989	irs	0.796	0.805	0.989	irs	0.801	0.832	0.962	irs	0.822	0.867	0.948	irs
CDS	**CAM**	0.564	0.564	0.999	drs	0.581	0.584	0.994	irs	0.460	0.502	0.916	drs	0.517	0.529	0.977	drs	0.512	0.517	0.991	irs	0.558	0.566	0.987	irs
CMM Bog	**COL**	0.841	0.956	0.880	drs	0.893	0.980	0.911	drs	0.744	0.922	0.807	drs	0.802	0.969	0.827	drs	0.706	0.742	0.951	drs	0.832	0.834	0.999	irs
Finamerica	**COL**	0.802	0.934	0.858	drs	0.825	0.951	0.867	drs	0.708	0.934	0.758	drs	0.768	0.945	0.812	drs	0.685	0.707	0.969	drs	0.768	0.768	1.000	-
WMM Med	**COL**	0.976	0.983	0.993	irs	0.976	0.983	0.993	irs	0.881	0.904	0.974	drs	0.881	0.928	0.949	drs	0.921	0.935	0.985	irs	0.921	0.935	0.985	irs
WWB Ca	**COL**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.855	1.000	0.855	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-

ACLEDA	**COM**	0.715	0.901	0.794	drs	0.735	0.903	0.814	drs	0.642	0.901	0.713	drs	0.705	0.903	0.781	drs	0.611	0.671	0.911	drs	0.668	0.685	0.976	drs
AMRET	**COM**	0.801	0.813	0.986	drs	0.818	0.823	0.994	drs	0.592	0.707	0.838	drs	0.592	0.724	0.818	drs	0.733	0.738	0.992	drs	0.797	0.799	0.998	irs
CEB	**COM**	0.812	0.813	0.999	irs	0.813	0.815	0.998	irs	0.725	0.753	0.963	drs	0.725	0.753	0.963	drs	0.700	0.714	0.980	irs	0.725	0.752	0.965	irs
HKL	**COM**	0.755	0.758	0.995	irs	0.755	0.759	0.995	irs	0.705	0.709	0.996	irs	0.705	0.709	0.996	irs	0.612	0.631	0.971	irs	0.660	0.685	0.963	irs
PRASAC	**COM**	0.755	0.848	0.890	drs	0.755	0.848	0.890	drs	0.696	0.816	0.853	drs	0.696	0.816	0.853	drs	0.579	0.629	0.921	drs	0.643	0.651	0.988	drs
CrediMujer	**CR**	0.852	1.000	0.852	irs	0.852	1.000	0.852	irs	0.631	0.856	0.737	irs	0.631	0.856	0.737	irs	0.771	1.000	0.771	irs	0.780	1.000	0.780	irs
Fundecoca	**CR**	0.807	1.000	0.807	irs	0.807	1.000	0.807	irs	0.659	1.000	0.659	irs	0.659	1.000	0.659	irs	0.787	1.000	0.787	irs	0.787	1.000	0.787	irs
ADEMI	**DOM**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.755	0.926	0.815	drs	0.758	0.926	0.819	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Banco Sol	**ECU**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.760	1.000	0.760	drs	1.000	1.000	1.000	-	0.970	1.000	0.970	drs	1.000	1.000	1.000	-
COAC Jardin	**ECU**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Coac S Jose	**ECU**	0.886	0.893	0.993	irs	1.000	1.000	1.000	-	0.886	0.893	0.993	irs	1.000	1.000	1.000	-	0.699	0.723	0.966	irs	0.700	0.823	0.851	irs
COAC SAC	**ECU**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.792	0.815	0.972	irs	0.873	0.955	0.914	irs
PROcredit	**ECU**	0.880	1.000	0.880	drs	1.000	1.000	1.000	-	0.850	1.000	0.850	drs	1.000	1.000	1.000	-	0.761	0.762	0.999	irs	0.834	0.838	0.996	irs
Al Tadamun	**EGY**	0.664	0.709	0.936	irs	0.789	0.877	0.899	irs	0.371	0.383	0.968	irs	0.458	0.504	0.908	irs	0.664	0.709	0.937	irs	0.789	0.877	0.899	irs
DBACD	**EGY**	0.868	0.869	1.000	-	0.868	0.869	1.000	-	0.529	0.538	0.983	drs	0.529	0.546	0.970	drs	0.868	0.869	1.000	-	0.868	0.869	1.000	-
LEAD	**EGY**	0.358	0.360	0.994	irs	0.358	0.360	0.994	irs	0.316	0.326	0.971	drs	0.316	0.326	0.971	drs	0.322	0.328	0.980	irs	0.322	0.330	0.977	irs
AMC de RL	**ELS**	0.725	0.732	0.991	drs	0.739	0.743	0.994	drs	0.610	0.677	0.902	drs	0.616	0.691	0.892	drs	0.629	0.635	0.991	irs	0.692	0.701	0.987	irs
Fundacion	**ELS**	0.702	0.763	0.920	irs	0.703	0.819	0.859	irs	0.698	0.763	0.914	irs	0.698	0.815	0.856	irs	0.568	0.619	0.918	irs	0.587	0.720	0.815	irs
ADCSI	**ETH**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.869	0.878	0.990	irs	0.869	0.878	0.990	irs
BG	**ETH**	0.604	0.682	0.886	irs	0.604	0.682	0.886	irs	0.604	0.682	0.886	irs	0.604	0.682	0.886	irs	0.330	0.413	0.799	irs	0.349	0.432	0.808	irs
OMO	**ETH**	0.707	0.709	0.996	drs	0.707	0.711	0.994	drs	0.706	0.709	0.995	drs	0.706	0.711	0.992	drs	0.549	0.549	0.999	-	0.549	0.549	0.999	-
WISDOM	**ETH**	0.743	0.767	0.969	irs	0.743	0.767	0.969	irs	0.743	0.767	0.969	irs	0.743	0.767	0.969	irs	0.502	0.535	0.939	irs	0.515	0.559	0.920	irs
KSF	**GHA**	0.700	1.000	0.700	irs	0.701	1.000	0.701	irs	0.674	1.000	0.674	irs	0.674	1.000	0.674	irs	0.477	1.000	0.477	irs	0.551	1.000	0.551	irs
OI SASL	**GHA**	0.570	0.613	0.931	drs	0.613	0.618	0.992	drs	0.461	0.508	0.908	drs	0.461	0.509	0.907	drs	0.499	0.528	0.946	drs	0.589	0.590	0.998	irs
C FUND	**GOE**	0.919	0.991	0.928	irs	0.929	1.000	0.929	irs	0.702	0.754	0.931	irs	0.702	0.754	0.931	irs	0.790	0.936	0.844	irs	0.889	1.000	0.889	irs
Constanta	**GOE**	0.844	0.893	0.945	drs	0.844	0.893	0.945	drs	0.692	0.771	0.898	drs	0.692	0.771	0.898	drs	0.664	0.753	0.883	drs	0.664	0.768	0.865	drs
CREDO	**GOE**	0.642	0.654	0.982	irs	0.642	0.654	0.982	irs	0.625	0.637	0.982	irs	0.625	0.637	0.982	irs	0.464	0.490	0.947	irs	0.495	0.523	0.948	irs
SBDF	**GOE**	0.797	0.889	0.896	irs	0.797	0.889	0.896	irs	0.774	0.869	0.890	irs	0.774	0.869	0.890	irs	0.516	0.658	0.785	irs	0.561	0.677	0.828	irs
Fundacion M	**GUAT**	0.537	0.582	0.923	irs	0.537	0.582	0.923	irs	0.533	0.582	0.916	irs	0.533	0.582	0.916	irs	0.396	0.473	0.838	irs	0.425	0.505	0.841	irs
Fundea	**GUAT**	0.755	0.771	0.979	drs	0.767	0.771	0.994	drs	0.621	0.684	0.909	drs	0.621	0.684	0.909	drs	0.656	0.660	0.994	irs	0.718	0.728	0.986	irs
Genesis Em	**GUAT**	0.821	0.957	0.858	drs	0.836	0.965	0.866	drs	0.729	0.954	0.765	drs	0.729	0.959	0.761	drs	0.690	0.741	0.932	drs	0.774	0.784	0.987	drs
ACME	**HAI**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.652	0.656	0.994	irs	0.652	0.656	0.994	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Finca	**HON**	0.868	0.869	0.999	irs	0.873	0.876	0.997	irs	0.606	0.608	0.996	irs	0.606	0.608	0.996	irs	0.816	0.822	0.993	irs	0.860	0.867	0.992	irs
HDH	**HON**	0.702	0.717	0.979	drs	0.702	0.717	0.979	drs	0.651	0.673	0.968	drs	0.651	0.673	0.968	drs	0.542	0.547	0.990	irs	0.604	0.614	0.982	irs
World Rel	**HON**	0.751	0.795	0.944	drs	0.788	0.798	0.987	drs	0.639	0.692	0.923	drs	0.639	0.693	0.922	drs	0.618	0.632	0.977	drs	0.734	0.741	0.990	irs
BANDHAN	**IND**	0.937	0.939	0.998	drs	0.986	0.989	0.997	irs	0.937	0.939	0.998	drs	0.986	0.989	0.997	irs	0.680	0.694	0.980	irs	0.680	0.694	0.979	irs
BASIX	**IND**	0.746	0.834	0.894	drs	0.764	0.876	0.872	drs	0.685	0.834	0.821	drs	0.748	0.873	0.856	drs	0.633	0.643	0.985	drs	0.688	0.694	0.991	drs
Cashpoor	**IND**	0.447	0.465	0.962	drs	0.452	0.465	0.971	drs	0.352	0.416	0.847	drs	0.352	0.416	0.847	drs	0.398	0.401	0.992	drs	0.422	0.424	0.993	irs
ESAF	**IND**	0.704	0.751	0.937	irs	0.719	0.754	0.953	irs	0.672	0.689	0.975	irs	0.672	0.689	0.975	irs	0.683	0.684	0.999	irs	0.683	0.684	0.999	irs
GK	**IND**	0.686	0.699	0.981	irs	0.713	0.725	0.984	irs	0.667	0.668	0.998	irs	0.713	0.719	0.992	irs	0.576	0.600	0.961	irs	0.579	0.609	0.951	irs
IASC	**IND**	0.998	1.000	0.998	irs	0.998	1.000	0.998	irs	0.855	0.899	0.951	irs	0.875	0.924	0.947	irs	0.998	1.000	0.998	irs	0.998	1.000	0.998	irs
KBSLAB	**IND**	0.650	0.666	0.976	irs	0.650	0.666	0.976	irs	0.580	0.580	0.999	irs	0.580	0.580	0.999	irs	0.594	0.617	0.964	irs	0.599	0.626	0.957	irs
SNFL	**IND**	0.977	0.985	0.992	irs	0.977	0.985	0.992	irs	0.977	0.985	0.992	irs	0.977	0.985	0.992	irs	0.754	0.760	0.992	irs	0.754	0.760	0.992	irs
MBK Ventu	**INDO**	0.630	0.938	0.671	irs	0.636	0.943	0.674	irs	0.512	0.719	0.712	irs	0.512	0.719	0.712	irs	0.553	0.938	0.590	irs	0.587	0.943	0.622	irs
Kadet	**KEN**	0.425	0.427	0.996	irs	0.427	0.429	0.995	irs	0.372	0.373	0.998	irs	0.372	0.373	0.998	irs	0.361	0.371	0.974	irs	0.380	0.395	0.963	irs
K-REP	**KEN**	0.600	0.707	0.848	drs	0.600	0.713	0.842	drs	0.555	0.707	0.784	drs	0.567	0.713	0.796	drs	0.516	0.529	0.976	drs	0.545	0.548	0.994	drs
KWFT	**KEN**	0.643	0.680	0.944	drs	0.673	0.683	0.985	drs	0.484	0.629	0.769	drs	0.513	0.643	0.798	drs	0.583	0.603	0.967	drs	0.662	0.667	0.993	drs
MDSL	**KEN**	0.769	0.814	0.945	irs	0.816	1.000	0.816	irs	0.614	0.664	0.925	irs	0.614	0.664	0.925	irs	0.628	0.698	0.900	irs	0.774	1.000	0.774	irs
SMEP	**KEN**	0.618	0.639	0.966	drs	0.630	0.639	0.985	drs	0.524	0.582	0.900	drs	0.524	0.587	0.893	drs	0.528	0.530	0.996	irs	0.594	0.602	0.985	irs
AIYL Bank	**KYR**	0.998	1.000	0.998	drs	0.998	1.000	0.998	drs	0.991	1.000	0.991	drs	0.991	1.000	0.991	drs	0.856	0.856	1.000	-	0.856	0.856	1.000	-
BTFF	**KYR**	0.758	0.758	0.999	-	0.758	0.758	0.999	-	0.633	0.636	0.996	irs	0.633	0.636	0.996	irs	0.758	0.758	0.999	-	0.758	0.758	0.999	-
FMCC	**KYR**	0.918	1.000	0.918	drs	0.920	1.000	0.920	drs	0.788	0.927	0.850	drs	0.788	0.927	0.850	drs	0.734	0.856	0.858	drs	0.820	0.882	0.929	drs
FINCA	**MAL**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.563	0.579	0.974	irs	0.563	0.579	0.974	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Soro Y	**MALI**	0.643	0.675	0.953	irs	0.643	0.675	0.953	irs	0.643	0.675	0.953	irs	0.643	0.675	0.953	irs	0.298	0.320	0.930	irs	0.298	0.320	0.930	irs
CreditMongol	**MON**	0.800	0.830	0.965	irs	0.802	0.835	0.961	irs	0.689	0.706	0.976	irs	0.689	0.706	0.976	irs	0.681	0.727	0.936	irs	0.719	0.778	0.925	irs
Khan Bank	**MON**	0.988	1.000	0.988	drs	0.988	1.000	0.988	drs	0.650	0.920	0.706	drs	0.721	0.920	0.784	drs	0.988	1.000	0.988	drs	0.988	1.000	0.988	drs
FCC	**MOZ**	0.802	0.897	0.894	irs	0.802	0.897	0.894	irs	0.379	0.409	0.925	irs	0.379	0.409	0.925	irs	0.802	0.897	0.894	irs	0.802	0.897	0.894	irs
Novo Banco	**MOZ**	0.792	0.861	0.921	drs	0.795	0.861	0.923	drs	0.585	0.674	0.868	drs	0.585	0.674	0.868	drs	0.729	0.816	0.894	drs	0.757	0.818	0.925	drs
SOCREMO	**MOZ**	0.772	0.803	0.961	drs	0.791	0.803	0.985	drs	0.531	0.583	0.910	drs	0.531	0.583	0.910	drs	0.696	0.730	0.953	drs	0.773	0.775	0.996	drs
TCHUMA	**MOZ**	0.866	0.871	0.993	irs	0.866	0.871	0.993	irs	0.653	0.662	0.987	irs	0.653	0.662	0.987	irs	0.748	0.756	0.989	irs	0.748	0.757	0.988	irs
CBB	**NEP**	0.870	0.926	0.940	irs	0.870	0.926	0.940	irs	0.492	0.551	0.893	irs	0.492	0.551	0.893	irs	0.870	0.926	0.940	irs	0.870	0.926	0.940	irs
NIRDHAN	**NEP**	0.651	0.664	0.981	irs	0.666	0.675	0.987	irs	0.627	0.630	0.996	drs	0.627	0.631	0.993	drs	0.579	0.590	0.981	irs	0.579	0.590	0.981	irs
NSSC	**NEP**	0.861	1.000	0.861	irs	0.871	1.000	0.871	irs	0.390	0.656	0.595	irs	0.462	1.000	0.462	irs	0.861	1.000	0.861	irs	0.871	1.000	0.871	irs

PGBB	**NEP**	0.724	0.724	0.999	irs	0.724	0.724	0.999	irs	0.610	0.612	0.998	irs	0.610	0.612	0.998	irs	0.724	0.724	0.999	irs	0.724	0.724	0.999	irs
FINDESA	**NIC**	0.916	0.923	0.993	drs	1.000	1.000	1.000	-	0.695	0.853	0.815	drs	1.000	1.000	1.000	-	0.911	0.923	0.987	drs	1.000	1.000	1.000	-
ProCredit	**NIC**	0.899	0.949	0.947	drs	0.988	0.990	0.998	irs	0.715	0.933	0.766	drs	0.876	0.939	0.933	drs	0.836	0.863	0.968	drs	0.982	0.986	0.996	irs
LAPO	**NIG**	0.737	0.738	0.999	irs	0.983	1.000	0.983	irs	0.504	0.510	0.988	drs	0.720	0.885	0.813	irs	0.660	0.668	0.989	irs	0.978	1.000	0.978	irs
ASASAH	**PAK**	0.910	0.985	0.924	irs	0.935	1.000	0.935	irs	0.672	0.745	0.903	irs	0.672	0.768	0.876	irs	0.725	0.839	0.865	irs	0.778	1.000	0.778	irs
FMBL	**PAK**	0.377	0.378	0.997	irs	0.377	0.378	0.997	irs	0.247	0.256	0.965	drs	0.247	0.257	0.960	drs	0.377	0.378	0.997	irs	0.377	0.378	0.997	irs
KASHF	**PAK**	0.767	0.770	0.995	irs	0.767	0.771	0.994	irs	0.610	0.632	0.964	drs	0.716	0.717	0.998	irs	0.767	0.770	0.995	irs	0.767	0.771	0.994	irs
FIELCO	**PAR**	0.874	0.878	0.995	drs	0.991	1.000	0.991	irs	0.593	0.716	0.827	drs	0.737	0.774	0.952	drs	0.825	0.835	0.988	drs	0.990	0.998	0.992	irs
Interfisa	**PAR**	0.910	0.912	0.997	drs	0.933	0.935	0.998	irs	0.627	0.752	0.833	drs	0.627	0.773	0.811	drs	0.888	0.898	0.989	drs	0.933	0.935	0.998	irs
Bantra	**PER**	0.907	1.000	0.907	drs	1.000	1.000	1.000	-	0.683	1.000	0.683	drs	0.786	1.000	0.786	drs	0.776	1.000	0.776	drs	1.000	1.000	1.000	-
Caja Nor	**PER**	0.774	0.797	0.971	drs	0.810	0.812	0.997	drs	0.652	0.765	0.852	drs	0.795	0.806	0.987	drs	0.727	0.731	0.994	drs	0.784	0.784	1.000	-
Caritas	**PER**	0.758	0.796	0.952	drs	0.758	0.796	0.952	drs	0.679	0.742	0.915	drs	0.679	0.742	0.915	drs	0.547	0.579	0.944	drs	0.582	0.600	0.971	drs
CMAC May	**PER**	0.812	0.853	0.951	drs	0.838	0.860	0.975	drs	0.655	0.813	0.806	drs	0.723	0.841	0.860	drs	0.738	0.752	0.981	drs	0.813	0.815	0.998	irs
CMAC Tac	**PER**	0.889	0.892	0.996	irs	0.889	0.892	0.996	irs	0.771	0.840	0.918	drs	0.841	0.866	0.971	drs	0.884	0.888	0.995	irs	0.884	0.888	0.995	irs
CMAC Tru	**PER**	0.980	1.000	0.980	drs	1.000	1.000	1.000	-	0.847	1.000	0.847	drs	0.991	1.000	0.991	drs	0.942	1.000	0.942	drs	1.000	1.000	1.000	-
Edpy. C Tac	**PER**	0.902	0.904	0.999	drs	0.904	0.906	0.998	irs	0.744	0.808	0.920	drs	0.744	0.808	0.920	drs	0.807	0.816	0.989	irs	0.836	0.857	0.976	irs
Edpy. Cofian	**PER**	0.848	0.855	0.992	drs	0.848	0.855	0.992	drs	0.705	0.788	0.896	drs	0.705	0.790	0.893	drs	0.804	0.805	0.998	irs	0.811	0.815	0.995	irs
EDPY.Edyf	**PER**	0.823	0.905	0.910	drs	0.826	0.905	0.913	drs	0.654	0.899	0.728	drs	0.654	0.899	0.728	drs	0.737	0.767	0.962	drs	0.767	0.767	1.000	-
FINCA	**PER**	0.803	0.862	0.931	irs	0.803	0.873	0.920	irs	0.511	0.536	0.954	irs	0.511	0.536	0.954	irs	0.803	0.862	0.931	irs	0.803	0.873	0.920	irs
Fondesurco	**PER**	0.792	0.877	0.903	irs	0.792	0.879	0.901	irs	0.725	0.804	0.902	irs	0.725	0.804	0.902	irs	0.669	0.758	0.882	irs	0.693	0.815	0.850	irs
IDESI LL	**PER**	0.930	1.000	0.930	irs	0.930	1.000	0.930	irs	0.602	0.798	0.754	irs	0.602	0.798	0.754	irs	0.853	1.000	0.853	irs	0.853	1.000	0.853	irs
Movim. M R	**PER**	0.828	0.850	0.974	irs	0.837	0.889	0.942	irs	0.670	0.692	0.969	irs	0.670	0.695	0.964	irs	0.683	0.712	0.959	irs	0.775	0.866	0.895	irs
Promujer	**PER**	0.880	0.885	0.994	irs	0.888	0.896	0.991	irs	0.666	0.670	0.995	irs	0.666	0.670	0.995	irs	0.763	0.780	0.978	irs	0.852	0.872	0.977	irs
ASHI	**PHI**	0.629	0.644	0.977	irs	0.635	0.657	0.966	irs	0.506	0.519	0.973	irs	0.506	0.519	0.973	irs	0.532	0.554	0.960	irs	0.597	0.627	0.951	irs
Ist Valley	**PHI**	0.879	0.881	0.997	drs	0.884	0.886	0.998	drs	0.744	0.813	0.916	drs	0.829	0.863	0.960	drs	0.818	0.822	0.994	irs	0.853	0.859	0.993	irs
NWFT	**PHI**	0.690	0.722	0.956	drs	0.814	0.824	0.988	irs	0.491	0.561	0.876	drs	0.554	0.587	0.944	drs	0.616	0.669	0.921	drs	0.814	0.819	0.993	irs
FORUS	**RUS**	0.702	0.748	0.939	drs	0.717	0.751	0.954	drs	0.576	0.727	0.793	drs	0.621	0.740	0.840	drs	0.637	0.651	0.978	drs	0.691	0.693	0.997	drs
SEF-ZAF	**SA**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.650	0.650	0.999	-	0.650	0.650	0.999	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
SPBD	**SAM**	0.705	0.874	0.806	irs	0.709	0.989	0.717	irs	0.536	0.768	0.698	irs	0.536	0.768	0.698	irs	0.615	0.874	0.704	irs	0.664	0.989	0.672	irs
ACEP	**SEN**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.991	1.000	0.991	drs	0.991	1.000	0.991	drs	0.967	0.976	0.990	irs	0.967	0.976	0.990	irs
CMS	**SEN**	0.687	0.752	0.914	drs	0.695	0.752	0.924	drs	0.652	0.752	0.868	drs	0.652	0.752	0.868	drs	0.638	0.639	0.999	irs	0.638	0.639	0.999	irs
Pamecas	**SEN**	0.654	0.850	0.769	drs	0.850	0.901	0.944	drs	0.654	0.850	0.769	drs	0.850	0.901	0.944	drs	0.482	0.496	0.971	drs	0.585	0.587	0.997	irs
MCHL	**T&T**	0.656	0.686	0.957	irs	0.656	0.686	0.957	irs	0.635	0.667	0.951	irs	0.635	0.667	0.951	irs	0.418	0.462	0.904	irs	0.514	0.562	0.914	irs
Agroinvest	**TAJ**	0.830	0.843	0.985	drs	0.844	0.845	1.000	-	0.575	0.712	0.807	drs	0.575	0.719	0.799	drs	0.830	0.843	0.985	drs	0.844	0.845	1.000	-
Bank Eskhata	**TAJ**	0.937	0.951	0.985	irs	1.000	1.000	1.000	-	0.337	0.354	0.952	drs	0.575	1.000	0.575	irs	0.937	0.951	0.985	irs	1.000	1.000	1.000	-
FMFB TAJ	**TAJ**	0.482	0.495	0.974	irs	0.482	0.495	0.974	irs	0.364	0.365	0.998	drs	0.364	0.365	0.998	drs	0.482	0.495	0.974	irs	0.482	0.495	0.974	irs
IMON	**TAJ**	0.832	0.836	0.995	irs	0.832	0.837	0.994	irs	0.694	0.697	0.996	irs	0.694	0.697	0.996	irs	0.701	0.717	0.978	irs	0.757	0.778	0.973	irs
MicroInvest	**TAJ**	0.808	0.898	0.900	irs	0.809	0.901	0.898	irs	0.651	0.707	0.921	irs	0.651	0.711	0.917	irs	0.694	0.808	0.859	irs	0.763	0.878	0.869	irs
FINCA TAN	**TAN**	0.914	0.964	0.949	drs	0.971	0.973	0.999	irs	0.637	0.696	0.915	drs	0.637	0.704	0.905	drs	0.876	0.914	0.959	drs	0.968	0.968	1.000	-
PRIDE	**TAN**	0.917	1.000	0.917	drs	1.000	1.000	1.000	-	0.735	0.866	0.848	drs	0.951	0.951	1.000	-	0.779	0.882	0.883	drs	1.000	1.000	1.000	-
CERUDEB	**UGA**	0.584	0.643	0.909	drs	0.708	0.709	0.998	irs	0.346	0.497	0.696	drs	0.424	0.499	0.849	drs	0.571	0.643	0.887	drs	0.708	0.709	0.998	irs
CMFL	**UGA**	0.748	0.775	0.965	drs	1.000	1.000	1.000	-	0.431	0.476	0.905	drs	0.561	0.570	0.984	irs	0.724	0.760	0.953	drs	1.000	1.000	1.000	-
FAULU	**UGA**	0.743	0.754	0.985	drs	0.767	0.768	0.999	irs	0.466	0.480	0.970	drs	0.466	0.480	0.970	drs	0.721	0.736	0.980	drs	0.767	0.768	0.999	irs
FINCA UGA	**UGA**	0.989	1.000	0.989	drs	1.000	1.000	1.000	-	0.599	0.661	0.906	drs	0.628	0.678	0.925	drs	0.989	1.000	0.989	drs	1.000	1.000	1.000	-
MEDNET	**UGA**	0.658	0.660	0.997	irs	0.671	0.677	0.991	irs	0.528	0.529	0.998	irs	0.528	0.529	0.998	irs	0.560	0.570	0.982	irs	0.643	0.656	0.980	irs
UML	**UGA**	0.816	0.941	0.868	drs	0.834	0.950	0.878	drs	0.547	0.656	0.834	drs	0.547	0.656	0.834	drs	0.770	0.941	0.819	drs	0.827	0.950	0.870	drs
BanGente	**VEN**	0.851	0.946	0.900	drs	0.881	0.946	0.931	drs	0.696	0.892	0.780	drs	0.696	0.892	0.780	drs	0.648	0.820	0.790	drs	0.808	0.820	0.986	drs
CETZAM	**ZAM**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.686	0.703	0.975	irs	0.686	0.703	0.975	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
FINCA ZAM	**ZAM**	0.883	0.917	0.962	irs	0.883	0.917	0.962	irs	0.615	0.644	0.956	irs	0.615	0.644	0.956	irs	0.824	0.881	0.934	irs	0.824	0.881	0.934	irs
mean		**0.790**	**0.843**	**0.939**		**0.812**	**0.860**	**0.946**		**0.656**	**0.745**	**0.889**		**0.688**	**0.767**	**0.903**		**0.691**	**0.739**	**0.940**		**0.737**	**0.780**	**0.948**	

