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FINANCING RURAL PRODUCER ORGANIZATIONS: ASSESSING MARKET INNOVATIONS

by

VINCENT LAGACÉ

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the Faculty of Graduate and Postdoctoral Studies
in partial fulfillment of
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ABSTRACT

Rural producer organizations are being increasingly recognized for their efforts in improving the livelihoods of small farmers across the developing world. Caught between microfinance and commercial banks, these organizations however often struggle to access the necessary funds to bring their product to market or finance much-needed infrastructure.

In recent years, a growing recognition of the problem has led to the emergence of a new generation of specialized financial institutions (commonly called alternative lenders). Using innovative supply-chain oriented strategies such as reverse factoring, these lenders aim to catalyze the emergence of local financial markets that meet the needs of rural producer organizations. This thesis evaluates the need for these financial innovations, their impact as well as the business case for lending to rural producer organizations. This assessment is achieved through documentary research, literature review and three case studies of coffee rural producer organizations in the Mexican states of Oaxaca, Veracruz and Chiapas.

This thesis concludes that although a RPO financing gap was indeed identified in Mexico in the early 2000s, this gap was found to be receding in recent years due to the Mexican government's success in encouraging commercial lending to the sector through FIRA, a second-tier development bank, and changes in the financial regulatory framework allowing the rise of two categories of non-bank financial institutions, the SOFOL and SOFOM.

The study also found a business case for profitable lending to rural producer organizations. All three studied organizations, despite their challenges, were found to be dynamic businesses with financing needs undoubtedly beyond what the microfinance market has to offer. This thesis however identifies several risk factors for potential lenders: vulnerability to price fluctuations and local competition, the politicized nature of RPOs, dependence on public and private subsidies as well as low internal capacity in financial management and accounting.

This thesis evaluated the impact of recent financial innovations to be moderately positive at worst and transformational at best on rural producer organizations. The loans provided by alternative lenders allowed the organizations to gain precious credit experience while capitalizing on market opportunities that could have otherwise been out of reach.

Finally, this thesis concluded by suggesting a few strategies that could be used by alternative lenders to maximize their impact, including adjusting their interest rates to market conditions, working with local financial institutions, diversifying their client base, taking more risks, strengthening RPO capacity through capacity-building programs and leveraging RPO internal credit funds to unlock underserved rural microfinance markets.

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ACRONYMS AND ABBREVIATIONS

CC	Cooperative Coffees	**SME**	Small and Medium Enterprise
CIRAD	Centre de coopération internationale en recherche agronomique pour le développement	**IFAD**	International Fund for Agricultural Development
CEPCO	Coordinadora Estatal de Productores de Café Orgánico de Oaxaca	**INMECAFE**	Instituto Mexicano del Café
COGS	Cost of Goods Sold	**MFI**	Microfinance institution
DID	Développement international Desjardins	**NAFTA**	North American Free Trade Agreement
FAST	Finance Alliance for Sustainable Trade	**NGO**	Non-governmental organization
FEGA	Fondo Especial de Asistencia Técnica y Garantía para Créditos Agropecuarios	**OID**	Overseas Development Institute
FONAES	Fondo Nacional de Apoyo a las Empresas Solidarias	**PATMIR**	Proyecto Regional de Asistencia Técnica al Microfinanciamiento Rural
FIRA	Fideicomisos Instituidos en Relación con la Agricultura	**RPO**	Rural Producer Organization
FIRCO	Fideicomiso de Riesgo Compartido	**SAGARPA**	Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación de México
GATT	General Agreement on Tariffs and Trade	**SOFOL**	Sociedad Financiera de Objeto Limitado
ICA	International Coffee Agreement	**SOFOM**	Sociedad Financiera de Objeto Múltiple
ICO	International Coffee Organization	**TIIE**	Tasa de Interés Interbancaria de Equilibrio

1. INTRODUCTION

1.1 – Research context

According to the 2010 progress report on the United Nations Millennium Development Goals (MDGs), it is projected that many of the targets set for fighting hunger and poverty will not be met in many regions as hoped by 2015. According to the report, the number of people who are malnourished has continued to grow: as a consequence of the food crisis, the number of people who were malnourished in 2008 may have been as high as 915 million and exceeded 1 billion in 2009 (United Nations, 2010, p11). Poverty still remains endemic in much of the developing world, with an estimated 1.4 billion people living in extreme poverty in 2005 (United Nations, 2010, p4).

Considering that 75 percent of the world's poor live in the rural areas of the developing world, small farmers and their rural producer organizations have been identified by several development stakeholders as a key segment in the fight against poverty and malnutrition. George Monbiot, a famous British writer and pundit, wrote in 2008 in The Guardian a passionate column in favor of smallholder farming and cooperative rural producer organizations. Citing several studies, including research by Nobel winning economist Amartya Sen, Monbiot (2008) claims: "there is an inverse relationship between the size of farms and the amount of crops they produce per hectare (...) the smaller they are, the greater the yield". As Monbiot (2008) explains "a shift from small to large farms will cause a major decline in global production, just as food supplies become tight" and supporting small farmers and rural producer organizations through certification initiatives such as fair trade "might now be necessary not only as a means of redistributing income, but also to feed the world".

George Monbiot is far from alone in identifying the fair trade movement and rural producer organizations (through which small farmers export to Fair Trade markets), as one of the best hopes in the fight against poverty and malnutrition. A growing literature has studied the importance of small farmers, the rise of RPOs and their impact on the former. As to be demonstrated in the documentary research and literary review section, RPOs "appear to be fundamental in the reduction of markets constraints on access for the farmers" and "a key actor in promoting new institutional arrangements favorable to small farmers" (Bienabe et al., 2004, p70-71).

While Northern consumers are increasingly familiar with efforts to increase RPO and small farmer market access through certification initiatives such as fair trade, fewer are familiar with efforts to boost technical or productive capacity of these organizations or, crucially, to help RPOs capitalize on these new market opportunities by providing them with much-needed financing.

This research addresses this issue by studying RPO financing needs, challenges, opportunities and assessing recent innovations in the sector through documentary research, literature review and field research.

1.2 - Research contribution and justification

1.2.1 - Research contribution

The importance of RPOs and their structuring role in the rural landscape in developing countries has been extensively studied in the past years – see for example Stockbridge et al. (2003) and Rondot and Collion (2001). Several authors have also studied more specifically RPO financing. Authors such as Doran et al. (2009), Klein et al. (1999) and Sanders and Wegener (2006) have discussed the demand and supply-side challenges RPOs, agricultural producers and SMEs face in obtaining financing in developing countries. Other authors have focused on documenting innovative lending practices in RPO financing: see for example World Bank (2005) and Milder (2008).

As innovative practices in RPO financing currently multiply, most notably with the help of the growing alternative lending industry, there have been surprisingly few academic efforts to update and assess the financing situation of rural producer organizations.

What has been the impact of the recent financing innovations on rural producer organizations? Where do RPOs now obtain financing and how did this change since the arrival of alternative lenders? Did alternative lenders respond to a real need or simply displace more expensive local lenders? Have alternative lenders succeeded in making the business case that lending to these organizations can be profitable? More specifically to the Mexican context, what is the state of RPO financing in the country? Are recent financial innovations relevant to the Mexican context?

This study answers these questions by drawing an up-to-date financial portrait through case studies of three Mexican RPOs that have directly benefited from some of the recent financing innovations. The case studies provide some insights on some of the current financing challenges facing these RPOs and point to some possible solutions. Such an assessment provides practitioners, local financial providers, northern alternative lenders, donors, sustainable trade certifiers and technical assistance providers, helpful feedback on financing practices as well as on the challenges and opportunities that farmers and RPOs face.

1.2.2 - Research objectives

General objective. The general aim of the study is to evaluate rural producer organizations' (RPOs) access to financing and assess the recent efforts of the alternative lending industry to better serve these groups financially.

Specific objectives.

1. The first objective of this study is to better understand rural producer organizations, their financing needs and challenges as well as recent financial innovations in the field by reviewing some of the main publications on the issue.
2. The second specific objective is to document and analyze the financing strategies of three coffee rural producer organizations in Mexico. This is achieved through case studies by studying financing needs, sources of financing (current and historical) and credit terms and characteristics. A particular attention is given to unconventional sources of financing, such as financing from alternative lenders.
3. The third objective of this study is to sketch a general portrait of the agricultural financing options in Mexico.
4. Finally, the fourth objective of this research is to provide a brief evaluation of recent financial innovations deployed by alternative lenders in the Mexican context.

1.2.3 - Research hypotheses

This thesis aims to confirm or infirm the following research hypotheses, formulated at the beginning of the study:

1. Despite the challenges, a business case for profitable lending to rural producer organizations can be made to both local and international lenders.
2. The disengagement of the Mexican state in the country's rural financial markets over the past twenty years has left a void ("financing gap") in rural producer organization financing that has yet to be filled by local lenders.
3. Recent financial innovations, such as the reverse factoring lending facilities offered by Northern alternative lenders, have succeeded in demonstrating the creditworthiness of rural producer organizations and dramatically increased financing to the sector.

1.2.4 - Research breakdown

The first section of this thesis, documentary research and literature review, provides a conceptual framework for the research. In order to make this section more engaging for the reader, it is written in a drill-down narrative of the key concepts of this research rather than a piece-by-piece review of relevant academic articles and publications. The documentary research and literature review section is divided in five sections:

1. Small farmers and the fight against poverty. This section highlights the importance of small farmers in the global fight against poverty. It also explores some of the main changes (opportunities and challenges) in agriculture today and their implications for small farmers.

2. Rural producer organizations. This section reviews some of the literature written on rural producer organizations (RPOs) by defining these organizations and exploring their origins, some of their main goals and characteristics.
3. RPO financing needs. The third section of this literature review explores RPO financing needs by describing some of types of financial products required by rural producer organizations.
4. The RPO financing conundrum. Once the basic concepts are defined, the fourth section of the literature review answers to the question: why do RPOs struggle to obtain external financing? Two types of constraints are identified and described: supply-side constraints and demand-side constraints.
5. Recent developments in RPO financing. This section concludes the literature review by highlighting some of the new innovative financing strategies and instruments available to lower the cost and risk of lending to rural producer organizations. It also provides an overview of the burgeoning alternative lending industry and explores its origins and business model.

The next part of the thesis provides a field perspective of the RPO financing issue. This second section starts by offering the reader some methodological background on the case studies: justification of the field research strategy and of the field research sites as well a description of the data collection strategies, ethical considerations and confidentiality issues and research limitations. In order to better contextualize the case studies, a primer of the coffee value chain as well as an overview of the offer in agricultural financing in Mexico are also provided to the reader. Following these brief introductions, three case studies are presented and analyzed: each case study includes a general presentation of each organization (history, stats etc.), a historical review of some key indicators of organizational (number of members, sales etc.) and financial health (liquidity, profitability, debt) before taking a look at the organization's credit history and current financing needs. Each study concludes with a general reflection on some of the main findings of the case study.

The fourth section of this research draws on the findings of both the literature review and the case studies to confirm or infirm the research hypotheses and discuss the following themes:

- RPO lending challenges and opportunities. Based on the information gathered as part of the case studies, the question "Is there a business case for RPO lending? " is answered by exploring some of the main RPO financing opportunities and challenges.
- The RPO financing gap in Mexico. This section explores the findings of the field research and refutes with some nuances the presence of a RPO financing gap in Mexico.
- The impact of alternative lending. This section evaluates the impact of recent financial innovations introduced by alternative lenders on RPOs and local financial institutions. Based on

the information gathered during field research, this section answers to the following question: have alternative lenders achieved their aims? This section also includes a general reflection on alternative lending, its scalability as well as ways to maximize its impact.

Finally, the thesis concludes on a summary of the main findings as well as recommendations for further research.

2. DOCUMENTARY RESEARCH AND LITERATURE REVIEW

2.1 - Small Farmers and the fight against poverty

Poverty is one of the great scourges of the 21st century. It is estimated that approximately 1.1 billion people are poor, with an income of less than USD$1 per day. About 880 million people still live in hunger. Despite great efforts by governments around the globe, donors and multilateral organizations, it has become widely accepted that United Nations Millennium Development Goals of halving world hunger and poverty will not be met for many regions by 2015.

Considering that 75 percent of the world's poor live in the rural areas of the developing world, small farmers have been identified by several multilateral agencies as a key segment in the fight against poverty.

Indeed, farming is a labor-intensive activity and creates accessible employment for large numbers of people of varying skill-levels (Doran et al., 2009, p8). Small farmers also represent the largest employment group among the world's poor: the number of small farmers in developing countries was recently evaluated at 800 million (Doran et al., 2009, p15), approximately 85% of which own 2 hectares or less (Von Braun, 2005, p25).

Small farmers play a disproportionate role in securing global food security: it is estimated that in Latin America, about 17 million small farms occupying close to 60.5 million hectares, or 34.5% of total cultivated land, with average farm sizes of 1.8 hectares produce 51% of maize, 77% of beans, and 61% of potatoes for domestic consumption (Altieri, 2008). Moreover, evidence quoted in a number of studies suggests that small farms can be more efficient and productive per hectare in the long-term than large-scale monoculture farms (Curtis, 2009, p2). Maintaining and raising the absolute contribution of small farms to the global food supply will be critical in the coming decades: global food demand is projected to rise by 50 per cent by 2030 (Doran et al., 2009, p1).

Yet, while they use mostly local resources and face local constraints, small farmers are deeply affected by changes in the global economy. Agriculture has been undergoing over the past decades radical, fast-moving transformations. Below is a summary of some of the relevant trends in the agricultural sector identified by several publications on the issue, including Curtis (2009), Von Braun (2005), Bienabe et al. (2004), Doran et al. (2009) and Boris (2005):

I. Globalization of agricultural markets. As many agricultural markets have gone global, competition has intensified. Reduction in transport costs and increased liberalization of international exchanges have led to greater competition between agriculture with uneven

productivities: low-asset, low-resource small farmers now directly compete on the global marketplace with well-established, high productivity farmers, often supported by public subsidies (Bienabe et al., 2004, p14). The cotton sector is often given as an example: small-scale, labour intensive West African cotton farmers are directly pitted against large, mechanized American farms receiving massive governmental subsidies (Boris, 2005, pp95-128).

II. Changing consumer habits. Socio-economic changes, both in the developed and developing world, resulting from urbanization, cultural pattern evolution, technological changes and rising incomes are modifying eating habits and consumer demand (Bienabe et al., 2004, p15-16). Considering the impact that these trends are having on market demand, in order to successfully sell their products, farmers now require a better understanding of the marketing function. Farmers no longer have the option of focusing on production in the hope that their product will sell. Farmers must now specifically grow what is in demand and market it appropriately. Today, consumers actively seek out agricultural products that are wholesome and practical, fresh, available year-round, convenient to buy and store, innovative (e.g. new products), have high flavor, are cheap (low prices) and most importantly of all, are safe (Shwedel, 2007, p19). The trend among consumers with ample purchasing power is also to seek out premium products or products with high value added. Traceability attributes, trademarks, ethical certifications and high quality requirements have all become imperatives for producers in recent years. In the coffee sector, for example, what used to be a market segmented by characteristics such as ground beans/instant/decaffeinated now includes additional attributes such as gourmet/organic/fair trade/denomination of origin etc. These structural changes in demand have had a lasting impact on both production and commercialization channels and therefore significantly altered the way farmers interact with the market.

III. Buyer consolidation and concentration. Buyer markets in many commodities have also consolidated. The concentration of functions such as production, processing and distribution by dominant national and international players led to the emergence of oligopolistic supranational macro-actors (Bienabe et al., 2004, p15). It is estimated that 10 leading food retailers control around a quarter of the USD$ 3.5 trillion world food markets (Curtis, 2009, p2). Three companies, Archer Daniels Midland, Cargill and Bunge, control 90% of the world's grain trade (Curtis, 2009, p2). In the case of coffee, global market integration meant the bankruptcy or the purchase by international players of many national agro-industries and processors (Pérez-Grovas et al., 2001, p4). These smaller, national stakeholders often simply did not have the technical, financial capacity or scale to compete with multinationals. As a result, today, half of the world's coffee is purchased by just five companies: Nestlé, Kraft, Proctor & Gamble, Sara Lee and Tchibo. Buyer concentration has had an adverse impact on returns for coffee producers: in 1990 coffee producers on average received 40% of the retail value of the product while, at the height of the coffee crisis a decade later, this percentage dropped to 9% (Boris,

2005, p86). This drop comes despite the impressive rise of specialty coffee markets, which caused retail coffee sales receipts to double during the period, reaching USD$ 65 billion (Boris, 2005, p86).

IV. Increased price volatility. International price fluctuations have significantly increased over the past years in the agricultural sector. This has been partly caused by the increased liberalization of the sector as well as the end of many international agreements (such as the ones in the coffee and cocoa sectors). Particularly in the second half of the 1990s, prices of a range of commodities (tea, cotton, sugar, bananas, cocoa and coffee) experienced sharp drops.

The rise and fall of the International Coffee Agreement

From the early 1960s through the 1980s, coffee sales were tightly regulated by the International Coffee Agreement (ICA), an accord between the major producing and consuming nation members of the International Coffee Organization (ICO). The ICA imposed quotas on both producing and consuming countries to control global stocks and prices. Quota enforcement was strict and obligations were met by producing countries by storing or destroying coffee, in cases of overproduction, to keep it off the market (Dicum and Luttinger, 1999, p91-92). The ICA was generally considered very effective: until its demise in 1989, coffee prices remained stable and relatively high and coffee production came to be seen as a viable means of development for tropical countries that had not produced it before of had done so only in limited quantities" (Dicum and Luttinger, 1999, p91-92).

Considering the ICA´s effectiveness, why did it collapse on July 4th 1989? Several factors are commonly mentioned, most notably: a change in consumer coffee preferences and an oversupply of coffee on the world market from non-ICO members. Geopolitical goals are however also to blame: the US government considered the ICO and its rigid structure an obstacle to its practice of using the coffee trade to reward friendly governments in Latin America (Jaffee, 2007, p43).

The demise of the ICA exposed coffee producers overnight to free-market forces: producing countries competed with each other by flooding the international market, resulting in a sharp drop in prices and reaching a low of 49 cents per pound in 1992, well below production costs (Jaffee, 2007, p43). Small farmers, who produce more than two thirds of the world's coffee, were particularly affected (Jaffee, 2007, p43).

V. Decreased agricultural aid. Despite a recent surge of interest in reaction to the 2007-2008 food crisis, aid to agriculture has steadily declined over the past decades: in 1979, aid to agriculture represented 18% of total assistance while in 2006 it was just 2.9% (IFAD, 2009, p1). Moreover, much of the aid has been of poor quality: approximately half of all agricultural aid has been spent

to support structural adjustment while there has been practically no aid for access to credit or inputs such as seeds and fertilizer (Curtis, 2009, p1).

VI. Withdrawal of the state. Often under pressure from World Bank/IMF structural adjustment programs, many developing countries have over the past two decades substantially liberalized their agricultural sectors. Under these programs, aid became conditional to government reforms in the agricultural sector. Developing country governments were asked to "abolish the state's role in three main ways: as a buyer of farmers' produce at fixed market prices, as a provider of subsidies on inputs such as fertilizer and credit, by cutting tariffs on agricultural imports" (Curtis, 2009, p8). As a result, during the 1979-2006 period, government investment in agriculture in developing countries fell by one third in Africa and by two thirds in Asia and Latin America (Curtis, 2009, p8). This drop in government investment was usually accompanied by the dismantling of agricultural development banks (e.g. BANRURAL in Mexico), commodity boards (e.g. Caisse de stabilisation in Ivory Coast) and government-funded support and marketing services (e.g. INMECAFE in Mexico). The rationale behind the structural adjustment reforms and market liberalization programs was to let commercial organizations take the lead in rural economic development, effectively replacing the parastatals. Whether this was achieved or not is debatable. However, to date, agricultural private sector investment in developing countries has been disappointing (Chirwa et al., 2005).

Liberalization in the coffee sector: the Mexican experience

The Mexican Instituto Mexicano del Café (INMECAFE) was created in 1958 and was assigned the mission of regulating coffee prices, providing technical assistance, and conducting research on improving coffee production and controlling pest infestation. INMECAFE therefore provided small coffee farmers technical assistance, credit, guaranteed purchases and transportation of products to market. The INMECAFE also collaborated with the International Coffee Organization to sell the coffee on the international market and provide price stability to Mexican producers. During the 1970s and the 1980s, INMECAFE emerged as the largest national buyer and exporter of coffee beans worldwide. Under its guidance, Mexican coffee production expanded significantly and the country became one of the world's top coffee producers (Fridell, 2007, p176).

The INMECAFE was dismantled in 1989 under neoliberal reforms at international and national levels. The following excerpt from Fridell (2007, p179) describes well the context in which the Mexican coffee sector was liberalized over the course of the late 1980s and early 1990s:

> Under the presidency of neoliberal reformer Carlos Salinas (1988-94), INMECAFE announced that it would begin to purchase only a minority of beans produced in major coffee states in 1989, the same year that the International Coffee Agreement (ICA) was

suspended. By 1993, the year the United States officially withdrew from the ICA, INMECAFE had been completely dismantled and its holdings, including most significantly its industrial processing plants, sold off. These reforms were accompanied by broader neoliberal reforms to the Mexican agricultural sector, which included an end to the government's constitutional commitment to land reform, allowance for the privatization of ejido plots (which previously had been banned to prevent the concentration of land), significant curtailment of credit to small farmers, elimination of agricultural subsidies, and implementation of the North American Free Trade Agreement (NAFTA).

Liberalization had catastrophic consequences for Mexican small coffee farmers. Without guaranteed and stable prices, producers were again vulnerable to international price swings. Moreover, most small producers were left in a weak market position with regards to intermediaries, considering they often had no means of transportation, processing facilities, sufficient capital and understanding of markets (Fridell, 2007, p180). The lack of technical support services as well as access to inputs also had an adverse impact on productivity, thus further reducing the incomes of small coffee producing families (Fridell, 2007, p180). Coffee, which had previously accounted for $882 million of agricultural exports in dollars in 1985, dropped to less than $370 million in 1991. The fall of INMECAFE reduced small coffee producer incomes by 70 percent, leading many to abandon their coffee plots and migrate out of coffee-growing regions (Jaffee, 2007, p43).

While all these trends offer considerable opportunities for intermediaries as well as enterprising, efficient and well-organized farmers, they also offer considerable threats for asset-poor and unorganized small farmers. Many farmers have suffered from a shrinking share of the final price, losing ground to intermediaries providing processing, logistics support, and marketing. As a result, during the 1980s and 1990s, a noticeable spike in poverty was observed among agricultural producers (Bienabe et al., 2004, p14).

Why have small farmers been so hard hit by these trends? Why can't small farmers take advantage of these new market opportunities? A recent Oxfam report (Doran et al., 2009, p8) claimed that while smallholder farmers can be efficient on a per-hectare basis, the vast majority do not optimize potential returns. Several observers blame market imperfections and list several obstacles that hinder small farmers' ability to take advantage of these new opportunities. The list below, partly drawn and inspired from Nicholls and Opal (2005, p18-19) and Bienabe et al. (2004, p26-28), summarizes some of the key issues at stake.

- Lack of market access and bargaining power: Small farmers' efforts to sell their products directly to the markets are hindered by their remoteness and the lack of transport and infrastructure: transport infrastructure is often unreliable in rural areas, with many roads impassable during the rainy season - reducing the ability to buy and sell crops in local markets. As a result, small farmers are often forced to rely on local middlemen, who can collude to keep prices low and competition at bay (Nicholls and Opal, 2005, p18).
- Lack of economies of scale: Due to their generally low endowments in land and capital, small farmers cannot generally achieve individually economies of scale for transportation, processing or export.
- Asymmetry or lack of information: The lack of infrastructure in developing countries also affects small farmers' access to information: access to up-to-date price information over the internet or in specialized newspapers or magazines is often impossible. This lack of information may lead small farmers to underestimate the value of their production and obtain a lower share of the added value created in the commodity chain (Bienabe et al., 2004, p27). This is especially the case in longer, complex supply chains.
- Low access to technology: Similarly, most small farmers use only rudimentary agricultural techniques and tools and access to technology is limited. In this context, making productivity increases is difficult.
- Inability to switch to other sources of income generation: Small farmers' averseness to risk is an obstacle to taking full advantage of market opportunities. Often, small farmers will be reluctant to abandon a crop, despite low prices, or to switch to a more profitable crop: "switching from growing a crop that your grandfather grew to a higher-priced crop that no one in your village has ever grown before is an extremely risky activity" (Nicholls and Opal, 2002, p19).
- Rural informality and weak legal systems: Small farmers with unregistered or unsecured land titles cannot use their land assets as collateral for loans. This furthers hinders access to financing.
- Little or no access to risk mitigation instruments: Small farmers often do not have access to income-smoothing mechanisms like futures markets. Unlike large producers or traders, a coffee farmer in rural Chiapas (Mexico), due to its lack of volume, cannot call the London Coffee Exchange to lock in a price for its next harvest. Similarly, due to the lack of financial infrastructure in developing countries, the same farmer often cannot purchase insurance to protect its crop from extreme weather or other risks. Small farmers are therefore more often than not completely exposed to world price fluctuations and production risks.
- Lack of access to credit: The liberalization of agricultural markets meant in many countries the liquidation of government-owned agricultural development banks and the

dismantlement of many credit lines and guarantee schemes. As a result, agricultural lending dried up in most developing countries and many small farmers were forced to obtain financing for their inputs or crops from their suppliers or buyers, often at exploitative interest rates. This market imperfection will be discussed in greater detail in the section 2.4 and as part of the case studies.

These obstacles, combined with the recent developments in the agricultural sector, represent formidable challenges for small farmers. Small farmers run the risk of becoming broken links in fragmented supply chains, unable to compete and doomed to poverty. To escape this fate, Von Braun (2005, p29) suggests three alternatives: 1) Seek other sources of income (off-farm income) and become a part-time farmer; 2) Abandon farming (this strategy can include economic migration); 3) Specialize, diversify and better market their products.

Considering the lack of rural employment and often-bleak migration prospects, there has been increasing interest over the past years among Washington Consensus stakeholders[1] for ways to address the above-mentioned obstacles and help small farmers better position themselves in the changing agricultural environment. Some multilateral institutions, such as the World Bank, have called for greater liberalization as well as series of other measures to improve small farmer market access, such as: greater investment in infrastructure, legal and market institutions, agricultural research and extension services as well as a greater role for producer groups (Chirwa et al., 2005, p1).

The call for a greater emphasis on rural producer organizations, along with calls for more value-chain partnerships and contract-farming schemes, is echoed by a number of policy analysts and academics usually critical of the Washington Consensus as well as several think tanks such as the French CIRAD, the British Overseas Development Institute (ODI) and the International Food Policy Research Institute. Rural producer organizations have been described by Rondot and Collion (2001, p3) as: "part of a new mode of economic and social regulation" rendered necessary by the disappearing coordination hierarchy imposed by the government in many developing countries. Von Braun (2005, p70) describes rural producer organizations (RPOs) as a "necessary condition for improving the benefits [small farmers] can get from their access to markets... since small farmers usually have defensive strategies with respect to the markets due to the multiple constraints they face, their involvement in RPOs can create the conditions for setting a collective offensive strategy that enables small farmers to catch new market opportunities or even to create them".

[1] The term Washington Consensus was coined in 1989 to describe 10 policy instruments promoted in the late 1980s and 1990s by several Washington D.C.-based multilateral institutions, namely the International Monetary Fund (IMF) and the World Bank,

In order to better understand these organizations and their stabilizing role for small farmers, RPOs will be described in the following pages.

2.2 - Rural producer organizations

Rural Producer Organizations (also called Farmer Organizations) are developed based on the principle of collective action among potential beneficiaries. According to Marshall (1998), "collective action occurs when individuals voluntarily cooperate as a group and coordinate their behavior in solving a common problem. In broad terms, collective action may be defined as action taken by a group (either directly or on its behalf through an organization) in pursuit of members' perceived shared interest". Collective action through rural producer organizations for example can allow individual producers to join forces and reach a sufficient critical mass making it possible to negotiate better prices or conditions for their inputs or their crops for example.

The interest in recent years for rural producer organizations has been well documented by a number of authors and organizations. A plethora of publications on the topic has emerged, primarily from NGOs and multilateral organizations, but also from a few academics. Particularly worth mentioning is the review by Stockbridge et al. (2003) of theoretical approaches relevant to farmer organizations as well as its analysis of critical issues affecting the emergence of farmer organizations, their evolution, management and governance. Also worthy of attention are the numerous World Bank background papers on the topic, including Bosc et al. (2002) written in conjunction with the CIRAD and the ODI and Rondot and Collion (2001). The following section attempts to build on these publications to dress a general portrait of RPOs before discussing in greater detail their financing needs.

Considering RPOs are a heterogeneous group evolving in vastly different contexts, defining them can be a difficult feat. According to the definition used by the International Federation of Agricultural Producers (IFAP, 1992), farmer organizations include any of the following:

- Farmer groups and pre-cooperatives;
- Farmers' associations, federations and unions;
- Agricultural cooperatives owned and controlled by their members;
- Chambers of agriculture having a general assembly elected by farmers;

Most definitions emphasize the importance of membership, with the main *raison d'être* of a farmer organization being to provide services to its members (Stockbridge et al., 2003, p2). RPO members are in almost all cases directly involved in primary production (or in some cases, transformation). RPOs usually require their members to meet a number of formal criteria, such as payment of regular membership fees and participation in certain activities (Stockbridge et al., 2003, p3).

Beyond the focus on membership, definitions of RPOs are usually vague: the World Bank, in a 2002 background paper, describes RPOs as "hybrid organizations", which have "emerged in different ways" and "aim to make profits but perform multiple functions" while "producing and managing different types of goods". According to the same World Bank paper, the organizations can operate in several sectors and have multiple product lines. Complexity levels may also vary widely from one RPO to another, as does legal status and recognition. RPOs are furthermore rarely static but can evolve and change over time (Bosc et al., 2002, p11).

RPO roots are difficult to pin down. Some authors, such as Rondot and Collion (2001, p2), argue that RPOs are a very modern incarnation of traditional forms of organization. According to the authors, traditional forms of informal producer organizations have existed in most rural societies. These organizations usually have inward-oriented functions to facilitate collective actions, mitigate production risks and regulate relations within the groups (Rondot and Collion, 2001, p2). Examples of these functions include regulating relations between members concerning access to means of production (land and water), support with the agricultural calendar, technical practices, and other issues (Rondot and Collion, 2001, p2). Formal RPOs are rooted in these forms of organizations. RPOs under their current form are however of a "radically different nature": "their purpose is not "the regulation of the relationships within the groups concerned...," but their "essential function is to organize the relations with the external world, a bridging function" (Rondot and Collion, 2001, p2).

How did modern RPOs emerge? How did these traditional organizations formalize and develop relations with the external world? Again, it is difficult to generalize as each specific RPO has emerged in a different context or environment. Some RPOs have emerged autonomously out of these traditional informal organizations while others have developed in reaction to external shocks (natural resource degradation, severe price fluctuation, lack of public goods) (Bosc et al., 2002, p11). Other RPOs are the result of deliberate state intervention or NGO and donor-funded programs. In the case of Sub-Saharan Africa, for example, many RPOs today have their roots in formal cooperatives introduced by colonial governments, often for the purpose of promoting production of cash crops by peasant farmers (Hussi et al., 1993, pv). While not always behind the creation of the RPO, it is worth mentioning that many governments both in Sub-Saharan Africa and Latin America have also supported RPOs and used them in the past decades as government channels for credit input supply and marketing programs.

The origin of Mexican coffee RPOs

Over the course of the 1980, a large peasant movement swept Mexico: rural communities throughout the country "appropriated the productive process" and seized "control and marketing of their resources from state institutions and corporate concessions" (Jaffee, p53). The goal of these peasant movements, which occurred simultaneously in Mexico in the coffee, forestry and basic grain sectors, was to "break the grip of intermediaries and gain higher, more stable coffee prices for their members" (Jaffee, p53). One of the first and most widely recognized Mexican RPOs in the coffee sector was UCIRI (created in 1983) in Oaxaca which became the first in the world to export Fair Trade certified coffee in 1988. Over the course of the 1980s and 1990s, several other RPOs followed UCIRI's lead, including most notably ISMAM in Chiapas, UCI-100 and Michizá in Oaxaca.

There is however no denying the important role of the Mexican government in the early days of rural producer organizations. As in many other developing countries, the Mexican coffee sector was largely shaped by government intervention: the Mexican state's agrarian reforms for example created a significant smallholder class. Also, state-funded infrastructure and government-trained technical cadres provided the basis upon which the coffee industry was developed and expanded. Government initiatives to organize small coffee producers in state-affiliated groups, or UEPCs (Unidades Económicas de Producción y Comercialización), under the presidency of Luis Echeverría (1970-1976), laid the basis for many independent cooperatives. The dismantling of INMECAFE starting in 1989 also further boosted RPOs when much of the INMECAFE infrastructure (e.g. warehouses, processing plants) was divested to RPOs at reduced prices and many technical cadres continued to provide their services to independent smallholder groups (Fridell, 2007, p182).

As many other Mexican RPOs, the Coordinadora Estatal de Productores de Café (CEPCO) for example, a second-level organization composed of 20,000 of Oaxaca's 55,000 small coffee producers, has its roots in former UEPCs (Fridell, 2007, p176). Similarly, the Union Regional Huatusco in Veracruz, also considered one of the country's most influential coffee RPO, also has its roots in an organization rooted out of UEPCs (UNCAFAECSA Sucursal 25). In 1989, the local INMECAFE processing plant ("Cruxtitla", now called "Prof. Manuel Sedas Rincón") was sold to the RPO at a reduced price. This acquisition provided the RPO the assets and infrastructure necessary to play a larger regional role in coffee production in the Veracruz region.

It is worth mentioning however that although many Mexican RPOs have their roots in government

initiatives most only took off and grew in reaction to the crisis provoked by the demise of INMECAFE. The aim of these organizations, operating independently from the government, was to effectively replace the INMECAFE as providers of technical assistance, financing as well as export services to their members.

Today, most Mexican coffee farmers are members of a RPO of some kind: "in the late 1990s, the CNOC – the national federation uniting all of the independent producer organizations – represented 71,126 farmers, or 25 percent of the national total" and another 31 percent of all coffee farmers belonged to another federation uniting organizations directly descending from UEPCs (Jaffee, 2007, p54).

RPOs are often multipurpose: while the organizations tend to be specialized in a core activity (e.g. agricultural processing and/or export), they can also be active in many other sub sectors. RPOs offer their members a wide range of different services. These services can be categorized based on their function. Rondot and Collion (2001, p2) classify services offered by RPOs as *advocacy or policy*, *economic and technical* and sometimes *local development*-related. Building on Rondot and Collion (2001) and Stockbridge et al. (2003, p3), the following classification lists some of the main services often offered by RPOs:

Economic and technical services

- Marketing services (input supply, output marketing and processing, market information)
- Facilitation of collective production activities
- Financial services (savings, loans and other forms of credit)
- Technology services (education, extension, research)

Local development services

- Education services (business skills, health, general)
- Welfare services, (health, safety nets)

Policy services

- Policy advocacy
- Managing common property resources (water, pasture, fisheries, forests).

