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Innovations as Response to Failures in Rural Financial Markets

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Innovations as Response to Failures in Rural Financial Markets

Gilberto M. Llanto and Gabrielle Roanne Laviña

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Abstract

The paper reviews the innovations developed by some financial institutions to meet the challenges of microfinance and rural finance markets. Innovations could be new products and methodologies or refinements to existing practices that are created in response to market inefficiencies and changing demands of a target clientele. Essentially, innovations by financial institutions are not only a means to reach the large unserved poor households but also to provide more and better products and services that could contribute to increasing profitability of the institutions adopting them.

The first type is innovations on the financial system which refers to changes in the structure of the financial sector particularly in the legal and regulatory framework. The second type of innovation is institutional innovation which deals with the changes in the structure, organization, and legal form of the institution. Another type of innovation is the process innovation. This refers to the introduction of new business processes leading to increased efficiency or market expansion (most often associated with technological progress). The last type of innovations is products innovation which refers to the introduction of new or modified products or services tailored to the needs of the rural borrowers.

Keywords: innovation, rural finance, microfinance, institutional innovation, process innovation, products innovation, systemic level of innovation, scarcity of collateral, leasing
INNOVATIONS AS RESPONSE TO FAILURES IN RURAL FINANCIAL MARKETS

Gilberto M. Llanto and Gabrielle Roanne Lavina

Introduction

Commercial banks will not lend to the poor and to microenterprises. The unflattering profile and lack of assets of the poor pose serious challenges to profit-maximizing financial institutions. High transaction costs make provision of small loans very costly and information asymmetry increases the risk in lending. These are enough to scare away formal financial institutions, particularly commercial banks from servicing this sector.

Besley (1994) identified three significant features in rural credit markets that discourage commercial bank lending. The first unique feature of rural markets is the scarcity or lack of collateral because borrowers are either too poor to possess assets or the property rights are poorly developed. The borrower can not show legal ownership of agricultural land or is unable to pay for it in the case of agrarian reform farmers. Secondly, complementary institutions such as insurance markets, credit bureaus and a literate and numerate population are underdeveloped, if not altogether non-existent, in rural areas. Lastly, the rural sector is plagued with covariant risks and segmented markets that prohibit financial institutions to diversify their portfolio and risks.

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1 Senior Fellow and Research Assistant, respectively, Philippine Institute for Development Studies
Thus, information and uncertainty problems, greater heterogeneity and dispersion of rural-based clientele, greater exposure to systemic risks, seasonality of rural activities and agricultural cycles, the small size of transactions and the absence of standardized and documented information\(^3\) are strong reasons for excluding small scale economic agents in the agricultural and rural sector from the formal banking system.

The paper reviews the innovations developed by some financial institutions to meet the challenges of microfinance and rural finance markets. Enforcement problems arise out of the absence of collateral and dispersion of clientels. Information asymmetries in rural markets result to adverse selection, which further leads to credit rationing, and moral hazard problems. However, this is not to say that serving the rural market is impossible. In fact, a number of microfinance institutions, either commercial or NGO-operated, and several competitive credit unions have demonstrated that inherent risks in the sector could be circumvented through properly designed financial products and lending technologies making it possible to provide financial services in the rural sector sustainably and profitably.

Innovations could be new products and methodologies or refinements to existing practices that are created in response to market inefficiencies and changing demands of a target clientele. Essentially, innovations by financial institutions are not only a means to reach the large unserved poor households but also to provide more and better products and services that could contribute to increasing profitability of the institutions adopting them. According to Rhyne and Otero (1994)\(^4\), there are three key principles behind innovations – knowing the market, using special techniques to slash administrative costs, and using special techniques to motivate repayments. Satisfying these key principles, innovations create additional value for borrowers and clients through a reduction in households’ and enterprises’ transaction costs of access to financial services, lengthening term structures thereby facilitating larger investments and improving client’s economy by

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refining valuation process. On the part of the institution, innovations can increase profitability by reducing costs or increasing revenues and improving competitiveness by serving new segments or by generating additional income in its business with existing clients.\(^5\)

Schrieder and Heidhues (1995)\(^6\) distinguished four types of innovations according to the hierarchy of the financial sector. The first type is innovations on the financial system which refers to changes in the structure of the financial sector particularly in the legal and regulatory framework. The systemic level is where policy exerts its greatest and potentially most fruitful influence on innovation. The rules of the game are primarily set within this level, for example, interest rate settings which has far-reaching effects across the entire market provides the chief stimulus for actors in the financial system to innovate. In many cases, financial system innovations are necessary to foster the institution, process and product innovations that enable the financial system to serve the poor clients on an ongoing basis.

The second type of innovation is institutional innovation which deals with the changes in the structure, organization and legal form of the institution. A prominent example of this type is the transformation of NGO-run microfinance institutions into regulated financial entities. The crossover to a regulated environment increases the legal powers of an institution and allows it to offer a wider array of services. Another example is the downscaling of commercial banks in order to tap into the microfinance market. Institutional innovations most likely happen when financial institutions are competing with each other. Such competition drives these institutions to stretch the financial frontier or expand into other market segments.

