ECONOMIC DEVELOPMENT OF SENEGAL: 
THE IMPACT OF MICROFINANCE ON ENTREPRENEURIAL ACTIVITY

By

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Abstract

The recent surge in microfinance institutions has opened the door to the informal sector of developing economies, making financial services available to the poorest of the poor, who were previously considered unworthy. Allowing small and micro enterprises to grow by providing small loans encourages creativity and innovation building a path towards economic growth. Africa’s large informal sector makes microfinance even more essential to the development of the economy as it will minimize inefficiencies that have long prevented economic development. This thesis will take a closer look at the new kind of financial thinking that has led to the creation of microfinance and enabled it to impact economic development in Senegal by increasing entrepreneurial activity.
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Introduction

In 2006 the Nobel Peace prize was awarded to an ambitious economist from Bangladesh that set out with the “modest” goal of eliminating the world’s poverty. Muhammad Yunus shared this recognition with Grameen Bank for what the Nobel Foundation called, “their efforts to create economic and social development from below”.¹ This idea of development from below is contrary to the trickle down theory which has dominated foreign aid strategy in the last century. Despite its success as a way to eliminating debt and stabilizing inflation, the trickle-down ideology has instigated a trend of “Growth without development”² as it is put by Eugene Versluysen, a former financial economist at the World Bank and current freelance consultant on microfinance. Versluysen argues that the trickle-down ideology, which is built on the idea that by supporting productivity for large private companies’ stability and economic growth would eventually result in a “trickling down” of jobs to the bottom, has instead only served to saturated the top half of society with capital, while leaving none to permeate to the bottom (p.22).² Microfinance (MF) quickly became know as an innovative approach, combining banking and humanitarianism that develops from the bottom up. This innovation owes its existence to Yunus’ dedication to fighting poverty in Bangladesh and around the world. Since Yunus founded the Grameen Bank in 1976, microcredit has spread around the world. Consequently, the numbers of Microfinance Institutions (MFI) have risen from 618 in 1997 to 2,572 in 2002 (p. 3).³

The fact that Microfinance is a great step toward reaching out to the poor is the driving force for Yunus’ work, but a debate that has developed since MF came on the scene is whether MF is or is not having an impact on the economic development of the country itself. In Bangladesh, the implementation of MF has reached 5,000,000 more people over the past 11 years, yet this growth is not reflected in the low levels of economic growth reported by the GDP of Bangladesh. In villages where MF is present there is a notable decline in poverty, and small entrepreneurs are accessing capital to start or expand their business. So where is the evidence of this economic progress? Mohammed Yunus provides an answer to those critics that claim MF has no significant impact on economic development in his book *Creating a World without Poverty* arguing that,

“…the answer depends on how you define ‘economic development’…. To me, the essence of development is changing the quality of life of the bottom half of the population. Microcredit turns on the economic engines among the rejected population of society. Once a large number of these tiny engines start working, the stage is set for big things” (56).

Yunus is suggesting that the rewards of microfinance may be more subtle than an economic stimulus package or the millions of dollars of aid received each year from various international sources. MF is a different kind of strategy; one that combines capitalism and humanitarianism to build economic productivity at the bottom of society. His reference to “setting the stage for big things” creates an image of building a strong foundation for the economic development of a country; economic development that has to start with the increase in these “tiny engines” that

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increase entrepreneurial activity and ultimately contribute to the economic development of a country.

However, if microfinance is finally investing in the creativity and entrepreneurial skills of the poor, it would be inefficient to let that creativity remain at the bottom with no avenue for growth and development into larger enterprises. Several recent studies tracking the progress of MF such as the World Bank and MIX market, have found a large disconnect between the growth of small micro-enterprises (SME)s and medium enterprises. Problems of liquidity, adverse selection and regulation prevent the flexibility of credit that a growing business needs in order to reach a higher level of production. Can MF be more successful than previous trends in economic development (such as the trickle down theory) in breaching the gap between the poor and the rich; between the informal sector of micro enterprises and the formal sector to create economic growth?

Economic development as Yunus defines it is not just GNI per capita, GDP or consumption, though all of these things eventually improve when the economy is strong. The focus for this thesis will be on entrepreneurial activity that is facilitated by microfinance and the impacts that this is having on the overall economic development of the Senegal.

Where better to examine the effect of MF than in a nation where the informal sector employs 22%. If all these workers are being left out of the nations economy, that means that a large percentage of intellectual and potential resources are going to waste when they don’t have the capital to turn their creative ideas into reality. Senegal also has some distinctive social, cultural and a business environment that play a role in the development of MF. In analyzing the case of MF in Senegal, I will provide evidence of the economic development that MF can facilitate through entrepreneurial activity, while also pointing out adjustments that must be made to assure

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that MF is not just reaching the poor, but is also including a way to allow movement from the informal sector to the formal sector. Only when this happens will economic development be visible on an international scale.
BACKGROUND

As microfinance has grown in the past couple decades, it must be pointed out that it is not the first form of informal sector lending, nor is it the only current form of lending designated for the poor. Beatriz Armendariz and Jonathan Morduch, in their book, The Economics of Microfinance, call attention to a recent study done by the Institute of Development Policy and Management (IDPM) at the University of Manchester which reveals the diversity of financial services and devices that comprise the “financial diaries” of a single household. They found that “In a sample of just forty-two households…no household used less than four [types of service or devices during the year], and a third of them used more than ten” (pg. 57)\(^7\). Understanding how MF has developed and its precursors provides a more comprehensive understanding of the role MF has in the overall economy. For instance, Credit Cooperatives, similar to the Credit Unions were a prominent form of mutualism that developed in the 18\(^{th}\) century in France. When France colonized in West Africa, this system of group savings and loans came with them. In Senegal today, “about two-thirds of all rural lending is done by credit unions” (p.203).\(^8\) Investigating earlier forms of microloans provides two crucial parts of our study. First it can be used as a trial, revealing the successes or shortcomings of these institutions as they played a role in other developing nations in the past. Secondly, some of these predecessors still play a prominent role in developing countries in which case, their role in the economy could reveal a lot about the nature of savings and credit transactions thus indicating how MF is impacting the economic development in these countries in tandem with other forms of informal lending.


\(^8\) Verslysen, Eugene. Defying the Odds: Banking for the Poor. West Hartford, Conn.:Kumarian Press, 1999.
Early forms of Microfinance:

In this section I will be taking a look at the earliest forms of microfinance and some of the failures and successes therein, creating a history of the evolution and a probable trajectory for microfinance institutions that develop sustainably and contribute to the economic development of Senegal.

The first recorded evidence of financial institutions that loaned exclusively to small farmers and the truly needy was in 1614 in the form of a lending bank in Amsterdam. Even though this institution has long been out of business, it is still recognized and celebrated for its efforts to keep the poor from the deathtraps of pawn brokers and money lenders (p.44).\(^6\) This brings up an important idea, that as long as there has been an informal sector with poor who have no formal options for receiving loans there has always been a parallel existence of informal lenders known as money lenders. These money lenders have received a reputation as the scum of informal lenders. This is attributed to the high interest rates that are charged to the poor that is allowed because of the lack of competition. “In Ghana, Malawi, Nigeria, and Tanzania, Steel et al. (1887) find moneylender interest rates at least 50 percentage points higher than formal sector rates” (p.28).\(^9\) Eliminating this exploitive behavior is the target of many credit providers in several developing countries. Armendariz observes that developing microfinance and other credit institutions for the reason of undermining moneylenders, is not entirely productive. The reason moneylenders can charge such extreme rates of interest is because there are those that can pay for them. Armendariz even suggests the possible utility that moneylenders might have as information sources that might report to formal lending institutions that don’t have such direct contact with their clients.

