

**MENDEL UNIVERSITY IN BRNO**

**Faculty of Regional Development and International Studies**

**FINANCIAL INCLUSION AND  
MICROFINANCE IN THE  
CENTRAL AMERICA**

Diploma Thesis

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Brno 2016

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## **ABSTRACT**

BEREŽNÝ, Peter. Financial Inclusion and Microfinance in the Central America.

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The aim of the thesis is to investigate both theoretically and empirically the potential of financial inclusion in the Central American countries. The topic of microfinance is discussed as it is one of the most important tools for the poor. The emphasis is put on developing the theoretical model of how financial inclusion is able to tackle the developing problems of the region. Furthermore, we study the development and current status of the microfinancial market. We find that the financial inclusion negatively correlates with the inequality. The Central American microfinancial market is very responsive to the legislative changes and along with the potential technological advances that can be made in the future.

Key words. Financial Inclusion, Microfinance, Model, Poverty, Central America

## **ABSTRAKT**

BEREŽNÝ, Peter. Finančná Inklúzia a Mikrofinancia v Strednej Amerike.

Brno 2016. Diplomová práca.

Cieľom predkladanej práce je teoretický a praktický výskum potenciálu finančnej inkúzie v strednej amerike. Téma mikrofinancií je rozoberaná ako jeden z najdôležitejších nástrojov boja proti chudobe. Prikladaný je dôraz na vytvorenie teoretického modelu, ktorý je založený na štúdiách a predstavuje čiastočné riešenie rozvojových problémov strednej ameriky. Je zistené, že finančná inklúzia do určitej miery negatívne koreluje s nerovnosťou príjmov. Ďalej je analyzovaný terajší mikrofinančný trh v Strednej Amerike. Stredoamerický mikrofinančný trh je rezponzívny na legislatívne zmeny a technologické vymoženosti.

Kľúčové slová. Finančná inklúzia, Mikrofinancia, Chudoba, Stredná Amerika

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# 1 Introduction

The thesis narrates and consecutively analyses the data to create a picture which connects the (extremely) poor and finance in the Central America. The financial inclusion in the form of microfinance as such, is not completely new form of finance when mentioning the idea concept as it dates back to the 17<sup>th</sup> century Ireland. Nevertheless, the improved idea of the Nobel Price winner – Mr. Yunus who managed to include the poor into the financial flow in Bangladesh could be labelled as the revolution which spread throughout the world. In capitalistic economic system, which is the core of the free market in most of the world, those who have capital are able to accumulate even more capital whereas those who are in extreme poverty are trapped. This principle causes many symptoms and incessantly growing gap dividing the richest and poorest. For the poorest parts of the population, it is hard to jump out of the poverty cycle. The policies and well-performing institutional system are necessary along functioning educational system and financial literacy. Financial inclusion and microfinance are related and often go hand-in-hand as those who are microfinance clients are those in need to be included in the financial flow but are often far from being affluent enough to keep with the bank fees, provide collateral for the loan or simply are limited by the geographical conditions.

Nowadays, the financial exclusion can be challenged by fusion of finance with omnipresent technological advancements. Therefore, the connectedness of the 21<sup>st</sup> century should not be put aside. The breakthrough technological discoveries growing in exponential rates have a great potential to help end the poverty for good. Now, finances as such have seen a great deal of digitalization and facilitation. The developing

world tends to leapfrog the countries with already well-established financial systems and thus arrive to an effective working system. Central America should not be an exception to the trend. Therefore, the question of how those challenges should be addressed is also technological and we will attempt to assess the current situation in the Central America. As we can see, microfinance as form of the financial inclusion is still in the bud, however, developing and growing in a fast-paced manner. The countries with financial background invest substantially in this form of system.<sup>1</sup>The Central American region is considered to be one of the poorest, most unequal and most unstable in the world today. Empowering the poor by giving them some market power to execute on the ideas might solve this problem and definitely contribute to speeding up the development of the countries.

Consecutively, in the theoretical part, we will intend to see if and how the improved financial system for the poor contributes to solve bigger socio-economic challenging. Sketching that concept is important to know whether the strategy of giving access to finance for the poor parts of population work and how.

Whereas, in analytical part, the focus will be given to the financial inclusion and situation of the microfinance in the Central America by using the data to see the bigger picture of the current situation in the region.

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<sup>1</sup> See ADA – Appui au Developpement Autonome – in Luxembourg. The development aid is to the big measure given in the form of investment into the microfinance

## 2 Methodology

1. For developing the theoretical model of importance of the financial inclusion of the poor we used the extensive studies carried out by various organisations and researchers and so called meta-analysis and applying those studies to create the linkages and models.
2. For the data part, we primarily used the secondary data especially the World Bank (Global Findex and World Databank) and IADB database, if not stated otherwise.
3. Furthermore, we intend to correlate and prove at least a partial linkage between the financial inclusion and the inequality. By that to investigate whether, indeed, financial inclusion and inequality have a certain link.

For that study, the World Bank data (Global Findex and Gini coefficient) of 87 countries for the same year (2014) was **standardized** (MIN-MAX method) and run through linear regression analysis in order to acquire the **linear correlation coefficient (r)** and clusters of three different groups (high income, low and middle income, LAC countries).

4. As for the data analysis, the initial idea before the creation of the thesis was to use MixMarket data (so far the most complex and informative database existing on microfinance) however, the database during the creation of the work became payable and the data available free of charge are of the limited character.

Therefore, the microfinance market of the Central America could not be analysed for all the institutions only the ones who are member of the Central American network called the REDCAMIF (Red Centro Americana de microfinanzas) which is a network of

the formal and a sample of the best microfinance institution of the studied region. At the same time, the author believes the acquired data from REDCAMIF have a good representative value. The data obtained were willingly made available by the vice-president of REDIMIF Guatemala - Mrs. Mendoza.

In spite of that, the data for microfinance should be considered carefully as its sources are rather unclear due to the nature of the formality of microfinance and might not be 100% accurate. Furthermore, the nature of microfinance is dynamic, number of institutions fluctuates and not all the institutions report its statistics on the periodic basis to gather data on the national level. Therefore, when the data is interpreted, the results should be taken with approximation and at the same time this reality represents the limitations of this study

5. Prior to the research, we were interested in few specific questions concerning the topic.

Those can be termed as research question of the work:

*Does financial inclusion have a potential to contribute to solve the socio-economic problems of the studied region?*

*Is the financial inclusion in the Central America being supported by technology?*

*Which Central American country has seen the biggest improvement in the financial inclusion of the poor?*

*Do policies have any significant impact on improvement of the microfinancial sector?*

*Did the global financial crisis have an impact on the microfinancial institutions in the Central America?*

*Are women clients sufficiently represented in the microfinance client portfolio?*

*What is the microcredit in the CA most destined for?*

### 3 Financial Inclusion of the poor as part of the sustainable development

The key step to offer a working solution to a problem is its beforehand identification. What part of problem could microfinance in the Latin America solve?

Indeed, LA nowadays faces a lot of challenges be it social or environmental. Though, nowadays the focus is more on the sustainable development not only economic development since the recognition of the unsustainability caused by the environmental degradation which is a problem connected to the industrialization. The sustainable development is the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs.<sup>2</sup>

Some of the developing countries use argument based on the fact that the now economically advanced countries paid no environmental costs during their economic boom. The global pollution has stricken also the developing countries and those want to utilise the natural resources in the same manner as today's developed economies did in the past.<sup>3</sup>

It was the first impactful UN Conference on Environment and Development, also known as Earth Summit, in Rio de Janeiro in 1992. More precisely, ratification of the Agenda 21 where in the chapter 4 it is stipulated: "Poverty and environmental degradation are closely interrelated. While poverty results in certain kinds of environmental stress, the major cause of the continued deterioration of the global

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2 World Commission on Environment and Development (1987) *Our Common Future: The Brundtland Report*. Oxford, Oxford University Press

3 WWF (2012), *Governments must get serious about 'loss and damage' caused by climate change inaction*.

Available at: [http://wwf.panda.org/wwf\\_news/?206889/Governments-must-get-serious-about-Loss-and-Damage-caused-by-climate-change-inaction](http://wwf.panda.org/wwf_news/?206889/Governments-must-get-serious-about-Loss-and-Damage-caused-by-climate-change-inaction) (Accessed: 21 October 2016).

environment is the unsustainable pattern of consumption and production, particularly in industrialized countries, which is a matter of grave concern, aggravating poverty and imbalances.”

The Agenda 21, therefore, was marked historically as one of the setting stones for sustainable development and acknowledgement that the consumption of the natural resources is unequal and concerned in the rich countries but has a global impact. Therefore it continues in chapter 4: “Measures to be undertaken at the international level for the protection and enhancement of the environment must take fully into account the current imbalances in the global patterns of consumption and production.”<sup>4</sup>

In September 2000, the world leaders agreed to commit during the United Nations Millennium Summit to 8 targeted and measurable development goals to be fulfilled by the 2015.

Highlights and most remarkable achievements<sup>5</sup>:

- (1) Eradicate extreme poverty and hunger – declination of people living in poverty from 1.9 billion in 1990 to 836 million in 2015
- (2) Achieve universal primary education – number of children without primary education fell by half compared to 2000
- (3) Promote gender equality and empower women – gender parity in primary school achieved
- (4) Reduce child mortality – the mortality rate of children under 5 was reduced more than by half since 1990
- (5) Improve maternal health – maternal mortality fell by 45%

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4 UNEP. *Agenda 21 - changing consumption patterns* - United Nations environment Programme.

5 UNITED NATIONS (2015), *The Millennium Development Goals Report*. Available at: [http://www.un.org/millenniumgoals/2015\\_MDG\\_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf) (Accessed: 29 October 2016).

worldwide

- (6) Combat HIV/AIDS, malaria and other diseases – 40% drop in new HIV infections between 2000 - 2013
- (7) Ensure environmental sustainability – substances depleting the ozone have been eliminated since 1990
- (8) Develop a global partnership for development – official development assistance increased by 66% from 2000 – 2014.

However, important question concerning the achievement of the MDGs should be asked. Thus the impact was assessed, the MDGs were, according to the measured goals rather achieved. Even though, extreme poverty was not completely eradicated, however, that was rather due to the ambitious goal. In spite of the achievement, it can be still argued that the MDGs were rather achieved as a result of technological and medical advancements which tend to grow exponentially rather than arithmetically. Thus the changes are hard to predict and goals be set. The natural overflow of the technology which improves the daily life of the people in the whole world is one of the big advantage for the developing world. The developing world tends leapfrog the developed countries and adopt directly the new technology.<sup>6</sup> The proof of swift increasing interest of crowdfunding as a potential tool for developing world. The results of technological are new form of development which also incorporate the financial inclusion. Furthermore, there is a debate that “...the level of technology adoption... from AD 1500 turned out to be "an excellent predictor of per capita income today.”<sup>7</sup>

However, the analysis of effectivity of the intergovernmental

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6 The Economist. (2008). Of internet cafés and power cuts. [online] Available at: <http://www.economist.com/node/10640716> [Accessed 29 Oct. 2016].

7 Nobel, C. (2012) How technology adoption affects global economies. Available at: <http://hbswk.hbs.edu/item/how-technology-adoption-affects-global-economies> (Accessed: 29 October 2016).

organizations on MDGs is beyond the scope of the thesis. That being said, in September 2015, the UN General Assembly has adopted new agenda which is valid till 2030 – Agenda for Sustainable Development Goals – SDGs. It was ratified and endorsed by all 193 members of the UN and is valid for all countries. As this work focuses on financial inclusion of the poor for the future, the freshly agreed goals are the most relevant ones to the work.

The new goals are higher in number as 17 of them were adopted.<sup>8</sup> Even though, these goals are not meant for the financial inclusion, it might play a key role in the puzzle for its achievement.

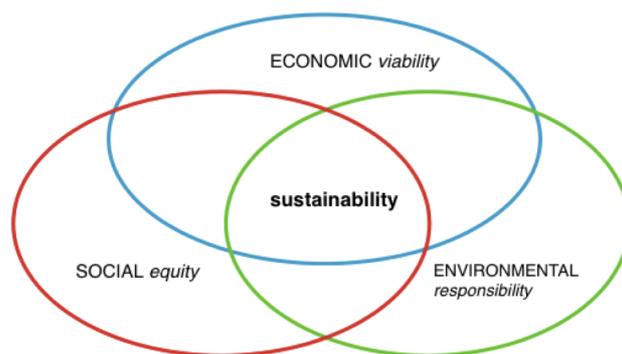
The financial inclusion is giving an effective access to the payment services, loans, insurance, deposit and saving accounts to all working age individuals. Another important part of the financial inclusion equation is effective access which involves convenient and responsible service delivery where its costs are adequate to the income of the

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<sup>8</sup> Nino, F.S. (2016) *Sustainable development goals*. United Nations. Available at: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/> (Accessed: 29 October 2016). **Goal 1.** End poverty in all its forms everywhere/ **Goal 2.** End hunger, achieve food security and improved nutrition and promote sustainable agriculture **Goal 3.** Ensure healthy lives and promote well-being for all at all ages. **Goal 4.** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all **Goal 5.** Achieve gender equality and empower all women and girls **Goal 6.** Ensure availability and sustainable management of water and sanitation for all **Goal 7.** Ensure access to affordable, reliable, sustainable and modern energy for all **Goal 8.** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all **Goal 9.** Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation **Goal 10.** Reduce inequality within and among countries **Goal 11.** Make cities and human settlements inclusive, safe, resilient and sustainable **Goal 12.** Ensure sustainable consumption and production patterns **Goal 13.** Take urgent action to combat climate change and its impacts **Goal 14.** Conserve and sustainably use the oceans, seas and marine resources for sustainable development **Goal 15.** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss **Goal 16.** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels **Goal 17.** Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

individual and at the same time the providing institution is able to be sustained.

It would be important to state, however, what the sustainable development really is. The sustainable development has been promoted with the idea of its three pillars which has been in the core of the planning. It seeks to conserve resources for the future generations by intersecting the three elements of economy, society and environment. The goal is the long-term economic and environmental stability.<sup>9</sup> Those pillars are crucial to be incorporated as part of the decision-making process.



*Figure 1* The theory of sustainable development (own elaboration)

An important part of the sustainable development recognizes the irreplaceable features of the natural resources, and therefore, they should be conserved. Almost 50% of the new SDGs incorporate the idea of the irreplaceability and conservation of the unique natural resources.

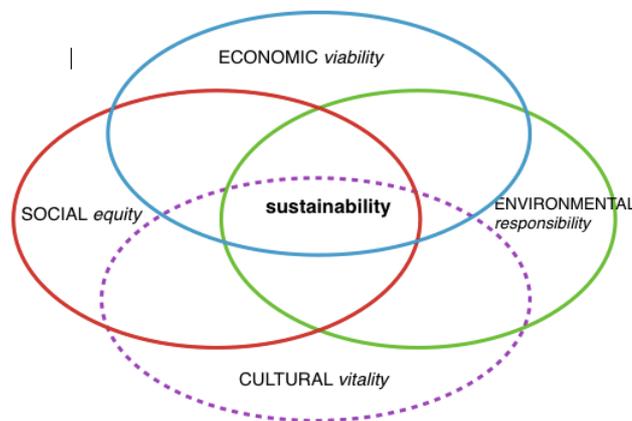
Nevertheless, as Hawkes argues, the cultural vitality is another important factor in application of the idea of sustainability.<sup>10</sup> There is the fourth

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<sup>9</sup> CGAP (2011) Global Standard Setting-Bodies and Financial Inclusion for the Poor, Available at: <http://www.gpfi.org/sites/default/files/documents/CGAP.pdf> (Accessed: 29 October 2016).

<sup>10</sup> Hawkes, J. (2001) *The fourth pillar of sustainability: Culture's essential role in public*

pillar necessary for the sustainability which is “cultural vitality”. In other words, this pillar represents wellbeing, creativity, diversity and innovation. Those elements create community with shared sense of purpose, values which are shared within and thus sustainability needs to be shared and embraced by the culture as a value in order to be successfully achieved. Thus, it could be argued that culture is not only part of social or economic pillar, as it is often regarded, but rather an important pillar to the sustainability. Once value is created it becomes something that is put up for a discussion on the formal level and becomes general value of the people. The UN General Assembly which has established the SDGs is one step. Though, there is no formal tool for the participating governments to abide to the set goals. The theory might play an important role in sustainable development strategy of the countries.



*Figure 2* The fourth pillar of sustainability (Hawkes) 2001 own elaboration

### 3.1 The main developing problems of the Central American region

The Central America is the region where economic activities taking place are to a big measure leaning on the informal activities. The microfinancing sector, therefore, was transformed into an instrument which is to help to alleviate poverty and the treat the socio-economic inequalities.

Micro, small and medium enterprises represent big portion of the business structure in Central America, in some of them up to 90% which is the case of El Salvador. The studies on the contribution, vary but on average they contribute between 20% to 50% of the country's GDP. Furthermore, MSMEs are the employers of the majority of the national workforce as well as they have a great importance for the local market. Thus, they should be considered while creating the strategy for the economic development of the country.<sup>11</sup>

The central American financial inclusion might seem to be rather underperforming, however, according the the index created by the The Economist Intelligence Unit which creates annual report on financial inclusion – Global Microscope. The report measures financial inclusion in 55 countries. It measures the universal access to the diverse products and financial services to the low-income groups with difficulties to be included in the financial system.

It measures 12 different indicators which are weighed.<sup>12</sup> Those 55

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<sup>11</sup> Alvarez, M. (2009) 'Manual de la Micro, Pequeña y Mediana Empresa', CEPAL.

<sup>12</sup> **Composition of the INDEX OF FINANCIAL INCLUSION:** 1. Government support for financial inclusion 2. Regulatory and supervisory capacity for FI 3. Prudential regulation 4. Regulation and supervision of credit portfolios 5. Regulation and supervision of deposit-taking activities 6. Regulation of insurance for low-income populations 7. Regulation and supervision of branches and agents 8. Requirements for non-regulated lenders 9. Regulation of electronic payments 10. Credit reporting

countries are ranked based on the particular indicators boiling into one index = INDEX OF THE FINANCIAL INCLUSION.

Considering and weighing those indicators, as for 2016, the country with the best-performing financial inclusion in the world is Colombia and Peru (1<sup>st</sup> place in 2014) with 89 points out of 100. The worst performing country in LAC and world was Haiti with 22 points only. When we pick out the Central American region, the best performing country is El Salvador (13<sup>th</sup>), then Nicaragua (15<sup>th</sup>), Honduras (30<sup>th</sup>) and Guatemala (42<sup>nd</sup>).

The central axis of this paper is to assess the role of microfinance, and thus financial inclusion primarily of the poor part of the population in one of the most challenging and unequal regions in the world – Central America.

<b>The main socio-economic challenges of the Central American region</b>
1. Poverty
2. Inequality
3. High crime and violence
4. Unemployment and low wages
5. Difficulty to obtain remittances

*Table 1* The main socio-economic challenges in the Central America

It is important to state that microfinance does not solve the complex challenges which the region faces, however, there is evidence that its presence and focus might have a significant contribution in their solving and thus help the development.