RPOs and sustainable consumer markets

In recent years, rural producer organizations have played a key role in assisting their members access high-value agricultural export markets, such as natural product, sustainable and fair trade markets[2]. RPOs are often well suited for third-party sustainable certification: they regroup a

[2] The term "sustainable trade" refers to the economic and environmentally sustainable production of commodities and other goods, such as handicrafts and textiles, across the developing world. Fairtrade (FLO), Rainforest Alliance, Utz Kapeh and

critical mass of relatively homogenous producers and often offer production extension services to their members that can be tailored to the specific requirements of sustainable certification schemes. The fair trade movement, which aims to offer better trading conditions to marginalized producers and workers in developing countries, has largely based its market-driven certification efforts on rural producer organizations. Without strong RPOs, it is doubtful that fair trade organizations could have created alternative supply chains involving small farmers and bypassing traditional intermediaries.

It can also be argued that RPOs themselves, particularly in certain commodity sectors (such as coffee, cocoa and cotton), have been considerably strengthened with the help of these emerging consumer markets. Following the example of the highly successful UCIRI cooperative in Oaxaca, which exported to these markets as early as 1988, many RPOs have benefited from the structuring impacts of these sustainable channels, whether through technical assistance, higher prices, crop prefinancing, as well as long-term trading relationships (Murray, Raynolds and Taylor, 2003). As a Nigh (2002) explains, in an assessment of Fair Trade impact studies:

> One important indirect result of the higher prices provided through participation in the fair trade network is the prestige and credibility accorded by growers to the cooperatives and second level organizations that broker that participation. The economic cushion created by the income differences and the reduced uncertainty concerning prices and buyers encourages a high level of grower participation in these organizations, greatly enhancing their effectiveness. Achieving better prices motivates coop members and stimulates a higher level of commitment that, in turn, increase the ability of the organization to achieve future results... Previous studies have noted a similar effect with participation in the organic market.

RPOs today vary greatly in their level of organization and recognition. While almost all RPOs have accepted governance and membership rules, some are based on normative or customary practices and sanctions while others operate with formal regulations and sanctions, a written constitution and are legally registered (Bosc et al., 2002, p12).

Size and geographical scope also greatly differ from one organization to the other: their economic and representative functions can lead them to integrate, "different geographical levels ranging from the village, through to local area, regional, national and in some cases international" (Bosc et al., 2002, p12). Some RPOs are merely the size of a small association or club (with a small number of individual producers, often living near to each other) such as first-level RPO Santa Anita La Unión in

Organic certified production are examples of current "sustainability initiatives" that have designed sustainable production programs and certification schemes

Colomba, Guatemala (27 coffee producing families); others can be considered larger community or regional associations, such as Federacion Selva Negra Zoque in Mexico (114 coffee producer members spread in 4 community groups); while others are large regional or national associations such as Kuapa Kokoo in Ghana (45,000 cocoa producer members) and KNCU in Tanzania (80,000 coffee producer members).

Although exact metrics vary, RPOs are generally classified as first tier (production-oriented, village level), second tier (often processing and/or sales-oriented, community or regional level) or third tier (sales or export-oriented, regional or national level) – although it is worth mentioning that some community-based first tier RPOs (such as Santa Anita la Unión in Colomba, Guatemala) process and export without resorting to second tier and third tier organizations. There is no consensus on the optimal size of RPOs: "opportunities and constraints faced at different levels of organization vary. In general, larger organizations offer the potential for economies of scale, but these benefits need to be balanced against the costs and difficulties associated with organizing larger numbers of people" and the potentially resulting inefficiencies (Stockbridge et al., 2003, p3).

In recent years, a large number of academic papers have discussed or attempted assessing the efficiency as well as the opportunities and challenges posed by rural producer organizations. In a review of 17 projects involving small farmers and RPOs in developing countries, conducted by multilateral donors (World Bank, IFAD, EC), bilateral donors (MAE, DFID, SDC, AFD, USAID) and NGO operators (Twin, FERT, CICDAC), Bienabe et al. (2004, p70-71) argue that RPOs "appear to be fundamental in the reduction of markets constraints on access for the farmers...". The same review identifies RPOs as "a key actor in promoting new institutional arrangements favorable to small farmers" (whether through input or sales contracts) and claims RPOs may have "a comparative advantage in providing technical and economic services to small farmers" and that "interventions designed to strengthen RPOs have great spillover effects on small farmers" (Bienabe et al., 2004, p70-71).

While some observers hail RPOs as promising enablers for small farmers, they are not without their limits or constraints. Le Vay (1983) for example discusses the limitations of the RPO model – as opposed to NGOs or private companies – and emphasizes the obstacles the organizations face in raising and managing capital and in choosing from one of a number of competing objectives when deciding on the level of service provision. Chirwa et al. (2005, p2) mention the "conflicting interests" caused by "multiple involvement of members as owners and suppliers of capital, as clients and (for some) as employees". The issue of RPO governance is also particularly problematic and, in some cases, debilitating: "where FO [farmer organization] members lack basic literacy, business skills and experience this may provide opportunities for local elites to capture the organization and allow

leaders to misuse FO resources... Leadership succession may also pose problems in these circumstances" (Chiwa et al., 2005, p3). According to the authors, while RPOs play a valuable role in agricultural development, development stakeholders should not rely on these organizations too much: "[RPOs] have a mixed record... While some [RPOs] have made considerable advances in improving their members' incomes through better access to market and other services, many [RPOs] have failed" (Chirwa et al., 2005, p1).

2.3 - RPO financing needs

Finance has demonstrated itself as a key factor in determining the success of RPOs and their members. In order for RPOs to successfully market their products, it is essential for them to have the sufficient liquidity to satisfy several key financing needs, both at the organization and individual member levels. Without trade financing for example, RPOs are unable to purchase crops from their members early on during the harvest, leading members to sell to local middlemen offering instant, although often lower, payment for their crop.

Rural producer organizations, similarly to conventional businesses, have diverse financing needs beyond credit. The following list inspired by Thomas (2005), Doran et al. (2009) and FAST (2007) describes some of the types of financial products required by rural producer organizations.

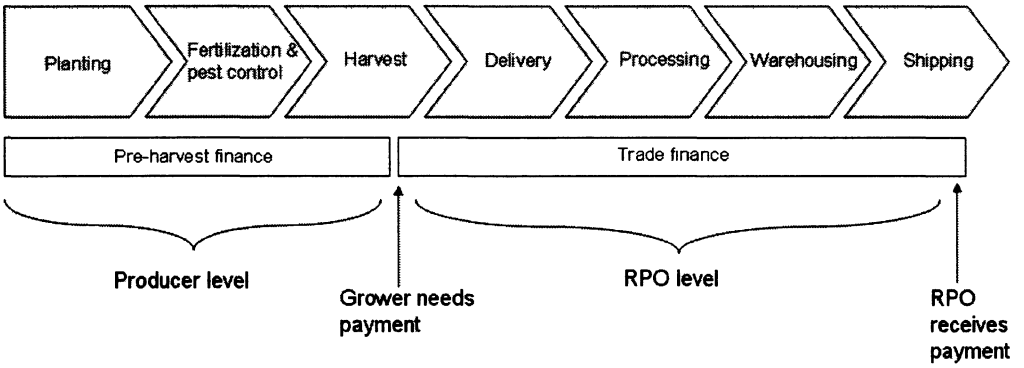
1. **Savings:** RPOs require formal savings opportunities in order to increase liquidity and mitigate risk.

2. **Pre-harvest finance:** Pre-harvest financing is needed to support RPO members with loans which act as pre-harvest income. Pre-harvest financing provides RPO members with the necessary capital to purchase inputs, to cover harvest-related expenses as well as day-to-day financial obligations (health, schooling etc.). Pre-harvest finance can take several forms, including short-term credit and overdraft facilities.

   Pre-harvest financing is critical both to farmers and rural producer organization: lack of pre-harvest cash can result in the sale of crops to local intermediaries at fire sale prices (FAST, 2007, p6). This particular type of financing is currently the most difficult for RPOs to obtain considering the lack of security (e.g. crops have not yet been harvested) (FAST, 2007, p6). Although offered by a few Northern alternative lenders (to be discussed later) under strict conditions, pre-harvest finance is still relatively scarce in the sector.

3. **Trade finance:** Trade financing is critical to fund the period between harvest (purchase of the goods from members) and shipping, when payments from buyers are usually received (FAST, 2007, p6).

Figure 1: Pre-harvest finance vs. trade finance



Source: Author-made

Trade finance can take the form of supplier credit / cash-in-advance or trade finance instruments.

- Supplier credit / cash-in-advance: In both developing and developed country context, customers are usually the easiest, cheapest and most accessible source of financing. Prefinancing arrangements between buyers and sellers are one of the most well established practices in the industry. The more competitive the product sold/exported by the RPO is, the more likely the organization will be able to leverage its position to obtain a cash advance from its buyers (International Trade Center, 2009, p22). The practice however has its limits: buyers might be constrained by their own cash flows issues and can find it difficult to provide payments early on to RPOs. Moreover, considering rural producer organization's risk profile, buyers can be reluctant to directly finance RPOs before knowing the product is on its way.
- Trade finance instruments: The use of trade finance instruments is necessary for example when the buyer does not supply credit or cash advance or when it is not provided early on in the production and transformation process. In well-developed financial markets, exporters and importers typically will finance the transaction by discounting receivables to a discount house or bank for cash or through other financial instruments such as documentary collections and letters of credit.

  In a developing country context, however, these instruments are not always available to borrowers such as rural producer organizations; and when they are, they can often be very expensive. As described by William Foote, founder of Root Capital, "if you sell to Green Mountain Coffee Roasters or Equal Exchange

[American coffee buyers], for example, you have to bridge that cash-less gap of six to eight months between harvest time and when the buyer actually pays you for your product (...) the farmers must finance their operations in the meantime, and local financial institutions typically won't do it..." (Rainforest Alliance, 2004).

4. **Term finance:** This type of financing, which usually spans for a year or more, is used by RPOs to finance larger purchases such as land, buildings, transportation and processing equipment. In many cases, rural producer organizations have used this financing to transition to organic production or to improve quality. Term financing is significantly riskier than trade finance and therefore also scarcer for RPOs (Thomas, 2005, p115). A few alternative lenders (e.g. Oikocredit, CreditoSud, Root Capital) offer RPOs term loans although "availability is limited and terms and process are generally perceived as onerous by borrowers" (Thomas, 2005, p115).

5. **Risk mitigation instruments:** The availability of insurance products provides RPOs greater protection versus production hazards and natural disasters. Also included in this category are options market products, including price hedging to minimize the impact of market price fluctuations. These products are virtually inexistent in developing country contexts.

It is also important to mention here the role of equity, which is essential to invest in the organization as well as build its capacity. In the case of RPOs, equity is generally derived from retained earnings and membership dues. Low equity can be problematic for RPOs, particularly smaller organizations: as pointed out by Yago, Roveda and White (2007, p10), small firms "clearly are set apart as having to largely depend on internal sources of finance to drive their business growth and have much more limited access to bank credit". RPO-specific difficulties in raising and managing capital will be discussed while exploring the demand-side financing constraints facing the organizations in section 2.4.

2.4 - The RPO financing conundrum

As mentioned in section 2.1, imperfections in financial markets severely hinder small farmers' and RPOs' ability to take advantage of market opportunities.

A report by the Finance Alliance for Sustainable Trade (FAST, 2007, p7), an industry association, reported that discussions with commodity producers and related stakeholders (including technical advisors, certification bodies, buyers and international development organizations) have clearly indicated that one of the largest barriers to growth for rural producer organizations has been their inability to access affordable finance throughout the year to support their businesses.

Why do RPOs struggle to obtain external financing? A literature review of some of the key publications on the issue - Doran et al. (2009), Milder (2008), Hoff and Hussels (2007), Thomas (2005) and Le Vay (1983), among others - identified two types of constraints:

1. Supply-side constraints: weak agricultural financial markets in developing countries, lack of SME financing, lack of information on RPOs and their business model, high transaction costs, perception of high risk;
2. Demand-side constraints: RPO difficulties in raising and managing capital, lack of collateral and weak organizational cohesion and management capacity;

In an attempt to better understand the rural producer organization financing conundrum, the following section will explore the two types of constraints listed above and try to explain why financing remains a challenge for RPOs.

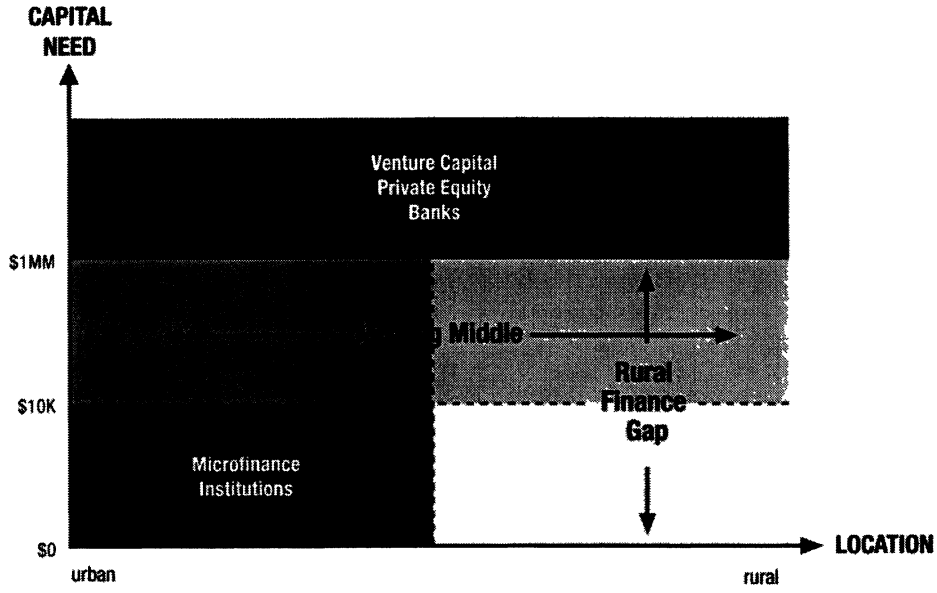
2.4.1 - Supply-side issues

Explaining why developing country financial systems are reluctant to lend to rural producer organizations is complex. Each country has a different lending environment and each financial institution its own history, lending policies and strategy. Therefore it is difficult to generalize and draw parallels between countries and institutions. Nevertheless, literature on the topic generally point that supply in RPO financing is constrained by two, simultaneous, crosscutting factors:

- Weak rural financial systems ("rural finance gap")
- Lack of SME or meso-finance ("missing middle")

Figure 2, which appears in Midler (2008, p2), illustrates well this rural and SME double financing gap.

Figure 2 : The Rural Finance Gap and the Missing Middle



Source : Milder 2008, p2

Weak rural financial systems

The first main supply-side financing constraint RPOs face is location and activity-related and involves the structural lack of dynamic rural financial markets.

The issue of weak rural financial systems has historical roots. Until the 1980s, developing country governments, concerned with food production and the adoption of green revolution technologies, invested massively in rural areas and agriculture. This often took the form of large-scale state-funded credit programs delivered by parastatal organizations - most often agricultural development banks – accompanied by direct subsidies to farmers (Doran et al., 2009, p8). It was then argued that greater access to credit would boost rural incomes, accelerate the adoption of new agricultural technologies and increase food production (Klein et al., 1999, p2).

Most of these initiatives however failed to produce the desired outcomes and many agricultural development banks were restructured or liquidated (see the case of BANRURAL in Mexico). The factors behind the agricultural development banks' demise are manifold and well documented: see for example Adams et al. (1984). These structures were often hugely inefficient, expensive and in most cases failed to provide adequate benefits to small farmers (Doran et al., 2009, p8). Also mentioned are the political orientations of these banks: rather than aiming to be sustainable and efficient entities, these banks were often established to channel subsidized funds to farmers and lacked the market discipline and incentives of commercial banks. In many cases, credit policies and

decisions depended solely upon political decisions and interests (Klein et al., 1999, p2). The irregular availability of loan funds, the setting of interest rate ceilings and the periodic write-offs of overdue loans all undermined the commercial viability as well as the efficiency of agricultural development banks (Klein et al., 1999, p2). Most agricultural banks were liquidated starting in the 1980s, often as the result of neo-liberal reforms and International Monetary Fund austerity programs (Doran et al., 2009, p8).

From directed agricultural lending to rural finance: the case of BANRURAL in Mexico

BANRURAL, a Mexican parastatal dedicated to agricultural lending, exemplifies well the rise and fall of agricultural development banks in developing countries. BANRURAL was founded in 1975 with the mission of financing the Mexican agricultural, forestry and fishery sectors, with a particular focus on low-income producers. Through BANRURAL, the Mexican government was for a little more than two decades by far the largest provider of financing to the country's agricultural sector.

Over the course of the late 1980s and 1990s, the Mexican government, under pressure from its international creditors as well as its new partners of the North American Free Trade Agreement, proposed series of sweeping agricultural reforms, which significantly altered the country's rural landscape. As part of these reforms, government-run support institutions (such as INMECAFE in the coffee sector) were dismantled, price controls were scrapped and a large number of subsidy programs cancelled. The general instability caused by these reforms, combined with record-low commodity prices in the late 1990s, had a severe impact on BANRURAL's portfolio. In 1998, it was estimated that approximately 50% of the bank's USD$ 19 billion portfolio was in arrears. In 2002 the bank was liquidated at a cost of USD$ 4 billion for the Mexican government.

BANRURAL's liquidation had a dramatic effect on overall agricultural lending in Mexico: it is estimated that the country's agricultural portfolio shrank by 63.2% between 1995, during BANRURAL's heyday, and 2004 (CEPAL, 2007, p3). Agricultural lending, as a percentage versus overall lending in the country, dropped from 8.6% in 1990, to 3.7% in 2000 and to a mere 1.4% in 2005 (CEPAL, 2007, p3).

BANRURAL's demise signaled a shift in the Mexican government's agricultural policy. Instead of financing directly agricultural producers, the Mexican government chose to support the sector through various guarantee programs and credit lines offered to the banking sector by FIRA and Financiera Rural, two second-level development banks. This shift is described in greater detail later in this thesis, in section 3.2.2.

The demise of agricultural development banks and directed credit programs relying on continuous government subsidies in developing countries have given way to a major shift in the way agricultural lending is conducted. Under this new approach, the users of financial services are considered clients rather than beneficiaries (Klein et al., 1999, p4). A new focus has been given to private sector agricultural lending, often supported by government guarantees or credit lines. To date, with few exceptions, the results have been disappointing. It is estimated that less than 1 percent of commercial lending in Africa is going to agriculture (Doran et al., 2009, p8).

In most developing countries, commercial banks have kept away from rural finance. In most cases they do not offer specialized financial services to the sector and often avoid rural areas altogether by maintaining only a symbolic presence in rural regional centers (Klein et al., 1999, p8). Doran et al. (2009, p19) mention a study conducted in six primarily agricultural countries (with a contribution of agriculture to GDP of 19-38 percent), that showed that local banks on average allocate less than 8 percent of their lending to the sector. Furthermore, banks that do lend to the sector usually do so to very large farmers, plantations or agro-industries with large collateral and very rarely lend to small farmers or rural producer organizations.

What explains this reluctance to lend to small farmers or SMEs in the agricultural sector? Several factors are commonly mentioned. First of all, it is important to acknowledge that the agricultural sector does have its particular risks and challenges: crop yields are difficult to predict, market prices for agricultural produce fluctuate and production is vulnerable to weather anomalies and pest infestation. The absence of insurance schemes as well as vibrant options market (for price hedging) make it difficult for financiers to reduce risk or forecast revenues.

High transaction costs versus interest paid are also commonly mentioned as an important obstacle to the development of a vibrant supply of financing in the sector. Lenders have to invest significant time and resources in order to obtain reliable financial information when a credit application is made and processed as well as during execution of the loan. Most RPOs are headquartered in areas with low population density, far from bank branches. This makes both visits from RPO representatives to the branches and bank staff visits to the RPO costly from both a time and financial standpoint. Poor transportation and communication infrastructure in developing countries also compounds to the problem. In the absence of government subsidies, these high transactions costs (e.g. lost working time, transportation costs etc.) can significantly reduce the profitability of the loan.

Financing agricultural production and marketing cycles can also be a challenge for lenders. Demand for credit in the agricultural context is seasonal and cyclical: most borrowers will withdraw their

savings and request credit at the same time of the year. For smaller or regional financial institutions, this causes a mismatch between the duration of deposits and loans and can lead to serious liquidity issues (lack or excess of) (Thomas, 2005, p107). This financing challenge, added to the difficulty of diversifying their risks in agricultural areas (covariance risk), deters many financial institutions from developing specialized operations in the sector.

Potential financial service providers often do not target small farmers and RPOs because they are unfamiliar with the dynamics of their operations (e.g. agricultural production and marketing) and have negative perceptions of them as clients. "The perception that agricultural enterprises are not only higher risk and less well managed than SMEs in other sectors but also fail to offer the prospect of a compensating higher return" is generalized (Doran et al., 2009, p18). "Banks generally have had no incentive to incur the fixed and recurrent costs required to build an understanding of the risks of SME agriculture" (Doran et al., 2009, p18).

Finally, considering the agricultural sector's long history of government intervention, many banks are wary of political interference. Such an involvement "can affect market dynamics, loan recovery, and the reclaiming of assets. Generalized loan pardoning by state-owned banks has occurred in several countries, India and Honduras, for example, reducing the willingness to repay of a new generation of borrowers" (Doran et al., 2009, p18). Also, in some countries, the political power wielded by RPOs makes foreclosure or legal proceedings against the defaulting borrower difficult or impossible.

Main location and activity-related supply obstacles to RPO lending

1. Farming risks;
2. "Crowding-out effect" due to historical or current subsidized and directed credit;
3. RPO lending is politically sensitive and fear of government interference;
4. RPOs are perceived as high risk, low return clients;
5. Low awareness and understanding of agricultural production and marketing among commercial lenders;
6. High information and transaction cost for lenders and borrowers;
7. Challenges of seasonality and cyclical financing;
8. Difficult portfolio diversification in rural areas.

Sources: Meyer and Nagarajan (2005), Thomas (2005), Doran et al. (2009), Klein et al. (1999)

Rural financial cooperatives as well as community banks or regional banks tend to be more cognizant of the sector and willing to lend to its smaller agricultural operators. However their contribution to the sector's financing is limited by their lack of resources (lack of long-term funding,

dependence on deposits) versus the sector's huge financing needs. Moreover, portfolio diversification can also be an issue for these small banks or financial cooperatives due to their high vulnerability to systemic default to local covariant risk (such as crop failure) (Doran et al., 2009, p18-19).

In the absence of bank financing, most RPO funding for trade finance has originated from marketing linkages (now often mentioned as value chain linkages). In other words, a large part of the trade financing offered to RPOs comes from suppliers (e.g. input providers) and buyers (local or international). In these cases, credit is usually cash (in the case of buyers) or in-kind (in the case of suppliers) and payment is deducted when the goods are delivered to the buyers (Doran et al., 2009, p17). In some cases, the lender must pay interest on the loan while in other cases the credit is interest-free. Although this practice is relatively common, financing from suppliers and buyers is rarely sufficient: "local suppliers and buyers rarely have sufficiently deep pockets to meet even the short-term capital requirements of more substantial agricultural SMEs" (Doran et al., 2009, p17). Doran et al. (2009, p17) also warn of the "danger of confusion over charges, and worse of exploitation, if a single counterparty, e.g. business partner, is solely responsible for the supply of inputs, credit and crop sales".

Lack of SME or meso-finance

The second main supply-side financing constraint facing RPOs is size related and involves the more general lack of SME or meso-finance.

There is no universal definition of SMEs: definitions of what constitute a SME vary widely from country to country with different measures of size depending on their level of development. The most commonly used metric is the total number of employees, although total investment and sales turnover are also often mentioned. The International Finance Corporation (IFC) SME database uses the following definition (Sanders and Wegener, 2006, p5):

Micro business	0 – 4 employees
Small business	5 – 49 employees
Medium business	50 – 250 employees

SMEs are therefore generally considered larger than individual or small family businesses (e.g. small family farming unit for example) and smaller than large businesses (e.g. national or international exporter).

Several authors have emphasized the central role SMEs play in the economy of both developed and developing countries. Sanders and Wegener (2006, p5) call them the "backbone" of most economies due to their high contribution in terms of "employment, income, innovation and the

development of local markets and supply chains". SMEs are said to comprise a large share of firms and employment around the world: recent data suggest that SMEs employ nearly 50 percent of the labor force in Mexico; nearly 60 percent in Ecuador and Brazil, 60 percent in Germany and the United Kingdom (IDB, 2005).

Rural producer organizations (RPOs), as sizeable grassroots businesses yet smaller than large enterprises, in almost all cases are considered SMEs considering their size of operations, number of employees as well as challenges they face. Hoff and Hussels (2007, p3) coined the term "sustainable SME" to describe organizations such as RPOs due to the environmental and social benefits they generate as part of their core business.

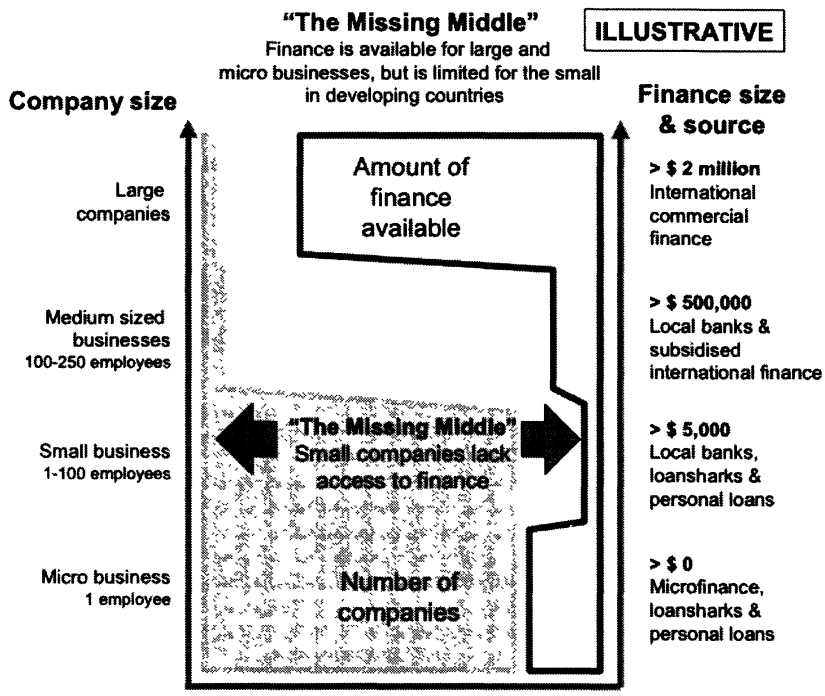
There has been much discussion in development circles in recent years over the lack of financing for small and medium enterprise (SME). As explained by Sanders and Wegener (2006, p7), in developing countries, large companies have access to finance and micro-entrepreneurs are increasingly getting access to microloans. In the meantime, small businesses in developing countries with financial needs between USD$ 5,000 and USD$ 500,000 "seem to be off the mainstream financial radar screens" (Sanders and Wegener, 2006, p7). Similarly, a recent OECD report (2006, p16) points out that "a sizeable share of economically significant SMEs cannot obtain financing from banks, capital markets or other suppliers of finance" (OECD, 2006, p16). This view is corroborated by many reports, including several from multilateral stakeholders such as the IDB (2005, p187), which identifies the "lack of access to credit as the most important obstacle to the development of their businesses".

Defining meso-finance

The term "meso-finance" has been increasingly used over the past years to define financial services one level up from microfinance. Sanders and Wegener (2006, p7) define meso-finance as "the financial services (loans, equity, guarantees) offered to small businesses in developing countries" from USD$ 5,000 up to USD$ 500,000. The meso-finance gap (the missing middle in other words) is used to define the relative lack of financial services available in developing countries to small businesses with financial needs in this range.

These observations have led many observers to coin the term "meso-finance gap", referred to most commonly as the "missing middle" to identify the financing gap for SMEs in developing countries: too big for microfinance, too small or misunderstood by commercial banks (Sanders and Wegener, 2006, p7). The concept of "missing middle" is well illustrated in figure 3:

Figure 3: The "missing middle"



Source: Sanders and Wegener, 2006, p7

What makes SME lending so problematic? As with rural borrowers, SME lending generates higher transaction costs. Considering the amounts requested by SMEs are relatively high (versus a microloan for example), appraising and monitoring loans requires an in-depth analysis of all aspects of the enterprise (versus a minimal due diligence for a microfinance lender) in order to understand the risks involved. The analysis must for example include aspects such as the ability and character of the management, marketing and sales prospects, the competitive positioning of the SME, etc. (Doran et al., 2009, p11). Compounding the problem is the lack of developing country bank experience in relationship lending, or lending based on a close, long-term bank-borrower relationship (Hoff and Hussels, 2007, p6).

Also increasing transaction costs is the issue of asymmetric information, including for example the lack of accounting records, business plans and inputs for adequate credit and investment analysis (Yago, Roveda and White, 2007, p10). As most developing countries lack credit scoring and credit information sharing mechanisms, it is often difficult and expensive for lenders to retrieve and verify financial information on borrowers.

Also worth mentioning are the costs of appraising collateral and the legal costs of registering formal guarantees, both of which are not present in the microfinance context but necessary to reduce risk for loans larger than USD$ 5,000. In order to cover these higher transaction costs, interest revenue

and, consequently, loans must be larger – "reaching a size that substantially exceeds the absorptive capacity for capital of the SME – hence the missing middle" (Doran et al., 2009, p11).

As with agricultural lending, there is also the issue of perceived risk and lack of familiarity of banks with SME businesses: operations, business model, management etc. The problem is particularly acute in the case of RPOs: banks do not always understand well the workings of the cooperative model, RPO organizational goals and business models.

Main size-related supply obstacles to RPO lending;

1. High transaction costs (e.g. longer and more complex borrower appraisal process, cost of collateral appraisal and formal guarantee registration etc.);
2. Lack of familiarity of banks with SME and RPO businesses (organization and business model);
3. Perception of high risk;
4. Information asymmetry: lack of credit scoring and credit information sharing mechanisms;
5. Lack of bank experience in relationship lending;

Sources: Hoff and Hussels (2007), Doran et al. (2009), Yago, Roveda and White, 2007)

Based on the literature review above, one could therefore conclude that both weak rural financial systems ("rural finance gap") and the lack of SME finance ("missing middle") create a very difficult environment for SMEs to obtain financing and few incentives for financial institutions to expand their product and service offering to cater to SMEs (Hoff and Hussels, 2007, p7).

2.4.2 - Demand-side issues

Based on the supply diagnosis above, it is easy to understand how bleak the prospects of financing are for a SME-size rural producer organization located in a rural area. The problem however does not entirely lie on the supply-side of the financial services equation, but also on rural producer organizations themselves (the demand-side). Before moving on to solutions to the RPO financing conundrum, it is important to also understand the various internal weaknesses RPOs are facing when looking for financing.

Although not directly related to credit, low capitalization (lack of equity) is a major problem for cooperative rural producer organizations. As pointed out by Le Vay (1983), one of the chief difficulties a rural producer organization faces is raising and managing equity capital. Cooperative principles are difficult to reconcile with the concept of equity investments made by outsiders

(creditors or others) wishing to buy a stake in the organization. This severely limits capital injection opportunities for RPOs and can deter lending from potential financial institutions.

RPO members also have small incentives to contribute capital to the organization. As explained by Stockbridge et al. (2003, p13), cooperatives are not as profit-oriented as private firms: "the principles that govern cooperatives (e.g. the Rochdale principles) define cooperatives as service rather than profit-oriented organizations". More than by profits, RPO members seek RPO services (e.g. input provision) at the lowest cost possible and the highest farmgate prices possible being paid by the organization in exchange for their products (Stockbridge et al., 2003, p13). And when they do generate profits, "cooperatives are based on the premise that profits are distributed to members according to the level at which they patronize cooperative services, rather than in proportion to their capital contribution" (Stockbridge et al., 2003, p13). This situation contrasts sharply with the private sector in which "an individual's capital contribution determines not only their share of profits, but also their voting power" (Stockbridge et al., 2003, p13). This situation therefore leads to relatively few incentives to invest and contribute capital to cooperative ventures (especially in comparison to a private firm).

Lack of outside capital investment and the small incentives offered to members in exchange for equity investments both cause RPOs to struggle to raise capital. Low equity limits the RPO's ability to finance its activities or investments with its own funds and creates dependence on outside funds and credit. However, low equity also negatively affects lending prospects: equity ratios are an important part of the due diligence process. Financial institutions will be reluctant to lend to a RPO with a small equity base, dispersed ownership and control and with "no mechanism for an external investor to take an equity stake" and inject more cash in the business (Doran et al., 2009, p12).

The equity issue is all the more serious considering that research has shown that small firms, as opposed to larger ones, overwhelmingly have to depend on internal sources to finance their business growth (Yago, Roveda and White, 2007, p10). Without significant equity investments from outside investors or from members and without sufficient capital from banks, RPOs remain cash-strapped, risk averse and unable to grow their businesses.

Beyond capitalization, RPOs often suffer from a lack of collateral and collateral substitutes required by banks for larger and longer-term loans (Doran et al., 2009, p16-17). While many conventional SMEs solve the collateral problem by offering private property (e.g. the owners' property) in addition to business assets to banks (Sanders and Wegener, 2006, p10), RPOs are forced to explore other options.

In a rural context, land is often the most obvious choice of collateral. However, informality and weak legal registration frameworks in many developing countries make proving property rights (or enforcing foreclosure) challenging (Thomas, 2005, p106). This context of higher risk has led banks to raise collateral ratios often much higher than they would be otherwise (Doran et al., 2009, p16-17): depending on the country and the perceived risk, collateral requirements can reach up to three times the loan value (Sanders and Wegener, 2006, p10). In some countries (including Mexico), it is also not uncommon for banks to ask borrowers for cash guarantees in additional to more traditional collateral.

A third demand-side factor hinders RPOs' efforts to access financing: the lack of organizational and managerial capacity. A large number of RPOs members and managers do not have the education in management, financial and business planning to meet the business requirements set by banks to obtain credit (Sanders and Wegener, 2006, p10). In some cases, RPO are unable to attract trained staff and managers are small farmers who often did not have the opportunity to study finance or management. This leads to problems in the preparation of financial information on assets, liabilities, earnings, expenses, equity and cash flow – leading to the production of financial statements of dubious quality, a situation quickly acknowledged by financial institutions upon appraisal.

Main demand-side obstacles to RPO lending;

1. Poor capitalization;
2. Frequent lack of collateral;
3. Weak organizational and managerial capacity;

Sources: Hoff and Hussels (2007), Doran et al. (2009), Sanders and Wegener (2006)

These issues of poor capitalization, frequent lack of collateral and weak organizational and managerial capacity, combined with the supply-side constraints previously mentioned, create a very difficult financing environment for RPOs. Considering the economic, social and environmental importance of RPOs, it is therefore no surprise these organizations are increasingly being targeted by development stakeholders and socially-responsible lending organizations. Although RPO lending is challenging, several innovations have been developed around the world in recent years to address the RPO financing gap. Some of the most promising financing innovations will be explored in the following section.

