MICROFINANCE IN DEVELOPING COUNTRIES: THE CHALLENGE OF SUSTAINABLE FINANCIAL INSTITUTIONS

by

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Abstract

This study examines the impact particular subsidies have on the sustainability of Microfinance Institutions. Using case studies as the primary methodology, the study reveals subsidised Microfinance Institutions have a weak financial performance, particularly in terms of profitability and self-sufficiency. The relationship is further explored using a secondary survey that examines the leading risks faced by Microfinance Institutions. The survey validates the case study findings citing financial problems as a major risk to the sustainability of Microfinance Institutions. Following the results, the study proposes policy options to reduce the dependency of subsidies while increasing the financial performance of Microfinance Institutions. The policy recommendation is to remove operational subsidies and shift to "smart subsidies" which entails providing training to the financial institution's staff.

Keywords: subsidy; sustainability; self-sufficient; profitability; Microfinance Institutions, microfinance

Subject Terms: microfinance; Microfinance Institutions, sustainability, subsidy

Executive Summary

Microfinance has emerged to the forefront in many policy circles as an important tool to alleviate poverty in developing countries. It allows poor people access to financial services that are vital to their survival. In addition, the activities that stem from Microfinance Institutions (MFIs) provide social value to the clients and the region. The benefits include: increase in productivity, social organisation, market broadening and securing incomes. Therefore, the sustainability of MFIs is essential in maximising these benefits and allowing them to maintain their operations through volatile times.

This study explores possible policy options to help MFIs become sustainable. More specifically the study examines the impact of subsidies on the sustainability of MFIs. The ensuing policy problem is that too few MFIs are sustainable. Approximately 95 percent of MFIs receive subsidies in some form (Hudon and Traca, 2008) and according to a 2005 GIAN survey 85% of MFIs receive subsidies from two or more donors. This is an important problem to study for three reasons: first, MFIs are an essential component to reduce poverty, second, poor people require financial services and third, sustainable MFIs ensure long-term access to diverse financial services.

This study examines the policy problem by using case study analysis and a secondary survey to validate the case study findings. The case study analysis studies four sustainable MFIs to locate common characteristics that lead to sustainability, which are: good financial performance, specifically profitability and self-sufficiency, quality performance management and they operate in a regulated environment. These common characteristics are then compared to MFIs that are subsidised to analyse the effect of subsidies on the operation of MFIs. The results

are subsidised MFIs have weak financial performance, particularly with respect to profitability and self-sufficiency. The secondary survey validates these results by concluding financial risks as important problems MFIs face when in business.

The findings from the case study analysis and the secondary survey form the basis of the proposed policy options to help MFIs become sustainable. Therefore, the policy alternatives are: (i) Status Quo, (ii) removing operational subsidies and shifting to "smart subsidies," (iii) establishing apex organisations as a central provider of services for individual MFIs and (iv) auctioning subsidies through a tender process. The policy options are mutually exclusive and should be considered as separate policy directions. To find the superior alternative, each option is evaluated using the following criteria: (i) effectiveness in reaching clients and increasing financial performance, (ii) cost, (iii) stakeholder acceptability and (iv) institutional coordination. The result from the multi-criteria analysis is the following recommendation:

- Removing operational subsidies and shifting to "smart subsidies." This involves the donor providing training directly to the MFI staff in various areas such as market research, technology and product development.

Although this recommendation is relatively costly, it is effective in increasing the financial performance of MFIs and reaching clients. Furthermore, the relevant stakeholders involved are likely to accept this option because there are significant benefits to all parties. Lastly, there is minimal institutional coordination required, which eases the implementation process.

Microfinance is valuable in reducing poverty in developing countries. It is likely to gain more praise in the future given the ability of MFIs to effectively provide financial services to the poor and enhance social benefits in the region. The problem of ensuring sustainable MFIs is complex, however, this study provides a clear direction for policymakers to consider.

Dedication

To my family who has supported me throughout my academic career.

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Glossary

Microfinance	The provision of small scale financial services, which include credit, savings, insurance and money transfers.
Microfinance Institution (MFI)	Organisations that provide microfinance to clients
Profitability	The ability of an MFI to cover its total costs with its total revenue. A MFI with revenues that equals or exceeds its total costs is considered profitable.
Self-sufficiency	This refers to MFIs that can operate without the aid of subsidies. It does not necessarily mean the MFI is profitable.
Smart subsidies	Subsidies that are transparent, rule bound and time limited. They are not used in the operations of a MFI.
Social Value	Indirect benefits to society as a whole and not just the individual
Sustainability	Refers to a MFI that does not rely on subsidies. This requires the institution to be self-sufficient and profitable.

1: Introduction

According to the latest estimates by the World Bank there are roughly 1.4 billion people in the developing world that were living on less than $1.25 US a day in 2005 and a significant portion of them lacked access to financial services (World bank, 2008). There has been much written about measures and policies that can alleviate poverty and access to financial services is an important component of such a complex problem (Helms, 2006; Schreiner, 2002; Robinson, 2001; Morduch, 1999; McGuire and Conroy, 2000; Jansson, 2001; Terberger, 2003). For many poor people in developing countries, their ability to receive financial services rests on the availability of microfinance services and the sustainability of Microfinance Institutions (MFIs).

This study analyses the sustainability of MFIs in developing countries. To explore this in more depth, I concentrate on the effect of subsidies on the sustainability of MFIs. The research consists of case studies from Latin America and Southeast Asia to locate various types of differences and deficiencies between subsidised and sustainable MFIs. I also use a secondary survey to validate the findings from the case studies. The results confirm that subsidised MFIs have a severely low financial performance compared to non-subsidised MFIs, which limits their ability to become sustainable. These findings along with policies from relevant literature and elite interviews form the basis of potential policy options to ensure the sustainability of MFIs. The recommendation reveals that subsidies through training of MFI staff help reduce subsidy dependency in the future and ensure operations are sustainable.

The study is organised in the following way. Section 2 provides background into what microfinance institutions are, the demand for microfinance and the different types of financial institutions. Section 3 discusses the issue of sustainability and formally states the policy problem

and the key stakeholders. Section 4 describes the economic theory behind subsidies, the various types of subsidies used in MFIs and the arguments for and against subsidies. The case study methodology is explained in detail in Section 5, with the ensuing analysis provided in Section 6. In Section 7, I provide the policy goals, options and criteria. Section 8 gives an in depth analysis of the policy options. Lastly, in Section 9 I put forth a policy recommendation to help MFI reach sustainability.

2: Microfinance Institutions

Microfinance is the provision of relatively small-scale financial services to people who normally cannot access them (Robinson, 2001; Helms, 2006; McGuire and Conroy 2000). These services are offered through Microfinance Institutions, which are organisations that typically provide credit and savings to individuals or households.[1] Microfinance is not a new phenomenon. It can be traced back as early as the 1700s in Ireland where Jonathan Swift initiated the Irish Loan Fund System, which provided small loans to poor farmers with no collateral (Helms, 2006). This started a microfinance movement that consistently grew throughout the 1800s in Europe. At that time MFIs were primarily credit institutions organised among the rural and urban poor. By the early 1900s microfinance shifted to Latin America and spread throughout the developing world.

Savings and credit are important financial services for economic development. A misconception is that poor households do not save, however, the majority of the literature argues otherwise (Robinson 2001; Helms 2006; Morduch and Aghion 2005; Schreiner 2002). The problem is poor households save in capital (i.e. their house or land) in which they do not have property rights. This results in a lack of collateral, which is why deposit services are argued to be more valuable than the availability of credit for poorer households (Robinson, 2001). Accumulating savings can be used as collateral and as self-insurance when major shocks occur. It allows individuals and households to store excess money for future use and earn return on their investments. They can also store liquidity for different occasions, such as religious holidays, marriage and education (Robinson, 2001; Helms, 2006).

[1] It is important to note that MFIs are increasingly offering different products such as micro-insurance and money transfers, however, I will only be investigating savings and credit, which are the primary financial services.

2.1 Demand for Microfinance Services

This section provides an overview of Microfinance Institutions (MFIs), more specifically a discussion regarding the demand for MFI services and the different types of MFIs. Access to credit enables individuals and households to consume or invest for the future. Loans also help individuals and households build up capital, which can increase the individual or household's productivity. It can finance their businesses or invest in human capital through education. This can have positive spillover effects because more people can be educated and more businesses can thrive, increasing potential employment. Essentially savings and credit help low-income people raise their standard of living through current consumption and investment or future consumption and investment. Both help reduce poverty and aid in development but it does not completely alleviate poverty. This is because the destitute require other services, such as food and shelter, before they can use financial services.

In the early to mid 1900s, the typical clients were entrepreneurs in urban areas and farmers in rural areas (Helms, 2006). Microcredit was used to start small businesses in urban areas and provide farmers with loans to maintain or expand their operations. At the time microfinance provided only credit services resulting in a narrow client base. However, as microfinance began expanding, the client base included more diverse groups.

The primary client base of MFIs is made up of the following: the vulnerable non-poor, moderate poor and the extreme poor (Robinson, 2001; Helms, 2006). The moderate poor are defined as the top 50 percent of households just below the poverty line; the extreme poor are referred to the bottom 10 to 50 percent of households below the poverty line. Lastly, the vulnerable non-poor are above the poverty line but at risk of slipping into poverty.

To quantify approximately the demand for microfinance services, I use Bolivia as a base case where the microfinance market is considered saturated (Navajas et al, 2003). Extrapolating

Bolivia's demand, the potential demand for microfinance is approximately 337 million people.[2] This is close to other demand estimates put forth by Helms (2006) and Robinson (2001) who argue it is about 360 million people.

Currently most of the demand for microfinance comes from households and enterprises operating in the unregulated, informal sector of the economy (Robinson, 2001). Employment in the informal sector lacks capital, skilled labour, legal status and business security. It includes a variety of people from street vendors, carpenters and tailors to people who subcontract for large industrial businesses (Robinson, 2001). Until recently, governments of many developing countries have ignored the large demand for finance from this majority of self-employed small business owners. However, since the 1980s there has been more attention shifted towards the informal sector by strengthening the legal framework, security and financing of these enterprises. Informal sector jobs often require financial services to boost their operations, which create employment and have positive spillover effects in the economy.

In sum, microfinance is an important tool to alleviate poverty through access to credit and saving services. Furthermore, there is a large demand for microfinance services, which is exacerbated by the informal sector in many developing countries.

2.2 Types of Microfinance Institutions

There are various types of MFIs providing services to clients and they can be divided broadly into two groups: financial institutions and non-government organizations (NGOs). This is an important distinction as the two types have entirely different mandates and serve different groups. For example, it is often not profitable for financial institutions to provide services to the destitute, but NGOs address the needs of this group. NGO institutions such as the Grameen Bank,

[2] Using MIX data the total clients served from Bolivia is 771,836 and the total poor population is 6,175,000. The percentage served is approximately 12.5%. Using this percentage as a proxy of demand for microfinance services, I multiplied the world's total poor population (2.7 billion) by 12.5% to obtain 337, 484,259.

offer a variety of services besides finances such as education, food and shelter. However, I will only be concentrating on financial institutions and not NGO microfinance institutions.[3] The financial institutions I investigate in this study offer savings and credit, which include: commercial banks specialising in microfinance, rural banks, non-bank financial institutions and credit unions.

Commercial banks that specialise in microfinance are an important type of MFI. They have the same characteristics as commercial banks, however, their focus is on the provision of microfinance services (Helms, 2006). Commercial banks specialising in microfinance predominantly provide diverse products because they are often independent of subsidies. In addition, they are usually larger than the other types of MFIs in terms of outreach and gross loan portfolio. The Central Bank or the Ministry of Finance has tight regulations on commercial banks specialising in microfinance because they provide services to many clients and they offer deposit services. The typical clients of commercial banks specialising in microfinance are microentrepreneurs because they predominately reside in urban centres where many small businesses are located (Robinson, 2001). Since there is a large demand for microfinance services from microentrepreneurs, commercial banks specialising in microfinance are valuable.

Rural banks have emerged as prominent financial service providers in many areas throughout the developing world. They are financial institutions that provide services to farmers or a small group of villagers concentrated in a specific geographical area (Helms, 2006; Robinson, 2001; Duflo, 2005). Rural and community banks generally have a narrow scope of clients, however, Helms (2006) states they have thrived in countries such as Ghana, Indonesia, the Philippines, Nigeria and Tanzania. These types of banks are small in scale but have been successful. Rural and community banks differ in structure across countries. Some rural and community banks are publicly owned by their communities but registered and licensed as unit

[3] For more information about NGOs see Counts (2008), Lauer (2008), Schicks (2007) and Morduch (1999)

banks, which means they do not have branching privileges, while others are owned by individual shareholders (Gallardo, 2001). Although there are different structures with respect to rural banks, they predominantly provide savings and credit (Robinson, 2001; Gallardo, 2001; Helms, 2006). For example, farmers primarily use credit and savings services to smooth consumption because they earn seasonal income. Therefore, rural banks have an important role in providing microfinance to farmers and to villagers in small and remote communities.

Non Bank Financial Institutions (NBFIs) are institutions that provide services similar to those of banks, but are licensed under a different category because of lower capital requirements and limitations on financial services. They often are quasi-bank structures, however, their operations are smaller and their client base are poorer compared to commercial banks. NBFIs include a variety of different financial organisations such as: mortgage lenders, leasing companies, consumer credit companies, insurance companies and certain types of dedicated MFIs (Helms, 2006). Hence, their internal structures vary across types of financial institutions. NBFIs serve the informal and formal sectors and differ across countries and time. NBFIs are often organised as specialised banks with limited scope of services due to the regulatory frameworks in place (Helms, 2006; Gallardo, 2001). It is often easy to obtain a license to operate as an NBFI, however, the licenses are restricted. Although most NBFIs are not supervised or publicly regulated, there are an increasing number of NBFIs that are permitted to mobilize voluntary savings and provide credit.