Therefore, we will aim to assess the problem on one by one basis with the special focus on the countries of the region which are mostly impacted in terms of the above-mentioned challenges. El Salvador, Guatemala, Honduras and Nicaragua.

The model was constructed based on the studies which prove the cause and consequence of the main problems which slow down the progress of sustainable development of the CA countries. The CA toils mainly in poverty and inequality. Moreover, its past of exploitation by the world power that has divided the society and created one of the most brutal gangs in the world.

## **3.2 Obstacles to greater financial inclusion**

On a global level, we estimate 2 billion of adults who do not have an account in a financial institution which distillates to 41% of adults in developing countries who have an account, and 20% of those living in extreme poverty possess an account in a financial institution.<sup>13</sup>

The main obstacles to financial inclusion are:<sup>14</sup>

### **1. Natural and geographical**

These are mainly of physical character where belongs lack of infrastructure or distance (20% of unbanked reported the bank being too far<sup>15</sup>). Furthermore, more evident barrier are the costs

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<sup>13</sup> WB Global Financial Inclusion Database (2014)

<sup>14</sup> Standard Chartered Bank, *Financial Inclusion: Reaching the unbanked* (2014) .

<sup>15</sup> Aggarwal S and Leora Klapper (2013), 'Designing Government Policies to Expand Financial Inclusion: Evidence from Around the World', University of California and Development Research Group, WB

of having an account as such.

## **2. Insufficient financial infrastructure**

The second of the most serious barriers is a lacking infrastructure of the financial system. Here, government is able to play a crucial role in facilitation of access by banks to borrower's information. This can be done by setting up a public credit registry which can be accessed and managed by the official financial institutions. As a result, the information asymmetry is reduced for both borrower and lender.

## **3. Restrictive regulations**

The strict regulations to fight money laundering, terrorism financing etc. put strain on the poor when it comes to the document requirements. 18% of the adults living in a developing country do not possess the documentation required to open an account.<sup>16</sup>

## **4. Failure of governance**

Improving the management of public sector, even only a in a matter of a fraction can have a very positive impact on development of a usage and access to financial services.

## **5. Increasing attractiveness of the financial services**

This is not really an obstacle, however, rather a strategy that would stimulate the demand by tailoring the products for the poor. That is, making them more affordable, reasonable distance to access and focused on client protection.

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<sup>16</sup> World Bank, The Global Findex Database, 2014

### 3.3 Innovation in financial inclusion

According to the latest data, the financial inclusion in the developing countries is much behind the developed ones. The main obstacles listed below are being treated and more is being improved by technological innovations which are expected to be the tool to leapfrog the old structures in the developing countries.

The banks are constantly searching for the new venues as in South Asia and LAC - Correspondent Banking model<sup>17</sup> enriched by technology or mobile banking which became a success in Kenya. Innovative products as pre-paid cards, voice-controlled or biometric ATMs. Digitalization of finance is a very efficient, transparent and available mean of optimizing and improving the performance of the current financial system.

The best example is the success of the mobile transactions in Kenya. It is often cited as one of the greatest successes when it comes to the developing country and efficient adoption of the digital finance.

The study from Niger concerning the mobile transfer proved, the households which received payments in this kind of form had a richer diet and children received more meals per day. This is a consequence of the cost reduction of transfer costs, as well as time saving since the recipients spent less time travelling and awaiting the transfer. Moreover, power of women over the finance in the household increased as well.<sup>18</sup>

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<sup>17</sup> A correspondent bank is a financial institution that provides services on behalf of another, equal or unequal, financial institution. It can facilitate wire transfers, conduct business transactions, accept deposits and gather documents on behalf of another financial institution. Correspondent banks are most likely to be used by domestic banks to service transactions that either originate or are completed in foreign countries, acting as a domestic bank's agent abroad.

<sup>18</sup> Aker, J. (2014), *Payment Mechanisms and Anti-Poverty Programs: Evidence from a Mobile Money Cash Transfer Experiment in Niger*. CGD Working Paper 268.

## **4 Importance of financial inclusion in solving the developing problems**

The importance of the financial inclusion is not clear in the eye of the beholder in the light of the more important problems. However, it seems to be a very important element in helping to solve a number one cause of many problems which is poverty and social inequality – the top problems in the Central America.

Surely, the financial inclusion (especially financial inclusion of the poor done using microfinance).

Therefore, the causal model was developed to support the idea that the financial inclusion has an elemental place in the equation to the solution to the most draining problems of the region identified above.

It is to be mentioned that the author is aware of the fact that the equation bringing the solution has many other variables as strong institutional system, transparency, education.

This model is more bidirectional when coming to the ideas of “from bottom-up” or “up-bottom”. The governance plays an important role in harnessing the potential of the financial inclusion of its income-divided and poverty stricken populations who are able to lift up economies by being given an opportunity to have financial services open to the “unbanked” segment of population. Though, as discussed, the bottom-up direction is necessary as well by the people who are given opportunity to be included in the fin. System, to show the willingness to invest and venture with the capital.

The Model is based on the previously done (quality) studies – therefore meta analysis - which are more exact and mainly the statistical sample is numerous and, therefore, somehow significant to prove the links to the solutions of one of those problem.

The idea, by that token, is to incorporate the financial inclusion in the sustainable development of the countries of the Central American sub region and show that financial inclusion has more implications and has its holistic implication in terms of the spill-over effect to the other developing socio-economic problems.

Furthermore, we will discuss the linkages by sketching the importance in relevance to every problem afflicting the Central American countries – mainly the poor ones which are the objective of this work – El Salvador, Honduras, Guatemala and Nicaragua.

### Financial inclusion and its potential role in solving the main socio-economic problems in CA region

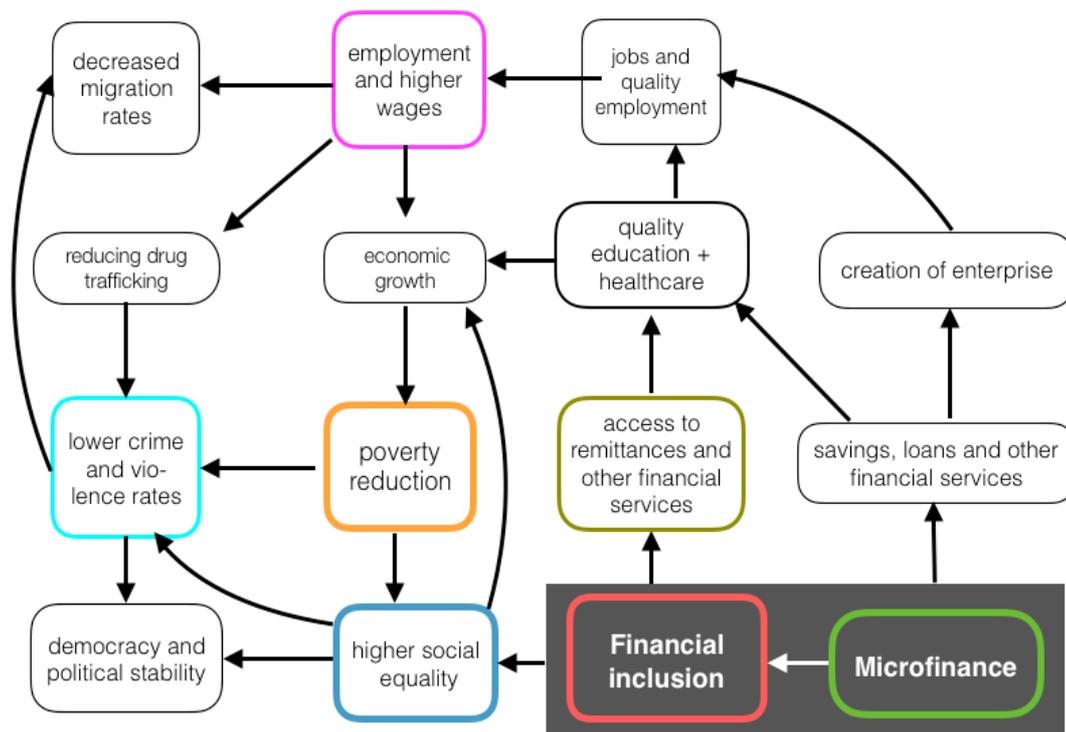


Figure 3 Financial inclusion and its potential role in solving the main socio-economic problems in CA region (source: own elaboration based on various studies)

## 4.1 Poverty

In general, it could be stated that poverty takes many forms. Though, the primary focus derived from the common sense lies upon ensuring the certain standard of living that does not bring a person to the physical constraints and gives them decent standard of living. It is important to point out that poverty is subjective depending on the person's country of residence as the standards vary greatly. Poverty has been known to the human kind since the old times and nowadays, thanks to the new technologies and interconnectedness, the poverty has become a top problem of the contemporary world. However, poverty is relative and the different organizations agreed on certain measurements which would apply globally.

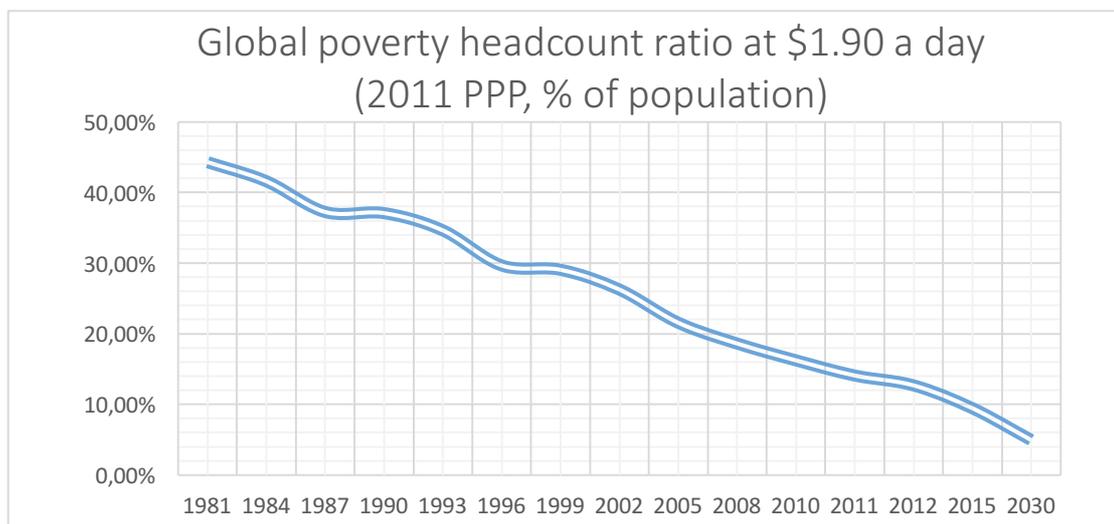
The people in deep poverty are more vulnerable towards the external (usually unpredicted) events. In the 90s, the extreme poverty was mainly devastating in East Asian region. The contemporary world's poverty habitat – 80% of global poverty – is in Sub-Saharan Africa and South Asia. Whereas, almost 60% of all poor are located in 5 countries namely – Bangladesh, China, India, Nigeria and DRC.

To project this based on the official definitions by the World Bank whose statistics define an extreme poverty as living on less than 1.25 USD per day<sup>19</sup>. As a new line which was updated due to the changes in the standards of developing countries, 1.90 USD per day was decided to be an a border of an extreme poverty. According to the data published in 2015, the mentioned extreme poverty fell, for the first time, below the level of 10%. As for the global poverty, we have witnessed the rapid decline between 1990-2012 particularly in East and South Asia, which when translated to the real numbers we talk about 1.96 billion people in 1990 and This figure is in alignment with the two clear goals established

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<sup>19</sup> PPP 2005

by the World Bank in 2013 which are to a) completely end extreme poverty by 2030 and b) promote shared prosperity. Therefore, the ending the global poverty has become the main oscillation point of the international community.<sup>20</sup>



*Figure 4 Global poverty headcount ratio at 1.90\$ a day (2011 PPP, % of population*

Nevertheless, the current projections according to the the research published by the World Bank, talk rather about based on country-specific historic average growth and lean on predictions between 350 – 480 million people living under extreme poverty line in 2030, which translates to the 4.2 – 5.7%.

According to the statistics of the world bank extreme poverty has decreased by great deal of 78% in the past 36 years and abovementioned projections talk about decrease by 90% in another 15 years in comparison with 1980.

<sup>20</sup> World Bank (2015), *Pronósticos del Banco Mundial: Por primera vez la pobreza mundial se situará por debajo del 10%, y persisten grandes obstáculos para ponerle fin a más tardar en 2030*. Available at: <http://www.bancomundial.org/es/news/press-release/2015/10/04/world-bank-forecasts-global-poverty-to-fall-below-10-for-first-time-major-hurdles-remain-in-goal-to-end-poverty-by-2030> (Accessed: 29 September 2016).

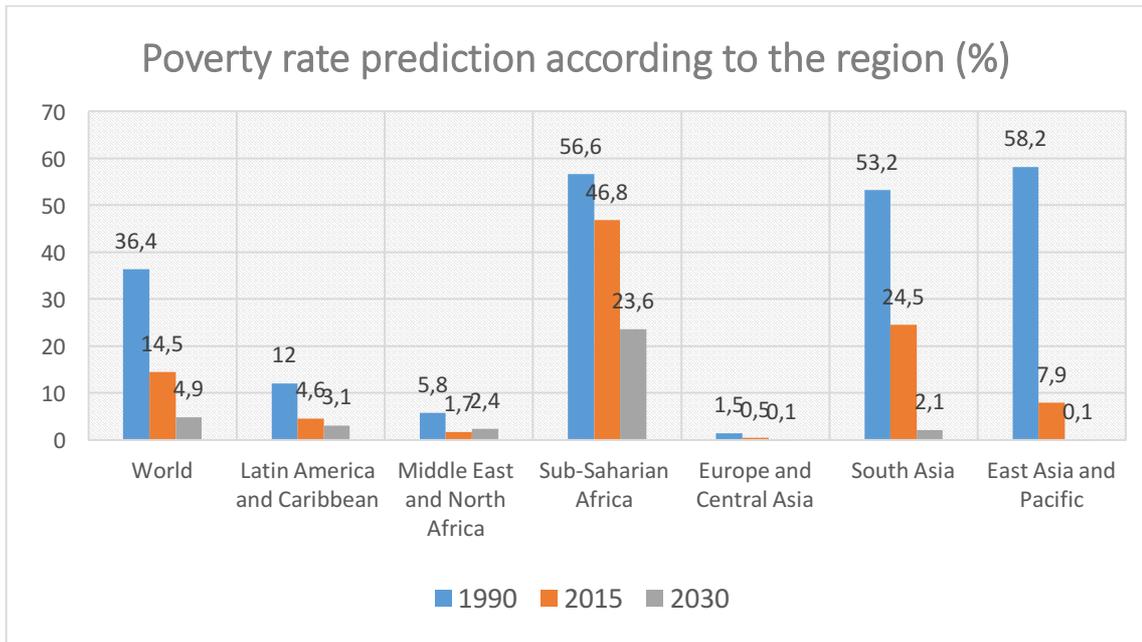


Figure 5 Poverty rate prediction according to the region (%)

Therefore, the goal of complete termination of extreme poverty seems to be overly ambitious according to the published projections. Though, it could be stated that those goals serve as a driving force behind the daily and long-term for the international community in spite being unrealistic. It is possible to notice the similar pattern in setting the EU's political agenda for environmental and which could be basically deemed unrealistic but it is more about vision and motivation.

The new Sustainable Development Goals agreed by the all 193 member countries have poverty as the first and highest priority (similar to Millennium Development Goals established in 2000) till the year 2030.

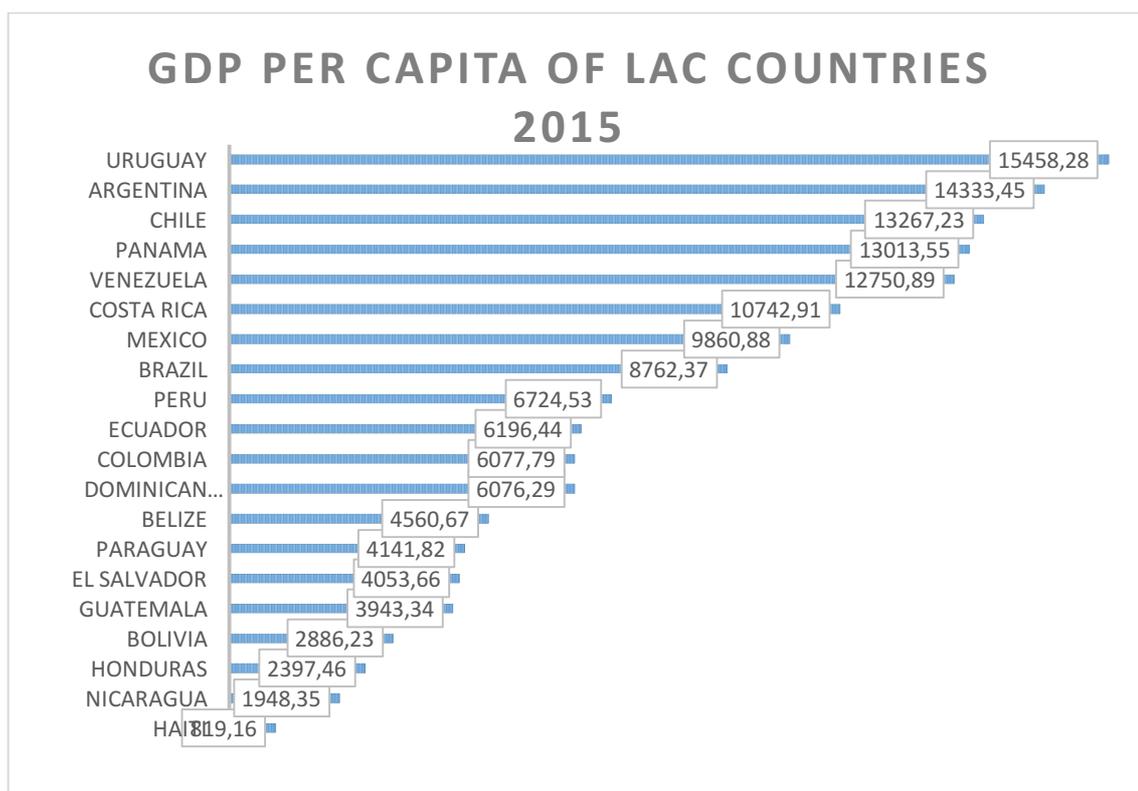


Figure 6 GDP per capita of LAC countries

More complex measurements by incorporating other Human Development Index is a composite indicator which understands that the income is not the only measure of human wellbeing. It also incorporates a measure of country's health, education and income. It is a rather simplistic calculation. It is widely recognised as a more holistic way of measuring the development of the country and the wellbeing of its people. Thus, later it was generally agreed that human development is rather holistic process of healthy and long life with resources that that secured a decent living standard.<sup>21</sup>

Therefore, we get the composite indicator based on indicators:

- Dimension of education based on mean years of schooling and

<sup>21</sup> Jahan, S. (2016) *Get the latest insights on human development*. UNDP. Available at: <http://hdr.undp.org/en/hdi-what-it-is>

expected years of schooling

- Dimension of long and healthy life which involves life expectancy at birth
- Dimension living standard based on Gross National Income (PPP \$)

The countries are successively divided into the group of countries of very high human development, high human development, medium human development and low human development.<sup>22</sup>

## 4.2 Financial inclusion and microfinance

### Model elaboration: The socio-economic problems and financial inclusion

Speaking in the simple terms, only 43% of people in the poorest fifth of the household had the opportunity to open an account in any financial institution.<sup>23</sup>

The poverty numbers being designated; financial inclusion of the poor is important as it was proven to support savings which can have impact on poverty. Once low-income population has a healthy access to the financial services, they tend to save the significant part of their income which is likely to increase macroeconomic scale of the productive investment and consumption.<sup>24</sup>

More importantly, the studies have shown that spreading of financial services into the rural and poorer areas, can increase their income. Furthermore, this naturally increases their potential of the human capital

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<sup>22</sup>U.N.D.P (2014) *Human development report 2014: Sustaining human progress - reducing vulnerability and building resilience*. United States: United Nations.

