

How Warehouse Receipts Help Commodity Trading and Financing

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(i) Introduction

In many developing countries and economies in transition, 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.

(ii) 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

¹ The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.

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.

(iii) 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 based 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 (collateral laws, liquidation procedures, property rights), and lack of uniform grades and standards.
- In Mexico, FORMA, a sugar industry organization used warehouse receipts to provide domestic sugar mills with seasonal credit from the US firm, Prudential Securities.
- In South Africa, warehouse receipts are an integral part of SAFEX, that country's successful commodity futures exchange.

(iv) Work in progress: building warehouse receipt systems in developing countries and economies in transition.

In countries with limited experience in free trade of commodities, the institutional support required for functioning warehouse receipt systems is usually lacking. There are currently several projects aimed at developing the institutional bases for warehouse receipt systems.

In *Poland*, the U.S. Agency for International Development (USAID) funds a pilot project that aims at introducing warehouse receipts in Poland with the Volunteers in Overseas Cooperative Assistance (VOCA), a U.S. nongovernmental organization, as the executing agency. A task force has been created, under this pilot project, that encompasses all stakeholders: farmers, warehousemen, regulators and legislators, lending institutions, and insurance companies. The pilot project called for the examination of 100 elevators out of which 20 were chosen to participate in the project, based on management practices, conditions of the facilities, and financial situation. The project has created an interim system of examination and inspection of warehouse facilities, as a precursor of a nation wide system. In addition, the project calls for the design of standards for the commodity stored, in cases where existing standards are deemed insufficient.

Regarding the legal aspects, a new collateral law is under consideration. Warehouse receipts are considered pledge instruments under this law. Furthermore, a law on commodity exchanges has been prepared, under which warehouse receipts are further defined.

In terms of guarantees, the system that is designed for Poland is a combination of insurance bonds and an indemnity fund, to be established as a mutual insurance among the participating enterprises. Insurance bonds are required to cover the equivalent of the first Plz 250,000 of losses (or around \$80,000). If losses exceed that amount, the indemnity fund will be called upon.

In 1996, the preparation of a World Bank project was initiated that aims at assisting in the development of a warehouse receipt system in Poland, much as described earlier. The World Bank hopes to learn from the experiences of the existing USAID pilot project and, if development of the legal framework proceeds apace, to contribute to the acceptance of warehouse receipts nation wide. The proposed project has three main features: contributing to the creation of the indemnity fund in the form of a contingent loan; assisting in the development of an enabling legal environment; and support for the development of warehouse licensing and inspection systems and associated activities.

In *Uganda*, reforms which opened the coffee export business to private competition begun in 1990 have transformed the coffee sector. By 1993, 70% of the export market was in private hands. That share is expected to exceed 90% in 1996.

Still, the inability of local financial institutions to deliver credit to indigenous exporters has forced exporters to seek financing off-shore. In Uganda, warehouse receipt-based financing is seen as a way of increasing

access to traders lacking established ties with off-shore buyers. Further, the system would allow finance based on farm-held inventories (box 1).

In 1995, the Government and the World Bank put together an action plan to establish a warehouse receipt system in Uganda. A task force examined the existing legal and supporting institutions required for a warehouse receipt system. The task force concluded:

- A Ugandan 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.
- Existing 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 ill-prepared 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 was provided.

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 was available, capital would likely 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. The combination of lower capital requirements and lower interest can reduce financial carrying charges by more than 30 percent (see table).					
Working capital required to purchase 50 tons of coffee at \$2,000 a ton and 13% interest rate					
	Tons purchased	Working capital required	80% advance	Days kept	Interest payment
	20.50	\$ 41,000	\$32,800	6	\$ 755
	16.40	\$ 32,800	\$26,240	4	\$ 403
	13.12	\$ 26,240	\$20,992	2	\$ 161
Total	50.02	\$100,040	\$80,032	-	\$1,318
Interest on \$100,000 for 6 days @80% -----\$1,940 Reduction in carrying charges is 32% (\$1,318 instead of \$1,940)					

In 1996, the Government of Uganda, with assistance from the Bank began the process of establishing a warehouse receipt system in Uganda.

In *Slovakia*, the development of a warehouse receipts system is well under way. On the legal front, the law on warehouse receipts has passed in April 1998. The Ministry of Agriculture (MoA) has prepared ordinances describing: (i) the business conditions for wheat, oilseeds and potatoes; (ii) conditions for licensing warehouses; (iii) procedures for inspecting warehouses; and (iv) necessary requirements for insuring warehouses against physical damages (fire, flood, earthquake, etc.) and theft.

As of September 1998, there are 28 entities operating 48 warehouses in the process of obtaining licenses with a total capacity of about 635,000 tons. So far, there are about 150,000 tons of wheat and 50,000 tons of malt barley stored in public warehouses for which warehouse receipts have been issued. Banks finance up to 60% of the value of the goods in storage. The MoA is in the process of an education and awareness raising campaign for warehouse operators, farmers, processors, banks and insurance companies.

In September 1998, EBRD and Polnobanka (the second largest bank providing financing to the agribusiness sector in Slovakia) have signed a co-financing agreement for DM 32 million. EBRD financing of DM 16 million will be provided through the State Fund for Market Regulation (SFMR), jointly with Rabobank. Polnobanka will contribute the remaining 16 million, and will manage the program, which will provide financing for warehouse receipts. In the future, the three banks wish to increase the total funds provided for warehouse receipt financing to up to DM 100 million per year.

