How warehouse receipts help commodity trading and financing

Commodity-dependent countries stand to benefit from the development of warehouse receipts systems. Such systems can reduce uncertainty and enhance efficiency in the functioning of agricultural markets.

In many developing countries past government interventions in commodity markets have reduced the economic returns to private storage or obviated the need for private credit. But with the opening of markets and the liberalization of trade, such instruments as warehouse receipts are becoming important in the transition to well-functioning markets.

Warehouse receipts have a long history in industrial countries—a short one in developing countries. The receipts, also called warrants, are documents stating the ownership of a specific amount of a commodity or good with specific characteristics stored in a specific warehouse for a specific fee. When backed by provisions that enhance their value as collateral, warehouse receipts can play an essential role in agricultural marketing. They can be traded, sold, swapped, or used for delivery against a derivative instrument, such as a futures contract. The overall efficiency of agricultural markets is thus greatly enhanced by the ability to convert agricultural products into such tradable devices.

A warehouse receipt system can:

- Improve farm income and smooth domestic prices by providing an instrument to farmers to spread sales throughout the crop year.
- Mobilize credit to agriculture by creating a secure collateral for banks.
- Help create cash and forward markets and thus enhance price discovery and competition.
- Provide a way to gradually reduce the role of government in agricultural commercialization.
- Combine with price hedging instruments to predetermine the cost of future purchases of sales.

What it takes

There are some preconditions for an efficient warehouse receipt system.

A viable storage industry

Returns to storing commodities should be market-determined, so that farmers and traders store in expectation of higher prices or rush goods to market when spot markets are especially tight (and prices are high). In practice, two major problems constrain the development of viable storage. Government intervention can reduce incentives for private storage and crowd out private participation. This can happen when, for example, governments offer a fixed price during the crop year or set narrow price bands. Second, the high cost of
financing often makes it unattractive for farmers, traders, and speculators to store.

An appropriate legal environment
Warehouse receipts must be functionally equivalent to stored commodities. They must specify the quality and quantity of the goods stored. The rights, liabilities, and duties of each party to a warehouse receipt (producer, bank, warehouse, and so on) must be clearly defined. Receipts must be freely transferable by delivery and endorsement. Holders of receipts must have the right to receive stored goods or their fungible equivalent if the warehouse defaults or its business is liquidated. And the lender should be able to determine, before granting the loan, if there is a competing claim.

Performance guarantees
For warehouse receipts to be accepted by traders and banks, there must be a performance guarantee for warehouses. This guarantees that the goods stored exist in quantities specified by the receipt and the quality is the same or better than that on the receipt. Without such guarantees farmers and traders will be reluctant to store crops and banks will be unwilling to accept receipts as collateral for financing agricultural inventories.

Performance guarantees are usually in the form of insurance bonds or letters of credit. These are sometimes supplemented with an indemnity fund, created through contributions from private warehouses, collected as part of the fee charged to customers. Such funds reduce the cost of insurance bonds or letters of credit and make guarantees accessible to smaller warehouses. This broadens the market for warehouse services and increases competition in storage.

Inspection and licensing
Governments should develop a system of warehouse licensing and inspection of warehouse facilities so that they met basic standards, both financial and physical. Through an appropriate agency, governments should also license inspectors. In most cases inspection of warehouses and stored commodities are performed by the private sector under license (usually from the ministry of agriculture). Local or international companies can perform quality determination, grading, and independent verification of stored commodities.

Experience in developing countries
Developing countries’ experience with warehouse receipt systems is limited, but what there is provides important lessons.
- Indonesia’s system functions well and contributes to reduced marketing costs.
- India has adopted appropriate legislation and supporting regulations. In the past sophisticated agricultural markets, including thriving futures markets, flourished in India. More recently, however, government interventions in setting and maintaining domestic prices have displaced the economic role of storage and limited the need for inventory-based credit.
- During 1987–88 credit systems in Mali were established partly on inventory receipts. A futile attempt was made to distinguish between semi-wholesalers and wholesalers, however, and government-imposed conditions and delays rendered the system ineffective.
- In Ghana a pilot project for maize started in 1993 with financing from the African Development Bank. Despite the dominant position of a local marketing board the system proved successful, and a private bank and trading firm have since entered the program.
- In 1993 the Turkish Soil Products Office introduced a system of warehouse receipts under which it accepts grain delivered by farmers to its storage facilities and issues warehouse receipts. Uncertainties related to the crop quality represented in warehouse receipts and low returns to storage have limited the use of these receipts, however.
- Several countries in Latin America have introduced warehouse receipts. In many cases, however, the receipts are not widely used because of the low return to storage resulting from government policies, high real interest rates, an inadequate legal environment (collater-
al laws, liquidation procedures, property rights), and lack of uniform grades and standards.

- In Mexico a sugar industry organization, FORMA, used warehouse receipts to provide domestic sugar mills with seasonal credit from a U.S. firm, Prudential Securities.
- In South Africa warehouse receipts are an integral part of SAFEX, the successful commodity futures exchange.