Credit unions or credit cooperatives are financial institutions owned by its members and typically rely on their savings as the primary source of funds. With respect to microfinance, they are formal institutions i.e. they are supervised and often regulated by government. Their structure is unique in that some are grouped into federations at the regional or national level. The federations provide supervision, liquidity management, refinancing and technical support. Credit unions can have large operations with a significant member base, which allows them to expand

their outreach. However, there are also smaller more informal types of credit unions that have very few members, which are typically found in rural areas. Regardless of the size, the basic structure of credit unions is similar across sizes and regions. In credit unions, each member is essentially a shareholder, which is based on a one-member one-vote structure that gives the person the ability to influence the credit union's policy toward members' needs. The differences in each country may give rise to variations in products and quality of service, however, the basic structure of credit unions is the same.

Credit unions provide both savings and loans to their clients, however, they primarily offer deposit services. There is debate in the literature as to who are the typical clients of credit unions with some saying they are predominantly middle class (Robinson, 2001), while others argue they range from extremely poor to middle income (Helms, 2006; Lennon, 2007). Generally there is a large number of small depositors and mixed distribution of loan sizes in credit unions, showing a fairly large outreach of clients. Since credit unions have grown and spread throughout the world with nearly 29 million members in developing or transition economies, it shows they do appeal to more than just middle-income people (Helms, 2006).

In sum, there is a growing and diverse demand for microfinance services. There are various types of MFIs that provide both savings and loans, which include: commercial banks specialising in microfinance, rural and community banks, NBFIs and credit unions. The next section describes sustainability in MFIs, outlines the policy problem and identifies the key stakeholders.

3: Sustainability and Microfinance Institutions

This section describes sustainability in the context of microfinance and social value, the policy problem and the key stakeholders. I begin by defining sustainability and its importance for MFIs and the poor in developing countries. I then explain sustainability with respect to social value, followed by the policy problem and the important stakeholders who are affected by the problem.

3.1 The Importance of Sustainability

Sustainability can have various meanings, which has implications for measuring the success of MFIs. Generally, sustainability is the ability of a firm to maintain its business in the long run, however, what does this mean for MFIs? In this study sustainability refers to a MFI that does not rely on donor support i.e. subsidies. This requires the institution to be self-sufficient and profitable.[4]

Sustainable MFIs have an important role to play in microfinance in the developing world. They can have significant benefits to the microfinance market, themselves and clients. With respect to the microfinance market, sustainable MFIs can facilitate stability and consistency. This decreases the volatility in the microfinance market and reduces the likelihood of bankruptcy or exit by financial institutions because they are able to cover costs and make profits (Robinson, 2001). Another important influence sustainable MFIs have on the microfinance market is that they stimulate competition (Robinson, 2001; Schicks, 2007). Sustainable MFIs attract more financial institutions into the business, which enhances efficiency in the microfinance market.

[4] Profitable refers to economic profit in which a firm covers its economic costs, meaning all accounting costs plus opportunity costs. What comprises sustainability is the ability to operate without donor funds, cover commercial costs of capital, cover operating costs and achieve positive returns on investment (see Schicks, 2007).

Microfinance Institutions themselves benefit from becoming sustainable for several reasons. Sustainable MFIs attract private capital as foreign and private investors see them as a worthy investment (Schicks, 2007). This increases their scale and stimulates efficient business practices and technology, boosting productivity. In addition, MFIs striving to be more efficient employ better techniques to reduce their operating costs and administrative costs. McGuire and Conroy (2000) argue sustainable MFIs are more aware of their market because they are forced to operate without the help of donor aid. This provides an incentive to research their market intensively, which improves better business decision-making.

Sustainable MFIs have a significant impact on clients and potential clients. The increase in competition stimulates product diversification. This benefits clients because they receive different types of financial products for their individual needs. As a result, client confidence in the MFI increases which also boosts the size of the client base.

3.2 Sustainability and Social Value

Sustainability has an important role to play in the social value of microfinance. Social value considers the benefits to society as a whole and not just the individual. The social benefits associated with MFIs are "securing and stabilizing incomes, social organisation and market broadening" (Balkenhol, 2007, p. 211). These benefits are often considered as justification for donor support for MFIs. Therefore it is important to look at the links between sustainability, social value and donor objectives.

Sustainability of MFIs entails robust institutions that can maintain operations through volatile times. In addition, sustainability involves MFIs becoming independent of donor support over time. This is important in maximising the social value because the MFIs can reach more poor people and clients can benefit from their services. The sustainability of MFIs has an important social element that donors focus on because they provide assistance to these financial

institutions. Therefore, they have a vested interest in the sustainability of MFIs. The significant social benefits often prompt donor support for MFIs, which has important policy implications.

Donors have a number of objectives when providing assistance to MFIs. Specifically, they want visible results and they prefer not to get fixed in long-term subsidy support (Balkenhol, 2007). Donors also often require accountability from subsidy recipients in terms of performance outcomes. As a result, sustainability of MFIs is vital in the point of view of donors. Once MFIs becomes sustainable, they require little or no support, which allows donors to focus on other areas of aid that are more essential. Furthermore, donor support can actually help facilitate sustainability, depending on the type of assistance provided.

Supporting start up costs or research and development can fulfill donor objectives. MFIs beginning their business often need assistance to cover the large fixed costs associated with providing microfinance services. This is the case for many MFIs, which require initial assistance from donors to begin their operation, however, they have become independent of donor support in a short period of time (Morduch, 1999). This created a situation where both the donors and MFIs were better off because the donors did not need to provide continuous support and the MFIs could operate independently. In addition, subsidies in research and development can stimulate positive externalities for MFIs and their clients, which will increase the social value of microfinance.

Subsidising the operation of MFIs typically reduces the likelihood of them becoming independent of subsidies in the long run. They also provide little incentive to become sustainable. This does not fulfill the donor's objectives, which is to maximise social benefits and to have a limited time horizon with respect to assistance. Although donors realise the importance of the social benefits of microfinance, they do not always provide support which maximizes social value. This is because many MFIs have been receiving continuous subsidies from donors for a long period of time and the subsidies have distorted the microfinance market, which will be discussed more in depth in section 4.2.3.

3.3 Policy Problem and Key Stakeholders

The policy problem I am concerned with is too few MFIs are sustainable. Hudon and Traca (2008) note approximately 95 percent of MFIs receive subsidies in some form and according to a 2005 GIAN survey 85 percent of MFIs receive subsidies from two or more donors. This is an important problem to study for three reasons: first, MFIs are an essential component to reduce poverty, second, poor people require financial services and third, sustainable MFIs ensure long-term access to diverse financial services.

MFIs are an important instrument to alleviate poverty (Jansson, 2001; Morduch, 1999; Terberger, 2003; Robinson, 2001). They provide valuable financial services to the poor and are essential in promoting development in low-income countries. Terberger (2003) states supporting the access to formal financial services for low-income individuals provides promise of improving the living standards for poor families and fostering economic development.

Second, given the high demand for microfinance services it is apparent that poor people require diverse financial services (Robinson, 2001; Helms, 2006) and there is a growing recognition in developing countries that this need can be fulfilled by sustainable MFIs.

Lastly, sustainable MFIs ensure long-term access to financial services. This is important because a substantially high proportion of poor people rely on financial services for their businesses and everyday life (Robinson, 2001). Therefore, sustainable MFIs are important in ensuring poor people acquire the financial services they need. Sustainable MFIs are likely to remain in the microfinance market for a long period of time because they are not reliant on donor support, which has a substantial impact on the poor in developing countries.

The potential interested stakeholders concerned with the policy problem are:

- Government agencies, more specifically the Ministry of Finance and the Central Bank. They would be interested because they are likely responsible for regulating, overseeing or supervising financial services in the country. Therefore, they would have a vested interest in the potential for sustainable MFIs.

- The MFIs themselves because any policies implemented will have a direct effect on their operation.
- Clients and potential clients for the MFIs are key stakeholders because they are affected by access to financial services.
- Donors are stakeholders because sustainable MFIs could affect the type and quantity of aid they distribute. If MFIs become sustainable, then donors will not have to provide as much funding and may divert their funding to other areas.
- Existing banks in MFIs' host countries are key stakeholders in two ways. First, once a MFI is sustainable there is more competition between existing banks and MFIs with respect to financial services. Second, if MFIs successfully increase the income of the poor, existing banks could be better off because it increases the pool of wealthier clients.

The next section provides a thorough discussion about subsidies in microfinance, specifically the economic theory behind subsidies, the types of subsidies MFIs receive and their positive and negative consequences.

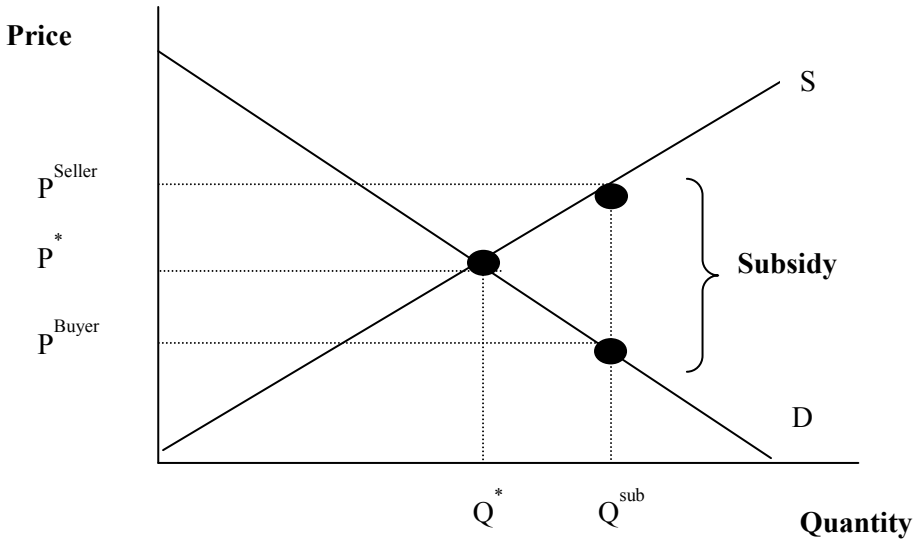
4: Subsidies

Subsidies are an important issue when analysing sustainability of MFIs. The debate is still on as to whether or not donors should be giving subsidies to these financial institutions. This section first provides the general economic theory of subsidies, second, discusses the role of subsidies in MFIs and their positive and negative consequences and lastly describes the different types of subsidies in microfinance.

4.1 Economic Theory of Subsidies

A subsidy can be analysed similar to a tax but have opposite effects (Pindyck and Rubinfeld, 2005). In fact, a subsidy can be seen as a negative tax because it reduces the buyer's price below the seller's price, with the difference being the size of the subsidy provided by the government (see Figure 1). The overall effect of a subsidy is that the quantity produced increases from Q* to Q^{sub}. Hence subsidies create distortions in the market by overproducing. This is due to producers not taking into account the real cost of producing the good because the government is artificially increasing the price received by sellers. Since subsidies create distortions in the market, why do governments pursue such policies?

Figure 1: Subsidy in a Perfectly Competitive Market



There are often political reasons for subsidising certain sectors or companies, however, there is also an economic argument behind subsidies. Many types of firms have difficulty reaching the optimal size to sustain a profitable business and rely on subsidies to help move them towards efficiency. Certain firms have average costs that are higher then their marginal costs (Brander, 2006). When this is the case the firm requires a subsidy to cover the difference in expenditure, otherwise the firm will go out of business. Governments also subsidise certain institutions because they create positive externalities. Public education at all levels is often subsidised because they provide positive spillover effects of having a literate and educated population. The types of subsidies I discuss are lump sum, per-unit and in-kind

Lump sum subsidies are also called cash subsidies because they are a fixed cash transfer from the government to the firm. This makes the firm better off because it can use the transfer in any way they choose with respect to their business. Lump sum subsidies are less distortionary because there is complete freedom to choose how the firm wants to spend the transfer. Per-unit subsidies are slightly different because there is a subsidy on each unit produced. As more of the subsidised good is being produced, the greater the total subsidy by the government is required. Per-unit subsidies often distort markets because they artificially increase the price received by the

seller. In-kind subsidies are similar to both lump sum and per-unit subsidies. They are cash transfers but have restrictions placed on usage. The government is essentially influencing the behaviour of producers by dictating how the cash transfer is used, which has similar distortion effects as per-unit subsidies.

4.2 Subsidies in Microfinance Institutions

In this section, I describe the different types of subsidies MFIs receive and discuss the arguments for and against providing subsidies to MFIs.

4.2.1 Types of Subsidies

Subsidising MFIs is complex because there are various types of subsidies that target different aspects of a MFI operation. MFIs typically receive the following three types: lump sum, per-unit and in-kind.

One of the most common types of subsidy is a lump sum transfer. They come in the form of cash transfers and can be used in any part in the MFI's operation. Often these are used to subsidise fixed cost or start-up costs. The subsidy is provided for an initial time frame until the average total cost of the MFI decreases to an efficient value. Once this occurs the MFI can theoretically be independent from donor support, however, this seldom happens because of the adverse incentives that are described in sub-section 4.2.3.

The second type of subsidy is per-unit, which is the short-term subsidisation of very poor clients (Morduch and Aghion, 2005). This type of subsidy is similar to a lump sum transfer, however, it is directly linked to the client for a particular. The purpose is to subsidise the client's start up costs and provide them either training or time to build their business to a minimum scale to cover their costs.