Appendix F Efficiencies DEA for treating negative Subsidy as an output for 2005

MFIs	Coun	LR-ACE				LRS^o-ACE				L-ACE				LS^o-ACE				R-ACE				RS^o-ACE			
		crste	Vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale	
INECO	**ARM**	0.847	0.909	0.932	drs	0.847	0.909	0.932	drs	0.614	0.663	0.925	drs	0.614	0.663	0.925	drs	0.847	0.909	0.932	drs	0.847	0.909	0.932	drs
Viator	**AZE**	0.959	0.999	0.960	irs	0.959	0.999	0.960	irs	0.912	0.931	0.980	irs	0.933	0.943	0.990	irs	0.959	0.999	0.960	irs	0.959	0.999	0.960	irs
ASA	**BAN**	0.993	1.000	0.993	drs	1.000	1.000	1.000	-	0.917	1.000	0.917	drs	1.000	1.000	1.000	-	0.993	1.000	0.993	drs	1.000	1.000	1.000	-
B TANGAIL	**BAN**	0.941	0.943	0.998	drs	0.945	0.950	0.994	drs	0.925	0.926	0.999	irs	0.945	0.950	0.994	drs	0.828	0.828	1.000	-	0.832	0.832	1.000	-
IDF	**BAN**	0.971	0.981	0.990	irs	0.974	0.983	0.991	irs	0.963	0.979	0.983	irs	0.974	0.983	0.991	irs	0.733	0.745	0.984	irs	0.733	0.745	0.984	irs
RCPB	**BF**	0.775	0.817	0.949	drs	0.775	0.817	0.949	drs	0.775	0.817	0.949	drs	0.775	0.817	0.949	drs	0.460	0.477	0.965	drs	0.460	0.477	0.965	drs
MIKROFIN	**BOS**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.730	0.731	0.999	irs	0.730	0.731	0.999	irs
FMM Buca	**COL**	0.916	0.925	0.990	drs	0.916	0.941	0.974	drs	0.880	0.889	0.989	drs	0.885	0.941	0.940	drs	0.910	0.911	0.999	irs	0.913	0.921	0.991	drs
FMM Pop	**COL**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.966	0.975	0.991	drs	0.971	1.000	0.971	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-

D-Miro	ECU	0.948	0.951	0.997	irs	0.948	0.951	0.997	irs	0.924	0.934	0.990	irs	0.925	0.934	0.990	irs	0.873	0.888	0.982	irs	0.873	0.888	0.982	irs
Finca	ECU	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.977	0.977	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
FODEMI	ECU	0.967	0.991	0.976	irs	0.967	0.991	0.976	irs	0.965	0.989	0.976	irs	0.965	0.989	0.976	irs	0.657	0.701	0.937	irs	0.657	0.701	0.937	irs
Fundacion Es	ECU	0.986	0.988	0.997	irs	0.986	0.988	0.997	irs	0.944	0.953	0.990	irs	0.961	0.964	0.996	irs	0.979	0.988	0.990	irs	0.979	0.988	0.990	irs
ACSI	ETH	0.841	0.915	0.919	drs	0.873	0.926	0.943	drs	0.841	0.915	0.919	drs	0.873	0.926	0.943	drs	0.702	0.749	0.937	drs	0.788	0.788	1.000	-
DECSI	ETH	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
ProCredit	GHA	0.983	0.995	0.988	drs	0.983	0.995	0.988	drs	0.709	0.712	0.996	irs	0.724	0.725	0.998	irs	0.983	0.995	0.988	drs	0.983	0.995	0.988	drs
Sat	GHA	0.637	0.641	0.993	irs	0.637	0.641	0.993	irs	0.616	0.623	0.990	irs	0.618	0.623	0.993	irs	0.616	0.617	0.998	irs	0.616	0.617	0.998	irs
Fafidess	GUAT	0.983	0.985	0.998	irs	0.983	0.985	0.998	irs	0.940	0.951	0.988	irs	0.954	0.959	0.995	irs	0.966	0.972	0.993	irs	0.966	0.972	0.993	irs
Mahaseman	IND	0.887	0.981	0.904	drs	0.887	0.981	0.904	drs	0.702	0.709	0.989	irs	0.711	0.715	0.995	irs	0.887	0.981	0.904	drs	0.887	0.981	0.904	drs
SHARE MF	IND	0.888	0.914	0.972	drs	0.888	0.914	0.972	drs	0.880	0.906	0.971	drs	0.886	0.906	0.978	drs	0.744	0.802	0.928	drs	0.744	0.802	0.928	drs
JMCC	JOR	0.841	0.847	0.993	irs	0.841	0.847	0.993	irs	0.834	0.844	0.988	irs	0.840	0.846	0.993	irs	0.630	0.639	0.987	irs	0.630	0.639	0.987	irs
MFW	JOR	0.791	0.796	0.993	irs	0.791	0.796	0.993	irs	0.761	0.769	0.990	irs	0.780	0.782	0.997	irs	0.785	0.796	0.986	irs	0.785	0.796	0.986	irs
KLF	KAZ	0.947	0.947	1.000	-	0.947	0.947	1.000	-	0.822	0.825	0.996	irs	0.836	0.837	0.999	irs	0.947	0.947	1.000	-	0.947	0.947	1.000	-
EBS	KEN	0.597	0.662	0.902	drs	0.597	0.663	0.902	drs	0.259	0.287	0.902	drs	0.320	0.643	0.497	drs	0.597	0.662	0.902	drs	0.597	0.663	0.902	drs
K Jagima	MALI	0.479	0.482	0.994	irs	0.495	0.496	0.998	irs	0.479	0.482	0.994	irs	0.495	0.496	0.998	irs	0.268	0.269	0.999	-	0.287	0.287	1.000	-
AL AMANA	MOR	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.679	0.753	0.901	drs	0.679	0.753	0.901	drs
Al Karama	MOR	0.990	1.000	0.990	irs	0.990	1.000	0.990	irs	0.958	1.000	0.958	irs	0.981	1.000	0.981	irs	0.895	1.000	0.895	irs	0.895	1.000	0.895	irs
Fondep	MOR	0.937	0.939	0.999	irs	0.937	0.939	0.999	irs	0.929	0.934	0.996	irs	0.932	0.934	0.998	irs	0.707	0.708	0.999	-	0.707	0.708	0.999	-
Inmaa	MOR	0.804	0.868	0.926	irs	0.804	0.868	0.926	irs	0.783	0.816	0.960	irs	0.783	0.816	0.960	irs	0.676	0.868	0.779	irs	0.676	0.868	0.779	irs
Zakoura	MOR	0.996	0.996	1.000	-	0.996	0.996	1.000	-	0.985	0.985	0.999	irs	0.989	0.990	1.000	-	0.733	0.806	0.909	drs	0.733	0.806	0.909	drs
VYCCU	NEP	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.924	1.000	0.924	irs	0.981	1.000	0.981	irs
ACODEP	NIC	0.999	0.999	1.000	-	0.999	0.999	1.000	-	0.858	0.858	1.000	-	0.868	0.868	1.000	-	0.999	0.999	1.000	-	0.999	0.999	1.000	-
FAMA	NIC	0.915	0.919	0.996	drs	0.915	0.919	0.996	drs	0.894	0.896	0.998	drs	0.895	0.899	0.996	drs	0.888	0.889	1.000	-	0.888	0.889	1.000	-
FDL	NIC	0.857	0.862	0.993	drs	0.857	0.862	0.993	drs	0.850	0.853	0.996	drs	0.851	0.858	0.991	drs	0.721	0.724	0.995	drs	0.721	0.724	0.995	drs
FJN	NIC	0.919	0.922	0.997	drs	0.919	0.922	0.997	drs	0.901	0.902	0.999	irs	0.901	0.902	0.999	irs	0.879	0.879	1.000	-	0.879	0.879	1.000	-
FUNDENUSE	NIC	0.977	0.994	0.982	irs	1.000	1.000	1.000	-	0.931	0.937	0.994	irs	1.000	1.000	1.000	-	0.977	0.994	0.982	irs	1.000	1.000	1.000	-
Prodesa	NIC	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
SEAP	NIG	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.795	1.000	0.795	irs	0.909	1.000	0.909	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
CMAC Arq	PER	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
CMAC Cus	PER	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.945	1.000	0.945	drs	0.986	1.000	0.986	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
MiBanco	PER	0.898	1.000	0.898	drs	0.898	1.000	0.898	drs	0.885	1.000	0.885	drs	0.887	1.000	0.887	drs	0.864	1.000	0.864	drs	0.864	1.000	0.864	drs
Bangko Ka	PHI	0.564	0.577	0.977	drs	0.564	0.577	0.977	drs	0.444	0.452	0.982	drs	0.444	0.461	0.963	drs	0.564	0.577	0.977	drs	0.564	0.577	0.977	drs
BCB	PHI	0.901	0.924	0.975	irs	0.906	0.926	0.979	irs	0.727	0.737	0.987	irs	0.768	0.774	0.992	irs	0.901	0.924	0.975	irs	0.906	0.926	0.979	irs
CBMO	PHI	0.746	0.751	0.993	irs	0.751	0.756	0.993	irs	0.711	0.716	0.994	irs	0.737	0.739	0.997	irs	0.745	0.746	0.999	irs	0.749	0.753	0.996	irs
DIGOS	PHI	0.701	0.703	0.997	irs	0.701	0.703	0.997	irs	0.682	0.693	0.985	irs	0.682	0.693	0.985	irs	0.657	0.676	0.971	irs	0.657	0.676	0.971	irs
GREEN	PHI	0.744	0.763	0.975	drs	0.744	0.763	0.975	drs	0.668	0.669	0.999	irs	0.668	0.669	0.999	irs	0.744	0.763	0.975	drs	0.744	0.763	0.975	drs
SOLANO	PHI	0.781	0.827	0.944	irs	0.793	0.887	0.894	irs	0.700	0.708	0.988	irs	0.757	0.872	0.868	irs	0.781	0.827	0.944	irs	0.793	0.887	0.894	irs
TSPI	PHI	0.928	1.000	0.928	drs	0.928	1.000	0.928	drs	0.693	0.694	0.997	irs	0.701	0.701	0.999	irs	0.928	1.000	0.928	drs	0.928	1.000	0.928	drs
Enda	TUN	0.993	0.994	0.999	irs	0.993	0.994	0.999	irs	0.966	0.973	0.993	irs	0.969	0.973	0.996	irs	0.867	0.868	0.999	irs	0.867	0.868	0.999	irs
CEP	VIET	0.921	0.923	0.998	irs	0.927	0.929	0.998	irs	0.919	0.923	0.996	irs	0.927	0.929	0.998	irs	0.619	0.619	0.999	-	0.619	0.619	0.999	-
TYM	VIET	0.873	0.884	0.987	irs	0.886	0.892	0.993	irs	0.873	0.884	0.987	irs	0.886	0.892	0.993	irs	0.565	0.579	0.975	irs	0.566	0.581	0.973	irs
mean		**0.894**	**0.912**	**0.980**		**0.897**	**0.915**	**0.980**		**0.837**	**0.857**	**0.977**		**0.853**	**0.875**	**0.973**		**0.812**	**0.839**	**0.968**		**0.816**	**0.842**	**0.969**	

Appendix G Efficiencies DEA for R^s (R-S) for 2006

MFIs	Coun	LR- ACE				LR^s- ACE				R- ACE				R^s- ACE			
		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale	
ARMP	AFG	0.779	0.787	0.990	drs	0.779	0.787	0.990	drs	0.611	0.613	0.997	drs	0.327	0.383	0.854	drs
BRAC AFG	AFG	0.602	0.670	0.900	drs	0.566	0.638	0.888	drs	0.449	0.472	0.953	drs	0.081	0.165	0.492	drs
FMFB AFG	AFG	0.588	0.591	0.994	drs	0.530	0.547	0.969	drs	0.568	0.572	0.994	drs	0.331	0.466	0.711	drs
BESA	ALB	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.875	0.879	0.996	irs	0.624	0.756	0.825	drs
ProCred ALB	ALB	0.690	0.748	0.922	drs	0.636	0.730	0.872	drs	0.690	0.748	0.922	drs	0.629	0.694	0.906	drs
PSHM	ALB	0.884	0.885	0.999	drs	0.878	0.880	0.998	drs	0.774	0.777	0.995	irs	0.532	0.650	0.818	drs
NovoBanco	ANG	0.738	0.741	0.997	drs	0.517	0.544	0.951	drs	0.738	0.741	0.997	drs	0.289	0.462	0.625	drs
ACBA	ARM	0.724	0.823	0.880	drs	0.702	0.819	0.858	drs	0.652	0.784	0.832	drs	0.463	0.577	0.802	drs
HORIZON	ARM	0.936	0.953	0.982	drs	0.835	0.860	0.971	irs	0.917	0.930	0.986	drs	0.457	0.476	0.961	irs
INECO	ARM	0.698	0.889	0.786	drs	0.633	0.776	0.816	drs	0.698	0.889	0.786	drs	0.550	0.770	0.714	drs
CRED AGRO	AZE	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.719	0.720	1.000	-	0.290	0.297	0.976	drs
MFBA	AZE	0.825	0.869	0.949	drs	0.825	0.869	0.949	drs	0.593	0.604	0.982	drs	0.221	0.335	0.661	drs
NORMICRO	AZE	0.976	0.980	0.997	irs	0.931	0.967	0.962	irs	0.808	0.815	0.991	drs	0.331	0.337	0.982	irs
Viator	AZE	0.955	0.967	0.988	drs	0.855	0.864	0.989	irs	0.922	0.933	0.988	drs	0.466	0.484	0.962	drs
ASA	BAN	0.943	1.000	0.943	drs	0.834	1.000	0.834	drs	0.942	1.000	0.942	drs	0.424	0.743	0.571	drs
BRAC BAN	BAN	0.841	1.000	0.841	drs	0.611	1.000	0.611	drs	0.841	1.000	0.841	drs	0.197	0.409	0.481	drs

BURO TANGAIL	**BAN**	0.862	0.880	0.979	drs	0.803	0.869	0.924	drs	0.771	0.780	0.988	drs	0.477	0.621	0.767	drs
IDF	**BAN**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.690	0.690	1.000	-	0.434	0.446	0.971	drs
SHAKTI	**BAN**	0.858	0.885	0.969	drs	0.836	0.885	0.944	drs	0.678	0.683	0.992	drs	0.417	0.508	0.821	drs
TMSS	**BAN**	0.689	0.730	0.944	drs	0.629	0.727	0.865	drs	0.574	0.585	0.980	drs	0.150	0.212	0.707	drs
FECECAM	**BEN**	0.489	0.512	0.956	drs	0.450	0.479	0.939	drs	0.436	0.451	0.965	drs	0.063	0.116	0.541	drs
ALIDE	**BEN**	0.737	0.834	0.884	irs	0.713	0.834	0.855	irs	0.479	0.480	0.998	irs	0.121	0.193	0.626	irs
PADME	**BEN**	0.692	0.697	0.993	drs	0.656	0.669	0.981	drs	0.644	0.648	0.994	drs	0.103	0.133	0.771	drs
VF	**BEN**	0.835	0.836	0.998	irs	0.783	0.788	0.994	irs	0.732	0.746	0.982	irs	0.351	0.450	0.781	drs
RCPB	**BF**	0.629	0.656	0.958	drs	0.632	0.656	0.963	drs	0.418	0.427	0.978	drs	0.301	0.439	0.686	drs
Agrocapital	**BOL**	0.784	0.784	1.000	-	0.765	0.766	0.999	irs	0.692	0.696	0.994	irs	0.369	0.457	0.809	drs
BANCOSOL	**BOL**	0.757	0.857	0.883	drs	0.756	0.857	0.882	drs	0.672	0.742	0.906	drs	0.529	0.697	0.759	drs
Bnaco L A	**BOL**	0.827	0.948	0.873	drs	0.827	0.948	0.873	drs	0.629	0.699	0.900	drs	0.407	0.594	0.685	drs
CRECER	**BOL**	0.874	0.887	0.985	drs	0.850	0.888	0.957	drs	0.762	0.778	0.980	drs	0.450	0.665	0.676	drs
Eco Futuro	**BOL**	0.783	0.788	0.995	drs	0.781	0.788	0.991	drs	0.658	0.661	0.996	drs	0.401	0.565	0.710	drs
FADES	**BOL**	0.760	0.768	0.990	drs	0.756	0.764	0.990	drs	0.596	0.604	0.986	drs	0.278	0.378	0.735	drs
FIE	**BOL**	0.790	0.823	0.960	drs	0.793	0.823	0.964	drs	0.627	0.651	0.963	drs	0.394	0.577	0.682	drs
FunBodem	**BOL**	0.906	0.919	0.987	irs	0.905	0.919	0.985	irs	0.716	0.721	0.994	drs	0.367	0.390	0.939	drs
PRODEM	**BOL**	0.742	0.807	0.920	drs	0.727	0.807	0.902	drs	0.645	0.672	0.960	drs	0.391	0.686	0.570	drs
ProMujar BOL	**BOL**	0.767	0.779	0.984	drs	0.709	0.729	0.972	drs	0.678	0.689	0.984	drs	0.301	0.403	0.747	drs
EKI	**BOS**	0.987	1.000	0.987	drs	0.996	1.000	0.996	drs	0.743	0.745	0.998	irs	0.704	0.793	0.888	drs
MIKROFIN	**BOS**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.783	0.787	0.995	irs	0.951	0.951	1.000	-
PARTNER	**BOS**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.786	0.788	0.997	irs	0.794	0.795	0.999	drs
SUNRISE	**BOS**	1.000	1.000	1.000	-	0.995	1.000	0.995	drs	0.938	0.944	0.993	irs	0.811	0.945	0.859	drs
CDS	**CAM**	0.599	0.599	1.000	-	0.583	0.583	0.999	irs	0.519	0.523	0.993	drs	0.304	0.390	0.779	drs
CMM Bog	**COL**	0.951	0.977	0.973	drs	0.934	0.970	0.963	drs	0.789	0.800	0.986	drs	0.415	0.679	0.612	drs
Finamerica	**COL**	0.850	0.897	0.948	drs	0.850	0.897	0.948	drs	0.637	0.644	0.989	drs	0.334	0.544	0.613	drs
FMM Buca	**COL**	0.936	0.944	0.992	drs	0.923	0.988	0.935	drs	0.859	0.867	0.990	drs	0.631	0.910	0.693	drs
FMM Pop	**COL**	0.983	0.994	0.988	drs	0.955	0.992	0.963	drs	0.882	0.900	0.981	drs	0.563	0.818	0.688	drs
WMM Med	**COL**	0.934	0.942	0.992	drs	0.925	0.942	0.981	drs	0.787	0.794	0.991	drs	0.481	0.653	0.736	drs
WWB Ca	**COL**	0.991	1.000	0.991	drs	0.972	1.000	0.972	drs	0.899	0.938	0.958	drs	0.631	0.860	0.734	drs
ACLEDA	**COM**	0.710	0.793	0.896	drs	0.691	0.793	0.872	drs	0.616	0.665	0.927	drs	0.377	0.634	0.596	drs
AMRET	**COM**	0.852	0.868	0.982	drs	0.757	0.803	0.943	drs	0.837	0.849	0.985	drs	0.460	0.618	0.744	drs
CEB	**COM**	0.949	0.950	0.998	drs	0.904	0.915	0.989	drs	0.850	0.850	1.000	-	0.384	0.417	0.920	drs
HKL	**COM**	0.878	0.881	0.997	drs	0.838	0.841	0.996	irs	0.754	0.759	0.993	drs	0.408	0.445	0.916	drs
PRASAC	**COM**	0.842	0.853	0.988	drs	0.785	0.814	0.965	drs	0.745	0.750	0.993	drs	0.334	0.414	0.806	drs
CrediMujer	**CR**	1.000	1.000	1.000	-	0.847	1.000	0.847	irs	1.000	1.000	1.000	-	0.396	1.000	0.396	irs
Banco Sol	**ECU**	0.963	1.000	0.963	drs	0.850	1.000	0.850	drs	0.963	1.000	0.963	drs	0.795	1.000	0.795	drs
COAC Jardin	**ECU**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.756	0.798	0.948	drs	0.602	0.641	0.939	drs
Coac S Jose	**ECU**	0.916	0.927	0.988	irs	0.916	0.927	0.988	irs	0.565	0.586	0.964	irs	0.439	0.440	0.998	irs
COAC SAC	**ECU**	0.862	0.900	0.957	irs	0.862	0.900	0.957	irs	0.652	0.674	0.966	irs	0.417	0.426	0.978	drs
D-Miro	**ECU**	0.912	0.922	0.989	drs	0.858	0.887	0.968	drs	0.845	0.856	0.987	drs	0.476	0.713	0.668	drs
FINCA ECU	**ECU**	1.000	1.000	1.000	-	0.919	1.000	0.919	drs	0.952	0.958	0.993	drs	0.578	0.923	0.626	drs
FODEMI	**ECU**	0.939	0.956	0.983	irs	0.942	0.958	0.984	irs	0.687	0.691	0.994	drs	0.409	0.432	0.946	drs
Fundacion Es	**ECU**	0.968	0.983	0.984	drs	0.918	0.960	0.956	drs	0.879	0.896	0.981	drs	0.483	0.762	0.634	drs
ProCred ECU	**ECU**	0.903	0.943	0.957	drs	0.908	0.943	0.962	drs	0.639	0.660	0.969	drs	0.431	0.645	0.669	drs
Al Tadamun	**EGY**	0.861	0.870	0.989	drs	0.697	0.702	0.993	irs	0.861	0.867	0.992	drs	0.502	0.511	0.982	drs
DBACD	**EGY**	0.792	0.794	0.997	drs	0.626	0.641	0.978	drs	0.792	0.794	0.997	drs	0.598	0.641	0.934	drs
LEAD	**EGY**	0.469	0.469	0.998	drs	0.419	0.465	0.901	drs	0.469	0.469	0.998	drs	0.413	0.465	0.889	drs
AMC de RL	**ELS**	0.814	0.821	0.992	drs	0.780	0.780	0.999	-	0.730	0.736	0.992	drs	0.397	0.520	0.763	drs
Fundacion	**ELS**	0.790	0.854	0.925	irs	0.790	0.854	0.925	irs	0.598	0.603	0.992	irs	0.249	0.288	0.863	irs
ACSI	**ETH**	0.952	1.000	0.952	drs	0.981	1.000	0.981	drs	0.783	0.957	0.818	drs	0.927	1.000	0.927	drs
ADCSI	**ETH**	0.844	0.869	0.971	irs	0.844	0.869	0.971	irs	0.455	0.479	0.950	irs	0.196	0.206	0.953	irs
BG	**ETH**	0.658	0.661	0.995	irs	0.587	0.640	0.917	irs	0.595	0.595	0.999	-	0.336	0.420	0.800	irs
DECSI	**ETH**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.970	1.000	0.970	drs
OMO	**ETH**	0.850	0.851	0.999	drs	0.851	0.852	1.000	-	0.465	0.465	1.000	-	0.382	0.389	0.981	drs
WISDOM	**ETH**	0.681	0.681	1.000	-	0.590	0.592	0.997	drs	0.681	0.681	1.000	-	0.590	0.592	0.997	drs
OI SASL	**GHA**	0.815	0.843	0.967	drs	0.741	0.842	0.879	drs	0.783	0.817	0.958	drs	0.425	0.782	0.544	drs
ProCred GHA	**GHA**	0.693	0.728	0.952	drs	0.687	0.727	0.945	drs	0.505	0.520	0.970	drs	0.256	0.492	0.521	drs
Sat	**GHA**	0.788	0.804	0.980	drs	0.725	0.769	0.943	drs	0.709	0.738	0.961	drs	0.344	0.575	0.598	drs
C FUND	**GOE**	1.000	1.000	1.000	-	0.712	0.728	0.977	irs	1.000	1.000	1.000	-	0.428	0.448	0.954	irs
Constanta	**GOE**	0.708	0.711	0.995	drs	0.617	0.628	0.983	drs	0.680	0.687	0.990	drs	0.296	0.395	0.750	drs
CREDO	**GOE**	0.853	0.858	0.993	irs	0.842	0.855	0.985	irs	0.624	0.633	0.985	drs	0.199	0.230	0.867	drs
SBDF	**GOE**	0.961	1.000	0.961	irs	0.940	1.000	0.940	irs	0.722	0.723	1.000	-	0.265	0.315	0.841	irs