There are two types of financial institutions that have made a considerable contribution to informal lending and the financing of small micro enterprises. These are ROSCAs and Credit Unions. Both ROSCAs and Credit Unions are forms of group lending based in a community setting and they are still present in most of the world, including West Africa. In fact, Credit unions comprise forty percent of borrowers in the West African Economic and Monetary Union (WAEMU) (p.3)\(^\text{10}\), and ROSCAs, often exist in informal lending in a community. These two pre-existing forms of group lending introduce the idea of social contracts and trust-built financing, which is often a part of microfinance institutions in West Africa.

Rotating Savings and Credit Associations (ROSCA) are an informal kind of group lending, usually just between friends and without any sort of legal documentation of the commitment each member has to cooperate. The system is pretty straight forth and doesn’t require much book keeping, so it is easily run by the group themselves without help from someone outside the group. Each member of the group (usually the group is made up of friends or at least acquaintances from the community) makes a fixed deposit each month. The money collected from each member is then given to a single member of the group in rotation. The “pot” of money put in by each member goes to a different member of the group every month. The order of lenders does not change, and no one can borrow out of turn. This sort of group lending only works under a few conditions. First of all there is no incentive to participate unless the item is indivisible. “that is, there is no value in just half a radio or two-thirds of a sewing machine—you need to obtain the whole thing” (pg. 61).\(^\text{11}\) This can be very useful if you need to make one large purchase, and you don’t have the time to save up on your own. A big advantage to borrowing in this way is that there


is no interest except for the monetary the time spent waiting for the loan from the rotation.

ROSCAs exist in many countries. In the US they were used as a way for groups to pool their capital so that they were able to each buy a house one at a time.

The influence from France’s ROSCAs is prominent in the informal lending sector of Senegal and much of West Africa under the name of *tontines*. Some ROSCAs have government regulation or oversight to help secure loans, but most are completely separate. In order to assure that everyone in the group will receive their loan, all the members must follow the agreement and continue to put money in the pot even after they have received their loan. The extremely poor members of society that can’t even afford to make monthly payments still will have no way to access credit through ROSCAs. ROSCAs give us an interesting look at the group lending and the trust-based financial lending that is part of West African culture before Microfinance existed. The greatest difference between ROSCAs and MFI is the ability of MF to mobilize capital from outside of the group members. ROSCAs really have no way to quickly raise funds or make capital available to a particular member. MF provides a way to facilitate movement of funds from outside the group, thus making capital more accessible to the poor.

Credit Unions, also known as Credit Cooperatives, are based on a system of lending that has existed since the 18th century called Mutuality which “has roots in Roman law and has thrived in Europe in various forms since then. Mutuality involves ownership by members: they lend exclusively to member-shareholders” (p. 53). This form of lending as was mentioned previously is largely attributed to the presence of the French in West Africa. The amount of credit available to the members of the cooperative is limited to the amount of savings that the members have accumulated in the cooperative, so in this way it is like a ROSCA, but instead of having a fixed amount to deposit per month, members can deposit at will and accumulate savings just like in a

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formal institution with a low rate of interest. When a member is in need of a loan, they don’t have to wait until it’s “their turn” which makes it easier to start an enterprise and succeed. Credit Unions are also found in the development of Europe and the U.S. In the 1840s, in Germany, “the mayor Mr. Raiffeisen founded a cooperative that loaned only to farmers who were its sole owners and shareholders. The Raiffeisen model was successful and repeated all over Germany, as well as France, Belgium, the Netherlands, Scandinavia, Switzerland, and Canada and Japan, and became the origin of an international cooperative movement” (52-53). Credit unions went into submission for a while, but there was resurgence in the 20th Century. With the 50’s, 60’s and 70’s “new credit unions were founded by the Roman Catholic Church and the Peace Corps” (p. 51).

Credit Unions, also known as Credit Cooperatives, are very important to the development of small micro enterprises in West Africa. Many developing countries that have credit unions seem to focus more on medium or small enterprises as opposed to the smallest and poorest margins of society. West Africa however has developed credit unions that focus on small and micro enterprises. Credit Cooperatives are one step closer to MFIs because they can more easily mobilize loans, particularly if the number of depositors exceeds the number of borrowers. However their mutuality restricts its members which can be argued as a good or bad thing. Armendariz argues that this exclusivity creates a social bond that can be used to decrease the incidence of defaults. He calls this social commitment and it’s this same principal that can be found in any MFI that does group lending. On the other hand Versluysen argues that only lending to members of the cooperative prevents competition between institutions and thus does not take advantage of the lower interest rates that would ensue from such competition. He also mentions that the Credit Unions often have accounting problems due to lack of regulation and oversight. In
the last decade there has been a development of accounting practices that are standardized by different organizations to assure the legitimacy of Cooperatives. Capital still can not be mobilized from outside of the group which is a major difference between Credit Cooperatives and Microfinance.

In many West African countries such as Guinea, Mali and Senegal, people with a steady source of income are “duty-bound to share their income with less fortunate family members” (p. 202). This creates a constraint for the entrepreneur because they are unable to save capital or invest in their own business. If they were to invest in their business instead of assisting others, they could be contributing to job creation in the informal sector, which would have a more sustainable outcome. Even though informal borrowing between family members may seem inefficient, it does have its advantages. For centuries, this culture of sharing what is yours is conducive to group lending because of the support and trust that exists between people in groups. A form of ROSCAs that are common in French West Africa are called *tontines or susus*, and function as a “logistical extension of kinship networks. Tontines allow for its members to accumulate savings while keeping their option of borrowing from family as a last resort. “In Senegal, with $125 million in loans outstanding, the volume of tontine lending in 1993 was almost thirty times larger than that of the country’s leading microfinance program” (pg.201). Incorporating the use of kinship networks and peer-lending into the implementation of microfinance in West Africa led to a much more welcome acceptance of microfinance because it fits into the village traditions. FONGS in Senegal, a grouping of farmers’ associations, combines some of the features of village banks with those of tontines and has some 40,000 active

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Developing upon the financial structures that already exist in the region is essential to their success. Even the most efficient lending institution will not work if it doesn’t have the support or trust of the people. (Versluysen, Defying the Odds)

Overall the ideas incorporated in MF have a long history in culture and society and were present in the development of many nations that are today the most developed nations of the world, including the U.S. and Western Europe. In the light of these other lending institutions, what is Microfinance and what role does it play in Senegal?

**Recent developments of Microfinance:**

Microfinance is a broad range of small-scale financial services intended for the members of society that do not have collateral and are unable to borrow from banks. “Microfinance services – as opposed to financial services in general – are retail financial services that are relatively small in relation to the income of an individual, household or enterprise. Specifically, the average balance of microfinance services is no greater than 250% of the average income per person (GNI per capita)”.