Another type of innovation is the process innovation. This refers to the introduction of new business processes leading to increased efficiency or market

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\(^6\) Quoted in McGuire, Paul B. and John D. Conroy. 1999. “Fostering Financial Innovation for the Poor.” Succeeding discussion on types of innovation is from McGuire and Conroy.
expansion (most often associated with technological progress). This type of innovation addresses the inefficiencies in the delivery systems or the operating procedures of financial products and services of an institution. Also referred to by Lariviere and Martin (1998)\(^7\) as technological innovations, process innovations aim to improve the design of loans, the process by which loan applications are evaluated and the way by which loans are disbursed and recovered. It can also affect the way in which potential clients are screened and monitored through credit bureaus and credit scoring. Its purpose is to reduce the total cost of lending or delivery of services that would eventually lead to clients’ increase demand for loans and thus expand the frontier of rural finance.\(^8\)

Process innovations are usually complemented by innovative products which is the last type of innovation as identified by Schrieder and Heidhues. Products innovation refers to the introduction of new or modified products or services tailored to the needs of the rural borrowers. This innovation arises from a perceived demand of the target clientele. There is a shift from the traditional supply-driven, one-size-fits-all approach to a more market and client-driven approach because there is pressure to increase outreach in the target market. Product innovation could also be a result of added competition resulting from the entrance of formal commercial banks into the microenterprise market, to curb increasing client dropout rates due to the inappropriateness of current products, and/or clientele have become more sophisticated. Thus, financial institutions are becoming increasingly responsive to the markets they serve and are tailoring their products to their clientele.\(^9\)

A financial institution should have all the fundamentals in place such as governance and structure control, efficient systems and operational procedures, and well-
defined organizational structure before undertaking product development. The institution’s stage of development (institutional development), the level of competition in the market and the needs of its clients are basically the main factors that determine if it can support development of new product. The success of a new product depends on the MFI’s awareness of market signals and institutional capacity to mobilize resources and operationalize the product once it has been launched in the market.10

Fundamentals to Innovation

Financial institutions are most likely to develop and provide innovations if they have to compete. This is supported by evidences of innovative products evolving in Latin American countries.11 The commercialization of microfinance in Latin America came about because of increased competition, changes in the financial regulation and the increased flow of funds in markets where demand is strong and discriminating. In turn, due to demand, microfinance institutions began offering products that are new to the field of microfinance which reflect the market realities of more sophisticated micro-entrepreneurs, greater competition, increased organizational capacity and more formalized lending environments.12 Buchenau (2003) also saw the important stimulus that competition among financial institutions provides to coming up with innovative products and delivery systems. A competitive environment however, is a product of a liberalized financial system that only appropriate policies and framework can achieve which implies the importance of the role of governments in ushering in innovations.

According to Zeller and Sharma (1998), long-term support of innovation may be the most promising direction for public policy to take in the rural financial sector.13 The

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11 See studies by Rhyne, Otero and White on MFI's in Latin America and commercialization of MFI's.
government’s primary role therefore, is to make the legal and regulatory environment conducive to innovation development. In other words, the government sets the rules of the game in the financial system. A conducive environment for innovations starts with a liberal framework and a clearly defined regulatory system that facilitates equal opportunities for growth of all actors in the financial system. This therefore implies that the government should avoid regulations that are unrelated to performance, such as interest rate restrictions, restrictive conditions on the use of grants and loans from donor agencies and regulations conferring discretionary powers to government agencies.

Although regulators have yet to come to terms with tension between innovation in savings products and the need for prudential standards to protect the savers, it should be understood that prudential standards should not discourage innovation unnecessarily. Rather, performance and reporting standards should focus on performance rather than the methods used so that financial intuitions are able to determine their own approaches to rural and micro-lending and to be innovative. Furthermore, in fostering a pro-active culture of innovation, the government should set incentives for institutions innovating in rural financial services. Besley (1994) noted that due to free-rider problems in the market, the government could subsidize pioneer innovators as incentives to encourage further innovations, although such subsidy should be for the initial period only. Promoting continuous innovation in the financial system also implies that the policy and regulatory framework is open to innovation itself.14

Donor organizations on the other hand, should be aware of the importance of innovations because innovating institutions particularly need their support, through grants and technical assistance in the initial stages of development. Innovating institutions incur large costs that may take a considerable time to be recovered. Innovations also require intimate knowledge of current economic conditions, competitive alternatives and clients’ preferences implying a careful research that has to be funded substantially. There is thus, according to McGuire and Conroy (1999), a strong case that donor agencies should take

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explicit account of the need for innovations when deciding which institutions to support. More innovative institutions may generate large positive externalities. However, major donor agencies do not always take into consideration the need to innovate and funding agencies rarely include innovation as criterion when making decisions.

In supporting institutions planning to introduce innovations, Buchenau (2003) recommended that donors should correctly assess the institution’s sustainability. The success of the innovation largely depends on the capacity of the institution to support the process. If grants are to be provided in undertaking innovations, donors should ask the institution to share risk of innovation according to the comparative advantages of both actors in order to provide proper incentives to both donor community and financial institutions. Because of their reach and influence, donors should also promote innovation by bringing diverse actors together and bringing together financial institutions and firms that can provide specialized knowledge suitable for innovations. This interlinking of market actors could help in promoting the culture of innovation among institutions. Donors could also work with governments in improving the operating environment for financial services.

As with the government whose role is strategically concentrated in the systemic level of innovation, donor influence is most useful in institutional building and innovation. It is important to understand that donor direct intervention may damage existing markets and is thus, very risky. Working on the institutional level and providing the proper incentives and support, donor efforts could pave the way toward a successful product or process innovation. It is important for a donor agency to have the vision, the right people on the job and the right attitude (a more result rather than profit orientation) to achieve success in innovations.16

In product development, rather than dictate how and where products are delivered, donors should leave product development up to the managers of financial institutions, as these managers best understand their clientele, market and institutional capacities. For their part, donors can support product development and innovation by providing flexible innovation grants, looking for partners that seek client feedback when designing financial products, offering technical assistance and seed fund to institutions that are testing new products, taking a patient and long term approach to funding that rewards institutional performance and outreach, support information exchange and learning among practitioners and other donors, and finally, investing in regional or global efforts that push frontiers of product development.  