Genesis Em	**GUAT**	0.924	0.969	0.954	drs	0.905	0.947	0.955	drs	0.742	0.758	0.978	drs	0.349	0.618	0.564	drs
ACME	**HAI**	0.960	0.960	0.999	irs	0.749	0.808	0.926	drs	0.960	0.960	0.999	irs	0.385	0.625	0.617	drs
Finca HON	**HON**	0.909	0.919	0.989	drs	0.845	0.849	0.996	drs	0.789	0.790	0.999	irs	0.352	0.540	0.651	drs
HDH	**HON**	0.881	0.891	0.989	irs	0.881	0.891	0.989	irs	0.320	0.320	0.999	-	0.002	0.003	0.654	drs
World Rel	**HON**	0.910	0.927	0.981	drs	0.841	0.856	0.983	drs	0.844	0.867	0.974	drs	0.413	0.590	0.699	drs
BANDHAN	**IND**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.777	0.813	0.955	drs	0.708	0.801	0.883	drs
BASIX	**IND**	0.806	0.857	0.940	drs	0.790	0.853	0.926	drs	0.637	0.652	0.977	drs	0.344	0.522	0.659	drs
Cashpoor	**IND**	0.757	0.801	0.945	drs	0.752	0.801	0.939	drs	0.562	0.563	0.998	drs	0.275	0.322	0.856	drs
ESAF	**IND**	0.932	0.953	0.978	drs	0.937	0.953	0.984	drs	0.624	0.624	1.000	-	0.449	0.490	0.916	drs
GK	**IND**	0.855	0.857	0.998	drs	0.817	0.830	0.984	drs	0.793	0.793	1.000	-	0.557	0.608	0.916	drs
KBSLAB	**IND**	0.619	0.619	0.999	drs	0.582	0.584	0.995	drs	0.566	0.566	1.000	-	0.265	0.285	0.929	drs
SHARE MF	**IND**	0.863	0.935	0.923	drs	0.863	0.935	0.923	drs	0.531	0.547	0.972	drs	0.308	0.467	0.659	drs
SNFL	**IND**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.658	0.729	0.902	irs	0.273	0.303	0.900	irs
MBK Ventu	**INDO**	0.818	0.829	0.988	drs	0.682	0.729	0.936	irs	0.774	0.789	0.982	drs	0.314	0.363	0.865	irs
JMCC	**JOR**	0.847	0.851	0.996	irs	0.850	0.853	0.996	irs	0.657	0.663	0.992	drs	0.409	0.474	0.862	drs
MFW	**JOR**	0.920	0.920	1.000	-	0.912	0.913	0.999	irs	0.724	0.738	0.981	drs	0.384	0.565	0.681	drs
KLF	**KAZ**	0.794	0.801	0.992	drs	0.712	0.774	0.920	drs	0.794	0.801	0.992	drs	0.579	0.767	0.754	drs
EBS	**KEN**	0.639	0.691	0.924	drs	0.506	0.795	0.636	drs	0.639	0.691	0.924	drs	0.506	0.795	0.636	drs
Kadet	**KEN**	0.579	0.588	0.985	drs	0.533	0.537	0.991	irs	0.463	0.469	0.986	drs	0.090	0.148	0.610	drs
K-REP	**KEN**	0.721	0.755	0.955	drs	0.707	0.759	0.932	drs	0.627	0.636	0.986	drs	0.368	0.595	0.619	drs
KWFT	**KEN**	0.684	0.691	0.991	drs	0.619	0.654	0.946	drs	0.644	0.651	0.989	drs	0.334	0.497	0.671	drs
MDSL	**KEN**	0.993	1.000	0.993	irs	1.000	1.000	1.000	-	0.993	1.000	0.993	irs	1.000	1.000	1.000	-
SMEP	**KEN**	0.913	1.000	0.913	irs	1.000	1.000	1.000	-	0.612	0.621	0.985	irs	1.000	1.000	1.000	-
AIYL Bank	**KYR**	0.978	1.000	0.978	drs	0.978	1.000	0.978	drs	0.576	0.658	0.875	drs	0.057	0.075	0.756	drs
BTFF	**KYR**	0.839	0.839	1.000	-	0.687	0.692	0.993	drs	0.839	0.839	1.000	-	0.342	0.357	0.958	drs
FMCC	**KYR**	0.793	0.810	0.979	drs	0.743	0.793	0.937	drs	0.731	0.747	0.978	drs	0.418	0.609	0.686	drs
Kando Jagima	**MALI**	0.521	0.522	0.998	irs	0.521	0.522	0.998	irs	0.410	0.413	0.994	drs	0.234	0.274	0.854	drs
Soro Y	**MALI**	0.621	0.640	0.971	irs	0.621	0.640	0.971	irs	0.319	0.326	0.979	drs	0.057	0.068	0.845	drs
CreditMongol	**MON**	0.877	0.883	0.994	drs	0.803	0.822	0.977	irs	0.732	0.748	0.979	drs	0.237	0.266	0.891	drs
Khan Bank	**MON**	0.802	1.000	0.802	drs	0.754	1.000	0.754	drs	0.802	1.000	0.802	drs	0.669	1.000	0.669	drs
AL AMANA	**MOR**	0.897	1.000	0.897	drs	0.904	1.000	0.904	drs	0.564	0.665	0.849	drs	0.417	0.619	0.674	drs
Al Karama	**MOR**	0.822	0.824	0.998	drs	0.788	0.809	0.974	irs	0.674	0.689	0.978	drs	0.344	0.345	0.997	drs
Fondep	**MOR**	1.000	1.000	1.000	-	0.980	1.000	0.980	drs	1.000	1.000	1.000	-	0.863	1.000	0.863	drs
Inmaa	**MOR**	0.915	0.927	0.987	irs	0.902	0.933	0.967	irs	0.725	0.734	0.988	drs	0.382	0.390	0.981	drs
Zakoura	**MOR**	0.882	0.957	0.921	drs	0.882	0.957	0.921	drs	0.582	0.601	0.970	drs	0.292	0.475	0.614	drs
FCC	**MOZ**	0.821	0.825	0.995	irs	0.419	0.432	0.970	irs	0.821	0.825	0.995	irs	0.374	0.400	0.935	irs
NOVO BANCO	**MOZ**	1.000	1.000	1.000	-	0.846	1.000	0.846	drs	1.000	1.000	1.000	-	0.541	1.000	0.541	drs
SOCREMO	**MOZ**	0.811	0.846	0.959	drs	0.737	0.775	0.952	drs	0.750	0.750	1.000	-	0.281	0.545	0.516	drs
TCHUMA	**MOZ**	0.926	0.944	0.981	drs	0.791	0.795	0.996	irs	0.894	0.896	0.998	irs	0.359	0.478	0.750	drs
CBB	**NEP**	0.637	0.851	0.749	irs	0.586	0.813	0.721	irs	0.637	0.849	0.751	irs	0.551	0.802	0.686	irs
NIRDHAN	**NEP**	0.705	0.706	0.999	irs	0.704	0.704	0.999	irs	0.545	0.545	1.000	-	0.313	0.321	0.975	drs
ACODEP	**NIC**	1.000	1.000	1.000	-	0.868	1.000	0.868	drs	1.000	1.000	1.000	-	0.711	1.000	0.711	drs
FDL	**NIC**	0.826	0.837	0.988	drs	0.803	0.838	0.957	drs	0.746	0.759	0.984	drs	0.491	0.688	0.715	drs
FINDESA	**NIC**	1.000	1.000	1.000	-	0.864	1.000	0.864	drs	1.000	1.000	1.000	-	0.792	1.000	0.792	drs
ProCred NIC	**NIC**	0.815	0.851	0.958	drs	0.781	0.842	0.927	drs	0.736	0.743	0.990	drs	0.435	0.668	0.651	drs
Prodesa	**NIC**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
LAPO	**NIG**	0.849	0.874	0.972	drs	0.767	0.864	0.888	drs	0.762	0.792	0.962	drs	0.408	0.675	0.604	drs
SEAP	**NIG**	0.980	1.000	0.980	irs	0.754	1.000	0.754	irs	0.980	1.000	0.980	irs	0.483	1.000	0.483	irs
ASASAH	**PAK**	0.438	0.442	0.991	drs	0.400	0.403	0.993	irs	0.354	0.358	0.989	drs	0.022	0.023	0.954	drs
FMBL	**PAK**	0.493	0.493	1.000	-	0.392	0.398	0.984	drs	0.493	0.493	1.000	-	0.232	0.266	0.872	drs
KASHF	**PAK**	0.779	0.787	0.991	drs	0.748	0.768	0.973	drs	0.698	0.702	0.993	drs	0.451	0.524	0.861	drs
FIELCO	**PAR**	0.961	0.980	0.981	drs	0.708	0.804	0.880	drs	0.961	0.980	0.981	drs	0.516	0.798	0.646	drs
Interfisa	**PAR**	0.990	1.000	0.990	drs	0.778	0.868	0.896	drs	0.990	1.000	0.990	drs	0.587	0.867	0.677	drs
Bantra	**PER**	1.000	1.000	1.000	-	0.843	1.000	0.843	drs	1.000	1.000	1.000	-	0.479	1.000	0.479	drs
Caja Nor	**PER**	0.775	0.788	0.983	drs	0.730	0.780	0.936	drs	0.702	0.715	0.982	drs	0.387	0.594	0.652	drs
Caritas	**PER**	0.926	0.944	0.981	drs	0.853	0.856	0.997	irs	0.777	0.796	0.977	drs	0.231	0.387	0.597	drs
CMAC Arq	**PER**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
CMAC May	**PER**	0.892	0.898	0.993	drs	0.806	0.842	0.957	drs	0.860	0.865	0.994	drs	0.499	0.716	0.697	drs
CMAC Tac	**PER**	0.868	0.886	0.980	drs	0.842	0.853	0.987	drs	0.780	0.806	0.968	drs	0.572	0.643	0.890	drs
CMAC Tru	**PER**	0.932	1.000	0.932	drs	0.895	1.000	0.895	drs	0.871	0.914	0.952	drs	0.740	0.844	0.876	drs
Edpy. C Tac	**PER**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Edpy. Cofian	**PER**	0.756	0.762	0.992	drs	0.705	0.724	0.974	drs	0.701	0.706	0.993	drs	0.184	0.254	0.722	drs
EDPY.Edyf	**PER**	0.905	0.915	0.989	drs	0.811	0.868	0.934	drs	0.845	0.858	0.986	drs	0.288	0.491	0.588	drs

FINCA PER	**PER**	0.927	0.930	0.997	irs	0.678	0.690	0.983	irs	0.927	0.930	0.997	irs	0.332	0.363	0.914	drs
Fondesurco	**PER**	0.970	0.971	0.999	drs	0.918	0.964	0.952	irs	0.854	0.858	0.995	drs	0.271	0.304	0.892	irs
MiBanco	**PER**	0.947	1.000	0.947	drs	0.839	1.000	0.839	drs	0.915	1.000	0.915	drs	0.605	1.000	0.605	drs
Movim. M R	**PER**	0.915	0.921	0.994	drs	0.825	0.843	0.979	irs	0.829	0.831	0.998	irs	0.342	0.397	0.863	drs
ProMujar PER	**PER**	0.982	1.000	0.982	drs	0.888	0.891	0.997	drs	0.918	0.944	0.973	drs	0.416	0.570	0.729	drs
ASHI	**PHI**	0.736	0.750	0.982	drs	0.639	0.641	0.996	irs	0.697	0.704	0.990	drs	0.316	0.396	0.800	drs
Bangko Ka	**PHI**	0.565	0.579	0.976	drs	0.490	0.563	0.871	drs	0.565	0.579	0.976	drs	0.490	0.563	0.871	drs
BCB	**PHI**	0.862	0.864	0.998	drs	0.709	0.711	0.998	drs	0.862	0.864	0.998	drs	0.592	0.619	0.957	drs
CBMO	**PHI**	0.752	0.752	1.000	-	0.727	0.730	0.996	drs	0.717	0.717	1.000	-	0.522	0.569	0.917	drs
DIGOS	**PHI**	0.690	0.693	0.996	drs	0.637	0.640	0.996	irs	0.659	0.663	0.994	drs	0.417	0.453	0.921	drs
Ist Valley	**PHI**	0.812	0.815	0.996	drs	0.801	0.826	0.970	drs	0.766	0.773	0.992	drs	0.606	0.766	0.791	drs
NWFT	**PHI**	0.759	0.780	0.972	drs	0.661	0.757	0.873	drs	0.721	0.748	0.963	drs	0.366	0.632	0.578	drs
SOLANO	**PHI**	0.750	0.751	1.000	-	0.636	0.703	0.905	irs	0.750	0.751	1.000	-	0.636	0.703	0.905	irs
TSPI	**PHI**	0.860	0.925	0.930	drs	0.754	0.915	0.823	drs	0.852	0.916	0.930	drs	0.485	0.895	0.541	drs
FORUS	**RUS**	0.621	0.652	0.952	drs	0.613	0.644	0.952	drs	0.509	0.513	0.992	drs	0.231	0.363	0.638	drs
SEF-ZAF	**SA**	0.899	0.970	0.926	drs	0.822	0.872	0.942	drs	0.830	0.889	0.934	drs	0.399	0.643	0.621	drs
SPBD	**SAM**	0.708	0.713	0.993	irs	0.610	0.683	0.892	irs	0.650	0.653	0.995	irs	0.112	0.142	0.789	irs
CMS	**SEN**	0.647	0.658	0.983	drs	0.590	0.631	0.935	drs	0.613	0.616	0.994	drs	0.387	0.477	0.811	drs
Pamecas	**SEN**	0.622	0.632	0.985	drs	0.618	0.648	0.954	drs	0.548	0.551	0.993	drs	0.370	0.539	0.686	drs
Agroinvest	**TAJ**	0.594	0.632	0.940	drs	0.594	0.632	0.941	drs	0.350	0.374	0.934	drs	0.205	0.284	0.722	drs
Bank Eskhata	**TAJ**	0.922	0.924	0.997	drs	0.684	0.776	0.882	drs	0.922	0.924	0.997	drs	0.684	0.776	0.882	drs
FMFB TAJ	**TAJ**	0.593	0.593	1.000	-	0.492	0.496	0.990	drs	0.593	0.593	1.000	-	0.188	0.207	0.909	drs
IMON	**TAJ**	1.000	1.000	1.000	-	0.874	0.876	0.998	irs	0.981	0.983	0.997	drs	0.440	0.485	0.909	drs
MicroInvest	**TAJ**	0.927	0.928	0.999	irs	0.780	0.818	0.953	irs	0.921	0.922	0.999	irs	0.424	0.473	0.895	irs
PRIDE	**TAN**	0.904	0.977	0.925	drs	0.870	0.939	0.926	drs	0.760	0.784	0.970	drs	0.351	0.687	0.511	drs
Enda	**TUN**	0.905	0.918	0.986	drs	0.839	0.900	0.932	drs	0.869	0.888	0.979	drs	0.548	0.764	0.718	drs
CERUDEB	**UGA**	0.527	0.571	0.923	drs	0.528	0.572	0.922	drs	0.364	0.369	0.986	drs	0.241	0.424	0.569	drs
CMFL	**UGA**	0.835	0.843	0.990	drs	0.758	0.791	0.958	drs	0.770	0.770	1.000	-	0.326	0.617	0.528	drs
FAULU	**UGA**	0.638	0.652	0.978	drs	0.516	0.520	0.992	drs	0.634	0.643	0.986	drs	0.190	0.315	0.603	drs
FINCA UGA	**UGA**	0.845	0.924	0.914	drs	0.690	0.799	0.863	drs	0.845	0.924	0.914	drs	0.409	0.736	0.556	drs
BanGente	**VEN**	0.975	0.975	1.000	-	0.840	0.923	0.910	drs	0.953	0.954	0.999	drs	0.508	0.811	0.627	drs
CEP	**VIET**	0.801	0.803	0.997	drs	0.792	0.803	0.987	drs	0.683	0.688	0.993	drs	0.461	0.544	0.847	drs
TYM	**VIET**	0.701	0.704	0.996	irs	0.686	0.699	0.982	irs	0.578	0.578	1.000	-	0.362	0.365	0.994	drs
CETZAM	**ZAM**	1.000	1.000	1.000	-	0.795	0.822	0.966	irs	1.000	1.000	1.000	-	0.266	0.277	0.962	drs
FINCA ZAM	**ZAM**	0.916	0.917	0.999	irs	0.558	0.623	0.896	drs	0.916	0.917	0.999	irs	0.531	0.623	0.852	drs
MEAN		**0.835**	**0.859**	**0.973**		**0.776**	**0.823**	**0.944**		**0.732**	**0.751**	**0.976**		**0.428**	**0.561**	**0.773**	

Appendix H Efficiencies DEA for treating Subsidy as an input for 2006

MFIs	Cou	LR-ACE				LR-ACES[i]				L-ACE				L-ACES[i]				R-ACE				R-ACES[i]			
		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale	
ARMP	**AFG**	0.793	0.794	0.998	irs	0.793	0.794	0.998	irs	0.793	0.794	0.998	irs	0.793	0.794	0.998	irs	0.639	0.639	0.999	-	0.640	0.642	0.997	irs
BRAC AFG	**AFG**	0.644	0.671	0.960	drs	0.644	0.671	0.960	drs	0.627	0.638	0.984	drs	0.627	0.638	0.984	drs	0.449	0.494	0.909	drs	0.449	0.494	0.909	drs
FMFB AFG	**AFG**	0.604	0.605	0.998	drs	0.606	0.607	0.999	-	0.510	0.517	0.986	drs	0.510	0.517	0.986	drs	0.596	0.597	0.999	irs	0.596	0.597	0.999	irs
BESA	**ALB**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.970	0.980	0.990	irs	1.000	1.000	1.000	-
ProCred ALB	**ALB**	0.841	0.842	0.998	irs	1.000	1.000	1.000	-	0.472	0.743	0.635	drs	1.000	1.000	1.000	-	0.841	0.842	0.998	irs	1.000	1.000	1.000	-
PSHM	**ALB**	0.887	0.888	0.999	irs	0.887	0.888	0.999	irs	0.877	0.879	0.998	drs	0.877	0.879	0.998	drs	0.859	0.866	0.992	irs	0.859	0.866	0.992	irs
NovoBanco	**ANG**	0.743	0.743	1.000	-	0.743	0.743	1.000	-	0.492	0.493	0.998	irs	0.492	0.493	0.998	irs	0.743	0.743	1.000	-	0.743	0.743	1.000	-
ACBA	**ARM**	0.867	0.890	0.974	drs	0.867	0.890	0.974	drs	0.700	0.822	0.852	drs	0.700	0.822	0.852	drs	0.867	0.877	0.989	drs	0.867	0.877	0.989	drs
HORIZON	**ARM**	0.936	0.956	0.979	drs	1.000	1.000	1.000	-	0.797	0.819	0.973	irs	0.797	0.878	0.908	irs	0.917	0.935	0.981	drs	1.000	1.000	1.000	-
INECO	**ARM**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.625	0.634	0.985	drs	0.652	0.663	0.984	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
CRED AGRO	**AZE**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.831	0.835	0.995	irs	0.831	0.839	0.991	irs
MFBA	**AZE**	0.831	0.869	0.957	drs	0.831	0.869	0.957	drs	0.831	0.869	0.957	drs	0.831	0.869	0.957	drs	0.609	0.621	0.982	drs	0.609	0.621	0.982	drs
NORMICRO	**AZE**	0.980	0.986	0.994	irs	0.980	0.986	0.994	irs	0.946	0.966	0.979	irs	0.946	0.966	0.979	irs	0.812	0.817	0.994	drs	0.812	0.817	0.994	drs
Viator	**AZE**	0.958	0.965	0.993	drs	1.000	1.000	1.000	-	0.844	0.857	0.985	irs	0.844	0.864	0.977	irs	0.922	0.938	0.984	drs	0.948	0.959	0.988	drs
ASA	**BAN**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.850	1.000	0.850	drs	0.850	1.000	0.850	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
BRAC BAN	**BAN**	0.914	1.000	0.914	drs	0.914	1.000	0.914	drs	0.618	1.000	0.618	drs	0.618	1.000	0.618	drs	0.914	1.000	0.914	drs	0.914	1.000	0.914	drs
RDRS	**BAN**	0.578	0.578	0.999	irs	0.578	0.578	0.999	irs	0.543	0.552	0.984	drs	0.543	0.552	0.984	drs	0.514	0.522	0.984	irs	0.514	0.522	0.984	irs
TMSS	**BAN**	0.705	0.730	0.967	drs	0.705	0.730	0.967	drs	0.703	0.727	0.966	drs	0.703	0.727	0.966	drs	0.583	0.589	0.990	drs	0.583	0.589	0.990	drs
FECECAM	**BEN**	0.491	0.512	0.959	drs	0.491	0.512	0.959	drs	0.457	0.479	0.954	drs	0.457	0.479	0.954	drs	0.438	0.452	0.968	drs	0.438	0.452	0.968	drs
ALIDE	**BEN**	0.760	0.854	0.890	irs	0.760	0.854	0.890	irs	0.744	0.854	0.872	irs	0.744	0.854	0.872	irs	0.474	0.478	0.992	drs	0.482	0.485	0.993	drs
PADME	**BEN**	0.718	0.719	0.999	irs	0.718	0.719	0.999	irs	0.656	0.669	0.980	drs	0.656	0.669	0.980	drs	0.718	0.719	0.999	irs	0.718	0.719	0.999	irs
VF	**BEN**	0.835	0.836	0.998	irs	0.835	0.836	0.998	irs	0.782	0.785	0.996	irs	0.782	0.785	0.996	irs	0.744	0.767	0.970	irs	0.744	0.767	0.970	irs