Within the greater financial system of Microfinance is the practice of micro-credit (the first small scale financial service that was introduced), which is more specifically the providing of small loans to the informal sector and the poorest of the poor. This is what Mohammed Yunus and the Grameen Bank are accredited for by the Nobel Foundation, but the title of Microfinance Institutions (MFI) can be called as such without following Yunus’ instructions step by step. One of the biggest evolutions in Microfinance so far has been the movement from developing MFIs that are self-sufficient not for profit, to MFIs in the business of small loans, but also intend to make a profit. This evolution should not come as a surprise.

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15 “Microfinance Information Exchange” (2009), themix.org/about/microfinance (accessed April 2009)
considering the capitalist environment in which MFIs work. Loaning to clients with no collateral contains a lot of risk for the institution involved. The assumption that the poor are not able to pay off loans is a misconception that has kept the poor at a distance from any financial institution. New data indicates that poor lenders are completely capable to pay back in full, so it is natural for institutions to treat them as they would any other client by charging higher interest rates. MF is in the business of development, and using formal banking techniques to help the poor is not exactly intuitive. Telling a bank not to make money is like telling a fish not to swim. In an effort to keep MFIs from becoming too profit oriented and to keep their services available to the poor, government has started to intervene. Regulating MFIs through specific laws is one way of insuring that they are not raising interest rates or excluding poor clients for the sake of creating revenues. Figure 1 provided by MIX market’s benchmarks report for 2008 shows all the countries, Senegal included, that have specific law for microfinance. This corresponds with a recent trend in Africa to incorporate MF in the countries financial system. Another way of insuring that MFIs aren’t over charging interest rates is by introducing interest rate ceilings for MFIs. Countries that have implemented some sort of interest rate ceilings in Africa are displayed in Figure 2.

Government intervention is highly debated because even though it is well intentioned to prevent extortion and pressure MFIs to keep interest rates low, the level of corruption must be taken into consideration. Many developing countries are as such due to a government that is less focused on the common good of the country and more interested in their own wealth accumulation. In these cases, having government controls would do more harm than good.
The category of MFIs that must be recognized is that of major financial institutions that operate nation wide or internationally. Often these MFIs are NGOs such as FINCA and ACCION who are US based, or PlanetFinance based out of France. These institutions have their own set of regulations and protocol for running their local institutions. Having a well developed and organized institution encourages donations and support. However, because NGOs have more structured regulation of loans, their services are more ‘one-size-fits-all’ which makes it difficult to adjust to the needs of the entrepreneurs. This will be discussed later as a problem of liquidity.
Senegal as a Developing Nation

Senegal has a number of factors that have prohibited it from experiencing real economic development. These reasons are political, social and geographic. In the most recent report from the OECD, Senegal’s GDP rose from 2.1 percent growth in 2006 to only 2.8 percent in 2007. This was much below what was predicted and can be attributed to the lack of marketing, low rainfall and raising prices of oil and the products associated with oil. “Most of the country’s traditional export sectors (fish products, phosphates, groundnuts) experienced stagnation or are in serious economic difficulties, with Senegal losing substantial market share compared with all its competitors”.16 From 1895 to 1960, Senegal was a part of French West Africa which has greatly influenced the region (as we saw in the case of credit unions), but poverty and illiteracy remain high. In 2002 a new president was appointed in Senegal, but recently, he has been accused of corruption.

Geographically, Senegal is situated on the coast of the Atlantic Ocean, but most of the country is very arid and farming can be incredibly risky because the weather seldom cooperates. This makes MFIs struggle to start up and survive without receiving a fair amount of funding from an outside financer such as an NGO, donations or another organization. The report also suggests that “Growth in GDP has been driven by the tertiary sector, which is largely dominated by informal and government activities, with growth of 3.5 per cent and 6.7 per cent respectively in

2006 and 6.5 per cent and 3.1 per cent in 2007” (p.5). See Figure 5 for the sector breakdown of Senegal’s GDP. As for the overalls Growth in GDP, refer to Figure 4, where the inconsistency of the growth in GDP is made very clear.


DISCUSSION

To prove that MF is positively impacting the entrepreneurial activity which is contributing to economic stability from the bottom and finally to economic development, Part I will prove the ability of MF to increase entrepreneurial activity and Part II will be dedicated to identifying the ways in which this added activity is contributing to economic growth.

Part I: The impact of microfinance on entrepreneurial activity

*MF increases entrepreneurial activity in two ways. The first is by making loans available to the informal sector without requiring collateral or charging high transaction costs. The second is that the loans distributed must contribute to the growth and sustainability of small entrepreneurs.*

1. The problem of adverse selection and liquidity

We can narrow the problems associated with the accessibility of loans for the poor down to two main road blocks; lacking availability to client information (otherwise know as adverse selection) which applies to formal banking institutions, and second, lacking liquidity which applies to informal institutions.

The problem of Adverse Selection:

The first problem we will address is that of adverse selection which applies to formal banking institutions. To understand how Microfinance Institutions (MFI)s make loans so accessible to the poor while still remaining self-sufficient, we must understand why loans from
banks are so inaccessible to begin with. The answer is not that Banks are money thirsty institutions whose only interest is in charging rich clients high interest rates. Banks must function just as any business does, by assessing risk and finding the most profitable means of doing business. There is a lot of risk involved because it’s impossible to discern which borrowers will be successful in paying back their loans. When the client has collateral, the bank can rest assured that even if the client has to default on their loan because they were unable to succeed in their endeavor, they will be able to collect the collateral and continue to do business. Poor borrowers in need of money don’t have collateral so immediately it becomes clear why loaning to the poor poses a problem for banks. It creates a huge risk for the bank lender because they must rely purely on what they can assess about the reliability of the client and the project they wish to finance, without any sort of collateral to make up for misjudgment. This is where adverse selection comes into play.

Adverse selection is an agency problem which “refers to the lender’s inability to observe the borrower’s characteristics (e.g. project riskiness)” (p.35).\textsuperscript{18} Adverse selection is “the agency problem that arises before the contractual arrangements actually take place” (p. 37).\textsuperscript{14} For a borrower to receive a loan they must provide some assurance that they will be able to pay back the loan. In the case where collateral is available the agency problem doesn’t really apply because the risk assessment is replaced by the assurance of collateral. When the borrower has no collateral this assurance must be replaced by and assessment of the riskiness of the project. Background information and information about the project that will be funded is required to evaluate whether or not the project is likely to succeed, but that information can come at a high cost to a bank that is

not local to the borrower. When banks lack good information concerning the level of risk of the borrowers’ projects adverse selection takes place because, they are unable to discriminate against risky borrowers and interest rates become exceedingly high for both safe and risky borrowers. Safe borrowers are driven away from the credit market because of the high interest rates leaving only the risky borrowers. The accumulation of risky borrowers that take the place of safe borrowers continues to drive interest rates up, creating a cycle that eventually leads to a market with only risky borrowers and extremely high interest rates.

