AGRICULTURAL & RURAL DEVELOPMENT
NOTES

EXPANDING POST-HARVEST FINANCE THROUGH WAREHOUSE RECEIPTS AND RELATED INSTRUMENTS

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International trade in agricultural goods is constantly growing, and to help finance this increase in trade flows, innovative collateral securitization mechanisms[1] continue to evolve and develop. Emerging markets, however, do not benefit as much as developed countries from the increased trade flows and alternative methods of finance. Warehouse receipt financing and similar types of collateralized lending provide an alternative to traditional lending requirements of banks and other financiers and could provide opportunities to expand this lending in emerging economies for agricultural trade.

The concept of warehouse receipt financing is not new, but what is new is the innovative applications of collateralized lending to extend financing in markets where other attempts have failed. The creative use of the basic principle behind warehouse receipts—collateralized lending—in order to design new financing instruments is making new waves in rural finance.

WHAT IS WAREHOUSE RECEIPT FINANCING?

Warehouse receipt financing is a collateralized commodity transaction where the goods themselves provide security for the loan. This type of financing allows lenders to immediately sell off a very liquid asset, namely the commodities they grow, if a farmer defaults on the loan. The underlying collateral is usually a soft commodity like grain, cotton, coffee, or cocoa.

Warehouse receipts and other collateralized lending are means of accessing post-harvest finance for working capital needs. As a result, the financing cycle begins after harvesting the commodities (or goods). The commodities are stored in a licensed warehouse that issues a receipt proving that the commodities are physically in the warehouse. This receipt forms the basis of the financing.

The warehouse receipt consists of two parts: a certificate of pledge and a certificate of title

Certificate of pledge. The certificate of pledge is provided to the lender in order to take out a loan, allowing the farmer who has deposited goods in the warehouse to borrow against those goods (e.g., the grain) to cover his working capital needs. Once the certificate of pledge has been issued, the lender usually advances funds as a specified percentage of the value of the commodity. The lender does not give the borrower the full value of the goods in the warehouse to provision for the costs the lender will incur when selling the commodity in case of a loan default, as well as the potential decrease in value of the stored good caused by price volatility in the respective commodity market.

Certificate of title. The farmer then sells the commodities that are stored in the warehouse, either to a trader or primary processor, validating the sale with a certificate of title which is given to the buyer. The buyer pays back the loan plus interest directly to the lender, receiving the certificate of pledge in exchange. Once the buyer has both, the certificate of pledge and the certificate of title, he can release the commodities from the warehouse.[2]

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WHAT IS THE VALUE OF WAREHOUSE RECEIPT FINANCING?

A transaction backed by a warehouse receipt allows a financier to shift its risk from the borrower to the asset. Since the lender can sell the liquid collateral asset in case of default, this type of lending lowers risk and reduces typical costs of commodity transactions—e.g., high loan servicing costs due to limited volumes, high information

costs, and high supervision costs. In addition, borrowers do not need a strong balance sheet or long credit history because the lender is not relying on the individual or company, but on the value of the commodity. Since the lending costs for the financier are reduced, the interest rate for borrowers could also be reduced.

Warehouse receipts are a good mechanism for accessing short-term working capital loans because they do not tie-up fixed assets, which are more appropriate collateral for accessing long-term financing for capital expenditures. In addition, warehouse receipts offer the opportunity for borrowers who lack fixed assets altogether to access finance.

OTHER COLLATERAL LENDING MECHANISMS

While warehouse receipts are the basis for collateralized lending, the basic concept behind warehouse receipts (leveraging physical production to access finance) can be applied in innovative ways to deepen financial services in the agricultural sector.

Repurchase agreements (more commonly known as "repos"): simple forms of commodity finance. The bank, rather than taking a pledge over the goods being stored or shipped, actually buys the goods and simultaneously signs a contract for resale at a certain point in time, either at a fixed price or at an agreed reference price.

Export receivables financing: funds paid out to an exporter against assigned off-take (import) contracts of commodities from an importer. The financier, based on the off-take contracts, finances the exporter for working capital needs. The off-taker (or importer) pays the financier first, who then pays down the loan and passes any additional proceeds to the exporter.

Factoring: a supplier assigns receivables (payments due) from sales contracts to a factor (i.e., a broker such as a bank). The factor can provide finance for the supplier through loans, advance payments, and other additional services. This shifts the risk for the factor from the relatively riskier supplier to the typically lower risk buyer.

Islamic trade finance: a banking system in which the lender must share in the profits and losses arising out of the enterprise for which the money was lent. For example, an Islamic bank would purchase the commodities in its own name and then sell them on to the end buyer at an agreed mark-up.