2.5 - Recent developments in RPO financing

Despite the bleak portrait outlined in the previous section, there are several new financing strategies and instruments and options available for rural producer organizations. Many of these innovations are the result of concerted action by international donors, NGOs and development agencies while others appeared spontaneously in reaction to the problem.

Recognizing the importance of RPOs, new lenders have also entered the field in recent years. Building on some of the recent financial innovations, these new players – which often refer to themselves as "alternative" or socially-oriented lenders – aim to emulate the success of the microfinance industry in order to mainstream SME/RPO financing.

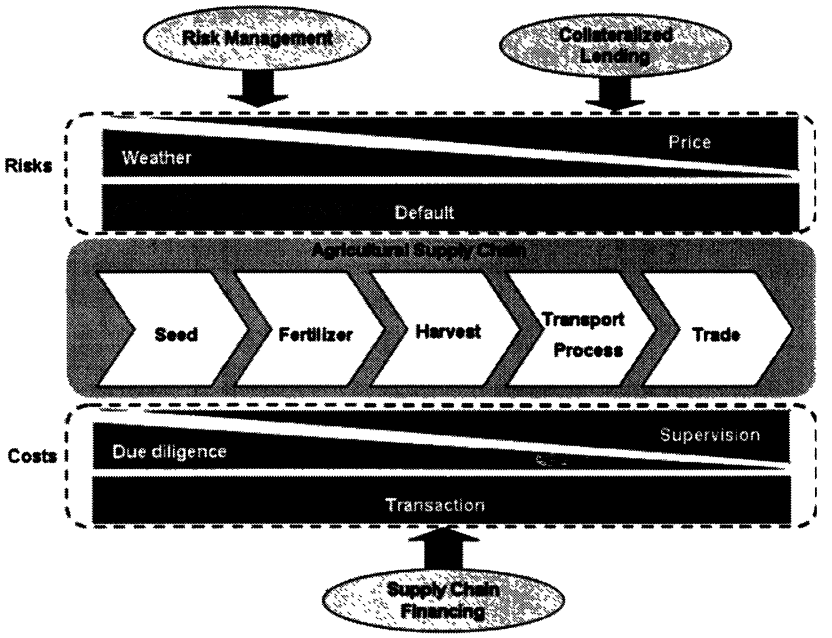
This section is divided in two parts. The first part briefly describes some of the new financing strategies and instruments addressing directly or indirectly the RPO financing gap. The second part takes a closer look at the less-documented burgeoning alternative lending sector, its origins, aims and business model, in order to be in a better position to appraise some of the efforts of these financiers in the third part of this thesis.

2.5.1 - Innovative strategies in RPO financing

An impressive number of innovative strategies to reduce cost and risk in agricultural, SME and RPO lending have been studied in recent years by NGOs, academics multilateral development institutions, most notably Bryde and Martin (1999), Wampfler et al. (2008), Hoff and Hussels (2007), Sanders and Wegener (2006) and World Bank (2005). While most of these innovations are targeted more generally at the agricultural sector or SMEs, all of the strategies described in this section are applicable to RPOs and have in many cases been tested by them.

The figure below, modified from World Bank (2005, p3), illustrates three of the main approaches to lowering costs and risks in agricultural and RPO lending: risk management, collateralized lending and supply chain financing. As the figure demonstrates, risk management and collateralized lending principally address the risk factor. This can be achieved by reducing the price risk through collateralized lending in the advanced stages of the agricultural supply chain (for example when a lender offers a loan based on easily sizeable crop) or by addressing the weather risk through risk management mechanisms early on in the supply chain (for example through insurance or access to guarantee funds). On the other side of the figure, supply chain financing can be used to reduce the transaction cost (for example by financing several suppliers, based on export contracts to a large, well-known buyer).

Figure 4: Three approaches to lowering costs and risks in agricultural and RPO lending



Source: Modified by author from World Bank (2005, p3)

Two additional approaches, both increasingly being deployed in developing countries to stimulate lending to RPOs, should be added to the three mentioned above: coaching and technical assistance in RPO financing (both on the demand and supply sides) and the development of in-house or "sister" lending institutions.

The following section will briefly explore these initiatives and, in the case of the three strategies illustrated above, some the most commonly related financial products. This review does not claim to be exhaustive but rather aim to provide the reader an overview of some of the innovations in the field.

Approaches to lowering cost and risk in agricultural and RPO lending;

1. **Collateralized lending**
   a. Leasing;
   b. Warehouse receipt financing;
2. **Supply chain financing**
   a. Reverse factoring;
3. **Risk management**
   a. Sustainable trade guarantee fund;
4. **Other strategies**

a. Coaching and capacity-building (RPO and local financial institutions)
b. Development of in-house or "sister" lending institutions

2.5.1.1 - Collateralized lending

Collateralized lending, which means lending based on collateral (which can take the form of crop, equipment etc.) is considered by many lenders as one of the safest ways to lend to rural producer organizations. This section briefly presents two of the most common collateralized lending practices in the sector: leasing and the warehouse receipt system.

Leasing[3]*;*

Leasing is a high potential solution to RPO sector financing woes. Leasing can provide a solution to the financing of machinery, land and equipment (Sanders and Wegener, 2006, p21). Under leasing, a RPO can for example obtain the use of an asset (e.g. land, equipment, machinery) in exchange for a "rent" – a set of contractual, periodic, tax-deductible payments (International Trade Center, 2009, p24). The asset remains the property of the lender and the leased asset is the collateral of the loan – therefore making security arrangements easier (Sanders and Wegener, 2006, p21). The main advantage for the borrower of leasing is that the pressure on its cash flow is spread evenly over the lease period, allowing it to save cash for working capital purposes (Sanders and Wegener, 2006, p21).

Leasing however has its disadvantages. A major risk of leasing is the uncertainty associated with the lease: at renewal for example, lending institutions "may demand a higher price, especially if they see that they have the upper hand in negotiations, as for example, when the value of the business is tied to the use of the particular asset" (International Trade Center, 2009, p24). Moreover, despite its potential, leasing remains scarce in developing countries due to weak or inadequate property rights and legal frameworks, especially in rural areas (Thomas, 2005, p115).

Warehouse receipt system;

Although not a recent innovation per se – the concept was pioneered in the United States as early as 1916 - the warehouse receipt system (WRS) is an effective tool to provide developing country RPOs low-cost working capital. Through WRS, financial institutions use crops stored in authorized warehouses as collateral to finance farmers or rural producer organizations. The basic mechanisms behind WRS, as described by Bryde and Martin (1999, p219), are simple:

> At harvest, the primary producer deposits his crop at a licensed warehouse, receiving Certificates of Title (CT) and Pledge (CP). The warehouse will only release the crop to the owner of both documents.

[3] Leasing has been extensively studied: see Westley (2003) for more information on leasing as well as a detailed review of the best practices in the sector.

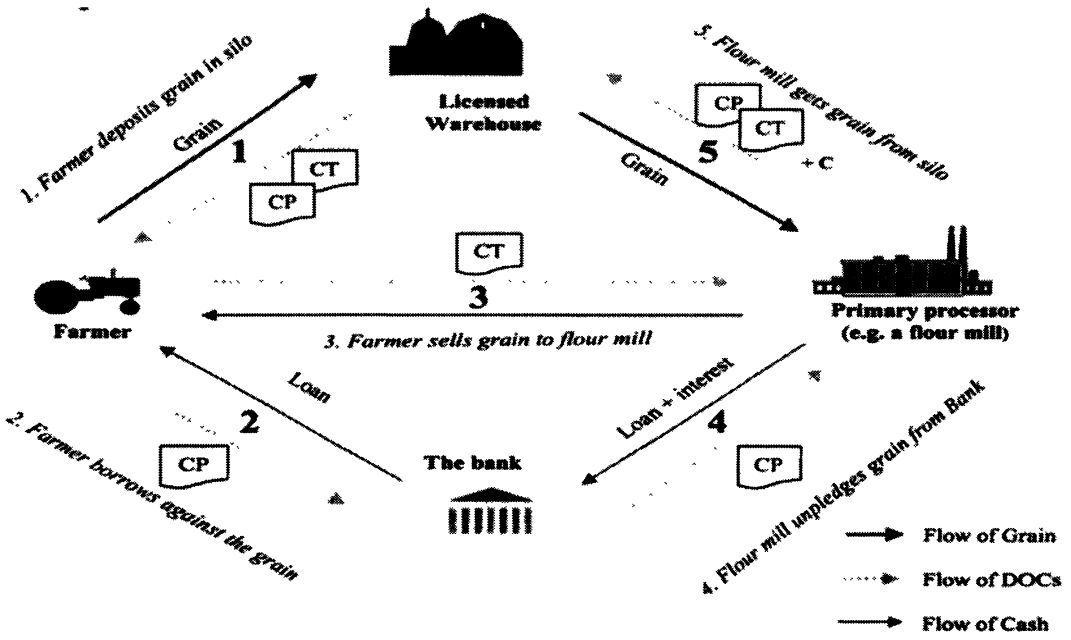
When the primary producer borrows against the crop, the bank keeps the CP as security and the CT for safekeeping (to ensure that the bank knows who the owner of the crop is);

Before the maturity of the loan (typically up to nine months), the primary producer sells the crop [to a processor, local buyer or exporter]... by "selling" the CT (upon consultation with the bank);

At maturity, or when it needs the crop, the primary processor [buyer] redeems the CP from the bank by repaying the loan; and

The primary processor [buyer], now owner of both CT and CP, can collect the crop from the silo [warehouse].

Figure 5: Basics mechanics of the Warehouse Receipt systems (WRS)



Source: Bryde and Martin (1999)

Warehouse receipt systems usually require a regulatory framework (such as the one in Tanzania for example for coffee) to ensure the "easy enforceability of the security and thereby provide comfort for the banks to lend against warehouse receipts" (Bryde and Martin, 1999, p221) although it is worth mentioning that some variants of WRS (storage loans[4] for example) do not.

[4] Storage loans, a variant of the WRS, are typically offered by microfinance institutions to small farmers or rural producer organizations. Considering crop prices are usually much lower at harvest time, storage loans allow farmers to deposit their crop in an authorized warehouse, receive immediately a loan based on a percentage of the market value of the crop, wait several weeks or months and sell the crop under more favorable conditions. The main difference between WRS and storage loans however is that, in the absence of a regulatory framework, the warehouse is managed and supervised by the financing institution, therefore raising significantly the cost and risk of the operation. The concept was pioneered by Développement international Desjardins in a few African countries, including Burkina Faso and Tanzania.

Warehouse receipt financing in the coffee sector: the case of Tanzania

The WRS was introduced in Tanzania in 2005 to encourage the participation of smallholder producers in the coffee trade as well as boost financing in the country's credit-starved coffee sector.

The Warehouse Receipt Act No 10 proposes a legal mechanism that allows coffee growers and traders to obtain credit from banks by using Warehouse Receipts provided by licensed warehouse operators ("coffee curing companies") following the delivery of their crop. In other words, the act legalizes what had been considered as "dead capital", by establishing a mechanism whereby coffee can be used as collateral for credits obtained from banks through negotiation of legally recognized Warehouse Receipts.

2.5.1.2 - Supply chain financing

Reverse Factoring;

Factoring is "a service which provides a SME with money now for a percentage of the invoices still due to the SME e.g. financing of a company's accounts receivable" (Sanders and Wegener, 2006, p21). Under factoring, accounts receivable are therefore the collateral.

Conventional factoring is scarce in developing countries. The lack of sufficient credit information on the sellers, the high prevalence of fraud ("bogus receivables, nonexistent customers" etc.) and the weak enforcement procedures for invoice and debt collection have all made factoring risky and unprofitable in developing country context (World Bank, 2005, p17).

These difficult conditions associated to conventional factoring have led a number of lenders in developing countries to develop an alternative: "reverse factoring". Reverse factoring functions the same way as conventional factoring with one important distinction: the lender only purchases accounts receivables from high-quality buyers (such as large, internationally accredited companies) (Sanders and Wegener, 2006, p21). The lending institution can therefore provide financing to a wide range of suppliers and only needs to assess the risk of a few selected buyers (Sanders and Wegener, 2006, p21).

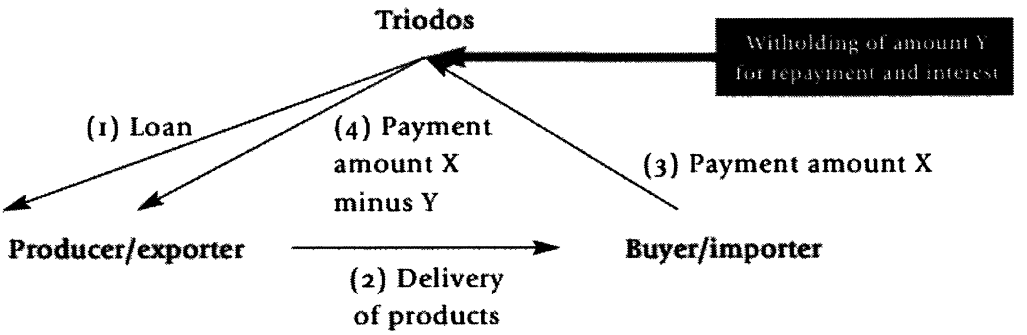
In a RPO context, reverse factoring works as follows:

- An order is placed by a buyer (e.g. a coffee importer) with a RPO (e.g. coffee RPO);
- The RPO "sells" at a discount (percentage of total) its account receivable to a financing institution ("factor");

- The goods are delivered to the buyer.
- The factor receives the payment directly, deducts the amount that is owed (including interest and service fees) and the remaining balance is paid to the RPO.

The figure below, of the example of the Triodos' Sustainable Trade Fund, illustrates well the reverse factoring mechanics.

Figure 6: Reverse factoring and the example of the Triodos Sustainable Trade Fund



Source: Triodos (2009)

Reverse factoring is particularly interesting in the context of RPOs, considering the fact that the organizations often face financing imbalances: expenses are concentrated at the time of harvest while revenues from sales or export only arrive several weeks or months later. Factoring therefore has the potential to provide RPOs much needed liquidity at crucial times (e.g. harvest time), as soon as the sales/export contract with the premium buyer is signed, long before buyer payments are usually received (usually months later).

The reverse factoring model has been successfully conducted domestically in some developing countries. The example of NAFIN, a Mexican development bank, is particularly telling. NAFIN established its "Productive Chains" reverse factoring program in 2001 in collaboration with big domestic buyers. Three years later, it had established links with 190 big buyers (of which 45% are from the private sector), successfully involved 20 domestic lenders and facilitated financing to more than 70,000 SMEs (out of about 150,000 participating suppliers) (World Bank, 2005, p17).

Reverse factoring also has proven particularly popular with the nascent alternative lending industry (to be discussed later in section 2.5.2). Fuelled by the rapid growth of the sustainable trade sector, RPO reverse factoring has mushroomed in recent years to become the most common type of financing available to RPOs selling to sustainable markets (e.g. Fair Trade, organics etc.). Alternative lender Root Capital also provides a powerful case for reverse factoring: the nonprofit social investment fund, which creates links with Northern well-established, high profile sustainable

trade products buyers such as Equal Exchange and Cooperative Coffees (Microfinance Insights, 2007, p31), disbursed since its inception in 1999 over 640 loans amounting to USD$ 144.7 million to 254 RPOs in developing countries (Root Capital, 2009).

Reverse factoring by alternative lenders: the example of the 6-month trade finance loan

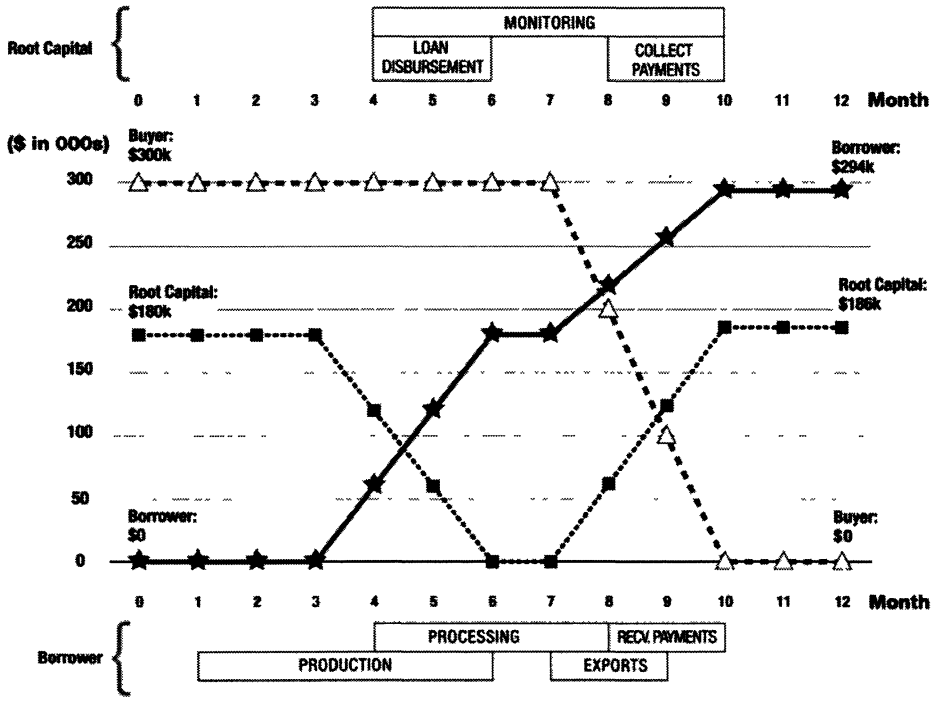
The most common type of loan offered by alternative lenders is the 6-month trade finance loan. The product follows the triangular (buyer, RPO, lender) model described above. The following example, in Milder (2008, p5-6), provides a concrete example of how the product works:

1. A 500-member coffee RPO in Western Guatemala receives a USD$ 300,000 purchase order for its crop from a premium buyer in the United States. In order to fulfill its contract, the organization must purchase the crop (parchment coffee) from its members, process it (dry processing), export it and wait to be paid – which can take up to thirty days after the buyer receives the crop, depending on the conditions of the contract. To secure its members' crop, the RPO must provide a competitive first payment upon delivery or risk losing out to local middlemen. The organization however does not have the sufficient working capital to provide this early payment, nor does it have the required collateral to apply for a formal bank loan.
2. The organization applies for a loan from an alternative lender – in Milder's (2008, p6) example, from Root Capital – which finances up to 60% of the value of the export contract (or USD$ 180,000). With the help of Root Capital staff, the organization chooses, based on harvest calendar and cash-flow projections, to receive three equal disbursements of USD$ 60,000 (during the months 4, 5 and 6 in the diagram below) to reduce interest costs.
3. Upon loan disbursement, the RPO provides its members a partial payment for their crop (called *anticipo* in Spanish) during months 5-8 which allows the organization to secure the crop. The crop is immediately processed and later exported (during months 7-9).
4. As the buyer receives the shipments, it issues three different payments of USD$ 100,000 through Root Capital, which deducts the value of the loan associated with each disbursement (USD$ 60,000) and the interest (USD$ 2,000 in this case[5]).
5. The transaction is completed by Month 10: the buyer received the crop and

[5] The figure was calculated by multiplying the principal by 10% (interest charged annually by Root Capital) and by 4/12 (the number of months – since the disbursement in Month 4 is repaid in Month 8).

arranged the payment through Root Capital and the RPO received USD$ 294,000 after paying USD$ 6,000 in interest to Root Capital.

Figure 7: Cash flow for 180K six month trade credit loan



Source: Milder, 2008, p6

2.5.1.3 - Risk management

Sustainable trade guarantee fund;

With the help of recent innovations (such as reverse factoring described above) and the emergence of a new segment of socially-oriented lenders (to be discussed in section 2.5.2), RPOs exporting on the sustainable goods market are said to have "fared slightly better" than their conventional counterparts (FAST, 2010). Through these innovative lending models, lending risk has indeed been reduced. However, as pointed out by FAST (2010), an industry association, lending risk has not disappeared and still hampers overall access to credit.

In reaction to the risk barrier, a number of specialized guarantee services and risk-sharing mechanisms have been launched in recent years to support and encourage commercial banks to lend to rural producer organizations and other similar sustainable small businesses (FAST, 2010).

The largest such facility in the RPO financing sector is the Sustainable Agriculture Guarantee Fund (SAGF) by the Dutch financial institution Rabobank. The SAGF provides loan guarantees and risk sharing to local financial institutions with the aim of: 1) attracting local capital providers to the RPO

financing market and 2) getting these local financial institutions to use export contracts as collateral instead of requiring fixed assets (Milder, 2008, p9).

The SAGF typically works by first of all identifying in a target country 2-4 local intermediaries (local financial institutions), with which it will ratify a risk-sharing agreement. The SAGF will then, in partnership with its local partners, offer assistance in the identification of new borrowers and the due diligence process before officially approving the transaction. Based on its assessment and knowledge of international buyers involved in the transaction, the SAGF will then offer its local partners a stand-by letter of credit, for a maximum of 90% of the value of the loan in the first year.

Using this letter and the export contract as collateral (reverse factoring approach), the loan is then disbursed to the local borrowers by the local financing institution, at the cost of local interest rates plus 1.5-2.5% (SAGF fee for guaranteed amount). Combined fees and interest for loans in US dollars are typically around 9-12% and guarantees range between USD$ 300,000 and USD$ 1,200,000 (Milder, 2008, p9).

The Sustainable Trade Guarantee Fund was designed as a transitional solution to stimulate RPO lending: as the relationship between the local lender and the borrower solidifies year after year, the SAGF decreases its exposure – while the local lender increases his - along the following lines (Milder, 2008, p9):

Table 1 : Sustainable Trade Guarantee Fund risk exposure

Year	SAGF maximum risk exposure	Local Financial Intermediary minimum risk exposure
1	90%	10%
2	70%	30%
3	50%	50%
4	0%	100%

Source: Milder, 2008, p9

In December 2008, the SAGF had facilitated four loans: one in Tajikistan and three in Peru with Banco Internacionl del Perú (Interbank) by issuing credit guarantees for a total of $3 million (Milder, 2008, p9).

2.5.1.4 - Other strategies

Capacity-building and coaching in financial management (RPO)

Donors and lenders alike have identified the lack of managerial skills and financial literacy among RPO leaders and staff as the greatest barriers to access to stable, long-term financing in the sector. While most lenders offer financial education and management training on an as-needed basis during the due diligence process, several organizations launched specific technical assistance programs to address the issue. The rationale behind these programs is to strengthen the financial management

and planning of RPOs in order to improve their businesses and to help them fulfill minimum banking requirements. These programs are usually financed by external grants by private foundations or multilateral donors.

Root Capital for example launched in 2006 in collaboration with Costa Rica-based EARTH University a project called Porvenir Financiero (PorFin), which aims to "enhance the competitiveness of farmer and artisan associations by developing the management skills of their leaders and preparing them to administer larger and more complex operations". As William Foote, founder of Root Capital, explained:

> *"We've realized in the last couple of years that we're often the very first organization that's asked some of the groups we work with to provide basic financial information like cash-flow projections, balance sheets, and income statements. We're now developing a financial capacity building program for some of these groups, which speaks to the question about how sustainable they will be after we leave. We give them the credit, but this isn't necessarily always enough, so with very limited technical intervention, we can have a big impact by providing a bit of financial management training." (Rainforest Alliance, 2004)*

The project received financing from the Interamerican Development Bank as well as from several donors, such as the Starbucks Coffee Company, Green Mountain Coffee Roasters and the JP Morgan Chase Foundation. In 2009, Root Capital methodology and expertise developed as part of the PorFin project was extended to the four-country (Mexico, Nicaragua, El Salvador, Guatemala) CAFÉ Livelihoods project, coordinated by Catholic Relief Services. As of 2010, Root Capital had plans to extend its RPO capacity-building programs in financial management to South America as well as Sub-Saharan Africa.

Other organizations have also been active in the field: Verde Ventures, an investment fund managed by Conservation International (CI), for example also obtained funding to complement its lending activities with targeted technical assistance in accounting, marketing and business plan development to its partner rural producer organizations (Hoff and Hussels, 2007, p22).

Technical assistance (local financial institutions)

Most stakeholders in the RPO financing arena acknowledge that the long-term financial sustainability of rural producer organizations "will only be fully achieved once they are able to access affordable flexible business finance from their local financial institutions" (FAST, 2007, p18). To achieve this, some lenders and organizations specializing in technical assistance have developed or are in the process of developing workshops or "coaching programs" for local financial institutions in RPO financing. The finality of this assistance is to leverage the demonstration effect of alternative lending, of the best practices in the sector and of RPO financial education experiences in order to accelerate the emergence of dynamic rural financial markets (Root Capital, 2008, p2).

An example of such a capacity-building program in RPO financing for local financial institutions was launched as a pilot project by Développement international Desjardins, a Canadian technical assistance provider. The first beneficiary of this program was Servicios Financieros Rurales (SERFIR), a savings and credit cooperative based in Chiapas, Mexico. Other organizations involved in local financial provider capacity-building in RPO financing include French NGO Agrofine and Root Capital, through its Root Catalyst program.

Development of in-house or "sister" lending institutions

The development of in-house or "sister" lending institutions is a demand-side strategy commonly mentioned to address the rural household and RPO financing gap. This approach has been documented and promoted by Wampfler et al. (2008). The authors suggest two particular strategies RPOs can choose from when trying to solve their financing woes and those of their members:

- **The RPO internalizes credit services for members.** Through this strategy, the RPO develops an in-house lending system in which the organization itself lends to its members; with RPO managers being usually the ones providing the loans as well as administrating and managing the loan portfolio. Larger, well-established RPOs finance these loans with their own equity. In the case of more cash-strapped RPOs, funds loaned can originate from donors or governmental sources. Many RPOs have used this strategy to provide pre-harvest funds to members while others have internalized credit to finance new equipment (Wampfler et al., 2008, p36-37). This approach has its advantages: interest rates are usually lower than market rates and member loyalty is usually reinforced as a result. However it has its limitations: sustainability can be an issue if the internalized credit system is based on external credit lines from donors. Moreover, the often lack of clear lending guidelines and lending experience of RPO managers can lead to poor repayment rates, cronyism and corruption. Wampfler et al. (2008, p37-39) mention the credit internalization efforts of the Fédération des paysans du Fouta Djallon (FPFD) in Guinea as a case in point.
- **The RPO creates a "sister" financial institution.** This strategy is often adopted by RPOs after attempts at internalizing credit services. Under this particular approach, the RPO, independently or in coordination with other like-minded producer organizations, creates a new "sister" financial institution. This new institution, with its own independent governance, structure and specialized resources, effectively becomes the "financial arm" of the RPO (Wampfler et al., 2008, p40). Often this new financial institution has a cooperative structure similar to that of the RPO – however this varies from country to country depending on the financial regulatory framework. This approach has several advantages. Access to external credit lines is usually easier. In some cases, these new financial institutions can collect savings – thus providing much-needed resources that can be used partly in turn for lending. Specialized staff and independent governance allow greater scrutiny and better

management. The creation of a new financial institution however can be a long process and can be costly. Risk diversification can also be a major issue for RPO-created financial institutions, considering a large part of their credit portfolio is usually concentrated in agriculture. And finally, as with internalized credit operations, these new financial institutions are often unsustainable and dependent on grants and subsidized credit lines. Mismanagement and/or conflicts of interest can also be an issue, particularly in countries with weak regulators and lax oversight of financial institutions.

CEPCO, UCEPCO, FINCAFE and FINDECA: the creation of "sister" financial institutions

The case of the Coordinadora Estatal Productores Café Organico (CEPCO), a second-level coffee RPO based in Oaxaca, Mexico, is a good example of the creation and launch of "sister" financial institutions. The cooperative has created over the years three such institutions to answer its various financing needs:

- UCEPCO[6]: a regulated auxiliary credit institution, UCEPCO started its operations in 1994. UCEPCO's main aim is to provide financing to CEPCO member organizations, based on an elaborate collateral-based scheme developed in collaboration with CAEO[7] – CEPCO's marketing arm. Since its creation, UCEPCO has widened its reach and now lends to RPOs in the states of Chiapas, Veracruz, Quintana Roo, Guerrero and Puebla.
- FINCAFE[8]: registered as a sociedad civil (civil society), FINCAFE was created in 2005. Unlike UCEPCO and FINDECA which finance RPOs, FINCAFE specializes in offering savings and microcredit services to individuals (primarily small farmers and CEPCO members) in rural Oaxaca.
- FINDECA[9]: Following the recent reforms (2006) allowing the creation of SOFOMES[10], a new category of non-bank financial intermediaries with a wide scope of action and access to governmental resources, it was decided by CEPCO to create a third financial institution which would specialize in lending larger amounts to CEPCO-affiliated RPOs and partner organizations across Mexico. Under the new regulatory framework, FINDECA, as a SOFOM, has now direct access to subsidized governmental credit lines for the agricultural sector – a privilege before only reserved to banks and SOFOLES. This has allowed the organization to offer financing to RPOs at highly competitive rates and led FINDECA to quickly become a major player in RPO

[6] Union de Credito Estatal de Productores de Cafe de Oaxaca
[7] Comercializadora Agropecuaria del Estado de Oaxaca S.A. de C.V.
[8] Fondos de Inversion, Creditos y Ahorro para el Fortalecimiento Economico (FINCAFE)
[9] Financiando el Desarrollo del Campo (FINDECA)
[10] Sociedad Financiera de Objeto Multiple (SOFOM)

financing in Southern Mexico, particularly in the coffee sector. Inspired by FINDECA's success in the state of Oaxaca, several Chiapas-based RPOs are currently exploring the option of launching their own SOFOM based on the FINDECA model.

2.5.2 - Alternative lending by Northern financiers

The economic, social and environmental benefits of offering targeted financing to rural producer organizations have been increasingly recognized in the past years by a wide range of donors, financial institutions and NGOs. This interest, combined with the rapid growth of sustainable trade markets, has translated in the strengthening and expansion of socially-oriented (also called alternative) financing in the field. As defined by the industry association, the Finance Alliance for Sustainable Trade (FAST, 2007, p7), socially-oriented lending relates to both European and North American lenders that have explicit social organizational goals, missions and objectives, particularly with regards to RPOs and SME finance. This may include Northern mainstream lenders or Southern commercial banks and credit institutions that have "as part of their overall activities, a program or set of activities committed to the promotion of sustainable trade finance" (FAST, 2007, p7).

More specifically, alternative financiers have in the past years targeted RPOs that are "too big for microfinance and considered too small, too risky, and too remote to attract investment from commercial financial institutions" (Root Capital, 2008, p1). As described by Root Capital, "If a rural cooperative of, for example, 500 family farmers in Uganda needs a loan of not USD$100 but USD$100,000 to bring in the crop or invest in processing machinery, it is considered too large to be served by microfinance institutions but too small, too risky, and too remote to secure financing from conventional banks, which typically require hard collateral in the form of deeds of land and buildings" (Microfinance Insights, 2007, p31). This missing middle market of rural finance is the one targeted by alternative financiers.

It is important to mention here that alternative lenders do not lend to any RPO: the vast majority of alternative lenders focus their efforts on "sustainable RPOs", often operating in ecologically sensitive areas. Lenders with such criteria include:

- Root Capital: "grassroots businesses engaging in sustainable trade" (Root Capital, 2008),
- Triodos: "organic and fair trade producers" (Triodos, 2009),
- Shared Interest: "fair trade producers groups" (Shared Interest, 2006),
- Verde Ventures: "small- and medium-sized businesses that contribute to healthy ecosystems and human well-being" (Verde Ventures, 2009), and many others.

Beyond client size and profile, most alternative financiers share similar desired outcomes. The Finance Alliance for Sustainable Trade, the industry association of alternative financiers, has set the following mission: "Building businesses and livelihoods of sustainable trade producers through enhancing their access to credit and related financial risk management tools" (FAST, 2007, p9). This mission is in many aspects similar to the one of alternative financiers and FAST members Root Capital and Shared Interest, which envision, respectively:

- "a thriving global marketplace where grassroots businesses engage consumers, companies, and capital providers through sustainable trade that builds better livelihoods and lifts rural people out of poverty" (Root Capital, 2008, p1).
- "to achieve real and lasting improvements to the lives of disadvantaged producers, particularly in poorer parts of the world, by providing fair and just financial services and sharing risk" (Shared Interest, 2006, p2).

The aim of alternative financiers is to close the RPO financing gap through financial sector deepening (Rabobank Foundation, 2007, p1). More specifically, alternative financiers aim to challenge high interest rates (based on the grounds that RPOs are inherently risky) and make the case to local financial institutions that lending to RPOs not only can be profitable but also makes good business sense (FAST, 2007, p5). The long-term goal of alternative financiers therefore is to succeed in catalyzing the emergence of local financial markets that meet the needs of rural producer organizations (Root Capital, 2008). As described by William Foote, founder of Root Capital: "Our purpose is absolutely to work ourselves out of a job. We are trying to get investors and lenders to see these groups as bankable" (Rainforest Alliance, 2004).

Direct financing of RPOs by Northern, socially-oriented lenders is not new. Indeed, as early as 1980, pioneer alternative lender Oikocredit provided rural producer organizations in developing countries with equity investments, credit lines and term loans (Oikomag, 2008, p6). The alternative financing market has, however, changed radically over the past 30 years. Mirroring the meteoric rise of socially-oriented investment and sustainable consumer markets, loan portfolios have ballooned, new players have emerged and business models altered significantly.

According to a FAST estimate (2007, p7), the number of socially-oriented lenders now exceeds 20. The same year, the total amount of available funding from Northern alternative lenders totaled US $250-300 million (FAST, 2007,p7) – and this total is bound to increase significantly as many lenders, such as Root Capital, aim to treble their capacity in the next couple of years.[11]

[11] According to a Root Capital projection, lending capital by the organization should grow from $21 million in 2007 to over $70 million by year-end 2011 (Root Capital, 2008, p2).

Despite the sector's current growth, to date very few academic studies have explored the topic. The following section will review the existing academic and industry literature in order to better understand the current state of alternative lending. This section will explore the factors behind the emergence and growth of alternative or socially-oriented lending and describe current market innovators in RPO financing.

2.5.2.1 - The rise of alternative lending

Several factors have contributed to the emergence and growth of alternative lenders and the development of innovations in RPO financing over the past decades. Two factors have provided much momentum to address the RPO financing conundrum described earlier: the emergence of socially-oriented investment and the development of sustainable trade consumer markets and certifications.

The rise of sustainable trade consumer markets and certifications;

The rapid rise of sustainable trade consumer markets and certifications was instrumental in the emergence of alternative lenders and the development of RPO financing innovations. The fair trade movement particularly played an important role in the process.[12]

Since the late 1940s, the emergence of the fair trade movement has led an ever-growing number of mission-driven companies to source goods directly from small rural producer organizations in the global South, especially in Latin America and Africa. These alternative trading organizations "increase small producers' incomes by offering secure markets, price protection, and technical assistance to enhance local productivity and competitiveness" (FAST, 2007, p4).