Parallel to the efforts of the MoA and Polnobanka to establish a warehouse receipt system, the Bratislava International Commodity Exchange (BICE) is operating its own system of warehouse receipt financing. Under this system, farmers (or owners of grains in general) who deposit their grain at a warehouse that has a contract with the exchange's clearing house, can have their goods financed by BICE. For this, BICE obtains funds through local banks. The storage contract specifies the conditions of storage and the obligations/rights of the parties. The owner of grains who finances them by the exchange has the obligation to trade these goods at the exchange.

The World Bank is considering a project to facilitate the development of the warehouse receipt system in Slovakia. The main components of the proposed project are: (i) assisting in defining an enabling policy and institutional environment for the development of the warehouse receipts system; (ii) capacity building for the MoA to carry-out effectively warehouse licensing and inspection, particularly on financial issues; and (iii) assisting in the development of a system of performance guarantees that would protect the owner of goods stored against negligence and fraud by the warehouse operators.

In *Bulgaria*, the government has started implementing reforms to liberalize the agricultural sector, and in particular the grain sector. A key concern during the reforms has been the provision of marketing and finance instruments to farmers. Credit has been a major constraint in financing the agricultural sector. The lack of a secure collateral has been one of the reasons that local banks have been reluctant to provide financing. In addition, farmers lack ways that would allow them to store and sell later, thus putting pressure to sell at harvest time.

In 1998, the Bulgarian government has enacted a storage and trade in grain act. This act regulates the conditions of storage and trade in grains, the powers of state bodies and the rights and obligations of natural and legal

entities performing such activities. There are also three ordinances: (i) licensing procedures for grain traders, (ii) licensing procedures for warehouses, and (iii) regulations regarding the activities of the National Grains Service. This latter, is among others, the regulatory body and the body responsible for warehouse licensing and inspection.

Recently, an ACDI/VOCA project aims at assisting the Ministry of Agriculture to develop a system of warehouse receipts. The objective of the project is to test the components of the Grain Law in a pilot phase before full implementation during the 1999 crop season. ACDI/VOCA facilitates the dialogue between parties involved in the development of the warehouse receipts system (farmers, warehouses, banks, insurance companies) in order to resolve issues on the various elements of the storage and marketing system.

The project involves the selection of three warehouses following financial and technical inspections. This stage has been completed as of September 1998. Following this, the project will work with farmers and banks at each warehouse location to develop storage and lending contracts. This is necessary, as the ordinances for licensing and inspection of warehouses are not in full effect, and neither are the ordinances on the role of the National Grains Service that is responsible to carry these out. In early 1999, there will be an evaluation of the pilot project, its problems and successes. Between October 1998 and April 1999, the project provides for educational seminars of various groups involved in the process of storing, financing and marketing grains (farmers, warehouses, banks, insurance companies, government regulatory agencies, etc.). An area that still needs to be addressed is the provision of performance guarantees against fraud and negligence by warehouse operators. The project is in the process of examining ways to address this issue, including the establishment of an indemnity fund and/or insurance bonds.

Lessons from the pilot project will assist the Ministry of Agriculture to proceed with the implementation of a nation-wide warehouse receipt system. By late 1998, when the ordinances are in place, warehouses can start applying for licensing. The aim is to have between 500,000 to 1 million tons of storage capacity inspected and licensed before the beginning of the 1999 crop season. The World Bank will assist the government of Bulgaria in its efforts to provide for a fully operational warehouse receipt system.

Finally, in *Turkey*, the World Bank has initiated a pilot project that aims to support the development of the marketing systems for cotton and grains. The main areas of the project is to support the modernization of grain and cotton exchanges and the development of trading and financing institutions and systems for these commodities. This latter area includes the revision of regulations and the initiation of the implementation of a warehouse receipt system.

(v) Observations from the establishment of warehouse receipts systems in Eastern Europe

1. Most pilot projects to establish warehouse receipt systems started while the legal the legal framework was in the process of being established. These projects relied on contractual arrangements between farmers, banks and warehouse operators. In that respect, the selection of warehouses to participate in the project was a crucial step.

2. Pilot projects, at least in early stages, very much rely on already established relations between banks, warehouse operators, processors and farmers. The creditworthiness of warehouse companies and farmers is

crucial. The success of the system depends on whether the banks trust the system to lend using warehouse receipts as collateral.

3. In some countries, the establishment of a warehouse receipts system attracted foreign banks and contributed to the lowering of interest costs to finance agricultural inventories.

4. Banks usually advance around 60% of the value of the collateral. In very rare cases the owner of the inventories hedges their value and gets a higher advance from the banks.

5. In systems opting for a two-part warehouse receipt, banks usually require both parts of the receipt (title and pledge).

6. While in most countries government agencies have a good knowledge regarding the physical inspection of warehouses, there was a lack of skills to perform financial inspections and making sure that warehouses keep the appropriate records. In some countries, foreign inspectors and consultants assisted in the first warehouse inspections.

7. Performance guarantees is still an unresolved issue in most projects to establish a warehouse receipts system. Local insurance companies are skeptical and not yet ready to issue insurance bonds against negligence and fraud by warehouse operators. Lack of resources, and unresolved issues related to the legal/institutional arrangements have constraint the development of indemnity funds.

8. Training and awareness raising are extremely important. Pilot projects provide for extensive educational seminars for farmers, warehouse operators, banks, insurance companies and government agencies.

9. Government policies play a critical role for the success of warehouse receipt programs. High government support prices and state purchases reduce the profitability and incentives to store commodities. High real interest rates also have similar effects.

10. In some countries the establishment of a warehouse receipt system was centered around a local bank that chose warehouses to provide financing. Thus, the bank played the role of the warehouse inspector and licenser, at least in the beginning of the project. In other countries, the warehouse receipt system was established using a "task force" approach, in which all relevant parties (warehousing companies, banks, government agencies, farmers, insurance companies) were involved from the very beginning to establish a system with broader acceptance.

Further readings:

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