On the institutional level, the success or failure of an innovation largely depends on the capacity of the institution, its knowledge on the current market and its commitment to its vision. As Buchenau (2003) stressed, innovative institutions may not always be successful or competitive. The chance of innovations generating revenues depends on good ideas, a careful design and on a close monitoring of costs. The design and introduction of a financial innovation starts with identification of potential market niches that are not yet served or of improvements that could reduce costs or increase an institution’s competitiveness. Probable reasons for failure could be the lack of commitment of the institution, a lack of control over the process and its outcome, faulty communication of the innovation within the institution and its clients, wrong assessment of demand, misunderstanding or resistance to new products within the institution, unrealistic projections of costs and revenues and a lack of internal control in general.

An innovating institution should follow a systematic product development process that includes analysis of institutional capacity, client-oriented market research, realistic product costing and pricing, pilot testing and careful, phased roll-out. The institution should also be aware that a new product or delivery system is not always the answer.

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rather, it is often less expensive and time-consuming to repackage and refine an existing product or a product developed by another institution than it is to engage in new product development. Not all institutions need to offer all products themselves.19

**Innovation as Response to Market Failures**

The primary reason why financial institutions exclude the rural sector from their services is because they cannot operate profitably in these areas. This inability to be viable is brought on because provision of services to the rural sector incurs high transaction costs that the financial institutions cannot recover. The lack of infrastructure like roads that provide accessibility to the areas, communication lines and other technological support systems, apart from the daily operating expenses, magnify costs to the banks. Economies of scale which is needed to keep operating and transaction costs reasonable cannot easily be established due to geographical dispersion of people. For their part, rural households lack the mechanisms to convey their willingness and capacity to repay credit because of lack of collateral that are familiar to banks. Information asymmetries lead to adverse selection and moral hazard thus, rural households are simply rationed out in the allocation of credit.

These information problems, high transaction costs, the lack of instruments to mitigate and manage various risks affecting the sector, e.g., weather and price risks, and the general state of the rural economy with attendant problems associated with land ownership issues, lack of infrastructure, etc., have worked against the sector’s ability to get more formal financing support to the sector.20 Over the years however, successful innovative efforts of some NGO-led institutions have proven that the rural sector can be a major source of deposits and the capacity to repay loans. Addressing the market failures that hinder their sustainability, these institutions have developed techniques and products that are adapted to the conditions and the clients in the rural sector. These innovating institutions that have been successful in tapping the opportunities in the rural sector are

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reaping profits while contributing to poverty reduction in this sector. There is no exact recipe for such endeavors and although lessons can be learned from successful innovations of these institutions, simply replicating their methodology or products cannot guarantee success.

Transaction Costs

The viability of financial institutions wanting to serve the rural sector would depend on how well they can manage and/or circumvent transaction and operating costs and how to deliver bank services efficiently. A successful innovation that has emerged from this is the village banking technology practiced. The village banking method was developed primarily to reach poor households in remote areas. It was aimed to minimize transaction costs by bringing the bank to the people and allowed for less expensive close monitoring of clients because the bank’s staff members are locally based. Vigilance to keep operating costs as low as possible resulted to several alternative banking practices such as not keeping normal banking hours and maintaining spartan offices. Operating village offices in accordance with the seasonal cycles further reduced costs, allowing profitability of institutions.

The village banking technology has been widely documented to improve outreach of financial institutions in poor rural areas while at the same time allowing these institutions to achieve viability. A well-known case is Indonesia’s unit desas. When BRI was restructured, saving mobilization was emphasized and the unit desa structure was made more effective and simple. Unit desas operated village service posts, targeting clients with mixed incomes located in moderate to densely populated commercial centers in urban and rural areas with lending and deposit taking as main activities. Transactions are made in offices up to 30 kilometers away, open five days a week for eight hours a day. The savings facility provided poor households access to funds for investments, emergencies or consumption smoothing needs. This has also enabled BRI to tap into a
large supply of funds disproving earlier notions that poor households have no capacity to save.\textsuperscript{21}

In Mali, CVECA’s system also operates using the same village banking technology. Satellite offices are set up and transactions are made in an office in the village which is open one day a week for 4-10 hours depending on the season, effectively reaching clients in remote areas as well as reducing fixed operational costs. On the other hand, in Bangladesh, ASA’s hybrid mandatory-voluntary product, provides voluntary liquid savings service which takes the form of a mandatory-voluntary product that is delivered during weekly meetings by a credit officer that visits the neighborhood. A remarkable practice worth mentioning is that ASA practices extreme attention to minimizing its costs, such as hiring staff members that are not highly educated (at most 12 years of schooling). However, this is possible because of the simplicity of its system, which allows the institution to operate smoothly. In effect, ASA proved that it is possible to offer voluntary savings services to small depositors on a viable basis without also mobilizing large deposits from the public.\textsuperscript{22}

A further ingenuity brought on by the concept of village banking is the development of \textit{mobile banking services} such as the mobile lockboxes that go around the villages to collect savings. An example of this is VYCCU’s voluntary-mandatory savings service and lockbox mobile collection service in Nepal. The hybrid savings product is offered by a part-time locally based staff in a particular remote area. Lockboxes are mobile and are given to client households. Administrative costs are kept at a minimum because these lockboxes allow for savings without frequent visits from the collector. VYCCU employs a local resident ten days a month to collect savings and loan payments.

in this area and to walk to the VYCCU office and transact business once or twice a
month.\textsuperscript{23}

The delivery options of the above-mentioned institutions relied on low-cost
staffing. VYCCU, for example, initially relied exclusively on volunteer workers. For
low-cost staffing to work, it is however important that a highly efficient system is
established. All policies, procedures and products should be made simple and well
documented to enable swift decision-making. Responsibility for loans monitoring and
evaluation are decentralized and are done by field officers.