Agrocapital	**BOL**	0.785	0.785	1.000	-	0.785	0.785	1.000	-	0.766	0.766	0.999	-	0.766	0.766	0.999	-	0.760	0.769	0.989	irs	0.760	0.769	0.989	irs
BANCOSOL	**BOL**	0.799	0.857	0.933	drs	1.000	1.000	1.000	-	0.752	0.857	0.878	drs	1.000	1.000	1.000	-	0.791	0.814	0.972	drs	1.000	1.000	1.000	-
Bnaco L A	**BOL**	0.829	0.948	0.875	drs	0.834	0.948	0.880	drs	0.827	0.948	0.872	drs	0.831	0.948	0.877	drs	0.718	0.757	0.948	drs	0.725	0.757	0.958	drs
Eco Futuro	**BOL**	0.784	0.788	0.996	drs	0.802	0.802	1.000	-	0.782	0.786	0.996	drs	0.801	0.802	1.000	-	0.696	0.697	0.998	irs	0.705	0.709	0.995	irs
FADES	**BOL**	0.767	0.768	0.999	drs	0.767	0.768	0.999	drs	0.766	0.766	1.000	-	0.766	0.766	1.000	-	0.605	0.606	0.999	drs	0.605	0.606	0.999	drs
FIE	**BOL**	0.794	0.823	0.965	drs	0.807	0.823	0.980	drs	0.786	0.823	0.955	drs	0.801	0.823	0.972	drs	0.701	0.718	0.975	drs	0.718	0.721	0.996	drs
FunBodem	**BOL**	0.913	0.922	0.990	irs	0.913	0.922	0.990	irs	0.913	0.922	0.990	irs	0.913	0.922	0.990	irs	0.734	0.743	0.988	irs	0.734	0.743	0.988	irs
PRODEM	**BOL**	0.743	0.807	0.921	drs	0.783	0.979	0.799	drs	0.725	0.807	0.898	drs	0.779	0.863	0.903	drs	0.677	0.701	0.965	drs	0.685	0.966	0.709	drs
ProMujar BOL	**BOL**	0.774	0.782	0.990	drs	0.774	0.782	0.990	drs	0.740	0.741	0.999	irs	0.740	0.741	0.999	irs	0.684	0.694	0.986	drs	0.685	0.694	0.988	drs
CDS	**CAM**	0.600	0.600	0.999	-	0.604	0.605	1.000	-	0.584	0.585	0.998	irs	0.584	0.585	0.998	irs	0.541	0.543	0.996	irs	0.543	0.547	0.993	irs
CMM Bog	**COL**	0.952	0.978	0.974	drs	0.965	0.978	0.986	drs	0.931	0.946	0.984	drs	0.931	0.946	0.984	drs	0.800	0.802	0.997	drs	0.808	0.808	1.000	-
Finamerica	**COL**	0.854	0.897	0.952	drs	0.854	0.897	0.952	drs	0.854	0.897	0.952	drs	0.854	0.897	0.952	drs	0.667	0.668	1.000	-	0.667	0.668	1.000	-
FMM Pop	**COL**	0.990	0.995	0.995	drs	1.000	1.000	1.000	-	0.943	0.981	0.960	drs	0.954	1.000	0.954	drs	0.960	0.974	0.985	drs	0.982	0.987	0.995	drs
WMM Med	**COL**	0.935	0.942	0.993	drs	0.939	0.947	0.991	drs	0.928	0.938	0.990	drs	0.928	0.939	0.988	drs	0.819	0.821	0.998	drs	0.828	0.830	0.997	irs
WWB Ca	**COL**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.968	1.000	0.968	drs	0.970	1.000	0.970	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
ACLEDA	**COM**	0.715	0.793	0.902	drs	0.717	0.798	0.899	drs	0.695	0.793	0.876	drs	0.699	0.798	0.875	drs	0.656	0.687	0.955	drs	0.669	0.707	0.947	drs
AMRET	**COM**	0.860	0.879	0.979	drs	0.895	0.898	0.997	drs	0.748	0.749	1.000	-	0.748	0.749	1.000	-	0.847	0.854	0.991	drs	0.849	0.854	0.994	drs
CEB	**COM**	0.972	0.985	0.987	irs	0.972	0.985	0.987	irs	0.921	0.921	1.000	-	0.921	0.921	1.000	-	0.925	0.926	0.998	irs	0.925	0.928	0.997	irs
HKL	**COM**	0.887	0.888	1.000	-	0.888	0.888	1.000	-	0.864	0.870	0.993	irs	0.864	0.870	0.993	irs	0.763	0.765	0.998	drs	0.766	0.768	0.998	irs
PRASAC	**COM**	0.845	0.855	0.989	drs	0.845	0.855	0.989	drs	0.815	0.815	1.000	-	0.815	0.815	1.000	-	0.764	0.766	0.998	drs	0.764	0.766	0.998	drs
CrediMujer	**CR**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.810	1.000	0.810	irs	0.810	1.000	0.810	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Banco Sol	**ECU**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.781	1.000	0.781	drs	0.781	1.000	0.781	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
COAC Jardin	**ECU**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Coac S Jose	**ECU**	0.916	0.927	0.988	irs	0.920	0.934	0.985	irs	0.916	0.927	0.988	irs	0.920	0.934	0.985	irs	0.780	0.814	0.959	irs	0.780	0.816	0.956	irs
COAC SAC	**ECU**	0.862	0.900	0.957	irs	0.862	0.900	0.957	irs	0.862	0.900	0.957	irs	0.862	0.900	0.957	irs	0.705	0.729	0.967	irs	0.705	0.729	0.967	irs
DBACD	**EGY**	0.946	0.951	0.994	drs	1.000	1.000	1.000	-	0.586	0.595	0.985	drs	0.644	0.702	0.918	irs	0.946	0.951	0.994	drs	1.000	1.000	1.000	-
AMC de RL	**ELS**	0.814	0.822	0.990	drs	0.826	0.828	0.998	drs	0.774	0.776	0.997	irs	0.774	0.776	0.997	irs	0.737	0.738	0.999	drs	0.737	0.738	0.999	drs
Fundacion	**ELS**	0.791	0.854	0.925	irs	0.791	0.854	0.925	irs	0.791	0.854	0.925	irs	0.791	0.854	0.925	irs	0.648	0.691	0.937	irs	0.648	0.691	0.937	irs
ADCSI	**ETH**	0.895	0.969	0.924	irs	0.895	0.969	0.924	irs	0.895	0.969	0.924	irs	0.895	0.969	0.924	irs	0.675	0.696	0.970	irs	0.687	0.710	0.968	irs
BG	**ETH**	0.665	0.670	0.992	irs	0.706	1.000	0.706	irs	0.629	0.667	0.944	irs	0.648	1.000	0.648	irs	0.599	0.606	0.988	irs	0.617	1.000	0.617	irs
Sat	**GHA**	0.791	0.816	0.970	drs	0.882	0.899	0.980	drs	0.696	0.698	0.996	irs	0.696	0.698	0.996	irs	0.709	0.755	0.940	drs	0.833	0.841	0.990	drs
C FUND	**GOE**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.686	0.701	0.978	irs	0.686	0.701	0.978	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Constanta	**GOE**	0.725	0.727	0.998	drs	0.725	0.727	0.998	drs	0.623	0.628	0.991	drs	0.623	0.628	0.991	drs	0.706	0.707	0.999	-	0.706	0.707	0.999	-
CREDO	**GOE**	0.862	0.867	0.995	irs	0.862	0.867	0.995	irs	0.856	0.864	0.991	irs	0.856	0.864	0.991	irs	0.626	0.636	0.985	drs	0.626	0.636	0.985	drs
SBDF	**GOE**	0.979	1.000	0.979	irs	0.979	1.000	0.979	irs	0.966	1.000	0.966	irs	0.966	1.000	0.966	irs	0.722	0.723	1.000	-	0.722	0.723	0.999	-
Genesis Em	**GUAT**	0.928	0.969	0.958	drs	0.931	0.969	0.962	drs	0.910	0.940	0.968	drs	0.910	0.940	0.968	drs	0.749	0.761	0.985	drs	0.749	0.761	0.985	drs
ACME	**HAI**	0.924	1.000	0.924	drs	0.990	1.000	0.990	drs	0.708	0.713	0.994	irs	0.708	0.713	0.994	irs	0.924	1.000	0.924	drs	0.990	1.000	0.990	drs
Finca HON	**HON**	0.911	0.925	0.985	drs	0.983	0.983	0.999	drs	0.817	0.824	0.991	irs	0.817	0.824	0.991	irs	0.795	0.830	0.958	drs	0.921	0.922	0.999	drs
HDH	**HON**	0.917	0.925	0.991	irs	0.917	0.925	0.991	irs	0.917	0.925	0.991	irs	0.917	0.925	0.991	irs	0.309	0.331	0.933	drs	0.324	0.334	0.968	drs
World Rel	**HON**	0.912	0.930	0.980	drs	0.938	0.949	0.989	drs	0.822	0.825	0.996	irs	0.822	0.825	0.996	irs	0.847	0.875	0.969	drs	0.876	0.888	0.986	drs
BASIX	**IND**	0.836	0.857	0.975	drs	0.836	0.857	0.975	drs	0.833	0.853	0.976	drs	0.833	0.853	0.976	drs	0.642	0.654	0.983	drs	0.647	0.654	0.990	drs
Cashpoor	**IND**	0.802	0.803	0.999	drs	0.802	0.803	0.999	drs	0.802	0.803	0.999	drs	0.802	0.803	0.999	drs	0.580	0.582	0.997	drs	0.584	0.587	0.996	irs
KBSLAB	**IND**	0.632	0.642	0.985	irs	0.632	0.642	0.985	irs	0.592	0.594	0.997	irs	0.592	0.595	0.995	irs	0.612	0.614	0.997	irs	0.617	0.624	0.988	irs
SHARE MF	**IND**	0.889	0.935	0.950	drs	0.894	0.935	0.956	drs	0.889	0.935	0.950	drs	0.894	0.935	0.956	drs	0.562	0.570	0.986	drs	0.577	0.587	0.982	drs
SNFL	**IND**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.964	1.000	0.964	irs	0.967	1.000	0.967	irs
MBK Ventu	**INDO**	0.827	0.828	0.998	drs	0.840	0.841	0.999	-	0.718	0.756	0.949	irs	0.718	0.768	0.935	irs	0.774	0.791	0.979	drs	0.796	0.812	0.979	drs
MFW	**JOR**	0.924	0.925	1.000	-	1.000	1.000	1.000	-	0.903	0.907	0.996	irs	0.907	0.942	0.963	irs	0.731	0.743	0.983	drs	0.833	0.859	0.971	irs
Kadet	**KEN**	0.581	0.589	0.987	drs	0.581	0.589	0.987	drs	0.547	0.551	0.993	irs	0.547	0.551	0.993	irs	0.463	0.485	0.955	drs	0.466	0.496	0.940	drs
K-REP	**KEN**	0.721	0.755	0.955	drs	0.730	0.811	0.900	drs	0.704	0.745	0.945	drs	0.704	0.775	0.909	drs	0.654	0.661	0.989	drs	0.656	0.668	0.982	drs
KWFT	**KEN**	0.693	0.696	0.996	drs	0.693	0.696	0.996	drs	0.617	0.642	0.960	drs	0.617	0.642	0.960	drs	0.669	0.671	0.997	drs	0.669	0.671	0.997	drs
SMEP	**KEN**	0.913	1.000	0.913	irs	0.913	1.000	0.913	irs	0.913	1.000	0.913	irs	0.913	1.000	0.913	irs	0.604	0.621	0.972	irs	0.604	0.621	0.972	irs
AIYL Bank	**KYR**	0.978	1.000	0.978	drs	0.978	1.000	0.978	drs	0.978	1.000	0.978	drs	0.978	1.000	0.978	drs	0.701	0.760	0.923	drs	0.701	0.760	0.923	drs
BTFF	**KYR**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.684	0.688	0.995	drs	0.684	0.688	0.995	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Kando Jagima	**MALI**	0.529	0.530	0.998	irs	0.529	0.530	0.998	irs	0.529	0.530	0.998	irs	0.529	0.530	0.998	irs	0.423	0.424	0.998	irs	0.424	0.427	0.992	irs
Soro Y	**MALI**	0.652	0.665	0.980	irs	0.652	0.665	0.980	irs	0.652	0.665	0.980	irs	0.652	0.665	0.980	irs	0.317	0.329	0.963	drs	0.321	0.338	0.949	drs
CreditMongol	**MON**	0.892	0.892	1.000	-	0.892	0.892	1.000	-	0.843	0.856	0.984	irs	0.843	0.856	0.984	irs	0.732	0.755	0.970	drs	0.732	0.763	0.960	drs
AL AMANA	**MOR**	0.897	1.000	0.897	drs	1.000	1.000	1.000	-	0.897	1.000	0.897	drs	1.000	1.000	1.000	-	0.659	0.751	0.877	drs	0.783	0.843	0.929	drs
Al Karama	**MOR**	0.833	0.839	0.994	irs	0.960	1.000	0.960	irs	0.787	0.807	0.975	irs	0.797	1.000	0.797	irs	0.674	0.691	0.975	drs	0.831	1.000	0.831	irs
Zakoura	**MOR**	0.899	0.957	0.939	drs	0.899	0.957	0.939	drs	0.899	0.957	0.939	drs	0.899	0.957	0.939	drs	0.602	0.623	0.966	drs	0.602	0.623	0.966	drs
FCC	**MOZ**	0.752	0.757	0.993	drs	0.862	0.864	0.997	drs	0.333	0.350	0.952	irs	0.333	0.354	0.942	irs	0.752	0.757	0.993	drs	0.862	0.864	0.997	drs
SOCREMO	**MOZ**	0.811	0.860	0.944	drs	0.850	0.863	0.985	drs	0.715	0.717	0.998	irs	0.715	0.717	0.998	irs	0.754	0.800	0.942	drs	0.812	0.819	0.992	drs
TCHUMA	**MOZ**	0.927	0.939	0.988	drs	0.963	0.983	0.980	drs	0.770	0.782	0.985	irs	0.770	0.782	0.985	irs	0.864	0.895	0.965	drs	0.924	0.937	0.986	drs
NIRDHAN	**NEP**	0.730	0.734	0.994	irs	0.733	0.747	0.982	irs	0.705	0.706	0.998	drs	0.723	0.733	0.986	irs	0.616	0.631	0.977	irs	0.646	0.658	0.982	irs

ProCred NIC	**NIC**	0.816	0.851	0.959	drs	0.816	0.851	0.959	drs	0.778	0.833	0.934	drs	0.778	0.833	0.934	drs	0.791	0.792	0.998	irs	0.791	0.792	0.998	irs
SEAP	**NIG**	0.925	1.000	0.925	irs	1.000	1.000	1.000	-	0.704	1.000	0.704	irs	0.704	1.000	0.704	irs	0.925	1.000	0.925	irs	1.000	1.000	1.000	-
ASASAH	**PAK**	0.461	0.464	0.993	irs	0.461	0.464	0.993	irs	0.455	0.460	0.987	irs	0.455	0.460	0.987	irs	0.354	0.360	0.985	drs	0.354	0.360	0.985	drs
FMBL	**PAK**	0.528	0.528	1.000	-	0.531	0.532	0.998	irs	0.393	0.397	0.990	drs	0.393	0.397	0.990	drs	0.527	0.528	1.000	-	0.531	0.532	0.998	irs
KASHF	**PAK**	0.791	0.792	0.998	irs	0.824	0.833	0.989	irs	0.755	0.767	0.984	drs	0.769	0.770	0.999	drs	0.747	0.747	1.000	-	0.782	0.786	0.995	drs
FIELCO	**PAR**	0.969	0.984	0.984	drs	0.972	0.985	0.987	drs	0.658	0.661	0.995	drs	0.658	0.661	0.995	drs	0.969	0.984	0.984	drs	0.972	0.985	0.987	drs
Interfisa	**PAR**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.711	0.727	0.979	drs	0.957	0.971	0.986	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Bantra	**PER**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.801	1.000	0.801	drs	0.801	1.000	0.801	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Caja Nor	**PER**	0.777	0.789	0.985	drs	0.787	0.790	0.995	drs	0.726	0.756	0.960	drs	0.726	0.756	0.960	drs	0.714	0.729	0.980	drs	0.714	0.729	0.980	drs
Caritas	**PER**	0.927	0.951	0.975	drs	0.928	0.951	0.976	drs	0.868	0.870	0.997	irs	0.868	0.870	0.997	irs	0.778	0.807	0.965	drs	0.778	0.811	0.960	drs
CMAC May	**PER**	0.916	0.916	0.999	-	0.916	0.916	0.999	-	0.775	0.800	0.969	drs	0.775	0.800	0.969	drs	0.912	0.913	0.999	irs	0.912	0.913	0.999	irs
CMAC Tac	**PER**	0.941	0.943	0.998	irs	0.941	0.943	0.998	irs	0.840	0.857	0.980	drs	0.840	0.857	0.980	drs	0.934	0.936	0.998	irs	0.934	0.936	0.998	irs
CMAC Tru	**PER**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.872	1.000	0.872	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Edpy. C Tac	**PER**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Edpy. Cofian	**PER**	0.769	0.769	0.999	drs	0.769	0.769	0.999	drs	0.705	0.724	0.974	drs	0.705	0.724	0.974	drs	0.762	0.762	1.000	-	0.762	0.762	1.000	-
EDPY.Edyf	**PER**	0.910	0.915	0.994	drs	0.910	0.915	0.994	drs	0.815	0.868	0.938	drs	0.815	0.868	0.938	drs	0.887	0.888	0.999	drs	0.887	0.888	0.999	drs
FINCA PER	**PER**	0.870	0.882	0.986	drs	0.942	0.953	0.989	drs	0.661	0.678	0.975	irs	0.661	0.678	0.975	irs	0.864	0.880	0.981	drs	0.942	0.953	0.989	drs
Fondesurco	**PER**	0.973	0.973	1.000	-	0.973	0.973	1.000	-	0.928	0.965	0.962	irs	0.928	0.965	0.962	irs	0.862	0.875	0.985	irs	0.862	0.875	0.985	irs
MiBanco	**PER**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.806	1.000	0.806	drs	0.806	1.000	0.806	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Movim. M R	**PER**	0.918	0.918	1.000	-	0.970	0.970	1.000	-	0.802	0.821	0.978	irs	0.802	0.821	0.978	irs	0.825	0.842	0.980	drs	0.912	0.924	0.987	drs
ProMujar PER	**PER**	0.991	1.000	0.991	drs	1.000	1.000	1.000	-	0.878	0.885	0.993	irs	0.878	0.885	0.993	irs	0.918	0.956	0.960	drs	0.937	0.966	0.970	drs
ASHI	**PHI**	0.741	0.744	0.996	drs	0.824	0.841	0.980	drs	0.630	0.642	0.982	irs	0.630	0.659	0.956	irs	0.687	0.713	0.964	drs	0.784	0.792	0.989	drs
FORUS	**RUS**	0.621	0.652	0.952	drs	0.621	0.652	0.952	drs	0.615	0.644	0.955	drs	0.615	0.644	0.955	drs	0.541	0.543	0.996	irs	0.541	0.543	0.996	irs
SEF-ZAF	**SA**	0.902	0.998	0.904	drs	1.000	1.000	1.000	-	0.783	0.788	0.993	irs	0.783	0.788	0.993	irs	0.819	0.948	0.864	drs	0.982	0.994	0.988	drs
SPBD	**SAM**	0.708	0.713	0.992	irs	0.708	0.713	0.992	irs	0.624	0.683	0.913	irs	0.624	0.683	0.913	irs	0.654	0.655	0.998	drs	0.654	0.655	0.998	drs
CMS	**SEN**	0.697	0.697	1.000	-	0.697	0.697	1.000	-	0.591	0.636	0.929	drs	0.591	0.636	0.929	drs	0.694	0.695	0.999	irs	0.694	0.695	0.999	irs
Agroinvest	**TAJ**	0.600	0.632	0.950	drs	0.617	0.632	0.976	drs	0.600	0.632	0.950	drs	0.617	0.632	0.976	drs	0.394	0.410	0.959	drs	0.412	0.422	0.976	drs
FMFB TAJ	**TAJ**	0.651	0.652	0.999	drs	0.651	0.652	0.999	drs	0.497	0.498	0.998	drs	0.497	0.498	0.998	drs	0.650	0.651	0.999	irs	0.650	0.651	0.999	irs
IMON	**TAJ**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.902	0.906	0.995	irs	0.902	0.906	0.995	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
MicroInvest	**TAJ**	0.936	0.950	0.985	irs	0.937	0.956	0.981	irs	0.803	0.838	0.958	irs	0.803	0.840	0.956	irs	0.936	0.950	0.985	irs	0.937	0.952	0.984	irs
PRIDE	**TAN**	0.906	0.992	0.913	drs	1.000	1.000	1.000	-	0.842	0.843	0.999	irs	0.842	0.843	0.999	irs	0.764	0.868	0.880	drs	0.941	0.970	0.970	drs
CMFL	**UGA**	0.835	0.847	0.986	drs	0.872	0.872	1.000	-	0.732	0.733	0.998	irs	0.732	0.733	0.998	irs	0.770	0.771	0.999	irs	0.840	0.841	0.998	irs
FAULU	**UGA**	0.632	0.666	0.949	drs	0.641	0.677	0.948	drs	0.508	0.511	0.994	irs	0.508	0.511	0.994	irs	0.626	0.665	0.941	drs	0.641	0.676	0.948	drs
FINCA UGA	**UGA**	0.829	1.000	0.829	drs	0.996	1.000	0.996	drs	0.629	0.630	0.998	irs	0.629	0.630	0.998	irs	0.829	1.000	0.829	drs	0.996	1.000	0.996	drs
MEDNET	**UGA**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.695	0.726	0.958	irs	0.695	0.726	0.958	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
BanGente	**VEN**	0.988	0.991	0.997	irs	0.988	0.991	0.997	irs	0.812	0.841	0.965	drs	0.812	0.841	0.965	drs	0.972	0.977	0.995	irs	0.975	0.979	0.995	irs
CETZAM	**ZAM**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.810	0.834	0.971	irs	0.810	0.834	0.971	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
FINCA ZAM	**ZAM**	0.801	0.900	0.889	drs	1.000	1.000	1.000	-	0.426	0.436	0.979	irs	0.426	0.451	0.946	irs	0.801	0.900	0.889	drs	1.000	1.000	1.000	-
Mean		**0.844**	**0.864**	**0.977**		**0.864**	**0.881**	**0.981**		**0.758**	**0.793**	**0.961**		**0.768**	**0.806**	**0.957**		**0.758**	**0.776**	**0.978**		**0.783**	**0.799**	**0.980**	

Appendix I. Efficiencies DEA for treating Subsidy as an output for 2006

MFIs	Cou	LR-ACE				LRS^o-ACE				L-ACE				LS^o-ACE				R-ACE				RS^o-ACE			
		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale		crste	vrste	scale	
BURO TANGAIL	**BAN**	0.894	0.954	0.937	drs	0.894	0.954	0.937	drs	0.751	0.912	0.824	drs	0.751	0.912	0.824	drs	0.788	0.789	0.999	irs	0.788	0.789	0.999	irs
IDF	**BAN**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.706	0.745	0.947	irs	0.706	0.745	0.947	irs
SHAKTI	**BAN**	0.862	0.957	0.901	drs	0.862	0.957	0.901	drs	0.837	0.939	0.891	drs	0.837	0.939	0.891	drs	0.689	0.693	0.994	irs	0.689	0.693	0.994	irs
RCPB	**BF**	0.656	0.691	0.949	drs	0.656	0.697	0.940	drs	0.656	0.691	0.949	drs	0.656	0.697	0.940	drs	0.420	0.428	0.983	drs	0.420	0.446	0.942	drs
CRECER	**BOL**	0.918	0.931	0.986	drs	0.918	0.931	0.986	drs	0.881	0.883	0.997	drs	0.881	0.883	0.997	drs	0.778	0.778	1.000	-	0.778	0.778	1.000	-
EKI	**BOS**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.743	0.747	0.995	irs	0.757	0.810	0.935	drs
MIKROFIN	**BOS**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.783	0.795	0.985	irs	0.955	1.000	0.955	drs
PARTNER	**BOS**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.786	0.791	0.994	irs	0.795	0.798	0.995	drs
SUNRISE	**BOS**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.955	0.957	0.999	irs	0.961	0.961	1.000	-	0.938	0.946	0.991	irs	0.946	0.946	1.000	-
FMM Buca	**COL**	0.975	1.000	0.975	drs	0.975	1.000	0.975	drs	0.928	0.959	0.968	drs	0.929	0.989	0.939	drs	0.861	0.869	0.990	drs	0.861	0.937	0.919	drs
D-Miro	**ECU**	0.935	0.940	0.995	irs	0.935	0.940	0.995	irs	0.856	0.857	0.999	drs	0.859	0.860	0.998	irs	0.858	0.870	0.987	irs	0.858	0.870	0.987	irs
FINCA ECU	**ECU**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.929	0.930	0.999	drs	0.930	0.930	1.000	-	0.958	0.959	1.000	-	0.958	0.959	1.000	-
FODEMI	**ECU**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.698	0.728	0.959	irs	0.698	0.728	0.959	irs
Fundacion Es	**ECU**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.897	0.898	0.999	drs	0.905	0.907	0.998	irs	0.898	0.910	0.987	irs	0.898	0.910	0.987	irs
ProCred ECU	**ECU**	0.940	1.000	0.940	drs	0.940	1.000	0.940	drs	0.940	1.000	0.940	drs	0.940	1.000	0.940	drs	0.642	0.676	0.949	drs	0.642	0.676	0.949	drs
Al Tadamun	**EGY**	0.884	0.942	0.938	irs	0.884	0.942	0.938	irs	0.670	0.712	0.942	irs	0.671	0.712	0.943	irs	0.884	0.942	0.938	irs	0.884	0.942	0.938	irs
LEAD	**EGY**	0.472	0.478	0.988	irs	0.476	0.478	0.995	irs	0.344	0.350	0.983	drs	0.387	0.432	0.896	drs	0.472	0.478	0.988	irs	0.476	0.478	0.995	irs
ACSI	**ETH**	0.994	1.000	0.994	drs	1.000	1.000	1.000	-	0.994	1.000	0.994	drs	1.000	1.000	1.000	-	0.788	0.974	0.809	drs	1.000	1.000	1.000	-
DECSI	**ETH**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-

OMO	**ETH**	0.859	0.874	0.983	irs	0.859	0.874	0.983	irs	0.859	0.874	0.983	irs	0.859	0.874	0.983	irs	0.467	0.468	0.998	irs	0.467	0.468	0.998	irs
WISDOM	**ETH**	0.684	0.685	0.999	irs	0.684	0.685	0.999	irs	0.367	0.371	0.987	irs	0.367	0.371	0.987	irs	0.684	0.685	0.999	irs	0.684	0.685	0.999	irs
OI SASL	**GHA**	0.842	0.852	0.988	drs	0.842	0.852	0.988	drs	0.704	0.713	0.987	drs	0.709	0.723	0.981	drs	0.817	0.818	0.998	drs	0.817	0.818	0.998	drs
ProCred GHA	**GHA**	0.739	0.749	0.987	drs	0.739	0.749	0.987	drs	0.697	0.700	0.995	drs	0.697	0.700	0.995	drs	0.520	0.521	0.997	drs	0.520	0.521	0.997	drs
BANDHAN	**IND**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.785	0.834	0.941	drs	0.785	0.854	0.919	drs
ESAF	**IND**	0.950	0.959	0.990	drs	0.950	0.959	0.990	drs	0.950	0.959	0.990	drs	0.950	0.959	0.990	drs	0.626	0.636	0.986	irs	0.626	0.636	0.986	irs
GK	**IND**	0.864	0.866	0.998	drs	0.864	0.866	0.998	drs	0.798	0.804	0.992	drs	0.798	0.804	0.992	drs	0.796	0.808	0.985	irs	0.796	0.808	0.985	irs
JMCC	**JOR**	0.910	0.914	0.996	drs	0.910	0.914	0.996	drs	0.902	0.903	0.999	drs	0.902	0.903	0.999	drs	0.666	0.677	0.984	irs	0.666	0.677	0.984	irs
KLF	**KAZ**	0.798	0.801	0.996	drs	0.798	0.801	0.996	drs	0.680	0.680	1.000	-	0.681	0.683	0.998	drs	0.798	0.801	0.996	drs	0.798	0.801	0.996	drs
EBS	**KEN**	0.639	1.000	0.639	drs	0.645	1.000	0.645	drs	0.389	0.559	0.695	drs	0.395	1.000	0.395	drs	0.639	1.000	0.639	drs	0.645	1.000	0.645	drs
MDSL	**KEN**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.766	1.000	0.766	irs	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
FMCC	**KYR**	0.809	0.828	0.977	drs	0.809	0.828	0.977	drs	0.754	0.773	0.976	drs	0.754	0.773	0.976	drs	0.748	0.748	1.000	-	0.748	0.748	1.000	-
Khan Bank	**MON**	0.802	1.000	0.802	drs	0.802	1.000	0.802	drs	0.748	1.000	0.748	drs	0.748	1.000	0.748	drs	0.802	1.000	0.802	drs	0.802	1.000	0.802	drs
Fondep	**MOR**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.901	0.908	0.992	drs	0.948	1.000	0.948	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Inmaa	**MOR**	0.972	1.000	0.972	irs	0.972	1.000	0.972	irs	0.894	1.000	0.894	irs	0.899	1.000	0.899	irs	0.744	0.806	0.923	irs	0.744	0.806	0.923	irs
NOVO BANCO	**MOZ**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.765	0.766	0.998	drs	0.777	0.796	0.975	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
CBB	**NEP**	0.640	1.000	0.640	irs	0.640	1.000	0.640	irs	0.589	1.000	0.589	irs	0.589	1.000	0.589	irs	0.640	1.000	0.640	irs	0.640	1.000	0.640	irs
ACODEP	**NIC**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.849	0.850	0.999	drs	0.856	0.864	0.990	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
FDL	**NIC**	0.863	0.883	0.977	drs	0.863	0.883	0.977	drs	0.823	0.837	0.983	drs	0.823	0.837	0.983	drs	0.752	0.762	0.987	drs	0.752	0.762	0.987	drs
FINDESA	**NIC**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.803	0.869	0.924	drs	0.803	0.869	0.924	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Prodesa	**NIC**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-	1.000	1.000	1.000	-
LAPO	**NIG**	0.872	0.886	0.984	drs	0.872	0.886	0.984	drs	0.722	0.766	0.942	drs	0.724	0.767	0.944	drs	0.797	0.804	0.992	irs	0.797	0.804	0.992	irs
CMAC Arq	**PER**	1.000	1.000	1.000	-	1.000	1.000	1.000	-	0.898	1.000	0.898	drs	0.898	1.000	0.898	drs	1.000	1.000	1.000	-	1.000	1.000	1.000	-
Bangko Ka	**PHI**	0.565	0.581	0.972	drs	0.565	0.585	0.966	drs	0.453	0.457	0.992	drs	0.455	0.458	0.994	drs	0.565	0.581	0.972	drs	0.565	0.585	0.966	drs
BCB	**PHI**	0.875	0.917	0.955	irs	0.875	0.917	0.955	irs	0.655	0.660	0.992	irs	0.668	0.675	0.989	irs	0.875	0.917	0.955	irs	0.875	0.917	0.955	irs
CBMO	**PHI**	0.765	0.775	0.987	irs	0.765	0.775	0.987	irs	0.708	0.708	1.000	-	0.716	0.717	0.999	irs	0.721	0.739	0.976	irs	0.721	0.739	0.976	irs
DIGOS	**PHI**	0.699	0.716	0.976	irs	0.699	0.716	0.976	irs	0.646	0.646	1.000	-	0.646	0.647	0.999	irs	0.668	0.686	0.974	irs	0.668	0.686	0.974	irs
Ist Valley	**PHI**	0.831	0.838	0.991	drs	0.833	0.838	0.993	drs	0.781	0.781	1.000	-	0.787	0.792	0.994	drs	0.771	0.773	0.998	drs	0.771	0.774	0.996	drs
NWFT	**PHI**	0.787	0.788	0.999	drs	0.787	0.788	0.999	drs	0.617	0.657	0.939	drs	0.617	0.657	0.939	drs	0.752	0.756	0.995	irs	0.752	0.756	0.995	irs
SOLANO	**PHI**	0.753	1.000	0.753	irs	0.753	1.000	0.753	irs	0.521	1.000	0.521	irs	0.535	1.000	0.535	irs	0.753	1.000	0.753	irs	0.753	1.000	0.753	irs
TSPI	**PHI**	0.938	0.944	0.994	drs	0.938	0.944	0.994	drs	0.643	0.729	0.882	drs	0.650	0.741	0.877	drs	0.916	0.916	1.000	-	0.916	0.916	1.000	-
Pamecas	**SEN**	0.663	0.675	0.983	drs	0.663	0.675	0.983	drs	0.643	0.647	0.993	drs	0.643	0.647	0.993	drs	0.549	0.552	0.995	drs	0.549	0.552	0.995	drs
Bank Eskhata	**TAJ**	0.923	0.925	0.998	drs	0.923	0.925	0.998	drs	0.450	0.455	0.988	drs	0.457	0.464	0.985	drs	0.923	0.925	0.998	drs	0.923	0.925	0.998	drs
Enda	**TUN**	0.927	0.929	0.997	irs	0.927	0.929	0.997	irs	0.833	0.834	0.998	drs	0.841	0.841	1.000	-	0.890	0.895	0.994	irs	0.890	0.895	0.994	irs
CERUDEB	**UGA**	0.568	0.628	0.904	drs	0.568	0.645	0.880	drs	0.565	0.627	0.901	drs	0.565	0.645	0.876	drs	0.366	0.497	0.736	drs	0.366	0.517	0.708	drs
CEP	**VIET**	0.845	0.846	0.999	irs	0.846	0.847	0.999	irs	0.819	0.820	0.999	drs	0.822	0.822	0.999	irs	0.691	0.698	0.990	irs	0.691	0.698	0.990	irs
TYM	**VIET**	0.721	0.766	0.941	irs	0.721	0.766	0.941	irs	0.701	0.766	0.915	irs	0.701	0.766	0.915	irs	0.583	0.621	0.940	irs	0.583	0.621	0.940	irs
Mean		**.868**	**.901**	**.964**		**.868**	**.901**	**.964**		**0.778**	**0.825**	**0.946**		**0.786**	**0.839**	**0.941**		**0.765**	**0.801**	**0.958**		**0.773**	**0.809**	**0.958**	