<sup>23</sup> Global Findex Database, WB, 2014

<sup>24</sup> Aportela, F. (1999) *Effects of Financial Access on Savings by Low-Income People*

as a result of the increased investment to the education and health. Especially innovative design of the services like mobile payments. Therefore, we could apply the general finding that once poor part of the population has an access to the financial services they use them, save and their income rises.<sup>25</sup>

Another important factor for people finding themselves in poverty is an extreme vulnerability to any external shocks. To be able to resist any shocks – death, natural disaster, market crashes, seasonal lack of crop – savings are to a great extent able to secure that. As a study done in Malawi on the group of cash crop farmers shows that: “*offering access to individual savings accounts not only increases banking transactions, but also has statistically significant and economically meaningful effects on measures of household wellbeing, such as investments in inputs and subsequent agricultural yields, profits, and household such as investments in inputs and subsequent agricultural yields, profits, and household expenditure.*”<sup>26</sup>

Furthermore, as depicted on the model, through education and healthcare we acquire higher human capital when the poor countries have high human capital per person – in relation to the GDP per capita – they tend to catch up with the rich countries and thus the human capital rich countries have low fertility and make more physical investment into the GDP.<sup>27</sup>

There have been more studies done which support the idea that greater

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<sup>25</sup> Does poor people’s access to formal banking services raise their incomes? (2012) Available at: <https://assets.publishing.service.gov.uk/media/57a08a5bed915d622c0006cb/Banking-access-2012Pande.pdf> (Accessed: 5 November 2016).

<sup>26</sup> Brune, Gine, and Goldberg, (2015). *Facilitating Savings for Agriculture: Field Experimental Evidence from Malawi*. 1st ed. [ebook] Available at: <http://www.nber.org/papers/w20946.pdf> [Accessed 20 Nov. 2016].

<sup>27</sup> Barro, R. (1991). *Economic Growth in a Cross-Section of Countries*. The Quarterly Journal of Economics Available at: <http://www.econ.nyu.edu/user/debraj/Courses/Readings/BarroGrowth.pdf>

access to the financial markets and credit in general support the children's schooling years, and vice versa, the lack of access to the credit sustains poverty due to impacted education of the youth.<sup>28</sup>

Poverty is highly correlated with **inequality** which is improved by the developing financial system. The financial development, indeed, reduced the absolute poverty. The poorest quintile was proven to benefit the most by higher income growth when the income inequality and economic growth were further and latter represent the result of the advanced financial system. The access to the financial system benefits the poor and causes their income rise faster than the average GDP per capita and by that the income inequality gap narrows down.<sup>29</sup> As depicted on the Model, inequality subsequently leads to hurting the economic growth<sup>30</sup>, while further redistribution of wealth propels it.<sup>31</sup>

An important study was done in Mexico which supports our theoretical meta analytical model by studying a region where 800 new branches of Banco Azteca which targeted primarily the population with below-median income. Thoroughly, this segment of population saw the most benefit of the new financial branches. Informal business increased and employment as well which translated into the boost in employment by 7%. Therefore, once the low-income population given increased access to finance, a pronounced impact on income level and employment can be noted.<sup>32</sup>

*Inequality furthermore, was proved to cause political instability and*

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<sup>28</sup> Beck, T., Demirgüç-Kunt, Levine, (2007). *Finance, Inequality and the Poor*

<sup>29</sup> Ibid.

<sup>30</sup> Cingano, F. (2014) Trends in income inequality and its impact on economic growth., OECD

<sup>31</sup> The Economist (2015) *How inequality affects growth*. Available at: <http://www.economist.com/blogs/economist-explains/2015/06/economist-explains-11> (Accessed: 20 December 2016).

<sup>32</sup> Bruhn, M. and Love, I. (2014). *The Real Impact of Improved Access to Finance: Evidence from Mexico*. 1st ed. Journal of Finance.

*violence which is a severe issue in the Central American sub region.* Crime and violence are symptoms which as depicted on the Model 3 come mainly out of inequality. Non-democratic societies tend to be controlled by elites which spurs big discontentment in the society which leads to revolutions, political instability and violence. Therefore, non-democratic society was initially created by the divisions of the poor and the rich.<sup>33</sup>

Different studies show that poverty, inequality, labour market and education are important predicting factors of urban violence which in turn have a negative effect on socio-economic development of the country, violence and higher homicide rates. Migration is another consequence of instability and mainly insecurity of the country.<sup>34</sup>

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<sup>33</sup> Acemoglu, D. and Robinson, J.A. (2001) 'American economic association', *Source: The American Economic Review*, 91(4), pp. 938–963.

<sup>34</sup> Alexander, C.P. (2011) 'Economic development, inequality and poverty: An analysis of urban violence..', *Oxford Development Studies*, Vol. 39, No. 4, December 2011.

## 5 MICROFINANCE

### 5.1 What is microfinance?

The main idea of microfinance is to give access to the broad set of the financial services which are focused on the needs of the low-income population groups and the amount of such loans often surpass not more than hundreds of euros. The access to the capital is given in order to issue a loans, savings, life insurance, property insurance, system of payments etc. These products are mainly aimed to the individuals micro or small entrepreneurs in the field of agriculture, shop owners and craftsmen etc. predominantly in the developing countries where the poor people are not able to access the initial and thus very important starting part of their venture. This is not only the result of administrative factors, however, due to the fact that they do not have a physical access to those institutions from the rural areas. Microfinance might be a representative of the exciting opportunities for the developing world to extend the markets, speed up the social change and more importantly an aid to reduce poverty.

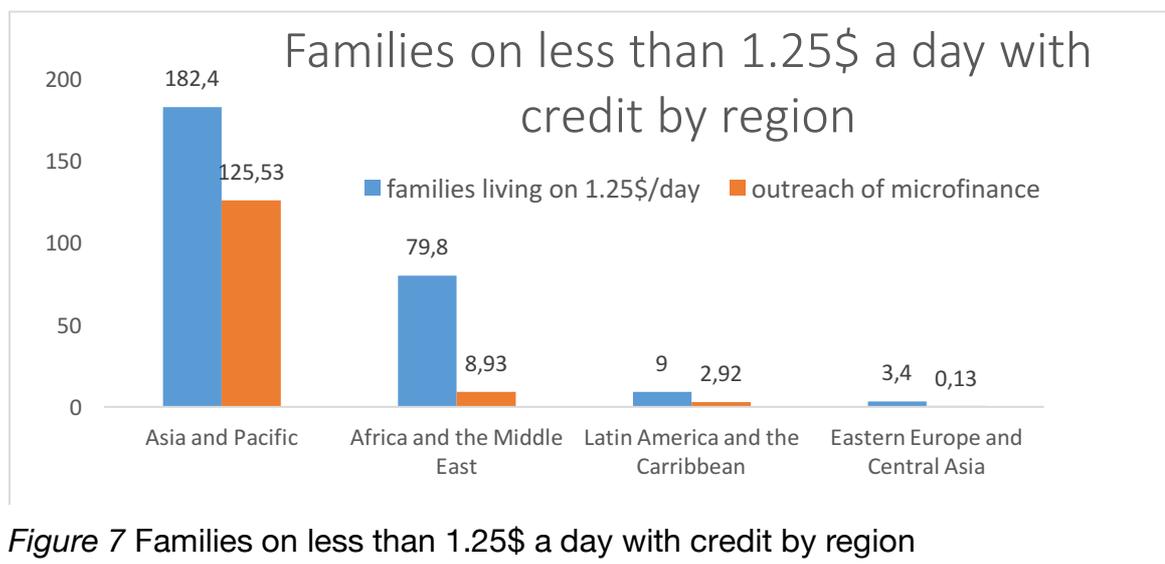


Figure 7 Families on less than 1.25\$ a day with credit by region

Furthermore, the commercial banks usually require the interest rate around 5% are not willing to provide those small entrepreneurs in developing countries with the capital due to the several reasons:

- a) The people do not have securities to pledge as collateral.
- b) the small entrepreneurs do not usually keep financial records. In case they do, the loss is recorded in order to avoid tax payments
- c) the poor are often at higher risk of defaulting on the loan as the result of the unstable income
- d) it is more profitable to give few high-amount loans than rather many small loans often worth hundreds of dollars due to the administrative burden for the bank that comes with every issued loan.

The people suffering from poverty have very limited influence on the formal market about their financial needs in the form of loans and saving services. Thus, we get to the rather familiar situation where: "...services are not provided. Those who hold the power do not understand the demand; those who understand the demand do not hold the power."<sup>35</sup>

In the developing countries the problem of capital access money borrowing has been often addressed by approaching the moneylenders, or in other words, informal financial sector. Those come from the community of the borrower and reputation serves as a security. Typically, the cost of such informal borrowing is very high for the poor strata of population.

Therefore, the vicious circle is close by the higher interest rates charged by the banks to the poor due to the increased risk.

According to the WB statistics, Sub-Saharan Africa and Latin America have the most difficult conditions to set up the business. In Sub-Saharan

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<sup>35</sup> Robinson, M. (2001). *The microfinance revolution*. 1st ed. Washington, D.C.: World Bank.

Africa the costs to start the formal business top the 34% of income per capita and in Latin America it is more than 20% and furthermore the potential entrepreneurs need to fulfil demanding procedures of 7.5 on average.

<b>COST OF STARTING A FORMAL BUSINESS in 2016 (median values)</b>			
<b>REGION</b>	<b>Procedures required to set up a business</b>	<b>No. of days required</b>	<b>Cost (% of income per capita)</b>
<b>High-income OECD</b>	<b>4.5</b>	<b>5.55</b>	<b>1.4</b>
<b>South Asia, East Asia and the Pacific</b>	<b>7</b>	<b>17</b>	<b>11.05</b>
<b>Middle East and Northern Africa</b>	<b>7.5</b>	<b>14.5</b>	<b>8.8</b>
<b>Subsaharian Africa</b>	<b>7.5</b>	<b>17</b>	<b>34.45</b>
<b>Europe and Central Asia</b>	<b>4</b>	<b>7.5</b>	<b>1.5</b>
<b>Latin America and Caribbean</b>	<b>7.5</b>	<b>18.25</b>	<b>20.6</b>

*Figure 8* Cost of starting a formal business in 2016 by region

## **5.2 The historical development of microfinancial institutions**

The micro-financial institutions are not a completely new phenomenon in the world and many developing countries have been witnesses of the long history which was mostly the result of attempts and errors which brought them to the shape we know nowadays.

The microcredits are a pretty recent phenomenon, however, the idea is not that new as it can be traced to the institution named Irish Loan Fund established on the idea of Dean Jonathan Swift who in the 1720s distributed 500 pounds in the small amounts in loan to the poor artisans in Dublin. Consecutively, 20 years later the Dublin Musical Society started with similar activity based on the Swift's idea and as positive impact was becoming recognized, parliament in Ireland passed an act to appoint people in different regions to to lend out microloans to without an interest to the local manufactures:

*“industrious tradesmen ... are often incapable of earning to themselves a livelihood for want of money to buy materials and other necessaries for carrying on their respective trades; whereby several of that useful class of men have perished, and their families reduced to beggary and become a burthen to the public.”<sup>36</sup>*

This was ensured on the basis of peer monitoring to secure the repayment as the loans were short term and repaid on the basis of the weekly instalments. As of the 1840, Ireland would see 300 funds which spread mainly after the law which allowed the funds to collect deposits which would bear interests and, furthermore, charge an interest on the provided loans. More interestingly, the Loan Funds eventually managed to cover 20% of the domestic demand as the deposit rates became three-fold to the commercial banks whose representatives did not like the fact and, thus, decided to influence the legislation using their power. Later on, the catastrophe in the form of famine strikes upon the Irish population and the economic stagnation started which diminished the demand for the services offered by the funds. In the beginning of the 20<sup>th</sup> century, therefore, we see the disappearance of such funds in Ireland in spite of its initial success.

In the middle of the 19<sup>th</sup> century, Germany starts microfinance initiatives with the pioneer named F.W. Raiffesen, learning the lesson from Ireland that charity, created rural savings and credit cooperatives which are known today as Raiffeisenbank and simultaneously Schulze-Delitzsh establishing urban version of such cooperative which is known today as Volksbanken. It was not until 1889 when the watershed moment of formal legalization of credit cooperatives (1<sup>st</sup> law of its kind in the world) when the two German aforementioned cooperatives became formal

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<sup>36</sup> Seibel, Hans Dieter (2005) : *Does History Matter? The Old and the New World of Microfinance in Europe and Asia*, Working paper / University of Cologne, Development Research Center, No. 2005,10

institutions. Till the beginning of the WWI., we could see the sharp rising of credit cooperatives till more than 15000 and the idea overflow to the neighbouring countries like the Netherlands where the agricultural crisis spurred the establishment of more than 1200 credit cooperatives.

Therefore, the lesson from the history is that the idea of micro-banking is not to be considered as a remedy for the poor in the developing countries. As Siebel points out, the key step to the implementation of such solution is the legalisation of the informal finance by creating the effective framework of regulations and supervisions.<sup>37</sup>

The years after the WWII. the new states were created which had as the primary objective the economic growth, and especially in the developing countries the emphasis was put on the agricultural sector with implementation of new agricultural technologies with higher returns. However, the new technology being expensive, the idea was to give the poor farmers an access to the finance via state subsidized micro loans which would result in the high-yield

As the first successful MFI we could consider the Grameen bank established by Muhammed Yunus which was initially created as an experiment and after the difficult start it grew fast. The first customer served dates back to 1975, with the 1 millionth customer in 1995.

The Grameen Bank was based on the idea that poverty is not created by the poor people but rather by limitations which are imposed and created by the institutions and government policies. Therefore, Yunus thought of giving the poor people the chance to put their skills into practice by creation business or invest into agriculture, all this by giving them an access to the small capital which has to be repaid. He believed that the charity sustains the poverty and does not support the person's

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<sup>37</sup> Siebel, Hans Dieter (2003), *History matters in microfinance*, Working paper/ University of Cologne, Development Research Center.

initiative to get out of the poverty. The answer to poverty is using inner energy and creativity which has market value and thus human being becomes richer.

The following principles are core to the running of the institution:

- decentralization by establishing banking in poor and remote areas
- to limit the abusing power of local loan sharks
- self-employment of the poor in the villages
- incorporate the weakest, mainly women, into the organizational structure

As of today, this pioneer MFI could be termed as women bank since it has served 7.06 million borrowers of which 97% are women. The organizational structure is leaning upon 2422 branches with 22924 employees and country-wide outreach of 78101 villages.

### **5.3 Microfinance targeting the vicious cycle of poverty**

The main financial issue touching the underdeveloped countries concerns the capital which is rather scarce and only few have means to access it. Poverty is a vicious circle that crops from generation to generation. Once people are empowered, they will be able to make independent decisions and thus break away from the cycle. Empowerment has a multiplier effect in a society in which an empowered individual acts as a benchmark to people and others can model individual's or group's behaviour and thus an empowered community can be created. The vicious cycle of poverty is a *“circular constellation of forces tending to act and react upon one another in such a way as to*

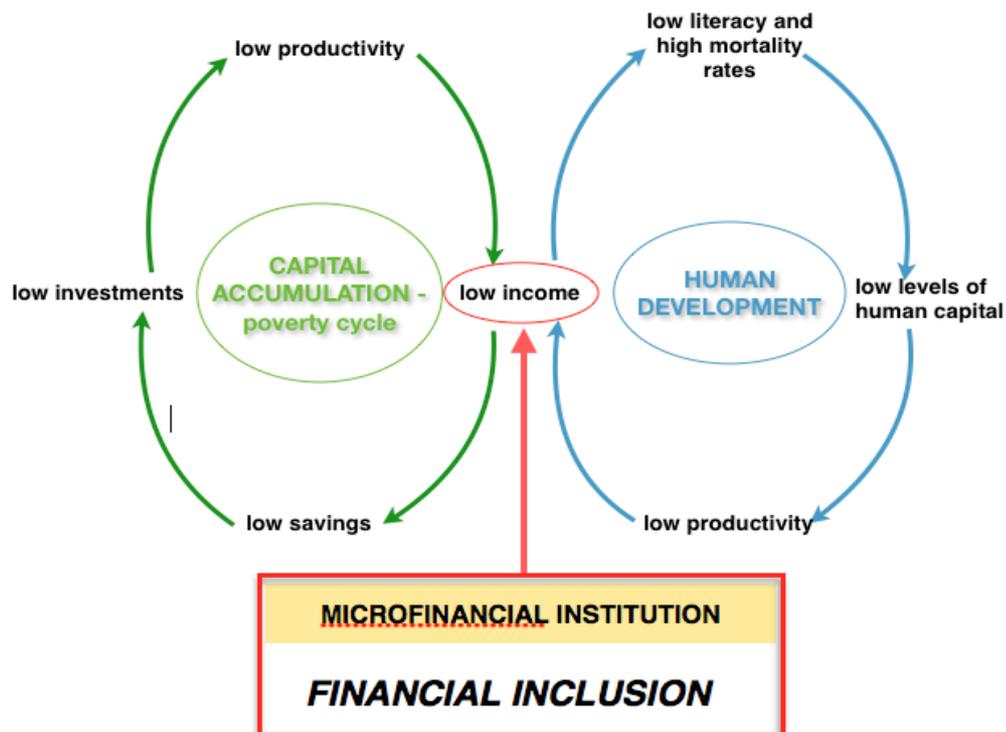
*keep a poor country in a state of poverty.*"<sup>38</sup> The studies based on various models argue that the cycle can be broken only by the more intense capital formation and investment.

On the figure below, we might see how human development is connected with the capital accumulation. The MFIs primarily target the low income which is a common attribute of the two cycles. Thus, the higher income spurs higher savings and thus more capital for investment. From the demand point of view, the higher purchasing power which is the consequence of higher income which was increased by the higher productivity as the investment made the productivity rise. As we see the high literacy and lower mortality rates are linked with the low income which in turn does not help to develop the human capital and productivity remains low and so does the income. The cycle needs an external incentive to be broken.