Early on in the history of the fair trade movement, Northern buyers and certifiers identified the lack of working capital as a major factor hindering the growth of rural producer organizations in the South. In line with fair trade's development objectives, Northern alternative trading organizations and certifiers made pre-financing a lynchpin of the Fair Trade model (Thomas, 2005, p110).

In the sector, pre-finance (also called pre-export credit) is defined as a "loan provided to an exporter based on a percentage (usually up to 60 per cent) of the value of the goods bought (...) this enables the exporter to receive part of the payment up front with the balance settled once the goods arrive at their destination" (Thomas, 2005 p110). According to Fairtrade Labelling Organizations International (FLO) standards, pre-financing aims to "help producers gain access to reasonable forms of financial

[12] Fair trade is an organized social movement and market-based approach that aims to help producers in developing countries obtain better trading conditions and promote sustainability. The movement advocates the payment of a higher price to producers as well as social and environmental standards.

assistance to support their purchases from members".[13] Pre-financing therefore provides RPOs the necessary cash flows to pay (at least partially) their members up-front for their crops. Without these payments, growers starved for liquidity often sell their crops at harvest to middlemen at a fraction of market prices.

In the early days of the fair trade movement, most pre-financing was offered to RPOs by Northern importers internally. As explained by Thomas (2005, p110), this was achieved by advancing a portion of the invoice prior to receiving the shipment. An importer's capacity to finance this from their own cash flows varied "from organization to organization and also on the time of the year" (Thomas, 2005, p110). Internal pre-financing practices differed: some importers, such as Claro, the Swiss fair trade organization, offer pre-financing at no cost to their suppliers while others charged interest at market rates.

It should be noted however that internal pre-financing today is an exception in the fair trade sector. Fair trade certifier FLO International once recognized that over 80% of certified coffee buyers do not provide any type of pre-financing (Hervieux, 2007, p29). Several reasons are often mentioned to explain this phenomenon. First of all, internal pre-financing "dramatically increases the working capital needs of [fair trade] importers" (Thomas, 2005, p105). Many fair trade organizations, unlike their larger conventional counterparts, are thinly capitalized and short on liquidity. Pre-financing contracts can represent a large financial strain on the organization and is therefore not always possible due to limited resources (Thomas, 2005, p110).

Moreover, many buyers lack the confidence to provide financing to their RPO suppliers (Root Capital, 2005, p20). In the case of new suppliers, there may be an issue of trust. Northern importers also often do not have the expertise, tools or capacity to perform due diligence prior to lending. Also, as explained by a senior executive at Green Mountain Coffee Roasters (GMCR), financing RPOs directly "muddies the relationship between buyer and seller" (Fast Company Magazine, 2006): as buyer turns lender, attitudes change and the trading relationship can turn sour. A cordial commercial relation between a buyer and a RPO for example can suffer from unsatisfied RPO requests for lower interest rates, earlier payments or more flexible financing conditions.

This has led an increasing number of fair trade organizations and other ethical or sustainable product importers to pre-finance externally their suppliers by turning to third party "socially-oriented" (also called alternative) lenders for support. These lenders in turn adapt the reverse factoring model

[13] Faitrade Labelling Organizations International, since its inception, promoted RPO prefinancing in its trade standards : see section 5 – Prefinancing :
http://www.fairtrade.net/fileadmin/user_upload/content/2009/standards/documents/Aug09_EN_GTS.pdf

(described in section 2.5.1) to the realities of the sector by leveraging relationships with premium Northern buyers.

Working with third party lenders has its advantages: while offering buyers much needed financial relief, alternative lenders bring independence and know-how to the financing process and provide a clear signal to RPOs that the buyer is serious about facilitating pre-finance. As, Mike Dupee, Green Mountain Coffee Roaster's vice president of corporate social responsibility, claims "[offering pre-financing this way] helps clear paths to new sources of supply (...) there's a very strategic need to cultivate new suppliers" (Fast Company Magazine, 2006).

Alternative lenders, by providing a steady supply of working capital and technical assistance to RPOs, also indirectly support buyers by improving supply chain security. As William Foote, founder of Root Capital, explains "stability is key (...) we help create stability for producer enterprises, allowing them to consistently sell their product at a fair price; we provide stability for specialty buyers, who can rely on a steady supply of high-quality products" (Yago, Roveda and White, 2007, p14). This sentiment is echoed by Ben Packard, VP of Global Responsibility at Starbucks, who explains that the partnership with Root Capital "helps to strengthen and stabilize [Starbucks'] supply chain" (Chasmar, 2010).

Finally, in some cases, buyers also see third party lenders as valuable sources of information on their suppliers. As Foote explains "we're doing real due diligence in the field and getting to know the growers in a way that the importers don't have the time or inclination to do (...) often we know the financial information, managerial challenges, and a lot of the inside information that adds value to the supplier-buyer relationship" (Rainforest Alliance, 2004).

Fair trade organizations and the externalization of pre-financing: a case study of Cooperative Coffee

Cooperative Coffees (CC) is a green coffee-importing cooperative comprised of 21 fair trade coffee roasters located across Canada and the USA. In 2007, CC had direct relationships with 20 coffee cooperatives from 11 producer countries and purchased an estimated US $3 million of green coffee (Cooperative Coffees, 2008).

Considering the relatively small coffee volumes of each member roaster, importing directly from a variety of RPOs was not viable for CC members prior to the creation of the cooperative. By pooling resources and creating CC, member roasters were able to reduce importing costs, bypass large commercial importers and offer its member roasters the opportunity to foster and create direct links with supplier rural producer organizations. As a fair trade certified importer with

a strong development focus, Cooperative Coffee works exclusively with small rural producer organizations.

Despite the cooperative's strong commitment to fair trade values and principles, Cooperative Coffees provides little internal pre-financing to its suppliers. The cooperative justifies its decision by claiming it does not have the sufficient financial resources to do so: as Monika Firl, producer liaison at CC, explains "We have to choose between pre-financing or buying more coffee (...) this is why we encourage cooperatives to seek out other sources of financing" (Hervieux, 2007, p48). Cooperative Coffees chose to fulfill its fair trade obligations by externalizing its pre-financing organizations through a strategic alliance with alternative lender Root Capital. Based on CC contracts, the lender offers pre-financing (up to 60%) to its supplier RPOs at affordable interest rates. Root Capital also offered CC direct financing to stabilize its own green coffee inventories: in 2004, additionally to its producer pre-financing facilitation, Root Capital provided CC with a credit line worth USD$ 250,000 to finance its own operations (Hervieux, 2007, p48).

From a lender's perspective, working with sustainable trade industry buyers and certifiers has many advantages:

- Collateral and repayment: Sales contracts to sustainable trade industry importers ("premium buyers") provide alternative lenders collateral to mitigate risk. Using these contracts as collateral compensates for the all too often lack of traditional assets by RPOs and "mitigates the high risks posed by lending to untested small-scale producer groups in developing countries whose ability to repay is largely dependent on the vagaries of nature and volatile world commodity prices" (Root Capital, 2005, p20).
- Identification of pipeline: relationships with sustainable trade industry buyers help alternative lenders identify potential borrowers. Alternative lenders such as Root Capital, for example, have leveraged their relationships with fair trade and other sustainable buyers such as Equal Exchange and Cooperative Coffees to identify potential clients in Latin America and Africa.
- Access to high-quality information on potential and existing borrowers: beyond identifying potential clients, alternative lenders also routinely obtain high-quality information from sustainable trade buyers and certifiers on prospective and existing RPO borrowers. This information is then used to assess the organization's credit worthiness and business potential" (Root Capital, 2005, p20).

Strategic alliances between sustainable trade industry buyers and alternative lenders have mushroomed in recent years: Starbucks and Equal Exchange (Root Capital), Cafedirect, Café Camino and Oxfam (Shared Interest), Van Weely (Triodos) etc.

And as the impressive growth rates of the sustainable trade industry continue, one can only expect these partnerships to grow in number and size. Sales of fair trade certified products alone have grown from € 831 million in 2005 to € 3.39 billion in 2009.

Table 2 : Retail Value, Global Fair Trade Certified Sales

Year	Sales value	Year-to-year increase
2009	€ 3,394,187,360	15%
2008	€ 2,900,000,000	21.79%
2007	€ 2,381,000,000	46.70%
2006	€ 1,623,000,000	42.17%
2005	€ 1,141,570,191	37.28%
2004	€ 831,523,066	49.88%
2003	€ 554,766,710	84.92%
2002	€ 300,000,000	20.96%
2001	€ 248,000,000	12.72%
2000	€ 220,000,000	-

Source: FLO, 2009

The development of socially-oriented investment;

Beyond the rise of sustainable consumer markets, another factor strongly contributed to the current development of the alternative financing industry: the rise of individual, institutional and corporate socially-oriented investing.

As Louche and Lydenberg (2006, p3) explain, since the early 1970s, "socially responsible investment (SRI) has grown from a curiosity and niche-market phenomenon in the financial world to become a global movement". Louche and Lydenberg (2006, p9) list several indicators of this growth:

- The concepts of socially responsible investment (SRI) is increasingly integrated in the investment strategies of mainstream investors (e.g. pension funds and insurance companies), particularly in the United States and the United Kingdom;
- SRI is increasingly being showcased or mentioned in mainstream newspapers such as the *Financial Times, Business Week;*
- SRI is increasingly popularized and legitimized by a growing number of emerging stock indexes, most notably the Dow Jones Sustainability Group Indexes and the FTSE4Good indexes;

The recent exponential growth of the social investment industry is first and foremost a consumer-driven phenomenon. The growth of socially-oriented investment is directly linked to growing consumer awareness to global inequities, poverty and environmental degradation (Schueth, 2007, p191).

Following the lead of the microfinance sector a few years ago (see box below), the RPO financing market in developing countries is now greatly benefiting from this large-scale shift to socially-oriented investing. Several of its main lenders, such as Triodos Bank, have marketed themselves as "ethical banks". The financial cooperatives active in the sector (Oikocredit, Shared Interest) have relied for funding on thousands of individual investors offered low interest rates in exchange for social returns. Similarly, alternative lender Root Capital developed a hybrid financing structure based both on debt financing (credit at below market rates offering a dual social and financial return to investors) and philanthropic capital (Root Capital, 2008, p3). These observations therefore point to the conclusion that socially-oriented investment plays a large role in the development of the SME/RPO financing sector.

Lessons from the microfinance sector

One might compare the growth of investment in SME/RPO financing in developing countries to the one of the microfinance market several decades ago.

While it is now accepted that the microfinance sector has fully gone mainstream and has now attracted a large number of for-profit corporate and institutional investors, one must remember where the industry was as little as 15 years ago: far from being market-driven, initial funding was pushed by donors, foundations and governments to create or expand new MFIs. These donors pushed capital in microcredit because of its remarkable capacity to boost entrepreneurship and stimulate the development of the private sector in developing countries. These early donors therefore played the role of risk-tolerant angel investors (World Economic Forum, 2006, p60).

These early investments in microfinance were followed by years of slow growth and trial and errors during which donors and microfinance investors slowly learned the risks and returns associated with the MFI business model and industry (World Economic Forum, 2006, p60). Along the way, great wealth was created and revolutionary microfinance institutions (such as Grameen Bank and Compartamos) were born (World Economic Forum, 2006, p60).

Ultimately, these original donors and investors made the case that poor people in developing countries can lift themselves out of poverty in a sustainable manner (World Economic Forum, 2006, p60). As these investors made a business case for the poor through microfinance, for-profit, mainstream investors soon followed. Today, as Gonzales (2007) recently noted, "microfinance is growing and is becoming a major component of most financial systems in developing countries". The sector has attracted the attention of investors, new service providers and a large number of microfinance organizations have now matured and are becoming profitable

(CGAP, 2008). Local banks too are increasingly attracted to microfinance, beginning to see opportunities at the bottom of the pyramid (Littlefield, 2007).

The parallel with the SME/RPO financing sector in developing countries is easy to make: while originally only pioneers such as Oikocredit and a few foundations and sustainable buyers financed RPOs, a small but increasing number of commercial banks, institutional and corporate investors are now entering the field. Many stakeholders involved in SME/RPO financing therefore hope to follow microfinance's footsteps and succeed in making the business case for investment in their sector to take it fully mainstream. As William Foote, founder of Root Capital, explained: "We are trying to get investors and lenders to see these groups [RPOs] as bankable" (Rainforest Alliance, 2004).

2.5.2.2 - Alternative financing industry overview

Mapping the RPO financing industry is a difficult feat, due to the large number and wide variety of actors and programs. A diverse group of actors are today involved in RPO financing: traditional international development NGOs (e.g. Solidaridad, Agrofine), non-profit investment funds (e.g. Root Capital and Verde Ventures), foundations (e.g. Calvert Foundation), cooperative financial societies (e.g. Shared Interest, Oikocredit), socially-oriented commercial financial institutions (e.g. Triodos) and sustainable trade buyers (e.g. Douqué Coffees, Twin Trading) (Thomas, 2005, p113).

As the number of organizations involved directly or indirectly in the alternative lending industry has grown significantly in the past years, so has the depth of the sector. While most organizations in the RPO financing sphere are involved in direct financing, a growing number also offer technical assistance and risk mitigation mechanisms.

A few alternative lenders

The Oikocredit Ecumenical Development Cooperative Society (today Oikocredit) was established in 1975 in order to "provide churches and church-related organizations with an alternative investment instrument to serve the interests of the poor (...) the aim was to encourage social justice by giving credit to productive enterprises run by disadvantaged people" (Oikocredit, 2009).
Oikocredit is a pioneer in RPO financing and its involvement in the sector predates the development of modern sustainable consumer markets. Starting in 1980, Oikocredit provided SMEs and rural producer organizations in developing countries equity investments, credit lines and term loans. As early as 1986 – two years before the emergence of Fair Trade certification - the pioneering fair trade Mexican RPO Union de Comunidades Indigenas de la Region del Istmo

(UCIRI)[14] received loans from Oikocredit (Oikomag, 2008, p6).

Today, Oikocredit finances both Northern fair trade importers (17.3% of its financing to the sector) and Southern rural producer organizations (82.6% of its financing to the sector). Financed Northern fair trade importers include organizations such as Divine Chocolate of the United Kingdom or Gebana of Switzerland while Southern partners include Union Regional Huatusco of Mexico and Prodecoop of Nicaragua (Oikocredit, 2009). In 2009, Oikocredit had 72 financing contracts associated to the Fair Trade sector with around € 14 million outstanding - up from 55 and € 11.6 million in 2007 respectively (Oikocredit, 2009).

Root Capital (formerly EcoLogic Finance) is a social investment fund launched in 2000 that provides "affordable credit and financial education to environmentally sustainable businesses that empower rural producers to compete in the global economy" (Root Capital, 2008, p1). The organization provides financing to farmer and artisan cooperatives and associations considered too big for microfinance and too small, too risky, and too remote to attract investment from commercial financial institutions.

To finance its activities, Root Capital receives low-interest loans of $10,000 to $2,500,000 in size from a wide range of investors and donors, including specialty coffee roasters, high-net-worth individuals, charitable foundations, religious institutions and socially responsible investment firms. The organization has three main components (Root Capital, 2008, p1):

1. *Root Lending:* Root Capital provides RPOs in over 26 countries with working capital (trade finance and pre-harvest loans) as well as term loans. In 2007, it disbursed over 151 loans worth USD$ 27.4 million and averaging USD$ 182,000.
2. *Root Capacity:* The organization runs since 2006 a financial education and training program targeting RPOs. According to Root Capital (2008, p1), the program aims to "enhance the competitiveness of farmer and artisan associations by developing the management skills of their leaders and preparing them to administer larger and more complex operations".
3. *Root Catalyst:* Strategic partnership program with "(i) global retailers and importers to facilitate ethical and sustainable supply chains from point of origin in developing countries; (ii) local and global financial institutions to channel capital to underserved rural markets; and (iii) networks of like-minded social financiers to advance a common agenda

[14] The Union de Comunidades Indigenas de la Region del Istmo (UCIRI) coffee cooperative was created in 1981 to bypass regional traders (called locally *coyotes*), obtain better prices and pool resources. In 1988, under the impulse of Frans van der Hoff, a Dutch worker-priest, UCIRI became the first cooperative to export directly its coffee under the Max Havelaar label – the predecessor of the international Fair Trade certification mark.

for sustainable trade finance and the broader field of finance and business development targeted to small and medium enterprises (SMEs)" (Root Capital, 2008, p1).

SHAREDINTEREST
INVESTING IN A FAIRER WORLD

Shared Interest is a lending cooperative composed of 8,700 British individuals who invested a total of GB£ 25 million of withdrawable share capital. Founded in 1990, the money collected by the cooperative was originally invested to support fair trade RPOs through Oikocredit (Thomas, 2005, p112). Once Shared Interest reached a capital of GB£ 4m in 1994, it established its own lending business by creating a clearing house that finances directly fair trade transactions between Northern buyers and Southern RPOs (Thomas, 2005, p112). It now offers several financial products to RPOs, most notably producer export credit (trade finance) and term loans. In 2008, Shared Interest provided financial services to 36 rural producer organizations.

Table 3 : Sustainable RPO financing sector overview[15]

Organization	Country	Organization type	Main activity in RPO financing sector
Agrofine/CERISE	France	Non-profit organization	Technical assistance (local financial institutions) Technical assistance (RPOs)
Alterfin	Belgium	Financial cooperative	Direct finance (term finance, trade finance)
Calvert Foundation	USA	Non-profit organization	Direct finance (trade finance)
CORDAID (FBU)	Netherlands	Non-profit organization (supported by Dutch government)	Direct finance (trade finance)
CORDAID	Netherlands	Non-profit organization (supported by the Dutch government)	Direct finance (trade finance)
Développement international Desjardins	Canada	Non-profit organization (subsidiary of the financial cooperative Desjardins)	Technical assistance (local financial institutions)
DOEN Foundation	Netherlands	Non-profit organization (supported by Dutch government)	Direct finance (trade finance)
Douqué Coffees		Sustainable trade buyer	Direct finance (trade finance)
Forestrade		Sustainable trade buyer	Direct finance (trade finance)
Oikocrédit	Netherlands	Financial cooperative	Direct finance (term finance, trade finance, pre-harvest finance) Risk mitigation (Guarantee facility)
Rabobank	Netherlands	Financial cooperative	Risk mitigation (Guarantee facility)
Root Capital	USA	Non-profit organization (investment fund)	Direct finance (term finance, trade finance, pre-harvest financing) Technical assistance (RPOs) Technical assistance (local

[15] The following table does not mean to be a complete, exhaustive list but rather a snapshot of some activities of alternative lenders and some main organizations involved in the sector.

			financial institutions)
Shared Interest Society	United Kingdom	Financial cooperative	Direct finance (term finance, trade finance) Technical assistance (RPOs)
Solidaridad	Netherlands	Non-profit organization (developmental NGO)	Direct finance (trade finance)
Triodos Bank	Netherlands	Commercial financial institution	Direct finance (trade finance)
Twin Trading	United Kingdom	Sustainable trade buyer	Direct finance (trade finance)
Verde Ventures	USA	Non-profit organization (investment fund)	Direct finance (term finance, trade finance, pre-harvest financing) Technical assistance (RPOs)

In conclusion, although the financing landscape for rural producer organizations is troublesome (as explained in section 2.4), recent innovations in RPO financing, combined with the rise of a new generation of alternative lenders, represent a hopeful development for these organizations.

In recent years, alternative financiers have pioneered with much success several new supply chain-based financial products targeted at rural producer organizations. Although the innovations have been only available to a small minority of rural producer organizations worldwide – RPOs of select countries and product types exporting on sustainable trade markets – these lenders aim to do for RPOs what microfinance did for the urban poor: a business case that can be leveraged to attract mainstream lenders to the field.

Going back to the original hypotheses of this research, are alternative lenders succeeding in demonstrating the creditworthiness of rural producer organizations? Can a business case be made for profitable lending to rural producer organizations? The third section of this thesis will aim at answering these questions.

3. FIELD RESEARCH: CASE STUDIES

3.1 - Field research methodology

3.1.1 - Justification of field research strategy

The case study format was privileged for this research for a couple of key reasons, the first of which is the flexibility and richness of the format. By overly focusing on outcome prediction or prescription, other modes of research such as statistical analysis can limit the scope and perspective of the study. Case studies, by offering both quantitative (e.g. financial data) and qualitative data (e.g. RPO leader perceptions of financing options), offer a richer portrait. Case studies therefore not only offer significantly more information on the studied subject (in this case RPOs), but also provide valuable information on the general context in which the subjects evolve.

Case studies also allow freer research. The more rigid frameworks of other types of research often mean every possible outcome must be predicted and/or prescribed at the onset of the research – therefore greatly limiting the scope of the study. On the other hand, the looser format of case studies allow more dynamic and responsive research which can lead to the uncovering of new, previously undocumented, issues that can be later addressed in the study.

Finally, from a very practical point of view, case studies were necessary in this particular context due to the lack of publicly available aggregate data or statistics on rural producer organization financing, due to the sensitivity of the information for both RPOs and their lenders. Access to this information for the purposes of this research was therefore only made possible through the development of individual relationships based on trust and confidentiality with selected rural producer organizations

3.1.2 - Justification of research sites

A total of three rural producer organizations were studied and another four were visited as part of this research.

Geographically, all the organizations were located in the Southern Mexican states of Oaxaca, Veracruz and Chiapas. The region was most notably selected due to the importance of the agricultural sector: all three states are largely rural and dependent on agriculture. In the case of Oaxaca and Chiapas, over 50% of the population depends directly or indirectly on this sector. Coffee production is particularly significant in the region, with approximately 72% of the country's coffee production originating from Chiapas, Oaxaca and Veracruz in 2009 (FIRA, 2010).

Southern Mexico has a long history of small farmer activism and well-established rural producer organizations, particularly in the coffee sector. The dynamism of the region's rural producer organizations has positioned the country well on the specialty commodity markets. The very first Fair Trade initiatives originated in the Mexican states of Oaxaca and Chiapas and today the region is one of the world's largest organic coffee suppliers.

Since the Mexican government's withdrawal from the agricultural sector in the 1990s, a large number of rural producer organizations have emerged in the Southeast - particularly in the coffee sector. With thousands of members scattered across the states of Chiapas, Oaxaca and Veracruz and annual sales per organization sometimes running in the million-dollar range, Mexican RPOs play today an important economic, social and political role in Southern Mexico. This context made Southern Mexico a particularly attractive setting for this research.

Considering this research's focus on financial innovations, RPOs currently receiving loans from alternative lenders were selected. It must be acknowledged that the selected rural producer organizations are generally more mature and better connected to the international commercial and financial markets than the average Mexican RPO. The organizations studied are therefore believed to be representative of the more growing, dynamic fringe of rural producer organizations involved on specialty markets (Fair Trade, organic, shade-grown coffee etc.). Accordingly, all the organizations visited as part of this research are involved in the production and commercialization of coffee.

3.1.3 - Data collection strategies;

Most of the case study data were gathered over the course of a 4-month internship with Porvenir Financiero (PorFin) funded by Students for Development (SFD), a program run by the Association of Universities and Colleges of Canada.

Launched in 2006 under the impulse of the Escuela Agrícola de la Región del Trópico Húmedo (EARTH) and the American socially-oriented investment fund Root Capital, PorFin aims to improve the financial governance of RPOs in environmentally sensitive areas so that they are better able to consolidate and expand their access to markets. PorFin is funded by the Interamerican Development Bank and supports a total of 55 RPOs in Southern Mexico (Veracruz, Oaxaca and Chiapas), Guatemala, Nicaragua, Honduras, El Salvador and Costa Rica. During the 2006-2010 period, PorFin estimated it offered training in financial management and governance to over 5,000 individuals.

My terms of references with PorFin were defined and mutually agreed at the beginning of the internship in September 2009. My responsibilities included the following two tasks relevant to my research:

1. Research and document, through case studies, the long-term impact of sustainable financing as well as the financial evolution of rural producer organizations.
2. Research and document the main financial products offered to RPOs by local and international financial operators. Document the due diligence processes.

Considering the obvious synergies between my research and my work with PorFin, I secured early on in my internship the authorization, under certain conditions, to use data from PorFin participating RPOs in my research (see ethical considerations and confidentiality below). Field data included in this document therefore originate from my work with PorFin.

Data were primarily gathered on-site over the course of one or several visits to the studied RPOs, during which key organization officials were met and interviewed. A wide range of managers and staff were met and the vast majority of the data presented in this research originate from interviews with the organizations' presidents, managers (*gerentes*) and accountants.

The semi-directed method was chosen for the interviews. The semi-directed interview method combines pre-planned questions with more spontaneous ones. The flexibility of the formula and the richness of the resulting exchanges were instrumental in choosing the method.

A large part of the data presented in this research also originates from documents provided by RPO senior managers and staff. Such documents, which include most notably financial statements (both current and historical) and strategic plans, allowed a quantitative assessment of the financial stability and sustainability of the studied RPOs and provided insights into their financing needs.

3.1.4 - Ethical considerations and confidentiality;

The synergies between my internship with PorFin as well as my thesis research were obvious from the start and the issue was well discussed with my host organization at the beginning of and during my internship.

While PorFin has given me the authorization to use some of the data gathered over the course of my internship for my thesis, the organization also had clear concerns over ethical considerations and potential confidentiality issues. Although my internship and research project do not involve ethically sensitive individuals, it does involve potentially sensitive commercial and financial information. Making such data public has the potential to cause harm to the reputation of some of the studied RPOs. As an example, the public disclosure and analysis of the financial statements of a vulnerable RPO could lead buyers to rethink their purchasing contracts due to perceived credit and commercial risk.

To address the issue, the following arrangement was discussed and agreed to by both PorFin and myself (translated from Spanish):

- All references that could be used to identify the organizations in the case studies should be omitted from my research. This includes: name of the RPO and of interviewees, location of the organization as well as any other type of information that could be used to identify the organization.
- Each cooperative is to be assigned a letter (ex. Cooperative A, B, C, or D) or a fictitious name to be used in my research.

The agreement was fully observed during the preparation of this thesis. As a result of this agreement, I have therefore modified the names of the four studied organizations for confidentiality reasons. Considering Mexicans' strong sense of history and patriotism, I thought appropriate to assign to each studied cooperative the name of a well-known Mexican hero:

- Cooperativa Benito Juarez;
- Cooperativa Gustavo Madero;
- Cooperativa Emiliano Zapata;

The full disclosure of lending history also caused confidentiality issues, considering some lenders could easily identify the cases studied based on this information. I therefore decided not to name directly the lenders and rather mention them by category. An example would be to substitute "Root Capital" with "American alternative lender". The following are some examples of such categorization:

- American alternative lenders: Root Capital, Calvert Foundation, RSF Social Finance, Verde Ventures
- European alternative lenders: CreditoSud, Rabobank Foundation, Oikocredit, Triodos DOEN fund, Shared Interest
- Buyers: Equal Exchange, Green Mountain Coffee Roasters, Cooperative Coffees, Twin Trading, Van Weely
- Governmental lenders: BANRURAL, Financiera Rural, Agentes Procrea
- Commercial lender: BANORTE, BANAMEX, Banco Ve x Mas
- Non-bank specialized financial institution; Fondo ACCION, Agrofinanzas
- RPO lending arm: UCEPCO, Findeca

Only one lender will be named directly: BANRURAL. Considering that BANRURAL financed a large part of the Mexican agricultural sector prior to its liquidation in 2001, naming the institution will not compromise the confidentiality of the case studies.

3.1.5 - Research constraints and limitations;

This research however has its limits: it does not aim or claim to provide an exhaustive portrait of the RPO financing situation and assessment of the impact of all recent financial innovations on all producers. RPOs vary greatly in needs depending on organizational complexity, size, level, geographic location and product type. As mentioned previously, RPOs studied in this research for example are all involved in one way or another in coffee production and marketing; they are all considered middle-sized or large and part of the growing, dynamic fringe of rural producer organizations involved on specialty markets (Fair Trade, organic, shade-grown coffee etc.) Although this study provides a few insights into the RPO financing model generally, studied RPOs can only be said to be representative of other RPOs sharing the same above mentioned characteristics in the same national context (Mexico).

It is also worth mentioning the difficulties encountered throughout the research in accessing credible, complete information. The informality and the high turnover at RPOs mean there is sometimes no or little institutional memory. Moreover, weak organizational and managerial capacity often also means the lack of credible financial accounts: in some cases, historical financial information could not be found and in other cases the information provided was filled with basic accounting errors and could therefore not be considered reliable. Although I do not expect these errors or missing data to significantly affect the general conclusions of this study, I do acknowledge they might have had an impact on my overall research.

Financial systems in developing countries also vary widely; alternative lenders for example had to greatly adapt their products and services to local specificities, thus making international assessments of these innovations, based on Mexico-only evidence, difficult. The Mexican financial system also has its peculiarities, for example the strong presence in rural areas of non-bank financial intermediaries, all of which may make general conclusions on the RPO financing gap significantly different than had this research been conducted in Tanzania or Guatemala for example.

One should keep in mind that the observations and conclusions emanating from this study are meant to be an academic foray in a field that is currently little studied and which I believe to be of growing importance in the rural development sphere. Broader research in different settings and with different types of RPOs will be needed to complement this work. I do hope however to contribute to the academic discussion on the issue and hopefully spark some interest and bring more academic researchers to the field.

3.1.6 – Case study design;

The field research result section is divided into two parts: case study background and the actual case studies. Although not originally included in the research plan, the need for the former arose during the research: it became increasingly clear that a basic knowledge and understanding of the coffee value chain and the offer in agricultural financing in Mexico is necessary in order to adequately interpret the results of the case studies. This section, by no means exhaustive, is meant to provide the reader a primer on the coffee value chain as well as an overview of the recent changes in agricultural financing in the country, of the financial reforms and the actors involved. The section briefly describes the three dominant sources of financing for Mexican rural producer organizations over the past decades: the government, private financial institutions and alternative lenders. The portrait painted in this section is built on information collected primarily through the semi-directed interviews with RPO managers, employees, directors and local financial institution and alternative lending staff (met as part of this research). A documentary research was also conducted to "connect some dots" and confirm some of the information provided by the interviewees.

The second part of the field research result section is the core of this thesis: the three case studies of rural producer organizations in Mexico. A general design for the case studies was prepared prior to the visits, as well as basic questionnaires on the key data to collect and the areas to explore.

The general purpose of the case study is to collect field data to validate or invalidate the hypotheses describes in section 1.2.3. This is done by drawing a general portrait of each of the RPOs studied and identifying some of the key trends in each of the organizations with regards to its general financial situation and access to external financing. The idea is not to draw an exhaustive portrait of the organization but rather to get a snapshot of all three organizations which allows us to reflect on the impact of alternative lenders on the development of the organization and access to local financing.

Each case study begins with a brief introduction on the cooperative with some key statistics. A brief history of the organization is then provided, recounting and highlighting some of the key events in the RPO's history.

The following case study section then provides basic production and commercialization information in order to provide the reader a better understanding of the context in which the organization evolves. This section includes:

- A description of the organization´s production and commercialization cycle;
- A description of the main coffee payment options for members, in order to better understand the pressure on the organization's cash flows.

- Basic commercial data, in order to have a better portrait of the organization's revenues and commercial partners.

The following case study section tries to identify some of the key organizational and financial trends through the review of a few indicators. The idea is not to conduct an in-depth financial or organizational analysis of each organization, which is not the purpose of this particular thesis, but rather identify trends and provide the reader a general portrait of the organization, its background and its financing needs and potential.

Organizational indicators tracked include: number of members, total hectares under cultivation, total crop purchased from members and total sales. Financial indicators include liquidity (quick ratio, working capital ratio), debt (debt ratio, debt/equity ratio) and profitability ratios (gross profit margin, net profit margin). The table below offers a quick description of each of these indicators.

Organizational indicators

Number of members

The total number of members is a basic, yet reliable indicator of organizational strength. It is however far from perfect: organizations can have many more registered members than active members. Organizations can sometimes omit deleting members from official lists for fear of losing subsidies or political clout. Other may simply fail to remove inactive members from their lists due to lack of time or interest in the task.

Interestingly, the opposite is also true. Some organizations, such as the Benito Juarez cooperative for example, purchase from many more growers than they have members due to legal limitations associated to the *Sociedad de Solidaridad Social* (S.S.S.) status.

Total crop purchased from members

Total crop purchased from members is probably one of the best indicators of organizational success in the context of this study. Considering the competition from private local intermediaries in the states of Oaxaca, Chiapas and Veracruz, an organization offering relatively low prices (vs. market price) or not offering payments on-time will be quickly penalized by lower member loyalty and lower purchases from cash-strapped members.

As all indicators however, it has its flaws. The indicator does not take into account long-term

production patterns (lower production due to emigration, production shift away from coffee, ageing coffee trees etc.), or fluctuating yields in the region due to local weather patterns (excess or lack of rain, hurricanes etc.)

It also does not take into account the constraints of organic production. For example, organic producers will produce less than conventional coffee growers but will obtain better prices for their crop, meaning a coffee cooperative undergoing transition to organic production will see its total crop purchased volumes drop while revenue from sales should stay roughly the same or increase.

Total hectares under cultivation

Total hectares under cultivation should be analyzed and interpreted together with total crop purchased from members and allow the reader to roughly evaluate producer loyalty to the cooperative.

Beyond annual data – which, as explained earlier, can vary from year to year – it is important here to identify long-term patterns. Identifying a long-term rise in total crop purchased from members and a stable area under cultivation could mean increasing yields and/or greater member satisfaction with prices offered by the cooperative.

Total sales (US)

Although RPOs may have other (minor) sources of income, total sales provide a good estimate of the organization's revenue and size. Sales should however not be used to measure the commercial success of the organization (total crop purchased from members is a better indicator). Although it is true successful organizations can usually fetch better prices on the market (on specialty coffee markets for example), local and international market price fluctuations can greatly distort the interpretation of this indicator.

While it was originally considered as part of this study to compare total sales vs. market prices, it was decided not to go ahead with the analysis due to the complexity of the task (large number of local and international prices, depending on coffee quality and week/month of the year etc.) and the limitations of this research.

Financial indicators

Quick ratio

Quick ratio formula: *Current Assets - Inventory/Current Liabilities*

The quick ratio (also called acid-test) is calculated from balance sheet data and measures the

liquidity of an organization. It is generally considered one of the most stringent measures of liquidity since it removes inventory from the equation.

Inventory is the least liquid of all current assets. In the context of this study, inventory (coffee stocks) is usually liquidated after only a couple of months, following transformation (from parchment coffee to green coffee) and transport (from the cooperative to the closest port and/or to destination in North America or Europe).

As a rule of thumb, a quick ratio greater than 1 (100%) means the organization can easily meet its short-term debt obligation without stress.

A quick ratio below 100% should not be seen as catastrophic. It means the organization has to sell inventory in order to meet short-term debt obligations and requires relatively operations, flexible credit lines and efficient cash-flow projections.

The quick ratio in the context of rural producer organizations is far from perfect: liquidity falls and rises dramatically as coffee is collected and later sold. Financial statements provided by the RPOs (usually as of December 31st) can provide a relatively accurate snapshot of liquidity considering December is usually during harvest period. Nevertheless, it is important to keep in mind that this ratio is imperfect in this context and should not be used as a main indicator.

