

**SECTION TWO**  
**CASE STUDIES: PROMISING RURAL FINANCE**  
**ORGANIZATIONS AND PRODUCTS**

## RURAL FINANCE ORGANIZATIONS

### FINANCIERA CALPIÁ, EL SALVADOR: INNOVATIVE APPROACHES TO RURAL LENDING<sup>1</sup>

Sergio Navajas and Claudio González-Vega

#### INTRODUCTION

Since the second half of the eighties, poor households/businesses around the globe have been gradually benefiting from a growing number of microfinance organizations (MFOs) that have emerged to offer them several financial services, with heavy emphasis on short-term loans. In Latin America, this growth in microfinance supply has not been uniformly distributed. As opposed to Asia, most of the successful MFOs in this part of the world have appeared in urban areas.

This phenomenon has not been the result of lack of public interest in the expansion of the supply of financial services to the rural population; rather, it has reflected the formidable challenges encountered in the development of appropriate financial technologies for rural areas (González-Vega, 1999b). Some organizations have actually devoted their efforts and attention to the provision of financial services in rural areas, but there is no parallel between their limited success and the major outreach and sustainability already achieved by the best urban Latin American MFOs.

Given increased interest in taking on this challenge, it is important to grasp how a few financial organizations have successfully reached rural areas. One of these organizations has been Financiera Calpiá (Calpiá Finance Company) of El Salvador.<sup>2</sup> Financiera Calpiá has been a leader in Latin America, prominent for its innovations

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2 In Nahuatl, Calpiá means a small box used to store savings, usually under ground.

that push back further the frontiers of finance. Understanding the lending technology of a MFO such as Calpiá, the problems this technology has solved and the challenges the organization still faces is key in drawing lessons about what can be done and what cannot be done in rural lending.

Better comprehension of the mechanics and procedures of specific lending technology is not enough, however, to be able to replicate it. Extreme caution is required in this enterprise and the particular environment where the technology already functions successfully must be taken into account: Is there a conducive regulatory framework? What is the target market like? The human resources needed for this venture are also to be considered: Is the required human capital available? What training is needed to increase the skills of the staff? Finally, the organization must be able to tie these elements together: Is the institution designed for successful implementation of the technology, including an appropriate set of existing incentives? These issues cannot be resolved a priori by any organization; lengthy learning processes are needed to accumulate the information capital required to bring costs and risks down to reasonable levels (González-Vega, 1998c).

In addition to this introduction, this chapter is organized in six sections. The second section briefly discusses the difficulties of rural lending, in order to identify the problems that Calpiá's lending technology has been required to solve. The third section describes the Salvadoran context, with emphasis on Calpiá's target markets and on the obstacles generated by the environment. The fourth section presents a snapshot of Financiera Calpiá. The fifth defines Calpiá's general principles in designing and implementing its lending technology. In the sixth section, Calpiá's rural lending technology is described in depth and, when possible, the procedures used in rural areas are compared with those in urban areas. This section also discusses, step by step, the problems that each procedure addresses during the lending process. The last section summarizes lessons, draws conclusions and explores future challenges.

## WHY IS RURAL LENDING DIFFICULT?

As mentioned in Chapter 1, risks are inherent to credit transactions due to their intertemporal nature: lenders sell a product (a loan contract) for which they are paid the price (principal and interest) immediately. They only receive a promise of uncertain future repayment. This is why lenders are concerned about the future behavior of their customers. Given deficient information, incompatible incentives and limited mechanisms to ensure contract compliance, lenders' ability to correctly predict and encourage repayment is crucial if they are to succeed (Navajas, 1999a).

The specific manner in which lenders resolve these problems is called lending technology. Different lenders use different lending technologies to achieve similar ends. Moneylenders, for example, use informal mechanisms to guarantee repayment whereas, by contrast, commercial banks base their technology on establishing formal mechanisms, such as audited financial statements, collateral that may be foreclosed in court, credit rating instruments, to ensure repayment. Several MFOs

have been able to adopt many of the features of informal lending within an institutional framework. The success of these MFOs has been linked to their flexibility in systematically adapting nontraditional lending technologies. Moreover, different lending technologies have generated comparative advantages in reaching particular market segments and have matched different lending procedures with different types of potential clients (Navajas et al., 2001).

Rural lenders have to solve the same problems regarding information, incentives and contract compliance uncertainty as any other lender, but the difficulties they must overcome are even greater (González-Vega, 1999b; Zeller et al., 1997). The additional challenges faced by rural lenders result from the following features, as described in Chapters 1 and 2: (1) The greater heterogeneity of rural clientele; (2) more exposure to systemic risk; (3) greater clientele dispersion and low density; (4) the seasonal nature of rural activities making liquidity management more difficult for specialized rural lenders; (5) the biological rigidity of agricultural cycles, which limits the type of lending technologies that may be used in rural areas; (6) the small size of transactions, implying high average transaction costs for borrowers and lenders; (7) lack of borrower assets that may become useful collateral for lenders. In addition, in several countries, forcing contract compliance is difficult or extremely costly; and (8) the absence of standardized information, that is, audited financial statements and credit histories, in rural areas increases the cost of assessing creditworthiness.

In short, in addition to the typical problems encountered in lending to the poor, rural lenders have to deal with problems due to the special characteristics of the rural setting. Lending technologies need to be adjusted, therefore, to deal with these specific issues. Only a few MFOs in Latin America have been able to transfer their innovations in lending technologies from urban to rural areas. One of the MFOs that has taken on this task most successfully is Financiera Calpiá of El Salvador.

## **EL SALVADOR AND FINANCIERA CALPIÁ: SYNERGY THAT WORKS**

To fully appreciate the challenges that Financiera Calpiá has had to face, it is useful to briefly illustrate some of El Salvador's characteristics that are relevant in understanding the nature of the technology that has been appropriate in this setting (González-Vega, 1998a). They include the following:

- (1) El Salvador is one of the most densely populated countries in the continental Western Hemisphere (291 inhabitants per square kilometer). Hence, the problems of rural finance are not greater than in less densely populated countries, such as Bolivia.
- (2) El Salvador is, however, a poor country. By 1997, the UNDP Human Development Index ranked El Salvador in the 107th position out of 174 countries (UNDP, 1999). In the region, El Salvador only fared better than Bolivia, Haiti, Honduras, Guatemala, and Nicaragua. Furthermore, poverty

in El Salvador is not uniformly distributed. By 1997 about 62 percent of the rural population was considered to be poor while that figure was 48 percent for the urban population (Rivera, 1999).

- (3) In the nineties, nevertheless, the economy grew rapidly and *per capita* incomes increased, although the dynamism that followed the Peace Accords in 1992 and early structural adjustment programs was already declining toward the end of the decade (Lardé de Palomo, 1999).
- (4) A war-damaged infrastructure increases transaction costs, which are high, despite the reduced size of the territory (Lardé de Palomo et al., 2000), and slows down market integration. The civil war also hurt education levels, slowing down the process of human capital accumulation. However, toward the end of the decade the Government invested heavily in rural roads and schools.
- (5) Weak institutions, an outdated legal system and shortcomings in the state's organizational framework have further increased the transaction costs of financial contracts. Inadequate legislation on agricultural have constrained both productive uses of land and the potential use of land as collateral. Weak institutional infrastructure has delayed the introduction of banking into rural areas, while dominant state-owned financial institutions were plagued by political interference and lack of sustainability. In general, the social capital is shallow, while the culture of repaying loans has been undermined by frequent loan write-offs by the Legislature.

Beginning in 1979, civil war sparked violence across the country. The war lasted 12 years and destroyed not only lives (the death toll is around 75,000), but also institutions and opportunities for economic growth. Rural areas suffered the most. Violence combined with inappropriate policies, such as industrialization through import substitution, inefficient land reform and state-run banking, all contributed in impoverishing the country. During that period, average *per capita* GDP decreased 1.4 percent per year.

The 1992 Peace Accords opened the road for political and economic reforms, including privatization of the banking system, except for the Banco de Fomento Agropecuario, BFA (Agricultural Development Bank) and the Banco Hipotecario (Mortgage Bank), and a reduction of protectionism (Boyce, 1995). Both war and peace attracted donors of all sorts, willing to improve the consequences of the civil war. The provision of financial services to the poor was left to a patchwork of donor-funded programs and credit became mostly a palliative for the poor (Danby, 1995).

A credit program, *Servicio Crediticio*, sponsored by the German Technical Cooperation Agency (GTZ) was the predecessor of Financiera Calpiá. The program was set up in an NGO called Asociación de la Mediana y Pequeña Empresa, AMPES

(Medium and Small Business Association) and began operating in 1988, before the war was over. Having to launch operations in an environment of not-so-rigorous financial NGO activities and missing repayment culture forced the organization to invest considerably in signaling its true intent: to create a sustainable source of quality financial services for a neglected market segment. Thus, from the very beginning there was a clear understanding that the program was not about subsidized credit and that the loans were not transfers, but that they must be reimbursed. This attitude was strengthened when it was decided that the *Servicio Crediticio* would grant loans based only on considerations of creditworthiness to both AMPES members and non-members. The steady growth of a healthy portfolio, despite the unfavorable environment, strengthened by the technical assistance of Internationale Projekt Consult (IPC), led to the transformation of the *Servicio Crediticio* into Financiera Calpiá in 1995.

## Clients

The market segments reached by Financiera Calpiá are found both in urban and in rural areas. In urban areas, most clients are micro businesses whereas, in rural areas, the potential clientele is more heterogeneous, ranging from traders to farmers to micro business owners. In fact, Calpiá's potential clientele includes most productive rural households otherwise without access to formal financial services. Thus, the range of Calpiá's potential influence in rural areas is broader and more diverse than that of its urban counterpart.