A variation of the per-unit subsidy is subsidising interest rates for the MFI. This is a common policy in microfinance, which is used to attract very poor clients (Robinson, 2001; Helms, 2006; Morduch, 1999; Morduch, 2005; Hudon and Traca, 2008). Essentially the donor provides subsidies to MFIs that are used to give loans to clients at reduced interest rates. Therefore, the client faces low interest payments that otherwise would not have prevailed in a competitive market.

In-kind subsidies are fairly common in MFIs and consist of the donor providing physical capital such as computers, chairs and desks. There are differences in the types of in-kind subsidies provided, however, they are essentially donations for particular goods and services. In-kind subsidies are somewhat less distortionary than the others because they do not greatly influence business operations. In sum, subsidies play an important role in MFIs. The key factor to consider is if a MFI is subsidised and if so, what type and how much is given?

4.2.2 Arguments in Favour for Subsidies

There are two primary arguments behind subsidising MFIs, one is to increase their size and the second is to stimulate positive spillover effects. With respect to size, when MFIs begin their operation each loan has a high transaction cost because initially they have a small client base. This reduces their ability to be profitable initially (Morduch, 1999). Therefore, the financial institution cannot significantly spread the costs across their clients without the help of subsidies. In addition, without subsidies MFIs will not be able to enter the market because the costs are too high.

Second, subsidies are given to MFIs because they can provide positive spillover effects. MFIs that operate without subsidies often offer higher interest rates and the outreach of clients is limited because the very poor are not able to afford credit. Subsidising the interest rates can expand outreach to very poor clients, who would otherwise be neglected (Schicks, 2007).

Subsidies can also have positive spillover effects onto other lenders. For example, if there is a subsidy in a particular area of operation in the MFI, such as data collection and market evaluations, other lenders can potentially benefit from this information if it is publicly accessible (Morduch and Aghion, 2005). This can improve the quality of microfinance services to clients and increase the efficiency of MFIs. Although there are substantive arguments for subsidising MFIs, it often creates distortions and limits the ability for MFIs to become sustainable.

4.2.3 Arguments Against Subsidies

Subsidies have a significant medium-term impact on the microfinance market depending on the type of subsidy. Operational subsidies that do not have a time limit or are not transparent, which include lump-sum subsidies, per-unit subsidies to the client, subsidising the interest rate on loans and in-kind subsidies, have significant consequences. There are three key arguments against subsidising the operations MFIs: they can be misallocated; they do not provide incentives for MFIs to be efficient; and they squeeze out potential profitable MFIs. This reduces the social value of the activities from MFIs and does not meet the objectives of donors.

Operational subsidies are often misguided and rationed, which hurts the very poor because they are denied access to financial services (Robinson, 2001). When MFIs receive per-unit subsidies with respect to interest rates, the belief is that more poor people will be able to access loans. However, since small loans are associated with high transaction costs, MFIs can ration credit to wealthier borrowers to receive higher returns. In addition, the lower interest rates draw wealthier clients to seek loans because they can obtain cheaper credit. Therefore, subsidies hurt the clients they are intended to help. For example, subsidised microcredit programs in Argentina have created distortions where the rural elites obtained cheap credit rather than the poor. Argentine banks routinely lost their capital due to loans provided to rural elites with little expectation of repayment (Robinson, 2001). This created a situation where the MFIs went bankrupt and the elites retained the credit. Another example of cheap credit going to wealthier

clients is seen in India's Regional Rural Banks where loan recovery was around 56 percent for more than the 14,000 branches (Robinson, 2001). These banks are required to give subsidised loans to a quota of poor people, however, the list of poor people are determined by influential local political committees who often give the cheap loans to their relatives and supporters.

Subsidies can have adverse efficiency effects on MFIs, as reliance on subsidies does not push them to become efficient. Lump-sum subsidies without a time limit, per-unit subsidies to clients and in-kind subsidies can create significant subsidy dependency on the part of MFIs. They have less incentive to become efficient and independent of subsidies because they do not take into account true cost of doing business. Morduch (1999) states MFIs often miscalculate their profits given the substantial subsidies provided to them. This is because the subsidies are included in profit calculations, which distorts their financial performance. A side effect of miscalculating profits is that MFIs can purposely show low profits in order to obtain more grants. Dependency on subsidies also hurts MFIs in the long run because they are not able to operate without them. Therefore, once a donor removes its subsidies, the MFI will likely go bankrupt. This creates an inefficient microfinance market, which is not sustainable. Subsidies also decrease the incentive for innovation, which reduces MFIs' efficiency. As a result, operational subsidies do not maximize the social value of MFIs. Furthermore, they create subsidy dependency, which does not meet the objectives of donors.

The type of subsidy that poses the most harm to MFIs and the microfinance market are subsidised interest rates on loans. Since loans are heavily subsidised, lending institutions often put little effort in collecting on their loans, in part because the borrowers tend to be locally influential individuals rather than the poor (Robinson, 2001). This makes lending seen as "political entitlement" and not a transaction, which results in corruption and high default rates (Robinson, 2001, p. 144). This creates problems for both the MFIs and the microfinance market because such practices are not sustainable. As default rates increase, MFIs cannot remain in

business and as such the microfinance market suffers. For example, many rural banks in Latin America and Asia are heavily subsidised with respect to interest rates on loans. Robinson (2001) notes, most rural banks in India that are subsidy dependent have arrears as a proportion of loans due at around 50 percent. BANRURAL, which is a rural bank in Mexico, had a recovery rate of about 25 percent on their loans in the late 1980s (Robinson, 2001). In addition, the Agricultural Credit Agency, a small rural bank in Malawi, had their recoveries fall from almost 90 percent to less than 20 percent (Robinson, 2001). This is almost entirely due to the subsidy on microcredit given to them by the government. Subsidising interest rates on loans is not a sustainable policy and reduces the social value of microfinance.

Finally, subsidised MFIs crowd out potential profitable MFIs (Schicks, 2007). Subsidised MFIs can attract ideal clients because of artificially low interest rates. Good clients will move to the subsidised MFI to take advantage of the lower interest rates. This prevents potential profitable MFIs from entering the market because they do not have the ability to provide comparable loan rates. As a result, many potential profitable MFIs are shut out of the market.

In sum, this section explains the economic theory behind giving subsidies, the different types of subsidies MFIs receive and arguments for and against providing them. Most operational subsidies create distortions in the microfinance market and in MFIs, as a result, the social value of microfinance is not maximised. The next section examines the impact of subsidies on specific MFIs by comparing subsidised MFIs to sustainable MFIs.

5: Methodology

The methodology in this study is based on case study analysis validated by the findings of a survey conducted by the Centre for the Study of Financial Innovation (CSFI).

The following steps are taken in the analysis: First, I choose sustainable MFIs in two regions of the world. Second, I use performance indicators against a general benchmark to identify which areas they perform well. From that I pick the common indicators among the sustainable MFIs. Third, I analyse those indicators for some subsidised MFIs that are not performing well. Finally I validate their weaknesses with the secondary methodology (i.e. the survey). Table 1 shows the sustainable MFIs, their size, region and their classification.[5] The chosen case studies are: BancoSol, Bank Rakyat Indonesia, Cooperativa de Ahorro y Credito (COAC) San Jose and Valiant Rural Bank.[6]

Table 1: Case Studies

Microfinance Institution	Region	Size	Subsidised
BancoSol	Latin America/Caribbean	Large	No
Bank Rakyat Indonesia (BRI)	Southeast Asia	Large	No
Cooperativa de Ahorro y Credito (COAC) – San Jose	Latin America/Caribbean	Small	No
Valiant RB (Davao)	Southeast Asia	Small	No

The cases are narrowed down through the criteria and the Microfinance Information Exchange (MIX) 2008 Global Composite Rankings. This report is an annual ranking of the top

[5] In terms of size, large MFIs are classified as having a gross loan portfolio of greater than $15 million while small MFIs have a gross loan portfolio of less than or equal to $15 million

[6] It is important to note the analysis controls for political stability in the countries. This is because the countries have comparable ratings with respect to the World Bank Governance Indicators Using the World Bank Worldwide Governance Indicators (2007) I averaged the six indicators for the countries. The results ranged from –0.51 to –0.86, which indicates the four countries are close with respect to governance quality.

MFIs based on outreach, efficiency, transparency and profitability. I use 2007 data for all the cases except BRI for which only 2006 numbers are released.[7] Both BancoSol and BRI are ranked relatively high in their respective regions. In addition, both are widely regarded as one of the most sustainable MFIs in the world, which is why they are chosen (Robinson, 2001; Maurer, 1999; Morduch, 1999; Helms, 2006; Navajas and Tejerina, 2006; Schicks, 2007).

Since Indonesia and Bolivia are the countries with the large MFIs in this study, the small MFIs are narrowed down to countries in the same region. In Southeast Asia, I focus my country selection to the Philippines. Within the Philippines I again use the MIX Global 2008 Composite Ranking to narrow down the top performing MFIs and verify the size of their gross loan portfolio on the Microfinance Information Exchange. The result is Valiant Rural Bank. The small Latin American MFI is chosen in the same process. The country is Ecuador and the highest ranking MFI using the composite ranking is COAC San Jose.[8]

The goal of the analysis is to compare the overall performance of the four sustainable MFIs with the poor performing MFIs and identify where the differences are. Five categories of indicators are considered:

1. Outreach
2. Financial Performance
3. Performance Management
4. Regulatory Environment
5. Secondary Variables

Table 2 outlines in detail the specific indicators within the five categories. These indicators are cited by Yaron and Manos (2007), Ledgerwood (1999), Crabb (2007) and

[7] When analysing its time series data there is little variation suggesting its statistics in 2006 will be very similar in 2007. In addition, although BRI is not included in the composite ranking report, I compute the required statistics to formulate a ranking as if it were to be included. The result is BRI ranked the second highest MFI in Southeast Asia.

[8] Although COAC San Jose's GLP is slightly greater than $15 million, it is still a small scale MFI since the previous year's GLP was just over $12 million.

MicroBanking Bulletin Benchmarks (2007) as important characteristics to analyse sustainability of a MFI.

Table 2: Definition and Description of Indicators

Indicator	Definition/Calculation	Description
Outreach		
Number of Active Borrowers	Number of individuals with a loan balance	
Number of Savers	Number of voluntary depositors	
Depth of Outreach	Average Loan Balance per borrower/GNI per Capita (%)	High percentage suggests wealthier clients.
Growth of Loan Accounts	Average 5 year growth rate of active borrowers	High percentage indicates MFI attracts credit clients.
Growth of Savings Accounts	Average 5 year growth rate of voluntary savers	High percentage suggests MFI attracts deposit clients.
Financial Performance		
Profitability		
Return on Assets	Net operating income (less taxes) /Period Average Assets (%)	High return indicates profitable MFI.
Return on Equity	Net operating income (less taxes) /Period Average Equity (%)	High return enables a bank to increase its equity
Profit Margin	Net operating income/Financial Revenue (total) (%)	Positive profit indicate good financial performance
Self-Sufficiency		
Operational Self-Sufficiency	Financial Revenue (Total)/ (Financial Expense + Loan Loss Provision Expense + Operating Expense) (%)	Higher percentage suggests independent of subsidies.
Capital/Asset Ratio	Total Equity/Total Assets (%)	Low ratio means low opportunity cost of capital
Portfolio Quality/Risk		
Portfolio at Risk > 30 Days	Portfolio at Risk > 30 days/ Gross Loan Portfolio (%)	High percentage indicates low portfolio quality.
Write-off Ratio	Write Offs for the 12-month period / Period Average Gross Loan Portfolio (%)	High ratio suggest aggressive write off policies
Loan Loss Reserve Ratio	Loan Loss Reserve/ Gross Loan Portfolio (%)	High percentage suggests future expectation of delinquent loans
Risk Coverage Ratio	Loan Loss Reserve/ Portfolio at Risk > 30 Days (%)	High ratio suggests better ability to manage delinquent loans
Efficiency		
Operating Expense/Loan Portfolio	Operating Expense / Period Average Gross Loan Portfolio (%)	Large ratio indicates high cost in provision of loans.
Cost per Borrower	Operating Expense/ Period Average Number of Active Borrowers (US$)	High measure indicates high cost per borrower.
Borrower per Staff Member	Number of Active Borrowers/ Number of Personnel	High ratio means productive staff
Saver per Staff Member	Number of Voluntary Savers/ Number of Personnel	High ratio means productive staff
Performance Management		
Board of Directors	If the MFI has a Board of Directors	
Annual Reports	If the MFI releases annual reports	.

Regulatory Environment		
MFI regulations	If the country has regulations for microfinance	
Secondary Variables		
Number of Branches	High number of branches indicates larger size and more outreach.	
Number of Years in Operation	More years suggests significant experience	
Type of MFI	Credit Cooperative/Bank/Non-bank Financial Institution/Rural Bank	

Source: MIX, 2008; Ledgerwood, 1999

Outreach is comprised of breadth, measured by number of active borrowers and savers, and depth, which is determined by the average loan balance per borrower/GNI per capita. Financial performance is made up of profitability, self-sufficiency, portfolio quality and risk and efficiency. Return on assets is the main measure of profitability. In addition, self-sufficiency is primarily determined by OSS. Portfolio quality and risk are measured in the same category. Portfolio at risk after 30 days is the main measure for portfolio quality, however, it must be analysed with the write-off ratio. A high portfolio at risk ratio indicates a low portfolio quality, but if there is also a high write-off ratio, this suggests the MFI is taking aggressive write-off policies to clean its portfolio. On the other hand, if there is high portfolio at risk with a low write-off ratio, this indicates the MFI is not facing the reality that it has a substantial amount of delinquent loans. Furthermore, this suggests the MFI does a poor job of screening clients. A board of directors and releasing reports is a measurement of performance management. The regulatory environment is contingent on the country enforcing MFI regulations. Lastly, the secondary variables include the number of branches and the number of years the MFI has been in operation.