Appendix J Malmquist DEA indices for 2006 relative to 2005

MFI	Cou	LR ACE					L ACE					R ACE				
		effch	techch	pech	sech	tfpch	effch	techch	pech	sech	tfpch	effch	techch	pech	sech	tfpch
ARMP	**AFG**	1.154	0.878	1.030	1.120	1.012	1.154	0.876	1.030	1.120	1.011	1.673	0.886	1.675	0.999	1.483
BRAC AFG	**AFG**	1.423	0.943	1.398	1.018	1.341	1.385	0.951	1.352	1.024	1.317	1.688	0.846	1.523	1.108	1.429
FMFB AFG	**AFG**	1.689	0.926	1.635	1.033	1.564	1.777	0.896	1.643	1.082	1.593	1.879	0.849	1.776	1.058	1.595
BESA	**ALB**	1.000	0.939	1.000	1.000	0.939	1.000	0.938	1.000	1.000	0.938	1.117	0.851	1.076	1.038	0.951
ProCred ALB	**ALB**	1.046	0.962	1.003	1.043	1.007	0.896	1.116	0.979	0.915	0.999	1.061	0.949	1.097	0.967	1.007
PSHM	**ALB**	1.136	0.918	1.030	1.103	1.043	1.133	0.906	1.024	1.107	1.027	1.293	0.879	1.269	1.019	1.137
NovoBanco	**ANG**	0.738	0.773	0.741	0.997	0.571	1.078	0.824	1.003	1.075	0.889	0.738	0.746	0.741	0.997	0.551
ACBA	**ARM**	1.107	0.995	1.142	0.970	1.102	1.123	0.982	1.157	0.971	1.102	1.035	0.995	1.144	0.905	1.030
HORIZON	**ARM**	1.058	0.939	0.994	1.064	0.993	1.150	0.841	1.053	1.092	0.966	1.179	0.841	0.972	1.214	0.992
INECO	**ARM**	0.825	1.066	0.926	0.891	0.879	1.037	0.992	1.034	1.002	1.029	0.825	1.066	0.926	0.891	0.879
CRED AGRO	**AZE**	1.144	0.950	1.120	1.021	1.086	1.144	0.950	1.120	1.021	1.086	1.154	0.945	1.111	1.039	1.090
MFBA	**AZE**	1.189	0.867	1.078	1.103	1.031	1.189	0.867	1.078	1.103	1.031	1.168	0.886	1.141	1.023	1.035
NORMICRO	**AZE**	1.076	0.899	1.017	1.058	0.967	1.289	0.836	1.270	1.015	1.078	1.045	0.842	0.885	1.180	0.880
Viator	**AZE**	1.071	0.938	1.048	1.022	1.005	1.172	0.852	1.173	1.000	0.999	1.198	0.842	1.113	1.076	1.009
ASA	**BAN**	0.982	0.977	1.000	0.982	0.960	0.955	1.009	1.000	0.955	0.964	0.974	0.967	1.000	0.974	0.942
BRAC BAN	**BAN**	1.070	0.954	1.025	1.044	1.021	0.869	0.983	1.025	0.848	0.855	1.251	0.926	1.253	0.999	1.158
BURO TANGAIL	**BAN**	1.019	0.946	1.018	1.001	0.964	0.969	0.995	1.021	0.949	0.964	1.024	0.898	1.024	1.000	0.920
IDF	**BAN**	1.250	0.958	1.215	1.028	1.197	1.299	0.988	1.244	1.044	1.283	1.074	0.885	1.003	1.070	0.951
RDRS	**BAN**	0.945	0.993	0.942	1.003	0.938	0.897	1.016	0.903	0.994	0.912	1.226	0.958	1.215	1.009	1.174
SHAKTI	**BAN**	0.991	0.960	0.980	1.011	0.951	0.951	0.980	0.980	0.971	0.932	1.177	0.904	1.179	0.999	1.064
TMSS	**BAN**	1.049	0.944	0.999	1.049	0.990	0.949	1.001	0.999	0.950	0.950	1.152	0.902	1.128	1.021	1.039

FECECAM	**BEN**	0.969	0.916	0.918	1.055	0.887	1.111	0.829	0.913	1.217	0.921	0.993	0.855	0.872	1.139	0.849
ALIDE	**BEN**	1.055	0.914	0.834	1.266	0.964	1.066	0.901	0.834	1.278	0.961	1.278	0.961	0.479	2.670	1.228
PADME	**BEN**	0.935	0.941	0.851	1.099	0.880	0.923	0.932	0.823	1.122	0.860	0.966	0.924	0.922	1.048	0.893
VF	**BEN**	1.102	0.911	1.098	1.004	1.004	1.077	0.872	1.066	1.010	0.939	1.081	0.806	1.102	0.982	0.872
RCPB	**BF**	0.919	0.933	0.821	1.119	0.857	0.919	0.933	0.821	1.119	0.857	0.953	0.930	0.908	1.049	0.886
Agrocapital	**BOL**	1.093	0.918	0.985	1.110	1.004	1.071	0.904	0.963	1.112	0.969	1.316	0.851	1.263	1.041	1.119
BANCOSOL	**BOL**	1.026	0.966	0.941	1.090	0.991	1.045	0.946	0.941	1.110	0.989	1.067	0.943	1.085	0.983	1.005
Bnaco L A	**BOL**	1.090	0.934	0.962	1.133	1.018	1.089	0.934	0.962	1.132	1.017	1.172	0.924	1.167	1.004	1.082
CRECER	**BOL**	1.023	0.906	0.956	1.070	0.926	1.179	0.832	0.990	1.191	0.981	1.067	0.846	0.950	1.123	0.903
Eco Futuro	**BOL**	1.110	0.899	0.991	1.120	0.998	1.105	0.889	0.990	1.116	0.982	1.160	0.888	1.123	1.033	1.030
FADES	**BOL**	0.905	0.857	0.770	1.175	0.775	0.922	0.838	0.772	1.195	0.773	0.994	0.861	0.904	1.100	0.856
FIE	**BOL**	1.002	0.932	0.871	1.151	0.934	0.997	0.934	0.871	1.144	0.931	1.044	0.931	0.995	1.049	0.972
FunBodem	**BOL**	1.084	0.896	1.089	0.996	0.972	1.299	0.841	1.307	0.994	1.091	1.003	0.871	0.962	1.042	0.873
PRODEM	**BOL**	1.060	0.910	0.894	1.186	0.965	1.066	0.881	0.894	1.192	0.940	1.113	0.886	1.001	1.112	0.986
ProMujar BOL	**BOL**	1.043	0.910	0.965	1.081	0.949	1.051	0.863	0.931	1.129	0.907	1.150	0.866	1.142	1.007	0.996
EKI	**BOS**	1.143	0.956	1.036	1.103	1.093	1.143	0.956	1.036	1.103	1.092	1.320	0.909	1.267	1.042	1.200
MIKROFIN	**BOS**	1.004	1.049	1.000	1.004	1.053	1.003	1.039	1.000	1.003	1.042	1.070	0.942	1.065	1.004	1.008
PARTNER	**BOS**	1.097	0.997	1.041	1.054	1.094	1.109	0.991	1.041	1.065	1.099	1.107	0.911	1.093	1.013	1.009
SUNRISE	**BOS**	1.188	0.914	1.080	1.100	1.086	1.171	0.887	1.013	1.156	1.040	1.430	0.819	1.365	1.047	1.171
CDS	**CAM**	1.097	0.925	1.093	1.004	1.015	1.263	0.876	1.159	1.090	1.106	1.077	0.889	1.076	1.001	0.957
CMM Bog	**COL**	1.131	0.879	1.024	1.104	0.994	1.242	0.823	1.033	1.202	1.022	1.147	0.844	1.030	1.114	0.968
Finamerica	**COL**	1.075	0.866	0.976	1.102	0.931	1.201	0.829	0.982	1.223	0.995	0.974	0.859	0.864	1.128	0.837
FMM Buca	**COL**	1.054	0.938	1.027	1.026	0.989	1.190	0.912	1.053	1.130	1.086	1.032	0.905	0.975	1.059	0.934
FMM Pop	**COL**	0.988	0.946	0.995	0.993	0.935	1.127	0.923	1.015	1.110	1.039	0.930	0.921	0.900	1.034	0.857
WMM Med	**COL**	1.042	0.925	0.999	1.043	0.964	1.055	0.919	1.039	1.015	0.970	0.964	0.920	0.948	1.016	0.886
WWB Ca	**COL**	1.044	0.958	1.000	1.044	1.000	1.132	0.946	1.000	1.132	1.071	0.994	0.933	0.987	1.007	0.927
ACLEDA	**COM**	1.010	0.919	0.924	1.094	0.929	1.067	0.896	0.924	1.155	0.955	1.062	0.899	0.972	1.093	0.955
AMRET	**COM**	1.080	0.956	1.075	1.005	1.032	1.232	0.846	1.059	1.163	1.042	1.184	0.871	1.154	1.026	1.031
CEB	**COM**	1.192	0.935	1.197	0.996	1.114	1.240	0.932	1.215	1.021	1.155	1.287	0.911	1.271	1.012	1.173
HKL	**COM**	1.163	0.903	1.160	1.003	1.050	1.175	0.872	1.177	0.998	1.025	1.266	0.866	1.225	1.033	1.096
PRASAC	**COM**	1.114	0.913	1.012	1.100	1.017	1.128	0.897	1.008	1.120	1.012	1.295	0.864	1.190	1.088	1.118
CrediMujer	**CR**	1.173	0.939	1.000	1.173	1.102	1.255	0.846	1.000	1.255	1.061	1.297	0.875	1.000	1.297	1.135
Banco Sol	**ECU**	1.090	0.902	1.000	1.090	0.983	1.024	0.997	1.000	1.024	1.021	1.090	0.891	1.000	1.090	0.971
COAC Jardin	**ECU**	1.000	1.109	1.000	1.000	1.109	1.000	1.126	1.000	1.000	1.126	0.944	1.037	0.937	1.008	0.979
Coac S Jose	**ECU**	1.036	0.978	1.028	1.008	1.013	1.036	0.978	1.028	1.008	1.013	0.983	1.007	0.924	1.064	0.990
COAC SAC	**ECU**	0.862	0.873	0.900	0.957	0.752	0.862	0.873	0.900	0.957	0.752	0.858	0.825	0.853	1.006	0.708
D-Miro	**ECU**	1.064	0.918	1.062	1.002	0.977	1.149	0.826	1.089	1.055	0.949	1.279	0.808	1.296	0.987	1.034
FINCA ECU	**ECU**	1.028	0.912	1.000	1.028	0.938	1.185	0.820	0.982	1.206	0.972	1.223	0.800	1.030	1.187	0.978
FODEMI	**ECU**	1.274	0.833	1.272	1.001	1.060	1.284	0.825	1.285	0.999	1.060	1.250	0.857	1.152	1.085	1.071
Fundacion Es	**ECU**	1.085	0.921	1.093	0.993	1.000	1.176	0.835	1.165	1.009	0.982	1.215	0.841	1.237	0.983	1.022
ProCred ECU	**ECU**	1.041	0.947	0.944	1.103	0.986	1.062	0.946	0.944	1.125	1.004	0.911	0.906	0.871	1.046	0.826
Al Tadamun	**EGY**	1.341	0.900	1.233	1.088	1.207	1.719	0.845	1.659	1.037	1.453	1.350	0.859	1.227	1.100	1.160
DBACD	**EGY**	1.205	0.992	1.192	1.011	1.196	1.107	0.988	1.097	1.009	1.094	1.205	0.992	1.192	1.011	1.196
LEAD	**EGY**	1.370	0.934	1.370	1.000	1.279	1.051	0.938	1.039	1.011	0.986	1.581	0.905	1.576	1.003	1.430
AMC de RL	**ELS**	1.133	0.915	1.124	1.008	1.036	1.257	0.825	1.138	1.105	1.037	1.207	0.864	1.214	0.994	1.043
Fundacion	**ELS**	1.134	0.891	0.914	1.240	1.011	1.134	0.891	0.914	1.240	1.011	1.122	0.894	0.865	1.296	1.003
ACSI	**ETH**	1.114	1.011	1.113	1.001	1.127	1.105	1.009	1.122	0.985	1.115	1.122	1.108	1.278	0.878	1.243
ADCSI	**ETH**	0.844	0.980	0.870	0.970	0.827	0.844	0.980	0.870	0.970	0.827	0.775	1.069	0.732	1.058	0.828
BG	**ETH**	1.104	0.938	0.868	1.272	1.035	0.923	0.951	0.796	1.160	0.878	1.871	0.863	1.424	1.314	1.615
DECSI	**ETH**	1.000	0.962	1.000	1.000	0.962	1.000	0.930	1.000	1.000	0.930	1.000	1.013	1.000	1.000	1.013
OMO	**ETH**	1.204	1.003	1.200	1.004	1.208	1.204	1.003	1.200	1.004	1.208	1.164	1.080	1.147	1.016	1.258
WISDOM	**ETH**	0.920	1.046	0.874	1.053	0.962	0.484	0.993	0.460	1.053	0.481	1.463	0.998	1.358	1.077	1.461
OI SASL	**GHA**	1.429	0.905	1.382	1.033	1.292	1.445	0.847	1.340	1.078	1.224	1.570	0.857	1.550	1.013	1.345
ProCred GHA	**GHA**	0.885	0.918	0.877	1.009	0.813	1.222	0.842	1.087	1.124	1.029	0.707	0.867	0.647	1.093	0.613
Sat	**GHA**	1.308	0.927	1.324	0.988	1.212	1.409	0.859	1.412	0.998	1.211	1.326	0.869	1.337	0.991	1.151
C FUND	**GOE**	1.088	0.916	1.000	1.088	0.997	0.958	0.844	0.920	1.041	0.809	1.267	0.840	1.002	1.264	1.064
Constanta	**GOE**	0.836	0.935	0.796	1.050	0.782	0.892	0.870	0.816	1.092	0.776	1.023	0.887	0.912	1.121	0.908
CREDO	**GOE**	1.327	0.849	1.330	0.997	1.127	1.347	0.837	1.342	1.004	1.127	1.366	0.846	1.285	1.063	1.155
SBDF	**GOE**	1.205	0.864	1.016	1.186	1.040	1.214	0.849	1.031	1.177	1.031	1.401	0.835	0.990	1.415	1.169
Genesis Em	**GUAT**	1.125	0.874	1.014	1.110	0.984	1.235	0.825	1.019	1.212	1.019	1.106	0.844	0.973	1.137	0.933
ACME	**HAI**	0.924	0.896	0.949	0.974	0.828	1.038	0.867	1.037	1.001	0.900	0.924	0.878	0.945	0.978	0.811
FINCA HON	**HON**	1.047	0.921	1.058	0.990	0.964	1.308	0.852	1.320	0.992	1.114	0.964	0.884	0.961	1.003	0.852
HDH	**HON**	1.255	0.863	1.242	1.011	1.083	1.353	0.849	1.323	1.022	1.149	0.573	0.871	0.572	1.002	0.499

World Rel	**HON**	1.212	0.900	1.170	1.035	1.091	1.265	0.837	1.173	1.078	1.058	1.367	0.842	1.370	0.997	1.151
BANDHAN	**IND**	1.067	1.025	1.065	1.002	1.094	1.064	1.026	1.065	0.999	1.091	1.380	0.981	1.412	0.977	1.353
BASIX	**IND**	1.101	0.898	1.041	1.058	0.989	1.150	0.881	1.053	1.092	1.013	1.065	0.878	1.013	1.052	0.935
Cashpoor	**IND**	1.700	0.961	1.771	0.960	1.633	2.133	0.959	1.970	1.083	2.045	1.465	0.884	1.409	1.039	1.295
ESAF	**IND**	1.380	1.002	1.350	1.022	1.382	1.387	1.001	1.362	1.018	1.388	1.244	0.985	1.090	1.142	1.226
GK	**IND**	1.282	0.970	1.285	0.997	1.243	1.170	0.983	1.194	0.980	1.150	1.541	0.935	1.507	1.023	1.441
KBSLAB	**IND**	1.005	0.944	1.004	1.001	0.949	0.996	0.945	1.005	0.991	0.942	1.047	0.928	1.023	1.024	0.971
SHARE MF	**IND**	1.082	0.945	1.035	1.046	1.023	1.143	0.950	1.047	1.091	1.086	0.761	0.921	0.714	1.066	0.701
SNFL	**IND**	1.023	1.064	1.010	1.013	1.089	1.023	1.061	1.010	1.013	1.086	1.246	1.086	1.277	0.976	1.353
MBK Ventu	**INDO**	1.336	0.927	0.844	1.582	1.238	1.246	0.968	0.716	1.740	1.207	1.458	0.854	0.796	1.832	1.245
JMCC	**JOR**	1.264	0.865	1.238	1.021	1.094	1.334	0.839	1.268	1.052	1.120	1.245	0.870	1.239	1.005	1.084
MFW	**JOR**	1.227	0.899	1.226	1.000	1.103	1.548	0.828	1.453	1.065	1.281	1.092	0.845	1.101	0.991	0.923
KLF	**KAZ**	0.900	0.942	0.903	0.997	0.848	1.026	0.882	0.900	1.140	0.905	0.970	0.897	0.960	1.010	0.870
EBS	**KEN**	1.193	0.887	1.121	1.064	1.058	1.694	0.909	1.521	1.113	1.539	1.193	0.887	1.121	1.064	1.058
Kadet	**KEN**	1.361	0.902	1.376	0.989	1.228	1.430	0.842	1.441	0.993	1.204	1.317	0.865	1.297	1.015	1.139
K-REP	**KEN**	1.234	0.909	1.093	1.130	1.122	1.266	0.868	1.083	1.169	1.099	1.296	0.881	1.177	1.101	1.141
KWFT	**KEN**	1.079	0.933	1.029	1.048	1.007	1.268	0.850	1.051	1206	1.078	1.145	0.870	1.014	1.130	0.997
MDSL	**KEN**	1.290	0.934	1.211	1.066	1.205	1171	0.831	1108	1057	0.973	1.580	0.846	1.433	1.103	1.338
SMEP	**KEN**	1.162	0.901	1.134	1.025	1.048	1.291	0.828	1.169	1.105	1.068	1.212	0.851	1.233	0.983	1.031
AIYL Bank	**KYR**	1.000	0.982	1.000	1.000	0.982	1.000	0.982	1.000	1.000	0.982	0.878	0.993	0.896	0.979	0.871
BTFF	**KYR**	1.339	0.975	1.337	1.002	1.306	1.095	0.981	1.098	0.997	1.074	1.420	0.988	1.419	1.001	1.403
FMCC	**KYR**	0.863	0.911	0.814	1.060	0.786	0.905	0.849	0.794	1.141	0.769	0.995	0.857	0.874	1.139	0.853
Kando Jagima	**MALI**	1.404	0.872	1.299	1.080	1.225	1.403	0.870	1.299	1.080	1.221	1.764	0.885	1.767	0.998	1.561
Soro Y	**MALI**	0.966	0.883	0.948	1.019	0.853	0.966	0.887	0.948	1.019	0.857	1.057	0.892	1.060	0.997	0.943
CreditMongol	**MON**	1.096	0.901	1.061	1.033	0.988	1.165	0.858	1.158	1.006	1.000	1.105	0.844	1.024	1.079	0.932
Khan Bank	**MON**	0.979	0.983	1.136	0.862	0.963	1.132	0.981	1.179	0.960	1.110	0.979	0.983	1.136	0.862	0.963
AL AMANA	**MOR**	1.115	0.926	1.000	1.115	1.033	1.115	0.926	1.000	1.115	1.033	0.936	0.932	0.960	0.975	0.872
Al Karama	**MOR**	0.967	0.893	0.882	1.096	0.864	1.033	0.864	0.998	1.036	0.893	0.962	0.842	0.803	1.198	0.810
Fondep	**MOR**	1.294	0.936	1.199	1.079	1.211	1.150	0.903	1.058	1.087	1.039	1.595	0.903	1.588	1.005	1.440
Inmaa	**MOR**	1.359	0.889	1.313	1.035	1.208	1.423	0.842	1.426	0.998	1.198	1.365	0.852	1.217	1.121	1.162
Zakoura	**MOR**	1.120	0.878	0.988	1.134	0.983	1.178	0.867	1.012	1.164	1.021	0.988	0.868	0.851	1.161	0.858
FCC	**MOZ**	0.823	1.022	0.782	1.052	0.841	0.807	0.923	0.797	1.013	0.745	0.823	1.022	0.782	1.052	0.841
NOVO BANCO	**MOZ**	1.262	0.947	1.169	1.080	1.195	1.238	0.849	1.085	1.140	1.051	1.371	0.916	1.226	1.118	1.257
SOCREMO	**MOZ**	1.051	0.952	1.074	0.978	1.001	1.320	0.838	1.204	1.097	1.106	1.078	0.865	1.028	1.049	0.932
TCHUMA	**MOZ**	1.063	0.929	1.076	0.988	0.987	1.122	0.871	1.130	0.992	0.977	1.156	0.876	1.170	0.988	1.012
CBB	**NEP**	1.006	1.114	0.882	1.141	1.121	1.180	0.998	0.871	1.355	1.177	1.006	1.114	0.880	1.144	1.121
NIRDHAN	**NEP**	1.119	0.987	1.117	1.001	1.104	1.121	0.986	1.116	1.004	1.105	1.123	0.970	1.114	1.008	1.089
ACODEP	**NIC**	1.102	0.917	1.045	1.055	1.010	1.229	0.835	1.028	1.195	1.025	1.268	0.820	1.096	1.157	1.040
FDL	**NIC**	1.085	0.931	0.989	1.097	1.010	1.106	0.902	0.984	1.124	0.998	1.135	0.906	1.069	1.062	1.029
FINDESA	**NIC**	1.162	0.933	1.096	1.060	1.084	1.124	0.934	0.951	1.183	1.050	1.204	0.916	1.096	1.099	1.103
ProCred NIC	**NIC**	0.933	0.929	0.896	1.042	0.867	1.087	0.887	0.901	1.207	0.965	0.936	0.843	0.817	1.146	0.789
Prodesa	**NIC**	1.000	1.050	1.000	1.000	1.050	0.987	0.992	0.998	0.989	0.979	1.000	1.071	1.000	1.000	1.071
LAPO	**NIG**	1.151	0.919	1.196	0.963	1.058	1.402	0.920	1.460	0.960	1.290	1.158	0.841	1.188	0.975	0.974
SEAP	**NIG**	0.954	0.980	1.000	0.954	0.935	1.069	0.968	1.203	0.889	1.035	0.934	0.975	1.000	0.934	0.911
ASASAH	**PAK**	0.483	0.968	0.480	1.006	0.468	0.601	0.968	0.547	1.099	0.582	0.448	0.960	0.452	0.991	0.430
FMBL	**PAK**	1.516	0.949	1.466	1.034	1.439	1.566	0.957	1.540	1.017	1.498	1.516	0.941	1.466	1.034	1.426
KASHF	**PAK**	1.150	0.960	1.167	0.985	1.104	1.201	0.970	1.210	0.992	1.165	1.060	0.945	1.046	1.013	1.001
FIELCO	**PAR**	1.124	0.914	1.120	1.003	1.027	1.097	0.827	0.926	1.185	0.908	1.212	0.861	1.164	1.041	1.043
Interfisa	**PAR**	1.137	0.918	1.123	1.012	1.043	1.127	0.859	0.986	1.143	0.967	1.187	0.882	1.123	1.057	1.047
Bantra	**PER**	1.103	0.921	1.000	1.103	1.015	1.165	0.822	1.000	1.165	0.957	1.299	0.796	1.000	1.299	1.034
Caja Nor	**PER**	1.056	0.932	1.022	1.032	0.984	1.111	0.879	1.007	1.102	0.976	1.054	0.893	1.014	1.039	0.941
Caritas	**PER**	1.219	0.892	1.185	1.029	1.088	1.257	0.837	1.154	1.090	1.052	1.421	0.845	1.373	1.035	1.200
CMAC Arq	**PER**	1.000	0.943	1.000	1.000	0.943	0.965	1.034	1.000	0.965	0.997	1.000	0.912	1.000	1.000	0.912
CMAC May	**PER**	**1.132**	0.931	1.071	1057	1.053	1.183	0.873	1.008	1.173	1.033	1.235	0.880	1.132	1.091	1.086
CMAC Tac	**PER**	1.045	0.973	1.015	1.030	1.017	1.089	0.972	1.004	1.085	1.059	0.996	0.944	0.998	0.998	0.940
CMAC Tru	**PER**	1.033	0.968	1.003	1.030	0.999	1.029	0.979	1.003	1026	1.007	1.080	0.909	1.083	0.997	0.982
Edpy. C Tac	**PER**	1.118	0.920	1.098	1.019	1.028	1219	0.870	1129	1080	1.061	1.181	0.874	1.180	1.001	1.032
Edpy. Cofian	**PER**	0.942	0.937	0.918	1.027	0.883	1.006	0.913	0.926	1.087	0.918	0.952	0.905	0.919	1.035	0.862
EDPY.Edyf	**PER**	1.120	0.922	1.022	1.096	1.033	1.240	0.831	0.999	1.241	1.030	1.201	0.863	1.042	1.152	1.037
FINCA PER	**PER**	1.074	0.933	1.034	1.039	1.002	1.214	0.887	1.203	1.010	1.077	1.066	0.924	1.027	1.038	0.985
Fondesurco	**PER**	1.242	0.904	1.040	1.195	1.122	1.266	0.840	1.052	1.204	1.063	1.343	0.871	1.071	1.254	1.170
MiBanco	**PER**	1.132	0.924	1.000	1.132	1.047	1.159	0.881	1.000	1.159	1.021	1.236	0.864	1.094	1.130	1.067
Movim. M R	**PER**	1.104	0.933	1.081	1.021	1.030	1.156	0.853	1.163	0.994	0.986	1.199	0.922	1.151	1.041	1.105