Several features condition this MFO's supply of financial services in the rural areas. First, rural areas are poorer than urban areas and poverty has not declined in rural areas as fast as it has in urban areas; as a result, urban/rural income differences have widened. By 1991-92, 54 percent of the urban population and 66 percent of the rural population were considered to be poor. By 1997, these proportions had gone down to 39 percent and 61 percent of the urban and rural populations, respectively (Ministerio de Economía, 1998). Second, while on average, in real terms, GDP grew 4.7 percent in the nineties, agricultural GDP grew only 1.4 percent per year. Moreover, the behavior of agricultural GDP was more volatile. During the nineties, negative rates of growth were registered four times, along with a peak of 8 percent of annual growth in 1992 (Beneke de Sanfeliú, 2000). Third, rural financial markets are shallow. Access to formal financial services, in general, and to loans, in particular, has been very limited. According to a BASIS (Broadening Access and Strengthening Input Market Systems) survey of rural households, in 1997 only 7.9 percent of all households had had access to credit from a formal organization (Table 4.1).

The current situation of Salvadoran rural financial markets has been in part the result of a series of ill-designed policies mostly inherited from the past; institutional shortcomings, that is, either inappropriate lending technologies or inadequate organizational design; and the intrinsic difficulties of providing financial services to

the rural sector. The absence of effective mechanisms for the transfer of the best practices in lending technologies recently led the authorities to create, with assistance from the European Union, the second-tier organization FundaMicro.

**Table 4.1. Rural Household Access to Credit in El Salvador, 1997<sup>a</sup>**

Source	Percentage
Formal	7.9
Banks	1.4
Nonbanks	6.4
Semiformal	12.2
Nonfinancial <sup>b</sup>	6.4
cooperatives	2.2
NGOs	3.5
Informal	22.3
Market <sup>c</sup>	15.9
Nonmarket <sup>d</sup>	6.4
With access	42.4
Without access	57.6

<sup>a</sup> A household is considered to have had access to credit if it either had a loan in 1997 or had outstanding debt acquired during the 1994-1997 period. In this classification, households' access to credit is ranked according to the most demanding source (banks being the most demanding in acknowledging creditworthiness). If a household had access to loans from both a more and a less demanding source, it was classified only once as belonging to the more demanding category. This method avoids double counting.

<sup>b</sup> Non-financial are organizations that provide relatively large loans for specific purposes as part of their nonfinancial business; for example, the *loteadoras* (developers) that sell plots of land on credit.

<sup>c</sup> Informal market intermediaries are all informal credit providers for whom credit is one of the main commercial activities they undertake.

<sup>d</sup> This category represents all informal credit providers for whom lending is not a regular business activity (for example, relatives and friends).

Source: Ohio State University (OSU)/Fundación Salvadoreña para el Desarrollo Económico y Social, FUSADES (Salvadoran Foundation for Economic and Social Development), BASIS Project, 1997, Rural Household Survey and authors' calculation.

Table 4.1 reports various degrees of access to different types of sources of loans for rural households in El Salvador. All possible sources, from moneylenders to banks, are considered. Without counting informal loan sources, only about one fifth of all rural households had access to formal and semiformal sources of credit, including merchants and input suppliers, in 1997. In the categories used for in the table, formal means regulated by the Superintendencia del Sistema Financiero, SSF (Superintendency of the Financial System). Semiformal organizations are institutions established according to a legally authorized procedure, which rely on some combination of legal (formal) and social (informal) mechanisms to ensure loan

repayment, but which are not supervised by the SSF. Cooperatives as well as NGOs have been placed in this group along with most sources of commercial credit (input suppliers).

Formal financial organizations, such as banks and financieras (finance companies), matter because they offer a broader range of financial services to the rural population, from deposit facilities to fund transfer instruments as well as varied loan products (short-term working capital loans, long-term investment loans).

The current structure of the formal financial sector in El Salvador is relatively recent. At the end of the eighties, the banking system was entirely state-owned. By the late nineties, most banks had been privatized, with three banks remaining under government control: Banco de Fomento Agropecuario, BFA (Agricultural Development Bank); Banco Multisectorial de Inversiones, BMI (Multisectoral Investment Bank); and the Banco Hipotecario (Mortgage Bank). Currently, Financiera Calpiá is the only supervised nonbank financial intermediary, since the other financieras have disappeared with the financial crisis of 1998 and since the Central Bank eliminated the charter of finance companies. The semiformal sector includes another public sector entity: the Federación de Cajas de Crédito, FEDECREDITO (Federation of Credit Funds and Workers' Banks), which brings together about 50 savings and credit associations and several workers' banks, while a number of private credit funds operate under a second-tier institution, the Federación de Cooperativas de Ahorro y Crédito de El Salvador, FEDECACES (Federation of Savings and Credit Cooperatives of El Salvador).

The presence of commercial banks in rural areas is minimal. Together, all private commercial banks reach around 2,000 rural clients. By contrast, BFA has a clientele of about 40,000 borrowers and it operates the largest network of branches in the countryside. Nonetheless, BFA has suffered from frequent political interference, inadequate internal control and high delinquency rates.<sup>3</sup> It is currently in the process of restructuring, another one in a series of failed attempts to deal with the problems emerging from the organization's own weak property rights and governance design. The Centro de Apoyo a la Microempresa/Fundación Integral Campesina, CAM/FINCA (Micro Business Support Center/Comprehensive Farming Foundation) is the largest NGO granting loans in rural areas. It is a USAID-sponsored organization that lends according to village bank technology. By 1998, CAM/FINCA had over 15,000 clients.

In rural areas, the main competition for Financiera Calpiá therefore comes from a state-owned bank, BFA, that is in the midst of redefining its mission, with suggestions that it will focus all of its activities on microfinance, and seeking new lending technologies to offer better service at cost-covering interest rates. The other important source of competition is CAM/FINCA, a large NGO that focuses on lending to the very poor.

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<sup>3</sup> Delinquency rates at BFA, defined as potential-risk portfolio over total portfolio, reached 28 percent in 1999.

## FINANCIERA CALPIÁ: A NEW FINANCIAL INTERMEDIARY IN EL SALVADOR<sup>4</sup>

As mentioned above, the origins of Financiera Calpiá go back to 1988, with the creation of the Servicio Crediticio at AMPES, whose main mission was to promote the interests of medium and small business. In 1995, the Servicio Crediticio de AMPES became Financiera Calpiá, a full-fledged regulated financial intermediary. In preparation for this step forward, Calpiá had already been voluntarily complying with all the regulations of the Superintendencia del Sistema Financiero, SSF (Superintendency of the Financial System) and continues to show above-average indicators of solvency and profitability among regulated financial intermediaries in El Salvador. After the elimination of the financiera charter by the new Banking Law in 1999, Calpiá was given three years to transform into a commercial bank.

The main donor to support this venture from the beginning was the GTZ. This assistance included, in particular, the technical support of the consulting firm, IPC from Frankfurt. Its assistance ended in December 1999. During the entire period, however, IPC engaged in a close partnership with Calpiá as one of its implicit quasi-owners, and it kept a resident technical advisor in San Salvador, who *de facto* became another member of the management team.<sup>5</sup>

The emergence of Financiera Calpiá as a regulated financial intermediary would not have been possible without the participation of the Inter-American Development Bank (IDB) and the Banco Centroamericano de Integración Económica, BCIE (Central American Bank for Economic Integration), as well as of several local NGOs as stockholders in the new organization.<sup>6</sup> Although Calpiá was incorporated as a private financial intermediary, up to this day, all of its stockholders have been nonprofit local or international organizations. The implications of the particular structure of its property rights are not discussed in this chapter.

The performance of Financiera Calpiá has been characterized by both outstanding achievements regarding the outreach of its clientele and its sustainability, without

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4 Information was gathered as part of the larger research agenda of the BASIS CRSP in El Salvador (González-Vega, 1998a; Schreiner et al., 1998). The project is being implemented by the Rural Finance Program at Ohio State University and the Departamento de Estudios Económicos y Sociales at the Fundación Salvadoreña para el Desarrollo Económico y Social, FUSADES (Salvadoran Foundation for Economic and Social Development).

5 IMI, an investing firm associated with IPC, bought Calpiá stocks owned by the Inter-American Development Bank in early 2001 and took the control of the management.

6 At the time of its foundation, Calpiá's main stockholders were, in addition to the IDB (through MIF, the Multilateral Investment Fund) and the BCIE, the Central American Bank for Economic Integration: the Calpiá Foundation, an organization for Salvadoran micro, small and medium business; the Fundación Salvadoreña de Desarrollo y Vivienda Mínima; FUNDASAL (Salvadoran Foundation for Development and Minimal Housing), a non-profit corporation; and the Chalatenango and Morazán local economic development agencies, private non-profit foundations whose goal is to contribute to the self-sustainable productive development of these two departments (Pleitez, 1999).

parallel in El Salvador or in most Latin American countries.<sup>7</sup> One of the simplest indicators of outreach is the number of outstanding loans. Since all loans are approved and disbursed on an individual basis, this is also a good indicator of the number of clients reached by Calpiá (Table 4.2).

**Table 4.2. Financiera Calpiá: Number of Outstanding Loans as of December 1995 to December 1998**

Year	Urban	Rural	Total
1995 <sup>a</sup>	9,261	2,799	12,060
1996	14,707	3,344	18,051
1997	18,600	6,029	24,629
1998	22,565	6,156	28,721

<sup>a</sup> After six months of operation.

Source: Pleitez-Chávez (2000).

Two observations stand out in Table 4.2. First, the number of clients grew 138 percent during the 1995-1998 period. This growth continued through 1999 and, by December of that year, the outstanding portfolio was US\$ 26.5 million and the total number of outstanding loans had reached 34,390. Second, the relative importance of the rural clientele has remained at around 20 percent of the total number of clients. This reflects the organization's portfolio diversification and risk management strategies, although the rural portfolio may be expected to continue growing somewhat in relative importance, given the large unanswered demand for credit in the rural areas of El Salvador and given Calpiá's comparative advantage in these areas.