Financial inclusion in form either formal or informal, should be able to incentivize the people who are willing to break out of those poverty cycles. The MFIs do so by providing the options poor who are unable to access the incentives due to the exclusion from the financial flux.

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<sup>38</sup> Ragnar N. (1955), *Problems of Capital Formation in Underdeveloped Countries*, New York, Oxford University Press.



*Figure 9* low income as a connection point between low human development and poverty cycle (own elaboration; source: Ragnar, Problems of Capital Formation in Underdeveloped countries)

## 5.4 Microfinance and the theory of the diminishing returns

The theory of the diminishing returns is one of the basic economic theories which supports the economic idea where every additional gain in the unit of the capital of already working firm, diminishes the growth in profit with every unit. Though, if the capital was invested into the newly established enterprise. In a practical example, once the newly established micro or small enterprise invests certain amount in its growth (labour, machinery etc.), the output will grow and thus profit as well. If a new company wants to increase growth of its output, it comes with a lot more investment requirements (mainly innovations which require research and development and time).

The newly established firm is therefore capable of paying higher interest rates than the stable and richer enterprises. More capital should be flowing from richer and more stable enterprises to the starting ones, and in the same logic from the developed to the developing countries. The practical application of the idea would be to invest in the countries of south Asia, Central and South America or Africa.

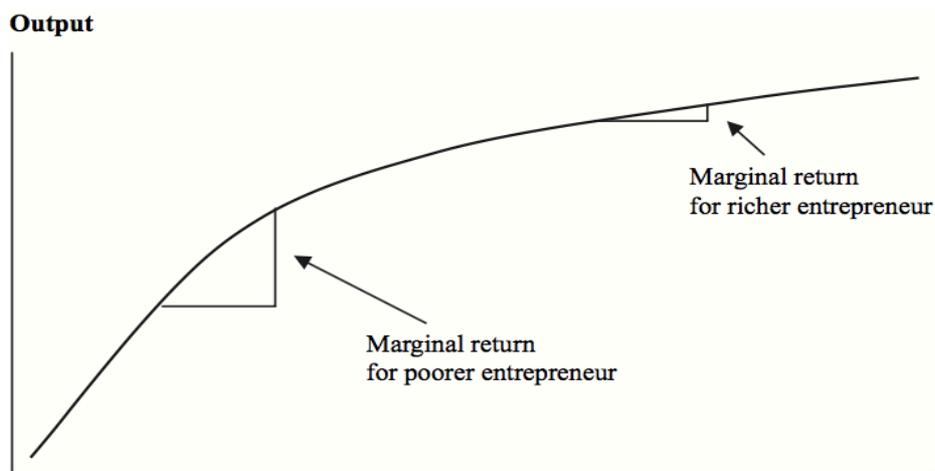


Figure 10 The theory of diminishing marginal returns (source: Morduch, *The Economics of Microfinance*)

However, as a matter of fact, the theory deviates from reality and the above mentioned capital flow is rather limited. The main obstacle to this is the *risk aversion* from the side of the investors as they are more willing to lend money to the companies in the politically and financially stable areas which is an understandable act. This is in spite of the fact that other companies in the developing world might have higher returns and thus pay higher interest rates which would compensate for the risk. Even though, some clients might be willing to pay higher interest rates in order to compensate for the higher risk, some countries have interest rate restrictions coming from the government and thus the institutions are unable to compensate for the given risk. This could lead to an incorrect idea that the barrier to the microfinance is purely political. So once all

the imposed barriers are removed, the banks will flow to the poor regions and start lending money to the poor. Unfortunately, this is not the case. The two challenges are:

*A) lack of information on the customers:*

Challenge for the banks is the risk assessment which comes with high costs which often exceed the profit from the small loans and banks lack motivation to borrow to the starting-up companies. Banks would be more likely to charge to the riskier borrowers' higher interest rates and to the safer ones, less as a compensation of default likelihood. Furthermore, the theory of diminishing returns is rather limited in the conditions of the developing countries. The human capital, education, skewed or no information etc. are the ones posing barriers to entrepreneurship.

*B) collateral from the customer's side:*

In the economically and politically stable countries with efficient judicial system, customers secure their loans with tangible or intangible collateral. In the developing area the proprietary laws are often perceived in a different way and only very low percentage of population can put the house or any other asset as a collateral. It is rather a difficult task to claim the property rights at the occurrence of borrower's default.<sup>39</sup>

The described market gap for the poor and their financial inclusion might be filled with microfinance. It is not a perfect way, though it is a step to There exists a lot of criticism on microfinance, however, for the time being it is one of the main too to assess the problem of client's lack of information and transaction costs that come with the small loans. By the same token, breaking the cycle of poverty with the focus on

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<sup>39</sup> de Aghion, B.A., Morduch, J. and Armendariz, B. (2005) *The economics of microfinance*. Cambridge, MA: MIT Press.

microfinance development and smart improvement of the concept is a potential and sustainable venue to investment into the local communities rather than investing into the development aid only.

## **5.5 Division of microfinance**

The microfinancial institutions were established to ensure the stable economic development for the people who are not able start or continue financing their venture as a result of poverty. Those institutions offer an ample variety of the services as classical commercial banks. Furthermore, there are products like saving, insurance, financial transactions. Though, however, with the different strategy and mind-set behind their products which are aimed at the people in financial difficulties in order to increase their socioeconomic conditions. The organizational structure of the majority of MFI consists of the headquarters and then smaller regional branches with personal approach.

The microfinance institutions proactively encourage the poor people to save financial resources which is facilitated by the tailored saving accounts where small amount of money might be stored. The idea is to save up for the future expenses be it emergency or starting capital to open the business.

It should be pointed out that microfinancing and microcredit are not two mutually interchangeable terms as the latter refers to microloans. Those microloans are mostly intended for investment purposes (business loans) and in order to incentivize the establishment of small or micro<sup>40</sup> businesses.

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<sup>40</sup> The European Commission defines a micro-business as one which has fewer than ten employees and a turnover or balance sheet total of less than €2 million.

The MFIs are divided based on the level of formality to<sup>41</sup>:

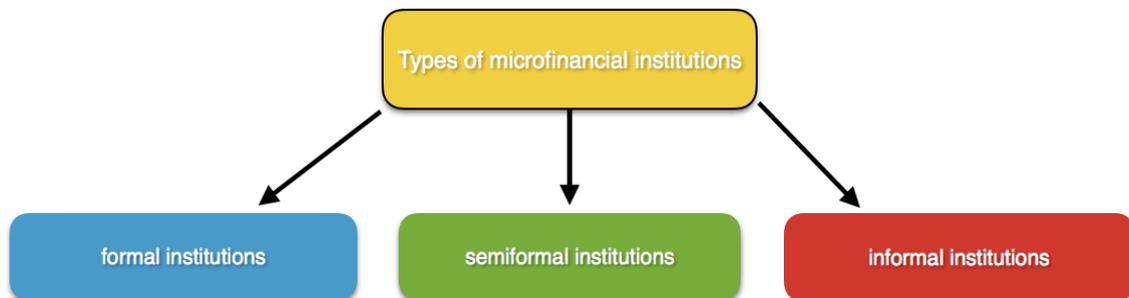


Figure 11 Division of microfinancial institutions based on formality

- **Formal** – the institutions which have the character of classic commercial bank, non-banking financial companies as well as development banks. The law of the pertaining country applies and banking regulations and supervision acts applies which stem from the fact they are officially registered as an official body providing financial services.

- Public development banks
- Private development banks
- Savings banks and postal savings banks
- Commercial banks
- Nonbank financial intermediaries

- **Semi-formal** – the institutions which are registered coming under the

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41 Food Agriculture Organization of the United Nations (2005) *Microfinance and forest-based small- scale enterprises*.

commercial and general law with the exception of banking regulations and supervision acts. Such entities are often crucial in providing the finance for the low-income groups.

- Non-governmental organisations
- Self help groups
- Multipurpose cooperatives
- Credit unions

- **Informal** – they are not regulated but they can be characterized by personal relations, individual approach, easy access and simple procedures. This way of the informal financial management tends to have higher importance for the poor than the formal or semiformal FIs because the informal finance is simpler and comes in many forms not only in structured as in the case of the institutions. The loans provided by these kinds of institutions are usually given on the basis of the trust. These subjects often do not have accounting books and therefore are not included in the official statistics.

- Moneylenders (problem is with the interest rates which are very high and they do not target the borrower's needs)
- Trader and landlords
- Majority of self-help groups
- Rotating saving and credit associations
- Relatives or close friends

The microfinancial institutions are, furthermore, divided based on the fact how they lend the credit to its clients.<sup>42</sup>

- **Associations:**

a community groups together to create an association which operates with its microfinancial activities. Those associations are formed based on the common believes or background (religion, gender, common political or social goal etc.). These types of organisations are sometimes anchored in the legal structure of the country and thus those associations are able to collect the feels, provide the insurance, able to have tax breaks etc. 7

- **Bank Guarantees**

the donor or the government agency is the guarantor of the microcredit, which is provided to the group or individual

- **Community banks:**

the whole group is considered as one unit and thus the (semi)formal institution is created and the entity provides the microfinancial services. These are often created with the assistance of the NGOs and other institutions which are instructed by the members of the community and are educated in the various fields.

- **The village banks:**

credit and saving associations which follow the idea of the community. The most common organization is 25 to 50 (usually women) people with the poor background who manage the bank. The credit is the guaranteed by the moral fibre of the group

- **Cooperatives:**

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<sup>42</sup> Ledgerwood, J., Earne, J. and Nelson, C. (2013). *The new microfinance handbook*. 1st ed. Washington, DC: World Bank, pp.214-217.

The main difference between the cooperatives and the community banks or the associations is the management which is made of people from middle or higher class providing the credit to the poor. The cooperative acts as an enterprise

- **ROSCA (Rotating Savings and Credit Associations)**

The small groups to which every member contributes on the periodical basis to the common fund which is consecutively used for the credit lending.

## **5.6 The performance of microfinance**

The founders of microfinance set up the concept on the simple vision of satisfying the demand of the poor for credit and formal services which were previously unattainable for them due to the exclusion from the financial flow. The poor people usually ask for small loans for covering their basic needs and entrepreneurial ideas, had small savings which were negligible when put next to the rich clients (especially in the developing countries with small-sized middle class) and, importantly, missing collateral.

## **5.7 Microfinancial products**

There is a myth that microfinance is mainly about (micro)loans. Indeed, in the beginning the microcredit lending, in the 80s, was the focus. However, as the sector grew and necessary mechanism developed to offer wider range of services to its clients. The experts argue that other services outside of credit range provided by MFIs are equally important to the poor, especially the option to save and have insurance for the unforeseen events.

As an example of practice in Bangladesh, the staff members go around on daily basis to collect any money from the clients who want to deposit their money, contribute to the existing loan debt or any other transaction.

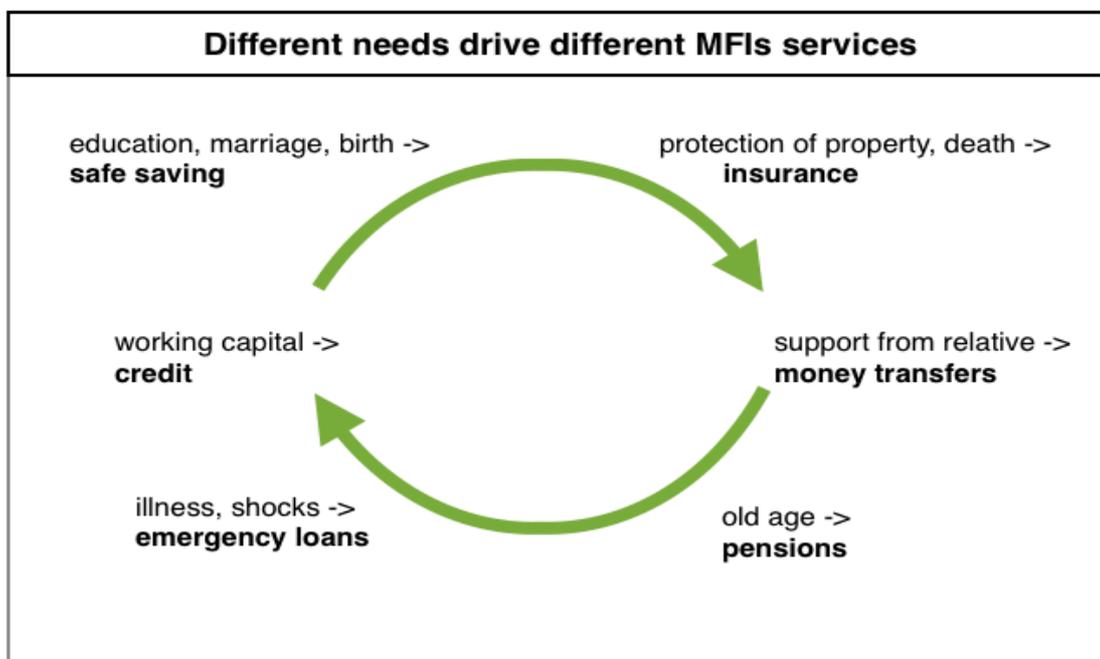


Figure 12 Different needs drive different MFIs services (source: Graham A. N. Wright)

Consecutively, the practice from Bangladesh shows that the open-saving accounts belong to one of the most popular services. Microcredit itself is not the only weapon to fight the poverty – microsaving – is likely another way of how to reach the same ends.<sup>43</sup>

Moreover, there is a portfolio of complementary services offered by MFIs such as group formation, development of self confidence, training in financial literacy and management etc. Therefore, the services incorporate financial as well as social intermediation. In Latin American region, the politics of microfinance was more focused on the institutional development, however, the gauge is more shifting towards the products

<sup>43</sup> De Aghion, B.A., Morduch, J. and Armendariz, B. (2005) *The economics of microfinance*. Cambridge, MA: MIT Press.

which can be offered by the wide variety of institutions.

- **Microloans** – the most common product where the receiver does not need guarantee with any collateral. This is the most desired product on which the whole idea of the microfinance stands. The microloans, however, often have higher interest rates than the commercial bank loans due to the higher administrative costs. The problem remains the prices of microloans which remain often hidden or unclear. The sector needs to seek more effective ways how to standardize the costs and make the interest rates public in order to secure the healthy market competition.<sup>44</sup>
- **Microsavings** – saving as mentioned above is a very important tool for microfinance for the institution as well for clients. The savings are crucial to sustain the institution and at the same time serve the same idea as the credit. The problem of the poor and their financial investment lies in the difficulty of obtaining the access to the deposit services in more formal institutions. Therefore, often it happens that the poor save cash at home, or invest in highly risk assets as livestock, collect the savings by their neighbours, participate in rotating savings and credit associations.<sup>45</sup> Therefore, such ways of savings do not mitigate the high risk, illiquidity and indivisibility. The microcredit, from the point of view of the poor, serves the same purposes as savings though it is riskier. In fact, the savings have more weight in helping the poor in income raising and risk reduction, though require more time to assess a tangible impact.<sup>46</sup> The people in poverty usually

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<sup>44</sup> Ledgerwood, J., Earne, J. and Nelson, C. (2013). *The new microfinance handbook*. 1st ed. Washington, DC: World Bank,

<sup>45</sup> A group of individuals that fill the role of an informal financial institution through repeated contributions and withdrawals to and from a common fund.

<sup>46</sup> CGAP (2002) SAVINGS ARE AS IMPORTANT AS CREDIT: DEPOSIT SERVICES FOR THE POOR. Available at: <http://www.cgap.org/sites/default/files/CGAP-Donor-Brief-Savings-Are-as-Important-as-Credit-Deposit-Services-for-the-Poor->

demand of the deposit services to be/to have:

- designed with options of small and frequent deposits, easy access to withdrawals if necessary and minimal bureaucracy
  - interest rate is directly proportional to the increasing demand for the services
  - security is very important element in deposit services as it is safely protected from natural conditions, fraud, robbery or demands. Safety comes before the inflation
  - transaction costs which should be lowered by the proximity when withdrawals and deposits take place (the poor usually do not own or cannot afford transport)
- **Microinsurance** is a key branch of microfinancing and it has been gaining momentum as an instrument for reducing the high vulnerability of the poor.<sup>47</sup> The access to formal insurance products is rather rare among the poor. It diminishes the risk which comes with health shocks, property loss, job loss or death. The low-income groups in developing countries are not of the interest due to the considerable level of risk stemming from the risk caused by the natural factors, incorrect dietary habits or poor access to the quality healthcare. This type of insurance protects the poor<sup>48</sup> from the specific threats and is based on the regular payments which are individually tailored based on the risk assessment by the institution. The idea works similar as with all the insurances – the risk pooling in a bigger group allows to share the cost of unfortunate events.

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Jun-2002.pdf (Accessed: 27 October 2016).

<sup>47</sup> International Bank for Reconstruction and Development/ THE WORLD BANK (2015) *Global Financial Development Report: Long-term Finance*. Washington DC

The current challenge in microfinance lies in the finding the balance between affordability and protection which should be well-thought in order to cover most important aspects of risk. It was studied that more complex is the insurance product, the more complicated becomes its implementation which in turn serves the poor households the least. As depicted in the Figure 14, credit life insurance is the most successful one among the poor as it could be described as insurance on the debt. Once the debtor dies, the debt dies with him.<sup>49</sup> It is designed to protect the lender and in many cases come with the package with the loan from MFIs. The second most popular microinsurance is personal accident which is paid to beneficiaries upon the death of borrower.

An example could be the American insurance company AIG which in East Africa which pays out 800 USD at the accidental death of the borrower, 400 USD for the wife/husband and 200 USD upon dependant. There is a proven inverse relationship between the microinsurance product complexity and its popularity which might stem from the lower financial literacy of the targeted segment of population and its natural preference for less complicated and transparent product.<sup>50</sup>

- **Money transfers** for MFIs require the creation of the complex technological and infrastructural system with functional payment system is a challenge in developing countries. The proof of the need of such services by MFIs are the statistics of flow remittances which in 2015 reach up to \$582 billion in earning of

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<sup>49</sup> Helms, B. (2006) *La Finance pour tous*. CGAP Available at: <https://www.cgap.org/sites/default/files/CGAP-Access-for-All-Jan-2006-French.pdf>.

<sup>50</sup> Ibid.

which \$432 billions will flow to low and middle income parts of the world.<sup>5152</sup> Big number of poor people live abroad with relatives in poorer countries and they need to deal with a lot of constraints when it comes to money transfers. The crime rate is triggered by the large cash-carriers as well. Therefore, it is believe than financial inclusion goals might be fulfilled by providing such services to the poor as the amount of transitions rises, the money transfer becomes a mean of financial inclusion that should not be overlooked as it might be a big part of the solution.<sup>53</sup>

## 5.8 Women and microfinance

The previously discussed pioneer MFI Grameen Bank has more than 97% of its clients being females. This is a very common factor in microfinance world. USAID study has shown that MFIs do directly reach high amount of women due to the setting of their policies (e.g. *Asociacion Dominicana para el Desarrollo de la Mujer, ADOPEM*) or more common factor especially in African continent where women are more likely to repay the loans and form the groups which are crucial to obtain the microcredit. Even though, women are sometimes used as a conduit for loans for men and eventually have little control over the credit. On the other hand, as the experience proves that the profit from the woman-run enterprises is more beneficial for the household than those run by men. Furthermore, it contributes to the gender equality issue resolution by increasing the status of the women in home and society by large.<sup>54</sup> Also,

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51 Migration Policy Institute (2016) Global remittances guide. Available at: <http://www.migrationpolicy.org/programs/data-hub/global-remittances-guide> (Accessed: 28 October 2016).