In recent years, an increasing source of rural income had been remittances from
overseas workers. Remittances have figured as an alternative and significant source of
income for the rural families. Although a large number of overseas workers are from
urbanized areas, such as National Capital Region and Southern Tagalog, a significant
number of them also come from regions where poverty levels are high. Also, although a
bigger share of international emigrants came from urban areas, it is in the rural areas that
remittances play a larger role in rural economies. Some families entirely depend on these
remittances as their main source of income while others have used a portion of these
funds to set up informal lending activities which provide external financing to farmers
and entrepreneurs. Thus, these remittances either directly or indirectly provide the rural
areas with necessary funds that formal institutions cannot supply. Either way, the increase
in remittances has contributed to the growth of business and economic activities in the
rural areas.\textsuperscript{24}

Effects of migration through family remittances and other forms of migrant
capital pose an important policy option linking financial opportunities in rural areas.
Specifically, the demand for financial services by remittance receiving households
represents the intersection between the role of microfinance institutions and the rural

Presented at Paving the Way Forward for Rural Finance: An International Conference for Best Practices.
Washington, DC.

and Policy Research Challenges.” ACPC.
sector development.\textsuperscript{25} If adequately addressed, remittances can become a major form of foreign savings energizing the rural sector into a process of modernization. Remittances, according to Taylor (in Orozco, 2003) have a positive effect in the rural sector when they alleviate the restrictions that limit local production due to the creation of employment and its multiplier effects on the local economy.

Financial institutions can play a major role in setting up \emph{transfer facilities} from international sources to rural areas. With a conscious effort towards cost reduction, one option available to an institution is forming a strategic alliance between money transfer companies and banks, and among banks in other countries. Another strategy is to use software platforms designed for money transfers or transfers from credit union to credit union using international remittance network.\textsuperscript{26} An efficient intermediating institution or facility for remittance transfer would reduce transaction costs and allow the institution to alternative source of fund for savings mobilization.

\textbf{Scarcity of Collateral and Issues on Information Asymmetry and Enforcement Problems}

Very heterogenous rural economic agents whose attributes, characteristics and personal circumstances are not entirely acceptable to formal financial institutions make up the rural credit markets. On the other hand, these banks and their operations may be totally alien to many of these rural economic agents so in effect, the rural borrower is denied effective access to financial resources and the bank loses the opportunity to intermediate the rural surplus.\textsuperscript{27} To circumvent such asymmetries in information, devices that could limit the consequences are employed. The usual method is the pledging of collateral in loan applications that would give sufficient signals to both borrower and


lender and would eliminate enforcement problems and uncertainties. However, the scarcity of collateral in rural markets prevents rural households from accessing credit.

The ingenious products developed by two Latin American microfinance institutions were in direct response to the lack of traditional collateral in poor households. The following products are not exactly new to the world of finance as conventional financial institutions and informal moneylenders commonly offer them. What is new about these products is their market-based application in the field of microfinance and the refinements made to fit the poorer segment of society.28

**Summary of Innovative Products in Banco Solidario de Ecuador and Cajas Municipales de Arequipa**

<table>
<thead>
<tr>
<th>Target Market</th>
<th>Eligible Use</th>
<th>Loan Size</th>
<th>Terms</th>
<th>Collateral</th>
<th>Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pawn loans</strong></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>BSE Olla de Oro</td>
<td>Economically active people; salaried workers with no credit access</td>
<td>Unrestricted but mostly for consumption</td>
<td>Min. - $50 Max. - $3,000</td>
<td>30, 60, 90 days with infinite renewals as long as interest is paid up-front</td>
<td>Gold jewelry, watches</td>
</tr>
<tr>
<td>CMA Credito Prendario</td>
<td>Low-income household enterprises</td>
<td>Unrestricted but designed as emergency credit</td>
<td>50% of gold gram based on market value</td>
<td>15, 30, 60 days or with maximum 6 renewals or 360 days</td>
<td>Gold (silver was later not accepted)</td>
</tr>
<tr>
<td><strong>Preferential Client Loans</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSE Credito Fiduciario</td>
<td>Higher income, more established microenterprise s; homeowners</td>
<td>Working capital; fixed asset investment</td>
<td>Min.-$2,000 Max. - 50% of property value</td>
<td>180-720 days or longer based on business growth and repayment</td>
<td>Property or real estate</td>
</tr>
<tr>
<td>CMA Credito Paralelo</td>
<td>Customer relationship of greater than 6 months and 2 payments into an existing loan</td>
<td>Working capital for dedicated campaign</td>
<td>Min.- $170 Max. - up to 35% of previously approved loan amount</td>
<td>30, 45, 60 or 90 days</td>
<td>Guarantee from existing loan must cover 100% of both outstanding balances</td>
</tr>
<tr>
<td><strong>Target Niche Products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSE Cuenta Solidaria</td>
<td>Industry segmentation by suppliers, microenterprise retailers, manufacturers and traders</td>
<td>Purchase of wholesale goods and raw materials</td>
<td>Min. - $50 Max. - none</td>
<td>Up to 180 days</td>
<td>Personal guarantees, household or business collateral; supplier leverage</td>
</tr>
<tr>
<td>CMA Prestamo agropecu</td>
<td>Established micro-</td>
<td>Working capital, fixed</td>
<td>Min. - $700 Max. – 50% of</td>
<td>1 to 48 months Based on</td>
<td>&lt;$1,500: co-signer and</td>
</tr>
</tbody>
</table>

### Pawn loans

Pawn loans respond to liquidity crunches, mostly consumption needs, in a speedy and secure (through gold as collateral) manner. Transactions are usually of small sizes and loans are approved based on value of gold, not on character of borrower eliminating the need for costly background checks. Pawn loan is based on an existing product that is already recognized in the market. BSE and CMA further streamlined this known practice and launched a product that offers credit access to low-income people within 15-20 minutes with less paperwork required. Loans are backed by the value of gold. This product also allowed BSE and CMA to enter into the low-income bracket of the population.