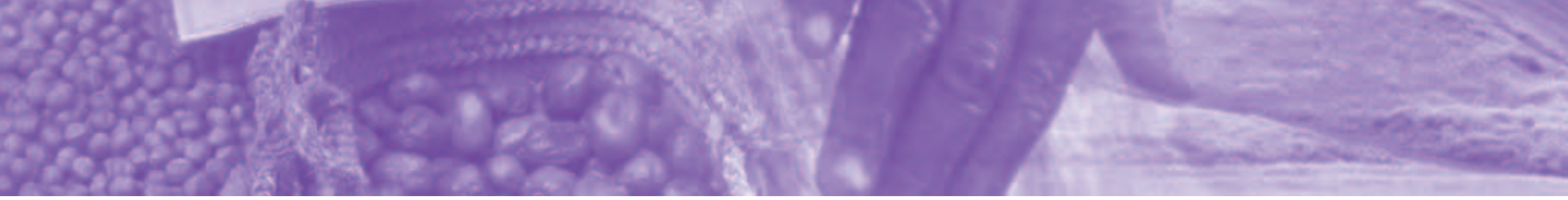
Two specific examples of the successful implementation of collateral lending mechanisms are outlined below.

TRADABLE RECEIPT FINANCING: THE EXAMPLE OF CEDULA DE PRODUTO RURAL IN BRAZIL

In the late 1970s the Brazilian agricultural sector was characterized by abundant subsidized credit and minimum price guarantees. But through gradual liberalization in the 1990s the agriculture sector improved by securing outstanding rural debts; repositioning the state, which began to act in a more localized and transparent manner; and privatizing agricultural finance and marketing. Despite these advancements, there were no formal and secure mechanisms and guarantees to securitize agricultural lending. In response to this situation, in 1994 the Cedulo de Produto Rural (CPR) was created through Law 8,929.

The CPR is a bond issued by rural producers, farmers' associations, and cooperatives in order to obtain financing for production. There are three types of CPRs:

1. *Physical CPR:* The producer receives cash or inputs when the bond is issued and must deliver an agreed amount of production at an agreed location and future date.



2. *Financial CPR:* The producer receives cash or inputs when the bond is issued, but settles the debt with cash instead of products.

3. *CPR indexed to futures:* The producer receives cash or inputs when the bond is issued, but the settlement is based on the amount of production established on the bond, multiplied by the agreed upon reference price at the time of settlement.

The main benefit of the CPR is that it brings new financiers into the agricultural finance markets by reducing their risk. The CPR bond guarantees payment in case of nonperformance or breach of contract on the part of the bond issuer through an out-of-court dispute settlement mechanism. This reduces risk of moral hazard and speeds the recovery of loans when needed.[3]

The evolution of the CPR has also been one of its keys to success. Initially the physical CPR saw a limited number of investors because many financiers did not want to risk receiving physical goods. In response, the financial CPR was created, which attracted a greater number of investors because it was cash settled. The further refinement of the CPR contract, the indexed CPR, allows not only for cash settlement but also transfers the price risk from the seller to the buyer of the CPR.

In addition, CPRs are negotiated in an environment that guarantees visibility, transparency, and security of operation. The Brazilian Futures Market and seven regional commodity exchanges established The Brazilian Commodity Exchange (BBM) to create an electronic registration environment and clearinghouse for transactions with agricultural contracts, including CPR operations. This system permits electronic access to information and business opportunities to nearly 400 traders throughout Brazil. Traders can offer and buy contracts, register the operations, and guarantee the custody of bonds. The BBM system even permits potential investors to see the bonds guaranteeing their operations.[4]

THE USE OF REVERSE FACTORING: THE EXAMPLE OF NAFIN IN MEXICO

NAFIN is a state-owned development bank in Mexico that uses new technology to provide small and micro enterprise loans and enhances its lending with training and technical assistance. In 2004, the typical small Mexican firm received less than 17 percent of its financing from banks, relying instead upon family savings and other personal funds, while almost 80 percent of small firms received no bank credit at all.

In response to this lack of financing in the formal sector, NAFIN developed an electronic platform for reverse factoring through a program called *Cadenas Productivas*, (or Productive Chains), which provides greater opportunity for small suppliers to access working capital. While currently a small percentage of NAFIN's factored portfolio is in the agricultural sector, its success with small and medium enterprises (SMEs) shows a potential path for extending lending to agricultural clients.