In the next section, I use these indicators to identify the common important factors for good performance.

6: Analysis

This section discusses each performance indicator for the cases, followed by a summary of the common important characteristics for good performance. Lastly, the findings are validated by a survey.

6.1 Case Studies

The results of each indicator are presented in Table 3. In each case I compare their values, except for the growth rates in loan and savings accounts, to the 2007 Microbanking Bulletin Benchmarks to assess if the MFI equals or exceeds the median for each indicator. For the growth rates in savings and loan accounts, I compare each case to the growth rate in loans and demand deposits in their respective country. After the description and analysis of each case I provide a summary of findings, which will identify the common indicators that contribute to a sustainable MFI.

Table 3: Results of the Sustainable Cases

Indicators	Benchmark	BancoSol	BRI	Benchmark	COAC San Jose	Valiant RB
Outreach						
Number of Active Borrowers	44,459	121,207	3.5 million	10,776	6,357	7,000
Number of Savers	1,842	169,507	21.2 million	0	17,859	8,807
Depth of Outreach (%)	54.6%	142.8%	65.3%	33.5%	61.9%	34.0%
Growth of Loan Accounts (%)	Bolivia 1.2%	11.9%		Ecuador 14.9%	10.8%	
	Indonesia 11.5%		4.1%	Philippines 8.3%		29.3%
Growth of Deposit Accounts (%)	Bolivia 20.6%	29.1%		Ecuador 21.9%	20.1%	
	Indonesia 18.8%		4.6%	Philippines 15.5%		37.7%
Financial Performance						
Profitability						
Return on Assets (%)	1.5%	3.2%	6.9%	0.6%	0.9%	1.0%
Return on Equity (%)	9.1%	32.7%	130.0%	2.7%	5.4%	12.0%
Profit Margin (%)	9.5%	21.2%	31.2%	3.8%	9.4%	10.3%
Self Sufficiency						
Operational Self-Sufficiency (%)	119%	126.9%	145.3%	109%	110.4%	111.5%
Capital/Asset Ratio (%)	17.2%	9.9%	4.9%	25.0%	15.2%	8.2%
Portfolio Quality and Risk						
Portfolio at Risk > 30 days (%)	2.5%	1.0%	5.1%	2.5%	2.7%	9.7%
Write-off Ratio (%)	1.1%	2.3%	0.8%	1.3%	0.0%	0.0%
Loan Loss Reserve Ratio (%)	5%	4.6%	1.9%	5%	8.1%	3.5%
Risk Coverage Ratio (%)	98.3%	479.9%	36.8%	79.8%	313.8%	36.4%
Efficiency						
Operating Expense/Loan Portfolio (%)	14.8%	11.5%	8.3%	20.6%	6.6%	4.3%
Cost per Borrower (US $)	150	190.6	65.3	120	143.2	137.8
Borrower per Staff Member	120	120	113	120	116	52
Savers per Staff Member	5	168	685	0	325	66
Performance Management						
Board of Directors	Varies	Yes	Yes	Varies	Yes	Yes
Annual Reports	Varies	Yes	Yes	Varies	Yes	Yes
Regulatory Environment						
MFI Regulations	Varies	Yes	Yes	Varies	Yes	Yes
Secondary Variables						
Number of Branches	30	50+	4000+	10	5	2
Years in Operation	12	17	114	9	45	12
Type of Institution	Varies	Bank	Bank	Varies	Credit Union	Rural Bank

Source: MIX, 2008 and IMF, 2008

6.1.1 BancoSol

BancoSol is located in Bolivia and is considered one of the most sustainable MFIs in the world (Robinson, 2001; Helms, 2006; Morduch, 1999; Navajas and Tejerina, 2006). BancoSol was established in 1992 and in less than two years, it became self-sufficient (Robinson, 2001). At the time, BancoSol was the first private commercial bank in the world dedicated exclusively to microfinance. Furthermore, Robinson (2001) notes that BancoSol is the first bank to have attracted significant international capital investment. Currently its main funding sources are savings, loans and shareholder capital (MIX, 2008). BancoSol has now been in operation for 17 years and has over 50 branches across Bolivia.

In terms of outreach, BancoSol performs well. It has 121,207 and borrowers and 169,507 savers. This is significantly higher than the benchmarks, which indicates BancoSol's substantial breadth of clients. However, BancoSol lacks depth in its outreach. It provides microfinance services predominantly to wealthy clients since its average loan balance per borrower/GNI per capita is substantially higher than the benchmark. BancoSol has a relatively high growth rate in loan accounts and savings accounts. Its growth rate in loan accounts is 11.9% and the growth rate in savings accounts is 29.1%. Both are higher than the country level growth in loan accounts and savings accounts, which are 1.2% and 20.6%. This suggests BancoSol performs well in attracting borrowers and depositors.

BancoSol's overall financial performance is strong. With respect to profitability, BancoSol's return on assets, return on equity and profit margin are significantly higher than the benchmarks. This indicates BancoSol is making substantial returns, raising substantial revenues and attracting investment.

In terms of self-sufficiency, BancoSol is performing quite well. BancoSol has an OSS of 126.9%, which is higher than the benchmark. This indicates BancoSol can adequately cover their costs. It also has a capital/asset ratio of 9.9%, which is substantially lower than the median

capital/asset ratio suggesting it has a low opportunity cost of capital and can generate internal capital efficiently. This contributes to the ability of BancoSol to operate independent of subsidies.

The portfolio quality of BancoSol is relatively high. BancoSol has a portfolio at risk after 30 days of only 1.0%, which is significantly lower than the median benchmark. This is partly due to its high write-off ratio, which is an indicator of BancoSol's aggressive write-off policies to clean their loan portfolio. This can mean either it is artificially lowering its portfolio at risk with a high write-off ratio, or it legitimately writes-off substantial amount of loans. In terms of risk, BancoSol has a loan loss reserve ratio under the benchmark and a high-risk coverage ratio compared indicating its ability to cover its losses during a negative shock.

The last characteristic for financial performance is efficiency. BancoSol's operating expense/loan portfolio is 11.5%, which is lower than the median benchmark and shows a low cost of providing loans. However, BancoSol's cost per borrower is higher than the median. This can be explained by BancoSol's attempts to provide sophisticated products that are more costly to provide (BancoSol, 2007). The productivity of BancoSol is relatively good. It has 120 borrowers per staff member and 168 savers per staff member, which are both higher than the benchmarks, suggesting a productive staff who are well versed in the delivery of microfinance services.

BancoSol has developed a governance structure similar to commercial banks in high-income countries. It is comprised of a nine-person board of directors with one president. There is a vice president, secretary director, four principal directors and two principal trustees. In addition, there is an executive staff that is separated into the headquarters executive staff and the regional executive staff. This oversight at the central level and regional level provide a cohesive vision and goal for BancoSol's operations. Furthermore, the inclusion of regional centres allows concerns at the grassroots level to be incorporated. The second measurement of performance management is the release of annual reports. BancoSol publishes thorough reports that include information on the Bolivia's economic climate, performance and financial indicators, risk ratings and detailed

financial statements. The comprehensive annual reports disclose all the relevant information for its shareholders and clients indicating a certain level of transparency.

With respect to the regulatory environment, Bolivia enacted in 1995 the Supreme Decree 24000, which essentially authorises the creation of Private Financial Funds (PFFs) as non-banking financial entities. Their aim is to provide microfinance services in both urban and rural areas. This decree specifies norms new PFFs are required to abide by, which are more stringent than those for commercial banks. In addition, Bolivia has the Superintendency of Banks and Financial Entities (SBFE) whose primary functions are to regulate and supervise financial institutions (Rao, 2001).

In sum, BancoSol performs very well in all five categories. It has a good outreach of clients, excellent financial performance and very good management organization and structure. In addition, BancoSol operates in a sufficiently regulated environment, has widespread branches and considerable experience in the microfinance industry.

6.1.2 Bank Rakyat Indonesia (BRI)

BRI is located in Indonesia and is the largest MFI in the world. It is a commercial bank specialising in microfinance and has been in operation since 1895. BRI now has over 4000 branches across the country, and its largest funding sources are from depositors and private investment (MIX, 2008).

In terms of outreach, BRI performs quite well. It has the largest breadth of clients encompassing 3,515,812 active borrowers and 21,229,085 savers. This is significantly higher than any other MFI in the world. With respect to the depth of clients, BRI has an average loan balance per borrower/GNI per capita of 65.3%, which is slightly higher than the benchmark. This still indicates BRI attracts a significant amount of clients that are poor. BRI's growth rates for loan and savings accounts are lower than the country level growth rate in demand deposits and loans.

BRI's growth rate for loan accounts is 4.1% and its growth rate for savings accounts is 4.6%, while the country level growth of loans is 11.5% and 18.8% for demand deposits[9] The disparity is partly explained by the number of years BRI has been in operation. Usually younger MFIs will have a high growth rate for both accounts because they are beginning to build their clientele. However, for more established MFIs the growth in clients is slower because of economies of scale.

The financial performance of BRI is relatively strong. The profitability indicators for BRI are significantly larger than the benchmarks. It is the most profitable MFI in this study with a return on assets of 6.9%. It also has an extraordinarily high return on equity of 130.0%. This is due in part to the substantial equity BRI possesses. Total equity for BRI is US $267 million, which is considerably larger than other MFIs. BRI attracts enormous amount of investments from shareholders, which explains the high the return on equity. In addition, BRI's profit margin is the highest of the four cases at 31.2%.

BRI is self-sufficient. Its indicators are far above the benchmarks. Its OSS measure is very high at 145.3%. The ability of BRI to attract investment and expand its operations is an indication of its self-sufficiency. In addition, BRI has a low capital/asset ratio at 4.9%, which means BRI has the lowest opportunity cost of capital. This makes it easier for BRI to cover its cost without the aid of subsidies.

The portfolio quality of BRI is low compared to the benchmarks. Although BRI's risk indicators seem good compared to the median, when taking into account its low portfolio quality, BRI's overall performance in this category is dismal. The portfolio at risk after 30 days for BRI is 5.1%, which is greater than the median ratio and its write-off ratio is very low at 0.8%. This suggests BRI is either not facing the reality of its loans being delinquent or it believes its risky

[9] I did not include 2006 and 2007 numbers for both growth rates because of the Tsunami at the end of 2005, which drastically change the numbers.

loans will be repaid. BRI also has a low loan loss reserve ratio and a low risk coverage ratio. Normally these are good values, however, given BRI's high portfolio at risk and low write-off ratio they contribute to its optimism of faulty loans being repaid. BRI could be taking this stance because they are aware they will likely not go bankrupt without government intervention given its enormous size and outreach. Nonetheless its overall performance in this area is weak.

With respect to efficiency, BRI performs very well. It has a lower operating expense/loan portfolio at 8.3% and a lower cost per borrower at US $65.3 compared to the benchmarks. This is due to its ability to exploit economies of scale. The productivity in providing loans is slightly lower than the benchmark, however, BRI is substantially more productive in depositing services with 685 savers per staff member.

BRI has a management team and discloses annual reports with their financial statements and audits.[10] BRI is governed by a three-member Board of Commissioners representing the Ministry of Finance (Maurer, 1999). However, the operations of the bank are managed by a seven-member Board of Directors led by the President Director (Maurer, 1999). BRI has a sophisticated organisational structure composed of a four-tier system. The top-tier is the head office located in Jakarta, the second-tier is the regional offices followed by district branches and lastly small units at the sub-district level and village posts. This highly developed system is regarded as the reason for BRI's extensive outreach in clients.

Indonesia has a regulatory framework specific to public deposit taking MFIs. Instead of passing new regulations, Indonesia regulates these MFIs under its Banking Act, which recognises microbanking (Bank Indonesia, 2000). The Bank of Indonesia directly supervises the banks, which includes BRI and its units. It is managed under commercial lines by the Central Bank, which is more stringent than the supervision over rural banks or credit unions (Meager et al, 2006). This is because BRI is a commercial bank with microfinance capabilities.

[10] BRI's financial statements and audits can be accessed through their website http://www.bri.co.id/

Overall, BRI performs relatively well. Its financial performance is strong, except for its portfolio quality and risk. In addition it has good performance management and regulatory environment. It also has a significant number of branches and has been in operation the longest out of all the MFIs. On the other hand, BRI's outreach measures are not very high. It is important to note this is likely because of the number of years it has been in operation. BRI has a substantial breadth of clients, but it has reached economies of scale, which is why its growth rate for depositors and borrowers is low.

6.1.3 COAC San Jose

COAC San Jose is located in Ecuador, a lower middle-income country in South America. It is a credit union and has been in operation since 1964. COAC San Jose has five branches across Ecuador and its main funding sources are loans and deposits (MIX, 2008).

COAC San Jose has more voluntary savers than active borrowers. As a result, the number of borrowers is lower than the median benchmarks, however, its number of voluntary savers is significantly higher than the benchmark. It is difficult to argue COAC San Jose has a large breadth given its relatively small borrowing clientele. The average balance per borrower/GNI per capita is 61.9%, which is substantially higher than the median for small and medium MFIs. This suggests COAC San Jose seems to be attracting clients who are relatively wealthy. COAC San Jose's growth rates for savings and loans accounts are 10.8% and 20.1%. However, they are slightly lower than the country level growth in loans and demand deposits, which are 14.9% and 21.9%.