Armendariz identifies this as a market imperfection, because “worthy borrowers do not participate in the credit market when efficiency would suggest that they should” (37). The problems that result from adverse selection can be described through the mathematical reasoning provided by Armendariz in his book called The Economics of Microfinance. A bank’s success is hinged on them staying in business and for that, they must have enough information to calculate the expected rate of return on their loans. The expected return is a function of the probability that the client will be successful in their investment of funds, “p” multiplied by the profit they are likely to receive upon success. This amount must exceed the loan principle plus any transaction costs and the cost of raising money, paying interest to the depositors, or whoever supplied the money. For the bank, the average probability of success in repayment of loans must be used to calculate an interest rate that will account for borrowers that do not succeed and repay nothing. For the borrower, they must be able to make more from the loan than from regular work wages in order to make the investment worth while.

In his book titled, The Economics of Microfinance, Armendariz expresses the criteria for lending mathematically. By choosing different probabilities of success for risky and safe borrowers, he calculates the average probability of success, and then finds the approximate value
of this loan to the borrower taking the cost of capital into account and comparing their profits after repayment with that which they would earn at a daily wage. The poorest clients that are unemployed will usually take the loan because they have nothing to lose, but the safer, more secured client is much more likely to pass up this opportunity if they can earn more at their wage. Looking at Armenderiz’ example gives a clearer picture of this process. Assume that the cost of capital (k) is 40 cents for every dollar lent (k=140%). A safe borrower is able to earn two dollars for every dollar lent 100 percent of the time. So their expected revenues (y) will be 200, (1.0*200). A risky borrower however will earn more money (y*), 2.67 dollars for every dollar lent when they are successful which is only 75 percent of the time. The other 25% of the time they earn zero, so their expected revenues are $200, (.75*2.67). Combining risky and safe borrowers, the average probability of success when half the population is safe and half is risky is .875, calculated by, (.5*1.00) + (.5*.75). The bank must charge an interest rate that can still allow an expected return of $140 for a $100 loan (100*1.40), which can be calculated, (.875*160%=140%). Through this example it is evident that lending to a population of mixed safe and risky borrowers, the interest rate must be much higher, in this case it is 60%. This is the required interest on loans that banks must charge in this situation in order to just cover their costs. It appears to be unfair to safe borrowers who could be receiving a lower interest rate if they weren’t coupled with the risky population of borrowers, but because the bank doesn’t have a way to discriminate between the safe and risky borrowers, they have no choice if they are to remain financially self-sustainable.

Investing in a project usually means that the borrower will have to depart from their normal employment for the month that they receive the loan. This will account for an opportunity cost of their monthly wage approximated at $45. The borrower will only borrow if the possible
revenues minus the loan repayment are greater than their monthly salary. The risky borrower will receive \( (.75 \times (267-160)) = 80 \) which is larger than their opportunity cost of \$45\), so it is in their best interest go ahead with the project. The safe borrower, however will only receive \( (200-160) = 40 \) which is less than \$45\). “This situation is no longer efficient, since both safe and risky individuals should still borrow, but the bank cannot charge an interest rate that works for both… the lender lacks information with which to tell who is who” (43).\(^{19}\) As the safe borrowers exit the market because they are not able to cover their opportunity cost, the interest rate the bank will continue to climb because the average probability of success is decreasing toward \(.75\) (that of only risky borrowers without the cross-subsidizing of safe borrowers).

This being the case; without information or collateral, the poor are almost always rejected from any normal institution. Clearly this is not because of malicious intent on behalf of bankers, but because of the poor borrower’s inability to prove that they will pay off the loan. The problem is lack of information and the consequence is an inefficient market in which risky projects are being supported, but the entrepreneurial activity of safe borrowers is restricted. Economic growth in this situation is held back. The only way that it is profitable for the risky borrower to borrow is if their interest rate is cross-subsidized by the safe borrower’s participation, but in doing this the safe borrower is at a disadvantage in the market and has no incentive to continue investing in their project.

In the past this inability to receive loans has been one of the highest reported factors in limited growth in the informal sector. A study by the World Bank that surveyed West Africa in 1992 found that,

“Of the entrepreneurs interviewed by the USAID survey, 86 percent indicated that lack of access to credit was a major constraint”. In fact the same report identified that, “The financial system is continuing to suffer from the low level of investment credits, in particular for small and medium-sized enterprises (SMEs). Lack of access to bank loans is still a major constraint for financing SMEs. Bank credit remains concentrated in a limited number of large corporations, most of which are in trouble” (198)

Adverse Selection, leading to high interest rates, caused by lack of information, is one of the problems for which Microfinance Institutions (MFI)s offer a solution.

The problem of adverse selection is only applicable for larger banks that are unable to spend the time or money on pursuing client information. As was discussed earlier in the background section there are a number of informal lending institutions that are available to the poor besides MF. These informal lending institutions include Cooperatives, ROSCAs and money lenders. Because these institutions are all locally run, they have less of a problem with adverse selection. ROSCAs and cooperatives avoid this problem completely because they only lend to members of their own group. By having a set group they are able to continually track the progress of each of their members. Money lenders are also able to avoid adverse selection to some extent because they deal individually with each borrower. So what makes MF so much more positive for accessing money? This is the source for the second problem in making loans accessible to the poor and available for financing entrepreneurial projects. For group lending institutions like Credit unions and ROSCAs it is a problem of liquidity.

20 Webster, Leila and Fidler, Peter, eds. The informal sector and microfinance institutions in West Africa (09/30/1996; World Bank, 2009).Etext
The problem of Liquidity

Liquidity refers to the cashflow from lenders to borrowers, and the ability to move money to where it is needed quickly. Patrick Ryan developed a study of small and medium enterprises in Uganda to understand how their performance is impacted by problems of liquidity brought on by the regulatory standards set by FINCA. Ryan explains, “One factor that may explain why attempts to improve access to credit have met with limited success is the failure to understand fully the nature of liquidity problems facing MSEs [micro and small enterprises]” (p306). In his paper he talks about the limitations that enterprises face when they aren’t liquid. Ryan goes so far as to say that “liquidity, more than profitability, is one of the main constraints on growth and cause of enterprise failure in high- and low- income economies” (310). His argument is that MFIs have made capital more accessible to the poor but that there still needs to be more progress in supplying more liquidity for the MSEs to really take off and contribute to entrepreneurial development.

Data that has tracked the progress of micro and small enterprises over the past few years as MFIs have begun to spread indicate that the first step to increasing the accessibility of capital for start up enterprises has increased, but very few of these enterprises expand or increase employment. “In a study of Botswana, Kenya, Malawi, Swaziland and Zimbabwe, Mead (1994) found that most firms started with one to four employees and never expanded, and that less than 1

per cent grew to above 10 employees” (307). Ryan refers to this gap in growth between small and large enterprises as the “missing middle” (307), and he attributes it largely to lacking liquidity. 22

The absence of liquidity in the beginning stages of an enterprise can make the difference between its success and its failure. However given the nature of small informal lending institutions available to the poor, acquiring the funds for quickly distributing large sums of money to a single entrepreneur isn’t realistic. Banks on the other hand have ample resources to allow for some liquidity of capital, but again, this convenience is not available to poor borrowers that do not have collateral. In the first period of growth, a business will be reliant on a lender for a long period of time before the enterprise is completely financially self-sufficient, and if in that period of growth, they are not able to access the funds necessary, the result is that they fail leaving the loans already accessed unproductive.