The aim of *Cadenas Productivas* is to create linkages between small suppliers and "big buyers." The big buyers are large, creditworthy firms that have low credit risk. The suppliers are small, risky firms that generally cannot access any financing from the formal banking sector. The NAFIN reverse factoring program allows small suppliers to use their receivables—or balance due—from big buyers to receive working capital financing. This transfers the credit risk of small suppliers to their high-quality customers, which allows them to access a larger amount of less-expensive financing.

In order to understand reverse factoring, it is important to understand the mechanics of ordinary factoring (see Box 1). In factoring, the underlying assets (the products) are the seller's accounts receivable—that which is owed to a seller after he/she sold and shipped the product to a buyer. The accounts receivable are purchased by the "factor," usually a bank or other lender, at a discount. The factor deducts the amount that is owed once the accounts receivable are paid. The remaining balance is paid to the seller, less interest and service fees.

Box 1. The Mechanics of Factoring

Step 1: Small Supplier, S, sells 1 million dollars in tomatoes to its customer Big Buyer, B, a large multinational exporter. S, in a competitive gesture, offers B 30-days trade credit. S records the sale as US$1 million in accounts receivable and B records the purchase as US$1 million in accounts payable.

Step 2: S needs working capital to produce more inventory. A factor, F, purchases S's accounts receivable (S "assigns" its accounts receivable from B to F). S receives today 70 percent of the face value of the accounts receivable (US$700,000). B is notified that S's receivables have been factored.

Step 3: In 30 days, F receives the full payment directly from B, and S receives the remaining 30 percent, less interest (on the US$700,000) and service fees.

Source: Klapper 2005.

In emerging markets, factoring is uncommon due to lack of sufficient credit information about the sellers and the frequency of fraud, such as bogus receivables and nonexistent customers. NAFIN uses reverse factoring to overcome these obstacles. In reverse factoring, the lender purchases accounts receivable only from high-quality buyers. This way, the lender only needs to collect credit information and determine the credit risk for large, very transparent, accredited firms. To reduce costs and speed transactions, an electronic platform that provides online factoring services carries out NAFIN's factoring transactions. This electronic platform also facilitates competition among banks to factor a supplier's receivable.

As an additional service, NAFIN provides contract financing for up to 50 percent of confirmed contract orders from big buyers for NAFIN suppliers. Since NAFIN requires no collateral, charges no fees, and provides this finance at a fixed interest rate, this service provides SMEs access to sufficient working capital to fulfill the order.

Factoring is an ideal source of financing in countries with small, risky suppliers and large, foreign buyers. One of the keys to success for the NAFIN factoring program was government support in setting up a legal and regulatory environment that allows a secure and electronic sale of receivables. NAFIN has been used as a model in Mexico for the automation of other government agencies and service providers. Additionally, the success of the NAFIN program depends on the legal and regulatory support offered in Electronic Signature and Security laws which could be a model for other developing countries.

CONCLUSION

In traditional lending, the underlying collateral is only the second source of repayment that needs to be mobilized when something goes wrong. In collateralized commodity lending it is the first source of repayment. Rather than relying on the willingness of the borrower to repay the loan, his balance sheet, or credit history, the lender relies on the ability of the borrower to conduct the underlying commodity transaction and has the possibility to sell off a very liquid asset, namely the commodities, as soon as the loan is in default. In this way, collateralized commodity transactions provide a structural risk change for the lender. Through innovative approaches in different emerging markets both warehouse receipts and innovative collateralized lending mechanisms could provide opportunities to expand the levels of post-harvest financing being provided to producers, traders, processors, and other agribusinesses.

REFERENCES

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[1] A securitization is a financial transaction in which assets are pooled and securities representing interests in the pool are issued. An example would be a financing company that issued a large number of auto loans and wants to raise cash so it can issue more loans.

[2] In jurisdictions where there are not two parts of a receipt (certificate of pledge and certificate of title), but only one, the lender receives the single-part warehouse receipt and releases it to the off-taker once reimbursed. The off-taker uses the receipt to release the commodities from the warehouse.

[3] Moral hazard is defined as the possibility of loss to an insurance company arising from the character or circumstance of the insured.

[4] At the end of October 2004, nearly 70,000 contracts had been registered with BBM, with a total financial volume of approximately US$900 million—in little less than one year of operation.

This note is a product of the Commodity Risk Management Group. It was prepared by Marisa Baldwin, Erin Bryla, and Anja Langenbucher. It is based on the larger Economic Sector Work (ESW) entitled *Rural Finance Innovations: Topics and Case Studies*. The work describes how innovative techniques can be used to overcome traditional barriers of providing financial services to agriculture. A diverse group of case studies and thematic discussions provide key lessons. You can download a copy of the full report at www.worldbank.org/rural or email ard@worldbank.org.