The depth of the outreach may be determined from loan sizes. As of December 1998, the average urban loan was 6,019 colones (US\$ 688) and the average rural loan was 6,876 colones (US\$ 786). This had not changed by December of 1999, when the average size of outstanding loans was 6,747 colones (US\$ 771). The average size of rural loans is slightly larger than the average size of urban loans. This reflects, for the most part, the different makeup of economic activities in the two market segments.

Outreach refers not only to the number of borrowers and the size of loans (Navajas et al., 2000). Among other dimensions, outreach also refers to the variety (range) of services (González-Vega, 1998d). Specifically, Financiera Calpiá has undertaken serious efforts at deposit mobilization. This has enabled the organization to offer a wider range of services to its clientele, and has reduced its dependence on external funding, even though it still represents the most important source of portfolio financing.<sup>8</sup> As shown in Table 4.3, the number of outstanding deposits had rapidly grown to 24,272

7 For example, it has been calculated that the total number of microfinance clients in Brazil is around 60,000. For Mexico, this figure only amounts to 40,000 people (Christen, 2001).

8 According to SSF information, the proportion of loans in liabilities was reduced from 63.5 percent in 1999 to 40.3 percent in 2000. Meanwhile, deposits increased their proportion from 33.6 percent to 56.5 percent over the same period.

by the end of 1998 and it had grown further to 29,669 by the end of 1999, for a total mobilization of 66.9 million colones (US\$ 7.6 million) by December 1999. This represents growth of more than 170 percent as compared to 1998, when the outstanding portfolio grew less than 20 percent then. As a result, the ratio of deposits to gross portfolio increased from 12.6 percent in 1998 to 28.7 percent in 1999.

**Table 4.3. Number and Amount of Deposit Accounts as of December 1996 to December 1998**

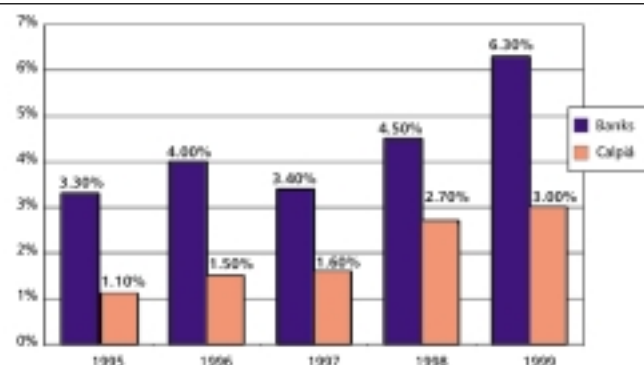
Year	Saving accounts		Term deposits		Total deposits	
	Number	Amount (US\$)	Number	Amount (US\$)	Number	Amount (US\$)
1996 <sup>a</sup>	312	33,406	37	307,394	349	340,800
1997	4,929	344,606	254	1,045,303	5,183	1,389,909
1998	18,254	752,228	725	2,021,726	24,272	2,773,954

<sup>a</sup> After only four months of operation.

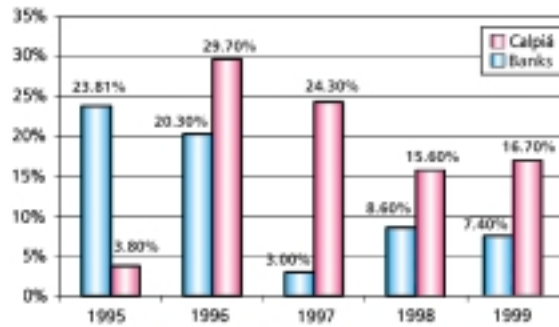
Source: Pleitez-Chávez (2000).

Calpiá's sustainability achievements are equally impressive. The organization is solvent and has generated increasing levels of profits ever since its creation. In 1999, profits were equivalent to over US\$ 1,000,000. The organization has been praised by the SSF, the Superintendency of the Financial System, for its financial management. Calpiá has outperformed the banking system in most indicators of financial performance (see Figure 4.1 and Figure 4.2). Calpiá's accomplishments have been better in terms of portfolio performance than for Salvadoran banks, as its portfolio-at-risk rates have been lower, at around half of the banks'. Calpiá's performance has also been better in terms of profitability (return on equity). In this respect, Calpiá outperformed the banks every year except during its first year in operation. Its performance has attracted local and international attention: Calpiá has been recognized as the best microfinance lender in El Salvador by the Banco Multisectorial de Inversiones several years and, in 1999, it received the award as the best MFO in Latin America from the IDB.

**Figure 4.1. Portfolio at Risk: Banks and Calpiá**



Source: Esperanza (1999).

**Figure 4.2. Return on Equity: Banks and Calpiá**

Source: Esperanza (1999).

### Calpiá and the Rural Poor

Its large numbers of clients does not necessarily mean that Calpiá is reaching a large number of poor people. Still another question is what is the number of poor clients that could potentially be reached with the lending technology developed by Calpiá. To answer these and similar questions, the information on how poor the clients of Calpiá are is necessary. The task of finding out is not an easy one, because of enormous measurement problems and unsettled debates about the definition of poverty itself (Ravallion, 1994). These questions cannot be answered here; instead, the approach will be to use of some very simple and straightforward poverty indicators. The results are presented below.

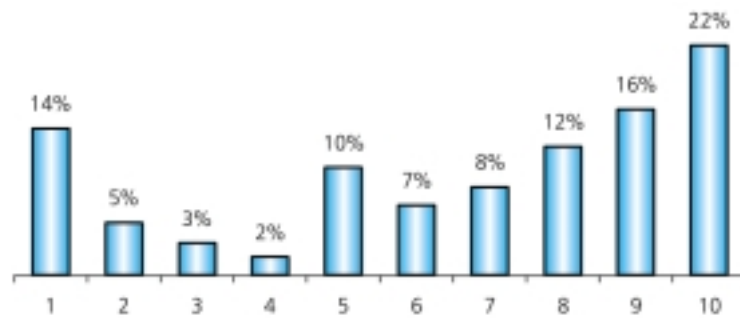
To illustrate the relative poverty of Financiera Calpiá's rural clients, the following procedure was used. First, data from a sample of rural households in El Salvador was used to thoroughly compute household incomes for 1997 (Beneke de Sanfeliú, 2000). Second, the same questions were asked to a sample of rural clients of Financiera Calpiá and household incomes for its rural clients were computed with the resulting data (Schreiner et al., 1998). Third, the corresponding household income distributions were compared in a number of ways (Navajas et al., 2001). Some of these results are reported here.

The simplest comparison of the two distributions is to contrast median incomes. In 1997, median income for rural households in general (US\$ 1,717 per year) was below the median household income for Calpiá clients (US\$ 2,880). Calpiá's typical rural client is not poorer, in terms of household income, than the typical rural household. The median, however, is only a moment in a distribution for a population characterized by great heterogeneity. Looking at the entire distribution is always more illustrative than looking only at the median.

For this comparison, income intervals for the deciles of household income distribution of the sample of rural households is first determined. This shows what

the range of incomes is for the poorest families, the next poorest and so on. The next question is where Calpiá's clients fit in this distribution. For this, each Calpiá household is placed in the corresponding decile of the distribution for the entire rural population, according to its income. This indicates where that particular Calpiá household falls with respect to the overall rural population. The number of Calpiá's clients who belong in each decile of the entire household distribution may then be represented, as shown in Figure 4.3. For example, five percent of Calpiá's client are in the second decile of the overall distribution, ten percent are in the fifth decile, sixteen percent are in the ninth decile and so on. In other words, rural households of the second decile are under represented in Calpiá's portfolio, the size of rural population of the fifth decile is reflected quite accurately and a disproportionately large number of clients belonging to the ninth decile.

**Figure 4.3. Calpiá's Clients and Rural Population Deciles**



Source: OSU/ FUSADES BASIS, 1997, Rural Household Survey and authors' calculation.

To approximate the proportion of poor households in Calpiá's portfolio, a poverty line must be set. In 1997, for rural El Salvador, the extreme poverty line was established at a yearly income per household member of 2,276.60 colones (US\$ 260.30) and the "relative" poverty line, at 4,555.20 colones (US\$ 520.60) (Lardé de Palomo, 1999). Based on these poverty lines, 59 percent of household members that were Calpiá clients were relatively poor and 34 percent were extremely poor. By contrast, in the rural population sample, corresponding proportions are 75 percent and 46 percent, respectively (Navajas et al., 2001). Obviously, this data must be taken with caution, as they are subject to the limitations of the methodology employed.

### LENDING TECHNOLOGY: KEY INGREDIENT FOR SUCCESS

An appropriate lending technology has been a key ingredient in Calpiá's steady growth, outreach and sustainability. A complete description of a lending technology should also take into account the behavior of borrowers (Schreiner et al., 1998) because their reactions and responses to the procedures, policies and requirements of the MFO will ultimately determine the success of a credit transaction, since some

costs are internalized by borrowers (for instance, transportation costs) and may greatly impact their borrowing and loan repayment decisions. Moreover, borrowers interpret the signals from the organization and respond to the structure of incentives offered by lenders.

A number of elements that together embody Financiera Calpiá's lending technology are described in some detail below. The analysis starts off with the description of the principles originally developed by Calpiá for its lending operations in urban areas. These principles were developed in partnership with IPC and were later adapted to the rural setting. These principles reflect how Calpiá looks at its clients (perceived demand) and the types of services it offers them (supply response).