The financial performance of COAC San Jose is promising. Its profitability measures indicate good returns on assets and equity that exceed the benchmarks. COAC San Jose's return on assets is 0.9% and its return on equity is 5.35%. In addition, COAC San Jose's profit margin is

larger than the benchmarks. The wide disparity signifies COAC San Jose's success in providing microfinance services profitably.

COAC San Jose also performs well in terms of self-sufficiency. Its OSS measure is 110.4%, which is slightly above the median benchmark for small MFIs. In addition, its capital/asset ratio of 15.2% is well below the median. This indicates COAC San Jose operates self-sufficiently and has a low opportunity cost of capital.

In terms of risk and portfolio quality COAC San Jose performs extraordinarily well. Its portfolio at risk measure is equal to the benchmark, while the write-off ratio is below the benchmark, suggesting high portfolio quality. COAC San Jose's portfolio at risk after 30 days is 2.7% and its write-off ratio is 0.00% indicating it does not artificially lower the portfolio at risk by increasing its write-offs.[11] The only indicator that is lower than the benchmark is its loan loss reserve ratio. However, it is important to note that it is only a 3.6% discrepancy. Lastly, COAC San Jose's risk coverage ratio is 313.81%, which indicates its ability to cover delinquent loans.

COAC San Jose does a reasonably good job providing microfinance services efficiently. Its operating expense/loan portfolio ratio is one of the lowest out of the successful cases at 6.6%. However, it has a high cost per borrower of US $143.2. With respect to productivity, COAC San Jose performs well. The number of borrowers per staff member is 116, which is almost at the median value of 120. However, the number of savers per staff member is significantly higher than the median.

In terms of performance management, COAC San Jose has a board of directors and a President Director that oversees the overall operation. In addition, COAC San Jose releases

[11] Although the benchmark for portfolio at risk is slightly lower at 2.5% compared to COAC San Jose's 2.7%, I consider them equal given the very small difference.

annual reports and annual financial statements.[12] The financial statements are comprehensive and are externally audited, which provides transparency and accountability.

Ecuador has an extensive regulatory environment in place with respect to credit unions/cooperatives. It has a Banking Superintendency, which is an autonomous institution that regulates and supervises the financial system's institutions. In addition, Ecuador has a number of laws that outlines the regulatory framework for the Superintendency as well as the credit unions (MIX, 2008).

In sum, COAC San Jose performs well in most of the categories. It has a strong financial performance, and it operates in a regulated environment with good performance management. COAC San Jose has substantial experience in the microfinance market, which contributes to its overall good performance. However, COAC San Jose is lacking in its outreach. Although it has large breadth of depositors, it does not perform well in terms of depth and growth rate in loans and deposit accounts.

6.1.4 Valiant Rural Bank

Valiant RB is located in the Philippines, which is a low middle-income country in Southeast Asia. It is the youngest MFI out of the four cases. Valiant RB has been in operation for 12 years and its main funding sources are loans, deposits and shareholder capital (MIX, 2008).

Valiant Rural Bank's outreach is fairly good. It has 7,000 active borrowers, which is lower than the median benchmark, however, its number of savers is significantly higher. Valiant RB also attracts a significant amount of poor clients. Its average loan balance per borrower/GNI per capita percentage is 34.0%, which is equal to the median benchmark. Since it is a relatively new MFI, its growth rates for borrowers and savers are high. The bank's growth rate of loans accounts is 29.3% and 37.7% for savings accounts. Both are substantially higher than the country

[12] Both are available on the MIX website.

level growth rate in loans and demand deposits. This suggests Valiant RB is rapidly expanding its outreach.

Valiant RB's performs quite well financially. Its return on assets is 1.0% and its return on equity is 12.0%, which are both significantly higher than the benchmarks. Lastly, Valiant RB's profit margin is 10.3%, which is better than the median as well. As a result, Valiant RB's profitability indicators are strong.

In terms of self-sufficiency, Valiant RB performs very well. Its OSS measure is 111.5%, which is higher than the median and it has a low capital/asset ratio of 8.2%. Both are significantly better than the benchmarks, which suggest it is a self-sufficient MFI.

Valiant RB performs the badly when looking at portfolio quality and risk. It has a high portfolio at risk after 30 days at 9.7% and its write-off ratio is 0.0%. This implies Valiant RB resists writing off potentially delinquent loans believing either the loans will be repaid, or their collection efforts still continue. This can cause problems in their portfolio quality because it indicates that Valiant RB is not facing the reality that a proportion of their loans will not be repaid. Valiant RB's loan-loss reserve ratio is also quite low at 3.5%, which reinforces the fact that the bank believes a number of its delinquent loans will be repaid. Valiant RB has a low risk coverage ratio, which is not very favourable in this case because of the high portfolio at risk with a very low write-off ratio. Essentially the four indicators suggest Valiant RB has a number of delinquent loans, which are not likely covered in their reserves.

Valiant RB is somewhat efficient. Its operating cost per loan is 4.3%, which is significantly lower than the benchmark. However, Valiant RB's cost per borrower is slightly higher than the benchmark. Its productivity is also suspect in terms of provision of loans. The number of borrowers per staff member is 52, which is lower than the median. On the other hand, Valiant RB is more productive in providing savings services. The number of savers per staff member is 66, which is higher than the benchmark.

Valiant RB has a Board of Directors and releases comprehensive annual reports and financial statements that are consistent with international accounting standards. The reports provide transparency into the operations of the bank.

The Philippines have regulations implemented for all financial institutions, but more importantly it has separate laws and regulations for rural banks. In 1992 it passed the Rural Act of 1992, which outlines the legal framework rural banks must operate under. It cites "…rural banks shall be organized as stock corporations" (Republic of the Philippines, 1992, p 1). This Act is the primary document under which rural banks operate and are supervised. This provides standards in services and mitigates the probability of corrupt and unsustainable banks.

In sum, Valiant RB performs well. It has a good breadth and depth of outreach. Valiant RB's financial performance is satisfactory. Although it is profitable, self-sufficient and fairly efficient Valiant RB has a low portfolio quality and high risk. Lastly, it has a stable performance management structure and regulatory environment.

6.1.5 Summary of Findings

The section identifies characteristics that are important for sustainability. Table 4 describes the results of the common performance indicators aggregated across the four MFIs in the study.[13]

The decision rule to pick an indicator as a common characteristic among sustainable MFIs is it must equal or exceed the benchmarks in all four cases. Therefore the indicator must have a "yes" value across all the MFIs.[14] An indeterminate value is one in which some MFIs exceed the benchmarks while others are below, therefore, it cannot be considered a common factor in sustainable MFIs.

[13] The results for individual MFIs can also be found in Table 9 in the Appendix.
[14] See Table 10 for results of both large and small MFIs

Table 4: Common Indicators for Sustainable MFIs

Indicators	**All MFIs**
Outreach	
Number of Active Borrowers	Indeterminate
Number of Savers	Yes
Depth of Outreach (%)	Indeterminate
Growth of Loan Accounts (%)	Indeterminate
Growth of Deposit Accounts (%)	Indeterminate
Financial Performance	
Profitability	
Return on Assets (%)	Yes
Return on Equity (%)	Yes
Profit Margin (%)	Yes
Self Sufficiency	
Operational Self-Sufficiency (%)	Yes
Capital/Asset Ratio (%)	Yes
Portfolio Quality and Risk	
Portfolio at Risk > 30 days (%)	Indeterminate
Write-off Ratio (%)	Indeterminate
Loan Loss Reserve Ratio (%)	Indeterminate
Risk Coverage Ratio (%)	Indeterminate
Efficiency	
Operating Expense/Loan Portfolio (%)	Yes
Cost per Borrower (US$)	Indeterminate
Borrower per Staff Member	Indeterminate
Savers per Staff Member	Yes
Performance Management	
Board of Directors	Yes
Annual Reports	Yes
Regulatory Environment	
MFI Regulations	Yes
Secondary Variables	
Number of Branches	Indeterminate
Years in Operation	Yes
Type of Institution	-

The findings of the analysis show outreach is not a common factor for good performance. The only common characteristic between all of the sustainable MFIs is they attract depositors. On the other hand, good financial performance is common across the cases. They all have high profitability ratios and operate self-sufficiently. However, portfolio quality and risk are indeterminate. With respect to efficiency, the common indicators are low operating expense/loan portfolio and savers per staff. In performance management, they all release annual reports, financial statements and have a governance structure in place. All of the MFIs also operate under

regulations in their respective country. Finally, in terms of secondary variables, the MFIs exceed the benchmarks only in the number of years of operation. In sum, the general common characteristics in sustainable MFIs are good financial performance, specifically profitability and self-sufficiency, good performance management and regulatory environment.

6.1.6 Subsidised MFIs

This section compares the common characteristics of the sustainable MFIs to those that are subsidised. I choose the subsidised MFIs by using the following steps: First, I narrow down the region to Latin America and Southeast Asia. Second, I check their main funding sources to see if they receive grants.[15] Third, if they receive grants, I separate them by size using the previous criteria. The results are eight small MFIs and one large MFI.[16]

To assess the performance of the subsidised MFIs, I compare their data to the common indicators of sustainable MFIs. I separate the common characteristics between small and large MFIs to provide a more thorough description in the analysis. Table 5 provides the results of the subsidy dependent cases compared to the common indicators for sustainable MFIs. [17]

[15] This is determined through the MFI profiles on the www.mixmarket.org
[16] For full list of subsidised MFIs refer to Table 11 in the Appendix
[17] For full description of each indicator refer to Table 12 in the Appendix

Table 5: Results of Subsidy Dependent MFIs with Common Characteristics among Sustainable MFIs

Indicators	Average of Small MFIs	Vietnam Bank for Social Policies
Outreach		
Number of Savers	20,844	0 *
Financial Performance		
Profitability		
Return on Assets (%)	-3.77% *	-2.92% *
Return on Equity (%)	-21.35% *	-10.27% *
Profit Margin (%)	-14.94% *	-41.47% *
Self Sufficiency		
Operational Self-Sufficiency (%)	95.35% *	70.69% *
Capital/Asset Ratio (%)	17.33% *	27.79% *
Efficiency		
Operating Expense/Loan Portfolio (%)	29.90% *	4.29%
Savers per Staff Member	318	0 *
Performance Management		
Board of Directors	Varies *	Yes
Annual Reports	Yes	Yes
Regulatory Environment		
MFI Regulations	Varies	Yes
Secondary Variables		
Number of Branches	Varies	60
Years in Operation	15	13
Type of Institution	-	Bank

Source: MIX, 2008; * Indicates bad performance

Although there are deficiencies that are size specific, most flaws are common between both sizes and require discussion. Financial performance is severely lacking for the subsidy dependent cases, more specifically their profitability and self-sufficiency. In both cases, they have a negative return on assets, return on equity and profit margin. In addition, they have an OSS measure of less than 100% and high capital/asset ratios. This can be attributed to the subsidies they receive. With respect to profitability, subsidies create distortions that do not provide incentives for the MFI to become profitable. Depending on the type of subsidies they receive, the distortions can be quite large. For example, VBSP receives subsidies to provide loans at below market interest rates (Vietnam Bank for Social Policies, 2008). This inhibits the ability of the bank to cover its costs because of low revenue as shown by its negative return on assets and profit margin. The subsidised MFIs also have difficulty raising capital, which are shown by the high capital asset ratio and low return on equity. This is likely due to the subsidisation of the MFIs

operations, which include artificially lowering interest rates. The dependency of subsidies is most visible in their low OSS measure. They have difficulty covering their expenses with revenue, which contributes to their inability to become sustainable.

The size specific deficiencies are not going to be considered in the policy options, however, they do deserve mentioning. In terms of efficiency, the small MFIs have a high operating expense/loan portfolio ratio, which can also be explained by the subsidy they receive. Subsidies distort business behaviour inducing MFIs to provide high cost loans they otherwise would not provide. In addition, the performance management varies for small MFIs with respect to having a board of directors. For VBSP, the primary deficiency is its inability to provide saving services. It does not offer depositing services, which severely inhibit its ability to become sustainable. The subsidy it receives is a disincentive to provide deposit services because the subsidy is targeting credit.

The summary of the entire analysis is as follows: The common indicators in sustainable MFIs are good financial performance, sound performance management and good regulatory environment. Furthermore, when comparing these common indicators to subsidised MFIs, they suffer from poor financial performance, more specifically profitability and self-sufficiency. The next section validates these findings with a survey.

6.2 Secondary Methodology

The secondary methodology is based on a survey conducted by the Centre for the Study of Financial Innovation (CSFI), which is a non-profit think tank established to look at future developments in the international financial field. The survey is titled, “Microfinance Banana Skins 2008: Risks in a Booming Industry” and is based on 305 responses from microfinance regulators, observers, analysts, investors and practitioners. Observers consist of aid officials, academics, accountants and lawyers. Analysts include rating agencies, investment analysts and

those who compile statistical information on microfinance. The survey has three parts. In part one, the respondents were asked to put in their own words their main concerns about the microfinance sector for the next 2 to 3 years. In the second part, they were asked to rank a list of potential risks both by severity and if they are rising or falling. In the last section, the respondents were asked to assess the degree to which MFIs are prepared to handle some specific risks.

The survey provides the top 29 biggest risks faced by MFIs. My analysis shows that the important characteristics are strong financial performance, good performance management and stable regulatory environment. However, the major deficiency between the sustainable MFIs and the subsidised MFIs is the financial performance. Keeping in mind that some risks listed in the survey are closely related to each other and can be considered under the same broad category in my study, the survey results support my case study findings. In the top 10 risks, number four, five and six are cost control, staffing and interest rates. Therefore, financial and problems are mentioned in the top 10 risks, which supports the case study findings.