Consider the hypothetical situation where a woman has a micro enterprise where she mends clothing. She is looking to invest more money in buying a sewing machine. Once she receives the loan to get the sewing machine, she is able to increase her revenues by almost double because the machine allows her to mend twice as many clothes as she was able to mend by hand. She is able to pay back this first loan fairly quickly and without much difficulty. Her one woman operation will stay where it is if she cannot obtain a larger loan. Maybe this time she wants to expand her enterprise to include a new service to her customers. The service she offers is only helpful to 1/3 of her clients, so her return isn’t as high. This loan is harder to repay and sometimes is not paid at all, making it harder or in some situations impossible to get another loan.

Accessing loans of increasing size (progressive loans), will provide the support to overcome that period of small growth and proceed to the next level of production where larger

returns are realized on investment. For the hypothetical case of the woman’s sewing micro enterprise, imagine that she was able to receive a loan to buy a vehicle so that she could service two of the nearby villages as well. In doing this she would be increasing employment because she needs a driver for the vehicle and she would probably employ a few more women to help with the mending of clothing.

The restricted flow of money that group ROSCAs and Cooperatives can’t get around make it impossible for enterprises to grow and expand to medium sized enterprises. The liquidity problems associated with ROSCAs and Cooperatives are unavoidable because of the strict structure and regulation that must accompany a lending group with no outside funds. The amount of capital available for loans is limited to the amount of money that the members contribute. This doesn’t do much good if you need the loan to expand your business and can’t provide the savings prior to the loan. Without any way to increase the liquidity of small enterprises through the informal lending institutions entrepreneurial activity is restricted.

This is not to say that these structures are inutile. They serve an important function within the financial structures supporting the poor. ROSCAs for instance are very useful for accessing money for a single large purchase. Sometimes this works for a purchase that must be purchased in a single installment, whereas you might have to get several small loans from a MFI. Credit Unions also serve a vital function in Senegal because they support the MFIs that have developed and they are becoming increasingly available to small but growing enterprises. Susus that have long existed in West Africa have the confidence of its village members which makes them invaluable to the financial system as well.
2. Microfinance as a solution to adverse selection and lacking liquidity

A new way of providing collateral: a solution to the problem of adverse selection.

Identifying the problems associated with getting loans to the poor, was essential to Yunus’ work. So in looking for a way to mitigate that risk without spending more money on information, Yunus found another effective and cheap way to eliminate some of the risk; group lending. Armendariz describes this method of group lending “grameen-style”, explaining, “the problem is that the bank wants to charge lower interest rates to safe borrowers and higher interest rates to risky borrowers, but since the bank cannot easily tell who is who, everyone has to pay the same rate…Borrowers, on the other hand, know each other’s types…” (89).23 Most of the success attributed to microfinance has been attributed to group lending which has since been used as a model for MFIs around the world. Taking into account for the social structure of these countries, group lending capitalizes its business on women in groups. This has been found to increase the rate of return on loans significantly and thus serves as a way of lowering the risk involved in lending to the poor. This strategy, developed by Yunus has been a major factor in solving the problems of adverse selection, assuring that interest rates are not elevated too much. Versluysen observes that “group credit and peer-group guarantees fit well in the African custom of sharing within kinship networks. It also blends well into village traditions” (202).24

Group lending owes its solidarity to the support system in place. Members of a group, just like those that are members of ROSCAs and Credit cooperatives, become close and they are able to track each others progress and provide some support if something goes wrong. Looking out for the welfare of fellow members may seem a little unrealistic, but it actually comes quite naturally

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because there is an incentive to assure that everyone repays their loans so that more loans may be received. The real benefit of group lending is in its ability to mitigate the problems associated with adverse selection. Armendariz tries to answer mathematically and intuitively in his book is whether or not group lending actually allows banks to identify risky borrowers from safe borrowers making it possible to offer them high or low interest rates accordingly. In essence, they would be gaining information about the borrowers that was not previously available therefore allowing them to adjust to their clients and eliminate some of the inefficiencies that have resulted. An argument he makes is that when groups are encouraged to form themselves, “potential borrowers can then use their information to find the best partners” (89).25 The “joint responsibility” of receiving loans as a group is enough incentive for individuals to acquire information on their own and choose to associate with safe borrowers. Armendariz invokes a term often used in labor economics literature; “ assortative matching”, to describe this natural segregation of risky and safe borrowers into groups. He also points out the crucial point of group lending, that it is “a transfer of risk from the bank onto the risky borrowers themselves” (90).21 In this way, the bank remains as ignorant as ever to the riskiness of their borrowers, only now more of the safe borrowers will borrow because they no longer have the high interest rates that were used to cross-subsidize for the risky. This is where the main inefficiency is eliminated, because the entrepreneurial activity of the safe borrowers is no longer halted by high interest rates.

The actual effect that assortative matching has on the interest rates provided by banks is shown by Armendariz mathematically. Keep in mind that the risky projects, while having a higher probability of failure also create the most revenue when they are successful. The safe borrowers

will return their loans with 100% certainty, but their overall revenues will be less. However when
calculating the expected value of risky or safe borrowers their revenues equalize, in this example.
The expected revenues will be the same on average for risky and safe borrowers.
Recall the situation described in the section on adverse selection. Because banks could not
determine if a borrower was risky or safe, the interest rates represented a cross subsidization of
safe borrowers to cover the possibility of default for risky borrowers. However this increased
interest rate proved to be too high and discouraged safe borrowers from entering the market thus
limiting entrepreneurial activity. When assortative matching happens, the gross interest rate
(principal plus interest) “R” charged by banks decreases. A pair of risky borrowers reduces the
risk to bankers because one borrower is held responsible for the other if they are to default. As
was identified earlier, “q” is the percentage of safe borrowers then 1-q is the percent of risky
borrowers. Similarly, “q” will be the percentage of safe pairings and “1-q” the percent of risky
pairings. The safe pair will have revenue of “y” with 100% probability. A risky pair will have an
expected revenue (y*) of $267 with probability of only 75%. Armendariz adds to the scenario by
letting the risky borrower’s successful revenue greater than twice the gross interest rate, so that if
their partner defaults they will still be able to repay for the loan.

From the banks point of view this means that q percent of the borrowers will be safe and
return their loans 100% of the time and the remaining (1-q) percent of borrowing pairs will be
risky and only default if both risky partners are unlucky (.25*.25=.06). Therefore, R[q(1)+(1-q)(1-.06)]
must equal the total cost of capital, “k”, giving the equation; k=[q+(1-q)(1-.06)R]. With
group lending the transfer of risk from the bank to the risky borrower will significantly decrease
the probability of failure to repay, thus decreasing the gross interest rate. In addition, the
borrowing contract will also include a “joint liability” which the group is responsible for returning
in the case that their partner is unlucky. Because part of the loan will be repaid by the group if they are unsuccessful, the cost associated with the unlucky borrower is reduced for the bank and passed to the group. Now the bank only has to worry about a situation where both borrowers are unlucky which is less likely. The probability of default drops from .25 (if they were individual loans) to (.25*.25=.06) which is the probability of failure to return the loan for a pair of risky borrowers. In the end a lower interest rate will benefit both the bank and the borrowers because safe borrowers will reenter the market, correcting the inefficiency, and overall loans will be less expensive to borrowers whether they are risky or safe. (Armendariz and Morduch, *The Economics of Microfinance* 2005)