Financiera Calpiá defines the characteristics of its target market segment as follows:

- (i) The household/business (farm) is an indivisible economic unit of revenues and expenses, a joint portfolio of economic activities, for example. The entire unit's ability and willingness to repay must thereby be assessed accordingly.
- (ii) A larger number of alternative sources of repayment are always better than complete concentration of a household's portfolio in one activity. The diversification of its activities facilitates risk control by the household and thereby improves its ability to repay. First, delegated diversification reduces the need for the MFO to diversify its own portfolio in order to keep risk at the desired levels (González-Vega, 1999b). Second, the existence of alternative sources of funds for repayment enables the MFO to design contract terms that incorporate frequent payments as a monitoring tool.
- (iii) A long-term relationship is more valuable for both borrower and lender than a one-time transaction. Both parties invest in the long-term relationship to take advantage of the accumulation of information and rely on sunk costs to reduce transaction costs (González-Vega, 1997). Because rural borrowers have few alternative sources of credit, they value the permanency and reliability of the relationship.
- (iv) Poor households always have some assets that can be used as nontraditional collateral. Calpiá understands that collateral is useful if it serves as an incentive for repayment. There is an incentive to repay because collateral decreases the expected gains from default for the borrower and because the seizing of collateral serves as a powerful signal to prospective borrowers about the seriousness of the organization. This is the case even though the assets pledged, such as household furniture or appliances, may have a very low retail value compared to loan size.

In response to a well-understood demand for credit, Calpiá offers services with the following basic features:

- (i) Loans are tailored to individual demand. This allows the clients to take advantage of a wider set of production opportunities and offers Calpiá the opportunity to increase the earning power of each loan.
- (ii) The product offered is the expectation of a long-term relationship, in which a stream of financial services are promised, at improving terms and conditions.
- (iii) Loan officers are the most important link and, most of the time the only link, between Calpiá and its borrowers. In order to take advantage of the structure of incentives involved in personal contact, loan officers are in charge of most credit-related activities: screening, monitoring and forcing loan contract compliance. This gives Calpiá economies of scope at the level of loan officers.
- (iv) Loan officers' are carefully selected and trained, since their performance determines the quality and productivity of the services provided by Calpiá. In addition, a system of monetary incentives based on the performance of each loan officer's portfolio is expected to induce diligence and appropriate risk management.
- (v) Clients highly value promptness in loan granting decisions. Calpiá assesses potential borrowers in a timely fashion. Furthermore, both approval and rejection of any application is decided in a relatively short time. Repeat borrowers experience no interruption in the continuity of their funding.
- (vi) Calpiá carries out in-depth analysis and monitoring of clients' use of borrowed funds. The reason for this practice is not, however, Calpiá's interest in specific uses of loan funds (targeting). Rather, Calpiá's only concern is with borrowers' ability to repay. It therefore monitors borrower activities strictly to detect changes in their risk profile. Calpiá understands that clients perceive changes in their production opportunities better than anyone else and encourages them to adjust their decisions to changes in their environment. This was instrumental, for example, in keeping arrears at very low levels, even during El Niño.
- (vii) Continuing monitoring conducted at low cost during casual visits or simply greeting customers during loan officers' daily routine plays a meaningful role in these market segments. This interaction reinforces the borrower-lender relationship and signals the seriousness of Calpiá's intentions.
- (viii) An efficient management and information system (MIS) supports loan officers' activities; for example, information on current arrears is made available to loan officers on a daily basis.
- (ix) Nontraditional assets, with high incentive value but low resale value, and traditional assets, such as mortgages on houses, are accepted as collateral; and

- (x) Contract compliance is imposed to ensure repayment and to signal to other clients the intent to recover loans no matter what (credibility).

## CALPIÁ'S LENDING TECHNOLOGY: A CAREFUL ADAPTATION PROCESS

The process of adapting and transferring a lending technology to a different setting is not easy. Financiera Calpiá has gradually and carefully moved from urban areas into rural ones. This has been an arduous process of learning through experience and taking very small steps to ensure success (Buchenau, 1997; Navajas, 1999b). A detailed description of this process is presented below.

Any description of a lending technology requires a significant amount of information on procedures, attitudes and practices. The relevant information is not found in the results, such as low delinquency rates and growing number of borrowers, manuals or yearend reports. Rather, the information is present in the day-to-day practice and behavior of loan officers, managers and borrowers. It is always difficult to go beyond manuals and enter the world of actual behavior. Manuals take in consideration only a limited range of options and possibilities. Lending is full of situations that cannot always be foreseen in books. This section therefore uses not only information from manuals, but also from extensive interviews and observation of Calpiá's lending practices. That is, the inputs used in this section come from extensive interviews with loan officers and managers (what is being done?), information about the financial services offered (what is being produced?) and procedure manuals (what are the rules?). The most important input in deciphering the contents of the lending technology "black box" came from interviews with loan officers.<sup>9</sup>

As of August 1998, Financiera Calpiá had a network of ten branches dispersed in the rural and urban areas of El Salvador in addition to its administrative headquarters.<sup>10</sup> The branches were staffed by 68 loan officers, 15 of whom were considered as rural loan officers.<sup>11</sup> All rural loan officers were interviewed as well as 8 out of 53 urban loan officers.<sup>12</sup> The analysis is mostly qualitative, and it describes a number of elements that together embody the lending technology of Financiera Calpiá.

9 To ensure consistent interviews, a guide was prepared which consisted of a series of questions and reminders for interviewers. Since the objective was to uncover unknown processes and attitudes, the questionnaire was designed to an open one. The interviewers were able to ask in greater detail whatever seemed more interesting, controversial or new while staying within the same boundaries.

10 These branches are: Soyapango, Nueva San Salvador, Centro, Apopa, Santa Ana, Usulután, Mejicanos, Cojutepeque, Sonsonate and San Miguel. The eight urban loan officers interviewed work in the first eight branches.

11 As a practical rule, Calpiá regards loan officers as "rural" if they serve borrowers who live at least 20 kilometers away from the branch where the officers work. Similarly, loans of these borrowers are considered "rural loans." These loans include agricultural, livestock, commercial, craft and service activities (Schreiner et al., 1998).

12 Four interviewers took part in this effort: Sergio Navajas, Claudio González-Vega and Rafael Pleitez, of Ohio State University, and Anabella Lardé de Palomo, of FUSADES.

## Loan Officers: Human Cornerstone of Credit

### The Entry Process

Calpiá is aware of the importance of loan officers in the day-to-day activities of the organization. Loan officers, who are on average 30 years old, must pass a rigorous and lengthy selection process. The process, from the moment Calpiá places an ad in the newspapers to the moment the new officers actually develop a portfolio, can easily take up to four months.

The selection process starts with an ad in the local newspapers, looking for recent or soon-to-be graduates from a university. Acceptable degrees range from Economics and Business Administration to Agriculture. Other important requirements include: residence close to the branch location, driver's license and availability to work in the field, away from their desk. In addition, Calpiá is mostly looking for professionals with established ties to the community where the branches operate. Lack of lending experience is preferred because, then, training may be built up from zero and acquired biases may be avoided.

The typical first steps for new loan officers is as follows. Applicants send their résumés to Calpiá. A month later, a selected number of them are called in for an interview and a written exam. Given their different educational backgrounds, the written exam is designed to test for creativity rather than subject matters. The successful applicants—50 percent passed the exam in early 1998—are scheduled for a field exam. The field exam has two main objectives: to test for the abilities of the prospective loan officers when facing borrowers, away from the office, and in front of peers and managers, in the office. This exam consists in playing the role of a loan officer assessing a loan applicant's ability and willingness to pay. The loan application is next presented to a loan committee formed by fellow applicants and managers of Calpiá. This stage involves role play. A usual exercise is to have a manager play the role of a stubborn borrower unwilling to pay.

Depending on the quality of the applicants, positions are offered in the following month or so. After offers are accepted, new loan officers spend the two coming months in training. To compensate the training expenses, loan officers commit to a minimum of two years with Calpiá. The first part of the training is a two-week course, during which loan officers are taught financial analysis, institutional policies and complementary ways of assessing the ability and willingness to pay of new and repeat borrowers. In the second part, new loan officers are matched with experienced loan officers to learn in the field. The new loan officers are asked to conduct market studies in new expansion areas. This way, the new loan officers get a first taste of what the market will be like.

### Loan Officer Profile

There are two distinct groups of loan officers: rural and urban loan officers. As mentioned above, all rural loan officers and eight urban loan officers were interviewed.

### *Rural Loan Officers*

Typical rural loan officers live in the vicinity of the branch. They usually hold or are about to obtain an undergraduate degree in Agricultural Sciences from the Escuela Nacional de Agricultura, ENA (National School of Agriculture). Their strong academic background enables them to understand what to expect in rural activities. As university graduates, they have had some exposure to accounting, computer sciences and financial analysis.

A university education does not enable loan officers, however, to rapidly recognize an inefficient farm or to estimate probable yields in a given region. Thus, the most important part of Calpiá's training is the "hands-on" learning that takes place when an experienced loan officer is matched with a new one. At this stage, new loan officers do not have a portfolio of their own but rather follow and learn from their co-workers. This may take from two to three months and it has been regarded as the most important part of the training process.

Rural loan officers have a similar educational background but possess diverse working experience. The first and largest group, about 30 percent, came from the BFA.<sup>13</sup> They belong to the first generation of rural loan officers. The rest had had some experience in rural NGOs, such as Federación de Cooperativas Agropecuarias del Oriente-FECOAGRO (Federation of Eastern Agricultural Cooperatives), Plan Internacional, or had worked in agriculture (*beneficios de café*, independent farms). The current trend is to hire people without prior lending experience.

Rural loan officers receive only one extra day of specific training compared to urban loan officers. Calpiá actually adheres to the same lending principles in both environments. This does not mean that rural lending is the same as urban lending. It certainly requires different skills, but these skills cannot be taught in a few extra theoretical classes. This is why Calpiá is hiring more people with degrees in Agriculture and some experience in the countryside, rather than loan officers from the BFA.

### *Urban Loan Officers*

Loan officers in urban areas are also around 30 years old on average. They have, however, more diverse educational backgrounds and working experience than rural loan officers. They usually hold undergraduate degrees in Business Administration, Economics or Accounting, but it is also possible to find loan officers with high school diplomas only. It is possible to encounter former teachers, administrative assistants and micro entrepreneurs turned loan officers. For urban loan officers, educational background does not appear to be as crucial as it is in rural areas.