ProMujer PER	**PER**	1.117	0.926	1.129	0.989	1.034	1.274	0.851	1.278	0.997	1.085	1.204	0.830	1.211	0.994	0.999
ASHI	**PHI**	1.165	0.925	1.175	0.991	1.077	1.155	0.909	1.150	1.005	1.050	1.295	0.866	1.297	0.998	1.121
Bangko Ka	**PHI**	1.015	0.986	0.997	1.018	1.001	1.025	0.981	1.024	1.001	1.005	1.015	0.986	0.997	1.018	1.001
BCB	**PHI**	1.049	0.922	1.031	1.018	0.968	1.103	0.846	1.099	1.004	0.934	1.110	0.876	1.060	1.047	0.973
CBMO	**PHI**	1.033	0.961	1.030	1.003	0.993	1.148	0.906	1.150	0.998	1.040	1.069	0.900	1.051	1.017	0.962
DIGOS	**PHI**	1.058	0.939	1.053	1.005	0.994	1.130	0.851	1.135	0.996	0.961	1.147	0.881	1.114	1.030	1.010
Ist Valley	**PHI**	0.972	0.945	0.958	1.014	0.919	1.011	0.922	0.938	1.078	0.932	1.020	0.921	1.001	1.019	0.939
NWFT	**PHI**	1.103	0.925	1.091	1.012	1.020	1.224	0.908	1.135	1.078	1.112	1.171	0.847	1.122	1.043	0.992
SOLANO	**PHI**	0.982	0.969	0.785	1.250	0.951	0.759	0.968	0.698	1.088	0.735	0.982	0.969	0.785	1.250	0.951
TSPI	**PHI**	1.128	0.945	1.054	1.070	1.067	1.203	0.928	1.117	1.077	1.117	1.127	0.902	1.024	1.100	1.017
FORUS	**RUS**	0.912	0.910	0.889	1.025	0.830	1.067	0.856	0.907	1.176	0.913	0.850	0.849	0.772	1.101	0.721
SEF-ZAF	**SA**	0.899	1.002	0.970	0.926	0.901	1.156	0.869	1.162	0.994	1.005	0.815	1.023	0.889	0.917	0.834
SPBD	**SAM**	1.004	0.946	0.713	1.409	0.950	1.137	0.841	0.683	1.664	0.956	1.057	0.891	0.653	1.618	0.941
CMS	**SEN**	0.962	0.959	0.875	1.099	0.922	0.905	0.961	0.839	1.078	0.869	1.069	0.898	1.028	1.040	0.960
Pamecas	**SEN**	0.952	0.870	0.766	1.243	0.828	0.917	0.858	0.759	1.209	0.787	1.186	0.876	1.060	1.119	1.039
Agroinvest	**TAJ**	0.769	0.950	0.763	1.008	0.731	1.033	0.953	0.936	1.104	0.985	0.460	0.936	0.450	1.021	0.430
Bank Eskhata	**TAJ**	1.083	0.932	1.080	1.003	1.010	1.296	0.958	1.270	1.020	1.241	1.083	0.932	1.080	1.003	1.010
FMFB TAJ	**TAJ**	1.416	0.958	1.414	1.002	1.357	1.355	0.958	1.362	0.995	1.298	1.423	0.946	1.416	1.006	1.346
IMON	**TAJ**	1.201	0.947	1.194	1.006	1.138	1.252	0.891	1.251	1.001	1.115	1.416	0.864	1.373	1.031	1.223
MicroInvest	**TAJ**	1.153	0.939	1.049	1.099	1.083	1.177	0.906	1.136	1.036	1.067	1.332	0.864	1.097	1.213	1.151
PRIDE	**TAN**	0.985	0.931	0.979	1.006	0.917	1.117	0.846	0.963	1.160	0.944	0.976	0.917	0.889	1.098	0.895
Enda	**TUN**	1.082	0.909	1.051	1.029	0.984	1.069	0.845	1.007	1.061	0.903	1.285	0.841	1.310	0.981	1.080
CERUDEB	**UGA**	0.920	0.852	0.838	1.098	0.783	1.522	0.827	1.159	1.314	1.260	0.657	0.829	0.541	1.214	0.544
CMFL	**UGA**	1.117	0.906	1.089	1.026	1.012	1.680	0.831	1.524	1.102	1.396	1.064	0.828	1.014	1.049	0.881
FAULU	**UGA**	0.851	0.917	0.863	0.986	0.780	1.058	0.849	1.034	1.023	0.898	0.868	0.866	0.874	0.992	0.752
FINCA UGA	**UGA**	0.825	1.020	0.924	0.893	0.842	1.008	0.873	0.924	1.090	0.879	0.823	1.016	0.924	0.891	0.836
MEDNET	**UGA**	1.520	1.003	1.515	1.003	1.524	1.216	0.879	1.290	0.942	1.068	1.799	0.952	1.752	1.026	1.713
BanGente	**VEN**	1.146	0.903	1.031	1.111	1.035	1.161	0.825	0.963	1.206	0.958	1.471	0.741	1.164	1.264	1.090
CEP	**VIET**	1.146	0.872	1.008	1.137	1.000	1.105	0.852	0.971	1.138	0.942	1.293	0.879	1.300	0.995	1.136
TYM	**VIET**	0.974	0.931	0.939	1.037	0.907	0.939	0.940	0.920	1.021	0.883	1.132	0.900	1.062	1.066	1.018
CETZAM	**ZAM**	1.000	1.055	1.000	1.000	1.055	1.122	0.863	1.146	0.980	0.969	1.000	1.063	1.000	1.000	1.063
FINCA ZAM	**ZAM**	0.906	1.012	0.992	0.913	0.917	0.635	0.925	0.624	1.019	0.588	0.969	0.990	1.059	0.915	0.959
Mean		**1.081**	**0.935**	**1.034**	**1.046**	**1.011**	**1.127**	**0.903**	**1.049**	**1.074**	**1.017**	**1.123**	**0.899**	**1.059**	**1.061**	**1.011**

Appendix K Malmquist DEA indices for R^s (R-S) (Panel)

MFI	Country	LR ACE					LR^s-ACE				
		effch	techch	pech	sech	tfpch	effch	techch	pech	sech	tfpch
ARMP	**AFG**	1.154	0.878	1.030	1.120	1.012	0.052	0.920	0.094	0.552	0.048
FMFB AFG	**AFG**	1.608	0.963	1.609	0.999	1.549	1.855	0.893	1.740	1.066	1.656
BESA	**ALB**	1.000	0.939	1.000	1.000	0.939	1.000	0.953	1.000	1.000	0.953
ProCred ALB	**ALB**	1.046	0.962	1.003	1.043	1.007	1.058	0.985	0.979	1.081	1.043
PSHM	**ALB**	1.136	0.918	1.030	1.103	1.043	1.134	0.918	1.025	1.107	1.041
ACBA	**ARM**	1.107	0.995	1.142	0.970	1.102	1.118	0.986	1.157	0.966	1.103
HORIZON	**ARM**	1.051	0.948	0.994	1.057	0.996	1.175	0.849	1.048	1.121	0.998
INECO	**ARM**	0.825	1.066	0.926	0.891	0.879	0.993	0.970	1.085	0.915	0.963
CRED AGRO	**AZE**	1.144	0.950	1.120	1.021	1.086	1.144	0.950	1.120	1.021	1.086
MFBA	**AZE**	1.189	0.867	1.078	1.103	1.031	1.189	0.867	1.078	1.103	1.031
NORMICRO	**AZE**	1.071	0.902	1.010	1.060	0.966	1.235	0.844	1.210	1.021	1.042
Viator	**AZE**	1.065	0.943	1.046	1.018	1.005	1.134	0.860	1.133	1.001	0.975
ASA	**BAN**	0.965	0.987	1.000	0.965	0.953	0.911	0.970	1.000	0.911	0.883
BRAC BAN	**BAN**	1.067	0.969	1.025	1.041	1.035	0.869	0.983	1.025	0.848	0.855
BURO TANGAIL	**BAN**	1.017	0.948	1.018	0.999	0.964	1.012	0.937	1.000	1.012	0.948
IDF	**BAN**	1.249	0.958	1.215	1.028	1.196	1.271	0.970	1.216	1.045	1.234
SHAKTI	**BAN**	0.991	0.960	0.980	1.011	0.951	0.965	0.976	0.977	0.988	0.942
TMSS	**BAN**	1.049	0.945	0.999	1.049	0.991	0.949	1.001	0.999	0.950	0.950
FECECAM	**BEN**	0.964	0.920	0.918	1.050	0.887	1.061	0.835	0.866	1.224	0.886
ALIDE	**BEN**	1.055	0.914	0.834	1.266	0.964	1.066	0.901	0.834	1.278	0.961
PADME	**BEN**	0.934	0.948	0.851	1.098	0.885	0.923	0.930	0.822	1.122	0.858
VF	**BEN**	1.100	0.931	1.098	1.002	1.024	1.085	0.878	1.057	1.026	0.953
RCPB	**BF**	0.919	0.933	0.821	1.119	0.857	0.923	0.929	0.821	1.124	0.857
Agrocapital	**BOL**	1.092	0.922	0.985	1.109	1.007	1.071	0.906	0.963	1.112	0.970
BANCOSOL	**BOL**	1.026	0.966	0.941	1.090	0.991	1.035	0.964	0.942	1.099	0.998

Bnaco L A	**BOL**	1.090	0.934	0.962	1.133	1.018	1.090	0.934	0.962	1.133	1.018
CRECER	**BOL**	1.020	0.909	0.956	1.067	0.927	1.144	0.841	0.979	1.169	0.962
Eco Futuro	**BOL**	1.110	0.899	0.991	1.120	0.999	1.107	0.892	0.983	1.126	0.987
FADES	**BOL**	0.905	0.857	0.770	1.175	0.775	0.922	0.838	0.772	1.195	0.773
FIE	**BOL**	1.002	0.932	0.871	1.151	0.934	1.006	0.930	0.871	1.155	0.935
FunBodem	**BOL**	1.058	0.907	1.042	1.015	0.960	1.293	0.843	1.302	0.993	1.089
PRODEM	**BOL**	1.060	0.913	0.894	1.185	0.967	1.075	0.885	0.894	1.202	0.951
ProMujar BOL	**BOL**	1.041	0.913	0.965	1.078	0.950	1.052	0.866	0.931	1.130	0.911
EKI	**BOS**	1.143	0.956	1.036	1.103	1.093	1.154	0.965	1.036	1.113	1.113
MIKROFIN	**BOS**	1.004	1.049	1.000	1.004	1.053	1.000	1.070	1.000	1.000	1.070
PARTNER	**BOS**	1.097	0.997	1.041	1.054	1.094	1.096	1.011	1.041	1.053	1.109
SUNRISE	**BOS**	1.158	0.937	1.080	1.072	1.085	1.218	0.914	1.071	1.137	1.113
CDS	**CAM**	1.093	0.927	1.093	1.000	1.013	1.235	0.884	1.118	1.105	1.092
CMM Bog	**COL**	1.113	0.893	1.024	1.087	0.994	1.222	0.832	1.019	1.199	1.017
Finamerica	**COL**	1.057	0.874	0.976	1.084	0.924	1.180	0.834	0.975	1.210	0.984
FMM Buca	**COL**	1.023	0.960	1.027	0.996	0.982	1.176	0.902	1.076	1.093	1.061
FMM Pop	**COL**	0.983	0.949	0.995	0.988	0.933	1.095	0.904	0.993	1.102	0.990
WMM Med	**COL**	1.042	0.925	0.999	1.043	0.964	1.058	0.916	1.018	1.040	0.969
WWB Ca	**COL**	1.032	0.963	1.000	1.032	0.994	1.071	0.973	1.000	1.071	1.042
ACLEDA	**COM**	1.008	0.921	0.924	1.092	0.928	1.061	0.899	0.924	1.148	0.953
AMRET	**COM**	1.073	0.962	1.075	0.998	1.032	1.222	0.856	1.081	1.131	1.047
CEB	**COM**	1.189	0.936	1.195	0.995	1.113	1.243	0.931	1.204	1.032	1.157
HKL	**COM**	1.162	0.905	1.159	1.002	1.051	1.185	0.877	1.184	1.000	1.039
PRASAC	**COM**	1.114	0.914	1.012	1.100	1.018	1.128	0.897	1.001	1.127	1.012
CrediMujer	**CR**	1.170	0.957	1.000	1.170	1.121	1.300	0.853	1.000	1.300	1.110
Banco Sol	**ECU**	1.048	0.929	1.000	1.048	0.974	1.014	0.969	1.000	1.014	0.982
COAC Jardin	**ECU**	1.000	1.109	1.000	1.000	1.109	1.000	1.116	1.000	1.000	1.116
Coac S Jose	**ECU**	1.036	0.978	1.028	1.008	1.013	1.036	0.977	1.021	1.015	1.012
COAC SAC	**ECU**	0.862	0.873	0.900	0.957	0.752	0.862	0.873	0.900	0.957	0.752
D-Miro	**ECU**	1.049	0.938	1.059	0.990	0.984	1.149	0.836	1.104	1.040	0.961
FINCA ECU	**ECU**	1.000	0.953	1.000	1.000	0.953	1.121	0.841	1.000	1.121	0.943
FODEMI	**ECU**	1.274	0.833	1.272	1.001	1.060	1.273	0.834	1.266	1.005	1.062
Fundacion Es	**ECU**	1.077	0.930	1.094	0.984	1.002	1.169	0.844	1.184	0.987	0.987
ProCred ECU	**ECU**	1.041	0.947	0.944	1.103	0.986	1.036	0.955	0.944	1.098	0.990
Al Tadamun	**EGY**	1.230	0.950	1.180	1.042	1.169	1.664	0.845	1.578	1.054	1.405
DBACD	**EGY**	1.200	1.000	1.192	1.006	1.200	1.168	0.973	1.150	1.016	1.137
AMC de RL	**ELS**	1.128	0.922	1.124	1.004	1.040	1.249	0.835	1.118	1.117	1.043
Fundacion	**ELS**	1.134	0.891	0.914	1.240	1.011	1.134	0.891	0.909	1.247	1.011
ACSI	**ETH**	1.114	1.011	1.113	1.001	1.127	1.148	1.008	1.090	1.054	1.157
ADCSI	**ETH**	0.844	0.980	0.870	0.970	0.827	0.844	0.980	0.870	0.970	0.827
BG	**ETH**	1.104	0.940	0.868	1.272	1.037	0.975	0.941	0.842	1.158	0.917
DECSI	**ETH**	1.000	0.962	1.000	1.000	0.962	1.000	0.935	1.000	1.000	0.935
OMO	**ETH**	1.204	1.003	1.200	1.004	1.208	1.207	1.003	1.201	1.005	1.210
WISDOM	**ETH**	0.920	1.046	0.874	1.053	0.962	0.801	0.827	0.761	1.051	0.662
OI SASL	**GHA**	1.429	0.912	1.382	1.033	1.303	1.506	0.856	1.542	0.977	1.289
ProCred GHA	**GHA**	0.865	0.926	0.870	0.993	0.800	1.106	0.851	1.004	1.101	0.941
Sat	**GHA**	1.302	0.930	1.319	0.987	1.211	1.432	0.863	1.521	0.941	1.236
C FUND	**GOE**	1.083	0.943	1.000	1.083	1.022	0.959	0.852	0.897	1.069	0.818
Constanta	**GOE**	0.836	0.937	0.796	1.050	0.784	0.881	0.876	0.802	1.099	0.771
CREDO	**GOE**	1.327	0.849	1.330	0.997	1.127	1.347	0.837	1.342	1.004	1.127
SBDF	**GOE**	1.205	0.864	1.016	1.186	1.040	1.214	0.849	1.031	1.177	1.031
Genesis Em	**GUAT**	1.121	0.877	1.014	1.105	0.983	1.214	0.834	1.000	1.214	1.012
ACME	**HAI**	0.960	0.858	0.961	0.999	0.824	0.992	0.874	1.060	0.936	0.868
FINCA HON	**HON**	1.045	0.917	1.055	0.990	0.958	1.265	0.859	1.257	1.007	1.087
HDH	**HON**	1.255	0.863	1.242	1.011	1.083	1.340	0.853	1.307	1.025	1.143
World Rel	**HON**	1.212	0.906	1.170	1.035	1.098	1.250	0.845	1.165	1.073	1.057
BANDHAN	**IND**	1.067	1.025	1.065	1.002	1.094	1.067	1.027	1.065	1.002	1.096
BASIX	**IND**	1.100	0.900	1.041	1.056	0.989	1.142	0.887	1.034	1.104	1.013
Cashpoor	**IND**	1.690	0.963	1.771	0.955	1.629	2.133	0.959	1.970	1.083	2.045
ESAF	**IND**	1.380	1.002	1.350	1.022	1.382	1.391	0.999	1.356	1.026	1.391
GK	**IND**	1.282	0.971	1.285	0.997	1.244	1.221	0.971	1.238	0.986	1.186
KBSLAB	**IND**	1.003	0.945	1.003	1.001	0.949	1.003	0.943	1.005	0.997	0.945
SHARE MF	**IND**	1.081	0.946	1.035	1.045	1.022	1.117	0.941	1.039	1.075	1.051

SNFL	**IND**	1.023	1.064	1.010	1.013	1.089	1.023	1.061	1.010	1.013	1.086
MBK Ventu	**INDO**	1.333	0.928	0.850	1.569	1.237	1.351	0.950	0.743	1.818	1.283
JMCC	**JOR**	1.263	0.866	1.238	1.020	1.093	1.303	0.848	1.230	1.060	1.106
MFW	**JOR**	1.219	0.902	1.210	1.007	1.100	1.463	0.839	1.356	1.079	1.228
KLF	**KAZ**	0.886	0.969	0.892	0.994	0.859	1.034	0.862	0.959	1.079	0.892
EBS	**KEN**	1.070	0.998	1.121	0.955	1.068	1.697	0.770	1.255	1.352	1.306
Kadet	**KEN**	1.356	0.904	1.371	0.989	1.226	1.430	0.842	1.441	0.993	1.204
K-REP	**KEN**	1.233	0.913	1.093	1.128	1.125	1.276	0.873	1.103	1.157	1.114
KWFT	**KEN**	1.047	0.956	1.029	1.017	1.001	1.224	0.858	1.016	1.205	1.051
MDSL	**KEN**	1.279	0.980	1.171	1.091	1.254	1.531	0.855	1.368	1.119	1.309
SMEP	**KEN**	1.149	0.908	1.135	1.012	1.044	1.261	0.836	1.132	1.114	1.055
AIYL Bank	**KYR**	1.000	0.982	1.000	1.000	0.982	1.000	0.982	1.000	1.000	0.982
BTFF	**KYR**	1.339	0.981	1.337	1.002	1.314	1.099	0.979	1.104	0.995	1.076
FMCC	**KYR**	0.863	0.913	0.814	1.060	0.788	0.899	0.856	0.812	1.108	0.770
Kando Jagima	**MALI**	1.404	0.872	1.299	1.080	1.225	1.387	0.874	1.277	1.086	1.213
Soro Y	**MALI**	0.966	0.883	0.948	1.019	0.853	0.966	0.887	0.948	1.019	0.857
CreditMongol	**MON**	1.092	0.903	1.064	1.026	0.986	1.165	0.859	1.159	1.005	1.001
Khan Bank	**MON**	0.957	0.997	1.136	0.843	0.954	1.132	0.959	1.276	0.888	1.086
AL AMANA	**MOR**	1.115	0.926	1.000	1.115	1.033	1.119	0.925	1.000	1.119	1.035
Al Karama	**MOR**	0.967	0.893	0.884	1.094	0.864	0.994	0.870	0.949	1.047	0.865
Fondep	**MOR**	1.293	0.939	1.199	1.078	1.214	1.284	0.886	1.182	1.086	1.137
Inmaa	**MOR**	1.359	0.889	1.313	1.035	1.208	0.900	0.679	0.931	0.967	0.611
Zakoura	**MOR**	1.120	0.878	0.988	1.134	0.983	1.142	0.871	0.977	1.170	0.995
NOVO BANCO	**MOZ**	1.262	0.973	1.169	1.080	1.228	1.355	0.858	1.373	0.987	1.162
SOCREMO	**MOZ**	1.017	0.974	1.053	0.966	0.991	1.311	0.846	1.243	1.055	1.110
TCHUMA	**MOZ**	1.071	0.922	1.089	0.984	0.988	1.125	0.877	1.126	1.000	0.987
CBB	**NEP**	1.006	1.114	0.882	1.141	1.121	1.189	1.007	1.001	1.188	1.198
NIRDHAN	**NEP**	1.119	0.987	1.117	1.001	1.104	1.121	0.985	1.117	1.003	1.104
ACODEP	**NIC**	1.006	1.010	1.006	1.000	1.016	1.200	0.879	1.127	1.064	1.054
FDL	**NIC**	1.083	0.933	0.989	1.095	1.010	1.115	0.895	0.988	1.129	0.997
FINDESA	**NIC**	1.095	0.992	1.090	1.005	1.086	1.140	0.947	1.139	1.000	1.079
ProCred NIC	**NIC**	0.887	0.967	0.896	0.990	0.858	1.007	0.921	0.889	1.133	0.928
Prodesa	**NIC**	1.000	1.050	1.000	1.000	1.050	1.000	1.006	1.000	1.000	1.006
LAPO	**NIG**	1.147	0.921	1.181	0.971	1.056	1.368	0.918	1.517	0.902	1.256
SEAP	**NIG**	0.989	0.919	1.000	0.989	0.909	1.036	0.889	1.000	1.036	0.921
ASASAH	**PAK**	0.484	0.967	0.482	1.003	0.468	0.535	0.941	0.498	1.076	0.504
FMBL	**PAK**	1.469	0.982	1.465	1.003	1.443	1.597	0.952	1.556	1.026	1.521
KASHF	**PAK**	1.144	0.963	1.167	0.981	1.102	1.205	0.956	1.161	1.038	1.152
FIELCO	**PAR**	1.101	0.969	1.101	1.000	1.067	1.105	0.839	1.033	1.069	0.927
Interfisa	**PAR**	1.099	0.975	1.092	1.006	1.071	1.174	0.850	1.108	1.060	0.998
Bantra	**PER**	1.041	0.988	1.000	1.041	1.028	1.151	0.833	1.000	1.151	0.959
Caja Nor	**PER**	1.052	0.936	1.022	1.029	0.984	1.103	0.879	1.020	1.082	0.970
Caritas	**PER**	1.219	0.895	1.185	1.029	1.091	1.257	0.838	1.154	1.090	1.053
CMAC Arq	**PER**	1.000	0.943	1.000	1.000	0.943	1.000	0.942	1.000	1.000	0.942
CMAC May	**PER**	1.098	0.961	1.071	1.026	1.055	1.194	0.876	1.020	1.171	1.046
CMAC Tac	**PER**	1.044	0.973	1.015	1.029	1.017	1.043	0.994	0.995	1.049	1.037
CMAC Tru	**PER**	1.033	0.968	1.003	1.030	0.999	0.996	1.004	1.003	0.993	1.000
Edpy. C Tac	**PER**	1.074	0.953	1.068	1.005	1.023	1.184	0.881	1.102	1.074	1.044
Edpy. Cofian	**PER**	0.921	0.957	0.918	1.003	0.881	1.006	0.911	0.910	1.105	0.916
EDPY.Edyf	**PER**	1.102	0.950	1.022	1.078	1.047	1.218	0.836	0.994	1.225	1.019
FINCA PER	**PER**	1.145	0.873	1.093	1.047	1.000	1.161	0.892	1.146	1.012	1.035
Fondesurco	**PER**	1.240	0.906	1.040	1.192	1.124	1.266	0.840	1.052	1.204	1.063
MiBanco	**PER**	1.076	0.971	1.000	1.076	1.045	1.095	0.922	1.000	1.095	1.009
Movim. M R	**PER**	1.104	0.933	1.086	1.017	1.030	1.144	0.860	1.144	1.000	0.984
ProMujer PER	**PER**	1.112	0.929	1.125	0.989	1.033	1.262	0.859	1.264	0.998	1.084
ASHI	**PHI**	1.178	0.913	1.195	0.986	1.075	1.187	0.912	1.170	1.014	1.082
Bangko Ka	**PHI**	1.002	0.998	0.997	1.005	1.000	1.100	0.929	1.177	0.935	1.022
BCB	**PHI**	1.016	0.958	0.993	1.023	0.973	1.138	0.828	1.121	1.015	0.942
CBMO	**PHI**	1.028	0.965	1.025	1.003	0.992	1.169	0.879	1.156	1.011	1.027
DIGOS	**PHI**	1.054	0.944	1.049	1.004	0.994	0.637	0.544	0.640	0.996	0.347
Ist Valley	**PHI**	0.969	0.948	0.958	1.011	0.919	1.060	0.904	0.986	1.075	0.958
NWFT	**PHI**	1.103	0.925	1.090	1.012	1.021	1.225	0.912	1.226	1.000	1.117
SOLANO	**PHI**	0.962	0.992	0.785	1.225	0.954	0.924	0.878	0.759	1.218	0.811

TSPI	**PHI**	1.163	0.915	1.040	1.119	1.065	1.237	0.900	1.233	1.003	1.114
FORUS	**RUS**	0.893	0.930	0.889	1.004	0.830	1.040	0.860	0.888	1.171	0.895
SEF-ZAF	**SA**	0.899	0.998	0.970	0.926	0.897	1.107	0.876	1.155	0.958	0.970
SPBD	**SAM**	0.999	0.954	0.713	1.401	0.952	1.106	0.845	0.683	1.619	0.935
CMS	**SEN**	0.962	0.962	0.875	1.099	0.925	0.900	0.976	0.839	1.073	0.879
Pamecas	**SEN**	0.952	0.874	0.766	1.243	0.832	0.945	0.858	0.784	1.205	0.810
Agroinvest	**TAJ**	0.733	0.973	0.763	0.961	0.713	0.993	0.941	0.896	1.108	0.934
Bank Eskhata	**TAJ**	1.026	0.979	1.028	0.999	1.005	1.705	0.681	1.847	0.924	1.161
FMFB TAJ	**TAJ**	1.379	0.984	1.376	1.002	1.356	1.355	0.958	1.362	0.995	1.298
IMON	**TAJ**	1.198	0.951	1.191	1.006	1.139	1.259	0.894	1.256	1.002	1.125
MicroInvest	**TAJ**	1.152	0.942	1.049	1.098	1.085	1.142	0.910	1.097	1.041	1.039
PRIDE	**TAN**	0.985	0.931	0.979	1.006	0.917	1.080	0.854	0.975	1.107	0.922
Enda	**TUN**	1.082	0.912	1.051	1.029	0.987	1.074	0.853	1.072	1.001	0.916
CERUDEB	**UGA**	0.788	0.920	0.831	0.948	0.725	1.292	0.869	0.932	1.386	1.123
CMFL	**UGA**	0.992	0.972	0.997	0.995	0.963	1.486	0.841	1.365	1.089	1.250
FAULU	**UGA**	0.820	0.933	0.838	0.979	0.765	0.979	0.857	0.939	1.043	0.839
FINCA UGA	**UGA**	0.845	0.999	0.924	0.914	0.844	0.941	0.875	0.957	0.983	0.823
BanGente	**VEN**	1.129	0.947	1.031	1.094	1.069	1.167	0.855	1.014	1.151	0.998
CEP	**VIET**	1.146	0.873	1.008	1.137	1.001	1.116	0.861	0.989	1.128	0.960
TYM	**VIET**	0.974	0.931	0.939	1.037	0.907	0.949	0.936	0.925	1.025	0.888
CETZAM	**ZAM**	1.000	1.055	1.000	1.000	1.055	1.159	0.866	1.169	0.991	1.004
FINCA ZAM	**ZAM**	1.037	0.928	1.034	1.002	0.961	0.912	0.894	0.957	0.953	0.816
Mean		**1.071**	**0.943**	**1.029**	**1.041**	**1.010**	**1.108**	**0.895**	**1.041**	**1.064**	**0.992**