This is a very academic and theoretical approach to seeing the advantage of group lending that comes about when the risk associated with the borrower is passed onto their partner through a “joint liability”. So instead of the bank raising interest rates to account for a 25% rate of failure, they are only raising it to enough so that it will cover the cost of both failing (.25*.25) which is significantly less. In doing this the cost to safe borrowers is reduced and they are able to once again take part and acquire enough capital to borrow and cover the opportunity cost of leaving their employment for one month. One consideration that might be made is that the borrowers are unable to calculate the value of the investment they are making. To adequately decide if a project is worth pursuing using the calculations provided by Armendariz, they must know the expected rate of return, the probability they will succeed and the cost of capital associated with the loan. Assuming that a detailed analysis is done before these loans are made on the part of borrowers would be reassuring, but in Senegal and other developing countries, the financial system is less developed and especially in the informal sector, the business environment is based upon experience, but not on calculations. Because of this we must consider the academic assumptions
made by Armendariz. Further research, attempting to understand the real expected investing being made would be worth further study if time allowed because it may reveal some variation of what Armendariz has modeled. Even though this model may have some unrealistic qualities, it is a good overall evaluation of the situation, and the basic trends that are being seen. For example, as interest rates increase, even if you don’t know your exact revenues or probability of success, you do know how tight money has been based on other loans and you may choose not to invest if you have been consistently performing well (a safe borrower) and still just barely making payments. The result would be to drop out of investment due to previous experience that mirrors the reasons put forth rather mathematically by Armendariz.

**Microfinance: Solving problems of Liquidity**

Microfinance Institutions begin with the generous donations of external donors, whether they are an NGO, a government loan, or a private donations. This accessibility to capital provides an opportunity for lending that informal group lending doesn’t have. Being able to move funds quickly from one source to another is realized through more advanced banking structure and the ability to access funds. These are two things that Microfinance has brought to the informal sector that were previously nonexistent. However, the idea of liquidity, even though it is possible, is still a very controversial topic.

Microfinance, unlike formal banks are focused on seeing their customers succeed, whereas banks are not as concerned because they will profit off of clients that default on their loans. The current economic recession has been traced to the loose flexible and unregulated lending that resulted in borrower debt. MFIs on the other hand do not make money off of their clients’ failures. In fact, when a borrower can not pay back their loan, the MFI has to make up for
that loss somehow, usually through external funds. This encourages MFIs to develop a lending system that ensures that their clients are as successful as possible. This is reflected in the high level of returns on capital reported by most MFIs. One way that failure to repay loans is avoided is by requiring that repayments are made weekly in small amounts. Requiring weekly payments, it is much easier to recognize if a borrower is getting behind and catch the problem before the debt is too high. The downside to this is that, for a business to make repayments on a weekly basis, their income must be very consistent (which is not the nature of a start up or expanding enterprise). This leaves little allowance for a small set back that occurs one week but would have been corrected or made up for in the course of a month. Another attempt to keep loan repayment high is to cap the size of loans that can be received.26

Different types of MFIs have different levels of regulation. In the benchmark report done by MIX market, an analysis is done, comparing different types of institutions displayed in Figure 6. From this data we can see a few major differences. First, rural banks (RB) seem to have the most success on covering their expenses and actually realize a profit. The same can be said for Cooperatives, but to a smaller extent. This is relevant to the case of West Africa which is also shown to be profitable overall, partially attributed to a financial system dominated by Cooperatives. The report mentions that, “Despite all of these advances, portfolio quality in Western Africa remains poor” (pg 11).27 Figure 7 shows the high level of portfolios at risk (PAR) that are greater than 30 days and 90 days to emphasize difference in structure practiced by MFIs in West Africa. Allowing portfolios to remain at risk for long periods of time can sometimes help to relieve some of the pressure of repayment, which usually results in more borrowers and more

liquidity due to this greater flexibility that the borrowers of these institutions have. The types of MFIs that are identified to have the poorest portfolio quality are rural banks and cooperatives that have the greatest profitability when paired with other institutions. While this may seem counterintuitive, it suggests that the profitability of an MFI can be increased by allowing more flexibility in contracts to borrowers. “Twenty-two percent of MFIs report PAR > 30 days at over 10 percent while three MFIs have PAR > 30 over 20 percent, and one large scale MFI reports PAR > 30 at over 50 percent” (p11). 22

So why do microfinance institutions continue to regulate? The consequences of loosening credit too much is dangerous to the economy and usually results in much higher debt. Also, one of the advantages to keeping loans well regulated and small is for the benefit of the poorest members of society living on less than a dollar a day. Sometimes to assure that loans are being made available to this group, there must be deterrents for other small entrepreneurs who have other credit options but would prefer the low interest rates of MFIs that are subsidized by NGOs if given the choice. The rigidity and regulation in lending by MFIs is well intentioned and is possibly the best way to get capital to the poorest of the poor. However, in his study of Microfinance in Uganda, Patrick Ryan observes “the rigidly enforced ‘one-size-fits-all’ loan terms and conditions offered by many MFIs, is also an important factor affecting participation and drop-
out rates” (308). In his research he follows the development of a traditional enterprise and how it is affected by the savings and lending criteria set by FINCA (Foundation for International community Banking). The main consideration here is that FINCA requires a repayment period consisting of a 16-week no grace period. He evaluates the problems of liquidity that face a starting enterprise, the impact on existing enterprises and finally on expanding enterprises. By tracking this enterprise through the three different stages, he comes to some valuable conclusions about the affect that the rigidity is having on the success of an enterprise rather than on their success in paying back the loan.

For the existing business there aren’t problems of liquidity because a small profitable enterprise should have a constant source of revenue and will continue to move forward. For a start-up enterprise liquidity becomes more of a problem because of the delay between the time in which they buy the fixed assets, begin production and then receive their revenues to pay back the loan. Consider a carpenter that is filling an order for some students. It may take him a whole week if not more to complete the work and then he won’t receive the money needed to stay on track with his 16-week repayment plan. The last scenario is an expanding business. Ryan describes a situation in which an enterprise decided to switch from cash sales to credit sales which will increase business. However, “the impact of moving to a more formal trading relationship associated with growth means that it is 4 weeks before the revenue derived from the new order is received” (315), which means that with no grace period there is an enormous amount of liquidity pressure until the order is received.

Ryan’s findings were consistent with the interviews that were done with entrepreneurs who “confirmed that loan terms based on weekly repayments with no grace period made it difficult to manage liquidity and to finance new orders” (316). These problems have been deterring worthy entrepreneurs from taking part in the loans because they are worried that they will not be able to keep up with the 16-week repayment plan with no grace period. The first appearances of microfinance were developed with the idea that they would only be lending to the poorest of the poor, and the primary concern was just getting the capital to the borrower and doing everything possible to encourage returns so that the MFI could become sufficient. Unfortunately this has caused a restriction on the growth of the enterprises that MFIs first serve to create.