### The preferential client loans

The preferential client loans, on the other hand, are meant for business expansion or for business peak season needs. Clients with good track records are qualified for these loans, a way to reward them and to set out signals to other borrowers as well. The reputation effect of Hoff and Stiglitz (1990) is demonstrated in this reward system which encourages timely repayments and loyalty to good clients. BSE designed their product based on the value of the property but eliminated the costly business of formal mortgaging by employing a third party, the fiduciary trust, that will take charge of liquidating the property in case of default and transfer the proceeds to BSE. CMA’s product, on the other hand, is designed as a supplementary loan that will allow good clients to have multiple credits despite restrictive credit policies in order to eliminate tendency of clients to borrow from informal moneylenders during peak sales season.

CMA turned the market segmentation that is characteristic of rural markets into a market opportunity through its Prestamo Agropecuario product where farmers could access credit by pledging household assets or farm equipments and repayment is based on harvest cycles. On the other hand, BSE tapped into the monopolistic power of large suppliers in order to reach the micro-enterprises. Their product is similar to trade credit.
that allows microenterprises to purchase inputs using BSE’s Cuenta Solidaria during liquidity crunches. Prompt repayment is achieved because the credit line can be cut-off in case of default.

One outstanding feature of their products, apart from the fact that the collateral required are assets that the poor and the micro-entrepreneurs possess, is that the loan terms are determined with the seasonality of the cash flow of the borrowers activities in mind, eliminating incorrect projections of repayments. The other features of their products are a client-tailored design, a conscious eye toward risk management, product variety and nurturing a culture of innovation. A target-market perspective was used to design their products. Both institutions focused on what is of value to the client. This influenced the operational efficiency and the product design, increasing client satisfaction and retention and therefore, the profitability for the institutions. Taking a client-centered or target-market perspective in product development allowed these institutions to allocate resources to focus on the components that will generate the most demand and, if done right, profits.

In agriculture, there are several innovative lending practices that can be learned from informal lenders in financing production, processing and marketing of enterprises specialized in agriculture. These lenders may be input suppliers, retail traders, itinerant traders, wholesalers, processors and exporters who extend credit to farmers and other poor agriculture-dependent households. These buyers and suppliers link credit to the provision of other services such as input supply, technical advice and in many cases, tie credit to subsequent sale of produce. Product-market credit is widely practiced – 4 out of 5 rice mills in India (as surveyed by FAO) offer advance payment to farmers to cover for input costs; in Mozambique, CGAP found that such lending arrangements are a critical source of commercial advances; in Zimbabwe, the number of smallholders who receive
input loans from a large cotton ginner in the cotton industry far exceed the number of microfinance clients in the country.29

**Contract farming** and **outgrower schemes** are some examples of product-market credit. Contract farming is a type of product-market arrangement where a processor or buyer provides inputs on credit linked to a purchase agreement and repayment of initial input is deducted when the farmer sells the produce while the outgrower scheme is an integrated form of contract farming where the agribusiness has greater control over smallholder production while the smallholder producer basically offers land and labor in return for a package of inputs and extension services. Both schemes reduce the risk of side-selling by building formal contractual relationships with farmers. Some contract farming schemes also uses the techniques employed by microfinance institutions such as group liability, close monitoring and developing strong company-farmer trust. Another example of this scheme is **trader credit** where traders use personal contacts and existing trading relationships as a substitute for collateral and to reduce risk of side-selling. Processors may also channel credit through traders rather than directly to farmers. Processors may use interlocking credit arrangements with traders to secure farmer produce. This type of product-market arrangement can be in the form of inputs provided to farmers, cash or in kind advances, based either on repayment at harvest or on agreed purchase.30

Product-market credit eliminates the need to demand collateral because the expected produce of the farmers secures the loan. This product-market credit also responds to other rural market constraints such as lack of client information, high operating costs and agriculture related risks.

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An example of linking credit to agricultural produce is warehouse receipt financing. Microfinance institutions have a strong incentive to offer warehouse receipt financing because their risk is reduced given that the system has a built-in use of collateral that can retain a high commercial value and be liquidated quickly. Loans made against the receipts are extremely flexible. The following is a summary of the advantages and disadvantages of warehouse receipt financing for both the institution and the farmer.

### Advantages and Disadvantages of Warehouse Receipt Financing

<table>
<thead>
<tr>
<th>MFI</th>
<th>Farmer/Producer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advantages</strong></td>
<td><strong>Disadvantages</strong></td>
</tr>
<tr>
<td>Decreased risk due to inventory serving as collateral at the same time <strong>Reduced seasonal price variability</strong> throughout the year Warehouse receipt is liquid</td>
<td>Decreasing profitability where loan amount is tied to estimated worth of product because a decreased price decreases loan amount available to the farmer and the profits an MFI can collect Warehouse operation by MFI is hard to sustain</td>
</tr>
</tbody>
</table>

Although warehouse receipt financing is a speculative activity, too much of it is also ruinous to the farmers. As each producer attempt to hold on to his stocks until prices reached the peak, a sudden rush of supply into the markets once the prices peaked will immediately bring down market prices, catching the farmers with more than half of their inventory selling at lowest prices thus decreasing his overall profits. Preventing this type of speculation is critical to making warehouse receipt financing a success. To avoid price speculation, TechnoServe encourages “phased selling” where farmers are advised to sell stored grains in several batches as prices begin to peak, rather than wait for the highest peak. Overall profits maybe lower but this method reduces risk of incurring major losses. Through this process, market environment also becomes more predictable.