52 Note: there is not informal flows counted in the statistics of the World Bank. The informal remittances channels are widespread, therefore, the number of the

53 Helms, B. (2006) *La Finance pour tous*. Available at: <https://www.cgap.org/sites/default/files/CGAP-Access-for-All-Jan-2006-French.pdf>.

54 *Microcredit summit campaign* Available at: <http://microcreditsummit.org/about-the-campaign2.html> (Accessed: 13 November 2016)

a better access to resources gives better control over assets. More importantly, the study conducted in Nepal on relation to micro-credit and women showed that 68% of women had a stronger decision-making position in their home. This fact led to investment into family planning, property management, children's education, access for female to food and health.<sup>55</sup> The question of women and microfinance comes with challenging the social structures which are often strictly patriarchal in the emerging countries. However, pulling down those structures leads to shortly increased domestic violence upon women who engage in microfinance.<sup>56</sup>

Microfinance services are often targeted to women as it is estimated that 70% of world's poor are women<sup>57</sup>. Women as a matter of patriarchal construction have been disadvantaged to control their financial decisions as well as ask for credit. Formal institutions often follow the traditions and focus rather on males and grown businesses, therefore, informal institutions like MFIs give women the preference and some are purely women oriented and thus 100% if their clients are females.

According to the Microcredit Summit, the MFIs reported that in 2006, the 3300 MFIs served 133 million clients out of which 93 million were the poorest. 85% of the poorest were women.

More interestingly, between 1997 – 2013, there were 211,119,547 borrowers out of which 157,695,359 were women<sup>58</sup>. This accounts to 75% of in 16 years being women, and 25% men. This follows the statement that MFIs are primarily women-oriented.

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<sup>55</sup> Meenai, Z. (2005) *Empowering rural women: An approach to empowering women through credit-based self-help groups*.

<sup>56</sup> Rojas-Garcia E., Hashemi S. (2004), *Microfinance and Domestic Violence*, CGAP

<sup>57</sup> ILO (2015). *Women Swell Ranks of Working Poor, says ILO*. [online] Available at: [http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS\\_008066/lang--en/index.htm](http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_008066/lang-en/index.htm) (Accessed: 20 October 2016)

<sup>58</sup> Daley-Harris S. 2015. *Microcredit Summit Campaign Report 2015*.

The International Labour Organization promotes microcredit for women as a key to the gender equality and promotion of non-discrimination policies empowerment, resilience and sustainable development.

By the facts mentioned above, we cannot claim that the microfinance offers a magical solution to the gender equality problems, however, independent access to the resources for women, and grouping in order to secure the loans has a great potential in the long-term to enhance the gender equality and decrease violence significantly.

## ANALYTICAL PART

The Central American region has been exploited by the foreign interests which invested into the local politicians or dictators which were not the best for the socio-economic development of those impoverished countries.

The GDP per capita values according to the World Bank were the lowest in the LAC region in 2015. El Salvador - \$8602/capita, Guatemala - \$7707/capita, Nicaragua - \$5190/capita and Honduras - \$5084/capita. While the most developed economy of the LAC – Chile reached \$22316/capita and compared to the Czech Republic \$32167/capita and the US \$55837/capita.

The average GDP per capita in the Central American region of the countries mentioned above is \$6645. Put in the perspective, this is almost nine times more than in the US. However, GDP per capita divides the annual total of all the services and goods produced in the country by the country's population.

Though, the important thing to be taken into consideration while talking about GDP per capita in the Central American region is the high inequality. It is a minority with access and control over the resources and therefore the real conditions of the average person in the region is greatly overrated. The real income of poorer half is around \$500 to \$1000 per annum while the consumer prices are similar or even higher. As an example, the cost of living in Prague and Guatemala City is comparable while the average income is about 40% lower in the Guatemala Capital.<sup>59</sup>

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<sup>59</sup> NUMBEO (2009) *Cost of living comparison between Guatemala City, Guatemala and Prague, Czech Republic*. Available at: [https://www.numbeo.com/cost-of-living/compare\\_cities.jsp?country1=Guatemala&country2=Czech+Republic&city1=Guatemala+City&city2=Prague&tracking=getDispatchComparison](https://www.numbeo.com/cost-of-living/compare_cities.jsp?country1=Guatemala&country2=Czech+Republic&city1=Guatemala+City&city2=Prague&tracking=getDispatchComparison) (Accessed: 3 November 2016).

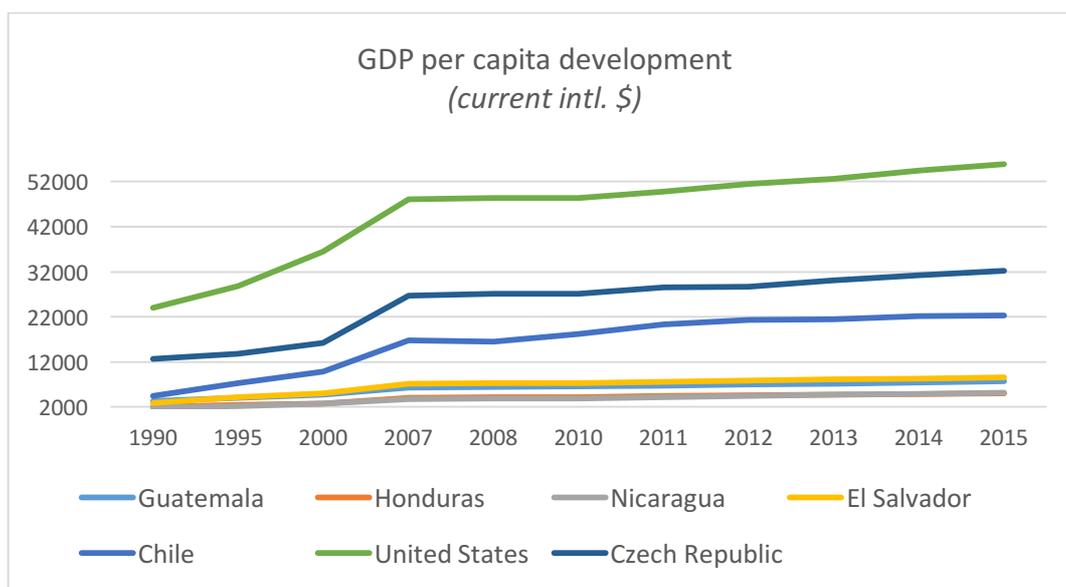


Figure 13 GDP per capita development (current intl. \$)

## 6 FINANCIAL INCLUSION ANALYSIS OF CENTRAL AMERICA

### 6.1 Poverty in the CA

Poverty reduction has been one of the main goals for the international community. The issue is very aggravated in the studied region. It crumbles the society into pieces and spurs crime and violence.

Considering the most recent statistics on poverty from one third to more than a half population in the chosen countries lives in the poverty, below national poverty lines. Surely, the poverty itself is a consequence and at the same time driver of many other problems.

Table 2 Poverty in Central America (source: SEDLAC)

Poverty headcount	Total (\$4 a day)	Extreme (\$2.50 a day)

(%)		
Nicaragua	41,4	20,3
Guatemala	59,8	36,9
Honduras	55,9	36,2
El Salvador	31,4	12,3

The Central American region's poverty is believed to be human inflicted.<sup>60</sup> The highest poverty rates are perceived in Honduras and Guatemala where 56% and 60% respectively, live in poverty of \$4 a day. More than 65% of those in poverty live in extreme poverty of \$2.50 a day. Then comes Nicaragua with around 41% of population living in poverty and 50% of the poor living in extreme poverty. The lowest poverty rates are to be found in El Salvador where 31% of population is poor whereas 40% extremely.

## 6.2 Financial development

The simple fact of having an account in a formal institution is a very important fact in spurring the economic activity.

Though, the important question of how the financial inclusion of the poor may induce the out-of-poverty process stands out. The limited or no possibility to choose financial services prevents poor people to take control of their economic management. To put the studied countries into the global perspective, according to the World Bank, the 67% of the individuals in the 60% of richest household do have access to formal account in the institution. Out of the poorest 40% of individuals in the

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<sup>60</sup> Booth, J.A., Wade, C.J. and Walker, T.W. (2010) *Understanding central America: Global forces, rebellion, and change*. 5th edn. Boulder, CO: Westview Press.

poorest households – 54%.<sup>61</sup>

If we compare the global statistics to those of the studied countries, the lagging is evident. On the other extreme, 94% of population in high-income OECD countries while LAC average is around 50%.<sup>62</sup>

Looking at the studied countries, the lowest percentage of population having account in the formal financial institution is in Nicaragua. As of 2014, only 18,9% of an adult population had an account in institution, which is 30% less than LAC average. Thus, in Nicaragua we also mark the lowest increase in account holders (as %) compared to 2011 – only something above 4%, which represent growth in 3 years of approx. 33% while the rest of the studied countries increased the financial inclusion on average by 92% with the highest growth rate 146% being in El Salvador just in 3 years.. This is the result of the laws on banking which created the fertile environment for e-money and facilitation of opening bank accounts.<sup>63</sup> As seen on the growth, this law is an effective step in financial inclusion which is represents the highest return. For the same reason, we should take into account the growth in microfinance sector in Nicaragua (ASOMIF) which is the highest in the region and not counted in the statistics of the WB.

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<sup>61</sup> Global Findex Database

<sup>62</sup> 2014 Global Findex database

<sup>63</sup> Alliance for Financial Inclusion, *El Salvador Congress approves 'legislative decree 72' facilitating financial inclusion efforts throughout the country* (2015) Available at: <http://www.afi-global.org/news/2015/9/30/el-salvador-congress-approves-legislative-decree-72-facilitating-financial-inclusion> (Accessed: October 2016).

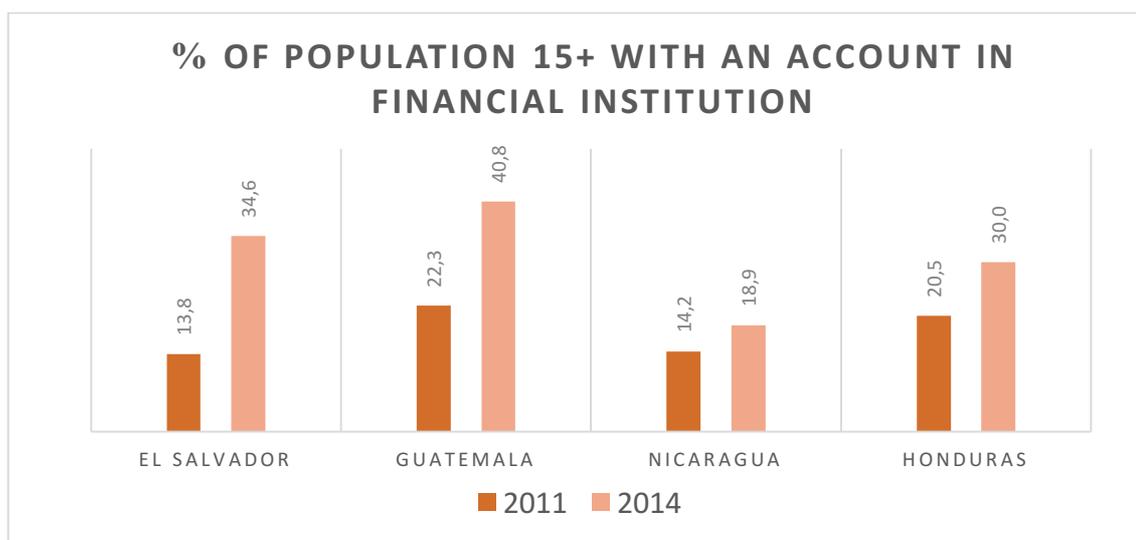


Figure 14 percentage of population 15+ with an account in financial institution

On the other hand, explaining the lowest growth of the account rate in Nicaragua, the unwillingness of the banks and the formal financial institutions in general, to finance poor layers of population since the administration costs of such approach would be too high. This resulted in the increasing demand for the alternative and less formal ways of financial inclusion.<sup>64</sup> Though, the lack of regulatory framework coming from the public administrative sources had for an effect creation of NO PAGO movement. Primarily, 2 events that happened in 2010:

- International financial crisis
- No Pago (*No Payment – I do not pay*) movement

Those two factors shook the ground of the local economy. The investment decreased flowing into the microfinance sector as a result of the political instability. No Pago movement has damaged the country's credibility as many debtors are unwilling to repay their loans.<sup>65</sup>

<sup>64</sup> The Economist Unit (2014), *Global Microscope: The enabling environment for financial inclusion*.

<sup>65</sup> Center for Financial Inclusion, *Nicaragua's Microfinance crisis: Looking back, what*



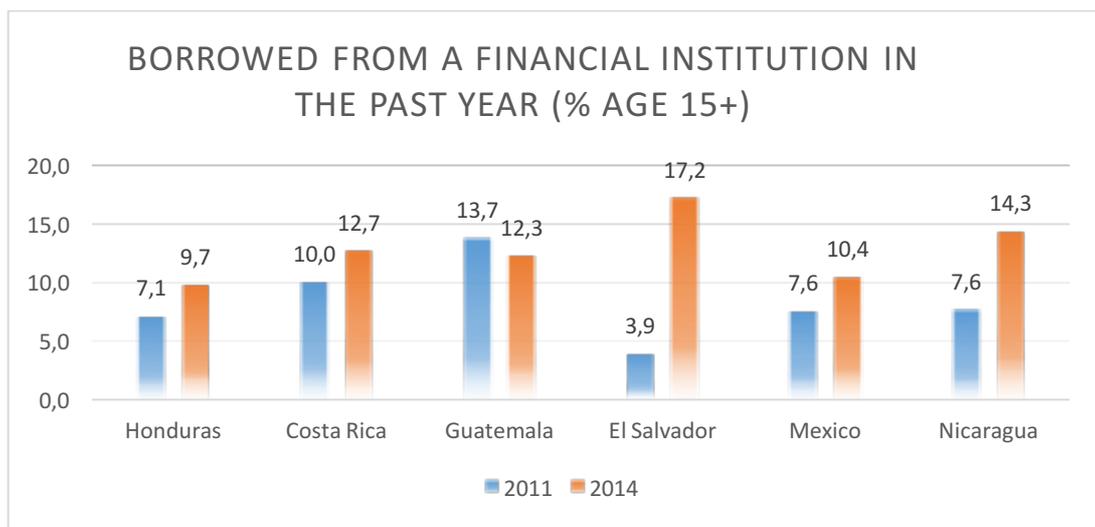
Figure 15 saved at a financial institution (% , age 15+)

The country with the lowest savings rate as per cent of population is in Nicaragua, and is around 40% below average of the Latin American and the Caribbean region where on average around 13% of population owns an account. Therefore, it could be stated that Nicaragua is the lowest performing country in terms of the financial inclusion in the given region. This is also a result of a fact that MFIs are not allowed to accept the deposits. The situation should change during the year 2016-2017 which would highly improve the financial inclusion of the poor.

The rest of the countries perform around average in the whole LAC region, nevertheless, in comparison with high-income countries.

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*did we learn?* (2011) Available at: <https://cfi-blog.org/2011/01/24/nicaraguas-microfinance-crisis-looking-back-what-did-we-learn/#more-2579> (Accessed: 5 November 2016).



*Figure 16* Borrowed from a financial institution in the past year (% , age 15+)

As mentioned before, the creation of microfinance to include the poor comes from a niche – unfulfilled potential in the market for the poor. When we look at the data of the development of the commercial bank branches in the region, we can notice a steady trend while the poverty is very high. Therefore, we can conclude that the clients are rather stable middle-upper to upper class clients and with relatively low risk for banks. The banks are not interested in the low-income, high-risk clients.

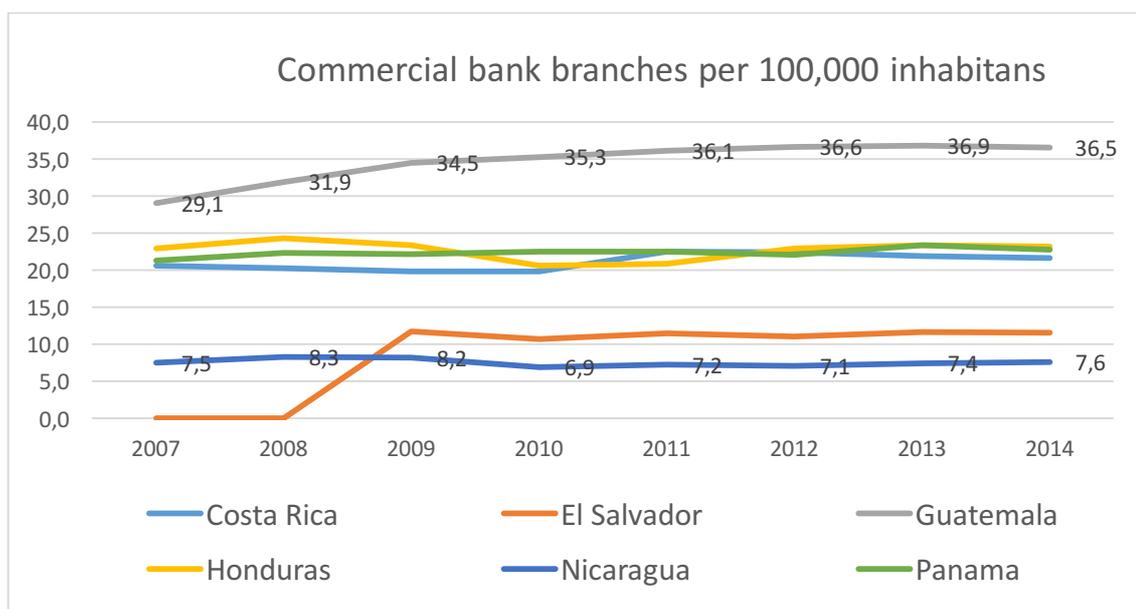


Figure 17 Commercial bank branches per 100,000 inhabitants

### 6.3 Digitalization of financial system in the CA

According to the World Bank, the Latin American region had mobile cellular subscription rate of 110 subscriptions per 100 inhabitants. However, according to the statistics the CA region's population has above average access to the mobile networks.

As mentioned above, the most successful in terms of financial inclusion advancements in the CA region is El Salvador. The key reason behind this progress is the number of mobile account holders which represent 4,6% of population compared to the LAC average of 1,7%. This is still far, however, from Kenya where 58% of population owns a mobile account.