Working capital ratio

Working capital ratio: *Current Assets – Inventory / Previous Year Sales*

Working capital ratio, another liquidity ratio, is much more precise and accurate in the context of rural producer organizations. It uses previous year sales as an indicator of how much needs to be financed by the cooperative.

It is important however to keep in mind that not all crop is collected and sold at the same time. The turnaround times between harvest months and coffee exports allow the cooperative to recycle its working capital several times during the same year.

As explained by an alternative lender met in Mexico, most rural producer organizations working with alternative lenders generally have a working capital ratio of approximately 15%.

Debt ratio

Total debt ratio: *Total debt / Total assets*

This ratio is a good, relatively straight-forward way to gauge an organization's debt level and

long-term solvency. This ratio can be easily calculated from the balance sheet by dividing total debt by total assets.

This indicator indicates how much an organization has debt compared to assets. The lower the debt ratio, the less debt the organization has compared to assets. As a rule of thumb, a total debt ratio below 1 is generally considered a sign of good health. Organizations with high total debt ratios are highly dependent on credit and are in danger of becoming insolvent, particularly in times of rising interest rates.

Debt/equity ratio (leverage)

Debt/equity ratio: *Total debt / total equity*

This ratio is very similar to the debt ratio and also measures the organization's debt level, this time compared to equity. The ratio, also commonly referred to as leverage, indicates an organization's capacity to obtain external funding.

RPO equity is usually created by accumulated net income; share capital provided by cooperative members (usually a minimal, symbolic sum) and donated funds (government subsidies etc.). Considering these funds have no claim on any of the assets of the business, the latter (assets) can be used as collateral (guarantees) for debt.

In other words, higher equity (and lower debt/equity ratio – below 1 for example) means an organization has the capacity to increase its leverage and external financing. Granted, as explained in section 2 of this document, this capacity to receive financing is not always matched by local offer. Moreover, in some cases, RPO directors are reluctant to borrow due a lack of financial literacy and a general mistrust of lending institutions.

Gross profit margin and net profit margin

Gross profit margin: *(Sales – Cost of Goods Sold) / Sales*

Net profit margin: (*Net Profits after Operating Costs and Taxes)/Sales*

The gross profit margin indicates how much of a profit an organization makes on its cost of goods sold (price paid to members). The net profit margin indicates how much of a profit an organization makes once all costs are taken out of the equation (cost of goods sold, operating costs and taxes).

Although considered two of the most important indicators in the financial analysis of an organization, this indicator (as well as the net profit margin) can be misleading in the context of small producer organizations. Unlike a privately held company, one of the main aims of a rural

producer organization is not to maximize profits but rather to offer the highest prices possible paid to members (cost of goods sold). Relatively low profit margins should therefore not be interpreted as a sign of organizational failure.

For the purposes of this study, these ratios are helpful in indicating an organization's willingness to capitalize itself as opposed to satisfying immediate calls for higher prices for members.

The next part of the case studies is the most relevant with regards to this thesis: access to financing. The section identifies how much and when credit is needed on an annual basis. It then explores the credit (short-term and long-term) history of the organization by identifying the lenders and some of the conditions associated to the loans (interest rates etc.). The idea here is to identify some of the key trends in access to financing across all three organizations. Considering all three organizations are receiving loans from alternative lenders, one of the aims is also to try to identify some of the impact associated to these loans.

Finally, the last part of the case studies is the conclusion. This part identifies some of the key lessons from the specific case study and tries to answer some of the research hypotheses with case study-specific information.

Exchange rates and currencies

Please note that to facilitate reading and understanding of the field research section of this thesis, I converted all figures in MXN$ pesos in USD$ dollars. The exchange rate of 13.09 MXN pesos per dollar (rate on January 1st 2010) was used for all conversions.

3.2 - Field research results

3.2.1 –The coffee value chain

First of all, a quick primer on the production of coffee and the general structure of the coffee value chain is required to better contextualize the case studies. The following section provides a very brief introduction to the coffee sector, with a particular focus on production in Mexico.

There are two main types of coffee commercially sold worldwide: Arabica and Robusta. The former is primarily produced in Latin America while the latter is produced mostly in African countries and in Vietnam. Robusta coffee has a sharper taste, has more caffeine than Arabica, usually sells for half the price of Arabica and represents 36% of global production. Arabica coffee is much harder to grow

than Robusta: it requires a certain climate (usually found at high altitude in coffee producing zones) and partial shade for optimum production. Mexico only produces Arabica coffee.

According to trade statistics provided by the International Coffee Organization (ICO), approximately 120 million bags of coffee beans (of 100 lbs or 60 kilos) were produced in 2009. The largest coffee producer is Brazil, followed by Indonesia, Vietnam, Colombia and Mexico (ICO, 2010). In 2009, Mexico produced a total of 4.2 million bags (or 3.5% of the global total).

Globally, it is estimated that around 15 million small-scale farmers depend on coffee production (Fairtrade Foundation, 2002, p9). According to studies conducted in the 1990s, of the total production in Mexico, 66% came from small-scale producers (less than 10 hectares of land) and 45% came from producers with less than 5 hectares (Pérez-Grovas et al., 2001, p2). Small-scale producers are typically self-sufficient, growing on their land a few key food crops in parallel to coffee production and sometimes rearing poultry and/or cattle. Coffee production provides cash income for foods they do not grow, clothes, medical care and education expenses (Fairtrade Foundation, 2002, p9).

In order to better contextualize the following case studies, the narrative below provides a brief description of the coffee production and marketing chain. The details vary from country to country and depending on the type of producer (small-scale producer or plantation) or intermediary (private buyer or RPO). The steps below describe the chain studied as part of this thesis, involving small-scale Mexican producers and RPOs.

1. Plant-care (farm-level)

   For optimal yields, coffee plants require year-long care: farmers must provide coffee plants with adequate fertilization; apply pesticides and fungicides (in the case of conventional coffee production). In addition to these activities, exposure to direct sunlight must be controlled (by pruning branches from nearby trees), coffee fields must also be weeded and coffee plants pruned regularly.

2. Harvest (farmer-level)

   Harvest is a labor intensive activity. To assist with harvest, producers typically first ask family members for help. In addition to family members, many producers (including small-scale farmers) hire workers to help. Workers may be relatives or friends, neighbors or migrants; in Southern Mexico, Guatemalan migrants are often hired as workers to help with the coffee harvest. Hiring workers obviously has a significant impact on the farmers' income: on average hired labor represents 50 to 60% of farmers' total costs (Fairtrade Foundation, 2002, p9). Many

small-scale farmers struggle to pay for these harvest-related costs: as a result, many RPOs have created internal credit funds that provide microloans to members in order to assist them financially during this critical period.

3. Wet method processing (*beneficio humedo*) (farmer-level):

This step varies from country to country depending on the type of coffee grown and requirements of the market. In Mexico, following harvest, most of the coffee is processed by the farmer using the wet method in which the flesh of the coffee cherry is removed by soaking and fermenting the crop. Following wet processing, coffee beans are sun-dried, usually on farm. The resulting coffee grain, called parchment coffee (*café pergamino* in Spanish), is still enclosed in a light, yellow parchment-like case.

4. Village-level product sale

The grower then sells the parchment coffee beans to local private intermediaries or to cooperative organizations. Coffee is usually sold locally, at village-level.

While local private buyers provide one cash payment for the crop (at the time of the purchase), payments from cooperatives are usually disbursed in several installments (due to cash flow limitations). Details differ from cooperative to cooperative, but a first payment is usually provided at the time of product delivery (called the *anticipo* in Mexico) and a second (called *ajuste*) made at the end of the export season. The sum of both payments is usually (but not always) higher or significantly higher than the amount offered by local private buyers. In 2008-2009, in the case of the Gustavo Madero cooperative, both payments amounted to a total price of USD$ 1.20 per pound. The first payment (*anticipo*) alone provided by RPOs however is rarely on par with competition, leading many cash-strapped farmers to sell to private buyers and creating intense competition between these organizations and RPOs.

5. Transportation and dry processing (*beneficio seco*) (RPO-level):

Once in possession of the crop, RPOs transport the parchment coffee to the organization's warehouse, where dry processing usually takes place. Specialized workers and machinery remove the husks from the beans and separate coffee depending on quality and grain size. The end result is a green grain, called green coffee (*café oro* in Spanish). Green coffee is then stored in 100 pound bags (60 kilos) and is ready for sale.

6. Domestic sale or export (RPO-level and importer)

Green coffee is then sold locally or exported by the RPO. In the case of the Gustavo Madero cooperative, in 2008-2009, an average price of USD$ 1.76 per pound was received from buyers.

Sales contracts are usually signed by buyers and RPOs at the time of harvest or in the month immediately prior to harvest. Buyer payments however are usually only made several months later, at the time of export, once shipping documents are sent to the buyer. In some rare cases, buyers agree to provide prefinancing to the RPO immediately after signing the contract. When this is not possible, RPOs typically turn to financiers (alternative lenders or local banks) which provide the required trade financing. International transportation, insurance costs, port and customs charges are usually covered by the buyer.

Few Northern coffee roasters have the infrastructure and the resources to buy the coffee directly from RPOs. Purchases are usually made by organizations specialized in coffee import and with significant financial resources, such as Globus Coffee (US), NJ Douek (Canada), Cooperative Coffees (Canada and US), Van Weely (Netherlands) etc. Some of these importers are merely paid by the end buyer (the roaster) for their services while others first import then find a buyer during transportation or once in the import country. As calculated by Just Coffee, a roaster member of Cooperative Coffees, import fees, storage and freight generally amount to USD$ 0.60 – USD$ 0.85 per pound of coffee on an average shipment (Just Coffee, 2007). These figures can vary widely from one business to another but are included here to provide a general idea of the costs throughout the supply chain.

7. Northern country sale and roasting (importer and roaster)

Once the green coffee arrives in the importing country, it usually changes hands again as importers sell to local roasters. Roasting provides green coffee the brown-black color familiar to most coffee drinkers. Once the coffee roasted, the coffee is packaged and labeled and sent to retailers, cafés and restaurants.

According to Just Coffee figures, costs associated to roasting and packaging (package and label costs, labor) amount to USD$ 2.40 per pound for the roaster. To this total must be added roaster overhead expenses, in the case of Just Coffee estimated at USD$ 1.90 per pound (Just Coffee, 2007).

8. Retail sale (roaster and consumer)

The final step of the chain consists of the retail sale, either at supermarkets, coffee shops, restaurants or vending machines.

Wholesale prices of Just Coffee products (paid by retailers, cafés and restaurants), range from USD$ 6 - 7.20 per pound. In turn, retailers generally sell the same product to their customers at the price of USD$ 9–13 per pound. Restaurants and cafés, on the other hand, selling cups of

coffee at an average price of USD$ 1.50 per cup, sell the product at the price of USD$ 45 per pound to their customers – assuming 30 16oz servings per pound (Just Coffee, 2007).

To conclude this overview of the coffee supply chain, using the cost and price examples provided above, it is interesting to reflect on the fact that as a percentage of the 11 dollars paid by the end customer in the United States for Just Coffee brand Fair Trade coffee, only 10.9% of the amount is actually returned to the individual farmer. Furthermore, anecdotal evidence gathered as part of this study suggests this percentage is often lower in the case of producers selling to local private buyers.

3.2.2 – The offer in agricultural financing in Mexico

A quick introduction to the history and the current state of the offer in agricultural financing in Mexico is also necessary to better understand the complexities of the issue before moving to the case studies. The offer in agricultural financing in Mexico has been through several deep changes, all of which had dramatic impacts on the sector and particularly on rural producer organizations.

Over the course of the past two decades, agricultural sector growth has lagged behind overall GDP growth in Mexico. The agricultural sector accounted for just 3.8% of GDP in 2002, as opposed to 7.5% in 1995. Despite its high potential for growth, the sector grew by an average of 1.6% annually during the 1990-2000 period, a rate far below the overall growth rate of the economy (3.4%), of agribusinesses (3.7%) and even population growth during the period (1.8%) (Inter-American Development Bank, 2003, p1). The implications of these numbers on rural development and the fight against poverty are serious, considering the sector employed 21% of the country's labour force in 2003 and the fact that 60% of rural households have per capita income of less than USD$ 2 per day (Inter-American Development Bank, 2003, p2).

This situation has led many pundits to reflect on the factors hindering the sector's growth; the lack of available financing being one of them (CEPAL, 2007, p3).

To better understand the evolution of the financing market, this section briefly describes the three dominant sources of financing for Mexican rural producer organizations over the past decades: the government, private financial institutions and alternative lenders.

3.2.2.1 – The Mexican government

The Mexican government has played a central role in the provision of financing to the agricultural sector over the past decades, either through direct government lending (for example through Banrural and later Financiera Rural) or through programs to stimulate commercial lending to the sector (most notably through FIRA).

Starting in the mid-1970s, the Mexican government adopted a state-led approach to agricultural lending by consolidating three different national agricultural banks into the Banco Nacional de Credito Rural (Banrural) in 1976. Banrural, a government-owned and run financial institution offering direct financing to the agricultural, fisheries and forestry sectors, was used by the Mexican government to channel massive amounts of subsidized credit to the rural sector. Although Banrural offered financing to all primary sector operators, a particular emphasis was given to low-income producers. Through the creation of Banrural, the Mexican government succeeded in increasing the financing available to the agricultural sector, although it did so by directly lending to the sector and becoming in the process the sector's largest creditor. As pointed out later in the case studies, Banrural was the dominant (and in some cases, only) source of financing for Mexican RPOs throughout the 1980s and 1990s.

Banrural however started its long decline in the late 1980s. The economic reforms of the period, heralded by Mexico's entry in the GATT in 1986 (and later NAFTA) and the presidency of neoliberal reformer Carlos Salinas (1988-94) marked a shift in government policy to the agricultural sector. Reforms were directed at reducing to a minimum state intervention and promoting "the proper operation of the market" (Inter-American Development Bank, 2003, p2). Government-owned institutions providing technical assistance, credit and guaranteed purchases to agricultural producers (such as the INMECAFE in the coffee sector) were dismantled or scaled-down. Tariffs on agricultural products were gradually lowered and authorities eliminated support prices (including those for coffee, corn and beans) and consumer subsidies (such as price subsidies for corn and beans) (Inter-American Development Bank, 2003, p3).

Banrural did not escape the reforms: the rural finance reform beginning in 1989 streamlined and downsized the institution, closing 300 of its 500 branches, reducing staff from 22,000 in 1988 to 10,000 in 1992 (Janvry, Key and Sadoulet, 1997). As part of the reform, interest rates subsidies were cut and the bank was allowed to diversify its loan portfolio to non-agricultural sectors. Agricultural producers were also classified based on their economic potential and approximately 75% of the bank's clients, judged economically better off, lost their eligibility to Banrural subsidized loans and were told to seek financing from commercial banks (Richter et al., 2006, p12). Following the reforms, only small and economically marginalized agricultural producers were able to access Banrural loans. This new classification had serious implications on Banrural's portfolio: the bank was forced to drop its most reliable and profitable clients to focus on smaller and riskier ones.

The neoliberal reforms of the Mexican agricultural sector, combined with general economic turmoil of the 1990s and the instability on global commodity markets during the period, all negatively affected

the profitability of the country's agricultural producers. Small producers were particularly hard-hit. This turmoil had devastating effects on Banrural's portfolio, forcing the bank to further scale down its financing to the agricultural sector. In 1998, it was estimated that approximately 50% of Banrural's portfolio was considered at risk (World Bank, 2006).

Banrural's dismal performance during the late 1990s was strongly criticized by both government officials and international multilateral agencies, who called the bank a "subsidy manager, with a high degree of non-performing loans" with operating costs exceeding operating income and "deficient risk management" (World Bank, 2006).

In 2003, following several years of disastrous financial results, heavy losses and increasing operational costs, the Mexican government dismantled Banrural at the cost of USD$ 4 billion.

Banrural was replaced in 2003 by a new, smaller, leaner agricultural bank called Financiera Rural. In many ways, Financiera Rural is only a shadow of what Banrural once was. The new institution is distinct from Banrural in three major ways. First, borrowers who had previously defaulted on Banrural loans are no longer eligible for Financiera Rural loans. Second, Financiera Rural funds are now a line item in the government's budget and the new institution cannot take deposits or receive outside investment as a means of funding, which greatly limits its capacity. Thirdly, Financiera Rural cannot borrow to keep itself afloat, meaning it has to adopt a prudent, conservative lending policy and remain at all times financially sound (Richter et al., 2006, p12). Critics point that although Financiera Rural's financial results have been positive since its inception, the bank has not done enough to support small, marginalized producers – particularly in the Mexican Southeast – and privileged larger, agribusinesses in the North and Northeastern parts of the country (CEPAL, 2007, p11).

It is also important to mention that over the past years, Financiera Rural has scaled back direct lending and privileged lending to other financial intermediaries in the rural sector, by doing so gradually becoming a second-tier financial institution. In 2003, 71% of Financiera Rural's portfolio consisted of direct loans to agricultural operators and 29% consisted of loans to other agriculture-focused financial institutions. In 2008, these percentages were 50.5% and 49.5% respectively.

The dismantling of Banrural and the transformation of Financiera Rural into a second tier financial institution are all part of a larger government strategy to reduce to a minimum direct lending operations to agriculture and encourage commercial lending to the sector.

Local commercial lenders in Mexico however have been in general reluctant to finance the sector. Following government reforms, overall agricultural lending in Mexico dropped from 22% of all credit

in 1983 to 8% in 1992 (Janvry, Key and Sadoulet, 1997), 3.7% in 2000 and a dismal 1.4% in 2005 (CEPAL, 2007, p3).

To further encourage agricultural lending, the Mexican government has offered private operators significant incentives, including subsidized credit lines and guarantee programs, to lend to the sector. Many of these incentives are provided by FIRA (Funds Instituted in Relation with Agriculture—Fideicomisos Instituidos en Relación con la Agricultura), a second-tier government-owned development bank managed by Banco the Mexico, Mexico's central bank. FIRA's mission is to stimulate financing to the sector to the country's agricultural, forestry, fishery and rural sectors. Founded in 1954, FIRA provides discounted loans and guarantees to commercial banks through four funds. To obtain FIRA subsidized loans, producers have to meet more stringent requirements than under Banrural. This explains why, during the 1980s, the volume of FIRA funds channeled to financial intermediaries was consistently less than direct loans offered by Banrural.

Following Banrural's demise in the early 2000s, FIRA however became the Mexican government's main tool to boost agricultural lending in the country. While FIRA lent to financial institutions an average of USD$ 2.139 billion annually between 2000 and 2002, the total climbed to USD$ 3.33 billion annually during the 2003-2005 period (CEPAL, 2007, p11) and USD$ 7.944 billion in 2009 (El Economista, 2010).

FIRA's success during the period in scaling up its activities is however mixed. Although it did succeed in stimulating some commercial lending to the sector, critics point that similarly to Financiera Rural's lending, most FIRA funds eventually are lent to medium or large-scale agricultural operators in the country's better developed agricultural areas. To illustrate this point, critics highlight the fact that during the 2000-2005 period, the average loan amounts increased significantly while the actual number of borrowers dropped by 44% (CEPAL, 2007, p11).

The Mexican government and rural financing today

Before describing in further detail the offer in commercial lending in Mexico, a complete portrait of the Mexican government's agricultural finance strategy today is in order. The government's intervention can be summed in a five-pronged strategy:

1. Direct financing: The Mexican government, through Financiera Rural, still represents to this day a significant source of direct rural financing. As explained earlier, these activities are gradually being scaled-down as Financiera Rural is being transformed into a second-tier financial institution.
2. Refinancing. Through both FIRA and Financiera Rural, the Mexican government has provided credit lines to a large number of commercial banking operators. During the 2001-

2009 period, FIRA credit lines have increased by more than 161%. In 2009, FIRA credit lines represented over 60% of the country's agricultural lending portfolio. These credit lines were provided to 17 banks and 58 non-bank financial intermediaries (primarily SOFOMES and SOFOLES – to be explained later).

3. Guarantees. Several government agencies and ministries offer guarantees to encourage lending to the agricultural sector, including FEGA (one of the four funds constituting FIRA) and FIRCO (Fideicomiso de Riesgo Compartido) part of SAGARPA, the Mexican ministry of agriculture.

Accessing FIRA resources

Access to FIRA credit lines was described by a non-bank financial institution executive met as part of this research as a complicated and bureaucratic process. First of all, the financial institution must receive accreditation by FIRA and comply with several key requirements with regards to management, capitalization and supervision. This process can take several months.

Once the financing institution is accredited, it must submit borrower information directly to FIRA, which reviews and periodically verifies the data. Borrower incomes for example are checked, as are credit records. In the case of producer cooperatives, the credit records of all individual members are checked. Once the necessary checks are completed, the funds are made available to the financing institution.

In an effort to encourage lending to small, marginalized agricultural producers, the cost of the FIRA credit lines varies depending on borrower income. As explained by a non-bank financial institution executive met as part of this research, most RPO members in Southeast Mexico are classified as PD1 (low-income). The following details the cost of the FIRA credit line, as of late 2009, for both the borrower and the financing institution:

Cost for the financing institution (PD1 producers):
TIIE (benchmark interbank interest rate) – 6

Please note that as of late 2009, the TIIE in Mexico was hovering at around 5% annually. This means that in the case of low-income PD1 producers, financing institutions had access to FIRA funds at no cost.

Cost for borrower (PD1 producers):
Cost of FIRA credit line + bank-specific intermediation margin
(Banco MIFEL +6%, BANORTE +TIIE, Agrofinanzas +8% etc.)

In addition to the credit line, FIRA loans are admissible to government guarantees (managed by FEGA) covering up to 80% of the credit. The cost in 2009, transferred directly to the borrower, was

2.9% of the guaranteed amount. Please note however that in addition to FEGA guarantees, commercial banks generally require additional cash or real estate guarantees.

One could therefore conclude that Mexican financial institutions have strong incentives to lend to low-income producers organized in RPOs, considering the credit lines at no cost and the little risk associated to the loan (FEGA guarantee of up to 80%, in addition to conventional cash and real-estate guarantees).

4. Subsidy programs. The Mexican government provides significant direct subsidies of all sorts to the agricultural sector through SAGARPA or FONAES (linked to the Ministry of the Economy) Most RPOs visited as part of this research received direct subsidies from the Mexican government over the past years that helped pay processing facilities, equipment, office or warehouse construction costs.
5. Subsidy programs for microloans. The Mexican government also offers direct subsidies to financial institution offering microloans to low-income producers. The most notable such program is PATMIR, managed by SAGARPA.

In conclusion, despite scaling back direct financing operations, the Mexican government still plays an active role in agricultural financing in the country. Although the impact of the neoliberal reforms on the availability of agricultural financing has been dramatic, the government has succeeded to a certain extent in the past decade in bringing more private operators to finance the sector, although one could argue small producers have been the great losers of this new strategy. Nevertheless, innovative private operators now can count on several government-backed tools that have the potential to drastically reduce credit costs and risks when lending to low-income producers. It is worth mentioning that all three organizations studied as part of this research received government support over the past decade, whether through subsidized credit, guarantees, subsidies or grants.

3.2.2.2 – Credit institutions

Today in Mexico there are three main types of financing institutions offering loans to the agricultural sector: commercial banks, sociedades financieras de objeto limitado (limited scope financial society - SOFOLes) and sociedades financieras de objeto multiple (multiple scope financial society - SOFOMes).

Commercial banks: The Mexican commercial banking system is heavily concentrated: five banks (Banorte, HSBC, Banco Santander, Banamex, BBVA Bancomer), four of which of foreign ownership (all but Banorte), control close to 80% of the country's banking assets, 72% of the credit portfolio and 81% of the country's banking branches. Traditionally the commercial banking system has been the main supplier of financial resources for the country's economy. Starting in the 1990s, however, the

supply of financing for the private sector has contracted significantly in real terms and the commercial banking system seriously underperformed commercial banks in countries of comparable development levels (Inter-American Development Bank, 2003, p5). The financial crisis of 1994-1995 had a severe impact on rural lenders, "whose already scant presence in that sector was thus reduced further" (Inter-American Development Bank, 2003, p4).
Although commercial agricultural operators do not appear to have problems accessing bank loans, few banks are lending to producers organizations or individuals seeking small loans.

This can generally be explained by the strengthening of risk assessment procedures following the crisis, a high degree of risk aversion, particularly in the rural sector, high administrative costs in rural areas and the poor quality of rural collateral (Inter-American Development Bank, 2003, p9). Bad lending experiences in the sector, particularly during the crises of the 1990s, are also to blame. According to a former bank loan officer interviewed as part of this research, many banks have lost considerable sums in agriculture, particularly in the coffee sector. For all these reasons, it is estimated that agricultural lending by commercial banks has halved during the 1995-2005 period.

SOFOLes: This category of non-bank financial intermediary, created in the late 1990s, is limited by law in the scope of its activities. Capitalization requirements and supervision is not as strict as for commercial banks. SOFOLes are credit-oriented and cannot accept deposits. SOFOLes obtain their financing primarily from equity investors, debt markets and government credit lines. Moreover, SOFOLes must focus on one area or product: for example, housing, consumer loans or agricultural loans. It is important to mention that SOFOLes, under certain conditions, can be accredited by FIRA and can access its subsidized credit lines and guarantees, therefore offering agricultural-oriented SOFOLes cheap funds and guarantees. Agrofinanzas, for example, the non-bank financial institution created by Agroindustrias de México (AMSA) to finance its agricultural providers, is a FIRA-accredited SOFOL. The SOFOL concept has proved extremely popular over the past decade: in 2006, when the new SOFOM law was adopted, Mexico had a total of 68 registered SOFOLes.

SOFOMes: In 2006, in reaction to the multiplication of SOFOLes, the Mexican government opted to encourage the growth of these institutions by offering them greater flexibility through the SOFOM model. SOFOMes are in many points similar to SOFOLes with one major exception: they are not limited in their scope of activities and are free to offer different products to different markets as they wish, therefore dramatically increasing competition on the country's financial markets. All SOFOLes are under legal obligation to migrate to the SOFOM status by 2013. As an example, Findeca, a SOFOM created by the Oaxaca-based rural producer organization UCEPCO, has received FIRA accreditation and has lent considerable sums over the past years to RPOs, particularly in the Mexican Southeast and in the coffee sector.

Although relatively new, SOFOMes and SOFOLEs already play an important role in the Mexican agricultural sector: a growing percentage (24% in 2008) of all funds lent by FIRA to low-income producers (PD1 and PD2) was channeled through SOFOLes and SOFOMes. Two of the three RPOs studied as part of this thesis received over the past decade FIRA funds channeled through a SOFOM or SOFOL while the third RPO received FIRA funds channeled through a commercial bank.

One can therefore conclude that both government incentives to lend to the agricultural sector (FIRA funds and guarantees) combined to the flexible SOFOM model offer high potential, local financing for rural producer organizations: Oaxaca-based Findeca being a good example of a successful SOFOM targeting RPOs in the coffee sector.

It is important to mention however that although SOFOMes and SOFOLes have increased credit offering to the agricultural sector, they are not a panacea either for RPOs: these new financial institutions are generally as demanding as commercial banks in terms of credit record and guarantee requirements, therefore making it difficult for many RPOs to access their loans.

3.2.2.3 – Alternative lenders

As described in the documentary research and literature review section, alternative lenders are highly specialized financing organizations targeting rural producer organizations and usually focusing on RPOs selling on ethical and Fair Trade markets. Alternative lenders have been active in Mexico for some time; Fair Trade cooperative UCIRI received a loan from Dutch alternative lender Oikocredit as early as 1986.

While overall negligible on the overall agricultural lending portrait in Mexico, alternative lenders have been financing a growing number of Mexican RPOs selling to ethical and Fair Trade markets mostly since the late 1990s. Although the phenomenon is difficult to document, many alternative lenders seem to have scaled up their activities in the country following the demise of Banrural in 2003.

As explained earlier, most alternative lenders offer short-term trade financing to RPOs based on export contracts to known, Northern buyers. Few or no other guarantees other than the export contract are usually demanded by alternative lenders. These loans are usually in US dollars, Euros or British Pounds and interest rates are generally lower (generally 7-11% annually) than rates offered by domestic lenders.

Other financial products offered by alternative lenders in Mexico include capital expenditure loans and, in some cases, pre-harvest loans. The vast majority of the financing provided by alternative lenders, however, remains trade finance oriented and based on export contracts to sustainable Northern buyers.

3.2.3 – Case studies

3.2.3.1 - Cooperativa Benito Juarez

3.2.3.1.1 - Introduction

Cooperativa Benito Juarez	
Number of members	2,300
Product	Coffee
Annual production	39,500 *quintales* (approx. 1820 tons)
Total sales	Approx. USD$ 5 million

The Cooperativa Benito Juarez is the largest, oldest and best established of the RPOs visited. The organization has over 2,300 members and purchases coffee from another 3,500 non-member producers (which explains the cooperative's large production and sales). Considered by many as one of the most influential coffee RPOs in Mexico, its influence is felt in 25% of its state's "municipios" (municipalities). As proudly pointed out by Benito Juarez managers, the cooperative's strong presence has significantly increased overall coffee prices offered to small producers by private operators in the state – a testimony of the cooperative's influence.

The following case study information was collected during a field visit to the cooperative headquarters over the course of the week of September 14-18, 2009. Although a large number of employees and leaders were met, five permanent cooperative employees provided the bulk of the information below. These employees included the general manager of the cooperative, the accountant as well as production and commercialization coordinators. The information below results from both semi-directed interviews as well as from a documentary research based on various financial statements and business plans provided by the cooperative.

3.2.3.1.2 - Brief history

The Benito Juarez has deep roots: as early as the 1970s, coffee producers in the region started organizing in various UEPCs (Unidades Económicas de Producción y Comercialización), state-sponsored groups developed by the Instituto Mexicano del Café (INMECAFE) over the course of the presidency of Luis Echeverría (1970-1976).

In the early 1980s, under the leadership of a charismatic leader, several local UEPCs merged into a larger, regional organization, Benito Juarez cooperative's predecessor. The rationale behind the merger was to unify and strengthen the region's coffee producers' voice. Considering the fact that at the time the state agency INMECAFE was still overseeing coffee production and commercialization, the organization's role was limited to representation and its activities were purely political: the region's coffee producers used the newly formed group to advocate and lobby INMECAFE on various issues such as higher coffee prices and more input loans.

The dismantling of the INMECAFE in 1989-1990 laid the basis of the Benito Juarez Cooperative: without INMECAFE's assistance and purchases, the region's producers were left on their own. This void created an opportunity for the organization: under the leadership of the same charismatic leader behind the creation of the RPO, the group expanded its activities and started providing its members processing and commercialization services. The RPO was boosted in the early 1990s by the purchase, at reduced price, of a former INMECAFE regional coffee processing plant from the Mexican government. The purchase was shortly followed by the legal rebranding of the organization, which became officially the Sociedad de Solidaridad Social (S.S.S.) Benito Juarez – its current legal form to this day.

It is worth mentioning that in its early days, the Benito Juarez cooperative was a highly political organization. Under the influence of its charismatic leader, the RPO was involved in a wide range of political fights and was, according to the employees interviewed, "too political and not business-oriented enough". Most of the cooperative administrators and staff at the time were regional leaders with little or no or background or interest in financial management and accounting. Also emphasized by cooperative staff during the interviews was the rampant paternalism ("paternalismo") in the sector, a legacy of the INMECAFE years, meaning for example that efforts in the first few years were often focused on advocacy and lobbying the Mexican government for loans at preferential rates or subsidy programs rather than focusing on developing capacity or making the cooperative financially sustainable.

Despite these internal weaknesses, the Benito Juarez did succeed in finding export markets for its crop in the early 1990s. In coordination with other newly created rural producer organizations across the Mexican Southeast, the Benito Juarez cooperative participated in a RPO-led initiative to export small producer coffee directly to American and European markets. Although the project collapsed after a couple of years due to political tensions and rivalries between some of the participating RPOs, the initiative provided Benito Juarez leaders a first business experience and key contacts with premium North American and European coffee buyers. These contacts with premium buyers subsequently led to the direct export of the cooperative's coffee to northern markets.

In the mid-1990s, with the support of some of its American and European premium buyers, the Benito Juarez cooperative became one of the first groups in Mexico to obtain Fair Trade certification. The same year, the cooperative also obtained partial organic certification for some of its crop, allowing the RPO to gradually tap into the fast-growing specialty coffee market.

Despite these successes, the cooperative faced its first crisis during the 1997-1999 period: crippled by poor management and a sudden drop in international coffee prices, the RPO was unable to repay

loans provided by the state-run BANRURAL and by the financing arm of one of the country's largest RPOs. The bulk of the former loans were part of microcredit programs for small coffee producers under which the Benito Juarez cooperative guaranteed loans offered to its members. When the majority of the participating producers defaulted on their loans, the Benito Juarez cooperative was forced to pay a bill it had by no means the capacity to absorb. It is estimated that by 2001, defaulting loans amounted to over 7 million pesos (approx. US $560,000).

While the crisis was temporarily resolved by the restructuring of both loans, the situation spelled the beginning of financial troubles for the cooperative. A few years later, hit by the dramatic collapse of prices accompanying the 2000-2002 global coffee crisis, the Benito Juarez cooperative was pushed to the brink of bankruptcy. Several factors led to organization's dramatic fall:

- Significant speculative losses caused by overestimating global coffee prices;
- Record low prices at the international level;
- The organization's high debt burden, in large part due to the lack of a coherent internal lending policy (indiscriminate lending to members);
- The organization's lack of a clear purchase policy, which led the cooperative to keep buying coffee at fixed prices from both members and non-members at the height of the coffee crisis, despite having to sell the crop at loss on the international market.

The financial crisis forced the cooperative to once again reinvent itself: with the support and advice of an external consultant (financed by a European Fair Trade NGO), the Benito Juarez cooperative prepared a detailed business plan to find a way out of the crisis. The plan centered on another debt restructuring plan, a significant scaling back of the cooperative's activities (including temporarily dropping purchases from non-members), lower prepayments (*anticipos*) to members (to reduce price risk and pressure on the RPO's cash flow) and a renewed emphasis on Fair Trade market sales, which represented 7-8% of total sales prior to the crisis while representing over 60% of sales today.

The crisis and the plan also led to a major cultural shift within the cooperative: according to interviewed Benito Juarez employees – many of whom witnessed the crisis first-hand – the prevailing paternalism and culture of subsidy made way for greater financial accountability, professionalization and the emergence of a new business mindset.

By all indicators, the restructuring of the cooperative was successful. Despite growing competition from private operators since the mid-2000s, the cooperative has thrived organizationally, financially and commercially:

- Reduction in operating costs (lower product transformation and processing costs);
- Diversification of income sources (sale of compost, entry in the coffee retail business etc.);

- Vertical integration of the coffee supply chain, by the creation of a another US-based business in collaboration with other RPOs to sell directly to small US roasters;
- Steady increase in coffee prices offered to members, due to increases in organic production and higher sales on the Fair Trade market, etc.