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Such schemes are not for everyone, however. A warehouse receipt system is best targeted to organized producer groups that can collectively bargain in the marketplace. Requirements for a successful system involve discipline and trust in the warehouse to give credibility to the receipts as well as to give a sense of security to farmers. Such operation also needs to be undertaken on a large-scale operation to drive down costs of administration and monitoring. Appropriate product pricing is also critical for the institution. One way through this is for the institution to work in regions where there are already established and trustworthy warehouses. Appropriate regulation and supervision of the sector is also a prerequisite.

A primary benefit of warehouse receipt financing is the collateral that allows farmers access to substantial and fungible credit and for the lending institution to have a high-valued and liquid collateral securing the loan, effectively decreasing its risks. The receipt is also relatively flexible in accordance with agricultural cycles and allows farmers to profit out of the seasonal piece peaks.

Using the same principle of product-market credit, an emerging option for microfinance that would allow medium to long term financing for equipments and other fixed assets is leasing of the equipment with the equipment acting as the collateral for the loan. Leasing is not a new concept. It follows a basic premise that business profits arise from equipment use, not equipment ownership. With leasing, an institution can develop longer term financing mechanisms for its clients and increase their borrowing capacity. Because the lease is granted based on an enterprise’s cash flow rather than on its credit history, assets or capital base leasing gives entrepreneurs with scarce financial resources the opportunity to start a business on a limited budget or increase an operation’s productivity through new capital investments.32

### Leasing versus Lending

<table>
<thead>
<tr>
<th>Leasing</th>
<th>Lending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leased equipment is enough collateral</td>
<td>Borrower is required to pledge assets as collateral</td>
</tr>
<tr>
<td>End user transfers all the risk of obsolescence to lessor</td>
<td>End user bears all the risk of equipment devaluation</td>
</tr>
<tr>
<td>A lease requires a small or no down payment and finances only the equipment’s value. The value is expected to be depleted over the lease term. The client usually has an option to buy the equipment for its remaining value at lease end.</td>
<td>Upon signing the loan contract, the end user must pay a down payment. The loan finances the remaining amount.</td>
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Source: Leasing: A New Option for Microfinance Institutions

There are three basic types of lease contracts. One is the capital or finance lease which combines some of benefits of leasing with those of ownership. Payments are spread over several years and often represent the equipment’s full value. Another is the hire-purchase lease which is an alternative to a lending transaction for the equipment purchase wherein the client assumes a higher down payment and with each lease payment, client retains higher percentage of equipment ownership thus building equity. The third type is the operational lease which entails the client renting an asset over a time period that is substantially less than the asset’s economic life. The leasing agency retains ownership of equipment during the lease and recovers its capital costs through multiple rentals and the equipment’s final sale.33

Leasing may be the only form of medium to long term financing available to microenterprises for fixed assets. It allows farmers and other agriculture-dependent households to access substantial funds for capital investments without the need for traditional capital. It is a collateralized financing wherein the leasing company retains ownership of equipment until full payment is received. Leasing also promotes efficient use of capital as funds are used solely for financing the equipment. Enforcement problems are minimized because non-repayment of loan will simply disqualify farmer from further use of equipment. Leasing offers viable bottom-line benefits to both lessor and client, and with a supportive legal and regulatory environment, provides lending institutions with an attractive product to finance fixed assets. For financial institutions that are interested in extending loans for fixed assets to established clients, leasing

provides a financing mechanism with the potential to reduce transaction costs and manage risks.

Covariant Risks and Market Segmentation

In an environment where risks are correlated, rural financial markets should ideally avoid concentration on a particular crop or agricultural activity. However, the geographical settings, rigidity of agriculture and seasonality of rural activities prevent such strategy. The lack of diversification associated with systemic risk is an acute problem in the rural areas. However, the design technology of Financiera Calpia, a commercial microfinance institution in El Salvador tackled these problems at three levels: household level, rural portfolio level and total portfolio level. At the household level, Calpia stressed the importance of diversification. At the rural portfolio level, Calpia knows that rural activities are potentially fundable. Finally, at the total portfolio level, Calpia recognizes that there is low correlation between rural and urban activities thus, the urban-rural nexus allows the bank to decrease overall risk. It should, however be noted that Calpia’s lending technology was not designed to deal with more specialized farmers.34

Financiera Calpia became a regulated financial institution in 1995 although its operations began in 1988 serving the micro and small enterprises in the urban areas. Its expansion to the rural areas occurred only when its urban business was already consolidated. The design technology of Calpia as developed for urban areas but are recently applied in the rural areas are based on the evaluation of repayment capacity and willingness to repay must be according to the premise that the household firm is an indivisible economic unit of revenues and expenses. Calpia also believes that a larger number of alternative sources of repayment is always better, that a long term relationship

is more valuable than a one-time transaction and that poor households have assets that could be used as collateral.\textsuperscript{35}

In response to the demand of its clients, Calpia offered services where loans were tailored to individual demands. Traditional as well as non-traditional assets are accepted as collateral. Calpia’s success can be largely attributed to its human capital. Calpia carefully selects and trains its loan officers and offers incentives based on performance for each officer’s portfolio to ensure that its loan officers are fit for the job as they are the most important link between the bank and its borrowers. Calpia also practices promptness in making loan decisions. Permanent monitoring in the form of casual visits to reinforce good relationship is maintained in order to have an in-depth analysis and monitoring of clients’ use of funds to determine the risk profile. Calpia also has an efficient MIS to support loan officers’ activities. Contracts are strictly enforced to ensure payment and send out signals of credibility.\textsuperscript{36}