To summarise, based on the two methodologies, sustainable MFIs have good financial performance, good performance management and operate in a regulated environment. On the other hand, subsidised MFIs are lacking in their financial performance, specifically in terms of profitability and self-sufficiency. As a result, I use the deficiency in financial performance to design policy options for improving the sustainability of MFIs.

7: Policy Goals, Options and Criteria

This section provides both short-term and long-term policy goals. The short-term goal is to gradually reduce the dependency of MFIs on subsidies while improving or maintaining financial performance. The time horizon for this goal is three to five years. There needs to be recognition by the MFIs that receiving operational subsidies leads to inefficient and unsustainable outcomes. The long-term objective is to have complete independence from any form of subsidies, which requires a shift in reducing subsidy dependency without compromising the overall operation of the MFI.

Since the case study analysis reveals that dependency on subsidies severely reduces profitability and self-sufficiency, the policy options focus on achieving the short-term objective. Boosting the financial performance is likely to increase the likelihood of sustainability for the MFI and enhance the possibility of complete independence from subsidies. The policy options include the status quo and three new options, which can be implemented immediately.

7.1 Policy Options

The following sub-sections describe the policy options used to achieve the short-term policy goal.

7.1.1 Policy Option #1 – Status Quo

The status quo is the current approach that is giving MFIs lump sum, per-unit, interest rate or in-kind subsidies. Under the status quo, MFIs do not have an incentive to reduce their subsidy dependency, which restricts their ability to become sustainable. This is because the majority of the subsidies given do not have a time limit and require little or no accountability on

the part of the MFI or the donor. Therefore, the status quo is not sustainable and is not a viable option.

7.1.2 Policy Option #2 – Removing Operational Subsidies and Shifting to "Smart Subsidies"

The case study analysis reveals operational subsidies lead to inefficiency and poor financial performance. This option involves removing any subsidisation of the MFIs operations and a shift to "smart subsidies." Smart subsidies are an option advocated by Morduch (2005), which puts emphasis on transparency, rules and time limits. Transparency refers to clear identification of the areas within MFIs that are subsidised. Rules entail enforcing constraints on what can be subsidised and time limits refers to restricting the time horizon of a given subsidy.

The specific type of subsidy advocated in this study is to provide training to the MFI staff. This involves the donor agency providing the staff with knowledge in all aspects of the microfinance industry, including provisions of loans, deposits and assessment of risk. In addition, training in new technology such as specific software programmes is essential. This satisfies being transparent and rule-bound because it is a subsidy to a specific area and can only be used for training. In addition, there is a time limit to how many times and for how long the donor provides training to the staff.

This policy is relevant for this study because the subsidised MFIs have a low financial performance, specifically with respect to profitability and self-sufficiency. Providing training to MFI staff can increase professionalism and the quality of microfinance services and products offered to clients (Helms, 2006). This will attract more business from clients and potential investors and at the same time increase the efficiency in the provision of services. Shifting the operational subsidies to training subsidies can also ease the transition from being subsidy dependent, to becoming sustainable.

7.1.3 Policy Option #3 – Establishing Apex Organisations as a Central Provider of Services for Individual MFIs

Apex organisations are defined as wholesale or second-tier mechanisms that lend and offer non-financial assistance to retailing MFIs (Navajas and Schreiner, 1998; Hardy et al., 2002; Jones, 2006). The reason why they are considered second-tier is because they act as an intermediary between the donors and the MFIs. Apex organisations can be created in various forms, however, this policy option advocates for a non-government apex, which is predominantly funded by outside donors.

Apex organisations perform two functions: 1) a financial intermediary between donors, governments and MFIs and 2) create or develop the microfinance sector (Navajas and Schreiner, 1998). With respect to the first function, the apex organisation obtains grants from donors and governments and distributes them to individual MFIs. The apex organisation has the responsibility of monitoring and supervising where subsidies go in the MFI and they report back to the donors. This policy requires a fixed budget rule for the apex organisation forcing it to remain disciplined in providing assistance. In terms of the second function, the apex organisation can use grants from donors and provide technical assistance to individual MFIs or groups of MFIs. This includes offering training for staff, management training and providing physical capital such as computers and desks. As a result, the MFI can increase its productivity, lower its fixed costs and increase its revenues, which will reduce the dependency on future subsidies.

7.1.4 Policy Option #4 – Auctioning Subsidies through a Tender Process

This policy alternative entails providing subsidies to MFIs through an auction. It has been used in Chile since 1992 where the government created an agency to oversee the disbursement of loans from banks to MFIs (Merino, 2007; Hardy et al, 2002). The MFI succeeding in obtaining a loan must meet specific conditions, which can be flexible or strict. For this policy option, flexible criteria are advocated because more participants are likely to enter into the auction stimulating

competition. This helps ensure the MFI that values the subsidy the most will receive it. In addition, it removes MFIs that are inefficient.

The type of auction in this option is different than a conventional bidding process. To apply for a subsidy under this alternative, the MFI must compete in a "tender process" (Merino, 2007, p. 200). This requires MFIs wishing to obtain a subsidy to meet specific criteria. In this case the MFIs who show that they are the most efficient in providing loans are successful in the bidding process. The definition of efficiency can vary, however, in Chile it is the MFI with the lowest overhead cost for every credit operation (Merino, 2007). This implies the most efficient MFI requires the smallest subsidy. The MFIs competing in the tender process must submit information to the government agency revealing their cost per loan and the amount of subsidy required to cover their shortfall. The government agency then awards the subsidy to the MFIs with the lowest overhead cost per loan, which essentially is the MFI needing the smallest subsidy. Through time, the amount of subsidies provided by the government agency in theory should gradually decline as MFIs bidding for a subsidy will strive to become more efficient and reduce their need for subsidies. The purpose of the tender process is to increase competition between MFIs and ensure fiscal resources go to the most efficient financial institution.

The subsidy is used for the provision of loans and is given after the loans have been distributed to the clients. This minimises distortions because the subsidy is concentrated on lowering the transaction cost in providing loans. In addition, there is a limit to the number of auctions. In the case of Chile, a MFI cannot receive a subsidy more than twice annually, which reduces its subsidy dependency. Also the gradual decline in the amount of subsidies given in Chile demonstrates the efficiency of the option.

7.2 Criteria for Measurement

This section provides a detailed description of the criteria and measures for the evaluation of policy options. An overall score is tabulated with an ensuing recommendation of the dominant policy. I begin with the description of the criteria, followed by the evaluation of each policy option.

Table 7 provides a summary of the criteria and measures used in the policy analysis. For each criterion I determine a measure with benchmarks relating to all index values. The index values range from 3 being the highest to 1 being the lowest and the policy's score is based on their performance in the criteria using these index values.

Table 6: Evaluation Criteria

Criterion		Definition	Measurement	Index Value
Effectiveness	Size of outreach	Extent to which the MFI increase its scale	The average annual percentage change in number of clients. This is determined by the case studies.	High (3) -- ≥5% Moderate (2) -- 0-4% Low (1) -- <0%
	Financial Performance	Ability of the MFI to increase or maintain its financial performance	The average annual return on assets. Data for the measure is determined through the case studies.	High (3) -- ≥2% Moderate (2) -- 0-1% Low (1) -- <0%
Cost		Monetary costs associated with the policy alternative	Annual operating cost per borrower in US dollars. Measures determined through case studies.	High (3) -- ≤$64 Moderate (2) -- $65-$191 Low (1) -- >$192
Stakeholder Acceptability		Likelihood of the alternative to be accepted by stakeholders	The number of stakeholders who advocate the policy option compared to the opposition indicated by the literature review. The stakeholders include 1) MFIs 2) donors 3) clients and potential clients 4) Ministry of Finance or Central Bank 5) existing commercial banks	High (3) -- 5 Moderate (2) -- 3-4 Low (1) -- ≤2
Institutional Coordination		Complexity of implementation and administration	Number of institutional actors involved in the implementation of the policy option. The actors include 1) the MFIs 2) donors 3) Ministry of Finance or Central Bank	High (3) -- 1 actor Moderate (2) -- 2 actors Low (1) -- 3 actors

Effectiveness: The effectiveness of the policies is assessed in two ways: 1) the expected increase in scale of the MFIs, with respect to clients, and 2) the expected increase in MFI's financial performance. The most effective policy is one that encourages the largest increase in scale as well as the largest increase in the financial performance. Scale is measured by the average annual percentage change in clients and the financial performance is measured by the average annual return on assets from the case studies. The range of growth rates in clients from the case studies determines the benchmark. The resulting growth rates are between 4.3% and 33.5%. However, to take into account the time it takes for a policy option to increase the growth

rate in clients, I use the lower bound as the benchmark for a moderate ranking policy. As a result, a good policy has percentage change of 5% or higher, a moderate policy has a range between 0 and 4% and a low policy has a negative percentage change.

The benchmark for financial performance is calculated in a similar method. I average the return on assets in the four cases for all the years available, which range from 1.3% to 6.0%. To take into account the time it takes to improve the financial performance, I use the lower bound as the benchmark for a moderate ranking policy. Therefore, a moderate policy has a return on assets ranging from 0 to 1%, a good policy has a return on assets of greater than or equal to 2% and a low policy has a negative return on assets.

Cost: The cost is the monetary costs associated with the policy option. For each policy alternative, there are start up costs and operating costs per borrower. In the evaluation, I only consider operating costs per borrower because it provides insight into the ability of the policy option to be sustained over the long-term. However, it is important to mention the fixed costs for each alternative as it may be a barrier to implementation. Developing countries, donors and MFIs face strict budget constraints, which change the viability of an option. As a result, relatively expensive policy options will likely be impractical. The benchmarks are determined by using the range in the cost per borrower from the successful cases, which is between US $65.3 and US $190.6. Therefore, I use this range as a proxy for a moderate policy. A good policy has a cost of less than or equal to US $64 per borrower and a low ranking policy has a cost per borrower of US $192 or higher.

Stakeholder Acceptability: There are various stakeholders that have an interest in the policies to reach the short-term and long-term goals. The expected response from each stakeholder is important in the viability of an option to be implemented. The following stakeholders are considered in the analysis: 1) MFIs 2) donors 3) the Central Bank and Ministry of Finance of the particular country 4) clients and potential clients 5) existing commercial banks.

A strong policy option is accepted by all stakeholders, a medium policy is one that has agreement between three or four stakeholders and a weak policy is one that is accepted by two or less. This is measured by the relevant literature.

Institutional Coordination: This criterion is important in the implementation of the policy. The degree of coordination between the relevant actors in implementing the alternative must be assessed. The relevant stakeholders in this case are: 1) the donors 2) the MFIs, and 3) the Central bank or Ministry of Finance in the particular country. An option that requires a high degree of coordination between these three is relatively more difficult to implement due to conflicts and competing interests. On the other hand, an option that requires relatively small coordination is less difficult to implement. Therefore, a high scoring alternative requires only one actor, a moderate score has two actors coordinating and a low score requires all three actors coordinating. The scoring for this criterion is established through the literature.

It is important to note that I did not include equity as a criterion. The reason for its exclusion is that the MFIs I analyse in this study provide microfinance services to the same relative income group, as discussed in Section 2. Therefore, the policies will have similar effects on the clients. NGOs predominately provide services to the destitute, however, this group is beyond the scope of this study. The next section provides the policy evaluation for each alternative.

8: Policy Evaluation

This section provides the policy evaluation of each option. I do not include the status quo because of the substantial evidence showing it does not lead to sustainable MFIs. For each criterion there is a ranking of low, medium and high which translates into numerical values of one, two and three. Each criterion is given equal weight in the analysis. Table 7 provides a summary of the evaluation.

Table 7: Evaluation Summary

Criterion		**Policy Option #1 Smart Subsidies**	**Policy Option #2 Apex Organisations**	**Policy Option #3 Auction Subsidies**
Effectiveness	Size of outreach	Growth rate of clients is 10.4% (3) High	Growth rate of clients is 41.8%. (3) High	Growth rate in clients is 24% (3) High
	Financial Performance	Return on assets for the MFIs involved in the training program is 0.05% (2) Moderate	Return on assets for MFIs in the apex organization is -61.7%. (1) Low	The return on assets for the MFIs participating in the auctions is 2.9% (3) High
	Average Score	(2.5) Moderate-High	(2) Moderate	(3) High
Cost		Cost per borrower is approximately US $114.43. (2) Moderate	Fixed cost of US $28.5 million. The operating cost per borrower is US $91.35. (2) Moderate	Fixed cost of approximately US $1.9 million, however, cost per borrower is approximately US $1.71. (3) High
Stakeholder Acceptability		Relatively popular across all actors. Requires more accountability for existing MFIs but in the long run is more beneficial. (3) High	Requires support from donors and government, which may be problematic. MFIs accept this option. In reality often strong tensions between the stakeholders. (2) Moderate	Some MFIs may be shut out of process, because they are not able to compete. However, this option is acceptable across most stakeholders. (2) Moderate
Institutional Coordination		There is only a bilateral relationship between the donors and the MFI (2) Moderate	High coordination needed between donors and Central Bank or Ministry of Finance. (2) Moderate	Requires coordination between the MFI, donors and the Central Bank or Ministry of Finance. (1) Low
Total Score		**9.5/12**	**8/12**	**9/12**

8.1 Evaluation of Policy Option #1: Removing Operational Subsidies and Shifting to "Smart Subsidies"

Effectiveness: The overall effectiveness score is 2.5, which is between moderate and high. With respect to the size of outreach component, this option scored high. I use a donor called PlaNet Finance as the basis for this ranking. PlaNet Finance provides training and technical assistance to numerous MFIs in various regions, however, I use one of its training programs in Senegal from 2006 to 2007 as a proxy for the effectiveness of this policy option. The training program is called "Training of Microentrepreneurs for the Computer Tool, Senegal." The project involves the MFI in the design of their training method and PlaNet Finance provides the infrastructure to the MFI staff to complete its training through software programs and training facilities. This program is used in this study because of its clear measures of success in outreach and effectiveness in providing technical assistance to the MFIs. Approximately 25 staff in 12 MFIs were trained in this program. However, there are only four MFIs with data available used to calculate the growth rate in clients.[18] The data is taken from the Microfinance Information Exchange database and the result is an average annual growth of 10.4%, which is a score of 3. I use the same MFIs to measure the financial performance from the time they were involved in the training program. The average return on assets at the end of 2007 is 0.05%, which is a score of 2.