Solving the problem of liquidity for small and medium entrepreneurs is closer than ever with the development of MFIs, but the structure and rigidity that accompanies the loans extended is not allowing for this to occur. “MFIs, while acknowledging the problem, argue that clients should either accept the product or exclude themselves if their business is not suited to the services available” (318). For large International organizations such as FINCA, solving this problem requires identifying different types of enterprises and the type of loans that would be more custom fit rather than “one size fits all’. Incorporating individualized loans would require a better understanding of the needs of different enterprises and would increase risk because of the grace periods that would not be incorporated. A constant battle exists between two financial lending strategies; either the MFI can focus on high repayment among the poorest of the poor and small existing enterprises through regulation and rigidity, or they can strive to fit their loans to their borrowers’ needs, helping entrepreneurial activity to grow and fill in the gaps in development while accepting the added risk of expanding enterprises. There needs to be some

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compromising in order to find a middle ground where regulation doesn’t restrict growth but can still make small loans a reality for the poorest of the poor.

Yunus explains in his book, Creating a World without Poverty, that part of what pushed him to creating a new kind of bank was the archaic mindset of financial institutions that constantly asked the question “Are the poor credit worthy?” to which the response was always ‘no’. In creating Grameen Bank, Yunus envisioned that mindset to reverse so that the question would be, “Are the banks people-worthy?”(p49). When banks strive to meet the needs of their borrowers rather than the other way around, the greatest number of enterprises result, efficiency in the market is accomplished and the economy will grow and develop.

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PART II: Entrepreneurial activity and Economic Development

Microfinance mitigates several of the problems that were previously associated with getting the poor access to capital thus allowing them to increase entrepreneurial activity. Through group lending and other methods of lowering risk, MF offers interest rates at a reasonable level while still offering some liquidity and movement of capital to encourage entrepreneurial activity in the informal sector. Part II will focus on the way in which growth in entrepreneurial activity is leading to economic development in Senegal. In order to prove that MF is supporting economic development in Senegal we must ask “what correlation exists between the entrepreneurial activity of small and micro entrepreneurs (SMEs) and the overall economic growth of the country?”

Approaching a macro analysis of microfinance

Recently there has been a strong effort made to track the progress of MFIs and record all financial portfolios so that analyses of their impact on the economy could be studied. One major source of data and knowledge is a non-for-profit organization called the MIX market. Their mission is “… promoting transparency and standardization throughout the microfinance industry and improving financial and social performance at the institutional level”.32 The Organization for Economic Co-operation and Development (OECD) is another source of information as they have tracked the progress of MFI over the past decade. These organizations help to find trends in

development by tracking balance of payments and other financial records. There are also NGOs that have invested in studies to answer questions related to the impact of SMEs on economic growth.

Proving that the SME supported by MF are having a positive impact on Economic growth will involve two approaches. The first is to draw conclusions from a cross-national study conducted by USAID which attempts to link micro enterprises to economic growth. The second approach is analyzing Senegal separately and judging the way in which the impact of small and micro enterprises are leading to further economic growth and development.

**Approach 1: USAID micro macro analysis**

In September 2008 USAID published a study which addresses the correlation between economic growth and the existence of Small and Micro Enterprises (SME). The introduction starts off with a clear mission to evaluate the importance of small enterprises on economic development. It begins; “Is micro and small enterprise programming warranted? Apart from other programming benefits, is there a clear case that micro and small enterprises have a discernible impact on economic growth?”33 Questioning the link between the entrepreneurial activity created by MF and economic development is a necessary step towards assuring that MF is succeeding as a tool for development. The answer can encourage further growth and support for MFIs as well as identify problems that need to be addressed as Microfinance evolves.

Unfortunately there are several hindrances that are encountered in such a study, first because small and micro enterprises often exist only in the informal sector which seldom has the

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financial records to provide reliable data for such an analysis. Second because the SMEs have such small revenues that when they are measured comparatively with the economy on a macro level, their individual influence can be difficult to differentiate from the myriad of variables that impact the economy.

Both of these problems compromised the ability of the study done by USAID to reach any conclusive decision as to the link between economic growth and the prevalence of SMEs. As for the first problem, USAID decided to narrow their definition of SMEs to those that are in the formal manufacturing sector due to lacking data in the informal sector. In the conclusions drawn from the study it is mentioned that, “In many developing countries, the informal and non-manufacturing sectors are a major source of employment, especially in rural areas. To the extent that these firms are important to national growth, the present study may underestimate the contribution of micro and small enterprises to growth”.

Because the informal sector of SMEs are not represented by this study, the results that were published do not comprise the full impact of SMEs on economic growth.

As for the second problem; scaling the progress of small and micro businesses to economic macro growth, we must consider the economic environment for most developing nations. Because of the nature of microfinance to be truly “micro” its span must be incredibly wide and extensive in order to have an impact on the macro level of development. The MIX market reports in their 2007 benchmark data for west Africa that MF has grown to a great extent and nearly saturated the demand for credit in that region. However even with a borrower growth

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of 25% and a loan portfolio growth of 69% (2), these small and micro loans only account for a small percentage of total financing when mixed in with the few large enterprises that still overshadow the market.

A report done by the OECD exemplifies the various impacts on Senegal’s economy that overshadow the impact of increasing small enterprises. The OECD reports that, “Senegal’s GDP grew at a rate of 2.1 per cent in 2006 and 2.8 per cent in 2007, well below previous forecasts. This was due to a number of factors. First, the crisis experienced by Industries chimiques du Sénégal (ICS), the country’s largest phosphates producer, was still unresolved” (36). The report continues to explain the impact of this one company on the economic growth of Senegal due to the fact that “In 2005, this company accounted for 3 per cent of GDP, 10 per cent of exports and 7 per cent of total bank credits” (540) (31). The reduction of this company’s production to 1/3 had a tremendous impact on the GDP. This is just one of several issues mentioned by the OECD, in addition to an agricultural crisis due to draught, political reform and the increased price of oil (31).

The fact that SMEs are not mentioned as a significant factor in the macroeconomic report does not prove that it has no correlation to economic growth. There may be too many factors to be conclusive, but consider the fact that the GDP continues to rise even as several problems in the macro economy ensue.

This problem was magnified in the study done by USAID because to create an aggregated study of the impacts of entrepreneurial development, USAID proceeds to introduce the cross-


national approach to their study, where not only one country’s economic variability is represented, but those of all countries. There is a disclaimer in the introduction to warn the reader of the incomplete data represented in this study; “the conclusions of this study do not, on their own, make a definitive case for or against micro enterprises. They only offer additional information on the contribution of micro and small enterprises to improved economic performance in developing economies. Additional information that explains the context of potential pathways for ME and SME growth —namely dynamism and linkages into value chains— are required to complement this study”. With so many considerations that are hard to evaluate and track, proving that microfinance is the hand behind economic growth or decline as opposed to rising food prices or a bad agricultural year, is nearly difficult. If all things were held constant in the economy it may be possible to identify the full impact of SMEs, but without that kind of controllable economic environment, the impact of MF would have to be to a much larger scale to acquire any conclusive results.