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<sup>13</sup> An important reason why Calpiá initially hired former rural loan officers was, in part, to benefit from their knowledge of the region, on clients and about credit practices. After Calpiá had adapted its own technology to the Salvadoran rural areas, this additional knowledge was no longer crucial. Moreover, it has been shown that teaching new techniques and attitudes to newcomers is more effective than trying to change old habits.

## First Impression Matters: The Process of Screening and Signaling

The first set of actions and procedures in the lending process are screening and signaling. During screening, Calpiá assesses ability to pay: potential borrowers' ability and willingness to repay loans. The organization wants to distinguish borrowers according to the risk they represent and offer them contracts accordingly.

This first contact is extremely important, as both parties, lender and borrower, send signals to each other about their intentions.<sup>14</sup> How these signals are designed and interpreted will greatly influence the future performance of both lender and borrower. This stage in the lending process has been highly significant in El Salvador because of the breakdown of the repayment culture and the mixed signals sent by MFOs that are not concerned about sustainability.

A feature of some borrowers of Calpiá is that they have had experience with other lenders.<sup>15</sup> Given that attitudes about repayment and borrowing habits have been shaped by these earlier contacts, for better or for worse, Calpiá has been forced to spend considerable resources in differentiating its product and explicitly signaling its expectations about contract compliance.

When initial contact takes place away from the office, potential applicants may be scheduled for a talk at the branch (*charla*). The *charla* has several purposes. First, it serves as a showcase of services. The conversation emphasizes the wide array of services offered and the lack of red tape (*agilidad*) in the process. The benefits of a long-term relationship (*permanencia*) are emphasized, as well as the capacity to tailor contract terms and conditions to individual demands (*flexibilidad*). Loan officers want to clearly differentiate Calpiá from organizations characterized by red tape, such as the BFA, or by their transitory existence, NGOs. Second, the presentation discusses borrowers' responsibilities, the requirements they must fulfill, and emphasizes how serious an organization Calpiá is when it comes to recovering loans. Calpiá expects that the *charla* will serve as a self-selection mechanism,<sup>16</sup> implying that non-creditworthy loan applicants will decide not to apply for a loan.

14 The first contact with clients may occur in three different ways: the potential client walks into the offices of Calpiá looking for information; an existing borrower already affiliated to Calpiá recommends someone to the loan officer, who then visits the prospective client; and when rural loan officers visit a region, they establish a meeting place where they may be approached by prospective clients. Similarly, new borrowers may approach urban loan officers when they are walking in his designated area.

15 The rural loan officers interviewed reported that some of their clients had had loans from organizations, such as a bank, cooperative or NGO. In rural areas, the estimated proportion of clients with former borrowing experience ranged from 10 to 60 percent of a given loan officer's clients. The main lender, by far, had been the BFA, followed by credit funds and NGOs.

16 If the process is efficient, the organization will invest in a detailed individual assessment only for a reduced number of applicants. An inefficient mechanism would eliminate few or none of the most risk-prone applicants and the organization would have to invest more resources in assessing the applications. It appears that at Calpiá the *charla* is a powerful tool; loan officers estimated that around 30 percent of those attending leave after the *charla* is over. Even though the *charla* has a similar message at all the branches, its effectiveness depends on the charisma of each speaker.

### Assess, Assess, Assess

After the *charla*, potential clients still interested in a loan are invited to fill out an application and to talk to a loan officer. Loan officers must now assess the creditworthiness of newcomers. Depending on the results, specific terms and conditions for the loan are determined or the application is rejected. Rejection is always communicated in a subtle way. The loan officer may set unattainable prerequisites, for example, so the rejection will not be taken personally.

The entire evaluation is a painstaking process. It involves gathering information from three major sources: clients, referrals from other clients and financial organizations, and visits to clients' business (farm) and home. Since each step is costly and their performance will influence their salary bonus, loan officers start with the in-office tasks first and field visits are scheduled only after clients qualify. But, what specific information is gathered at each step? This is discussed next.

#### *Step 1: Information from Clients*

The first interview with clients is extremely important. It is the first opportunity for loan officers to evaluate the clients' character. The meeting is a short but very effective interview. The main points discussed are:

- (i) The purpose of the loan and the sources of repayment. Here, the agricultural background of rural loan officers plays an important role. Loan officers cannot be fooled about yields, livestock productivity or crop prices. They are aware of yield and price averages in the region and have quite an accurate idea about what is needed to obtain a given yield.
- (ii) The nature of the commitment is emphasized. It is explicitly stated that, in case of a problem with the major source of repayment, alternative sources must exist. Calpiá also recognizes that, in the assessment of the ability to repay, the entire household-business unit must be analyzed.
- (iii) The guarantee is the next issued on the agenda. Loan officers explain the types of assets that are accepted as collateral and the advantages and disadvantages associated with each kind.
- (iv) Once a general agreement is reached, loan officers give clients a form to fill on the spot or return later. The form summarizes the information already discussed during the interview and requests documents to back it up. Two names, from non-relatives who can serve as references, are required.

Rural loan officers are authorized to negotiate loans for nonagricultural purposes if clients live in their area of influence. Consumer loans are not explicitly offered but loan officers recognize that, given the fungibility of funds and the lack of supervision, loan funds are used for consumption.<sup>17</sup>

<sup>17</sup> Calpiá's loan officers estimate that deviation of funds occurs in few cases (5 to 20 percent of all borrowers). They claim that deviation shows that clients are diversifying their activities and that this is positive. As long as loans are repaid, no one is concerned with this apparent loan diversion.

With information about household, business and credit history in hand, loan officers schedule a visit to clients in the following days. Before visiting clients, loan officers will attempt to obtain information from other sources.

### *Step 2: Information from Other Sources*

The most important pieces of additional information are references. For all borrowers, rural loan officers check with the BFA and the credit funds. If loans are large, other sources such as Pro-Crédito, a private rating agency, and the Superintendency of Banks may be consulted. If prospective clients are found to have an overdue loan outstanding, the process is terminated immediately. If they have an active outstanding loan, depending on their remaining ability to repay, a loan from Calpiá is still possible. Urban loan officers use the same credit rating agencies, but may also consult wholesalers. Wholesaler credit seems to be more important to urban than rural clients. This may be due to the higher proportion of traders in urban areas than in rural areas. The most important referral comes from borrowers established in the region, who clearly possess information advantages.

In general, the initial interview, application form, and process of information gathering before the visit to rural clients are more complex and detailed than what urban loan officers would require. This is because the most expensive part in the evaluation process for rural loan officers is the actual visit, while in an urban setting, loan officers will usually be able to walk to their clients' place of business. A visit in rural areas is expensive, so it is only undertaken when loan officers have enough confidence that applicants are legitimate potential clients. Speedy rejection is as important as speedy disbursement, as both reduce transaction costs for borrowers.

### *Step 3: Information from Visits to Clients*

The visit has three major components: a visit to the home, to the site where business takes place and to the community in search of references. During the visit to the home, loan officers look for signals that will help them assess applicants better: the state of intra-household relationships, quality of life of the household, condition of potential collateral, accessibility to collateral and documentation. At this stage, any documents that may back the application are requested: paid bills (utilities), receipts from payments on current obligations (BFA, NGOs and appliance purchases), ownership title of the house and land, remittance receipts and documents about the business.

Loan officers then visit the plot of land or the farm where funds are going to be invested. Loan officers observe the techniques and practices used by clients. They observe and personally evaluate inventories, stocks, machinery, sales, if applicable, and the like. The lending technology requires that both urban and rural loan officers visit both the home and the business of borrowers. The emphasis placed on each visit is different, though. Rural loan officers pay particular attention to household conditions, while urban loan officers are more interested in visiting the business.

Even though this detailed information gathering may appear demanding, it is not enough. Personal references are still needed. Loan officers talk to neighbors, established clients in the area and/or area traders. These conversations enable loan officers to corroborate their information. Simple questions are about character: Is this person a respected member of the community? Is this person a hard working farmer? Traders are asked if they provide credit to this borrower. In some cases, rural loan officers find out that a plot of land does not even belong to a client. However, lack of ownership per se does not preclude farmers from obtaining a loan, but a finding like this would erode the trust between borrower and lender. The loss of trust leads to the termination of the relationship.

### **The Evaluation Form: Summary of Findings and Recommendation**

The evaluation report summarizes all the findings and recommendations made by rural loan officers.

#### *Household and Business Data*

The information to be gathered includes observations about the makeup of the family (number of members, employment status and ages), status of the property (owned, rented, with or without title) and an estimate of the value of the house and other fixed assets. A brief assessment of the farm is also required: plot size, location, type of irrigation, type of crops, status of property and estimates of its worth. All of this information is used in the evaluation of applications.

#### *Historical and Projected Financial Statements*

A detailed cash flow outline is prepared. Cash flow is important because it reflects clients' perceived ability to repay with and without the loan. The estimation has three interesting features:

- (i) It includes revenues and expenses for the entire economic unit, from all sources. On the revenue side, items such as family remittances, proceeds from sales and wages are included; on the expense side, everyday household expenses, such as food and clothing, are included.
- (ii) Production parameters, such as crop yields or livestock productivity, are calculated as weighted averages of three indicators: maximum yield ever, most recent yield and worst yield ever. In estimating output value, minimum expected market prices are used.
- (iii) The relative contribution to revenue flows of each activity of the farm-household unit is relevant. When the main source of income is not agriculture, loan officers are required to present a detailed analysis of the alternative activity. Diversification is so important to reduce risk that loan officers tend to reject specialized applicants with single activities.

Loan officers must also prepare a balance sheet, even if clients already have one, which is rare. The figures are merely estimates by loan officers, based on the visits to clients. Particular attention is paid to inventories (machinery, livestock) and debt. At this point, loan officers have already checked for outstanding obligations with typical rural lenders and, for larger loans, with credit bureaus.