3.2.3.1.3 - Production and commercialization

In 2008-2009, the Benito Juarez cooperative had over 2,300 members and purchased coffee from another 3,500 non-member producers. It sold a total of 39,500 *quintales* of coffee (approx. 1820 tons).

Production cycle

Benito Juarez cooperative members are spread across the state and are organized in approximately 40 "production units" (*unidades de producción*). Production cycles vary from community to community depending on the altitude. Production unit harvest and coffee collection schedules are typically the following:

- October 20 – February 20 (approx. 20 production units);
- November 20 – March 20 (approx. 10 production units);
- December 20 – April 20 (approx. 10 production units);

Coffee payment options

Payments to Benito Juarez members are typically divided in the following way:

1. The cooperative makes a first payment (*anticipo*) to its members at the time of the delivery of the product at one of the coop's collection centers (October – April). This payment equates to approximately 40-60% of the estimated final price. This percentage is considered high by Mexican standards and can be explained by the strong local competition from private operators.
2. Benito Juarez members receive a second payment (*ajuste*) after all payments from buyers are received (August-September) and a final price for the year's crop is calculated.

In order to better fight competition from private operators offering quick cash to Benito Juarez members for their crop, the cooperative also offers the *remate* option. This means one, larger payment (albeit smaller than the *anticipo* and the *ajuste* payments combined). This option (*remate)* is the only option offered to non-members. Members requiring more cash at the time of harvest but wishing to benefit from the higher prices offered by the combined *anticipo* and *ajuste* also have the option of obtaining a small loan from the cooperative's "microcredit" fund (which totals approx. 2 million pesos, or USD$ 153,000).

Table 4 : Timing of payments offered to Benito Juarez members

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Harvest and payment of *anticipo*												
Payment of *remate* (optional)												
Shipping and export												
Payment of *ajuste*												

These payments to members cause obvious pressures on the cooperative's cash flows. It was estimated in 2009-2010 that the Benito Juarez cooperative required total working capital of approximately US $2.5 million (to be discussed later).

Commercialization and export

In 2009/2010, over 75% of Benito Juarez cooperative's total production was exported on Fair Trade (61%) and specialty (14%) coffee markets; the balance (mostly lower quality coffee) was sold locally. Buyers include some of the big names in US and European coffee markets and include most notably a British Fair Trade pioneer. Total sales in 2008/2009 reached USD$ 5 million.

3.2.3.1.4 – Organizational indicator analysis

Unfortunately, the documents provided by Benito Juarez cooperative staff did not include the historical evolution of the organizational indicators tracked as part of the case studies. According to the staff interviewed, indicators such as number of members per season are not recorded and tracked by the organization. Several of the missing numbers were found in some of the business plans provided by the organization (2002, 2005); it was however decided not to include the numbers as part of this research as conclusions were difficult to draw from such fragmented data.

3.2.3.1.5 – Financial indicator analysis

The Benito Juarez cooperative has very detailed historical financial information. Full financial statements were provided for the 1996-2008 period. For the purposes of this research, only the 1999-2008 statements were analyzed.

The first tracked liquidity ratio, the quick ratio[16], has fluctuated over the past decade: ranging from 17% in 1999 to 55% in 2008. Considering the fact that the generally-accepted quick ratio is 100%, liquidity at Benito Juarez cooperative appears low.

[16] Some assets, classified by Benito Juarez as current assets, were excluded from the calculation of the quick ratio (current assets – inventory / current liabilities). These assets, which included deposits in guarantee, loans to employees and members and taxes to be refunded, were not judged liquid enough to be included in the calculation.

Table 5 : Liquidity indicators of the Benito Juarez cooperative

Liquidity	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Quick ratio	0.17	0.49	0.20	0.19	0.29	0.44	0.53	0.32	0.42	0.55
Working capital ratio (% of sales)	0.002	0.06	(0.004%)	0.002	0.05	0.001	0.04	0.07	0.03	0.11

The quick ratio above however hides a gloomier reality: Benito Juarez's cash flows are highly uneven throughout the year. Current assets used in the calculation of the quick ratio include the organization's accounts receivable – which are mostly paid towards the end or after the harvest period. On the other hand, most expenses (cost of coffee) are highly concentrated during the weeks surrounding the "peak" harvest, in mid-January in the case of the Benito Juarez cooperative.

A look at working capital (highly liquid assets), which excludes both inventory and accounts receivable, as percentage of total sales therefore provides a more realistic outlook of the cooperative's liquidity in this context. In the case of Benito Juarez cooperative, working capital is very low and indicates a high dependence on credit.

A look at the debt/equity ratios also provide an interesting insight into the financial difficulties of the cooperative during the 2001-2003 period.

Table 6 : Debt indicators of the Benito Juarez cooperative

Debt	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Debt ratio	0.63	0.57	0.96	1.02	0.92	0.85	0.59	0.59	0.52	0.50
Debt/Equity ratio	1.73	1.35	27.03	(49.80)	12.24	5.97	1.45	1.47	1.11	1.01

The debt/equity ratios between 2001-2004 indicate a situation close to insolvency. The negative debt/equity ratio in 2002 is due to negative equity numbers in the 2002 financial statements, in turn caused by a massive net loss in 2001 (approx. 14 million pesos or US 1.06 million). The indicators however also show clear improvements since the crisis – most likely due to the successful implementation of the post-crisis business plan and better financial management practices. Although the latest debt/equity ratio of 101% in 2008 is still considered high, the downward trend is nevertheless encouraging.

Finally, profitability ratios show a similar picture, with significant losses in 2001 and 2002 followed by alternatively strong and modest profits.

Table 7 : Profitability indicators of the Benito Juarez cooperative

Profitability	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Gross profit margin	10.83%	14.30%	(5.72%)	24.53%	33.61%	25.09%	20.13%	17.70%	13.81%	19.32%
Net profit margin	0.75%	1.06%	(25.65%)	(0.37%)	12.37%	7.89%	6.40%	2.91%	(0.35%)	7.18%

It is important however not to read too much into the net profit margin here: as explained earlier, cooperative organizations have goals other than generating direct profits for their members. For example, one of the main goals of most cooperatives is to return the highest amount to the members through higher prices for crops (cost of goods sold) rather than making profits in the traditional sense.

3.2.3.1.6 – Access to financing

As most Mexican RPOs, in its early years, the Benito Juarez cooperative primarily accessed financing through the state-owned BANRURAL – although during the late nineties, the cooperative also accessed credit through the lending arm of a large RPO. Up until 2000, the cooperative received primarily two types of external financing:

- *Avio agrícola:* this type of financing consisted in funds that were lent by the RPO to producer members. These funds were then used individually by members as working capital for productive purposes: to help pay input (pesticide, fertilizers) or labour (hired for harvest) costs. As opposed to the *anticipo* and *ajuste* payment system currently used, this financing was often offered much earlier in the production cycle.
- Working capital (cooperative-level): this type of financing consisted primarily of funds used by the RPO for day-to-day operations (salaries and other overhead costs etc.).

As pointed out by interviewed Benito Juarez employees, the former type of financing caused most of the cooperative's financial troubles of the late 1990s and early 2000. As explained earlier, the prevailing *paternalismo* (culture of subsidy) among cooperative members led to massive default, which in turn put the cooperative on the brink of financial collapse. Both in 1997-1998 and later in 2001, the cooperative had to restructure its massive loans with its two creditors: BANRURAL and the RPO lending arm. The BANRURAL loan was fully repaid in 2004 while the other is still outstanding. In 2009, the RPO made a USD$ 75,000 installment to the loan's outstanding balance of US $707,110.

Due to the organization's poor credit history and large outstanding debt, the Benito Juarez cooperative has never accessed conventional credit from conventional Mexican commercial banks. The organization has however greatly benefited and depended on Northern alternative lenders to

finance its activities and growth. Since 2001, the organization has received both short-term loans (based on export contracts) and long-term loans in dollars from American and European alternative lenders.

3.2.3.1.6.1 – Short-term financing

A closer look at the short-term financing needs of the cooperative allows a better understanding of the organization's current situation. The following table (Table 8) was prepared based on a few internal documents shared by Benito Juarez managers and was converted in US dollars from MXN pesos. The months of August-January are characterized by net cash outflows (USD$ -2,572,493) that have to be financed with the cooperative´s own capital base or with external financing. As is the case with all visited cooperatives, it is important to mention that the organization´s net positive cash flow (USD$ 718,404) is not automatically added to the organization´s capital base. A large part is rather paid to members as part of an additional payment provided at the end of the harvest cycle (not included in this projection).

Table 8 : Cash Flow Projections of the Benito Juarez cooperative (2009-2010)

CASH FLOW PROJECTIONS *(USD$ converted from MXN pesos)*	2009					2010							
	August	September	October	November	December	January	February	March	April	May	June	July	TOTAL
Revenue from Coffee Sales	$14,105				$232,911	$732,129	$1,138,424	$1,227,013	$1,087,055	$1,155,387	$557,637	$312,332	$6,456,992
Other revenues								$45,837	$45,837	$45,837	$11,459	$11,459	$160,428
TOTAL CASH REVENUES	$14,105	$0	$0	$0	$232,911	$732,129	$1,138,424	$1,272,850	$1,132,891	$1,201,223	$569,096	$323,791	$6,617,420
Cost of goods sold				$368,717	$1,051,872	$1,524,064	$980,978	$556,875	$265,050	$53,476		$0	$4,801,031
Operating costs	$45,434	$45,434	$71,454	$68,215	$177,459	$198,991	$136,200	$105,238	$85,169	$62,512	$56,446	$45,434	$1,097,985
TOTAL CASH DISBURSEMENTS (OPERATIONS)	$45,434	$45,434	$71,454	$436,931	$1,229,331	$1,723,055	$1,117,178	$662,113	$350,219	$115,988	$56,446	$45,434	$5,899,016
CASH FLOW	**-$31,328**	**-$45,434**	**-$71,454**	**-$436,931**	**-$996,420**	**-$990,926**	**$21,246**	**$610,736**	**$782,672**	**$1,085,235**	**$512,650**	**$278,357**	**$718,404**

Benito Juarez employees interviewed as part of this study were all adamant: short-term financing is the lifeblood of the organization. Short-term financing allows the cooperative to pay its members the *anticipo* on time. This payment is crucial: without it, many cash-strapped members turn to local private buyers.

The organization currently receives over USD$ 2.5 million in external financing – a sum judged "insufficient" by the organization's general manager, particularly considering the short turnaround times and the fact that the bulk of the financing usually arrives late during harvest:

> *"Every harvest, there is a peak in production and in member coffee deliveries at our collection centers and financial resources are not enough to buy everybody's coffee at once. Some members come every day for several days to the collection centers to see if we finally have the funds to buy their crop. After a week or two without payment, they get frustrated and since they need the money... they sell to other local private buyers. We lose every year part of our production this way."*

The organization usually receives its short-term financing starting in September, October, December and January. Loan amortization[17] start as early as January and lasts until June. The table below illustrates Benito Juarez's financing inflows and outflows in 2009-2010. The values in the table were converted in US dollars from MXN pesos.

Table 9 : Financing inflows and outflows of the Benito Juarez cooperative

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Loan disbursements (inflows)	USD$ 412, 528								USD$ 154,316	USD$ 566,844	USD$ 825,057	USD$ 626,432
Loan amortizations (outflows)	USD$ 103,132	USD$ 290,297	USD$ 618,792	USD$ 721,925	USD$ 458,365	USD$ 386,554						

Considering the cooperative's high financing needs, the question is: where does the organization obtain financing from? Tables 10 and 11 provide an overview of the new short-term loans received by the Benito Juarez cooperative during the 2009-2010 harvest and the 2001-2008 period respectively. Unfortunately some of the 2008 data are missing: the document provided by the cooperative did not include data from that year and the employees interviewed did not remember the exact amounts of the loans.

[17] Loan amortization can be defined as the reduction of debt by predetermined, regular payments of principal and interest sufficient to repay the loan at maturity.

Table 10 : Current short term financing (working capital) portfolio of the Benito Juarez cooperative

Lender	Financing in USD$	Financing in MXN$ Pesos	Interest rate
Buyer prefinancing	300,000	-	9%
Buyer prefinancing	57,500	-	8%
American alternative lender	300,000	-	9%
American alternative lender	1,350,000	-	9%
American alternative lender	500,000	-	9%
Total financing	**2,507,500**	**-**	-

Table 11 : Changes in Benito Juarez's short-term financing (working capital) portfolio (2001-2009)

Lenders (short-term loans)	Year 2001	2002	2003	2004	2005	2006	2007	2008	2009
DIRECT GOVERNMENT OR GOVERNMENT-SPONSORED LENDING									
Governmental program / agency				US $125,000					
Governmental program / agency	US $200,000	US $70,000							
RPO LENDING ARMS									
RPO lending arm	US $290,000	US $30,000				US $200,000			
BUYER PREFINANCING									
Buyer prefinancing (American)			US $50,000						
Buyer prefinancing (European)	US $25,000	US $136,000	US $86,000						US $57,500
Buyer prefinancing (European)								Not available	US $300,000
ALTERNATIVE LENDERS									
American alternative lender					US $300,000	US $641,000	US $625,000	Not available	US $1,350,000
American alternative lender			US $200,000	US $300,000	US $300,000	US $300,000	US $300,000	Not available	US $500,000
American alternative lender									US $300,000
European alternative lender	US $200,000	US $84,000							
European alternative lender									
TOTAL SHORT-TERM FINANCING	**US $715,000**	**US $320,000**	**US $336,000**	**US $425,000**	**US $600,000**	**US $1,351,000**	**US $985,000**	Not available	**US $2,507,500**

Several observations can be made based on the credit history provided by the cooperative:

- The drop in financing available following the financial troubles of 2001 is quite noticeable. External financing in 2002 falls to $320,000 (from $715,000 a year earlier).
- While the cooperative relied more on domestic sources of funding (government agencies and programs, RPO lending arm) in the 1990s and early 2000s, international lenders (alternative lenders and buyer prefinance) have become Benito Juarez's main sources of financing since 2002.
- In 2009, the cooperative received over USD$ 2.5 million in external short-term financing – exclusively from alternative lenders and buyers. This puts the Benito Juarez cooperative squarely outside the SME category.
- Rates offered by alternative lenders and buyers can be considered low by Mexican standards.

Trying to explain Benito Juarez's financing ties to alternative lenders is complex. The cooperative's poor domestic credit record is certainly part of the explanation. Benito Juarez's general manager insists the cooperative has attempted numerous times over the past years to access financing locally (commercial banks, non-bank financial institutions, etc.) and the result is always the same: local Mexican lenders in general simply refuse to lend to the cooperative. Few local lenders accept the risk of lending to an organization that still has an outstanding, restructured loan dating from the early 2000s. Alternative lenders see things differently: credit history for them is less relevant considering the security provided by export contracts (reverse factoring approach).

The timing of the cooperative's switch from local sources of financing to foreign ones is also worth mentioning. Considering BANRURAL's difficulties in the late 1990s and early 2000s (and its 2003 liquidation) and the subsequent general drop in public agricultural financing during the period, one can wonder whether alternative lenders simply filled a financing gap left by the government in the absence of local commercial lenders.

3.2.3.1.6.2 – Long-term financing

Long-term financing has also played a significant role in the cooperative's development. The financing has been used to facilitate transition to organic production as well as invest in infrastructure (processing plants, etc.).

The picture in terms of long-term capital expenditure loans is similar. The impact of the cooperative's financial problems of the early 2000 is quite visible, with one loan from the period still outstanding in 2009. With the exception of this loan, all outstanding long-term financing now originate from alternative lenders.

Table 12 : Current long-term financing portfolio of the Benito Juarez cooperative

Lender	Financing in US	Projected Payment 09-10	Outstanding in 2010	Interest rate
American alternative lender *(organic conversión program)*	68,500	35,000	33,500	9%
American alternative lender *(investment in compost and processing plant)*	200,000	66,667	133,333	10%
European alternative lender	183,880	30,000	153,880	Only capital (restructured loan)
RPO lending arm	707,110	75,000	632,110	Only capital (restructured loan)
Total (US)	**1,159,490**	**206,667**	**952,823**	-

The table on the following page provides an overview of the long-term and capital expenditure loans received by the Benito Juarez cooperative during the 2001-2009 period. Please note that due to the size and complexity of the cooperative, only some of the main lenders were included. It is worth noting that the cooperative did succeed in obtaining a loan locally in 2003 from a non-bank financial institution (with government guarantee). The experience however was not renewed and the cooperative continues to rely overwhelmingly on alternative financiers for long-term financing.

Table 13 : Changes in Benito Juarez's long-term financing portfolio

Lenders (short-term loans)	Year 2001	2002	2003	2004	2005	2006	2007	2008	2009
DIRECT GOVERNMENT OR GOVERNMENT-SPONSORED LENDING									
BANRURAL	*Restructured pre-2001 loan USD$ 534,759 (loan in MXN$ pesos)*								
RPO LENDING ARMS									
RPO lending arm	*Restructured loan USD$ 409,000*								
DOMESTIC FINANCIAL INSTITUTIONS									
Non-bank specialized financial institution			*USD$ 244,461 million (loan in MXN$ pesos)*						
ALTERNATIVE LENDERS									
European alternative lender	*Restructured loan USD$ 265,000*								
American alternative lender	*Multiple LT loans over the period*								
European alternative lender					*USD$ 120,000*				
ESTIMATED OUTSTANDING LONG-TERM FINANCING	**US $1.2 million**	**US 1.4 million**	**US $2.25 million**	**US $1.5 million**	**US $1.3 million**	**US $1.3 million**	**US $1.1 million**	**US $1.1 million**	**US $950,000**

3.2.3.1.7 – Conclusion

Our first case study, the Benito Juarez cooperative, allows us to draw several key conclusions.

- First of all, the case study confirms our first hypothesis that the disengagement of the Mexican state in the country's rural financial markets over the last twenty years has left a void ("financing gap") in rural producer organization financing that has yet to be filled by local lenders. Ten years following BANRURAL's liquidation by the Mexican government, with few odd-loans as an exception, the Benito Juarez cooperative still hasn't been able to replace the state-owned bank's financing locally. To this apparent validation of the original hypothesis, it is however important to add a important caveat: as pointed out in the case study, the Benito Juarez cooperative's troubles in accessing local financing could be explained by the organization's poor credit record, which literally bars the cooperative from accessing government-backed credit lines and guarantees. The impossibility for lenders to access these resources to finance the Benito Juarez cooperative, combined to the organization's poor credit record, make the RPO unappealing to local lenders.
- The case of the Benito Juarez cooperative however does seem to suggest foreign alternative lenders have literally saved the organization from bankruptcy during its 2001-2002 crisis. Moreover, alternative lenders' positive experience and increasing financing to the

organization seemed to suggest until recently (see box below) a business case for lending to RPOs was being made.

July 2010 Update: the 2009-2010 harvest and the Benito Juarez cooperative

Several months following the field study visit, the situation quickly deteriorated at the Benito Juarez cooperative due to the organization's inability to fulfill its export contracts. The problem originated in unusually high prices (significantly above market prices) offered to RPO members by local private buyers in the region. In response to these high prices, a large number of Benito Juarez members opted to sell their coffee to these intermediaries instead of selling it to the cooperative, therefore rendering the cooperative unable to honor its contracts. The Benito Juarez cooperative is far from alone in this situation: several other large RPOs are currently unable to fulfill their contracts, bringing about a deep crisis to the affected organizations.

The problem is all the more complicated considering that the Benito Juarez cooperative had already received financing based on these export contracts, financing that was already spent on various operating and non-operating expenses, therefore leaving alternative lenders scrambling to recuperate their funds. Therefore aside from damaging the cooperative's reputation with international buyers, the crisis could also strain relations with alternative lenders, the cooperative's main source of financing.

Few observers can fully explain the situation. Strangely, the above normal price hike seems to affect only some key regions in Mexico: reports from other Latin American countries report high prices but nothing unusual in price patterns vs. market. Theories abound in the sector: a coordinated strike among multinational buyers to eliminate competition from RPOs, a subsidy-gone-wrong from the Mexican government to a few large private buyers that ended up directly boosting prices above market, etc. Whatever the cause is, reports from the field are very worrying: many well-established RPO are struggling to meet financial and commercial obligations and some observers suggest a second harvest under these circumstances could effectively decimate many not-so-long-ago vibrant Mexican RPOs in the coffee sector (including the Benito Juarez cooperative).

The crisis also puts into question the effectiveness of the alternative lending trade finance model. How effective are export contracts as collateral when they are not respected? Alternative lenders downplay the situation by saying the Mexico situation is isolated and has not been observed on this scale in other countries before. The situation does however raise the question of whether alternative lenders will start, in some cases, demanding conventional collateral (land, equipment etc.) in addition to export contracts.

3.2.3.2 - Cooperativa Gustavo Madero

3.2.3.2.1 – Introduction

The Cooperativa Gustavo Madero is the smallest cooperative visited as part of this study. The cooperative has 180 members scattered in 10 contiguous communities, located on the margins of a large national park. Despite its small size, the cooperative has managed to export significant volumes of coffee, volumes far higher by member than the other cooperatives studied, due to higher coffee yields in the region, in turn explained by better agricultural practices by members and a more favorable climate for coffee production.

Cooperativa Benito Juarez	
Number of members	180
Product	Coffee
Annual production	5,300 *quintales* (approx. 244 tons)
Total sales (2009)	Approx. USD$ 930,000

The following case study information was collected during a field visit to the cooperative headquarters over the course of the week of October 5-9, 2009. Three employees and leaders were met and interviewed as part of the case study: the cooperative's president, manager and administrative assistant. The information below results from both the semi-directed interviews as well as from a documentary research based on various financial statements and general assembly documents provided by the cooperative.

3.2.3.2.2 - Brief history

The Gustavo Madero cooperative was legally constituted in the early 2000 by 6 groups of coffee growers in two contiguous municipalities. The cooperative decided in its first year to target specialized coffee markets by focusing on quality and organic production.

In 2002, the cooperative was awarded organic certification and was accepted in a conservation coffee program, piloted by a large American NGO. As part of this program, the cooperative sold its organic parchment (*pergamino*) coffee to a Mexican coffee exporter, which then processed it and sold it to a large, premium coffee buyer. The cooperative stayed in the program until 2004, after which the cooperative decided to withdraw due to dissatisfaction with some of the buyer's new commercial conditions. The particular issues at stake were the changing role and conditions set by the Mexican intermediary, which is widely considered locally as a predatory buyer.

The cooperative's withdrawal from the program caused internal divisions within the cooperative and many members chose to leave the organization to remain in the program. Other members left following the cooperative's inability to provide adequate *anticipo* (prefinancing) payments that year

due to the limited financial capacity resulting from the withdrawal. All in all, 42% of the cooperative's members left during the 2004-2007 period.

The cooperative was not able to find direct export commercial prospects for two years (2004-2005). During this period, the organization sold its entire production to a large, neighboring RPO exporting to the organic and Fair Trade markets. As a result of this alliance, the Gustavo Madero cooperative obtained Fair Trade certification in 2005.

Over the past years, the cooperative has maintained these commercial relations and considerably strengthened itself institutionally and financially. In 2006, the cooperative exported for the first time directly by selling to a large organic and Fair Trade coffee buyer. The following year (2007), the cooperative diversified its client based by selling to a total of five buyers, all specialized in Fair Trade and organic imports. In 2008, the cooperative inaugurated its very own dry-processing facilities ("beneficio seco"). The facilities were shared and cofinanced by three other local RPOs and by a government grant and allowed the cooperative to process their own coffee locally without having to outsource.

The subsidy received to finance the construction of the dry-processing facilities is not exceptional: over the past years, the Gustavo Madero cooperative received a significant amount of government subsidies, which allowed the cooperative to build a strong equity base and finance much of its current infrastructure. Some of the most significant subsidies received in the past years include:

- In 2005, subsidies from FIRCO (Ministry of Agriculture, SAGARPA) and a state coffee support program helped the cooperative finance the construction of its offices and its warehouse.
- During the 2006-2008 period, cash subsidies of USD$ 98,930 from the Ministry of Social Development (SEDESOL) provided the cooperative much-needed working capital.
- The organization received in 2007 and later in 2009 grants of over USD$ 38,197 in total to purchase equipment for its members.

3.2.3.2.3 - Production and commercialization

In 2008-2009, the Gustavo Madero cooperative had approximately 180 members and produced a total of 5,300 quintales (approx. 244 tons).

Production cycle

Gustavo Madero members are located and organized in 10 different communities, all relatively concentrated geographically: the most remote member community is "only" 3 hours away by truck, as opposed to 5-6 hours away in the case of some of the other studied cooperatives. Harvest times

vary from one community to another depending on altitude. Harvest however usually begins in December in the lower areas and ends in April in the higher production zones.

Coffee payment options

The cooperative offers its members two pre-harvest loans: a first as early as August and the other in October/November. These loans are financed by the cooperative's internal credit fund, in turn funded by cooperative's own working capital (in large part derived from subsidies and Fair Trade premium payments[18]). An interest rate of 1.5% per month is charged to the member - although at the time of visit, a proposal to reduce the rate to 1% per month was being considered. The goal of these loans is twofold: ensure member loyalty by providing much needed pre-harvest cash (smoothing member incomes) and capitalize the cooperative through the interest income. According to Gustavo Madero leaders, the scheme is essential to ensure member loyalty to the cooperative and avoid member sales to local intermediaries. Until now, the internal lending initiative has been highly successful and almost all members (with the exception of one member in 2008-2009) have repaid the loans by delivering their coffee to the cooperative.

As with other studied cooperatives, the main payment (*anticipo*) is paid at the delivery of the product at the cooperative's warehouse, following harvest (December – April). Moreover, a last payment is also paid to the members after the cooperative's last shipment of the season (July-September).

Table 14 : Timing of payments offered to Gustavo Madero members

	Enero	Feb.	Marzo	Abril	Mayo	Junio	Julio	Agosto	Sept.	Oct.	Nov.	Dic.
Pre-harvest loans (2)								■			■	
Harvest and payment of the *anticipo*	■	■	■	■								■
Shipping and export		■	■	■	■	■						
Payment of *liquidación*							■	■	■			

Commercialization and export

The Gustavo Madero cooperative exports 96.5% of its coffee to American and European Fair Trade and organic coffee buyers. A smaller percentage (3.5%) of the crop – coffee not deemed of sufficiently good quality to be exported – is sold and roasted locally. Total sales in 2008-2009 reached USD$ 931,639.

3.2.3.2.4 – Organizational indicator analysis

[18] The Fair Trade Premium is a separate payment – provided by Fair Trade certified buyers – earmarked for social and economic development. Producer organizations themselves decide how the funds should be spent and are held accountable to the certifying body, FLO-CERT, on how they funds are used.

Unlike the Benito Juarez cooperative, the Gustavo Madero cooperative has relatively detailed records keeping track of key organizational indicators. A quick look at these indicators provides an interesting insight into the growth and evolution of the organization.

Table 15 : Changes in Gustavo Madero's organizational indicators (2001-2009)

Organizational indicators	2001	2002	2003	2004	2005	2006	2007	2008	2009
Members	NA	NA	244	262	202	166	150	169	179
Total crop purchased from members (tons)	44	229	238	184	173	151	149	200	244
Total hectares	NA	NA	1067.55	1014	768.75	635	573.5	633.5	646
Total sales (US)	NA	NA	551,040	516,943	511,548	468,719	508,626	857,545	931,659

As explained by the manager of the cooperative, the Gustavo Madero cooperative had a higher membership during its earlier years. A large percentage of members (42%) subsequently left the cooperative during the 2004-2007 period as the cooperative withdrew from the conservation coffee program and was unable to offer sufficient prefinancing. The cooperative membership however has since then recovered, registering a 20% increase during the 2007-2009 period.

3.2.3.2.5 – Financial indicator analysis

Despite the fact that financial statements of the Gustavo Madero cooperative are reviewed by a certified accountant, financial analysis of the Gustavo Madero cooperative was difficult to achieve due to unreliable numbers that had to be cross-checked and adjusted with several documents. As a result, only data for the years 2006, 2007, 2008 and 2009 was considered for some of the ratios.

Gustavo Madero cooperative's quick ratio is consistently positive and over 100% (ranging from 136% to 284%) indicating high liquidity on an annual basis. It is important to mention here that current assets used to calculate the cooperative's quick ratio include funds lent on a short-term basis to members (pre-harvest financing).

Table 16 : Changes in Gustavo Madero's liquidity indicators (2001-2009)

Liquidity	2001	2002	2003	2004	2005	2006	2007	2008	2009
Quick ratio	NA	NA	NA	NA	NA	1.82	1.36	2.84	1.73
Working capital ratio (% of sales)	NA	NA	NA	NA	NA	21%	4%	6%	7%

Excluding accounts receivable from buyers (included in the quick ratio) and pre-harvest loans to members, the portrait however changes dramatically with working capital ratios as low as 4% (as % of previous year sales) in 2007, indicating very little liquidity and capacity to finance working capital needs with current assets and a high dependence on credit.

A quick look at debt and debt / equity ratios indicate very low debt: the cooperative has virtually no long-term debt and short-term debt only equivalent to its working capital needs. This can be explained by the fact that most cooperative infrastructure and equipment were paid for by various government grants and subsidies.

Table 17 : Changes in Gustavo Madero's debt indicators (2001-2009)

Debt	2001	2002	2003	2004	2005	2006	2007	2008	2009
Debt ratio	NA	NA	NA	NA	NA	0.3	0.3	0.1	0.2
Debt/Equity ratio	NA	NA	NA	NA	NA	0.5	0.3	0.1	0.3

And finally, a look at profitability indicators in table 18 shows decent gross profits margins (although declining from 33% to 16%) but very low net profit margins. The former (declining gross profit margins) could indicate a rise in cost of goods sold (prices paid to members) that is greater than the rise in prices obtained from buyers. This could be explained by the necessity to increase payments to members due to intense local competition from intermediaries.

A look at net profit margins suggests another explanation: with relatively stable, albeit low, net profit margins, the decline in gross profit margins could be explained by increasing efficiency in the administration of the cooperative (decline in overhead expenses) and the decision by management to in turn increase prices paid to members. It is important to point out here that net profit margins, hovering around 1% in the past six years (far below inflation in Mexico), indicate the absence of a capitalization strategy and a relative dependence on government grants and subsidies. Had the cooperative not hugely benefited from governmental grants and subsidies, the picture might have been different and the organization might have opted to reduce prices paid to members, at its own risks, and use some of the funds to capitalize itself.

Table 18 : Changes in Gustavo Madero's profitability indicators (2001-2009)

Profitability	2001	2002	2003	2004	2005	2006	2007	2008	2009
Gross profit margin	NA	NA	NA	33%	32%	27%	23%	17%	16%
Net profit margin	NA	NA	NA	4%	1%	1%	1%	4%	-1%

3.2.3.2.6 – Access to financing

As with the Benito Juarez cooperative, Gustavo Madero staff emphasized the critical importance of short-term financing to pay members on time (and fight local competition), honor export contracts and access lucrative sustainable and Fair Trade Northern markets.

The following cash-flow projection table was created based on information provided by Gustavo Madero staff and indicates the seasonality of the cooperative´s cash flows. The months of July-February are characterized by net cash outflows (USD$ -345,805) that have to be financed with the cooperative´s own capital or with external financing. It is important to mention here that the cooperative´s net cash flow (USD$ 316,904) is not automatically added to the organization´s capital base. A large part is rather paid to members as part of an additional payment provided at the end of the harvest cycle (not included in this projection).

Table 19 : Cash flow Projections of the Gustavo Madero cooperative (2009-2010)

CASH FLOW PROJECTIONS (USD$)	2009		2010										
	November	December	January	February	March	April	May	June	July	August	September	October	TOTAL
Revenue from Coffee Sales	-	-	-	$66,551	$199,654	$266,205	$326,861	$110,381	-	-	-	-	$969,652
Other revenues	-	-	-	-	-	-	-	-	-	-	-	-	$0
TOTAL CASH REVENUES	**$0**	**$0**	**$0**	**$66,551**	**$199,654**	**$266,205**	**$326,861**	**$110,381**	**$0**	**$0**	**$0**	**$0**	**$969,652**
Cost of goods sold (direct and indirect costs)		$40,530	$99,242	$148,863	$144,696	$76,893	-	-	-	-	-	-	$510,224
Operating costs	$14,501	$18,464	$24,749	$24,749	$18,803	$5,894	$5,894	$5,894	$5,894	$5,894	$5,894	$5,894	$142,524
TOTAL CASH DISBURSEMENTS (OPERATIONS)	**$14,501**	**$58,994**	**$123,991**	**$173,612**	**$163,499**	**$82,787**	**$5,894**	**$5,894**	**$5,894**	**$5,894**	**$5,894**	**$5,894**	**$652,748**
CASH FLOW	**-$14,501**	**-$58,994**	**-$123,991**	**$107,061**	**$36,155**	**$183,418**	**$320,967**	**$104,487**	**-$5,894**	**-$5,894**	**-$5,894**	**-$5,894**	**$316,904**

The Gustavo Madero cooperative usually receives its external financing (working capital) in November, December, January and February. Repayments are usually made as payments are received from buyers, during the April-July period.

Table 20 : Financing inflows and outflows of the Gustavo Madero cooperative (2009-2010)

	Jan	Feb.	Mar	Aprill	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.
Credit disbursements (inflows)	USD$ 190,000	USD$ 185,000									USD$ 75,000	USD$ 100,000
Loan amortizations (outflows)				USD$ 135,000	USD$ 230,000	USD$ 135,000	USD$ 50,000					

As with the Benito Juarez cooperative, the Gustavo Madero has had until recently troubles accessing local financing. Discussions with Gustavo Madero cooperative leaders and staff allowed the identification of past credit troubles not visible in the latest financial statements: at the height of the coffee crisis, in 2001-2002, a large number of members received FIRA funds channeled through a non-bank financial institution. The loans in MXN$ pesos, totaling USD$ 229,182, were offered to members with a guarantee from the cooperative. Many members never repaid and the cooperative had to submit a 3-year repayment plan to the creditor. According to interviewed staff, this poor credit record effectively blocked the cooperative from accessing FIRA funds and guarantees, therefore greatly limiting its local financing possibilities.

Gustavo Madero's solution to its credit woes: re-registering the organization

The Gustavo Madero cooperative was constituted as a *Sociedad Civil* under Mexican law in 2000. In 2006, following several frustrated attempts at accessing local financing, cooperative leaders created a second organization, the Gustavo Madero Sociedad de Solidaridad Social (S.S.S.) to specifically access FIRA funds through a local non-bank financial institution.

The strategy was successful: the new organization, with a clean credit slate, was authorized to receive the desired FIRA-subsidized credit line and guarantees three years after its creation. As of 2009 full transition of activities to the new organization was not complete although, according to the cooperative manager, members should vote on the issue in the coming year.

In 2002-2003, despite its poor credit record, the organization nevertheless received working capital from a local non-bank financial institution and an alternative lender, both participants in the

conservation coffee project with the American NGO and coffee buyer. Both credit lines were based on sales contract to the American coffee buyer and its Mexican associate and the financing from the alternative lender was accompanied by technical assistance in financial management. Both financing agreements were however suspended as the Gustavo Madero cooperative withdrew from the conservation coffee scheme.