Appendix L Malmquist DEA indices for treating subsidies as an input (Panel)

MFI	Cou	LR-ACE					LR-ACES[i]					L-ACE					L-ACES[i]				
		effch	techch	pech	sech	tfpch	effch	techch	pech	sech	tfpch	effch	techch	pech	sech	tfpch	effch	techch	pech	sech	tfpch
ARMP	**AFG**	1.182	0.862	1.045	1.132	1.019	1.182	0.862	1.045	1.132	1.019	1.182	0.849	1.045	1.132	1.004	1.182	0.849	1.045	1.132	1.004
BRAC AFG	**AFG**	1.569	0.842	1.399	1.121	1.321	1.569	0.842	1.399	1.121	1.321	1.591	0.813	1.352	1.176	1.293	1.591	0.813	1.352	1.176	1.293
FMFB AFG	**AFG**	1.708	0.915	1.649	1.036	1.563	1.591	0.970	1.590	1.001	1.543	1.788	0.895	1.639	1.090	1.600	1.788	0.990	1.639	1.090	1.769
BESA	**ALB**	1.000	0.925	1.000	1.000	0.925	1.000	1.060	1.000	1.000	1.060	1.000	0.937	1.000	1.000	0.937	1.000	1.093	1.000	1.000	1.093
ProCred ALB	**ALB**	1.034	0.973	1.006	1.028	1.007	1.230	1.106	1.195	1.030	1.361	0.896	1.115	0.887	1.010	0.999	1.366	1.193	1.195	1.143	1.629
PSHM	**ALB**	1.128	0.932	1.034	1.090	1.051	1.128	0.962	1.034	1.091	1.084	1.133	0.905	1.024	1.107	1.025	1.133	0.959	1.024	1.107	1.087
NovoBanco	**ANG**	0.743	0.763	0.743	1.000	0.567	0.743	0.821	0.743	1.000	0.610	1.089	0.818	1.012	1.076	0.891	1.089	0.818	1.012	1.076	0.891
ACBA	**ARM**	1.130	0.922	1.160	0.974	1.042	1.130	0.922	1.160	0.974	1.042	1.119	0.983	1.161	0.964	1.100	1.119	0.983	1.161	0.964	1.100
HORIZON	**ARM**	1.056	0.940	0.956	1.105	0.992	1.090	0.970	1.000	1.090	1.057	1.187	0.813	1.049	1.132	0.965	1.187	0.865	1.000	1.187	1.027
CRED AGRO	**AZE**	1.134	0.962	1.105	1.026	1.091	1.134	0.963	1.105	1.026	1.092	1.139	0.952	1.105	1.031	1.085	1.139	0.952	1.105	1.031	1.085
MFBA	**AZE**	1.202	0.856	1.078	1.115	1.029	1.202	0.856	1.078	1.115	1.029	1.202	0.856	1.078	1.115	1.029	1.202	0.856	1.078	1.115	1.029
NORMICRO	**AZE**	1.082	0.894	1.018	1.062	0.967	1.060	0.903	1.004	1.056	0.957	1.316	0.813	1.270	1.036	1.070	1.316	0.813	1.270	1.036	1.070
BRAC BAN	**BAN**	1.193	0.970	1.000	1.193	1.157	1.193	0.970	1.000	1.193	1.157	0.904	0.908	1.000	0.904	0.821	0.904	0.908	1.000	0.904	0.821
RDRS	**BAN**	0.994	0.987	0.996	0.998	0.981	0.994	0.987	0.990	1.004	0.981	0.955	0.957	0.942	1.014	0.914	0.955	0.957	0.936	1.021	0.914
TMSS	**BAN**	1.082	0.907	0.982	1.102	0.981	1.082	0.907	0.982	1.102	0.981	1.110	0.877	0.982	1.130	0.973	1.110	0.877	0.982	1.130	0.973
FECECAM	**BEN**	0.960	0.919	0.909	1.056	0.882	0.829	0.962	0.841	0.986	0.798	1.135	0.813	0.862	1.317	0.923	0.792	0.973	0.826	0.959	0.771
ALIDE	**BEN**	1.101	0.842	0.860	1.280	0.928	1.101	0.842	0.860	1.280	0.928	1.130	0.813	0.860	1.313	0.918	1.130	0.813	0.860	1.313	0.918
PADME	**BEN**	0.895	0.978	0.872	1.027	0.876	0.895	0.978	0.872	1.027	0.876	0.915	0.938	0.818	1.119	0.858	0.915	0.938	0.814	1.123	0.858
VF	**BEN**	1.026	0.937	1.003	1.023	0.961	1.026	0.976	1.003	1.023	1.001	1.075	0.873	1.066	1.008	0.938	1.075	0.871	1.054	1.020	0.936
Agrocapital	**BOL**	1.095	0.926	0.986	1.110	1.013	1.095	0.927	0.986	1.110	1.015	1.072	0.903	0.963	1.113	0.968	1.072	0.903	0.963	1.113	0.968
BANCOSOL	**BOL**	1.022	0.987	0.923	1.108	1.009	1.279	1.682	1.056	1.211	2.150	1.045	0.946	0.923	1.133	0.989	1.350	1.658	1.056	1.278	2.238
Bnaco L A	**BOL**	1.093	0.950	0.979	1.116	1.038	1.099	0.947	0.979	1.122	1.041	1.089	0.937	0.979	1.112	1.020	1.095	0.948	0.979	1.118	1.038
Eco Futuro	**BOL**	1.068	0.929	0.990	1.078	0.992	1.081	1.089	0.947	1.142	1.177	1.105	0.888	0.989	1.118	0.982	1.081	1.089	0.946	1.143	1.177
FADES	**BOL**	0.917	0.847	0.770	1.190	0.777	0.917	0.847	0.770	1.190	0.777	0.938	0.821	0.775	1.210	0.770	0.938	0.821	0.775	1.210	0.770
FIE	**BOL**	0.976	0.969	0.854	1.143	0.945	0.989	0.970	0.852	1.161	0.959	0.990	0.940	0.854	1.160	0.931	1.009	0.958	0.852	1.184	0.967
FunBodem	**BOL**	1.079	0.905	1.063	1.015	0.976	1.071	0.908	1.058	1.012	0.973	1.313	0.832	1.311	1.002	1.093	1.313	0.832	1.311	1.002	1.093
PRODEM	**BOL**	1.029	0.937	0.886	1.161	0.963	1.084	1.072	1.085	0.999	1.161	1.069	0.879	0.886	1.206	0.939	1.141	1.048	1.047	1.090	1.195
ProMujar BOL	**BOL**	1.064	0.892	0.968	1.099	0.949	1.064	0.897	0.968	1.099	0.954	1.116	0.813	0.952	1.172	0.907	1.116	0.813	0.952	1.172	0.907
CDS	**CAM**	1.064	0.951	1.054	1.009	1.011	1.041	1.014	1.034	1.007	1.055	1.272	0.869	1.167	1.090	1.106	1.116	1.036	1.101	1.014	1.156
CMM Bog	**COL**	1.133	0.878	1.021	1.109	0.994	1.080	0.938	0.998	1.083	1.013	1.255	0.813	1.028	1.220	1.020	1.145	0.930	0.972	1.178	1.065
Finamerica	**COL**	1.067	0.871	0.962	1.110	0.930	1.036	0.899	0.941	1.101	0.932	1.208	0.824	0.962	1.256	0.995	1.099	0.884	0.943	1.165	0.971
WMM Med	**COL**	0.945	0.956	0.944	1.001	0.903	0.948	1.072	0.950	0.998	1.016	1.056	0.918	1.039	1.016	0.970	1.056	1.060	1.008	1.047	1.119
WWB Ca	**COL**	1.000	0.945	1.000	1.000	0.945	1.000	0.932	1.000	1.000	0.932	1.132	0.946	1.000	1.132	1.071	0.970	1.012	1.000	0.970	0.982
ACLEDA	**COM**	1.005	0.939	0.922	1.090	0.944	0.979	0.982	0.929	1.054	0.962	1.088	0.869	0.922	1.180	0.946	0.981	0.990	0.929	1.056	0.972
AMRET	**COM**	1.074	0.966	1.051	1.022	1.037	1.088	0.967	1.070	1.016	1.051	1.275	0.816	1.069	1.193	1.040	1.275	0.873	1.040	1.226	1.114

CEB	**COM**	1.210	0.959	1.230	0.984	1.160	1.206	0.960	1.225	0.984	1.158	1.284	0.887	1.236	1.039	1.139	1.284	0.887	1.236	1.039	1.139
HKL	**COM**	1.187	0.882	1.180	1.006	1.047	1.187	0.897	1.181	1.005	1.064	1.242	0.817	1.242	1.000	1.015	1.242	0.861	1.242	1.000	1.069
PRASAC	**COM**	1.126	0.905	1.006	1.119	1.019	1.126	0.905	1.006	1.119	1.019	1.185	0.841	1.011	1.173	0.997	1.185	0.841	1.011	1.173	0.997
CrediMujer	**CR**	1.173	0.938	1.000	1.173	1.100	1.173	0.955	1.000	1.173	1.120	1.294	0.813	1.000	1.294	1.052	1.294	0.813	1.000	1.294	1.052
Banco Sol	**ECU**	1.000	0.966	1.000	1.000	0.966	1.000	0.747	1.000	1.000	0.747	1.027	0.994	1.000	1.027	1.021	0.781	0.883	1.000	0.781	0.690
COAC Jardin	**ECU**	1.000	1.068	1.000	1.000	1.068	1.000	1.062	1.000	1.000	1.062	1.000	1.119	1.000	1.000	1.119	1.000	1.119	1.000	1.000	1.119
Coac S Jose	**ECU**	1.034	0.980	1.028	1.006	1.013	0.920	0.988	0.934	0.985	0.909	1.034	0.980	1.028	1.006	1.013	0.920	0.988	0.934	0.985	0.909
COAC SAC	**ECU**	0.862	0.870	0.900	0.957	0.750	0.862	0.903	0.900	0.957	0.778	0.862	0.870	0.900	0.957	0.750	0.862	0.899	0.900	0.957	0.775
DBACD	**EGY**	1.096	1.050	1.080	1.014	1.151	1.152	1.011	1.110	1.038	1.164	1.108	0.988	1.109	1.000	1.094	1.392	0.999	1.471	0.946	1.390
AMC de RL	**ELS**	1.123	0.923	1.103	1.019	1.037	1.118	0.955	1.108	1.009	1.067	1.271	0.814	1.148	1.107	1.034	1.257	0.896	1.122	1.120	1.126
Fundacion	**ELS**	1.119	0.904	0.914	1.223	1.011	1.118	0.904	0.855	1.308	1.011	1.134	0.891	0.914	1.240	1.010	1.134	0.891	0.855	1.326	1.010
ADCSI	**ETH**	0.896	0.874	0.970	0.924	0.783	0.896	0.810	0.970	0.924	0.726	0.896	0.874	0.970	0.924	0.783	0.896	0.810	0.970	0.924	0.726
BG	**ETH**	1.136	0.861	0.904	1.257	0.978	1.187	0.932	1.292	0.918	1.105	1.087	0.813	0.898	1.211	0.884	1.087	0.973	1.292	0.841	1.058
C FUND	**GOE**	1.088	0.918	1.000	1.088	0.999	1.070	0.953	1.000	1.070	1.020	0.983	0.813	0.924	1.064	0.799	0.983	0.813	0.924	1.064	0.799
Constanta	**GOE**	0.857	0.934	0.804	1.066	0.801	0.857	0.938	0.804	1.066	0.804	0.902	0.841	0.816	1.105	0.759	0.902	0.841	0.816	1.105	0.759
CREDO	**GOE**	1.348	0.831	1.329	1.014	1.120	1.348	0.831	1.329	1.014	1.120	1.376	0.813	1.360	1.012	1.119	1.376	0.813	1.360	1.012	1.119
SBDF	**GOE**	1.237	0.835	1.000	1.237	1.033	1.237	0.835	1.000	1.237	1.033	1.259	0.813	1.017	1.237	1.023	1.259	0.813	1.017	1.237	1.023
Genesis Em	**GUAT**	1.132	0.871	1.014	1.116	0.985	1.116	0.880	1.005	1.110	0.982	1.252	0.813	0.988	1.267	1.018	1.252	0.813	0.981	1.277	1.018
ACME	**HAI**	0.924	0.896	1.000	0.924	0.828	0.992	0.828	1.000	0.992	0.821	1.103	0.813	1.102	1.001	0.897	1.103	0.813	1.102	1.001	0.897
FINCA HON	**HON**	1.050	0.919	1.067	0.984	0.965	1.122	0.883	1.121	1.002	0.991	1.361	0.813	1.365	0.997	1.106	1.361	0.813	1.365	0.997	1.106
HDH	**HON**	1.324	0.834	1.297	1.021	1.105	1.324	0.834	1.297	1.021	1.105	1.427	0.813	1.390	1.027	1.160	1.427	0.813	1.390	1.027	1.160
World Rel	**HON**	1.216	0.897	1.161	1.047	1.090	1.190	0.913	1.185	1.005	1.087	1.295	0.813	1.199	1.080	1.053	1.295	0.813	1.197	1.082	1.053
BASIX	**IND**	1.141	0.874	1.041	1.096	0.998	1.113	0.955	0.987	1.128	1.063	1.240	0.829	1.038	1.194	1.027	1.123	0.956	0.984	1.141	1.074
Cashpoor	**IND**	1.848	0.917	1.743	1.060	1.694	1.813	0.926	1.743	1.040	1.678	2.347	0.852	1.988	1.180	2.000	2.347	0.852	1.988	1.180	2.000
KBSLAB	**IND**	0.987	0.981	0.971	1.017	0.968	0.987	0.981	0.971	1.017	0.968	1.033	0.919	1.034	0.999	0.949	1.033	0.919	1.035	0.998	0.949
SNFL	**IND**	1.023	1.089	1.010	1.013	1.114	1.023	1.089	1.010	1.013	1.114	1.023	1.052	1.010	1.013	1.077	1.023	1.052	1.010	1.013	1.077
MBK Ventu	**INDO**	1.364	0.909	0.859	1.587	1.240	1.351	0.914	0.869	1.555	1.236	1.484	0.813	0.795	1.866	1.207	1.484	0.813	0.807	1.839	1.207
Kadet	**KEN**	1.371	0.893	1.383	0.992	1.225	1.363	0.896	1.375	0.991	1.220	1.482	0.813	1.488	0.997	1.205	1.482	0.813	1.488	0.997	1.205
K-REP	**KEN**	1.202	0.931	1.068	1.125	1.119	1.215	1.023	1.157	1.050	1.243	1.272	0.864	1.055	1.205	1.098	1.244	1.017	1.127	1.103	1.265
KWFT	**KEN**	1.079	0.945	1.006	1.073	1.019	1.025	0.967	1.005	1.020	0.992	1.277	0.842	1.023	1.248	1.076	1.189	0.873	0.994	1.196	1.038
SMEP	**KEN**	1.167	0.899	1.119	1.043	1.048	1.139	0.916	1.118	1.019	1.044	1.315	0.813	1.187	1.108	1.069	1.315	0.813	1.176	1.118	1.069
AIYL Bank	**KYR**	0.978	0.996	1.000	0.978	0.973	0.978	0.996	1.000	0.978	0.973	0.987	0.996	1.000	0.987	0.982	0.987	0.996	1.000	0.987	0.982
BTFF	**KYR**	1.320	1.012	1.239	1.065	1.336	1.320	1.012	1.239	1.065	1.336	1.081	0.994	1.078	1.003	1.074	1.081	0.994	1.078	1.003	1.074
Soro Y	**MALI**	1.031	0.813	0.998	1.034	0.839	1.031	0.813	0.998	1.034	0.839	1.031	0.813	0.998	1.034	0.839	1.031	0.813	0.998	1.034	0.839
CreditMongol	**MON**	1.124	0.883	1.078	1.043	0.992	1.121	0.884	1.078	1.040	0.990	1.242	0.813	1.222	1.017	1.010	1.242	0.813	1.222	1.017	1.010
FCC	**MOZ**	0.823	1.023	0.758	1.086	0.842	0.949	0.953	0.870	1.091	0.904	0.908	0.813	0.874	1.038	0.738	0.908	0.813	0.884	1.026	0.738
SOCREMO	**MOZ**	1.051	0.952	1.073	0.980	1.001	1.065	0.968	1.075	0.991	1.031	1.358	0.813	1.238	1.096	1.104	1.358	0.813	1.238	1.096	1.104
TCHUMA	**MOZ**	1.071	0.920	1.075	0.997	0.986	1.118	0.886	1.127	0.992	0.990	1.199	0.813	1.197	1.002	0.975	1.199	0.813	1.197	1.002	0.975
NIRDHAN	**NEP**	1.096	1.007	1.082	1.013	1.103	1.095	1.006	1.088	1.006	1.101	1.137	0.970	1.133	1.003	1.102	1.153	0.956	1.160	0.994	1.102
ProCred NIC	**NIC**	0.908	0.924	0.883	1.028	0.839	0.826	0.988	0.857	0.964	0.816	1.090	0.885	0.891	1.223	0.964	0.855	1.016	0.878	0.974	0.869
ASASAH	**PAK**	0.527	0.906	0.489	1.079	0.478	0.518	0.841	0.488	1.062	0.436	0.716	0.813	0.653	1.097	0.582	0.716	0.813	0.486	1.473	0.582
FMBL	**PAK**	1.408	0.959	1.403	1.003	1.351	1.432	0.955	1.404	1.020	1.368	1.606	0.940	1.562	1.028	1.510	1.606	0.940	1.531	1.049	1.509
KASHF	**PAK**	1.043	0.975	1.019	1.024	1.017	1.084	0.956	1.048	1.034	1.037	1.256	0.940	1.229	1.022	1.181	1.086	1.056	1.088	0.997	1.147
FIELCO	**PAR**	1.108	0.919	1.085	1.022	1.019	0.972	1.038	0.985	0.987	1.009	1.114	0.813	0.926	1.203	0.906	0.850	1.002	0.851	0.998	0.851
Interfisa	**PAR**	1.099	0.933	1.077	1.020	1.025	1.052	1.147	1.036	1.015	1.207	1.138	0.848	0.968	1.175	0.965	1.527	0.968	1.268	1.204	1.477
Bantra	**PER**	1.103	0.921	1.000	1.103	1.015	1.000	0.991	1.000	1.000	0.991	1.176	0.813	1.000	1.176	0.956	0.990	0.886	1.000	0.990	0.877
Caja Nor	**PER**	1.004	0.956	0.988	1.016	0.960	0.971	0.973	0.975	0.996	0.944	1.117	0.874	0.991	1.128	0.977	0.898	1.037	0.935	0.961	0.931
Caritas	**PER**	1.221	0.885	1.193	1.023	1.080	1.222	0.884	1.193	1.025	1.081	1.286	0.813	1.179	1.091	1.045	1.286	0.813	1.179	1.091	1.045
CMAC May	**PER**	1.128	0.949	1.065	1.060	1.071	1.087	0.977	1.065	1.021	1.062	1.185	0.871	0.985	1.203	1.033	1.059	0.963	0.945	1.122	1.020
CMAC Tac	**PER**	1.055	0.936	1.046	1.008	0.987	1.055	0.930	1.038	1.016	0.981	1.089	0.972	1.000	1.089	1.059	0.997	1.016	0.989	1.008	1.013
CMAC Tru	**PER**	1.000	0.981	1.000	1.000	0.981	1.000	1.033	1.000	1.000	1.033	1.030	0.978	1.000	1.030	1.007	1.009	1.115	1.000	1.009	1.125
Edpy. C Tac	**PER**	1.099	0.944	1.088	1.009	1.037	1.072	0.955	1.067	1.005	1.024	1.223	0.868	1.131	1.081	1.061	1.223	0.868	1.131	1.081	1.061
Edpy. Cofian	**PER**	0.906	0.966	0.893	1.015	0.876	0.906	0.966	0.893	1.015	0.876	1.000	0.918	0.919	1.088	0.918	1.000	0.918	0.917	1.091	0.918
EDPY.Edyf	**PER**	1.105	0.936	1.011	1.093	1.035	1.090	0.944	1.011	1.078	1.028	1.247	0.825	0.967	1.290	1.028	1.247	0.825	0.967	1.290	1.028
FINCA PER	**PER**	1.076	0.932	1.006	1.069	1.003	1.169	0.848	1.084	1.078	0.991	1.322	0.813	1.286	1.028	1.075	1.322	0.813	1.286	1.028	1.075
Fondesurco	**PER**	1.229	0.906	0.974	1.261	1.113	1.229	0.906	0.974	1.261	1.113	1.284	0.823	1.026	1.252	1.057	1.284	0.823	1.026	1.252	1.057
Movim. M R	**PER**	1.107	0.927	1.078	1.027	1.027	1.158	0.873	1.038	1.116	1.011	1.211	0.813	1.194	1.015	0.984	1.211	0.813	1.134	1.067	0.984
ProMujer PER	**PER**	1.131	0.917	1.129	1.002	1.037	1.120	0.927	1.111	1.008	1.039	1.334	0.813	1.334	1.000	1.085	1.334	0.813	1.334	1.000	1.085
ASHI	**PHI**	1.190	0.900	1.164	1.022	1.071	1.333	0.906	1.246	1.070	1.207	1.280	0.813	1.263	1.013	1.040	1.280	0.882	1.335	0.959	1.128
FORUS	**RUS**	0.885	0.921	0.869	1.018	0.815	0.863	0.944	0.869	0.993	0.815	1.069	0.852	0.887	1.205	0.911	0.985	0.888	0.865	1.139	0.874
SEF-ZAF	**SA**	0.903	0.998	0.999	0.904	0.901	1.000	0.876	1.000	1.000	0.876	1.222	0.813	1.228	0.996	0.994	1.222	0.813	1.228	0.996	0.994
SPBD	**SAM**	1.005	0.945	0.713	1.408	0.950	0.998	0.943	0.713	1.400	0.941	1.172	0.813	0.683	1.715	0.953	1.172	0.813	0.683	1.715	0.953
CMS	**SEN**	0.987	0.953	0.924	1.068	0.941	0.987	0.958	0.924	1.068	0.946	0.906	0.960	0.844	1.073	0.870	0.906	0.971	0.844	1.073	0.880

Agroinvest	**TAJ**	0.727	0.949	0.727	1.001	0.690	0.720	0.957	0.728	0.989	0.689	1.050	0.930	0.892	1.176	0.976	1.073	0.931	0.884	1.214	0.999
FMFB TAJ	**TAJ**	1.352	0.956	1.275	1.061	1.293	1.352	0.956	1.275	1.061	1.293	1.371	0.947	1.370	1.001	1.298	1.371	0.947	1.370	1.001	1.298
IMON	**TAJ**	1.201	0.950	1.194	1.006	1.142	1.201	0.953	1.194	1.006	1.144	1.315	0.835	1.314	1.001	1.097	1.315	0.835	1.314	1.001	1.097
MicroInvest	**TAJ**	1.163	0.939	1.073	1.084	1.092	1.161	0.944	1.032	1.125	1.096	1.252	0.829	1.198	1.045	1.037	1.252	0.829	1.148	1.091	1.037
PRIDE	**TAN**	0.989	0.926	0.996	0.993	0.916	1.000	0.852	1.000	1.000	0.852	1.156	0.813	0.981	1.178	0.940	0.849	0.977	0.850	0.999	0.830
CMFL	**UGA**	1.117	0.903	1.094	1.021	1.009	0.872	0.946	0.872	1.000	0.825	1.705	0.813	1.546	1.103	1.386	1.234	0.956	1.077	1.146	1.179
FAULU	**UGA**	0.851	0.916	0.881	0.966	0.780	0.821	0.915	0.863	0.951	0.751	1.101	0.813	1.074	1.026	0.895	1.101	0.813	1.074	1.026	0.895
FINCA UGA	**UGA**	0.828	1.018	1.000	0.828	0.843	0.996	0.814	1.000	0.996	0.811	1.065	0.813	0.966	1.102	0.866	1.007	0.836	0.938	1.073	0.842
MEDNET	**UGA**	1.520	0.997	1.515	1.003	1.515	1.490	1.001	1.474	1.011	1.491	1.353	0.813	1.398	0.968	1.100	1.353	0.813	1.398	0.968	1.100
BanGente	**VEN**	1.161	0.897	1.046	1.110	1.041	1.108	0.990	1.046	1.059	1.097	1.168	0.817	0.944	1.237	0.954	1.168	0.817	0.944	1.237	0.954
CETZAM	**ZAM**	1.000	1.055	1.000	1.000	1.055	1.000	1.055	1.000	1.000	1.055	1.203	0.813	1.198	1.004	0.978	1.203	0.813	1.198	1.004	0.978
FINCA ZAM	**ZAM**	0.906	1.009	0.980	0.924	0.913	1.131	0.955	1.089	1.039	1.081	0.714	0.813	0.694	1.029	0.580	0.714	0.880	0.757	0.942	0.628
Mean		**1.074**	**0.929**	**1.019**	**1.054**	**0.998**	**1.076**	**0.943**	**1.024**	**1.051**	**1.015**	**1.158**	**0.866**	**1.052**	**1.101**	**1.003**	**1.134**	**0.903**	**1.050**	**1.080**	**1.024**

<u>Appendix M</u> Malmquist DEA indices for treating subsidies as an output (Panel)