Cost: This alternative is given a moderate ranking for the cost criterion. The annual cost per client is US $114.43.[19] This is based on the same program used for the effectiveness criterion. The overall operating cost of the training program is US $51,540 and 450 clients benefited from it. Training programs for MFIs are costly due to ongoing operating costs in training the MFI staff. In addition, there are significant expenses within training programs such as providing capital in the form of computers and space. In this case, PlaNet Finance provides training to the MFIs who in turn train their clients in Microsoft software programs.

[18] The four MFIs are U-IMCEC, Caurie Microfinance, DJOMEC and RECEC-FD.

[19] The currency provided was in Euros, so I converted EUR 40,000 to US $51,540.50 at USD 1 = EUR 0.77609 (February 12, 2009).

Stakeholder Acceptability: The stakeholders in this study are receptive to the notion of "smart subsidies", which is why it scored high in this criterion. This is based on literature and elite interviews. Morduch (2005) argues smart donor investment into a MFI signals a belief in the strength of the institution. This can crowd in investment, which makes the MFI better off and increase the returns to the donors and government (Morduch, 2005). In addition, donors can see the impacts from their investment (Interview #2, 2009).[20] Therefore, donors and the Ministry of Finance are likely to accept this policy option. Subsidies into training the staff are embraced by MFIs who want to boost their productivity. However, one important concern is that once the donor trains the worker, they may leave to commercial banks, which will hurt the MFI (Interview #1, 2009).[21] This can be mitigated through contracts between the MFI and its staff that are trained, which require the trainees to remain in the MFI for a certain period of time. Current clients and potential clients accept this policy option because they benefit from staff that is more knowledgeable in microfinance and they are more likely to receive services that directly benefit them. Lastly, existing and commercial banks are likely to accept this policy option because they can benefit from newly trained staff coming from the MFI if there is no contract. In addition, there may be positive spillover effects that all financial institutions in the region may obtain through newly developed training practices provided by the donor. In the long run this option increases the sustainability for MFI because it reduces subsidy dependency. This will benefit the clients by increasing their income, and can benefit existing banks by attracting more clients.

Institutional Coordination: The smart subsidies option receives a ranking of moderate with respect to institutional coordination. The only coordination involves the donor and the MFI. The majority of the responsibility rests with the donor because it is required to create a training program and administer it accordingly. The MFI itself has a small responsibility in the coordination of this policy option. The staff is required to attend training sessions but the donor is

[20] Interview took place on March 2, 2009. Interviewee wanted to remain anonymous.
[21] Interview with Francois Xavier Hay from Uplift India Association took place on February 9, 2009.

responsible for the overall operation of the program. This reduces the institutional coordination needed because the donor can provide any type of training it sees fit.

Overall this option scores 9.5 out of 12. It is a relatively effective alternative with moderate cost, high stakeholder acceptability and minimal institutional coordination.

8.2 Evaluation of Policy Option #2: Establishing Apex Organisations as a Central Provider of Services for Individual MFIs

Effectiveness: The establishment of an apex organisation has a moderate effectiveness ranking overall. To obtain this score, I use Khula Enterprise Ltd, which is a South African apex organisation. With respect to the size of outreach, this option scores high with a growth rate in clients of 41.8% annually. I calculate the growth rate by using the number of borrowers and depositors from all of the MFIs that receive funding from Khula Enterprise for all the years available.[22]

For the financial performance component, I calculate the average return on assets across the same MFIs. The score achieved is low, with an average return on assets of –61.7%. Although this is a substantially low return on assets, it is important to note that it is a biased measure because Khula Enterprise predominantly provides funding to NGOs, which usually have low profitability ratios. Therefore, one cannot argue that all MFIs that receive assistance from apex organisations have poor financial performances.

Cost: This policy alternative is given a rank of moderate with respect to cost. The operating expense per client is US $91.35.[23] The cost is calculated by dividing Khula Enterprise's overall operating expense for 2007 by the number of clients it serves. It is important to note that start up costs of an apex can be as high as US $28.5 million (Navajas and Schreiner, 1998), which

[22] The five MFIs are ARTPAC, Beehive EDC, Ekukhanyeni, Siyakhula and Tiisha Finance Enterprise with data available on the MIX website from 2000 to 2004.

[23] USD 1 = ZAR 9.90488 (February 12, 2009). The total operating cost for Khula Enterprise is US $10,048,477 for 2007. The total number of clients served is 110,000 therefore (10,048,477/110,000 = 91.35).

increases the total cost of the option. However, I am only concerned with the operating cost per client because start up costs are often provided by donors or government and not the MFI, which does not affect its annual business operations.

Stakeholder Acceptability: In terms of stakeholder acceptability this option is ranked moderate. Apex organisations are seen as an attractive option for donors and the Ministry of Finance because they provide a simple way in promoting the microfinance sector (Jones, 2006). It allows a third party to provide assistance directly to MFIs, which can reduce costs for both donors and governments. In theory MFIs welcome the idea of apexes because it is relatively easy to receive assistance. However, as Navajas and Schreiner (1998) point out, non-government apexes often provide assistance to already financially sustainable MFIs because the apex receives a higher return on their investments. Nonetheless, if there are a sufficient number of MFIs in the region, they will likely accept the apex option because it will be relatively easy to boost their microfinance activity due to economies of scale. Clients and potential clients are not directly affected by this option, however, if the MFI benefits from the apex this will likely help the clientele base. Lastly, existing banks will likely not accept this policy option. Navajas and Schreiner (1998) point out that existing banks oppose apexes because of the substantial equity given to them by donors and to some extent government. Existing banks are often afraid if the apex itself creates a bank, it will compete with them and have an unfair advantage given the large amount of donated equity.

Institutional Coordination: This option receives a moderate ranking with respect to institutional coordination. This is because if an apex organisation is to work well, it requires close coordination between donors and government. MFIs play a minimal role in the implementation of apex organisations. The incentive of creating a non-government apex is that they usually receive more donor funding because of minimal bureaucracy, however, this can cause tensions and conflicting mandates between the donors and the Ministry of Finance or Central Bank. Navajas

and Schreiner (1998) note non-government apexes that receive substantial funds from donors usually have governments intervening trying to use the funds for their own purposes. This can cause conflict between the donors and the government, who are both trying to pursue their own interests. As a result, a well functioning apex requires close coordination between donors and government to make sure they have the same agenda.

Overall this policy scores 8 out of 12. It achieves a moderate score in each of the four criteria. In theory this is a plausible option, however, in practise establishing apex organisations has not been an effective strategy in reducing subsidy dependency.

8.3 Evaluation of Policy Option #3: Auctioning Subsidies through a Tender Process

Effectiveness: This policy alternative is given an overall effectiveness ranking of 2.5, which is moderate to high. With respect to the size of outreach, auctioning subsidies receives a high score. To obtain this ranking I use the number of borrowers and depositors in Banco Estada and Bandesarrollo from 2003 to 2007. These are the MFIs involved in the subsidy auction for which data is available. The result is an annual growth rate of 24%.

In terms of the financial performance the option receives a moderate ranking. To calculate this score I average the return on assets for the two MFIs, which yield 2.9% annually. The promising outreach and return on assets is indicative of the auction process. Since the banks with the lowest cost per loan receive the subsidies, it is not surprising they have a high return on assets and a large outreach. It is important to note these are large-scale banks, which allow them to operate with little subsidies. The effectiveness of this option is limited to the size of the MFI because smaller MFIs tend to have higher costs per loan.

Cost: Auctioning subsidies receive a high ranking with respect to cost. The operating cost per client is approximately US $1.71. I use the Chilean auctioning system as a proxy for the

cost. The maximum amount of subsidy provided to a bidding MFI is US $40,000 (Merino, 2007).[24] This can only be given twice a year and in the case of Chile four to six banks usually bid. Therefore, the maximum amount of subsidies provided to a single MFI is US $80,000 per year. Since this is spread across six possible banks the total subsidies are US $480,000. To obtain the cost per client, I calculate the sum of the clients in Banco Estada and Bandesarrollo and divide it by the total subsidies available, which is US $1.71 per borrower. It is important to note there is also a fixed cost in establishing an auction system. According to a report by CEPAL, the Technical Cooperation Service (SERCOTEC) spent approximately US $1.9 million in 1992 setting up the auction process in Chile.[25] It is not surprising given the low cost of this option because the auction takes place only twice a year, with minimal supervision required by the government (Christen and Rosenberg, 2000).

Stakeholder Acceptability: In terms of stakeholder acceptability, auctioning subsidies receives a moderate ranking. The rationale behind the ranking is that some MFIs will be shut out of the auction process because of their lack of efficiency in providing loans. These may be MFIs that are in dire need of subsidies to remain in operation, however, they will not receive them due to their inefficiency. As a result, existing clients of these MFIs will be worse off. MFIs that have the ability to bid on the subsidies will accept this policy option. It lowers their transaction costs, which is a major impediment in lending operations. It also forces them to become more efficient and sustainable in the long run due to the reduction in subsidy dependency. It is important to note that potential clients will likely accept this option because the subsidies will be going to those MFIs that are likely to remain in business in the long run. This will allow potential clients to receive microfinance services from an efficient MFI. Donors and government will likely accept

[24] It is important to note that this maximum is for non-banks. In the case of Chile there is no maximum or minimum amount of subsidies for banks. Therefore, due to the lack of data availability non-bank data is used.

[25] Total spent in promoting microenterprises in 1993 was CLP 5,774,000. This is converted to USD with exchange rate of USD 1= CLP 497.701.

this option because it is low cost and it is efficient in providing subsidies. Donors will receive a higher return on their investments and they can also shift their focus on other areas to boost microfinance. Although the government has to set up an agency to oversee the auction, the cost is minimal. Using Chile as the exemplar case for auctioning subsidies, the microfinance market has benefited greatly because more clients have access to financial services. Merino (2007) notes in 2004 35.5% of all micro entrepreneurs obtain a loan through the auction process. This is up from 2000 when only 20% of microentrepreneurs were bankable. Lastly, existing banks are likely to accept this program because clients who have passed through the Chilean auctioning process are now effectively considered bank clients (Merino, 2007, p 207).

Institutional Coordination: Auctioning subsidies receive a low ranking with respect to institutional coordination. All three actors require coordination for the policy option to work. In this option the government establishes a body that supervises and conducts the auction for the MFIs. The donor provides the subsidies that the MFIs bid on, which requires organisation between the Ministry of Finance or Central Bank and the donors. In addition, the MFIs are required to report on their efficiency to the supervising body. Although this option takes place only twice annually, all three actors have to coordinate their activities in order for the policy option to be implemented successfully.

This policy option scores 9 out of 12. It is a very effective and low cost alternative. In addition, auctioning subsidies receives a moderate score with respect to stakeholder acceptability. The major drawback of this option is the high institutional coordination required for implementation.

8.4 Policy Analysis Discussion

The policy evaluation provides two high scoring alternatives: 1) shifting to “smart subsidies,” more specifically providing training subsidies and 2) auctioning subsidies through a

tender process. A half-point separates both options, which warrants further examination to determine the superior alternative. Although auctioning subsidies has worked well in Chile, this will likely not work in other jurisdictions that have a number of existing large MFIs and small scale MFIs. Chile is a special case because there are under ten MFIs and they are large-scale banks. Therefore, it is difficult to determine if auctioning subsidies will work across other jurisdictions. Furthermore, financial institutions providing microfinance services require more than just credit to offer clients. As mentioned in Section 2.1, clients demand deposit services, and auctioning subsidies only addresses the credit side of microfinance and neglects savings. The next section provides the recommendation, which should be pursued jointly by MFIs, donors and the Ministry of Finance or Central Bank.

9: Policy Recommendation

The policy recommendation is to implement "smart subsidies" more specifically subsidies to train MFIs staff. This option is the highest ranking based on the evaluation. This option ranks high with respect to effectiveness and stakeholder acceptability. In addition, it scores the highest in the institutional coordination criteria compared to the other options. Although providing onsite training to MFIs is the most costly, the cost per client is not high enough to reject this option. It is important to note that given the vast differences in types of training, some are more costly than others, which is why some training programs will be relatively cheaper than other options.

The primary advantage of this policy is that it is the most effective in reaching both the short-term and long-term policy goal. This is because the operation is not being subsidised and it stimulates capacity building. Furthermore, training increases the sustainability for MFIs because the staff becomes more knowledgeable at the country, regional and global level. "Smart subsidies" will likely be beneficial to the largest number of MFIs because it requires less institutional coordination than the apex option and it does not exclude MFIs like the auction alternative.

MFIs and donors should investigate this option to establish and maintain sustainable MFIs. Furthermore, governments should create a regulatory framework so this option can be successful. Each training program should be unique given the vast differences between types of MFIs across regions. In any case there should be a clear mandate and measures to assess the impact of the training on MFI staff and there should be accountability on both parties to ensure adequate training is being provided.