The company called Tigo has decided to make the considerable investment in the development of the wide distribution channel in 2011 in **El Salvador** which had a significant impact on creation of mobile accounts. Since then, the company has created more than 2000 agents

around the whole country.<sup>66</sup>

As far as **Nicaragua** is concerned, only 1,4% of people made mobile payment in past year (i.e. 2013). However, as we can see on the development of the mobile network subscription rate under average-performing rate for LAC and then rapid development since 2009 (58/100) till 2012 (98/100). Therefore, the cellular network was in the development and we could expect a better financial inclusion using the mobile accounts once the infrastructure in the neighbouring countries like El Salvador or Honduras is more developed once the population has better access to a reliable cellular network. The new law establishes regulations for the generation, use and distribution of e-money. Entities that can provide e-money services now include banks, cooperative banks and savings and credit co-operatives. The law also creates a simplified method for opening savings accounts. Taken together, this law will establish a clear and enabling environment for the expansion of digital financial services across El Salvador, as well as give the low income population a less intimidating and less complicated path into the formal financial system.

Banco Central de Reserva de El Salvador's 2013 Maya Declaration Commitments (made jointly with Superintendencia del Financiero de El Salvador) included a focus on digital financial services, which the new law will help to support, but the country has seen significant progress in other areas as well.<sup>67</sup>

**Honduras** is also making its progress on the electronic transaction mainly due to its income from the remittances and facilitation of the financial inclusion which has a significant impact on the country's GDP. \$3.66 billion in remittances in 2015 (Official numbers only. The real

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<sup>66</sup> *TIGO MONEY* (2015) Available at: <http://tigomoney.com.sv/content/encuentra-tu-agente-mas-cercano> (Accessed: 9 November 2016).

<sup>67</sup> The Economist Intelligence Unit (2016), *Global Microscope 2016*

number would be a higher.) while country's GDP is \$20.1 billion.<sup>68</sup> The government is implementing the Payment System and Settlement Act in order to regulate payment systems like real-time banking, electronic payments and transfers, payment cards and mobile phone payments.<sup>69</sup>

Furthermore, if we compare the mobile subscription in Kenya with the one in the CA, we can see that the mobile subscription is below average of the LAC region, but used more efficiently for the mobile payments which are proved to be more efficient and poverty alleviating. In Kenya it is only 80/100 people who were subscribed to the mobile network whereas in CA it is 100/100 or even 146/100 people, though only 1.4% – 6.3% of people have made a mobile payment in 2014 compared to the subscription rate and 55% of payments done by mobile in Kenya. Therefore, based on the statistical analysis it can be stated that there is an unused potential of the mobile payments in CA. This could improve the inefficiencies of the current transactions, especially with high percentage of the population which is highly dependent on remittances.

The mobile money has the ability to start playing an important role in the digital financial ecosystem for the whole world. These services offer the world an enormous opportunity to include more than 2 billion people to their first banking account, break the poverty barrier and include the developing countries in the world financial cycles.

The potential in the Central America is great with the developed infrastructure for further enhancement. Benchmarking the countries with Kenya, we can see the gap between the reality and potential. The strategy of Kenya can be implemented as the mobile cellular subscription statistics in Central America show that every inhabitant has

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<sup>68</sup> Tradingeconomics.com; IADB

<sup>69</sup> Endo, I., Hirsch, S. and Rogge, J. (2009) *The U.S.-Honduras Remittance Corridor*. The World Bank.

an access to mobile network. In the future, we should expect more of this sector to be developed in the CA and thus increase the financial inclusion.

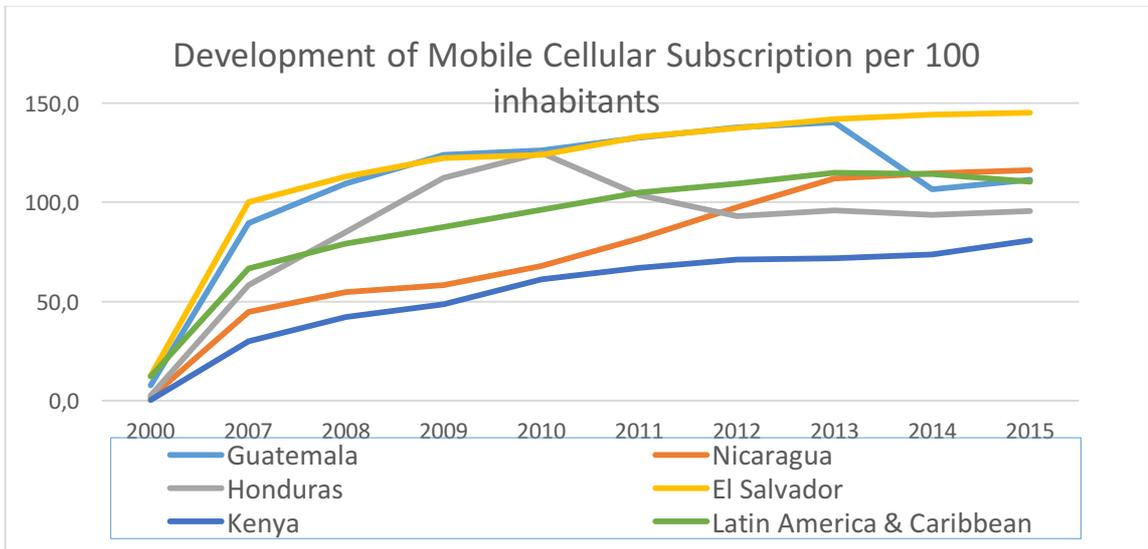


Figure 18 Development of Mobile Cellular Subscription per 100 inhabitants in the chosen countries.

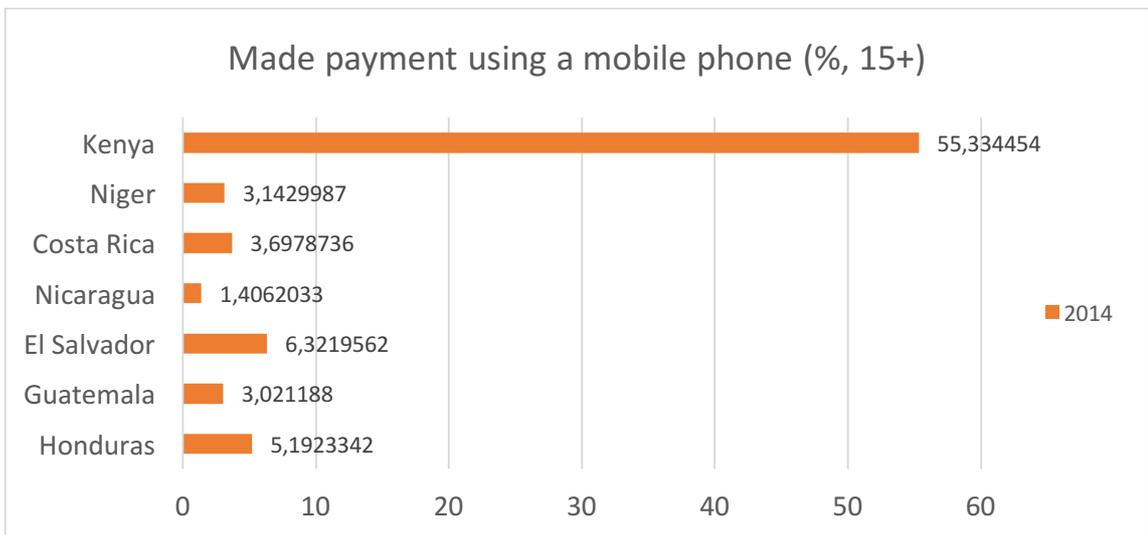


Figure 19 Made payment using a mobile phone (% , 15+)

## 6.4 Inequality and financial inclusion

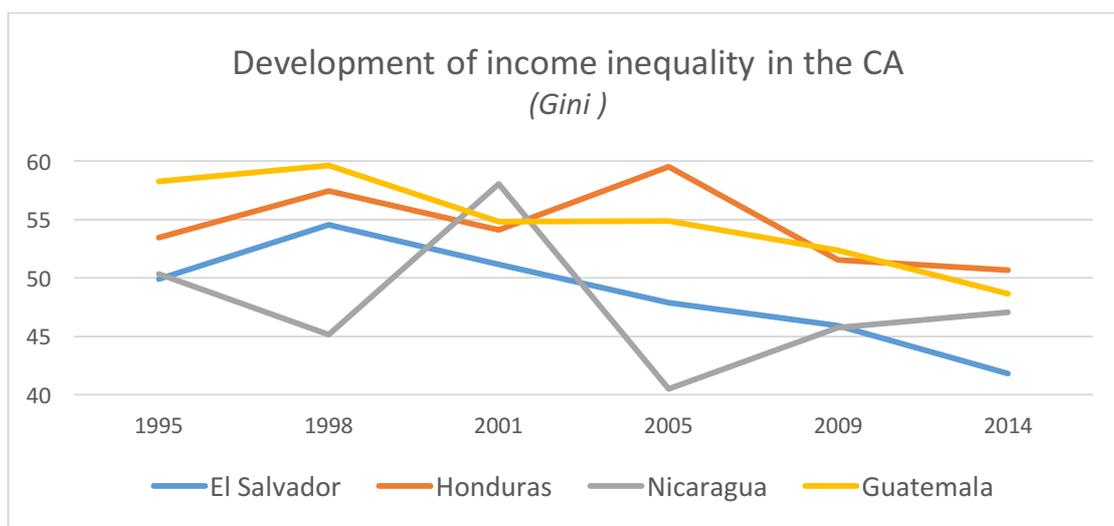
The Latin America region is the most unequal region in the world and it is one of its most severe problems which are discussed more in detail in this thesis. The reasons behind of this fact can be traced back, as in many other part of the world, to the colonial powers and their policies starting in the 15<sup>th</sup> century which contributed to underdevelopment of the region as they were left exploited and in turmoil. The descendants of the colonizers left big gap, especially social one, dividing people based on the race and social status which persists till nowadays.

Therefore, institutions were shaped based on this grounding exclusionary principles. This was partially corrected by the land reforms in the 20<sup>th</sup> century but still large part of the population remains cut off from the land, political power and education and from the resources.

Income inequality correlates to a great extent with poverty. Though, it was also found that financial inclusion of the poor makes their income grow faster than average GDP. The result is faster emergence of the poorest quintile and high-income part of population becomes richer slower, thus the inequality becomes more equal.<sup>70</sup>

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<sup>70</sup> Ibid.



*Figure 20* Development of income inequality in the CA (Gini)

As seen on the Table 8, the Central American region is no exception to the LAC region. Since 1993 (Figure 21), the region has been convulsing in the the inequality. The statistics on the subject differ considerably depending on the organisation publishing the data. However, according to the World Bank, Honduras, is one of the most unequal countries in the world comparable to Rwanda in Africa in 2014 with the GINI coefficient around 50, i.e. 50% of the wealth is owned by 10% of population. The biggest progress in terms of drop in inequality is seen in El Salvador which has seen drop from 50 to 42 in the past 20 years. On the contrary, the most equal countries in the LAC region are Uruguay and Argentina with the Gini around 40. Nevertheless, the whole LAC region remains very unequal compared to Europe, some Asian countries and Canada.

In the Central American sub region we have seen progress in most of the countries except for Nicaragua which almost maintained its inequality status. This can be attributed to the highly uneven distribution of the lands despite the long-term land reforms.

### 6.4.1 Analysis of fin. Inclusion and inequality

In order to analyze whether there is any type of correlation between the whether there is any kind of correlation between the data on *income inequality* (World Bank) and *% of population having account in a formal institution*, 87 various countries were chosen according to the time data availability in order to preserve the model as accurate as possible.

The analysis part with intention of correlation of the standardized data of income inequality (GINI coefficient) and financial inclusion (% of 15+ people having account in a financial institution).

The data were divided into three groups

- High income countries (red dots)
- Latin America and Caribbean (green dots)
- Low and middle income countries (blue dots)

The result of running a linear regression show a negative correlation between two variables show  $r=0.369$ , with data for 87 countries used. Statistically speaking, this represents a rather weak correlation, therefore. However, there are other variables involved. Those might be represented by the governance and the country's history.

Analysing further, taking history and transition into account, the country such Ukraine with a low inequality compared to developing world and rather developed financial inclusion. We can observe the same situation in the case of Moldova, Kyrgyzstan, Mongolia, Tajikistan and Armenia which are all countries of a previously centrally-planned economies as well as members of the former Soviet Union. These are the countries

forming part of our sample taken from the World Bank.

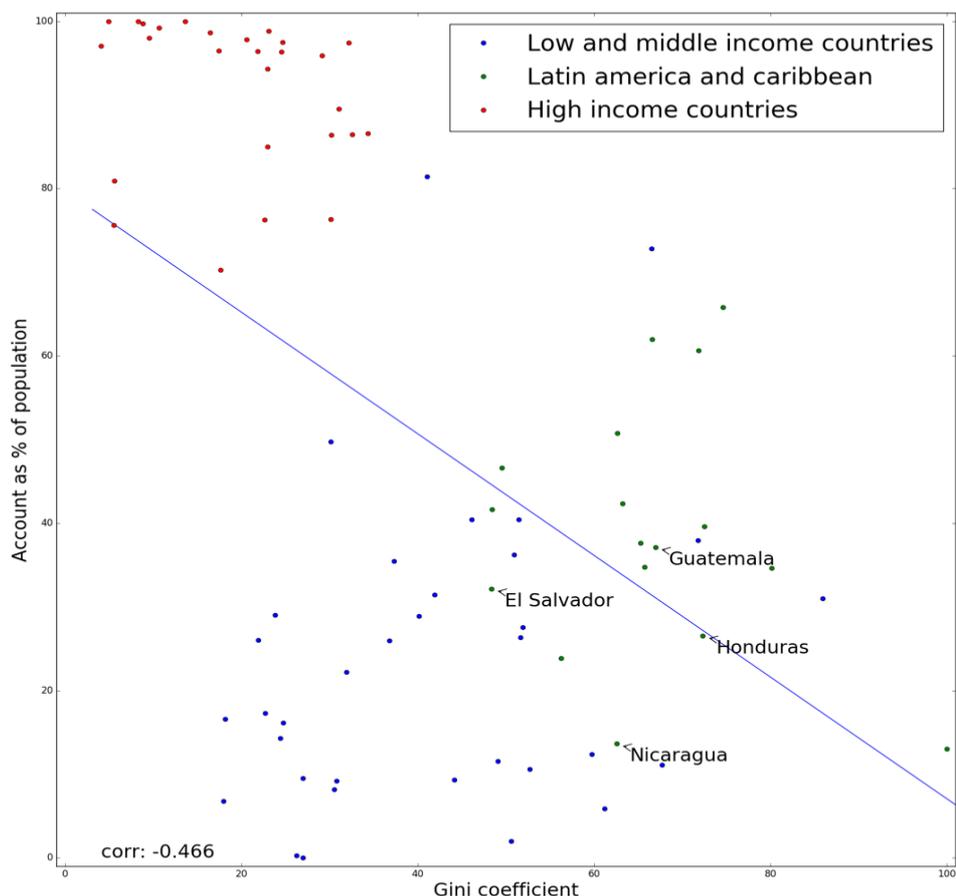


Figure 21 Relationship between financial inclusion and inequality (own elaboration, data: WB and Global Findex)

After removing the countries which we identified as outliers for our analysis due to the different market development; running the analysis again we got the **negative correlation  $r = -0,466$** <sup>71</sup>. This means stronger

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<sup>71</sup> *Linear correlation coefficient* measures the strength and the direction of a linear relationship between two variables; A correlation greater than 0.8 is generally described as *strong*, whereas a correlation less than 0.5 is generally described as *weak*. These values can vary based upon the "type" of data being examined. A study utilizing scientific data may require a stronger correlation than a study using social science data. (source: Mathbits.com)

correlation and we could state there is a linear relationship between financial inclusion and inequality and, indeed, countries with higher financial inclusion tend to be more equal (cluster of red dots on the scatter plot can be noticed). Though, correlation does not represent high strength and one should not forget that governance and socio-economic factors play a further essential role.

After plotting the data on the axes, we can notice that the countries with high income cluster in the area with low Gini coefficient and high financial inclusion. Whereas Latin America being the most unequal region in the world we can observe the green clusters being on the right lower side, and, with lower financial inclusion compared to the *high income* countries which are grouped in the top left corner indicating the low inequality and high financial inclusion (the highest being in Denmark and Finland where 100% of population own an account with low inequality) whereas the lowest inclusion and highest inequality in the Latin America is in Haiti. When it comes to the studied countries in CA in terms of their position in *income inequality* and *financial inclusion*, Nicaragua comes out as the worst and El Salvador in the best position when considering the two variables together.

## **7 Microfinance market analysis**

### **7.1 Zooming on microfinance market in Latin America**

It has been more than 30 years since the microfinancial market in the LAC has been developing and nowadays belongs to one of the most favorable in the world along with the South Asia<sup>72</sup>. Nevertheless, we still see the low penetrations of microfinance in some parts of the region.

The whole region in 2014 reached almost \$40 billion (including regulated and non-regulated institutions) with about 20 million clients and average loans reaching \$2000. Over the last 15 years we have seen a remarkable growth in the portfolio of MFIs in the region. Since 2007, from \$9 billion through \$18,9 in 2011 to \$40 billion which represents 400% growth in 15 years. Therefore, the microfinance does have a significant potential in the market.

The smallest markets remain the countries of the Caribbean and Uruguay with Argentina while Mexico, Peru and Bolivia are the ones most developed ones.

The region of Latin America is perceived as a homogenous region, however, cultural differences within the region are quite different. The Latin American MFIs are more advanced than the ones in Africa or in Eastern Europe, nevertheless, they are still lagging behind those in South and Southeast Asia. The countries with most active microfinancial sector within Latin American region are Mexico, Peru, Colombia and Bolivia.<sup>73</sup>

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<sup>72</sup> The Economist Intelligence Unit (2015), Global Microscope 2015

<sup>73</sup> Trujillo, V. y Navajas, S. (2014). Inclusión Financiera en América Latina y el Caribe: Datos y tendencias. FOMIN, BID. Versión modificada, Enero 2016.

## 7.2 Analysis of the microfinance market in the Central America

In the CA region operates an organisation called REDCAMIF (*Microfinance Network of Central American and the Caribbean/ La Red Centroamericana y del Caribe de Microfinanzas*). The group is a central body which covers 6 countries (Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Dominican Republic) and in total: 138 MFIs with 1062 agencies, 1 620 mill. clients and with portfolio of 1843 mil. USD (as of June 2016).

REDCAMIF (as of June 2016):

- REDIMIF – Guatemala – 18 MFIs
- ASOMI – El Salvador – 13 MFIs
- REMICROH – Honduras – 26 MFIs
- ASOMIF – Nicaragua – 25 MFIs
- REDCOM – Costa Rica – 19 MFIs
- REDPAMIF – Panama – 7 MFIs
- REDOMIF – Dominican Republic – 30 MFIs

As we are aiming the scope of this thesis, we will focus on the poorest countries of the Central American sub region, thus excluding the Caribbean REDOMIF and Costa Rican and Panamian REDCOM and REDPAMIF. The network consists of the main microfinancial entities which are represented by the data provided by each country's organization network.