MFI	Cou	LR-ACE				LRS^o-ACE				L-ACE				LS^o-ACE				R-ACE				RS^o-ACE			
		effch	techch	pech	tfpch	effch	techch	pech	tfpch	effch	techch	pech	tfpch	effch	techch	pech	tfpch	effch	techch	pech	tfpch	effch	techch	pech	tfpch
BURO TANGAIL	**BAN**	0.946	1.060	1.018	1.002	0.946	1.060	1.007	1.002	0.797	1.243	1.014	0.990	0.795	1.213	1.002	0.965	0.917	1.027	0.919	0.942	0.916	1.027	0.907	0.941
IDF	**BAN**	1.010	1.217	1.000	1.230	1.010	1.217	1.000	1.230	1.010	1.280	1.000	1.293	1.010	1.278	1.000	1.291	0.939	1.022	0.925	0.960	0.939	1.022	0.925	0.960
RCPB	**BF**	0.869	0.993	0.841	0.862	0.869	0.993	0.841	0.862	0.869	0.993	0.841	0.862	0.869	0.993	0.841	0.862	0.873	1.019	0.946	0.890	0.873	1.019	0.946	0.890
MIKROFIN	**BOS**	1.000	1.094	1.000	1.094	1.000	1.606	1.000	1.606	1.000	1.095	1.000	1.095	1.000	1.608	1.000	1.608	1.070	0.942	1.082	1.008	1.366	1.605	1.353	2.192
FMM Buca	**COL**	1.055	0.979	1.032	1.033	1.054	0.980	1.026	1.033	1.095	0.986	1.087	1.079	1.092	0.985	1.029	1.076	0.919	1.013	0.982	0.931	0.919	1.013	0.996	0.931
D-Miro	**ECU**	0.982	0.970	0.985	0.953	0.982	0.970	0.985	0.953	0.906	1.047	0.938	0.949	0.928	1.036	0.940	0.961	1.051	0.941	1.025	0.989	1.051	0.941	1.025	0.989
FINCA ECU	**ECU**	1.000	0.934	1.000	0.934	1.000	0.906	1.000	0.906	0.958	1.017	0.992	0.974	0.957	0.988	0.992	0.946	0.983	0.940	0.997	0.924	0.983	0.913	0.997	0.897
FODEMI	**ECU**	1.014	1.046	1.000	1.060	1.014	1.046	1.000	1.060	1.014	1.046	1.000	1.061	1.014	1.046	1.000	1.061	1.060	1.006	1.015	1.066	1.060	1.006	1.015	1.066
Fundacion Es	**ECU**	1.002	0.983	1.000	0.985	1.002	0.983	1.000	0.985	0.924	1.063	0.949	0.982	0.958	1.034	0.955	0.990	1.010	0.983	1.000	0.993	1.010	0.983	1.000	0.993
ACSI	**ETH**	1.147	0.979	1.080	1.123	1.000	1.518	1.000	1.518	1.147	0.979	1.080	1.123	1.000	1.518	1.000	1.518	1.122	1.108	1.254	1.243	1.000	1.716	1.000	1.716
DECSI	**ETH**	1.000	0.962	1.000	0.962	1.000	1.008	1.000	1.008	1.000	0.930	1.000	0.930	1.000	1.002	1.000	1.002	1.000	1.013	1.000	1.013	1.000	1.061	1.000	1.061
ProCred GHA	**GHA**	0.739	1.005	0.751	0.743	0.739	1.005	0.751	0.743	0.956	1.077	1.014	1.030	0.956	1.060	1.010	1.014	0.608	0.991	0.651	0.602	0.608	0.991	0.651	0.602
JMCC	**JOR**	1.066	1.036	1.092	1.104	1.066	1.036	1.092	1.103	1.067	1.044	1.093	1.114	1.067	1.041	1.093	1.110	1.043	1.013	1.058	1.057	1.043	1.013	1.058	1.057
KLF	**KAZ**	0.820	1.017	0.849	0.834	0.820	1.017	0.849	0.834	0.843	1.011	0.863	0.852	0.844	1.002	0.863	0.846	0.820	1.017	0.849	0.834	0.820	1.017	0.849	0.834
EBS	**KEN**	1.056	1.008	1.422	1.065	1.083	1.019	1.305	1.103	1.565	0.981	1.940	1.536	1.071	1.508	1.305	1.615	1.056	1.008	1.422	1.065	1.083	1.019	1.305	1.103
Fondep	**MOR**	1.046	1.043	1.045	1.091	1.046	1.589	1.045	1.663	0.973	1.040	1.005	1.012	1.047	1.597	1.045	1.672	1.368	1.028	1.359	1.406	1.368	1.567	1.359	2.142
Inmaa	**MOR**	1.199	1.005	1.000	1.205	1.199	1.005	1.000	1.205	1.111	1.077	1.000	1.197	1.140	1.064	1.000	1.213	1.269	0.976	1.000	1.238	1.269	0.976	1.000	1.238
ACODEP	**NIC**	1.000	0.971	1.000	0.971	1.000	0.971	1.000	0.971	1.012	1.007	1.034	1.019	1.029	0.991	1.037	1.020	1.000	0.971	1.000	0.971	1.000	0.971	1.000	0.971
FDL	**NIC**	1.001	0.993	0.971	0.993	1.001	0.993	0.971	0.993	0.982	1.010	0.995	0.992	0.982	1.010	0.987	0.992	1.001	1.024	1.050	1.025	1.001	1.024	1.050	1.025
Prodesa	**NIC**	1.000	1.042	1.000	1.042	1.000	1.263	1.000	1.263	1.000	1.033	1.000	1.033	1.000	1.263	1.000	1.263	1.000	1.070	1.000	1.070	1.000	1.297	1.000	1.297
CMAC Arq	**PER**	1.000	0.949	1.000	0.949	1.000	0.947	1.000	0.947	0.917	1.088	1.000	0.998	0.917	1.088	1.000	0.998	1.000	0.912	1.000	0.912	1.000	0.910	1.000	0.910
Bangko Ka	**PHI**	0.990	1.009	1.015	0.999	0.990	1.026	1.015	1.016	1.032	0.970	1.025	1.001	1.035	1.107	0.982	1.145	0.990	1.009	1.015	0.999	0.990	1.026	1.015	1.016
BCB	**PHI**	0.955	1.019	1.000	0.974	0.899	1.078	1.000	0.969	0.882	1.060	0.875	0.935	0.733	1.297	0.788	0.950	0.955	1.019	1.000	0.974	0.899	1.078	1.000	0.969
CBMO	**PHI**	0.989	1.002	0.969	0.991	0.959	1.056	0.960	1.012	0.994	1.049	1.005	1.042	0.964	1.088	0.917	1.049	0.936	1.027	0.962	0.961	0.907	1.093	0.959	0.992
DIGOS	**PHI**	0.994	0.986	0.978	0.980	0.994	0.986	0.978	0.980	0.933	1.036	0.940	0.967	0.937	1.034	0.940	0.969	0.993	1.021	1.006	1.014	0.993	1.021	1.006	1.014
SOLANO	**PHI**	0.948	1.011	1.000	0.958	0.768	1.271	1.000	0.975	0.765	0.969	1.000	0.741	0.559	1.544	1.000	0.863	0.948	1.011	1.000	0.958	0.768	1.271	1.000	0.975
TSPI	**PHI**	1.000	1.047	1.000	1.047	1.000	1.053	1.000	1.053	0.903	1.236	1.071	1.117	0.951	1.198	1.079	1.140	1.000	1.043	1.000	1.043	1.000	1.053	1.000	1.053
Enda	**TUN**	0.933	1.002	0.940	0.935	0.936	1.001	0.940	0.936	0.839	1.082	0.881	0.907	0.872	1.063	0.886	0.927	1.060	0.969	1.008	1.027	1.061	0.969	1.009	1.029
CEP	**VIET**	0.898	1.044	0.911	0.938	0.900	1.042	0.913	0.937	0.880	1.054	0.910	0.928	0.890	1.047	0.911	0.932	1.097	1.020	1.118	1.119	1.097	1.021	1.118	1.120
TYM	**VIET**	0.808	1.112	0.845	0.899	0.808	1.110	0.807	0.896	0.797	1.120	0.845	0.893	0.797	1.118	0.807	0.891	0.997	1.027	1.004	1.024	0.996	1.028	1.003	1.023
mean		**0.978**	**1.016**	**0.986**	**0.993**	**0.965**	**1.079**	**0.979**	**1.041**	**0.963**	**1.051**	**1.001**	**1.013**	**0.939**	**1.146**	**0.976**	**1.076**	**0.994**	**1.005**	**1.013**	**0.999**	**0.989**	**1.074**	**1.010**	**1.062**

Bibliography

Alam. Jehangir (2005) Self sustainability of Microfinance institutions- A critical evaluation of the performance of Grameen Bank of Bangladesh. Finance department, University of Chitagong, Bangladesh

Alfaro, Luis Noel. (1996) *Sustainability and Outreach of Development Financial Institutions for Micro and Small Business*, unpublished Ph.D. dissertation, The Ohio State University.

Amemiya, T. (1984), Tobit models: a survey, *Journal of Econometrics* 24, 3-61.

Armendáriz de Aghion, B and Jonathan Morduch (2004) Microfinance: Where do we Stand? in Charles Goodhart Edition. *Financial Development and Economic Growth: Explaining the links* (London: Palgrave)

Armendariz, B. and J. Morduch (2005) *The Economics of Microfinance.* Cambridge, MA: MIT Press.

Athanassopoulos A, D. (1997) Service quality and operating efficiency synergies for management control in the provision of financial services: Evidence from Greek bank branches. *European Journal of Operational Research* Vol. 98, pp. 300-313.

Balkenhol, B. (2007a) *Microfinance and Public Policy: Outreach, Performance and Efficiency.* ILO, Palgrave Edition, New York.

Balkenhol, B. (2007b) *Microfinance, Efficiency Return and Public Policy.* Microbanking Bulletin, Issue 14, Spring.

Barrès Isabelle (2007) Efficiency: Breaking it Down. *Microbanking Bulletin*, Issue 14, Spring

Beatriz Armendariz & Ariane Szafarz (2009) On Mission Drift In Microfinance Institutions. *Working Papers CEB 09-015.RS*, Université Libre de Bruxelles, Solvay Brussels School of Economics and Management, Centre Emile Bernheim (CEB).

Belli, P. (1996) *Handbook on Economic Analysis of Investment Operations*, Operations Policy Department. Washington, D.C., World Bank.

Benjamin, M. P. Jr. (1994) Credit Schemes For Microenterprises: Motivation, Design, and Viability. Unpublished *PhD dissertation*, Georgetown University

Berger, A. N. and Humphrey, D. B. (1997) Efficiency of financial institutions: International survey and directions for future research. *Europeon Journal of Operational Research*. Vol. 98, pp. 175-212.

Bhatt, N. and Tang, S. (2001) Delivering Microfinance in Developing Countries: Controversies and policy perspective. *Policy Study Organization.*

Camanho, A. S. and Dyson, R. G. (2005) Cost efficiency, production and value-added models in the analysis of bank branch performance. *Journal of Operational Research Society,* Vol. 56, pp. 483-494.

Campion, A. and White, W. (1999) Institutional metamorphosis: transformation of microfinance NGOs in regulated financial institutions, *Occasional Paper No. 3*, MicroFinance Network, Washington, DC.

Chakraborty, K., B. Biswas, and W.C. Lewis. (2001) "Measurement of technical efficiency in public education: A stochastic and nonstochastic production function approach". *South. Econ, J.*, Vol. 67, No. 4, pp. 889-905.

Charitonenko, S. (2003) *Commercialization of Microfinance: The Philippines*. Asian Development Bank, Manila, Philippines.

Charitonenko, S. and Rahman, S. M. (2002) *Commercialization of Microfinance: Bangladesh.* Asian Development Bank, Manila, Philippines.

Charitonenko, S., Campion A. and Fernando Nimal A. (2004) *Commercialization of Microfinance: Perspective from South and Southeast Asia*. Asian Development Bank, Manila, Philippines.

Charnes, A., Cooper W. W. and Rhodes, E. (1978) Measuring the efficiency of decision making units. *European Journal of Operational Research* Vol. 2, pp. 429-444.

Chilingerian, J.A. (1995) Evaluating physician efficiency in hospitals: A multivariate analysis of best practices, *European Journal of Operational Research* 80, 548-574.

Christen, Robert Peck. (1997) Banking Services For the Poor: Managing For Financial Success: *An Expanded and Revised Guidebook for Development Finance Institutions*, Boston: Acción International

Christen, R. (2000), Bulletin Highlights, MicroBanking Bulletin, 4, February 2000, pp. 41-47

Christen, Robert Peck; Rhyne, Elisabeth; Vogel, Robert C.; and Cressida McKean. (1995) Maximizing the Outreach of Microenterprise Finance: An Analysis of

Successful Microfinance Programs. Program and Operations Assessment Report No. 10, Washington, D.C.: United States Agency for International Development.

Christen, Robert Peck (2001) Commercialization and Mission Drift. The Transformation of Microfinance in Latin America. *CGAP Occasional Paper # 5,* Washington DC., USA

Christen, R., & Drake, D. (2002) Commercialization. The new reality of microfinance. In D. Drake, & E. Rhyne (Eds.), *The commercialization of microfinance. balancing business and development* (pp. 2–22). Bloomfield: Kumarian Press.

Christen, R. P. and Rosenberg, R. (2000) The Rush to Regulate: Legal Frameworks for Microfinance, *CGAP Occassional Paper*, Washington DC.

CGAP (2003) Microfinance Consensus Guidelines. Definitions of Selected Financial Terms. Ratios and Adjustments for Microfinance. 3rd edn. Consultative Group to Assist the Poorest: Washington. DC. USA.

Congo. Y. (2002) Performance of Microfinance Institutions in Burkina Faso. *Discussion Paper No. 2002/01.* WIDER. United Nations University, Helsinki, Finland.

Cull. R., Asli Demirguç-Kunt & Morduch. J. (2007) Financial performance and outreach: a global analysis of leading microbanks. *The Economic Journal,*Vol. 117, pp. F107-F133

Dichter, T. W., & Harper, M. (2007). What's wrong with microfinance. In T. W. Dichter, & M. Harper (Eds.), What's wrong with microfinance. Essex, England: Practical Action Publishing.

Dewatripont, M and E. Maskin (1995) Credit and Efficiency in Centralized and Decentralized Economies, Review of Economic Studies, 62, 4, pp. 541-555.

Dunford, Christopher (2002) what's Wrong with Loan Size? *Freedom from Hunger Publication* available at: http://www.ffhtechnical.org/publications/summary/loansize0302.html.

Farrel, M. (1957) The measurement of productive efficiency. *Journal of royal statistical society*, Vol. 120, No. 3, pp. 253-2811

Forster Sarah and Reille Xavier (2008) Foreign Capital Investment in Microfinance: Balancing Social and Financial Returns. *Focus Note*, CGAP. Available at http://collab2.cgap.org/gm/document-1.9.2584/FocusNote_44.pdf

Gillen, D. and Lall, A. (1997), Developing measures of airport productivity and performance: and application of Data Envelopment Analysis, *Transportation Research – E* 33, 4, 261-273.

Gittinger. J. Price (1982) *Economic Analysis of Agricultural Projects*. Second Edition. Economic Development Institute of the World Bank. Baltimore, Johns Hopkins University Press. ISBN 0-8018-2912-7.

Goodman. P. (2005) *Microfinance Investment Funds*. Key Features. ADA Publications. Luxemburg.

Gutierrez-Nieto, B., Serrano Cinca C. and Mar Molinero C. (2009) Social Efficiency in Microfinance Institutions. *Journal of the Operational Research Society,* Vol. 60 No. 19, pp. 104-119

Gutierrez-Nieto, B., Serrano Cinca C. and Mar Molinero C. (2007) Microfinance Institutions and Efficiency. *OMEGA: International Journal of Management Science*, Ed Elsevier, Vol 35, No. 2, pp. 131-142

Hartarska, V. and D. Nadolnyak (2007) Do regulated microfinance institutions achieve better sustainability and outreach? Cross-country evidence. *Applied Economics*, Vol. 39, pp. 1207-1222.

Hashemi, Syed M. and Sidney, Ruth, Schuler (1997) Sustainable banking with the poor : a case study of Grameen Bank. *JSI Working Paper No. 10*, Arlington, Virginia, JSI Research and Training Institute.

Hatch, John and Frederick, Laura (1998) Poverty Assessment by Microfinance Institutions: A Review of Current Practice. *Microenterprises Best Practices Project*. Development Alternatives, USAID, Washington, DC. USA.

Hermes, Niels & Lensink, Robert & Meesters, Aljar, (2008) Outreach and Efficiency of Microfinance Institutions. *Research Report 08002,* University of Groningen, Research Institute SOM (Systems, Organisations and Management).

Hishigsuren, G. (2007). Evaluating mission drift in microfinance. Lessons for programs with social mission. *Evaluation Review*, 31(3), 203–260.

Holtmann, Martin; and Rochus Mommartz. (1996) *Technical Guide for Analyzing the Efficiency of Credit-Granting Non-Government Organizations (NGOs)*, Saarbrücken and Fort Lauderdale: Breitenbach Verlag.

Hudon, M. (2006) Financial performances, management and ratings of the microfinance institutions: Do subsidies matter? *Working paper*, Universite Libre de Bruxelles, Belgium.

Hudon, M. and Traca, D. (2006) Subsidies and Sustainability in Microfinance. *Working Paper WP-CEB 06-020,* Solvay Business School, Brussels, Belgium.

Hudon, M (2007) Fair interest rates when lending to the poors. *Ethics and Economics*, Vol. 5, No. 1

Hudon, M. and Traca, D. (2008) On the efficiency effects of Subsidies in Microfinance : An empirical Inquairy . *Working Paper CEB 06-020*. Solvay Business School, Brussels, Belgium.

Hulme, David and Paul, Mosley (1996) *Finance Against Poverty*. Volume I and II. London: Routledge, ISBN 0-415-09544-1 and 0-415-12430-1.

International Monetary Fund. *International Financial Statistics*, 2005 & 2006, Washington, D.C.

Inter-American Development Bank (1994) *Technical Guide for the Analysis of Microenterprise Finance Institutions*. Microenterprise Division. Washington. D.C.

Katz, David A., and H. Gilbert Welch (1993) Discounting in Cost-Effectiveness Analysis of Healthcare Programmes. *PharmacoEconomics*, Vol. 3, No. 4, pp. 276-285.

Khandker S., Khalily B., and Z., Khan (1995) Grameen Bank: Performance and Sustainability. *Discussion Paper No. 306*, Washington D.C., World Bank.

Kornai, J., Maskin, E. and G. Roland (2003) Understanding the Soft Budget constraint, Journal of Economic Literature, XLI, pp. 1095-1136.

Laschelles, D. (2008) Microfinance Banana Skin. *Microbanking Bulletin*, Issue 16, Spring 2008

Lewis, J. (2008) Microloan Sharks. *Stanford Social Innovation Review, Summer 2008*

Manos, R., and Yaron, J., (2009) Key Issues in Assessing the Performance of Microfinance Institutions. Paper presented at the *2nd International Workshop on Microfinance Management and Governance,* Kristiansand, Norway

Mixmarket (2007) The Microfinance Information eXchange (MIX). Available at http://www.mixmarket.org/en/what.is.mix.asp.

McCarty, T., A. and S, Yaisawarng (1993) Technical Efficiency in New Jersey School Districts in H., Fried, C. A. K. Lovell and S. S. Schmidt, eds., *The Measurement of Productive Efficiency: Techniques and Applications,* Oxford University Press, New York, pp. 271-287.

Mehra, Rajnish; and Edward C. Prescott. (1985) The Equity Premium: A Puzzle. *Journal of Monetary Economics*, Vol. 15, No. 2, pp. 145-161.

Mersland, R., and Strom, R. (2009) Microfinance Mission Drift?. *World Development* (In press) doi:10.1016/ j.worlddev.2009.05.006

MFI Solutions (2008) The Implications of Increased Commercialization of Microfinance Industry: What can we learn from the discussions that followed the Compartamos IPO? Published by MFI Solutions, LLC, USA and La Colmena Milenaria, A. C., Mexico

Modigliani, F.; and M. Miller. (1958) The Cost of Capital, Corporation Finance, and the Theory of Investment. *American Economic Review*, Vol. 49, No. 2, pp. 261-297.

Morduch, J. (1999a) The Microfinance Promise. *Journal of Economic Literature,* Vol. 37, pp. 1569-1614.

Morduch. J. (1999b) The role of subsidies in microfinance: evidence from the Grameen Bank. *Journal of Development Economics*, Vol. 60, pp. 22-248.

Morduch, J. (2000) The Microfinance Schism. *World Development,* Vol. 28, No. 4, pp 617-629

Morduch, J. (2004) Managing Tradeoffs. Special issue on "*What role for microfinance? Reframing the questions.*" http://www.nyu.edu/projects/morduch/documents/microfinance/Managing_Tradeoffs.pdf

Morduch, J. (2005) Smart Subsidy for Sustainable Microfinance. In *Finance for the Poor*, Quarterly Newspaper, ADB, Vol. 6, No. 4, pp. 1-7.

Morduch, J. (2007) Smart Subsidies in Balkenhol, B. (2007) *Microfinance and Public Policy. Outreach, Performance and Efficiency*, ILO, Palgrave Edition, New York.

Navajas, S., Schreiner, M., Meyer, R.L., Gonzalez-Vega, C. and Rodriguez-Meza, J. (2002) Microcredit and the Poorest of the Poor: Theory and Evidence from Bolivia, in M. Zeller and R.L. Meyer (eds.), *The Triangle of Microfinance: Financial Sustainability, Outreach, and Impact*, Baltimore: The Johns Hopkins University Press

Pastor, J. M. (1999) Efficiency and Risk Management in Spanish Banking: a method to decompose risk. *Applied financial economics*, Vol. 9, pp. 371-384

Rosenberg, R., Christen, R. P. and Brigit H. (1997) *Format for Appraisal of Micro-Finance Institutions*. Washington, D.C.: Consultative Group to Assist the Poorest.

Rosenberg, Richard (1994) Beyond Self-sufficiency: Licensed Leverage and Microfinance Strategy. manuscript.

Rhyne, Elisabeth (1994) A New View of Finance Program Evaluation. In Otero, Maria and Rhyne, Elisabeth (Ed.) *The New World of Microenterprise Finance*.

Rhyne, E. (1998). The Yin and Yang of microfinance. Reaching the poor and sustainability. MicroBanking Bulletin, 2, 6–9.

Rhyne, E. and E. Otero (2006) Microfinance through the next decade: Visioning the who, what where, when and how. Paper commissioned by the *Global Microcredit Summit 2006*, Boston MA: ACCION International, 2006.

Sacay, O., B. Randhawa. and M. Agabin. (1996) The BAAC Success Story: A Specialized Agriculture Bank under Government Ownership. *Financial Sector Development Department*, World Bank, Washington, D.C.

Safavian, M., Graham, D., Gonzalez-Vega, C., and Whelan, D. (2000) The state of microfinance activity and regulation in Russia, *Working Paper*, The Ohio State University.

Schreiner, M. (1997) A Framework For the Analysis of the Performance and Sustainability of Subsidized Microfinance Organizations With Application to BancoSol of Bolivia and to the Grameen Bank of Bangladesh. *PhD dissertation*. The Ohio State University

Schreiner, M., and Yaron, J. (1999) The subsidy Dependence Index and recent attempts to adjust it. *Savings and Development,* Vol. 23, No. 4, pp. 375-405.

Schreiner, M., and Yaron, J. (2001). Development Finance Institutions: Measuring Their Subsidy. Washington. D.C.: World Bank.

Schreiner, M. (2001) Seven aspects of loan size. *Journal of Microfinance,* Vol. 3, No. 2, pp. 27-47

Schreiner, M. (2002) Aspects of Outreach: A Framework for Discussion of the Social Benefits of Microfinance, *Journal of International Development,* 14(5), 591-603

Schreiner, M. (2003) A Cost-Effectiveness Analysis of the Grameen Bank of Bangladesh. *Development Policy Review,* Vol. 21, No. 3, pp. 357-382.

SEEP. (1995) *Financial Ratio Analysis of Micro-finance Institutions*", New York: Pact Publications, books@pactpub.org

Seiford, L. M. and Zhu, J. (1999) Profitability and marketability of the top 55 U.S. commercial banks. *Mngt Sci,* Vol. 45, pp. 1270–1288.

Sharma, M. (2004) Subsidy Dependence and Financial sustainability in development banks- A case study of Small Pacific Island Country. The University of South Pacific, Fiji Islands.

Sherman, H. D. and Gold, F. (1985) Bank branch operating efficiency: Evaluation with data envelopment analysis. *J Banking Finance*, Vol. 9, pp. 297-315.

Stiglitz, Joseph E., and Andrew Weiss (1981) Credit Rationing in Markets with Imperfect
Information. *American Economic Review Vol.* 71, No. 3, pp. 393-410.

Von Pischke, J. D. (1991) *Finance at the Frontier: Debt Capacity and the Role of Credit in the Private Economy*, Washington, D.C.: World Bank.

Von Pischke, J. D. (1996b) Measuring Microlender Financial Performance on a Cash Flow Basis. manuscript.

Von Pischke, J.D. (1998), Measuring the Trade-Off between Outreach and Sustainability of Microenterprise Lenders, *Journal of International Development*, 8(2), 225-239

Woller, G. M. (2002). The promise and peril of microfinance commercialization. *Small Enterprise Development*, 13(4), 12–21.

Woller, G. and Woodworth, W. (2001) Microcredit as a grass-root policy for international Development. *The Policy Studies Journal,* Vol. 29, No. 2, pp. 267-282

Woller, G. M., Dunford, C., & Woodworth, W. (1999). Where to microfinance?. *International Journal of Economic Development*, 1(1), 29–64.

Yaron, J. (1992a) Successful Rural Finance Institutions. *Discussion Paper No. 150,* Washington. D.C.: World Bank, ISBN 0-8213-2018-1.

Yaron, J. (1992b) Assessing Development Finance Institutions: A Public Interest Analysis. *Discussion Paper No. 174*. Washington. D.C.: World Bank, ISBN 0-8213-2203-6.

Yaron, J. (1994) What Makes Rural Finance Institutions Successful?. *World Bank Research Observer*. Vol. 9, No. 9, pp. 49-70

Yaron, J., M. Benjamin. and G. Piprek. (1997) Rural Finance: Issues, Design and Best Practices. Washington. D.C.: World Bank

Yaron, J. (2004) State-Owned Development Finance Institutions: Background, Political Economy and Performance Assessment. Available at ww.iadb.org/res/publications/pubfiles/pubS-492.pdf

Zeller, M. and Meyer. R. L. (2002) (eds) The Triangle of Microfinance: Financial Sustainability, Outreach and Impact. The John Hopkins University Press, Baltimore, MD, USA, ISBN: 0-8018-7226-X

Curriculum Vitae

Oct, 2005-Sep, 2009: Doctoral Candidate, Chair for Development Economics, University of Göttingen, Germany

2001: Master in Economics (in Development Economics), The University of Manchester, UK

1998: Master of Science (Economics), Quaid-i-Azam University, Islamabad, Pakistan

1995: Bachelor of Science, Government College, Punjab University, Lahore, Pakistan

1993: Intermediate Examination, Government College, BISE, Lahore, Pakistan

1991: Secondary School Certificate, Divisional Public School, Lahore, Pakistan