Apart from the seasonality of incomes inherent in rural markets, agriculture-dependent activities are prone to natural disasters like floods, typhoon and other such natural disasters that destroy production. According to Nagarajan (1998) microfinance is seen as a logical mechanism for disaster relief as well as reconstruction and development because it is inherently flexible. For one, microfinance can provide temporary services such as emergency loans, remittance services, loan rescheduling/restructuring, loans to restore capital assets lost in disasters, loans to rebuild houses and other infrastructure, and loans to start new economic activities. They can become effective channels of government and donor relief funds in times of crises. Microfinance institutions can also provide financial products that are risk mitigating such as insurance instruments to protect vulnerable populations against future disasters and savings services to provide personal safety nets as an ongoing service to its clients.\textsuperscript{37}

\textsuperscript{35} Ibid.
\textsuperscript{36} Ibid.
\textsuperscript{37} Nagarajan, Geetha. 1998. “Microfinance in the Wake of Natural Disasters: Challenges and Opportunities.” Microenterprise Best Practices, USAID.
The Philippines’ Center for Agriculture and Rural Development (CARD) developed a micro-insurance product to address the problem faced by the institution upon the demise of a member-borrower. The insurance product began as a simple mutual fund that was intended as loan redemption in case of death of member-borrower. The strong response it received from the members led to a rapid growth in assets and membership. The simple mutual fund expanded its products to include life insurance program, provident fund or retirement savings and all-loans insurance package offered to nine provinces, seven of which are poor provinces. Aside from offering risk-mitigating instruments to rural households and protecting the dependents of the member who has passed away from being saddled with an outstanding loan with CARD Rural Bank, the mutual fund also serves to protect CARD Rural Bank and CARD NGO from loss in the event of death of the member-client. The basic infrastructure of CARD MBA is based on the “damayan” culture in the Philippine rural areas where the members of the community contribute cash to the family of the individual who passed away. The practice is mutual since everybody expects to be treated the same when death occurs to the family.\(^{38}\)

**SafeSave’s flexible savings** product is one example of savings that could be used as personal safety net in the future. The savings product uses a scheme that combines savings enforcement with flexibility in the urban setting although they are recently testing the process to the rural areas. This innovation was designed to serve Bangladeshis at the lowest income level. Its operation relies on local collectors who visit clients everyday to collect savings and/or repayment of loans and to make withdrawals.\(^{39}\) Allowing flexibility in savings products helps rural clients manage emergencies, prepare investments and smooth consumption. By collecting savings, financial institutions diversify source of funds and gain access to a potentially large supply as well as giving their clients opportunities to diversify their sources of income. The savings product mentioned also aims to utilize the saving power of the poor households and to be able to mobilize deposits from diverse sources. Linking savings and credit also does away with costly credit evaluation and monitoring, reducing the institution’s cost of lending. Lack of

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collateral in rural areas can be remedied by using the savings of the individual as the lending institution’s guarantee of repayment.

Another savings product that allowed for an institution to mobilize rural savings as well as having a sustainable source of refinancing is the “Save and Get a Chance” savings product where savers are rewarded with prizes and parties when they open or maintain a savings account. Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand, with technical support from GTZ, launched this innovative product, targeting low-income clients. The product also gave low-income rural savers, the women in particular, a safe place to save. This became a phenomenal success among its low-income clients. Prior to the project, BAAC was pressured to compete with commercial banks when Thailand underwent financial liberalization and BAAC’s advantage as a state bank was removed. As a response to this challenge, BAAC concentrated on deposit mobilization, making it its major banking operation. Deposits from rural areas evolved into the single most important sources of funds for BAAC.40

One of BAAC’s strength is its extensive branch network strategically located in rural areas, an advantage it has enjoyed because of preferential treatments in the past. The savings product gave BAAC sustainable source of finance, increased client base, reduction in currency and liquidity risks by reducing external debt and diversifying source of funds, respectively and increased autonomy from government because it can already generate its own funds better public image to customers.41

It is however important to note that BAAC was a sound financial institution way before it launched its product implying a capacity to provide safe and secure savings service. The design of the savings product also responded to clients’ concern for security, convenience, minimum balance requirement, liquidity and yield of product. GTZ’s modest but strategic investment in technical assistance achieved the mission of developing and delivering savings services to 2.3 million rural poor and the numbers are

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41 Ibid.
still rising. The innovation was developed with both the donor and BAAC sharing the costs and responsibilities according to expertise.42

*Underdeveloped Complementary Institutions*

The lack of auxiliary efforts to develop the rural population and institutions that could mitigate and manage risks in rural areas leave the responsibilities of educating the rural households as well as circumventing risks and at the same time providing financial services solely on rural financial institutions. Such tasks overwhelm institutions and in turn, drive them away from the rural market. According to Haider, the government should initiate the establishment of such institutions like credit bureaus and training centers because, primarily, these are public goods and, secondly, there are fixed costs involved. In credit bureaus, private entities will only enter the market after a public credit registry has made a head way through the market. Privately managed bureaus will, then, complement the records of the public credit register by expanding the breadth, quality and accessibility of information.43

While the use of credit bureaus has long been implemented in many developed countries, according to Llanto (2003) this information system has barely been adopted in the Philippine banking sector. The main reason for this is that custom or law typically limits the personal credit history available to lenders for assessing risk. Majority of the banks that presently practice the sharing of information are commercial banks situated in the urban areas. These banks have organized a common screening system and a depot of information primarily to keep records of corporate as well as personal accounts (particularly those holding credit cards). The management of data on good and bad bank borrowers started with the founding of the Credit Information Bureau, Inc. (CIBI) and the Bankers Association of the Philippines (BAP)-Credit Bureau in the mid-80s to early 90s. However, these credit bureaus mainly serve the information requirements of banks in