Analysing the data, we can see that the the microfinancial sector in the CA represents an important strengthening of the national economies,

and especially in the rural areas where the access to the financial resources and access to the credit are scarce due to the poverty trap, distance and lack of collateral.

### 7.2.1 Credit analysis

The total number of served clients in 2016 was 1 million. While almost 50% of all REDCAMIF clients were in Nicaragua. Then 22% in Honduras, 17% in Guatemala and then 11% in El Salvador.

The highest per client credit was in El Salvador – \$2093, Honduras with \$1331, and Nicaragua and Guatemala with \$667 and \$603 respectively. The average credits per client represent more than 50% of GDP per capita in case of El Salvador and Honduras. While in Nicaragua it is around 30% of GDP p.c. and in Guatemala we find average credit per client being 18% of GDP per capita. Nicaragua and Guatemala have lowest per client loans as the former has the lowest GDP per capita and is the poorest economy and the latter they are primarily (80%) including poorer clients from rural areas.<sup>74</sup>

The current market situation by country:

1. **Guatemala** is the biggest economy in the region, has the lowest gross loan portfolio among the studied countries, the highest rural microcredit portfolio, and lowest loans per clients. By the published statistic, rural portfolios in Guatemala, Honduras, Nicaragua and El Salvador, the rural portfolios have had rather an upward trend especially in the case of Guatemala which shows about 80% of its portfolios being from rural areas. Guatemala has a very complicated topography, insufficient infrastructure in the remote areas and great language diversity. This is due to the fact

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<sup>74</sup> Löwenberg, A. (2015). *Las mujeres indígenas en Guatemala son su motor de desarrollo*. Available at: <http://www.codespa.org/blog/2015/05/18/mujeres-indigenas-son-motor-desarrollo-economico-guatemala/> [Accessed 21 Dec. 2016].

that 70% of population actually lives in the rural areas and the government has been actively seeking to build a feasible infrastructure after the civil war ended in 1996<sup>75</sup>. When considering the financial inclusion data of Guatemala (15% of pop. saving, 12% pop. borrowing), the country ranks above LAC average. Inequality toils the country and 10% of population owns 56% of wealth which is among the highest income inequality in the world.

Observing the data further, the rural clients take the smallest credit while urban clients – case of Honduras with the highest portfolio in terms of credit– which shows the division between the richer urban clients and poorer rural clients. As mentioned above, many little microloans bring higher administrative costs for the whole institution.

Guatemala is a specific case due to the stated phenomena. It is also home to one of the biggest and one of the most successful MFIs in the whole LAC region is Banrural which deployed a lot of ATMs with 5 different local native languages, and fingerprint identification for illiterate clients; and other features easing up the access to the finance for the indigenous people in the remote areas.<sup>76</sup> Furthermore, the bank tries to substitute the services of local money lenders which often abuse the situation of the clients with lack of choices for credit, by providing its own short-term credit with considerably lower interest rate (money lenders - 3000% p.a., Banrural – 22% p.a.).

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<sup>75</sup> BBC News. (2016). *Guatemala profile - Timeline - BBC News*. [online] Available at: <http://www.bbc.com/news/world-latin-america-19636725> [Accessed 22 Nov. 2016].

<sup>76</sup> GARZARO, B.D. (2016) *Instalación de cajeros en idioma maya crece*. Available at: [http://www.prensalibre.com/economia/Instalacion-cajeros-idioma-maya-crece\\_0\\_511748831.html](http://www.prensalibre.com/economia/Instalacion-cajeros-idioma-maya-crece_0_511748831.html) (Accessed: 21 November 2016).

2. **Nicaragua** and its legislative effort done in the field financial inclusion has arrived to noticeable outcomes → steep rise in gross loan portfolio of ASOMIF as well in the number of clients. Though, the average loan before was higher (\$811 in 2014 vs \$669 in 2016). The loan of \$669 might see a small amount to the inhabitant of developed world, though it means a lot in the country with one of the lowest GDP per capita in the world.

The decreasing amount of average loans are also reflected in a change of credit purpose as the loans for consumer products increased with more clients (see Appendix A). Consumer loans do not need such a great investment as in businesses or agriculture and are, thus, lower. Furthermore, in Nicaragua we see a sudden drop in women clients while the number of rural clientele remains the same which translates to the fact that the legislative amendments and development of inclusion in Nicaragua attracted a large number of men clients.

The Nicaraguan authorities worked hard to improve the financial inclusion strategies and implemented key laws which started the financial inclusion observed in the statistics. The Microfinance Law (2011)<sup>77</sup> and creation of CONAMI – National Commission (2012) -> the two important legislative steps. Then the projects implemented, such as Financial Consumer Protection. The legislative process created essential advances in consumers' protection, risk analysis, transparency, corporate governance as well as information access.

3. **Honduras** having almost as high part of population living in the

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<sup>77</sup> Asamblea Nacional de la República de Nicaragua. *Ley de fomento y regulacion de la microfinanzas*. Available at: <http://legislacion.asamblea.gob.ni/Normaweb.nsf/4c9d05860ddef1c50625725e0051e506/32ece460ccfd07b506257910005c8211?OpenDocument> (Accessed: 22 December 2016).

extreme poverty as Guatemala, the MFIs do not seem to have so much focus on the rural areas. Actually, the banks and financial institutions suffer as well as people because of the crime and violence rates caused by the gangs Las Maras.<sup>78</sup> Nevertheless, the steady growth of REMICROH group of MFIs in the share of the rural portfolios can be observed which between 2009-2016 grew by 47% to 50% of clients being from the rural areas which puts its clients it on par with Nicaragua and El Salvador. The growth in portfolio can be attributed to the shift in the credit allocation by MFIs and thus the most of its portfolio was destined to businesses after the crisis in 2009. As of 2016, the average loan in Honduras was \$1336 per client which is the 2<sup>nd</sup> highest rank after El Salvador.

The government, despite the situation, is trying to tackle the problem of financial inclusion which is expected to have impact on the Honduran MFIs due to its targets. In 2015, the government launched a five-year program which is to support informal economy, micro and small businesses, entrepreneurs, farmers, unemployed and remittance receivers. It is called The National Financial Inclusion Strategy (ENIF). Therefore, in the years 2015-2020 there should be some noticeable changes in the engagement of the poor in the financial system in Honduras.

4. **El Salvador** has the lowest number of clients from the studied country as a regional REDCAMIF member. Though, the statistic might be skewed as the result of the lowest number of members of national microfinancial umbrella ASOMI – 13 members – in

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<sup>78</sup> Dyer, Z. (2011) *Gang threat drives growing displacement inside Honduras*. Available at: <http://www.unhcr.org/news/stories/2016/9/57c8392e4/gang-threat-drives-growing-displacement-inside-honduras.html>

REDCAMIF.

In spite of that fact, ASOMI has the highest loan per client from the studied countries reaching \$2088. That can be explained by the credit being destined to business investments (more than 50% of ASOMI portfolio) and housing. Therefore, we get entities requiring higher one-shot investments and smaller number of clients. As mentioned before, the Salvadorian government has been focusing on the e-money strategies as well. Microinsurance lately, became a focus of the country's policies. The main central bank of El Salvador is mapping the market and needs of the low-income population and the results are being gathered at the moment of this work being created. As an example, the umbrella ASOMI (Asociación de Organizaciones de Microfinanza de El Salvador) has started offering microinsurance products to the families and entrepreneurs with low-incomes. Essentially, the low-income segment of population can choose from 2 microcredit products offered by ASOMI<sup>79</sup> (See Appendix B) which cover the health issues which might cause shocks and preserve the cycle of poverty.

Another important step for the financial inclusion of the low-income population is the amendment of the Law of the credit history (la Ley de historial crediticio). The amendment helps to keep the credit history of the individual confidential and cannot be accessed without the consent and at the same time the credit history can be changed and not destructive to the poor individual who was in insolvency for a certain period of time.<sup>80</sup>

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<sup>79</sup> ASOMI El Salvador, *Microseguros ofrecidos por ASOMI*. Available at: <http://www.asomi.org.sv/servicios/259-microseguros2> (Accessed: 31 October 2016).

<sup>80</sup> Gráfica, L.P. (2016) *Aprueban reformas a Ley de Historial Crediticio*. Available at: <http://www.laprensagrafica.com/2015/11/27/aprueban-reformas-a-ley-de-historial-crediticio> (Accessed: 31 October 2016).

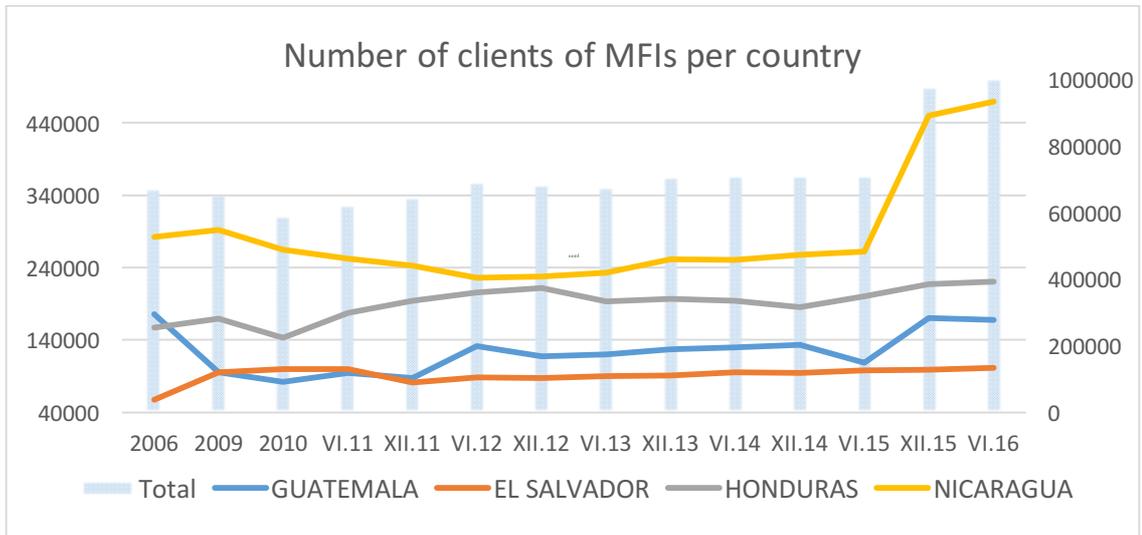


Figure 22 Number of clients of MFIs per country

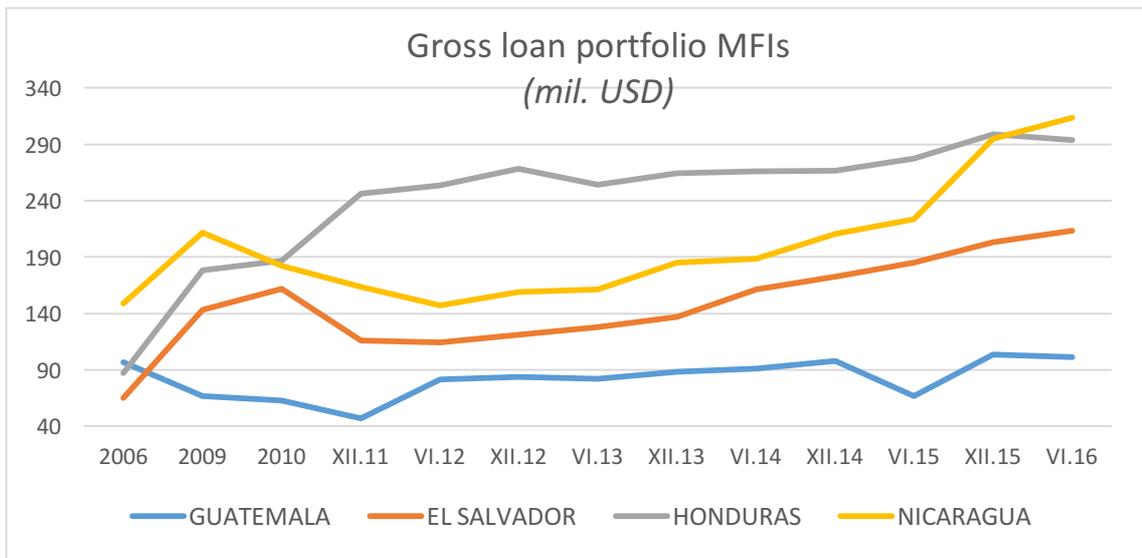


Figure 23 Gross loan portfolio of MFIs (mil. USD)

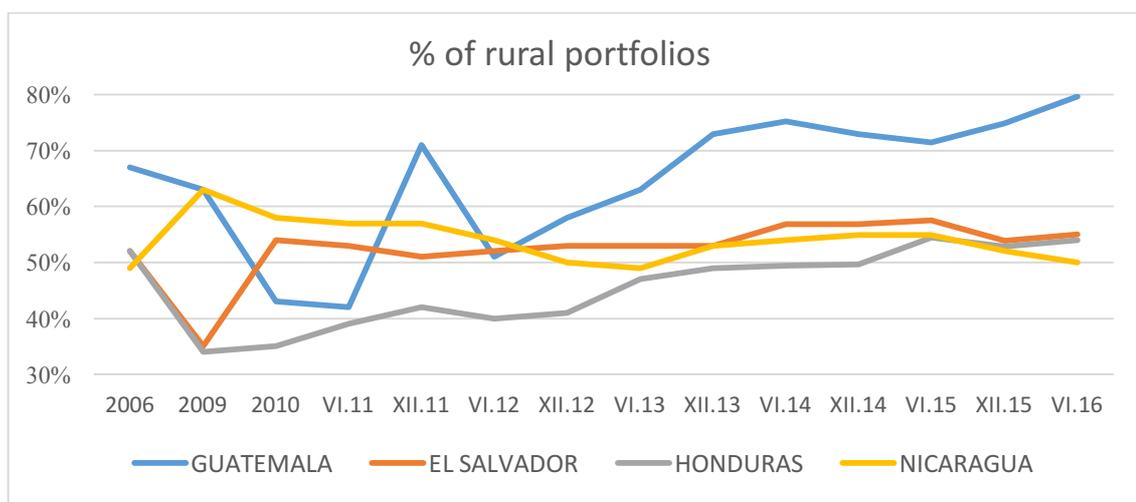


Figure 24 %of rural portfolios

## 7.2.2 Credit portfolio

The portfolios on the regional level for the whole REDCAMIF, as well as for the studied countries, were oriented towards the tertiary sector to develop the business activities and services or so called the microentrepreneurs and SMEs.

A big part of credit was taken for the housing, especially in Honduras (26,4% of total REDMICROH portfolio) and El Salvador (25,1% of total ASOMI portfolio). This stresses an importance of MFIs and their services in the improvement of the household conditions.

The microcredit being granted mainly in the rural areas, therefore, the biggest part being aimed at the businesses (incl. agribusiness and forestry) and services in order to satisfy the demand of the local population in terms of getting the products via intermediation and various services which are not yet available to the locals. Diversification being an important activity in the region which is mostly oriented towards the primary sector and thus vulnerable to changes and external factors. Reinforcement of the local economies means creation of the synergies which truly work in the development of the social-economic

development of the region.

The situation of microfinance in the Central America seems to reflect the fact that while the economies are diversifying, there are positive conditions being created which promote the local development. This is the consequence of the diversification of the production activities which curb the risk which tend to happen in the regions with focus on the primary sectors only. This is important for MFIs as well due to the external factors like weather, natural disasters, seasonal demands are able to affect the repaying abilities of the borrowers.

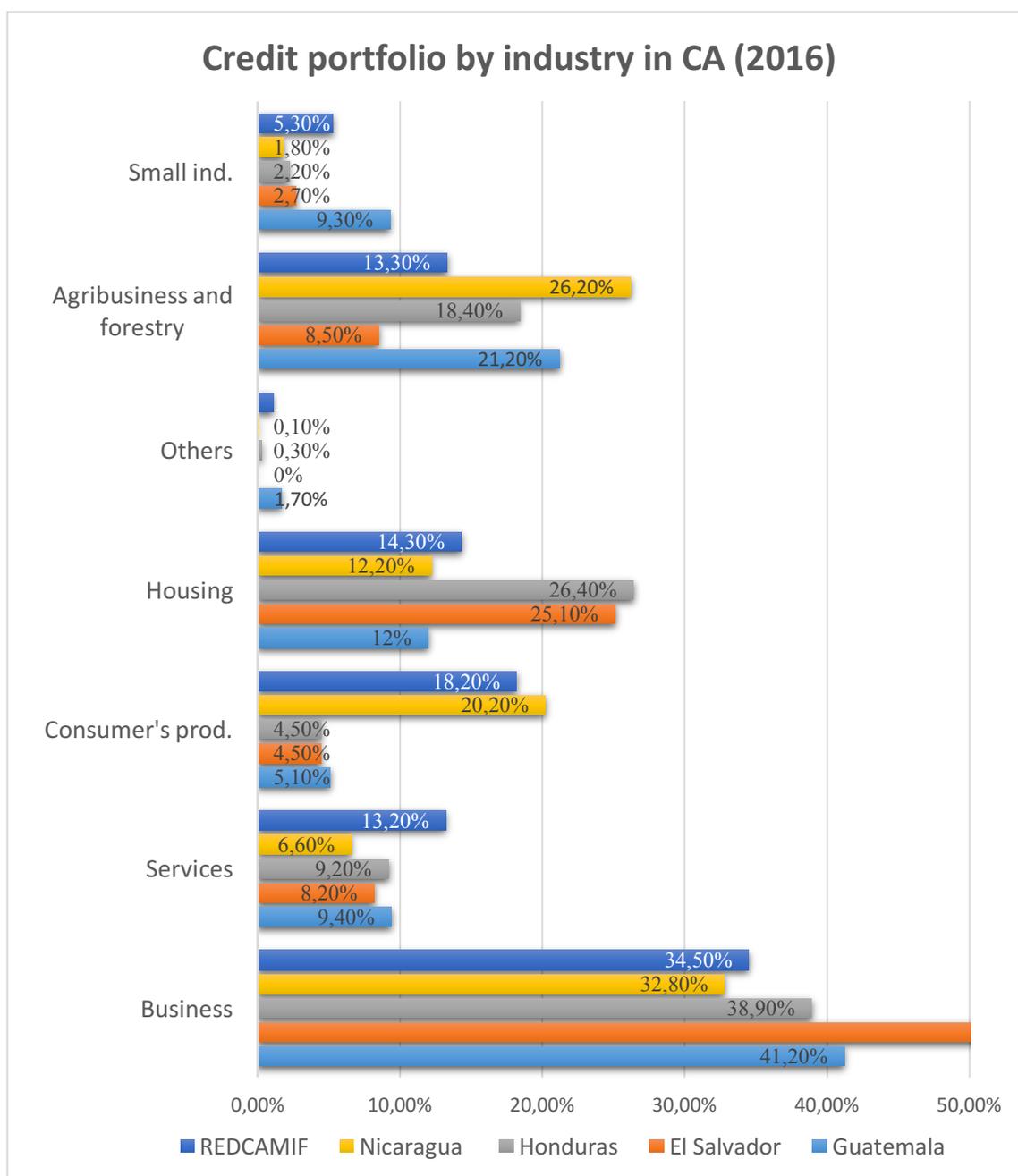


Figure 25 Credit portfolio by industry in CA (2016)

### 7.2.3 The source of microfinancing

As the source of credit in microfinance for the whole REDCAMIF network in 2016 were mainly individual loans. 76% of the client loans in 2016 took individual loans, 12,4% via the Community Bank and 11,2% via

Solidarity Group. When it comes to portfolio division. The individual loans in the region represented 94,1% of total amount of credit issued while Community banks only 3,2% and Solidarity Groups 2,7% of total portfolio (1 843 mil. USD).