Works in progress: Poland and Uganda

In countries without a history of free trade in commodities, the institutional support required for functioning warehouse receipt system is lacking. Two current World Bank projects aim to develop the support these institutions require.

Poland

The U.S. Agency for International Development (USAID) is funding a pilot project designed to introduce warehouse receipts in Poland. Volunteers in Overseas Cooperative Assistance, a U.S. nongovernmental organization, is the executing agency. As part of the project a task force has been created representing all project stakeholders: farmers, warehousemen, regulators and legislators, lending institutions, and insurance companies. Under the project some 100 grain elevators were examined, of which 20 were chosen to participate based on management practices, conditions of the facilities, and financial situation. The project also created an interim system of examination and inspection of warehouse facilities as a precursor to a nationwide system. The project also created an interim system of examination and inspection of warehouse facilities as a precursor to a nationwide system. In addition, the project will establish standards for stored commodities in cases where existing standards are insufficient.

A new collateral law is being considered to strengthen the legal framework for warehouse receipts. Warehouse receipts will be considered pledge instruments under this law. Furthermore, a draft law on commodity exchanges has been prepared that will further define warehouse receipts.

The guarantees system that has been designed combines insurance bonds and an indemnity fund, to serve as mutual insurance among the participating enterprises. Insurance bonds are required to cover the equivalent of the first $50,000 of losses; losses beyond that amount will be drawn from the indemnity fund.

The World Bank recently prepared a project to assist with these efforts. The Bank hopes to learn from the USAID pilot project and, if development of the legal framework proceeds apace, to contribute to the acceptance of warehouse receipts nationwide. The Bank's project has three main features: contributing to the creation of the indemnity fund through a contingent loan, assisting in the development of an enabling legal environment, and supporting the development of warehouse licensing and inspection systems and associated activities.

Uganda

Reforms that opened the coffee export business to private competition in 1990 have transformed Uganda's coffee sector. By 1993, 70 percent of the export market was in private hands. That share is expected to exceed 90 percent in 1996.

Still, the inability of local financial institutions to deliver credit to indigenous exporters has forced exporters to seek financing offshore. In Uganda warehouse receipt-based financing is seen as a way of increasing access to traders lacking established ties with offshore buyers. Further, the system would allow finance based on farm-held inventories (box 1).

In 1995 the Ugandan government and the World Bank created a task force to examine the legal and supporting institutions required for a warehouse receipt system. It concluded that:

- A Warehouse Act would be required to establish a basis for the receipts in Ugandan law along with the mechanism and expertise for monitoring the system.
- Warehousing facilities with proper quality control safeguards were readily available.
- Private sector accounting and bonding services meeting international accepted standards were available.
Many local financial institutions were not ready to participate in direct and secondary markets for warehouse receipts. International financial institutions stood ready to participate if guarantees against non-commercial risk could be provided. Local traders with existing credit sources and international merchants with local operations were likely to enter the warehouse business once the legal infrastructure in place.

In 1996 the government, with assistance from the World Bank, began establishing a warehouse receipt system in Uganda.

— Panos Varangis and Don Larson

### Box 1. Brewing lower capital requirements

In Uganda most coffee must be purchased from smallholder producers before it is processed and shipped. In the absence of a warehouse receipt system, exporters must borrow enough to finance intended purchases. If a receipt system were available, capital likely would be less expensive (because of collateral guarantees) and capital requirements would be lower.

Coffee buyers need not borrow all their capital at once. Instead they can use coffee purchased with initial capital to finance subsequent purchases. Using warehouse receipts, the initial coffee purchased can be used as collateral to obtain a loan and finance subsequent purchases. Efficient coffee traders can purchase, clean, and sell their coffee in six days. Below is an example of how the combination of lower capital requirements and lower interest can reduce financial carrying charges by more than 30 percent. (To protect themselves against price declines, lenders frequently lend only 80 percent of the current value of coffee inventories, as illustrated in the example below. When combined with price hedging tools, the financing savings can be even greater.)

**Working capital required to purchase 50 tons of coffee at $2,000 a ton and 18 percent interest in a warehouse receipts system**

<table>
<thead>
<tr>
<th>Tons purchased</th>
<th>Working capital required</th>
<th>18 percent advance</th>
<th>Days kept</th>
<th>Interest payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.50</td>
<td>$41,000</td>
<td>$32,800</td>
<td>6</td>
<td>$755</td>
</tr>
<tr>
<td>16.40</td>
<td>$32,800</td>
<td>$26,240</td>
<td>4</td>
<td>$403</td>
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<tr>
<td>13.12</td>
<td>$26,240</td>
<td>$20,992</td>
<td>2</td>
<td>$161</td>
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<tr>
<td>Total</td>
<td>$100,040</td>
<td>$80,032</td>
<td>—</td>
<td>$1,318</td>
</tr>
</tbody>
</table>

Interest on $100,000 for 6 days at 18 percent is $1,940. Reduction in carrying charges is 32 percent ($1,318 instead of $1,940).

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### Further reading