Even with the flaws in this study that give it limited applicability in answering whether or not SMEs are linked to economic growth, the conclusions drawn from it do reveal a few things about how Microfinance is interacting with the Macro-economy. The study was an examination of micro and small enterprises (enterprises with fewer than 100 or 250 employees) and economic growth. Even though at the beginning of the study USAID recognizes the important social indicators such as education rates, fertility rates, and health care rates that may contribute to economic growth indirectly, they choose to focus on direct contributors which are identified as, “promoting entrepreneurship and economic dynamism, and creation of value chains through

linkages with large firms". The primary indicator used was the GNI (Gross National Income) per capita. This measure of each individual’s income is more comparable to the impact of SMEs than GDP would be because of its ability to measure the average individual income; a reflection of the success of their enterprise.

One conclusion that came out of the study was that, “when moving from SMEs of fewer than 100 employees to SMEs of fewer than 250, the results for the OLS models […] change in both sign and statistical significance. The observed relationship goes from negative and statistically insignificant to positive and highly statistically significant— in other words, from an indication that SMEs coincide with lower growth to a statistical confirmation that SMEs appear alongside higher average economic growth rates”.

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This finding is interesting because, it shows a trend in SMEs that the larger they are the more they will impact the economy. It makes sense that the smallest MFIs wouldn’t have the same economic impact because their financial portfolios deal with smaller loans that only account for a very small percentage of the aggregate financial system. On the other hand, medium enterprises have increased employment and production, which will have more of a noticeable impact on the economy. With this data available, a MFI may choose to focus more on helping its small micro enterprises to become medium sized so as to contribute more to economic growth.

**Approach 2: Creativity and economic growth**

From the USAID study it is apparent that comparing the number of SMEs to the GNI and GDP is often inconclusive because of the range of things that are impeding growth of the economy. Another way to approach whether SMEs are contributing to economic growth is by looking at the long term possibilities for growth that MF is helping to impose.

It was discussed before that the availability of capital to small entrepreneurs would allow for projects to be funded that normally would not have that opportunity. Giving people an opportunity to start up an enterprise, as Yunus puts it, “turns on several little creative engines” that in turn set the stage for something big. In economic theory this can be identified as the impact on the macroeconomy when there is technological progress and innovation.

A report done by the MIX market in 2008 observed the innovation that MFI are helping to foster in Africa. “The wide variety of MFIs in Africa is conducive to innovation as it creates space for partnerships with different types of ‘agents’ and partners that add significant value in
piloting new technology applications” (16). MFI have created a way for small enterprises to develop in a connected way. The system of MFIs is helping to link these small entrepreneurs with big ideas together to improve upon their original projects. The report continues, “Increasing product diversity is also driven by the mission of many microfinance providers to continually, and better, reach the financially disadvantaged” (p. 16). This increasing innovation is a key indicator of economic development in any country. Increased technology increases productivity, which in turn increases income and employment and GDP. To demonstrate this let us refer to the Non-neoclassical Aggregate Supply- Aggregate Demand Economy given an increase in technological progress. The Aggregate Supply (AS) of the economy will shift out to AS’ creating a higher level of GDP (Y*) and a lower price level (p*). Lower price levels cause and outward shift of the LM curve to LM’ which will cause interest rates to drop to i*. Finally the shift in Aggregate supply will cause an increase in labor demanded (Nd’). As a result in the decrease in prices and the outward shift in employment, the wage rate will increase to w/p*. In short an increase in technology in an economy where there is less than full employment and a given increase in technological progress will result in higher levels of GDP, higher employment and higher real wages, as is demonstrated in Figure 8.

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In Senegal some MFIs are associating themselves with sustainable development. Senegal Ecovillage Microfinance Fund (or SEM fund) is an innovative MFI that provides loans to a village that is focused on sustainable development. Their mission, “based on the premise that effective and sustainable development can be achieved by opening up opportunities for poor people to control their own economic futures”\(^{40}\) is conducive to the idea that small entrepreneurs, when given the capital can and often do succeed in their projects. SEM fund has helped to start

up a network of thirty-eight poverty stricken villages in Senegal and in those villages there has been numerous people below the poverty line are receiving credit for the first time. In 2007, 98 percent of borrowers were below the poverty line, 95% were in a household that earns less than $1 per day per person, and 50% of the borrowers were starting an micro enterprise for the first time. By keeping the size of the loans at around 7% of GNI, the poorest of the poor don’t have to compete with more developed small enterprises that are seeking larger loans. Loans are conditioned on the development of a sound business plan that is constructed by the group that is asking for the loan.41 Not just providing credit, but also encouraging good planning and business tactics helps to lift the community out of poverty, while encouraging education and technological applications to apply sustainable development that will ultimately contribute to the strength of the economy.

The Future of Microfinance: Where is MF heading?

Starting as just a system for doing business with the poor through micro-loans, now MF includes a full range of financial services such as micro insurance and micro savings. There’s no reason to assume that the evolution of MF will stop here. MF will continue to grow and expand its services to reduce the gaps that exist in financial services to the poor. Capturing the wealth that can be created by increasing entrepreneurial activity is a self sustaining form of development. It is ensuring that the projects being funded are self-sufficient, and as in the case of SEM fund even assuring that they are sustainable.

Microfinance is receiving more attention today than it ever has. It started as a small idea, but has developed into an interdisciplinary force of financial institutions, humanitarian NGOs, Economic Unions and National leaders. A network of the leading names in microfinance plus those who are just entering the field, are coming together in May for the Global Microfinance Investment Congress. Delegates from 43 different nations and a myriad of financial institutions and NGOs will be present to discuss the present and future of microfinance. The importance of this forum is communicated on the website invitation; “The need for microfinance investment remains a top priority – especially given the current financial turmoil. Many of us believe that the potential long-term benefits for microfinance, as MFIs and investors implement more conservative policies, will ultimately encourage a more sustainable and robust business model for the future…The need for a single international forum bringing together the leading players from MFI’s, International Banks, NGO’s and other stakeholders has never been greater”.

The “current financial turmoil” has raised a lot of questions concerning its effect on emerging markets. The MIX market benchmarking report identified the economic downturn as

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having very little impact on MFIs because most MFIs have moved away from NGO financial support to the utilization and mobilization of increased savings deposits made by the poor. “Microfinance is increasingly integrated into the formal financial systems across the region, enabling the field to grow substantially in borrowers and savers, loan portfolio and savings. External funding decreased by 12 percent while total number of projects increased by 61 percent” (12).43 This report is encouraging because it emphasizes the ability of MFIs to stand sufficiently on their own and profit, even with less help from exterior sources. The current economic situation presents Microfinance with an opportunity to prove itself as an efficient and influential part of the financial system.

Conclusion

In conclusion, the potential of microfinance to impact the economic growth of Senegal is achieved through its ability to increase entrepreneurial activity. Prior to microfinance, the informal sector which accounts for a huge part of the Nations economy, was not able to access capital because of their lack of collateral. By lowering operating costs and adjusting risk through group lending, increased client information and the understanding of different types of enterprises, microfinance is able to close in on the gaps in financing that have long existed and restricted the ability of the economy to function at full efficiency.

Senegal faces a range of economic problems. Their arid climate which is continually devastating the large agricultural sector, government corruption, and the instability of large enterprises that are reliant on natural resources. Microfinance is only a part of the solution, but an essential part because increasing the number of small and micro enterprises allows creativity to flow into the economy and with that technological innovation and increasing employment.
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Figure 8 *Source*: Notes from Lecture (April 9, 2009) Macroeconomics, Professor Drabicki


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