### *References*

Applicants are required to provide names of people who may be able to recommend them, although rural loan officers understand that these are friends or business partners. This information is more valuable, however, when names are those of current borrowers with good repayment records. In any other case, loan officers also look into their own references. Some of them trust some contact people in town (an established borrower), merchants or neighbors.

### *Guarantees*

A borrower's repayment behavior is influenced by several factors. One of these factors is the potential loss of an asset pledged as collateral. This loss is an inevitable consequence of default. At Calpiá, the typical loan contract does not explicitly consider any exception to this rule. It is clearly established that the contract will be fulfilled, regardless of the state of nature (loss of a crop, drought, or a sudden drop in prices).

Where the legal system is inefficient and cumbersome, lenders must find alternative means to force contract compliance. At Calpiá, guarantees play three important roles. First, pledging collateral decreases the expected gains from default for borrowers. Second, collateral requirements serve as a signal to prospective borrowers of the seriousness of the organization. Finally, collateral diminishes losses for Calpiá when default occurs. These three objectives are not necessarily always secured.<sup>18</sup>

In practice, the number of guarantors and the value of the guarantees requested exceed the minimum required by the organization's manual.<sup>19</sup> Loan officers, along with branch managers, have the power to increase these requirements, as they feel convenient. This responds to the high weights of portfolio performance indicators in computing bonus pay.

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18 A household appliance, a refrigerator for example, may have a low retail value, even compared to the loan, but may have a very high consumption value for the client, thus strengthening incentives to repay. Also, there are high-retail-value items that, due to legal constraints, are of little value to Calpiá.

19 In their visits to clients, loan officers always try to talk to borrowers' spouses. Their inclusion as guarantors has become a rule at Calpiá. It shows the commitment and agreement of the entire household toward the new obligation.

Among the most frequently accepted types of collateral, household appliances (TVs, VCRs, refrigerators and stoves) and furniture (such as dining room sets) constitute the most frequently accepted assets. Loan officers try to include as many appliances and furniture as possible for each household. The advantages of this choice are many: (1) in case of default, the small size of these assets makes it easy to move the collateral to Calpiá's branches; (2) it is easier to sell small items than large ones; (3) some of these items have a high consumption value; thus, loss of the item may influence behavior; and (4) legal constraints to remove these items from the household are fewer.<sup>20</sup>

In order of importance, machinery and livestock follow household appliances as preferred collateral. Machinery items are valuable, but to serve as collateral, they must be legally registered. Registration of the lien adds costs, in time and money, to the transaction. Machinery items may have a high sale value but, as specialized assets, they are more difficult to sell. Livestock are accepted through a letter of purchase (*carta de compra*) which establishes that if cattle is sold, Calpiá has a right to the proceeds. Due to its mobility and risk, livestock is accepted as complementary collateral only.

The fourth and least used form of collateral is a mortgage on the house. This is used only when the loan amount is large enough to justify collateralization costs.<sup>21</sup> The legal process of setting up a mortgage is long and expensive. Formalizing it can take up to a month. A month is a long time in agricultural activities, where opportunities for cultivating and harvesting may be easily lost. As a partial substitute, rural loan officers accept land titles in deposit. They understand that, in case of default, they cannot foreclose on the house or the plot of land. However, the mere threat of legal problems creates enough incentives for some clients.

A combination of moveable collateral (household appliances and/or livestock) and the signature of the spouse are enough guarantees when family own their house and/or the plot of land they cultivate. If they do not own property, additional guarantors are needed.<sup>22</sup> The best additional guarantor is a current Calpiá client in good standing. If this is not possible, a guarantor who owns a house is preferable. If guarantors are considered the main backup for a loan, loan officers visit them. Sometimes, a household member is a wage earner. When this is the case, an irrevocable payment order is used (*orden irrevocable de pago*). This document establishes that, in case of default, the employer will retain a portion of the salary to pay the loan

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20 In the case of appliances, borrowers sign a document (*dación en pago*) that allows the lenders to repossess the item if borrowers agree.

21 This approach is not always well understood by new clients. Sometimes they walk into the branch thinking that, as it is common in traditional banks, offering a mortgage will automatically imply approval of a loan application. Later on, they find that having a stock of small but highly valued and moveable items as collateral is better.

22 Calpiá does not require farmers to own their plots of land. Its technology allows borrowers to secure loans through alternative means. This innovation is important in a country such as El Salvador, where an important proportion of farmers lease land (Buchenau, 1997).

The valuation of the guarantee is also important. Due to the small size of the transactions and the great variety of goods that are accepted as collateral, it would be unthinkable to hire an independent valuator. Loan officers are in charge of valuing guarantees. Although there are guidelines about minimum accepted ratios of guarantee value to loan size, the valuation depends on the assumptions and experience of each loan officer. The minimum established ratio guarantee to loan (1.5 to 1) is designed to cover all liquidation costs.

### Approval and Disbursement

Loan officers do not have the authority to approve loan applications. A credit committee is in charge of approving, modifying or rejecting loan applications, using the information provided by loan officers. The credit committee is the second most important filter in the screening process. Depending on loan size, the credit committee includes, on the one hand, the loan officer and, on the other, a branch credit coordinator, branch manager or Calpiá's Credit Manager. For the largest loans, two Board members plus two managers of Calpiá form the committee.

When loans are rather small, up to US\$ 5,000, approval is fast and simple. Early in the morning, rural loan officers deliver the application and evaluation forms, along with any relevant documentation, to the branch Manager. The same morning and after loan officers have presented the case in person, the manager makes a recommendation. When the loan has to be approved by a committee and members are not at the branch, the process takes a few days. The majority of loans fall under the branch Manager's control.

The next question is how good a filter is the committee? According to loan officers, an overwhelming majority (70 to 90 percent) of the cases are approved without modifications. The rest are approved with minor modifications and a very slim proportion (no more than 5 percent) is rejected by the credit committee despite the recommendation of loan officers.<sup>23</sup> The percentage of approved loans without modifications increases for established borrowers (*cliente recurrente*) and when rural loan officers are more experienced. Credit committee decisions are transmitted to clients through loan officers. Even with modifications, most clients accept the offer.

The entire process, from application to actual disbursement, takes from three to five days. The waiting period depends on loan officers' possibility to visit the area and put together all the necessary documents. Rural loan officers will not ordinarily make long trips to visit only one client; the visit will be put on hold until additional tasks, such as monitoring or recruiting new clients, may be added to the trip. If loan officers are able to visit clients on the spot, the entire process will take no more than three days.

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<sup>23</sup> Loan size is the most common revision, followed by the term to maturity.

## Monitoring: Supervising Ability to Pay, Not Production

The goal of the in-depth assessment of clients' main sources of income is to estimate their ability to pay. For instance, if an applicant's main activity is corn production, the loan officer will analyze, project and evaluate corn production. The terms and conditions of the loan will be adjusted to the biological cycle of corn production. The ultimate objective of Calpiá, however, is not to ensure corn production but repayment. As a further safety feature, loan officers will always request an alternative source of income that will make repayment possible in case the main activity fails.

The precise nature of the monitoring activities depends on the credit product. The three main credit products offered in rural areas are listed below.<sup>24</sup>

- (i) Seasonal credit, namely very short-term loans used to finance working capital during peak periods.
- (ii) Micro business credit, namely short- to medium-term loans to finance working capital or investment in micro business.
- (iii) Agricultural credit, namely short- and medium-term loans to finance working and investment capital in crop and livestock-related activities.

Rural loan officers' portfolios are composed, in order of importance, of credit for crops, credit for livestock and credit for micro business.

After disbursement, loan officers may visit borrowers. This visit does not necessarily take place for all new borrowers and for all loans. The heavy workload of each rural loan officer does not allow it. Furthermore, follow-up visits are not an explicit part of loan contracts. Loan officers have found that their mere presence in the region is a good monitoring tool. A casual, non-programmed visit works well.

Visits are not long and detailed analyses of fund use; They are only short, friendly encounters.<sup>25</sup> What is important is that clients feel the presence of their loan officer in the area. Loan officers report that some increases in their individual portfolios' arrears are exclusively due to their temporary absence (vacation, sick leave).

## Preventive Monitoring

Some circumstances will precipitate visits before loans are overdue. They include:

- (i) Negative shock. A drought, for example, is not under the control of clients, but it may significantly change borrowers ability to repay. Loan officers will try to ensure that the client is engaging in risk-coping activities to deal with

24 As of December 1998, 64.3 percent of rural loan officers' portfolios was allocated to finance agricultural activities, 15.4 percent to craft activities (*actividades artesanales*), 13.9 percent to trade and 6.4 percent to service activities (Pleitez, 1999).

25 Rural loan officers merely talk about family, events in the area and the welfare of the household. Sometimes, a simple greeting when passing by works well (random monitoring).

the shock. The possibility of a shock always exists, but its consequences are reduced *ex ante* with the requirement that households have alternative sources of income.

- (ii) Casual information from neighbors. Loan officers sometimes learn that a borrower has left the area or the country, is sick, has some family problems or has been a victim of violence.
- (iii) Change in the project. The visit helps to verify if the alternative choice still fits the payment schedule. Loan officers do not worry about crop changes; they just want to make sure that the ability to repay has not been jeopardized.
- (iv) A large loan with a lump-sum payment. In order to provide farmers with relief during liquidity crunches, Calpiá uses seasonal credit. The main characteristic of these loans is that the principal and interest are paid in a single payment. If, in addition, loans are relatively large, loan officers visit clients to see what how things are going. A lump-sum payment does not provide the continuous rich flow of information that frequent payments provide.
- (v) Month end. A key component of the evaluation of the performance of loan officers is the level of arrears at the end of the month. This makes loan officers more worried about delinquency rates as the end of the month approaches.