10: Conclusion

The importance of microfinance and the sustainability of MFIs in developing countries are exhibited through literature and substantial evidence in Latin America and Southeast Asia. In this study I use case studies to analyse the effect of subsidies on the sustainability MFIs. The results indicate subsidised MFIs have significantly low financial performance, specifically with respect to profitability and self-sufficiency. Furthermore, the secondary survey reveals financial problems as an imminent risk to MFIs in developing countries. These findings along with relevant literature provide a framework for potential policies to address the lack of financial performance in subsidised MFIs. The policy options include: (i) removing operational subsidies and shifting to "smart subsidies" (ii) establishing apex organisations as a central provider of services for MFIs and (iii) auctioning subsidies through a tender process. These policies are based on the results from the case study analysis and on their ability to achieve the long-term policy goal, which is complete independence from subsidies.

The policy evaluation shows shifting to "smart subsidies" more specifically subsidising training of MFI staff is the recommended option. Although it is the most costly option compared to the other two options, it has a high effectiveness and stakeholder acceptability rating. Furthermore, there is limited institutional coordination required, which makes the implementation of the policy relatively easy. Most importantly "smart subsidies" is likely to achieve both the short-term and long-term goals by initially reducing subsidy dependency and moving to complete independence. Donors, MFIs and governments should seriously consider this option if microfinance is to flourish in the future.

This study has shortcomings that need to be addressed. When compiling the data for the case studies, concessions had to be made due to lack of information. Two particular measures for

sustainability are omitted, financial self-sufficiency measure and subsidy dependency index because anonymity of the data for MFIs were required. These are cited as important sustainability indicators for MFIs (Crabb, 2007; Yaron and Manos, 2007). In addition, the findings cannot be generalised across all regions. Problems in microfinance are complex and more region specific research needs to be accomplished for policies to have a meaningful and effective impact. Lastly, more attention is needed on the impact of regulations on the sustainability of MFIs, specifically prudential and non-prudential regulation.[26] There is less emphasis on regulations in this study because of the difficulties in obtaining data. Therefore, further research is needed to assess the specific impact regulations have on the sustainability of MFIs.

[26] Prudential regulation is defined as a set of clear rules governing the intermediation of financial resources between savers and investors (see Ledgerwood et al., 2006). Furthermore, prudential regulation focuses on sustainability of the financial system as a whole. Non-prudential rules encompass regulations about the institution's business operations, and as such do not have the ultimate aim of protecting the entire financial system.

Appendices

Appendix A

Table A.1: Summary of findings that exceed or equal benchmarks

Indicator	BancoSol	BRI	COAC San Jose	Valiant RB
1. Outreach	4/5	2/5	2/5	4/5
2. Financial Performance	11/13	10/13	11/13	8/13
3. Performance Management	2/2	2/2	2/2	2/2
4. Regulatory Environment	1/1	1/1	1/1	1/1
5. Secondary Variables	2/2	2/2	2/2	2/2
Total	20/23	17/23	18/23	17/23

Table A.2: Common Indicators for Successful Small MFIs and Large MFIs

Indicators	Small MFIs	Large MFIs
Outreach		
Number of Active Borrowers	No	Yes
Number of Savers	Yes	Yes
Depth of Outreach (%)	Indeterminate	No
Growth of Loan Accounts (%)	Indeterminate	Indeterminate
Growth of Deposit Accounts (%)	Indeterminate	Indeterminate
Financial Performance		
Profitability		
Return on Assets (%)	Yes	Yes
Return on Equity (%)	Yes	Yes
Profit Margin (%)	Yes	Yes
Self Sufficiency		
Operational Self-Sufficiency (%)	Yes	Yes
Capital/Asset Ratio (%)	Yes	Yes
Portfolio Quality and Risk		
Portfolio at Risk > 30 days (%)	Indeterminate	Indeterminate
Write-off Ratio (%)	Indeterminate	Indeterminate
Loan Loss Reserve Ratio (%)	Indeterminate	Indeterminate
Risk Coverage Ratio (%)	Indeterminate	Indeterminate
Efficiency		
Operating Expense/Loan Portfolio (%)	Yes	Yes
Cost per Borrower (US$)	No	Indeterminate
Borrower per Staff Member	Indeterminate	Yes
Savers per Staff Member	Yes	Yes
Performance Management		
Board of Directors	Yes	Yes
Annual Reports	Yes	Yes
Regulatory Environment		
MFI Regulations	Yes	Yes
Secondary Variables		
Number of Branches	No	Yes
Years in Operation	Yes	Yes
Type of Institution	-	-

Appendix B

Table B.1: Subsidised Cases

Microfinance Institution	Region	Size	Subsidised
Vietnam Bank for Social Policies	Southeast Asia	Large	Yes
COAC Maquita Cushunchic	Latin America/Caribbean	Small	Yes
PNG Microfinance Ltd	Southeast Asia	Small	Yes
FIS	Latin America/Caribbean	Small	Yes
Crezcamos	Latin America/Caribbean	Small	Yes
COAC Sac Aiet	Latin America/Caribbean	Small	Yes
PADECOMSM	Latin America/Caribbean	Small	Yes
BPR Pinang Artha	Southeast Asia	Small	Yes
Cooperativa Juan XXIII	Latin America/Caribbean	Small	Yes

Table B.2: Results of the Unsuccessful Cases

Indicators	**Small MFIs**	**Vietnam Bank for Social Policies**
Outreach		
Number of Active Borrowers	3,857	5,648,140
Number of Savers	20,844	0
Depth of Outreach (%)	39.65%	35.47%
Growth of Loan Accounts (%)	64.75%	14.35%
Growth of Deposit Accounts (%)	20.55%	0.00%
Financial Performance		
Profitability		
Return on Assets (%)	-3.77%	-2.92%
Return on Equity (%)	-21.35%	-10.27%
Profit Margin (%)	-14.94%	-41.47%
Self Sufficiency		
Operational Self-Sufficiency (%)	95.35%	70.69%
Capital/Asset Ratio (%)	17.33%	27.79%
Portfolio Quality and Risk		
Portfolio at Risk > 30 days (%)	6.72%	1.73%
Write-off Ratio (%)	2.19%	0.01%
Loan Loss Reserve Ratio (%)	4.29%	0.28%
Risk Coverage Ratio (%)	91.39%	15.97%
Efficiency		
Operating Expense/Loan Portfolio (%)	29.90%	4.29%
Cost per Borrower (US$)	212.7	13.8
Borrower per Staff Member	122	753
Savers per Staff Member	318	0
Performance Management		
Board of Directors	Varies	Yes
Annual Reports	Yes	Yes
Regulatory Environment		
MFI Regulations	Varies	Yes
Secondary Variables		
Number of Branches	Varies	60
Years in Operation	15	13
Type of Institution	Varies	Bank

Bibliography

Balkenhol, B. (2007). "Policy Implications." In B. Balkenhol (Eds.), *Microfinance and Public Policy: Outreach, Performance and Efficiency* (pp. 211-229). Hampshire, England: Palgrave Macmillan.

BancoSol. (2007). *Annual Report 2007*. La Paz, Bolivia.

Bank of Indonesia. (2001). "Legislation, Regulation and Supervision of Microfinance Institutions in Indonesia." Jakarta, Indonesia.

Brander, J. (2006). *Government Policy Towards Business* (4th ed). Mississauga: John Wiley and Sons.

Centre for the Study of Financial Innovation. (2008). "Microfinance Banana Skins 2008: Risks in a Booming Industry." New York, N.Y.

Christen, R.B and R. Rosenberg. (2000). "The Rush to Regulate: Legal Frameworks for Microfinance." *CGAP*. 1-44.

Crabb, P.R. (2007). "The Success of Microfinance: What Really Sustains this Poverty Relief Effort." *Northwest Nazarene University School of Business*.

Duflo, A. (2005). "ICICI Banks the Poor in India Demonstrates That Serving Low-Income Segments Is Profitable." *Microfinance Matters*. Vol. 17. 13-17.

Gallardo, J. (2001). "A Framework for Regulating Microfinance Institutions: The Experience of Ghana and the Philippines." *World Bank*. Washington, D.C.

Hardy, C. V, D, Prokopenko, and P Harden. (2002). "Microfinance and Public Policy." IMF Working Paper no. WP/02/159. *International Monetary Fund*. Washington, D.C.

Helms, B. (2006). "Access for all: Building Inclusive Financial Systems." *Consultative Group to Assist the Poorest*. Washington D.C.

Hudon, H. and D. Traca. (2008). "On the Efficiency Effects of Subsidies in Microfinance: An Empirical Inquiry," CEB Working Paper no. 06/020. Centre Emile Bernheim: Research Institute in Management Science. Brussels, Belgium.

International Monetary Fund. (2008). "International Monetary Fund Database." http://datacentre2.chass.utoronto.ca/imf/. Washington, D.C.

Jansson, T. (2001). "Microfinance: From Village to Wall Street." *Inter-American Development Bank Sustainable Development Department Micro, Small and Medium Enterprise Division*. Washington D.C.

Jansson, T. (2007). "Performance Indicators for Microfinance Institutions: Technical Guide 3rd Edition." *Inter-American Development Bank*. Washington, D.C.

Jones, A. (2006). "Promotion of a Commercially-Viable Microfinance Sector in Emerging Markets." *Georgetown Journal on Poverty Law & Policy*. Vol. 13. no. 1. 187-218.

Lauer, K. (2008). "Transforming NGO MFIs: Critical Ownership Issues to Consider." Occasional Paper no. 13. *Consultative Group to Assist the Poorest*. Washington, D.C.

Ledgerwood, J. (1999). *Microfinance Handbook: An Institutional and Financial Perspective*. Washington: World Bank.

Ledgerwood, J. et al (2006). *Transforming Microfinance Institutions: Providing Full Financial Services to the Poor*. Washington: World Bank.

Lennon, B. (2007). "Credit Unions." *CGAP*. http://www.microfinancegateway.org/resource_centers/savings/practitioners/_barrylennon.

Maurer, K. (2001). "Agricultural Development Bank Reform: The Case of Unit Banking System of Bank Rakyat Indonesia." *Rural Finance*. Working Paper No. B5. International Fund for Agricultural Development. Washington D.C.

Meager, P. et al. (2006). "Microfinance Regulation in Seven Countries: A Comparative Study." *IRIS Centre*. University of Maryland. College Park, Maryland.

McGuire, P.B. and J.D. Conroy. (2000). "The Microfinance Phenomenon." *Asia-Pacific Review*, Vol 7. no.1, 90-108.

Merino, V.M. (2007). "Auctioning Subsidies: Chile's 'Access to Credit Program." In B. Balkenhol (Eds.), *Microfinance and Public Policy: Outreach, Performance and Efficiency* (pp. 200-208). Hampshire, England: Palgrave Macmillan.

Microfinance Information Exchange. (2008). "2008 MIX Global 100 Composite Ranking." Washington, D.C.

MIX. (2008). "MIX Market Search." http://www.mixmarket.org/en/demand/demand.quick.search.asp

Microfinance Information Exchange. (2007). "MicroBanking Bulletin: 2007 Benchmarks." Washington, D.C.

Morduch, J. (1999). "The Microfinance Promise." *Journal of Economic Literature*. Vol. 38. 1569-1614.

Morduch, J. (1999). "The Role of Subsidies in Microfinance: Evidence from the Grameen Bank." *Journal of Development Economics*. Vol. 60. 229-249.

Morduch, J and B. Aghion. (2005). *Economics of Microfinance*. MIT Press. London, England

Morduch, J. (2005). "Smart Subsidy for Sustainable Microfinance." *Finance for the Poor*. Vol. 6. no. 4. 1-7.

Navajas, S and L. Tejerina. (2006). "Microfinance in Latin America and the Caribbean: How Large is the Market?" *Inter-American Development Bank*. Washington, D.C.

Navajas, S., J. Conning, and C. Gonzalez-Vega (2003). "Lending Technologies, Competition and Consolidation in the Market for Microfinance in Bolivia." *Journal of International Development*. V. 15. 747-770.

Otero, M. (2005). "A Commercial Future for Microfinance: Opportunities and Challenges." *Microfinance Matters*. Vol. 17. 25-29.

Parada, R. P. (2006). "Analysis of the Evolution and Perspective of the Bank of Development in Chile." *Economic Commission for Latin America and the Caribbean (CEPAL)*. Santiagio, Chile.

Pindyck, R. and D. Rubinfeld. (2005). *Microeconomics* (6th ed.). New Jersey: Pearson Prentice Hall.

Rao, C. (2001). "Regulatory and Supervisory Mechanism for MFIs in Bolivia." *National Bank for Agriculture and Rural Development*. Mumbai, India.

Republic of the Philippines. (1992 no. 7353) *Rural Act of 1992*. Metro Manila: July 22.

Robinson, S. M. (2001). The *Microfinance Revolution*. Washington: World Bank.

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

Swibel, M. (2007). "The Top 50 Microfinance Institutions." Forbes Magazine. http://www.forbes.com/2007/12/20/microfinance-philanthropy-credit-biz-cz_ms_1220microfinance_table.html.

Terberger, E. (2003). "Microfinance Institutions in the Development of Financial Markets." *Cepal Review 81*. Santiago, Chile.

Vietnam Bank for Social Policies. (2009). http://www.vbsp.org.vn/en/hoidap_list.php.

Yaron, J. and R. Manos. (2007). "Determining the Self-Sufficiency of Microfinance Institutions." *Savings and Development*. no. 2. 131-160.