The three following years were difficult from a financial standpoint for the organization: the cooperative received little external working capital and as a result, many members left the organization. The RPO however was able to continue its operations with the help of a neighboring coffee cooperative, which lent Gustavo Madero working capital and purchased its crop.

In 2007, the cooperative started receiving again steady financing (working capital) from an American alternative lender (in US, at the annual interest rate of 10%), which became an important source of external financing. As with the first loans by the previous alternative lender in the early 2000s, the financing was coupled with technical assistance.

The assistance was much-needed: according to the lender, at the beginning of the process, basic accounting errors were made and inconsistencies were identified in the cooperative's financial statements. Clear, easy-to-understand financial information was hard to find and a lack of communication and financial transparency between cooperative staff and its members was observed and was flagged during a FLO (Fair Trade certification) inspection. Technical assistance focused on consolidating accounting and administrative tools and automating the preparation of financial reports. This is turn allowed the cooperative and lenders to better monitor and evaluate financial results and ratios.

The financing from the alternative lender was complemented starting in 2009 with a USD$ 267,379 credit line in MXN$ pesos from a SOFOM (FIRA funds) accessed via the new S.S.S. figure. The credit line, in Mexican pesos and with an interest rate of 14% annually, is accompanied with FEGA guarantees as well as FIRA technical assistance subsidies, which currently help pay the salaries of some of the cooperative's staff. The loan however is conditional to a USD$ 106,951 cash guarantee in MXN$ pesos.

It is important to mention also that neighboring cooperatives have put at the disposal of the Gustavo Madero cooperative (and vice-versa) funds in the form of solidarity loans in periods of need. These loans are free of interest and are of a couple of weeks in duration. According to Gustavo Madero staff, these loans have greatly helped the cooperative smooth financial flows and cope with unexpected situations (earlier than expected expenses, delayed buyer payments etc.).

Table 21 : Changes in Gustavo Madero's short-term financing (working capital) portfolio (2001-2010)

Creditor	Year									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Non-bank financial institution (FIRA funds)	USD$ 229,182 (loan in MXN pesos)									
Non-bank financial institution		ND	ND							
American alternative lender		ND	ND							
Solidarity loans from neighboring RPO				ND	ND	ND			USD$ 76,394 (loan in MXN pesos)	
State development bank								USD$ 22,918 (loan in MXN pesos)		
American alternative lender							USD$ 125,000	USD$ 300,000	USD$ 120,000	USD$ 300,000
SOFOM (FIRA funds)									USD$ 267,379 (loan in MXN pesos)	USD$ 267,379 (loan in MXN pesos)
TOTAL SHORT-TERM FINANCING										

In 2009, it was estimated that the Gustavo Madero cooperative had financial needs in working capital of approximately USD$ 400,000.

Table 22 : Current short-term financing (working capital) portfolio of the Gustavo Madero cooperative

Lender	Financing in USD$	Financing in MXN$	Interest rate
American alternative lender	120,000		9% + 1% commission
Non-bank financial institution		3,500,000 *(USD$ 267,379)*	14%
Gustavo Madero cooperative (own funds)		750,000 *(USD$ 57,295)*	18% *(charged to members in exchange for pre-harvest loan)*
Other financial sources		937,500 *(USD$ 71,619)*	14%
Total financing	**120,000**	**5,187,500** *(USD$ 396,294)*	-

3.2.3.2.7 – Conclusion

Our second case study, the Gustavo Madero cooperative, allows us to draw several key conclusions.

- As with the Benito Juarez cooperative, the organization owes much of the growth of the past few years to alternative lenders. With the organization's poor credit record and the scarce local agricultural financing available in the years following the 2003 dismantling of Banrural, it is doubtful the organization could have managed to achieve this level of production and sales (due to high competition from local intermediaries and payment timing imperatives)

without external financing from alternative lenders. The 2004-2006 period illustrates well this situation: without external financing outside solidarity loans from neighboring RPOs, the cooperative´s membership dropped significantly (-36%).

- Interestingly, however, the Gustavo Madero cooperative case suggests there are solutions in sight on the Mexican financial market to the RPO financing conundrum: since 2009, the cooperative has starting receiving significant financing from a local non-bank financial institution (SOFOM), albeit under a new legal figure. The Gustavo Madero example therefore demonstrates to some extent the success of recent banking reforms (allowing the creation of SOFOMes) and of government incentives (primarily through FIRA) to encourage lending to low-income agricultural producers.
- The Gustavo Madero cooperative represents in many ways a "textbook perfect" case for RPO lending: favorable financial ratios, high social and environmental impact, dynamic staff, committed premium buyers and significant trade finance needs. To this apparent business case for RPO lending, it is however important to add an important caveat: much of Gustavo Madero's success can be explained by generous government subsidies. A large share of the cooperative´s equity directly results from government subsidies: most of the infrastructure (offices, machinery, trucks) was paid for by the former (the cooperative has virtually no long-term debt). The cooperative's working capital is also mostly the result of a government subsidy program (SEDESOL). Saying that the Gustavo Madero cooperative represents a business case for RPO lending is therefore misleading and one can wonder how the cooperative would be today without the generous subsidies it received over the past years.

3.2.3.3 – Cooperativa Emiliano Zapata

3.2.3.3.1 – Introduction

The Emiliano Zapata cooperative is a mid-sized cooperative specialized in organic coffee production. The organization is significantly smaller than the Benito Juarez cooperative (both in members and volume sold) but larger than Gustavo Madero. The Emiliano Zapata has 918 members located in 23 communities.

Cooperativa Emiliano Zapata	
Number of members	918
Product	Coffee
Annual production	6,500 *quintales* (approx. 300 tons)
Total sales (2009)	Approx. USD$ 1,091,000

The following case study information was collected during a field visit to the cooperative headquarters over the course of the week of November 9-13, 2009. Four current leaders and one ex-leader of the cooperative were met and interviewed as part of the case study: the cooperative's president, secretary, treasurer, the president of the monitoring board (*consejo de vigilancia*) and an ex-president of the cooperative. The information below is a result of both semi-directed interviews as well as from a documentary research based on various financial statements and general assembly documents provided by the cooperative.

3.2.3.3.2 - Brief history

The Emiliano Zapata cooperative was legally constituted in the mid-1990s as a cooperative society of limited responsibility (*Sociedad Cooperativa de Responsabilidad Limitada*). During its first year of existence, the cooperative decided to differentiate itself from competition by focusing on organic production – the cooperative was certified organic the same year as its constitution - and to affiliate itself to a large, state-wide producer organization which pre-financed, purchased and exported the cooperative's entire crop. This close relationship with this large RPO stinted Emiliano Zapata's development. The cooperative evolved little during the period: the cooperative for example did not have its own management systems (incl. accounting) during the period and remained economically dependent.

The situation changed drastically in 2006 when the group chose to disaffiliate itself from the larger RPO following internal political fights and struggles. Contacts within Fair Trade circles allowed the cooperative to apply right away for Fair Trade (FLO) certification, find a buyer for its crop (a large, US-based, Fair Trade buyer) and obtain financing from an American alternative lender, based on its export contract (following referral from the buyer).

In 2007, again with the help of contacts in Fair Trade circles, the cooperative sold to a few other buyers, including a large European Fair Trade organization.

In 2008, in collaboration with several other small or mid-sized coffee RPOs in the region, the Emiliano Zapata cooperative opted to create a limited company (*sociedad anonima*) whose purpose is to build, with the help of external finance (government subsidies and a loan from an American alternative lender) and manage a coffee dry processing facility. This initiative allowed founding organizations to process their coffee locally and at low cost (due to economies of scale). Please note that although the Emiliano Zapata cooperative is a founding member of this limited company (and sits on its Board), as of 2009, despite original promises, it never contributed financially to the capital of the new organization.

3.2.3.3.3 - Production and commercialization

In 2008-2009, the Emiliano Zapata cooperative had 918 members and produced a total of 6,500 *quintales* (approx. 300 tons). It was estimated in 2009 that over 90% of its production was certified organic and the remaining 10% was considered in transition to organic production.

Production cycle

Harvest in Emiliano Zapata communities usually starts in December and lasts until March-April depending on altitude.

Coffee payment options

Similarly to the Gustavo Madero cooperative, the Emiliano Zapata offers its members pre-harvest loans (when required) in December, January and February through an internal credit program. Interest is charged at the rate of 1.5% per month (18% annually).

The *anticipo* is paid at the time of product delivery, at one of the cooperative's collection centers. The payment usually constitutes approximately 50% of the final price paid to the member, a relatively high percentage among Mexican RPOs that can be explained by the intense competition from local intermediaries and other RPOs in the region.

Finally, as with other cooperatives, a last payment (*ajuste*) is also paid to members a few months after the cooperative's last shipment of the season (September – October).

Table 23 : Timing of payments offered to Emiliano Zapata members

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Pre-harvest loans (2)	■	■										■
Harvest and payment of the *anticipo*	■	■	■	■								■
Shipping and export			■	■	■	■	■					
Payment of *ajuste*									■	■		

Commercialization and export

The Emiliano Zapata cooperative exports 83% of its coffee to American and European Fair Trade and organic coffee buyers. The balance, not deemed of export quality, is sold locally. Total sales in 2008-2009 reached USD$ 1,091,000. Export shipments generally start in March and end in June-July.

3.2.3.3.4 – Organizational indicator analysis

A quick look at organizational indicators indicates consistent commercial growth since the break with the larger RPO in 2005. Total sales revenues increased significantly (by 51%) during 2006-2009. However, this can be easily attributed to rising coffee prices internationally during the period.

It is also important to point out that total crop purchased from members dropped by 8% during the 2006-2009 period. This drop comes as, according to cooperative data, average prices paid to members increased by 53% during the same period. According to cooperative staff, this can be explained by declining yields in the region and strong competition from local intermediaries and other RPOs in the area.

Table 24 : Changes in Emiliano Zapata´s organizational indicators (2005-2009)

Organizational indicators	2005	2006	2007	2008	2009
Members	934	971	967	945	918
Total crop purchased from members (tons)	309	366	340	332	300
Total hectares	2,225	2,429	2,476	2,515	2,426
Total sales (US)	NA	718,283	986,017	1,087,849	1,091,045

3.2.3.2.5 – Financial indicator analysis

Although financial statements are not audited, the figures provided by the cooperative indicate a positive general trend of improving financial prospects since the organization´s break from the federation in 2006.

The organization's quick ratio, which measures liquidity but excludes inventories, is consistently positive and, at over 100% since 2006, indicates high liquidity and capacity versus the organization's creditors. Working capital, calculated as percentage of the year's previous sales, shows a similarly positive trend (reaching 19.1% in 2009). Both indicators therefore show relatively strong liquidity for a RPO and prudent financial management.

Table 25 : Liquidity indicators of the Emiliano Zapata cooperative

Liquidity	2004	2005	2006	2007	2008	2009
Quick ratio	0.7	0.63	3.65	1.64	9.57	10.98
Working capital ratio (% of sales)	NA	NA	-0.5%	3.1%	18.3%	19.1%

With regards to debt, the portrait of the Emiliano Zapata cooperative is surprisingly similar to that of the Gustavo Madero cooperative: the organization has virtually no long-term debt and short-term debt is only equivalent to its working capital needs. Over the past six years, debt ratio has remained at all times below 25% (with one notable exception in 2007) and stood at 6.50% in 2009. Similarly, the debt/equity ratio remained generally low, although its high variability (from 55.28% in 2007 to 6.95% in 2009) indicates a low capital base.

Table 26 : Debt indicators of the Emiliano Zapata cooperative

Debt	2004	2005	2006	2007	2008	2009
Debt ratio	12.46%	23.71%	13.77%	35.60%	16.59%	6.50%
Debt/Equity ratio	14.23%	31.07%	15.97%	55.28%	19.89%	6.95%

Why and most importantly how can one explain the cooperative's relatively high liquidity and low debt ratios? Discussions with cooperative staff members point again to the importance of government subsidies. As with the Gustavo Madero cooperative, most of the organization's assets (both current and fixed) are not the result of retained earnings and a prudent capitalization strategy, but rather of government subsidies. The Emiliano Zapata received during the 2007-2009 period several subsidies from the Mexican federal government, which all positively impacted the organization's financial standing:

- In 2007, the cooperative received cash subsidies of the equivalent of USD$ 76,394 in MXN$ pesos from the Ministry of Social Development (SEDESOL) to be used for internal lending purposes (pre-harvest loans to members) and working capital.
- As part of its FIRA credit line (channeled through a large commercial bank) first accessed in 2007, the cooperative receives various subsidies, which most notably help pay some

certification costs as well as the salaries of several staff members. The same program also recently (2009) helped finance marketing and commercialization efforts (participation in trade fairs etc.)

- In 2009, the cooperative received a subsidy equivalent to USD$ 297,937 in MXN$ pesos from the Ministry of Agriculture to finance infrastructure at the community-level.

As with the Gustavo Madero cooperative, these subsidies have provided the organization much-needed working capital, have paid for infrastructure and, in the case of FIRA subsidies, have reduced operating costs.

Finally, profitability indicators show little consistency. With modest gross profit margins of 8.6%, 10% and 15% and net profit margins of 1%, 0% and 3% in 2007, 2006 and 2008 respectively, one could argue the organization's cost of goods sold is too high to allow any type of capitalization. The portrait however changed significantly in 2009 when the cooperative had gross profit and net profit margins of 36% and 20% respectively.

This newfound capacity can be explained by unexpectedly high sales revenue (due to higher international market prices) in 2009 while prices paid to producers (determined at the beginning of the season) were underestimated and kept at levels similar to the ones paid in 2008.

Table 27 : Profitability indicators of the Emiliano Zapata cooperative

Profitability	2004	2005	2006	2007	2008	2009
Gross profit margin	NA	NA	10%	8.6%	15%	36%
Net profit margin	NA	NA	0%	1%	3%	20%

3.2.3.2.6 – Access to financing

The following cash-flow projection table was created based on information provided by Emiliano Zapata staff. Similarly to the Gustavo Madero and the Benito Juarez cooperatives, the cash flows of the Emiliano Zapata are highly seasonal. The months of September-March are characterized by net cash outflows (USD$ -893,688) that have to be financed with the cooperative's own capital or with external financing.

Table 28 : Cash Flow Projections of the Emiliano Zapata cooperative (2009-2010)

CASH FLOW PROJECTIONS (converted in USD$ from MXN$)	2009			2010									
	October	November	December	January	February	March	April	May	June	July	August	September	TOTAL
Revenue from Coffee Sales	-	-	-	-	-	-	$252,642	$252,642	$189,481	$126,321	$126,321	-	$947,406
Other revenues	-	-	-	-	-	-	$16,299	$16,299	$12,225	$8,150	$321	$10,093	$63,387
TOTAL CASH REVENUES	$0	$0	$0	$0	$0	$0	$268,941	$268,941	$201,706	$134,471	$126,642	$10,093	$1,010,794
Cost of goods sold (direct and indirect costs)	$0	$0	$0	$62,380	$155,949	$311,899	$93,570	-	-	-	-	$223,346	$847,143
Operating costs	$10,489	$15,269	$6,866	$8,899	$24,399	$24,497	$16,788	$28,072	$37,242	$26,858	$16,329	$59,788	$275,498
TOTAL CASH DISBURSEMENTS (OPERATIONS)	$10,489	$15,269	$6,866	$71,279	$180,349	$336,396	$110,358	$28,072	$37,242	$26,858	$16,329	$283,134	$1,122,640
CASH FLOW	**-$10,489**	**-$15,269**	**-$6,866**	**-$71,279**	**-$180,349**	**-$336,396**	**$158,583**	**$240,870**	**$164,464**	**$107,613**	**$110,313**	**-$273,041**	**-$111,847**

The Emiliano Zapata cooperative usually receives its external financing (working capital) in January, February, March and April. Loan amortizations are usually made as payments are received from buyers, during the April-July period. In 2009, it was estimated that the Emiliano Zapata cooperative had financial needs in working capital of approximately USD$ 400,000, although it had approved credit lines worth more than this amount.

Table 29 : Financing inflows and outflows of the Emiliano Zapata cooperative

	Jan	Feb.	Mar	Aprill	May	June	July	Aug	Sept.	Oct.	Nov.	Dec.
Loan disbursements (inflows)	USD$ 50,000	USD$ 50,000	USD$ 250,000	USD$ 50,000								
Loan amortizations (outflows)				USD$ 50,000	USD$ 104,063	USD$ 146,054	USD$ 99,883					

As explained earlier, during the 1995-2005 period, the Emiliano Zapata cooperative was affiliated to a second-level federation which provided the organization all the basic prefinancing and working capital it needed to ensure adequate, timely payments were paid to members. The RPO's decision to disaffiliate in 2006 meant new challenges for the Emiliano Zapata cooperative, particularly considering how little business experience it had. The organization's lack of export or credit experience and lack of financial management know-how proved to be obstacles that made access to local financial impossible.

With the backing of its Fair Trade buyer, the cooperative was referred to an American alternative lender, which provided the cooperative the necessary working capital (USD$ 300,000 at the annual interest rate of 9% + 1% commission) to fulfill its obligations and export directly for the first time. The relationship with both the buyer and the American lender has continued to this day. According to Emiliano Zapata staff, this relationship is expected to continue in the coming years, although the amounts borrowed could decrease depending on working capital needs and on the conditions of the credit lines accessed locally.

In addition to the financing, the American lender also provides technical assistance to the cooperative. The learning curve was steep, particularly in terms of strategic and financial management as well as accounting. In order to help the cooperative improve its internal management systems, a work plan part-financed by the alternative lender and multilateral partners, part-financed by the Fair Trade buyer, was designed and set in motion. The organization was provided technical assistance to boost the financial literacy of its leaders and staff, strengthen its accounting and financial management systems, prepare annual operational plans (production, marketing etc.) and complete a strategic planning process. This allowed the cooperative to improve

its organizational efficiency and its financial management. Although not explicitly mentioned by Emiliano Zapata staff during interviews, one could also argue that improvements in financial and general management probably enhanced borrowing prospects with both the alternative lender and local financial institutions.

Since 2008, the Emiliano Zapata cooperative has been able to access FIRA funds and guarantees through a large, local commercial bank. Conditions are highly favorable: the amount of the credit line offered is USD$ 381,970 (credit offered in MXN$ pesos) and the interest rate, excluding the cost of the guarantee, is equal to the Mexican current interbank rate (TIIE) – which was hovering at around 5% annually early 2010. As opposed to the loan by the alternative lender, the credit line is secured by conventional collateral: cash or real estate guarantee of 50% of the value of the credit line in addition to the FEGA guarantee of 80% (paid by the RPO at the rate of 2.9% of the guaranteed amount, in addition to interest). The credit line is secured through a renewable, 3-year agreement with the bank.

It is relevant to mention here that despite owning land and buildings, the Emiliano Zapata cooperative was forced to provide the local commercial bank a cash guarantee to back its credit line with the institution. Why? Although appearing on the cooperative's balance sheet, the land on which sit its offices and warehouse was not recognized by the bank since it was not registered (*"no ha sido escriturado"*) with local authorities. In other words, the transaction with the former tenant was never formalized legally. Although Emiliano Zapata leaders are aware of the situation, the issue was not seen as a priority: in Mexico, the registration process can be lengthy, must involve a certified public notary, and can be costly (in some cases up to 10% of the value of the land and/or building).

Table 30 : Changes in Emiliano Zapata's short-term financing (working capital) portfolio (2002-2010)

Creditor	Year								
	2002	2003	2004	2005	2006	2007	2008	2009	2010 (projected)
Second-level RPO (federation)	NA	NA	NA	NA					
American alternative lender					USD$ 300,000	USD$ 300,000	USD$ 270,000	USD$ 120,000	USD$ 300,000
Commercial bank (FIRA funds)							USD$ 400,000 *(loan in pesos)*	USD$ 454,545 *(loan in pesos)*	USD$ 480,000 *(loan in pesos)*
European Fair Trade buyer							USD$ 60,000		
TOTAL SHORT-TERM FINANCING									

Table 31 : Current short-term financing (working capital) portfolio of the Emiliano Zapata cooperative

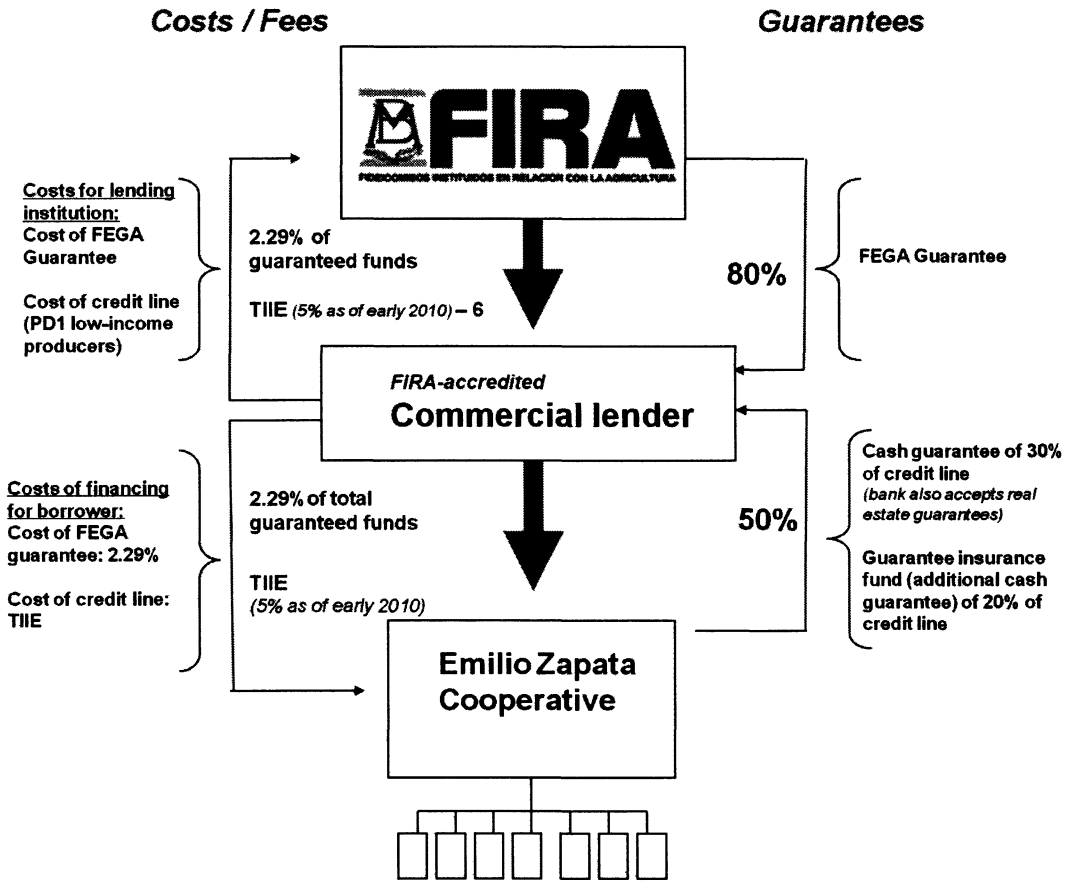
Lender	Financing US	Financing Pesos	Interest rate
American alternative lender	300,000		9% + 1% commission
Commercial bank (FIRA funds)		5,000,000 *(USD$ 480,000)*	TIIE (5% as of early 2010)
Total financing	**300,000**	**5,000,000** *(USD$ 480,000)*	-

The local credit line explained: what's in it for the bank?

It is important to highlight here the very low cost of Emiliano Zapata cooperative local credit line (by Mexican standards). How can this be explained? A discussion with both Emiliano Zapata staff and the representative of a Mexican non-bank financial institution shed some light on the costs paid for and guarantees received by the commercial bank under this arrangement.

The cost of the FIRA credit line for the bank (in the case of low-income producers) is the interbank rate – 6 (which hovered at 5% early 2010, 5%-6 = 0%). The cost of the FEGA guarantee for the bank is 2.9% of the guaranteed amount, a cost directly transferred to the borrower. In addition to the FEGA guarantee (80%), in the case of the Emiliano Zapata cooperative, the lender requires a 50% cash or real estate guarantee from the borrower. The arrangement is highly favorable for the lender: the cost of the funds for the lender in the current context is 0% and the total guarantees offered by the Mexican government and the borrower are worth 130% of the borrowed amount.

Figure 8 : The cost of FIRA credit line and guarantee for the lender and for the Emilio Zapata Cooperative



Protection against volatile exchange rates: Emiliano Zapata's strategy

Of all the RPOs surveyed as part of this study, the Emiliano Zapata cooperative was the only one to have a proactive strategy with regards to international exchange rate fluctuations.

As explained by the cooperative manager, the fact that export contracts and a significant portion of the external financing (loan from alternative lender) are in US dollars exposes the organization to significant risks as COGS and operating expenses are in Mexican pesos. To minimize the risk, the cooperative has two strategies:

- The Emiliano Zapata cooperative has two banking accounts, one in pesos and one in US dollars, and buyer payments are received in the latter. The cooperative receives advisory services from a local money market specialist which informs the Emiliano Zapata of the current trends and of the best opportunities to transfer funds from the US dollar account to the Mexican peso one.

- In cases when US dollar/Mexican peso money markets are particularly unstable, the cooperative purchases a financial insurance product ("forward"), at the cost of 2% of the insured sum, to reduce the uncertainty associated to the transaction.

3.2.3.2.7 – Conclusion

As with the previous case studies, the case of the Emiliano Zapata cooperative allows us to draw several conclusions.

One could argue three factors significantly helped the cooperative obtain financing locally: its credit experience with the alternative lender and the accompanying technical assistance, the subsidies from the federal government and the absence of a poor credit record.

- As with the Gustavo Madero and Benito Juarez cooperatives, alternative lenders were instrumental in the development of the organization. The loan it received from the American alternative lender, based on its first export contract, provided the organization, which had no prior export or credit experience, the much-needed working capital it needed to fulfill its obligations. According to Emiliano Zapata staff, the organization could not have accessed this financing locally without prior export experience and the required cash or real estate guarantees – which is not hard to believe, considering the risk-adverse behavior of Mexican banks. One could therefore conclude that in this context, the alternative lender effectively filled a void in the Mexican financial system and demonstrated the organization's credit-worthiness.
- Interestingly however, the Emiliano Zapata cooperative did not have issues accessing cheap local financing once it had the export experience and the necessary guarantees. Unlike the Gustavo Madero and the Benito Juarez cooperatives, the organization is not burdened by a poor credit record and has therefore been able to access local financing since 2008 relatively easily.
- One must however mention the role subsidies once again played in allowing the organization to access credit locally. Without the generous subsidies it received from the federal government over the past years, it is doubtful the organization would have capitalized itself enough to qualify to the requirements of the local bank (50% cash or real estate guarantee – or approximately USD$ 240,000 in 2010).

One could conclude that the Emiliano Zapata cooperative represents a textbook case for alternative lending: in this particular case, loans from Northern financiers allowed the organization to grow by exporting directly and, arguably, graduate to local financing.

4. DISCUSSION

This following section draws on the findings of both the literature review and the case studies to confirm or infirm the research hypotheses and discuss key themes central to this research, including: RPO lending challenges and opportunities, the RPO financing gap in Mexico and the impact of alternative lending.

4.1 –RPO lending: opportunities and challenges

Based on the information gathered as part of the case studies, the answer to the question "Is there a business case for RPO lending?" appears to be "yes", with some nuances.

4.1.1 – The case for RPO lending

The three organizations studied as part of this research overall offer, despite their challenges, an overall positive portrait of rural producer organizations in Mexico. While the same cannot be said of all RPOs considering the vast diversity of these organizations, all three studied organizations have effectively developed a successful business model and flourished as a result. By acquiring organic and Fair Trade certifications, these organizations have been able to establish themselves on sustainable trade markets and develop long-term relations with specialty North American and European buyers. The resulting commercial stability, along with premium prices, has allowed all three organizations to consolidate their economic and financial bases over the past years. With annual sales reaching USD$ 5 million, USD$ 930,000 and USD$ 1,091,000 respectively, the Benito Juarez, Gustavo Madero and Emiliano Zapata cooperatives are all thriving businesses of regional importance. All three organizations are providing technical assistance and market access to 5,800, 180 and 918 small-scale coffee growers respectively and can be said to have overall succeeded in offering above-market prices and improving the livelihoods of their members.

From a lending standpoint, it is the opinion of this researcher that all three cooperatives should not be written off by local financial institutions. As demonstrated by the case studies, rural producer organizations can have significant financial needs, much beyond the scope of the microfinance market. All three organizations have significant working capital needs, largely due to a combination of low liquidity and highly cyclical financial needs associated to coffee production and export. With short-term credit needs of USD$ 2.5 million, USD$ 400,000 and USD$ 400,000 respectively, the Benito Juarez, Gustavo Madero and Emiliano Zapata cooperatives can and should be considered high potential, lucrative clients by financial institutions. As an example, it is estimated that the smallest of the three cooperatives by annual sales and members, the Gustavo Madero cooperative, will pay close to USD$ 30,000 (on its USD$ 400,000 credit line) in interest alone for its export

contract-based short-term loans during the 2009-2010 harvest cycle. Such a sum dispels the notion that rural borrowers are not profitable for a financial institution.

Moreover, with no long-term debt and low debt ratios (0.3 and 0.06 respectively), both the Gustavo Madero and the Emiliano Zapata cooperatives have ample room to increase their leverage and use credit as a tool for growth.

While it is true that not all three organizations have much, liquid or conventional collateral to offer – e.g. most of Emiliano Zapata´s assets (land, offices and warehouse) were never officially registered with local authorities and therefore do not qualify as collateral – the reverse factoring experience of all three organizations with alternative lenders has demonstrated the high value of export contracts to premium buyers as collateral. The cooperatives' 9, 6 and 5 years of experience respectively under these arrangements with alternative lenders certainly should be considered valid credit experience. It is important to highlight here that repayment rates of loans provided by alternative lenders have been close to 100% (with the notable exception of the Benito Juarez cooperative in 2009-2010).

Finally, it is also worth mentioning that well-established RPOs, such as the ones included in this study, can potentially be used as delivery, risk and cost reduction agents for lending institutions. All three studied RPOs had some type of internal credit funds available, offering loans to members based on projected harvest and income and therefore effectively providing microcredit to their rural members. Employees and directors at all three organizations however mentioned these internal credit funds were insufficient considering the huge microcredit and pre-financing needs of their members. One could therefore easily imagine a financial institution using RPOs as valuable microfinance retailers offering access to untapped, rural markets previously inaccessible due to prohibitively high transaction costs. Under such an arrangement, a financing institution could directly finance the RPOs' internal credit funds and use the portfolio as collateral. Granted, such a financing arrangement would only be possible in organizations with well-developed and established internal credit policies, manuals and basic portfolio monitoring systems – although one could easily imagine a financing institution offering basic technical assistance to the organization in order to unlock the market.

RPOs can also represent valuable allies should the financing institution decide to offer directly the credit to RPO members. Beyond offering access to member lists, RPOs can also provide the financing institution valuable qualitative and quantitative data on its members (including income and productive history etc.) – therefore eliminating or greatly reducing costs associated to due diligence. Credit risk can also be reduced through triangular repayment arrangements (RPO, lending institution

and borrower) in which the financing institution is repaid directly by the RPO upon delivery of the promised crop by the borrower at the RPO warehouse or collection center.

Finally, one can also imagine a scenario in which current internal credit funds (usually entirely made up of RPO equity) could gradually become guarantee funds to be used to leverage external financing for their members from banks or alternative lenders.

4.1.2 – RPO lending challenges

This business case for lending to RPOs however has to be nuanced: lending to these organizations requires know-how in agricultural lending and a particular understanding of their business model. Moreover, leveraging relationships with Northern buyers to reduce risk and identify potential clients, as do alternative lenders, requires a very good understanding of the industry.

Relationships with RPOs themselves are also not without their challenges: weaknesses were identified in all three organizations visited as part of this study. Despite their increasing self-assurance and professionalism, weak capacity remains a problem. While for example RPO managers (*gerentes*) met as part of this study were all relatively well-trained and qualified, the same cannot be said of all elected directors – often lacking basic financial literacy skills. This situation has concrete consequences on the organizations' growth: the credit-averse behavior of some of Emiliano Zapata's directors for example inhibit the organization's capacity to increase its financing leverage and further invest in its productive potential. Also, while vast improvements were noted in recent years in the studied RPOs in terms of accounting and financial management, much key historic financial or organizational data was not easily accessible, was missing or had to be adjusted or recalibrated.

This weakness highlights the importance of strengthening RPO capacity through technical assistance, especially in terms of financial management and accounting. All three organizations received significant technical assistance from an alternative lender over the past years. The impact of this technical assistance was noticeable in all three RPOs: without these significant efforts, the organizations would not be at the level of organizational and financial development they are at today. In short, the weak RPO capacity issue is not without its solution: targeted technical assistance in financial management, literacy and accounting can provide an answer. Whether this technical assistance can be provided in an economically feasible way by the lender or whether this assistance has to be subsidized or provided by public or charitable funds is another debate and the topic of another paper.

The reverse factoring lending model pioneered by alternative lenders is also not without its risks. Studied RPOs evolve in deregulated markets and, despite minimum price assurances provided by

Fair Trade and sustainable trade buyers, are inherently vulnerable to competition, market fluctuations and price shocks. The case in point is the Benito Juarez cooperative: as explained earlier, over the course of the last months, local market prices have risen faster than expected and prices offered to members quickly became uncompetitive as compared to local intermediaries (*coyotes*). As RPO staff and directors scrambled to obtain additional financing and renegotiate contracts to offer better prices, much of the harvest had already passed and a significant share of members sold its crop to local private buyers. As a result, the organization was not able to fulfill some of its commitments and defaulted on several loans offered by alternative lenders.

Considering the RPOs' history, commitment to local development and democratic structures, how can one explain members' poor loyalty? One of the lessons learned of this study is that RPO member loyalty should never be taken for granted. Small-scale coffee farmers evolve in extremely precarious environments. Despite much labor-intensive work and Fair Trade prices, average annual coffee income per household remains worryingly low. In 2002-2003, in a case study of a RPO similar in size and yields to the Emiliano Zapata cooperative, Daniel Jaffee (2007, p104-105) estimated annual gross income per household at USD$ 1,684 for Fair Trade RPO members vs. USD$ 722 for growers selling to private buyers. Once factored in production and household expenses, Jaffee (2007, p105) calculates net income to be actually negative: an annual loss of USD$ 379 for Fair Trade RPO members vs. a loss of roughly USD$ 450 for growers selling to private intermediaries. In other words, at the time of Jaffee's case study, coffee production alone was not sufficient to provide sustainable livelihoods to growers. Although coffee prices have increased significantly since 2002-2003, one can assume coffee growers in the region at best now break even or can count on a very small profit. This however does not hide the fact that coffee production in Southern Mexico– albeit Fair Trade and organic - is not or barely profitable for growers.

Considering these findings, one should not be surprised by the growers' poor loyalty to RPOs and desire to sell their crop at the highest price possible; whether it is to the RPO or to local private intermediaries. One can also understand in this context the RPOs' interest in always offering the best prices possible to their members, although this is often done at the expense of building the cooperative's equity or investing in infrastructure.