### Corrective Monitoring

If payment default takes place, the first action taken by loan officers is a visit. Loan officers do not rust out on the first day. Usually, if defaults continue after three to five days, the loan officer then visits the clients. There may be understandable reasons why the client have not paid yet. The client may have simply forgotten the payment date. Since this is common, the loan officer, at least at this point, just serves a friendly reminder. On this occasion, the loan officer will not talk about seizing collateral or other radical measures. The loan officer will, however, warn the client about the damage to their rating (*la nota*).

Calpiá's rating system has two components. The first one is an automatic grade based on promptness of payments. The second is a loan officer's grade based on borrower assessment by the officer. The automatic system uses the average number of cumulative days a payment is late during the loan sequence of borrowers. Clients who, on average, pay before three days after the due date, are assigned a grade of one. The worst grade is five, for clients with overdue payments that average ten days or more. Grading is adjusted for special circumstances. Loan officers' grades use the same scale, from one to five, and reflect their personal evaluation and, in most cases, their grade is the same as the automatic grade. Calpiá disqualifies all clients with grade five and places restrictions on clients with grades three and four. In the other cases, the approval of new loans does not present major issues.

## Procedure Adjustments for Repeat Borrowers

Borrowers who request a second, third, or fourth loan from Calpiá have an additional advantage: reputation. This is an implicit asset for clients who have acquired a good reputation with the organization. Loan officers now possess additional information disclosed by clients' actual performance, even though any additional loan still poses a risk. For repeat borrowers, loan officers are required to conduct new assessments. The forms are simpler, but still require some work. Updating financial statements and guarantees constitutes the core of the analysis. A visit for each renewal is highly recommended. In practice, though, the actions taken by loan officers for repeat borrowers depend on a number of circumstances:

- (i) The first element is the grade (*nota*).
- (ii) The second element is the nature of changes to the loan contract. If there is a significant change in the terms and conditions of the loan, then a visit by a loan officer is explicitly required on the instructions of the branch Manager. The most common changes are increases in loan size and/or changes in guarantees. Changes in terms to maturity are rare as agricultural cycles are set.
- (iii) The third element is any previous visit. All clients most likely have already been visited as part of preventive or corrective monitoring activities by loan officers. These visits have already contributed to the stock of information needed for granting a subsequent loan.
- (iv) The fourth element is a change in the activity to be funded. Regardless of the grade, if loan officers learn that clients are going to engage in a different activity, then a new assessment is needed.
- (v) The fifth element has to do with references. Information about the use of the funds or wasteful activities by clients may come from other clients in the area. Clients may tell loan officers that other clients are having problems with their crops or are about to leave the country. Under these circumstances, even for clients with perfect records, a visit is programmed.

Taking into account the above-mentioned factors, the final decision about whom to visit is up to the loan officers. For well-known clients, the visit may be only a friendly greeting and the information presented to the credit committee just a repetition of a prior report. In other cases, a visit could take longer and loan officers may be genuinely interested in observing production performance or having a look at the guarantees.

## Enforced Contract Compliance: When and How

As already indicated, the first response to a late payment is a visit (corrective monitoring) that takes place after about five days of the due date. If the client still does not pay, the loan officer will continue to visit in an attempt to put some

pressure on the borrower. Some loan officers will visit a client twice a week and others twice a month, the minimum recommended by Calpiá.

In the first collection attempts, the loan officer just talks about the consequences of being late, ranging from the loss of good credit history to the probable foreclosure. At the same time, the officer evaluates the causes of the default to know if non-payment is a result of a temporary cash flow problem or a lack of willingness to pay.

When the loan officer estimates that the problem is only temporary, a late payment agreement (*moratoria*) can be reached. The late payment agreement gives clients extra days to pay the delayed installment and avoid late fees. From the next installment onward, however, the original payment scheduled prevails. During training, loan officers are instructed that this should not happen very often. This modified payment plan is only used with very good and well known clients. It is, then, the exception and not the rule at Calpiá.

In all other cases, if late payments persist for 30 days, collateral is seized. The loan officer in charge, accompanied by the branch Manager, the Credit Coordinator or another loan officer, seizes the collateral. The seizure of collateral is accompanied by a document, voluntarily issued by borrowers, which states that they offer the asset in payment of the obligation.

At this stage, payment is still possible. At least half of defaulting clients pay their dues, in order to recover the collateral seized, within the next 15 to 20 days. If not, loan officers assume that the loan will not be repaid. Loan officers are in charge of selling the seized assets. When collateral is finally sold, the proceeds do not usually cover the amount due to Calpiá. In some cases, this happens because late fees and interest have accumulated or because the goods have depreciated too much. If the residual debt is small, it will be written-off. If not, it will remain in the portfolio of the loan officer in charge.<sup>26</sup>

### Coordination of Lending Activities

In Calpiá, unlike others MFOs where each lending activity is assigned to different employees, the way lending activities are organized rests on economies of scope at loan officer level. Thus, most lending activities are concentrated on loan officers.

### A Week in the Life of a Loan Officer

Loan officers at Calpiá have a work schedule with extended hours. A usual day for a loan officer starts early in the morning and ends after nine hours. During peak seasons (planting and harvesting) for rural loan officers and during holidays, such as Christmas, for urban loan officers, some of them have reported working over 14

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<sup>26</sup> It is also interesting to note Calpiá's practice of calculating accrued interest. In order not to grossly overestimate accrued income, after 90 days, no more accrued interest is calculated. Calpiá builds provisions (reserves) to account for accrued interest not received.

hours a day. On Saturdays, loan officers work at the office in the mornings and most of them add a couple of hours at home Saturday evenings and, if needed, a couple of more hours on Sundays.

The day of a loan officer invariably starts with identifying late payers and planning collection strategies, which takes from 20 minutes to an hour. Most urban loan officers are able to call the defaulters by phone right away. For the minority of clients who do not have a phone, assessments serve to plan ahead for visits. Officers may review overdue installments to determine if any preventive monitoring is necessary, given loan sizes and clients' history. The decision, especially of undertaking preventive monitoring, is left to loan officers' discretion. Next, loan officers take part in a meeting of the credit committee made up of the branch Manager or the Credit Coordinator.<sup>27</sup> Overall, the meeting lasts no more than half an hour. At this point, general meetings are also held.<sup>28</sup>

Later in the morning, loan officers are divided into two groups. The majority leaves the office until late in the afternoon. The second group, no more than a couple of loan officers, stay at the office to offer informative talks (*charlas*). Each talk takes no more than 30 minutes. Loan officers take turns remaining in the office to give the talks.

The workspace of a loan officer is not a desk; it is the field, the countryside for rural loan officers and the streets for urban loan officers. Loan officers spend about seven hours out of the office visiting potential clients, revisiting some new clients or just taking a look at the area in search of new opportunities. Rural loan officers need up to two hours for transportation purposes only, while urban loan officers may come and go from the office when the market location is close by. Rural loan officers will see from three to seven clients on each field visit. Given the population density in urban areas, an urban loan officer sees ten to eleven clients during each field visit. A third of these are new clients, a third are old clients being visited for new loans and the remainder result from chance encounters with potential clients.<sup>29</sup>

When loan officers go back to their office in the late afternoon, they spend an hour to organize the information and coordinate their workload for the next day. Other activities that take place no more than once a month are: seizing collateral from a defaulter, visiting the central office to present a large loan application and following up on the formalization of a mortgage loan.

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27 Rural loan officers bring into consideration from three to six loan proposals, depending on the season. For urban loan officers, the load is four to seven loan proposals. Rural loan officers must prepare a proposal for all clients, new or repeat. Urban loan officers, by contrast, concentrate more on new clients, since some of their old clients may be using a line of credit (*crédito automático*) and no evaluation report is needed in this case.

28 The manager reports on the actual and expected branch performance and coordinates actions to control defaults, portfolio expansion and other issues of general concern.

29 A rural loan officer takes up to an hour to visit a new client, while an urban loan officer takes no more than forty minutes. In both cases, time spent with an old client for a new loan is less than half the time spent on the first visit.

## Loan Officer Output: A Few Indicators

Measuring productivity requires detailed data. A few simple indicators, nonetheless, can illustrate the workload of loan officers.

Table 4.4 shows information sorted by type of loan officer (rural versus urban) based on sample data. These figures result from loan officers' efforts and the constraints faced in each location, such as market saturation differs according to branch location.

There are important differences between the portfolios of the two groups of loan officers. To begin with, the number of clients of a Calpiá loan officer is high. A typical rural loan officer works with almost 400 people and his urban counterpart with close to 300. At the same time, a typical rural loan is also larger than a typical urban loan. These comparisons are biased, however, because rural loan officers never lose their portfolio of repeat clients. This happens as urban loan officers lose their best clients each month to the category of preferred clients. Once a client graduates to the preferred category, he is out of the portfolio of urban loan officers.

Another interesting feature is the relative importance of women in urban loan officers' portfolio (63 percent). This reflects characteristics of the urban market segments, where the sales sector, in which there is significant female participation, has a great importance in the urban portfolio. This is not a result of any explicit gender targeting, but only of differences in the environment.

**Table 4.4. Financiera Calpiá: Indicators of Portfolio per Loan Officer**

Indicator		Rural loan officers	Urban loan officers
Median number of clients		390	283
Median portfolio (US\$)		281,429	136,000
Loan size (median of averages) (US\$)		721	548
Proportion of women in the portfolio ( %)		30	63
Last month processing of (%)	New clients	35	17
	Repeat clients	65	83

Source: Authors' calculation based on interviews.

It is also important to point out indicators registered by Calpiá's overall portfolio. As of December 1998, the average loan size amounted to US\$ 700. Average loan size per loan officer was US\$ 325,067, US\$ 322,994 for rural portfolios and US\$ 325 for urban portfolios. Moreover, loans managed by loan officers were, on average, US\$ 422 (global), US\$ 410 (rural), and US\$ 426 (urban).