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Metro Manila. However, credit bureaus could not take-off in the countryside because rural and cooperative banks are unwilling to share information. Little appreciation for new technology, additional overhead cost to the maintenance of database (e.g. training and hiring of new staff), and perceptions that their current and prospective clients are open to piracy are among other reasons why the setting up of an information depot is difficult to launch.44

Insurance companies that are equipped with risk mitigating and management tolls are also scarce in rural areas. The initiative of CARD in developing a mutual fund that protects its Rural Bank and NGO operations is one outstanding example. The success of the mutual fund later evolved into a Mutual Benefit Association (MBA) that was registered in the Securities Exchange Commission and was granted license to operate on May 29, 2001. The unique feature of CARD MBA is that client-members own and manage it. Management was turned over to members in 1999. The Board of Trustees is elected from the membership of the association.45

Llanto and Fukui (2003) stressed the ingenuity of CARD in using a credit-insurance link to protect a lending institution and also a savings-insurance link to provide members a range of financial instruments for their surplus. CARD NGO has several thousand clients, a strong information base on clients organized into cohesive solidarity groups and regular and stable savings from members before it conceived of establishing the mutual fund. The savings history was important in providing a good track record for clients. Today, the MBA members have savings accounts with CARD Rural Bank and this helps in loan evaluation and establishing their creditworthiness.

Providing training to the rural households that would equip them with livelihood tools and make them creditworthy clients of rural financial institutions need government or donor initiative. An example in Bangladesh provides insights to the possibility of

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linking government safety net programs with microfinance. Despite their commitment to reach as many rural poor, microfinance institutions still fail to include the poorest of the poor in their programs. People belonging to this group have less employment opportunities, greater consumption deficits and greater vulnerability to systemic shocks. Microfinance programs tend to exclude these hardcore poor because successful microcredit operations are strongly dependent on strict screening to ensure that the money borrowed can be repaid, preference is also given to clients from households with steady incomes, multiple sources of earnings and some assets and destitute households would either consume the loan amount or the resulting income from activities financed by the loan or would be too poor to make regular repayments from activities that do not generate immediate incomes.

The Income Generation for Vulnerable Groups Development (IGVDG)\textsuperscript{46} is collaboration between the government of Bangladesh, the World Food Program and the Bangladesh Rural Advancement Committee (BRAC). IGVDG targets the destitute rural Bangladeshi women who have little or no income earning opportunities. The concept of IGVDG is built on a government safety net program that provides free food grain for an 18-month period to destitute, female-headed households that are at the highest risk of hunger. BRAC’s conventional microfinance operations cannot include the poorest and it was looking for another “entry point” to involve the destitute in its development activities. In the IGVDG program, BRAC uses food grain relief assistance to attract the hardcore poor and cater to their immediate consumption needs but then adds skills training and savings and credit services to build their development capacity. After the free food grain ends, participants are able to engage in income generating activities and become clients of regular microfinance programs.

Training options available are poultry and livestock raising, vegetable growing, sericulture among others. Trainings are done within 6 months at which time, participants are required to save a minimum of US$0.50 per meeting. BRAC pays a 6% return on

\textsuperscript{46} Discussion on IGVGD Program is based on CGAP. 2001 “Linking Microfinance and Safety Net Programs to Include the Poorest: The Case of IGVGD in Bangladesh.” Focus Note 21. http://www.cgap.org/publications/focus_notes.html
these savings. An initial loan of US$50 can be made upon completion of training. This is repaid weekly at 15% for 12 months after which, the participant can get a second loan. The free grain distribution will end before the second loan is completely repaid and by then, ideally of course, the participant is ready to “graduate” into regular microfinance membership.47

BRAC is able to maintain profitability in its main operations because it separated its two functions to avoid problems encountered in mixing financial and non-financial services. An existing government program does the distribution of free food grain. BRAC and the government conduct training jointly while BRAC’s microfinance operation is not involved in the activities. Its principal innovation lies in its creative linkage of microfinance with safety net programs.

The IGVGD program was able to reach the poorest of the poor and has given them the opportunity to become active economic agents in society through livelihood training. The beneficiaries of the program are also taught the importance of savings and the proper use of loans. In a way, the program functions as a complementary market to microfinance institutions. The program educates the beneficiaries and has provided them with the proper tools to make them credit-worthy.

Government and donor participation can also develop financially sound institutions involved in rural finance. The model credit union building and branding in southern Mindanao in the Philippines is an effort of the World Council of Credit Unions (WOCCU) to strengthen institutional capacities of credit cooperatives around the world to help them achieve their potentials in microfinance. Credit unions are transformed into commercially viable institutions that reach low and middle income clients. WOCCU’s methodology starts with strengthening of a credit union’s internal organization such as implementing accounting and reporting standards for transparency, financial discipline and prudential standards, operating efficiency and financial restructuring. The credit

union is also equipped with PEARLS monitoring system. Product diversity and savings mobilization are emphasized.48

WOCCU’s project in Mindanao, called the Credit Union Empowerment and Strengthening (CUES) Project was implemented in 1997-2002 and is currently in its second phase already. The Model Credit Union Building involves credit union institutional strengthening, savings mobilization and marketing focus, credit administration, safety and soundness and short-term technical assistance. Finally, an innovation introduced by CUES is the *cooperative branding strategy*. The brand name is Finance Organizations Achieving Certified Credit Union Standards or FOCCUS. A coop that is certified FOCCUS means it has achieved certain international prudential financial ratios geared towards providing members the best financial service. The introduction of cooperative branding has given a big boost to the objective of maintaining the soundness of the financial condition of the cooperative, thereby generating trust and confidence in the cooperative.49