Therefore, it could be stated that the poorer clients use Solidarity Groups and Community Banks which consecutively issue more loans with lower credit. Individual loans tend to be higher.

The analysis discovered that mainly Guatemala and partially Nicaragua differed from the regional trend of the individual loans as they use more the model of the Solidarity Groups and the Community banks due to the higher percentage of rural inhabitants, low level of infrastructure development and poverty. Whereas the countries outside of the studied scope, however, still in the region, with considerably higher GDP per capita. Costa Rica and Panama are the countries where almost 100% of all credit methods in microfinance are individual and the function is fulfilled by the the credit unions.

The mechanism of microloan issuance differs due to the various strategies and policies of the MFIs, the market environment in the given country (what activity will the credit be used for) and naturally the social and economic situation of the population.

The fact the statistics shows us that within the CA market the individual loans prevail, the community “solidarity” model of the Grameen Bank from Bangladesh has not been successful. (*The model which is based on sharing the risk among the group members.*) The reason can be attributed to mentality and economic culture of the central American region. Thus in 2016 only 11,2% of the clients in whole REDCAMIF used the method of Solidarity Group and only 2,7% of finance in the region was issued by this method. This means that the

The Community Banks are, similarly to Solidarity Group methods, used

only in fraction compared to the individual loans. 12,4% of the clients used and credit covered 3,2% of the total portfolio. This reflects the culture of the micro-entrepreneurship in the CA which is in the principle based on the family or a person, we get the individual loans as a method of financing.

The specific case here is Guatemala where majority of the clients within the REDIMIF network use Community banks (44,4%) and Solidarity Groups (35,8%). Whereas only 19,8% of loans are individual, they cover approx. 60% of total financial portfolio of the country. 22,2% and 18,2%, Community banks and Solidarity Group, cover lower percentage of the total portfolio and, therefore, those methods are mostly used by the clients who take smaller loans. Which is the trend comparable to the rest of the studied countries.

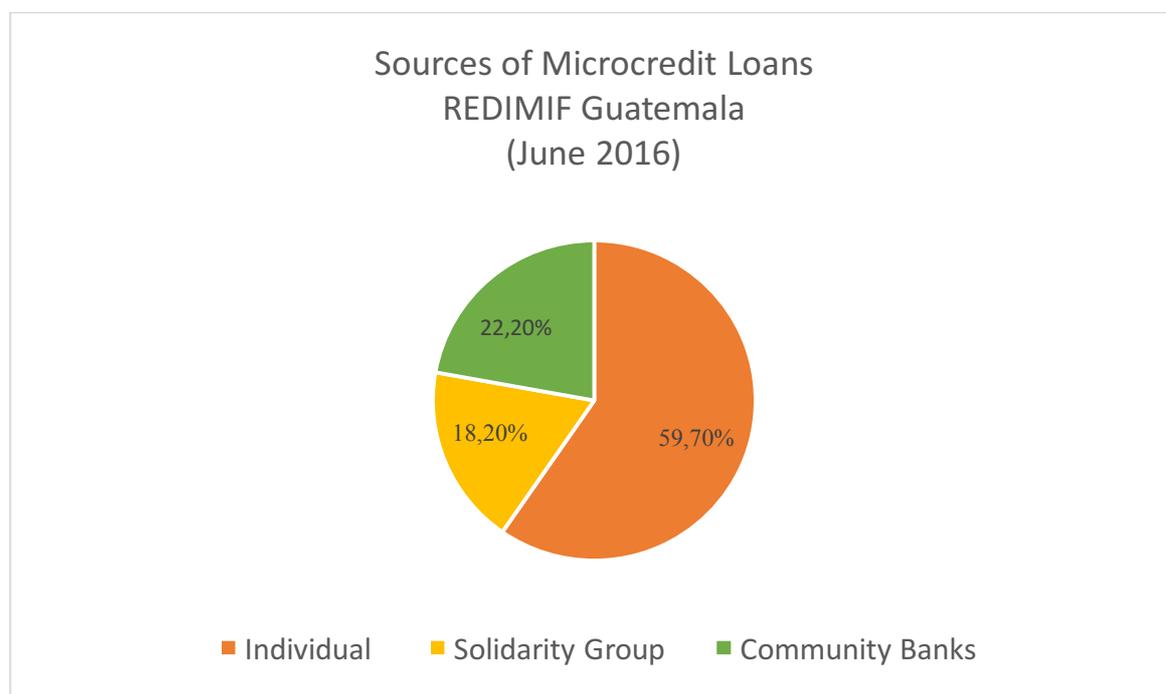
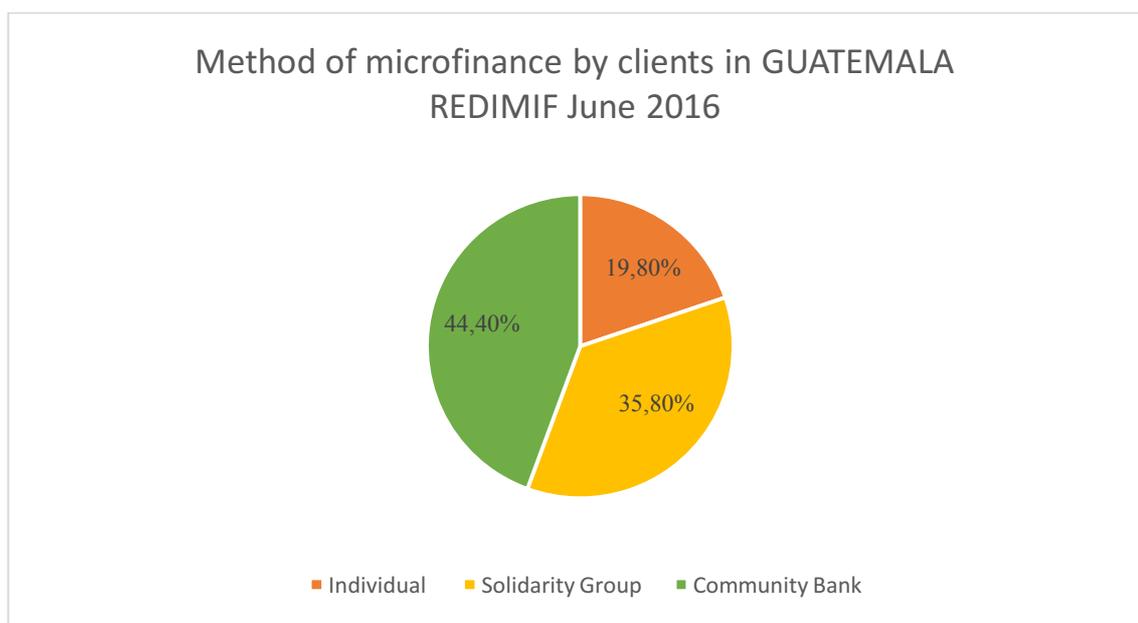


Figure 26 Sources of Microcredit Loans REDIMIF Guatemala (June 2016)



*Figure 27* Method of microfinance by clients (%) in REDIMIF Guatemala (June 2016)

### **7.2.4 Women and microfinance**

The microcredit promotes and changes the role of a woman in the family economy and relations within their community, mainly in the rural areas. The stereotype of women role in the family is being broken by giving women power to make their own financial decisions, and more importantly, they tend to invest in the household, education, health and child care rather than men. This is the very reason why the policies and financial strategies are more oriented towards women mainly in the rural areas.

Percentage of women clients in the central America has been rising, and in none of the studied countries has it fallen below the 55% of women clients of total country's portfolio in 2006 – 2016. Whereas in Guatemala, can be seen the sudden drop between 2006 and 2010, and steep growth in the woman clientele since 2010 onwards. This is due to the policies and statistical reporting of the institutions as 2 MFIs joined REDIMIF

association which are only pro-women oriented and more than 90% of its clients are women.

The financial crisis between 2008-2010 has considerably affected the markets and naturally the women clients which were the significant majority. Especially, we can see the simultaneous drop in the rural portfolios and women clients in the case of Guatemala, showing that the country's MFIs are mainly focused on women in rural areas. As mentioned, this is connected with the fact that Guatemala has the lowest portfolio in terms of credit amount as the focus group can afford and needs less credit for its activities.

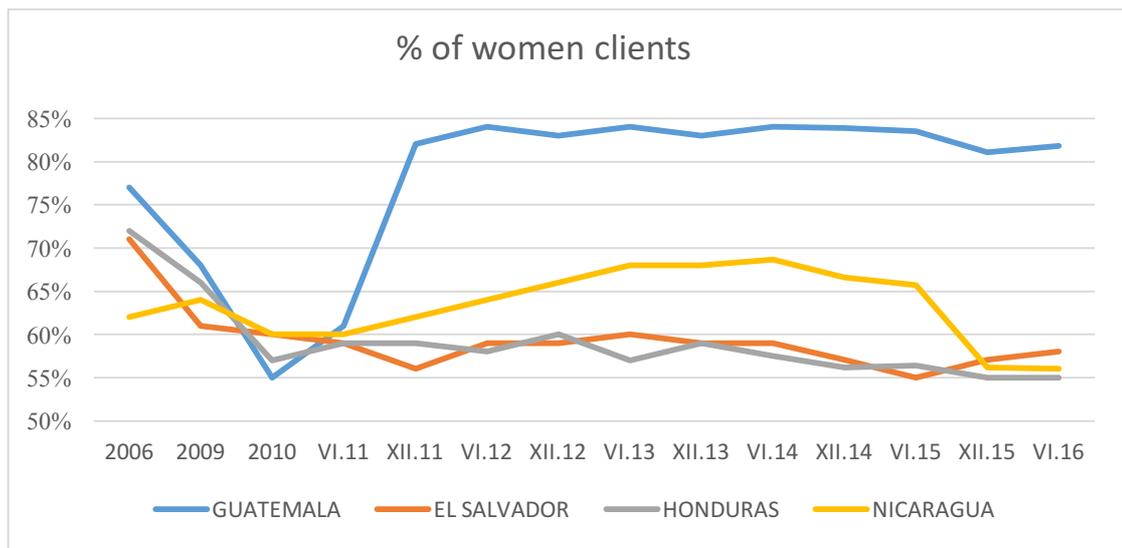


Figure 28 % of women clients (REDCAMIF)

## 8 Conclusion and discussion

The thesis aims to sketch the importance of access to finance for the poor. The finance is often regarded as the privilege of the rich, however, a key to solution some the developing problems might be including the poor in the financial flow and giving them the equal opportunity to participate to access the credit.

The empowering people is the main way to eradicate poverty. Naturally, the effort for sustainable development must come from both direction of bottom-to-up/up-to-bottom as a result of the discussed vicious cycle of poverty. Its eradication requires motivation and resources to come out of poverty. People living in poverty often do not have the means or know-how to come out of poverty and thus will need the external incentive on which they should not become dependent as is often the case of the development aid programs. Thus, microfinance is one of the way of incentivizing and giving the poorest the chance to work their ways out of the poverty traps. Providing resources and knowledge are essential in this process of empowerment and I believe that is the role of facilitators.

During the research we tried to answer certain questions that raised a priori to the writing of the thesis. Based on the constructed model, we found the extensive studies done on real people which sketched the paths to finding a part of the solution to the development problems which are currently toiling the Central America which is the home to the poorest countries in the world – Guatemala, Honduras, Nicaragua and El Salvador. The studies that we found were multiple and while not conclusive, the financial inclusion would certainly lead to solve the problems and more emphasis should be put, not only in the CA, but in the developing world in general, on the financial inclusion as an inherent part of the development strategy. The transparency and regulatory

environment of the microfinance could be supported by implementing working system that would serve for credit reporting which would give better access to services and lower the costs. Speaking in ampler perspective, the development policies that enhance the economic development in field of education – especially financial literacy - and stronger rule of law would also support the financial inclusion.

Furthermore, we find rather a strong correlation between the financial inclusion and inequality and even though the author realises that the inclusion of the poor is not a panacea to the solution, the suggested technological opportunities of the modern world might accelerate the inclusion and help with many other problems. Therefore, we could conclude that the technological advances, will play a key role in improving the efficiency and expanding the outreach of the poor in the financial field in the future.

For the development of financial inclusion we find that the digital and the technology would play a crucial role in the future as there is a lot of unused potential in the Central America and population is rather tech-savvy (many people own smartphones and do wireless transactions) and demands those kinds of products.

The countries like El Salvador and Honduras are already trying to including the mobile money into the strategy and in the future might follow the discussed model of Kenya and its mobile banking success which would highly help the disadvantage part of the population.

The current status of the microfinance market in the Central America, after the world financial crisis in 2009, has seen a growing trend in the number of clients and portfolio size. The countries are doing important steps to utilize the potential of the microfinance, however, a lot of work

needs to be done and the process of legislative implementation on the public sector level remains slow.

Particularly, Nicaragua, the poorest of the studied countries is on the right path and taking crucial steps to the financial inclusion with its effective strategy in the past years 2014 - 2015. As observed in this case, the microfinance market seems to be very responsive towards legislative amendments and, therefore, all the countries should, beside the technological advances, make the legislative steps which would promote this finding of responsive microfinancial markets. We believe that Nicaraguan government will consider the microfinance rather an ally in fighting the poverty.

As most of the countries in the Central America live off the micro and small businesses (forming big part of GDP), we found the microcredit, the extensive measure, focused on investing into the businesses and remains the main purpose of the credit usage.

Guatemala is a special microfinancial element among the studied countries case due to its rural portfolio. The sector is mainly attributed to the remote areas and women are predominantly (80%) included in the portfolio of MFIs in Guatemala which is not the case of other countries.

Importantly, we found that the Solidarity Group model which has its origin and works in Bangladesh, does not work in the market in the Central America and is almost non-existent. While the Community Bank models seems to be working rather well in Guatemala, not in the rest of the countries. Most of the countries' clients prefer individual loan and do not like to adopt the principle of the Solidarity Group - sharing the risk in the groups.

Also, the situation of microfinance in the Central America reflects the fact that while the economies are diversifying, there are positive conditions being created which promote the local development. This is the

consequence of the diversification of the production activities which curb the risk which tends to happen in the regions with focus on the primary sectors only. This is important for MFIs as well due to the external factors like weather, natural disasters, seasonal demands are able to affect the repaying abilities of the borrowers.

In the last ten years, the studied countries have taken important steps in the promotion of the financial inclusion. The regulatory environment has been strengthened and the ways of the access to the financial institutions have become more promulgated. The further studying of the impact of the real impact of microfinance will be necessary in order to obtain more relevant data to come to more precise full-fledged conclusion and the best-fitting policies. The technology and legislative changes seem to be key to speed up a greater financial inclusion of the poor. Nowadays though, we are still crashing against the walls of low capacity of regulation and slow implementations of effective policies.

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## ABBREVIATIONS

CA – Central America

GDP – Gross Domestic Product

IADB – Inter-American Development Bank

LA – Latin America

LAC – Latin America and The Caribbean

MFI – Microfinancial institution

REDCAMIF – Red Centroamericana de Microfinanzas

UN – United Nations

UNDP – United Nations Development Programme

WB – World Bank

WWF – World Wild Fund

## APPENDIX

### APPENDIX A

<b>PORTFOLIO PER ECONOMIC ACTIVITY</b> <i>(REDCAMIF member MFIs)</i>					
<b>2016</b>	<b>Guatemala</b>	<b>El Salvador</b>	<b>Honduras</b>	<b>Nicaragua</b>	<b>REDCAMIF</b>
Business	41,20%	51,50%	38,90%	32,80%	34,50%
Services	9,40%	8,20%	9,20%	6,60%	13,20%

Consumer's prod.	5,10%	4,50%	4,50%	20,20%	18,20%
Housing	12%	25,10%	26,40%	12,20%	14,30%
Others	1,70%	0%	0,30%	0,10%	1,10%
Agribusiness and forestry	21,20%	8,50%	18,40%	26,20%	13,30%
Small ind.	9,30%	2,70%	2,20%	1,80%	5,30%
<b>2014</b>	<b>Guatemala</b>	<b>El Salvador</b>	<b>Honduras</b>	<b>Nicaragua</b>	<b>REDCAMIF</b>
Business	44,90%	40,40%	39%	39,30%	30,2%
Services	5,60%	10,00%	11,00%	8,20%	18,1%
Consumer's prod.	3%	2,50%	3,80%	8,40%	14,1%
Housing	12,10%	30,00%	28,20%	15,60%	15,0%
Others	1,50%	0,10%	0,20%	0,40%	0,6%
Agribusiness and forestry	18,90%	10,40%	17,40%	25,50%	12,8%
Small ind.	14%	6,60%	2,90%	2,50%	9,3%
<b>2012</b>	<b>Guatemala</b>	<b>El Salvador</b>	<b>Honduras</b>	<b>Nicaragua</b>	<b>REDCAMIF</b>
Business	45%	38,90%	51,90%	36,80%	38,10%
Services	7%	14%	5,80%	7%	15,10%
Consumer's prod.	3%	2,40%	2,30%	8,90%	9,10%

Housing	10%	19,60%	28,10%	11,90%	15,00%
Others	1%	4,70%	0,10%	2,40%	2,30%
Agribusiness and forestry	17%	16,40%	9,75%	30,30%	13,20%
Small ind.	16%	4,10%	2,10%	2,70%	6,20%
<b>2010</b>	<b>Guatemala</b>	<b>El Salvador</b>	<b>Honduras</b>	<b>Nicaragua</b>	<b>REDCAMIF</b>
Business	55,90%	35,50%	33,70%	22,30%	36,90%
Services	3,60%	7,70%	7,40%	2,90%	9,50%
Consumer's prod.	5,20%	17,90%	7,90%	8,60%	10,20%
Housing	20,30%	25,40%	38%	10,70%	17,50%
Others	0,30%	0,10%	0,30%	0,70%	2,10%
Agribusiness and forestry	9,30%	10,60%	9,10%	53,50%	20,40%
Small ind.	5,40%	2,70%	3,50%	1,30%	3,50%

## APPENDIX B

MICROINSURANCE PRODUCT	Parts of product	PLAN A	PLAN B	PLAN C
1. Unexpected	Life Insurance	\$ 1.800	\$ 3.600	\$ 6.000

events (18-65 years)	Funeral expenses	\$ 300	\$ 600	\$ 1.000
	Permanent Disability	\$ 1.800	\$ 3.600	\$ 6.000
	Financial Support	\$ 200	\$ 300	\$ 400
2. Cancer diagnosis (18-55 years)	Case of diagnosis	\$ 1000	\$ 1500	\$ 2000
	Mammography Test/ Prostatic Antigens tests			