## Financial Incentives for Good Work: Performance-Based Wages

The measures of productivity discussed above demonstrate the excellent performance of Calpiá's loan officers. Their performance is outstanding in two ways: performance steadily improves over time and actual performance compares well to other peer organizations (Microbanking Bulletin, 2000). This section explores the incentive structure in place at Calpiá that contributes to this excellent performance.

Calpiá offers two components in pay to its loan officers: fixed wages per month and a variable bonus depending on individual performance. This mechanism of compatible incentives is needed, given the large discretionary component in loan officers' behavior and the difficulties involved in measuring their efforts. Since loan officers carry out most of the lending activities of Calpiá, the effectiveness of the monetary incentives offered to them is critical. These monetary incentives do not tell, however, the whole story. Non-monetary incentives, such as social status and identification with the mission of the organization, also play an important role in influencing the behavior of loan officers, but these other incentives are more difficult to characterize.

The fixed portion of the remuneration for new loan officers (urban and rural) amounts to 3,000 colones (US\$ 344) per month. The second component results from a formula that differs for urban and rural loan officers. The formula combines the results of different and competing lending activities: stock indicators (portfolio size, number of borrowers), flow indicators (numbers of new borrowers and new preferred borrowers), and strategic ratios (delinquency rates).<sup>30</sup>

Given that all loan officers face time constraints, the marginal contribution to loan officers' income for spending more time on one lending activity over another depends on pre-established goals and on current values of relevant parameters. Some circumstances, such as branch and clientele location, degree of market saturation or established goals, have different effects on the behavior of a loan officer with a large portfolio versus one who is just starting out. By the same token, the marginal effects on income are different if circumstances vary for the same loan officer (for example, with the entry of a new NGO in the area). This makes it difficult to design a system where efforts are always rewarded equally.<sup>31</sup>

## CONCLUSIONS

Financiera Calpiá is one of the few examples of a successful formal rural lender in Latin America. Its main contribution to the development of promising practices in rural finance has been the transfer and adaptation of its proven lending technology

30 For a sample of six loan officers interviewed by Pleitez (1999) between August and October 1998, the productivity bonus represented between 35 and 50 percent of their total earnings.

31 Even at branch level, where loan officers are assigned similar and exclusive zones, it is impossible to guarantee that business opportunities will be the same. Some loan officers find it easier than others to reach certain goals even when their effort levels are the same.

from urban to rural areas. This has been an important contribution for two reasons. First, the resulting increase in the supply of rural financial services has included not only funding nonagricultural activities in rural areas, but also the more difficult task of funding agriculture per se. Second, the transfer responds to deliberate and systematic efforts to adapt the lending technology to rural areas. This rigorous approach has made it possible to better understand the nature and magnitude of the challenges of the task, and to assess the adjustments that have been necessary to overcome the difficulties involved in agricultural lending.<sup>32</sup>

The process has not been an easy one. It takes time to learn about the characteristics of a new environment. In this new environment, Calpiá has used different strategies to overcome the usual problems related to covariant risk, information, incentives and contract compliance. It takes time to find specific ways to manage to overcome these challenges in a particular country. In Calpiá's case, the learning process has lasted several years.

In other places, the development of new microcredit technology has taken about a decade (González-Vega, Schreiner, Navajas et al., 1997). Hopefully, the lessons from these experiments will make it possible to shorten the duration of this inevitable gestation period. The overall process is complex and involves experimentation, learning from experience, formalization of new procedures, staff professionalism and a large enough size to generate economies of scale.

Although the learning process has not stopped, already important lessons can be learned from Calpiá's approach to rural lending:

- (i) The stock of knowledge needed to understand agricultural activities and to establish farmers' ability to pay is considerably more complex than what is needed in urban settings. To address these challenges, Calpiá tends to hire rural loan officers with formal training in agriculture and, if possible, with some practical experience in agriculture. This increases the costs of screening and monitoring borrowers.
- (ii) The process of entering new markets by opening new rural branches follows a market study conducted by loan officers themselves. In most cases, market studies are undertaken by new loan officers who, in turn, will be in charge of the new branch. The objective of the market studies is two-fold. First, it facilitates the better design of products, by getting to know the demand. Second, it affords loan officers a first taste of the market they will work in. The organization is very committed to responding to specific demands for financial services.

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32 While the exercise has required the commitment of all of the organization's staff, two individuals pioneered the project: Juan Buchenau, who was in charge of IPC technical assistance, which made this exercise successful, and Aristóteles Esperanza, the leader of the experience within the organization.

- (iii) Correlated incomes leading to systemic risk are an acute problem in rural areas. The resulting challenge is addressed by Calpiá at three different levels. First, at household level, Calpiá emphasizes diversification of the household's portfolio of activities. This implicit requirement does not appear to be a problem for small farmers, whose activities are diversified anyway, but it would be a constraint for medium-size and more specialized farmers. Second, at rural portfolio level, Calpiá responds to a global demand for credit. All rural activities, not only agriculture, may potentially be financed. Finally, at total portfolio level, the urban/rural nexus allows Calpiá to decrease its overall risk. This happens not because one type of activity necessarily conveys less risk than another, but because correlation between rural and urban activities tends to be lower than correlation inside each sector.
- (iv) The types of assets accepted by Calpiá as collateral are diverse. In order of importance, acceptable assets are household appliances and furniture, machinery, livestock and mortgages on the house, on the land or both. Household appliances and furniture are preferred because they are easier to move and sell in case of default, compared to larger and more specialized items, such as machinery. These collateral requirements do not preclude lessees from obtaining loans. Calpiá has shown that lending to farmers who do not own land is possible. This has extended the universe of rural borrowers.
- (v) Another innovation has been the responsiveness of Calpiá to the idiosyncrasies of rural conditions. Seasonal credit is offered in peak months and the terms and conditions of loan contracts respond to agricultural cycles.
- (vi) Accessibility to households is a key component of the technology. It allows continuous contact between loan officers and borrowers (low-cost monitoring) and the seizure of collateral assets, if necessary (credible enforced contract compliance). Thus, creditworthy farmers living in remote areas with difficult access are not considered potential clients.
- (vii) Calpiá tries to differentiate itself from the competition by offering a service with little red tape, as opposed to the BFA, and by signaling its vocation for permanency, as opposed to NGOs. This differentiation increases the present value of a long-term relationship with the organization and strengthens the structure of incentives to repay.
- (viii) The expansion process into rural areas has been cautious. Loan officers assess all loans, no matter how well borrowers have behaved in the past. In urban areas, this is no longer necessary, as preferred clients are granted a line of credit once they have constituted good reimbursement records. Routine assessments in rural areas obviously increase costs, but allow Calpiá to learn more about this new market segment.

From these lessons, several general features stand out in Calpiá's expansion strategy into rural areas.

- (i) First, well-tested lending technology had already been developed for urban areas. If the original lending technology were weak in its urban applications, there would be little chance of success when adopted in rural areas. The question is not simply to promote technological transfer; the key question is which technology to transfer and how to adapt it to new conditions.
- (ii) Second, there has been careful and gradual adaptation of the urban lending technology to the rural setting. In expanding into rural areas, the general principle has been to begin with the easier challenges and to address the more difficult ones only as the former have been successfully addressed. This parsimony has influenced the selection of areas where to operate on the basis of their accessibility, production risks, degree of client concentration, diversified production activities and repayment culture (Buchenau, 1997). Small pilot projects, designed as learning experiments, have preceded full-fledged expansion. Products and practices have been continuously adjusted as a result of this learning process. With the assistance of the IPC technical advisor, the organization carefully monitored effects of design and revisions on portfolio collection, loan officer productivity, costs and quality of services to clients.
- (iii) Third, a successful transfer must be grounded in the availability of the appropriate human capital. Therefore, the selection and training of loan officers receives substantial and competent attention. Calpiá's training program is outstanding.
- (iv) Fourth, the success of the technological innovation rests on how it directly responds to client features and demands, on conservative risk management and on sufficiently low overall costs to make the organization profitable. Calpiá has offered a flexible product, on an individual basis, in recognition of the nature of the farm/household business unit.
- (v) Fifth, to manage systemic risk, Calpiá undertakes portfolio diversification at three levels: household, rural portfolio and total portfolio levels. Diversified households have a better chance of obtaining services, while the organization relies on the rural/urban nexus to diversify its own portfolio. Systemic risk is also addressed by ongoing monitoring of information about the environment (climate, prices, trends in yields).
- (vi) Sixth, to deal with idiosyncratic risks, Calpiá monitors changes in the risk profile of its clients without targeting any specific agricultural activity. The fungibility of funds is recognized and the goal of monitoring is to preserve the ability and willingness to repay.

- (vii) Seventh, the structure of incentives to repay has relied on emphasis on assets that the rural poor typically possess as acceptable collateral. This approach does not excluded land lessees and increases the depth of the outreach.

Calpiá's lending technology is not designed, however, to deal with more specialized (single crop) farmers. By the same token, specialized rural lenders without an urban nexus may find it more difficult to deal with systemic risk. This is an unresolved challenge in rural finance.

Furthermore, a great deal of Calpiá's success is due to its human capital: most of its loan officers have an undergraduate degree in Agricultural Sciences, extensive experience and great motivation. In countries where human capital is scarce, wages could exert upward pressures on costs toward unsustainable levels. Rural lending is expensive; a MFO with a vocation for sustainability must price its products accordingly. In some settings, charging high prices (high interest and other rates) may be politically unfeasible.

Overall, Financiera Calpiá is a worthy example of innovation in microfinance. Its success is a result of precise institutional vision, the ability to understand its market segment and the development and implementation of an appropriate lending technology. At present, the strength of its lending technology is the most promising asset of the organization. However, the most significant threats to its sustainability come from the implicit weaknesses of its property rights and governance structures and from the need to adjust to a regulatory framework that does not fully recognize the differences of this market segment.