In such a context, how have studied RPOs succeeded in building their equity and investing in infrastructure? As pointed out in the case studies, part of the answer lies with government subsidies. In all three cases, government subsidies in recent years have helped the organizations pay for infrastructure development (RPO offices, processing plants etc.), staff salaries and even finance internal credit funds and working capital needs. One can therefore conclude that despite the

liberalization of the agricultural sector of the late 1980s and early 1990s, the state still looms large in the Mexican coffee sector.

Are RPOs sustainable?

These reflections on the business case for RPO lending lead to the different, yet fundamental question: are the RPOs studied sustainable? Could these organizations survive and thrive without government subsidies?

In the present context and with current sources of financing, the answer to this question appears to be "yes", considering the level of development of the organizations and their markets, characterized by long-term relations alternative lenders and with premium Fair Trade Northern buyers. Whether these organizations could have reached their current level of development without government assistance is however another question to which the answer is "no". Without government assistance, one can wonder for example how the Benito Juarez would have acquired, at market prices, the processing facilities that gave it its original impulse. The same can be said of the Gustavo Madero and the Emiliano Zapata cooperatives which also both owe much of their infrastructure and equity to the generosity of government programs.

The answer is also different if one considers the financing provided by alternative lenders as a subsidy, considering the fact that these lenders overwhelmingly obtain their financing from philanthropic debt. Without the active support of the Mexican government (both through direct subsidies and FIRA credit lines) and the subsidized loans of alternative lenders, it is doubtful most RPOs studied could find locally or internationally the required working capital to maintain operations. This diagnosis however does not invalidate in the eyes of this researcher the general hypothesis on the business case to lending to RPOs. It rather points to other weaknesses (e.g. weak rural financial markets, lack of meso-finance) and market imperfections (e.g. lack of access to risk mitigation instruments, poor infrastructure etc.) that make direct and/or indirect subsidies necessary in the near future to keep RPOs at level playing field with private competitors.

Returning to the original question, one can therefore conclude that despite some challenge - most notably weak capacity and price vulnerability - there is indeed a business case today for RPO lending in Mexico for a financial institution with the adequate know-how and risk mitigation strategies. As demonstrated by the case study analyses, although operating in a vulnerable environment, the studied RPOs are vibrant rural businesses with a strong business model. One should however be conscious of these organizations' weaknesses, vulnerabilities as well as the strong impact of subsidies on RPOs.

4.2 – The RPO financing gap in Mexico: fiction or reality?

One of this research's main hypotheses claimed that "the disengagement of the Mexican state in the country's rural financial markets over the past twenty years has left a void ("financing gap") in rural producer organization financing that has yet to be filled by local lenders". Following field research and case studies, what can be said about the RPO financing gap in Mexico?

The answer to this question is complex and must take into account the recent Mexican agricultural financing reforms and the role of FIRA (Funds Instituted in Relation with Agriculture—Fideicomisos Instituidos en Relación con la Agricultura), a second-tier government-owned fund managed by Banco de Mexico, Mexico's central bank, as well as the multiplication of *sociedades financieras de objeto multiple* (multiple scope financial society - SOFOMes) since 2006.

At first glance, the credit histories of the Emiliano Zapata and the Benito Juarez cooperatives clearly point to the existence of a financing gap, particularly after the dismantling of Banrural in the early 2000s and the adoption by the government of its new strategy to reduce to minimum direct lending operations and encourage commercial lending to agriculture.

The government, through Banrural, was for example Benito Juarez cooperative's main source of financing throughout the 1990s. The financial troubles and the liquidation of Banrural in the early 2000s heralded for the cooperative the beginning of a long relationship with alternative lenders. To this day, despite its significant financial needs (USD$ 2.5 million in short-term working capital), the cooperative receives little/no local financing from Mexican lenders. The Gustavo Madero cooperative similarly struggled to access local financing for much of its existence.

While it would be easy to blame a local financing gap for these struggles, one should however take into account that both organizations' poor domestic credit record explains much of their troubles. In the case of Benito Juarez, local loans - some of which were poorly-designed products received from Banrural and a RPO lending arm during the turbulent late 1990s - were never repaid due to the organization's poor financial management capacity at the time and effectively barred the RPO from receiving further FIRA subsidized credit lines and guarantees. As pointed out earlier, Benito Juarez's general manager insists the cooperative has attempted numerous times over the past years to access financing locally (commercial banks, non-bank financial institutions, etc.) and the result was always the same: local Mexican lenders simply refuse to lend to the cooperative. Few local lenders accept the risk lending to an organization that still has an outstanding, restructured loan dating from the early 2000s and that cannot qualify for FIRA funds and guarantees as a result.

Alternative lenders have until now seen things differently and secured their loans on export contracts (reverse factoring approach).

Similarly, the Gustavo Madero cooperative struggled to access local financing due to a poor credit record which barred the cooperative from receiving FIRA subsidized credit lines and guarantees. However, as opposed to the Benito Juarez cooperative, the Gustavo Madero found a solution by creating a parallel legal structure with a clean credit slate in 2006 – to which it gradually transferred some of its operations, assets and clients. Without the RPO's poor credit record, this new legal structure was able to receive local financing (FIRA credit lines and subsidies) from a non-bank financial institution (SOFOM) starting 2009.

The Emiliano Zapata cooperative offers a different perspective: following the cooperative's disaffiliation from the second-level RPO in 2006, the organization directly received credit lines from an alternative lender based on export contracts. After two years of credit experience under this arrangement, in 2008 the cooperative easily accessed a short-term credit line and guarantee (both FIRA) from a local commercial bank at low-cost.

The experience of all three case studies therefore points to the central role of FIRA. As pointed out earlier in this study, following government reforms starting in the 1980s, commercial lenders have in general been reluctant to step in and finance the sector. Overall agricultural lending in Mexico dropped from 22% of all credit in 1983 to 8% in 1992 (Janvry, Key and Sadoulet, 1997), 3.7% in 2000 and a dismal 1.4% in 2005 (CEPAL, 2007, p3). To fill the financing gap while resorting as little as possible to direct lending to agricultural producers (through Financiera Rural), the Mexican government used FIRA as its main tool to boost agricultural lending. FIRA therefore offered (and to this day still offers) private lenders significant incentives, such as subsidized credit lines and guarantee programs, to lend to the agricultural sector. While FIRA lent to financial institutions an average of USD$ 2.14 billion annually between 2000 and 2002, the total climbed to USD$ 3.33 billion annually during the 2003-2005 period (CEPAL, 2007, p11) and USD$ 7.94 billion in 2009 (El Economista, 2010). These numbers therefore suggest that the Mexican government to a certain extent succeeded in withdrawing from direct lending and incentivizing, through subsidized credit lines and guarantees, lending to the agricultural sector by private operators.

FIRA's intervention on agricultural financial markets was further amplified by the multiplication of *sociedades financieras de objeto limitado* (limited scope financial society – SOFOLes), and the creation of a new category of financial intermediaries, the *sociedades financieras de objeto multiple* (multiple scope financial society - SOFOMes) in 2006. As explained in section 3.2.2, SOFOLes and SOFOMes are non-bank financial intermediaries with much less stringent supervision and

capitalization requirements than commercial banks. Although unable to accept deposits from the public, both structures can receive FIRA accreditation, credit lines, subsidies and guarantees. In recent years, these entities have played an important role in the Mexican agricultural sector: a growing percentage (24% in 2008) of all funds lent by FIRA to low-income producers (PD1 and PD2) was channeled through SOFOLes and SOFOMes.

Both the Gustavo Madero cooperative and the Emiliano Zapata cooperative today both illustrate the government's relative success in stimulating lending to the agricultural sector through both subsidized credit lines and guarantees and the creation of a new category of less conservative financial intermediaries (SOFOLes and SOFOMes). Both cooperatives have been receiving, since 2009 and 2008, FIRA subsidized credit line and guarantees from a non-bank financial institution (SOFOM) and a commercial bank respectively.

Returning to the original hypothesis, one can therefore conclude that although there was arguably a RPO financing gap during the turbulent years of reform. The Mexican government's efforts in stimulating lending to the sector both through FIRA incentives and the creation of SOFOLes and SOFOMes however seem to be succeeding in bridging the financing gap. This invalidation of the original hypothesis however must be nuanced.

Although the case studies do seem to suggest there is a growing local offer in agricultural lending in Mexico, loan conditions are still far from ideal. Gustavo Madero's credit line in Mexican pesos with the SOFOM, at 14% annually, is still more expensive than the interest rate offered by its alternative lender for its credit line in US dollars (9-10% annually) and more expensive than it should be considering the heavily subsidized cost of the FIRA credit line for the SOFOM. As for Emiliano Zapata cooperative, although the cost of its FIRA credit line is cheap (7.29% in 2010), the commercial bank's refusal to accept export contracts as collateral forced the cooperative to offer a 50% cash guarantee, therefore creating a significant opportunity cost for the organization. One could therefore conclude that although local offer in RPO financing does exist in Mexico, increased competition and a better understanding of the RPO business model is still needed to reduce interest rates and better adapt loan requirements to the reality of these organizations.

4.3 – Alternative lenders: mission accomplished?

These reflections lead to the core of this research: the role and the impact of market innovations, particularly those set forth by alternative lenders, on rural producer organizations. Based on some of the goals and missions shared by alternative lenders (see in section 2.5.2) and on the results of the case studies, can the former claim "mission accomplished"?

4.3.1 - Direct impact on RPOs

In terms of direct impact on borrower organizations, the answer to this question, based on the information gathered in the case studies, is "yes". In all three cases, the impact has been arguably transformational for the borrower.

In the case of the Benito Juarez cooperative, loans provided by alternative lenders at the height of the coffee crisis and in ensuing years provided the organization the much-needed working capital required to keep operating. Considering the organization's inability to access financing locally, one could easily argue that the cooperative would not have survived the crisis without the joint financial support of partner NGOs, buyers and alternative lenders. The organization's inability to this day to access local financing, despite numerous attempts, is a stark reminder that the organization would probably not be able to function and offer its 2,300 members (and its 3,500 associated members) competitive, timely prices for their crop without the USD$ 2.1 million working capital it receives from alternative lenders annually.

Similarly to the Benito Juarez, the Gustavo Madero cooperative owes much of its growth to alternative lenders. The financing from alternative lenders accompanying the export contracts it succeeded in obtaining, following several years of anemic sales and declining member base (membership dropped 36% during the period), allowed the organization to reinvent itself and improve its results significantly: total crop purchased from members increased by 61% and the value of total sales jumped by 98%.

The case of the Emiliano Zapata cooperative is in many ways similar: following the break from the second-level producer organization and without credit or export experience, it is doubtful the organization could have accessed credit locally had it tried. The loan received from the alternative lender, accompanying its first direct export contracts, provided the organization the required, timely funds it needed to honor its commitment to the buyer. The cooperative's improving results – albeit less dramatic than Gustavo Madero or Benito Juarez's – are a testimony of the impact the financing had on the organization.

One should also take into account another significant contribution made by alternative lenders in parallel to the financing offered: the targeted technical assistance offered in accounting and financial management. Although little emphasized in this study, the technical assistance offered has also been transformational for the organizations, particularly in the case of the Gustavo Madero and Emiliano Zapata cooperatives: accounting systems and financial statements were improved and professionalized, strategic and business plans were prepared, internal controls were implemented

etc. These improvements no doubt had an impact on the organizations' overall results and certainly facilitated loan applications with local banks.

To this flattering portrait, it is important to add a couple of nuances. While the paragraphs above outlined the assumed general impact of alternative loans on these organizations based on contextual elements, interpretation and anecdotal evidence gathered during field research, it is important to remember it is extremely difficult and nearly impossible to identify direct causality. For example, both the Gustavo Madero and the Emiliano Zapata cooperatives' first experiences with alternative lenders coincided with their first direct export contracts to Northern, Fair Trade buyers. This leads to the question: how much of the impact witnessed within the organizations can be explained by the loans received and how much can be explained by the new relationships with the buyers and accompanying premium prices. One can argue the RPOs would not have been able to fulfill their contractual obligations without the financing offered by alternative lenders (in other words, the loans enabled the organizations to export to these markets) – which is certainly true in both cases. In response to this argument, a point can however be made that it is the norm for Fair Trade Certified buyers to offer suppliers pre-financing when the organization cannot access it from other sources in an affordable and timely manner. Whether the specific buyers would have offered an equivalent and timely pre-financing to the cooperatives, and whether the buyers had the capacity and/or inclination to do so, is debatable.

In any case, although the extent and depth of the impact of the loans provided by alternative lenders is debatable, one can conclude based on the case studies that the direct impact of these loans has been moderately positive at worst and transformational at best.

4.3.2 – Impact on local financial systems

As explained earlier in section 2.5.2, alternative financiers aim to make the case to local financial institutions that lending to RPOs is not only can be profitable but also makes good business sense (FAST, 2007, p5). The long-term goal of alternative financiers therefore is to succeed in catalyzing the emergence of local financial markets that meet the needs of rural producer organizations (Root Capital, 2008). As described by William Foote, founder of Root Capital: "Our purpose is absolutely to work ourselves out of a job. We are trying to get investors and lenders to see these groups as bankable" (Rainforest Alliance, 2004). In this respect, how do alternative lenders and studied groups fare?

Results here are mixed: Benito Juarez cooperative, despite numerous attempts and successfully repaying year after year its multi-million dollar credit lines with alternative lenders, has failed so far to obtain local financing; although, as pointed out earlier, this failure to access local financing can be

explained by other factors (most notably its poor credit record and outstanding restructured loans). On the other hand, both the Gustavo Madero and the Emiliano Zapata cooperatives did succeed in accessing local financing and one could consider both RPOs "graduated" from alternative financing considering the credit experience and technical assistance these organizations received from alternative financiers. Once again, however, it is legitimate to question the direct causality of the access to local financing, considering the generous incentives provided by the Mexican government through FIRA and the recent emergence and multiplication of non-bank financial intermediaries (SOFOLes and SOFOMes).

More importantly, however, it should be mentioned that alternative lenders failed to share and export the reverse factoring lending model to local financial institutions. Neither the SOFOM nor the commercial bank providing financing to the Gustavo Madero and the Emiliano Zapata cooperatives respectively accept export contracts as collateral. Both financial institutions demanded significant, conventional collateral to secure the loans: the credit lines are secured by a cash guarantee of 50% of the value of the credit line in addition to the FEGA guarantee of 80% (paid by the RPO at the rate of 2.9% of the guaranteed amount) in the case of Emiliano Zapata and a cash guarantee of 35% of the value of the credit line (also in addition to the FEGA guarantee) in the case of the Gustavo Madero cooperative. And while interest paid by Emiliano Zapata cooperative remains low, the rate paid by the Gustavo Madero cooperative (14%) remains high considering the low risk (considering the cash and FEGA guarantees) and the low cost of the credit line for the lending institution (0% as of 2010).

In conclusion, one could consider the examples provided by the case studies as a half victory for alternative lenders: although two of the three RPOs studied have succeeded in accessing local financing and diversifying their financing portfolios, the alternative lenders failed to export their supply-chain oriented lending model.

4.3.3 – Perspectives on alternative lending

Despite alternative lenders' relative success in financing RPOs in Mexico, the sustainability and scalability of their business model in the country remains questionable. While the advances made by these lenders over the course of the last decade are significant, much still needs to be done. What is next for alternative lenders? A significant issue identified as part of this study is the scalability of the model. Much still needs to be done to scale up operations and the availability of credit to supply even a fraction of the financing needs of RPOs and small producers across the developing world. This section aims to discuss and explore some potential strategies; identified as part of the discussions I had during field research with RPO leaders, local financiers, alternative lenders and industry stakeholders.

Increasing lending operations

Increasing lending operations is critical for alternative lenders to maximize their impact and make a business case strong enough to catalyze the emergence of local financial markets that meet the needs of rural producer organizations. It is the opinion of this researcher that only if a critical mass of financing if reached by alternative lenders will other lenders follow their lead.

To achieve this goal, alternative lenders will first of all have to increase their exposure to risk. Despite the perceived riskiness of their lending operations to rural producer organizations, most alternative lenders are highly risk-averse. For example, Northern alternative lenders have until now avoided making loans in local currencies and lent almost exclusively in strong currencies such as the US dollar, the Euro or the British Pound. This can be explained by the fact that few such lenders have showed until now the willingness to expose themselves to foreign exchange risks. As long as alternative lenders resist making loans in local currencies, innovative financing operations – such as financing local value chains - will remain difficult or impossible.

The alternative lenders' risk-averseness is also visible in their loan products and portfolios: the latter are overwhelmingly dominated by relatively low-risk trade finance loans – primarily in the coffee sector - backed by export contracts to well-known buyers. While trade finance is essential, as demonstrated by this research, RPOs also have other significant financing needs: as demonstrated by the case of the Benito Juarez cooperative, adequate pre-harvest prefinancing is critical to ensure export contract compliance. Term loans are also very important to finance infrastructure or multi-year projects such as efforts to transition to organic production. Finally, although the concept itself is relatively new – and the offer inexistent - in many developing countries, RPOs need risk mitigation instruments: insurance products (protection versus production hazards and natural disasters) and price hedging facilities.

While alternative lenders have been making interesting inroads in recent years in the financing of coffee RPOs (as demonstrated by this research), there have been few efforts to finance other, often more complex value chains. Although alternative lenders such as Root Capital, Shared Interest and Alterfin have financed honey, cocoa, shea butter and handcraft producers, among other products, the volumes lent to these sectors overall have remained small. Most efforts have also been focused on cash crops and secured by export contracts. Other sectors, such as basic grain crops, critical in the global fight against hunger, seem to have been largely neglected altogether by alternative lenders (partly because of their reluctance to offer loans in local currencies). It is therefore clear that in order to increase their lending operations, alternative lenders will have to take more risks and diversify their client base by expanding financing other value chains (including local ones).

In defense of alternative lenders, it is true that these organizations are relatively young and resources are limited. There are also currently inherent limitations in their funding model that considerably limit their ability to expand or take risks. The vast majority of such lenders are currently dependent on philanthropic debt[19], making it difficult to scale up operations or explore new supply chains. This forces the lenders to develop significant, costly investor relations operations and constantly seek out new sources of funding to expand their portfolio. Philanthropic investors also often impose constraints on fund use: focus on certain types of clients (for example low-income or coffee producers etc.), risk exposure constraints, loan loss reserve requirements, interest rate ceilings etc. This lack of flexibility with regards to funding makes it challenging for alternative lenders to grow, scale-up their activities or innovate.

In order to increase lending activities, alternative lenders will have to seek ever larger amounts of unrestricted philanthropic debt – which is going to be increasingly difficult - reach self-sufficiency (and slowly expand lending activities with equity accumulated from operating surpluses) or expand their funding base to include large mainstream investors. For the latter two options to materialize however, alternative lenders will need to improve profitability and most likely increase interest rates.

The elephant in the room: the interest rate issue

Rarely mentioned in alternative lending circles is the interest rate issue. Although the Emiliano Zapata cooperative was able to access subsidized local financing that is cheaper than the one offered by alternative lenders due to government subsidies, this situation remains highly unusual. Overwhelmingly, financing from alternative lenders remains the cheapest option for many rural producer organizations. This situation can be explained by several factors:

- Loans from alternative lenders are usually offered in hard currencies (dollar, euro etc.). Inflation is therefore not as much an issue for lenders in these currencies as it is for lenders in developing country currencies, which must take it into account when calculating interest rates.
- As explained above, the cost of alternative lending funding is generally low and subsidized. Donors or members (in the case of cooperative lending societies) want to keep interest rates low. Few donors or members would want to see large profit margins made by the lender using their funds.

[19] Root Capital for example sources its funding from philanthropic debt consisting of three to five year loans issued at 0-4% interest by private foundations, individuals, corporations, public agencies, and religious organizations (Milder, 2008, p5). Shared Interest, a financial cooperative, sources its funding from member deposits. Interest rate offered to Shared Interest members, as of July 2010, is 0%.

While low and subsidized interest rates should be seen as a much-needed opportunity for rural producer organizations, several adverse effects can be observed on both the lender and local financial markets.

The first direct impact of low interest rates is on the lenders' profitability. Despite their subsidized funding, alternative lender spreads are thin compared to commercial banks or microfinance institutions. One might therefore question the sustainability or scalability of alternative lenders in this context. As pointed out by Yago, Roveda and White (2007, p37): "acceptable rates of return are the only true measure of a project's viability; if it is heavily subsidized (...) an investment is neither scalable nor sustainable".

Low interest can also indirectly impact local financial markets by potentially crowding out local private lenders. Unable to compete with alternative lenders to finance the lucrative, relatively low-risk trade finance loans, local commercial banks might balk at offering other riskier loans to the same RPO, particularly in the absence of local credit antecedents with the group. It is easy to imagine a situation where a dependence is created on alternative lender financing and where a disconnect with local financial institutions is unintentionally created.

Comparing alternative lending to RPO to microfinance, one might wonder whether commercial banks and mainstream investors would have rushed to the sector had interest rates and spreads been so low. It is the opinion of this researcher that it is doubtful that local financial institutions will show much interest in lending to RPOs at such low interest rates.

While there is no easy solution to this complex issue, alternative lenders serious to engage with local lenders will have to learn to adapt interest rates to market conditions for their own and, ironically, their clients' sake.

Strengthening RPO capacity

Most stakeholders met as part of this study agree that financial management and accounting capacity in most RPOs is worryingly low. Although not originally emphasized in the design of this thesis, RPO capacity in accounting, financial management and literacy was identified as a major enabling factor for the three organizations studied. The ability to interpret financial information, prepare accurate financial statements, project cash flows and design capitalization strategies are all key to growth, organizational stability and effective interactions with buyers and financial providers.

Lack of RPO capacity in financial management and accounting could prove a "bottleneck" for alternative lenders seeking to expand their client base – in addition to a significant credit-risk in the

case of current clients - considering few RPOs have readily available basic financial information such as cash-flow projections, balance sheets, and income statements to present to credit officers.

All three organizations studied as part of this thesis received comprehensive, multi-year technical assistance from an alternative lender, a rarity in the sector. As mentioned earlier, this technical assistance no doubt impacted the organizations' performance and results, arguably as much or more than the loans it received from the same lender over the period.

One of the conclusions of this study is that in order to maximize their impact on RPOs, alternative lenders or other development stakeholders should invest more in RPO capacity building in accounting, financial management and literacy. Part of these efforts, particularly pre-investment technical assistance or remedial workshops or assistance could be financed in part from interest revenue – although this could prove challenging considering the alternative lenders' low margins. Broader, longer-term efforts however require project-based financing from large donors such as governments or multilateral organizations.

Working with local financial institutions

In order to fulfill their goal of catalyzing the emergence of local financial markets that meet the needs of rural producer organizations, alternative lenders will have to significantly scale up their operations and make the business case for RPO financing to local commercial banks.

The RPO financing gap will not be fully closed in Mexico or elsewhere until mainstream financial institutions address the issue locally and develop capacity in RPO lending. This can only be achieved in a two-step strategy in which:

1. Coaching and technical assistance is offered to local financial institutions. A business case for RPO lending is made and expertise is transferred (loan product design etc.) from alternative lenders to local financiers.
2. A comprehensive risk mitigation strategy is offered to local financiers. While some alternative lenders have lent for years based on sole export contracts, it is crucial to understand that this might not be enough for a risk-averse financial institution in a developing country with relatively no experience in the field.

Both approaches were briefly discussed in section 2.5.1.4 of this thesis. It is worth pointing here again that there have been such initiatives in recent years to work with local financial institutions in the greater alternative lending and sustainable trade community:

- Root Capital has been recently standardizing its work in order to turn it into a "plug and play business" so that other lenders can adopt its model (Bornstein, 2010). Root Capital has also

recently pioneered co-lending arrangements with local lender in countries such as Rwanda and Peru. It also approached various local financial institutions across Central America as part of its IDB-funded PorFin project.

- Développement international Desjardins offered technical assistance in RPO financing to the savings and credit cooperatives SERFIR, in Chiapas, Mexico and Dunduliza, in Tanzania.
- The French organizations Agrofine/CERISE have been developing methodology and documenting partnerships between local financial institutions and RPOs in various countries.
- The Finance Alliance for Sustainable Trade, an industry association, brought on board several local financial institutions as members (most notably Agrofinanzas, a Mexican SOFOL specialized in agricultural financing) and organized events to raise awareness of the business opportunities of the sector.
- The Rabobank Sustainable Agriculture Guarantee Fund (SAGF) provides loan guarantees and risk sharing to local financial institutions with the aim of: 1) attracting local capital providers to the RPO financing market and 2) getting these local financial institutions to use export contracts as collateral instead of requiring fixed assets (Milder, 2008, p9).

These initiatives however have been uncoordinated and have lacked the scale to bring about the necessary changes to the RPO lending environment. Moreover, coaching and technical assistance efforts with local financial institutions in RPO lending – whether microfinance, savings and credit cooperatives or commercial banks - will have to be documented, systematized and replicated across several countries and continents. These efforts, no doubt costly, cannot feasibly be entirely paid for by alternative lenders or integrated in their interest rates. Such an undertaking will therefore require project-based financing from large donors such as governments or multilateral organizations. As of 2010, at least two alternative lending stakeholders were in talks with multilateral organizations on the issue. It remains to be seen whether the issue will be addressed in the coming years.

General alternative lenders interviewed as part of this study are not optimistic about the possibility of mainstream financial institutions adopting their business model and engaging with RPOs anytime soon. William Foote, founder of Root Capital, rather points to the microfinance industry for a perspective on the sector's future: "I think we're going to see the catalyzing of an entirely new industry of specialized financial institutions that are 100 percent dedicated to this market (...) because it's such a massive opportunity — and it's so grossly underserved right now" (Bernstein, 2010).

Leveraging internal credit funds to unlock underserved rural microfinance markets

Internal credit funds are created by cooperatives to provide loans to individual members to provide them with much needed liquidity and improve their economic situation. Although usually used for productive purposes (to help finance labor costs during harvest, inputs or even seed capital for

micro-enterprises), these loans are also used by members to pay for various family expenses (school fees, clothing and health-related expenses etc.) in times of need. Internal credit loans are offered for a fixed period of time and almost always at below market interest rates. In some cases (see the example of the Gustavo Madero cooperative), interest income from internal credit funds is used by RPOs as a capitalization strategy. All three RPOs studied as part of this research had some type of internal credit fund, some more developed than others.

This approach, briefly discussed in section 2.5.1.4 of this thesis (see Development of in-house or "sister" lending institutions), offers great potential to respond to rural household financing needs but also great risk for both rural producer organizations and potential lenders. As warned by Wampfler et al. (2008), the common lack of clear lending guidelines and lending experience of RPO managers can lead to problems of poor repayment rates, cronyism and corruption. Basic internal lending tools such as a comprehensive credit policy and portfolio monitoring tool, in addition to proper credit training are some of the basic elements a RPO needs to avoid these problems.

As mentioned previously in section 4.1.1, it is therefore easy to imagine a lender offering basic, highly specialized technical assistance centered on internal credit funds to rural producer organizations in order to later finance these same organizations. Considering the extent of the financial needs of rural households and the low penetration of microfinance organizations, these internal credit funds could potentially unlock a huge market – at low transaction costs and reduced risk – for both local and alternative lending institutions.

5. CONCLUSIONS AND RECOMMENDATIONS

As this research draws to a close, it might be helpful to highlight some of the main conclusions and make a few recommendations for further research.

5.1.1 – Conclusions

This thesis has allowed us to shed some light on the issue of RPO financing in Southern Mexico. As part of the documentary research and literature review, we explored how rural producer organizations have played a key role over the past decades by offering small farmers market access, technical assistance, access to inputs and many other services offered until recently by government agencies.

We identified financing as a key factor in determining RPOs' success. In order for RPOs to successfully market their products, it is essential for them to have the sufficient liquidity to satisfy several key financing needs, both at the organization and individual member levels. According to the literature reviewed, the financing issue has been debilitating for many RPOs and was identified as one of the largest barriers to growth for these organizations. Why do RPOs struggle to obtain external financing? Several factors were identified:

1. Supply-side constraints: weak agricultural financial markets in developing countries, lack of SME financing, lack of information on RPOs and their business model, high transaction costs, perception of high risk;
2. Demand-side constraints: RPO difficulties in raising and managing capital, lack of collateral and weak organizational cohesion and management capacity;

Considering the key role played by RPOs and the importance of the financing issue, a wide variety of financing innovations were developed over the past years across the world to address the issue. Some of the most promising innovations were briefly explored and described, including: collateralized lending mechanisms (such as leasing and warehouse receipt financing), supply chain financing schemes (reverse factoring), risk management systems (sustainable trade guarantee fund) and other strategies to stimulate the offer in financing (the coaching of local financial institutions in RPO financing or the development of in-house lending institutions). We concluded this documentary review by exploring in greater detail the growing alternative lending sector: its origins, goals and main financing innovation (reverse factoring).

The first part of field research findings included a short primer on the coffee value chain, followed by a portrait of the agricultural and RPO financing situation in rural Mexico. This review allowed us to better understand the recent developments in the sector and identify the main public and private

actors. The conclusions from this review were surprising: although a RPO financing gap was indeed identified – especially post-2003, after the dismantling of the state-owned Banrural – this gap was found to be receding due to the government´s generous subsidies through FIRA (subsidized credit lines, guarantees offered to financing institutions) and to the growing competition on the market and the rise of two new types of non-bank financial institutions, the SOFOL and SOFOM.

The actual case studies of three rural producer organizations confirmed the fact that there is indeed a business case for lending to RPOs: despite their challenges, all three organizations were found to be professional, dynamic businesses with significant financing needs, more often than not in the million-dollar range annually. This diagnosis was backed up by both a qualitative appreciation of the cooperative and a brief historical review of some of the main financial and organizational indicators.

To this very positive diagnosis, it is important to add two caveats:

- Government subsidies played a much larger role than expected in the development and financial stability of the organization studied. As pointed out earlier, it is questionable whether the RPOs would have reached their current level of development without these generous subsidies. One can therefore conclude that despite the liberalization of the late 1980s and early 1990s, the state still looms large in the Mexican coffee sector.
- RPO lending is not without its challenges: as the example of the 2009-2010 harvest at the Benito Juarez cooperative illustrates, the reverse factoring financing model can be extremely vulnerable to price fluctuations and local competition. This example is a stark reminder that rural producer organizations are evolving in a volatile environment.

With regards to the impact of financial innovations on the studied organizations, the conclusions are also positive. As illustrated by the case studies, the direct impact of loans provided by alternative lenders has been moderately positive at worst and transformational at best. The loans provided by alternative lenders allowed the organizations to gain credit experience while capitalizing on market opportunities that could have been otherwise out of reach. One should also take into account the significant contribution of the targeted technical assistance in accounting and financial management provided by alternative lenders on the studied organizations. Although little emphasized in this study, the technical assistance offered has had a major impact, along with access to financing, on these organizations' performance.

The final part of this research, the discussion section, allowed a more in-depth reflection on the business case for RPO lending, the challenges of RPO financing, the existence of the "RPO financing gap" in Mexico and the impact of alternative lending. The last section provided thoughts on alternative lending and identified a few relevant issues for the future growth of the sector. This section for example emphasized again the importance of RPO capacity-building programs in

financial management and accounting, the need for alternative lenders to diversify their client base and to work with local financial institutions (and address the interest rate issue) in order to eventually scale-up their impact. Finally, RPO internal credit funds were identified as one of the next frontiers in rural financing, as these funds have the potential to unlock the huge rural microfinance market, at low transaction costs and reduced risk, for both local and alternative lending institutions.

5.1.2 – Potential further research

Although this research provided a very basic sketch of the need for and the impact of alternative lending to rural producer organizations, much more in-depth research in the field needs to be done, especially as these initiatives grow and scale-up internationally.

It might be first of all very interesting to extend this research to different contexts (products and countries). Anecdotal evidence heard as part of this research suggests the local financing situation of RPOs in Central American countries such as Guatemala, El Salvador, Nicaragua and Honduras is much more problematic and thus the need for alternative lenders all the greater. It would be interesting to expand this research and methodology to other countries, both in Central and South America but also in Africa and Asia.

What is the potential for the scaling-up of these financing initiatives? While some suggestions were made in section 4.3.3, there is also a need for both academics and alternative lenders to further explore and document these approaches. This could include, for example, studying the applicability of reverse factoring lending methodology to local agricultural value chains such as food crops, dairy products, fresh fruits and vegetables.

With specific regards to methodology, while this research studied several key financial and organizational indicators, its core was essentially qualitative, drawing much of its findings from semi-directed interviews and, in some cases, anecdotal evidence. While this approach has its merits and certainly shed some light and provided a more contextualized understanding of the sector, a more quantitative-based research involving a much greater number of RPOs across several sectors (product types etc.), countries and even continents would be a logical second step in this field. Such research could draw on ongoing impact assessment efforts of the industry association, the Finance Alliance for Sustainable Trade.

As mentioned in this research, this will not be an easy task: detailed financial and organizational historical records are rare and the availability of information might be a big issue. Gaining the trust of such a large number of organizations and/or alternative lenders might also be challenging, especially considering the sensitivity of the financial information. Finally, identifying causality will also be a

major problem considering the slew of factors beyond credit that can affect RPO results: price risk and/or volatility, internal RPO politics, climate, staff capacity, fraud, political risk, natural disasters, certifications, buyers etc. In such a context, isolating the "access to financing" variable will be a very difficult task.

It might also be interesting for potential researchers to assess the impact of the technical assistance efforts deployed by some alternative lenders such as Root Capital, Shared Interest and Verde Ventures. Have they achieved their goal of reducing credit risk? Which methodologies have been most successful? Which have failed? What are the RPO-specific learning curves? It might also be interesting to test out some of the assumptions set forward by these lenders, especially with regards to their RPO theories of change and self-identified finance fundamentals. Studying the potential scaling-up and the sustainability of these technical assistance initiatives could also provide an interesting perspective. Can the cost of this assistance be internalized by lenders or is external funding necessary?

Finally, as mentioned earlier in the discussion section, for market innovations brought forth by alternative lenders to really go mainstream, it will be necessary for these lenders to partner up and/or coach local financial institutions. This can take a wide variety of forms: guarantee facilities, co-lending arrangements, coaching and technical assistance services etc. It could be interesting for further research to document the solutions listed above and identify possible scaling-up solutions involving local financial institutions. It would be particularly relevant to further study the interest rate issue, as mentioned earlier in the discussion section, and whether crowding out of local financial institutions is indeed happening as a result of alternative lender intervention or not.

As a closing note, despite their potential, the future of RPOs and their small farmer members remains uncertain: many challenges both at the national and international levels - such as buyer consolidation, disloyal competition from multinational corporations, price volatility, climate change etc. – can potentially undermine these organizations in the long term. However, as demonstrated by this study, one can hope that the new financial innovations currently developed by alternative lenders as well as larger sustainable trade market development and certification efforts will continue strengthening RPOs and provide them an opportunity to better compete and thrive in the ever-changing global agricultural markets. As an increasing body of research suggests (including this thesis), such an outcome could positively impact the livelihoods of millions of small farmers across the developing world.

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