

THE ROLE OF WAREHOUSING IN AFRICA; LESSONS FOR IMPLEMENTATION FROM FOUR CONTINENTS

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The case for warehouse receipts in Africa

Most African grain marketing systems are largely liberalised, and the State is generally less involved in marketing than in Eastern Europe. However, there are serious problems to be addressed, notably:

- (a) high seasonal price variability. In Ghana, Zambia, Tanzania and Uganda, wholesale maize prices in the lean season typically rise to 70% or more than prices at harvest time, while “carry costs” — i.e. the cost of storage and financing — are typically less than 25% (figures are in real terms). A notable exception to this is South Africa where seasonal price fluctuations approximate carry costs in most years.
- (b) a low level of price transparency, with farmers not knowing how to price their grain when dealing with bush buyers.
- (c) undifferentiated prices at the farm-gate level providing inadequate rewards for grain quality.
- (d) Poorly operating input-supply systems. There is little credit for smallholders except where inputs are supplied through (often-unsustainable) public schemes. Fears of default and subsidised public supplies drive private companies to seek cash and barter terms.

Warehouse receipt financing has often been proposed as a solution to these problems, in conjunction with other improvements in areas of policy, market infrastructure, crop reporting, grading, trading and contract enforcement. One of the major attractions of warehouse receipts is that they can facilitate improvements in many areas, notably in:

- financing - with the receipt giving the lender high quality collateral;
- grading - with produce being graded by the warehouse operator;
- trading - with receipts being used to document delivery;
- contract enforcement - with the warehouse guaranteeing performance by the seller.

Due to these features, warehouse receipts are also an important building block in the creation of viable commodity exchanges, and can thereby facilitate price discovery. Notably commodity exchanges are also important in making warehouse receipt financing viable, since it provides lenders with a ready market for the collateral.

In Africa, warehouse receipts have mostly been used in conjunction with international trade, in situations where the lender knows there is an international sales contract for the stored goods. The level of usage for domestically traded commodities is growing but, except in South Africa, it is mainly confined to multinational or foreign-owned companies, with centralised stocks being managed or overseen by international inspection companies. Involvement of local traders and farmers is minimal. Few companies issue warehouse receipts acceptable to the banks.

In view of this situation, we ask the following questions: how can warehouse receipts be popularised and their use generalised, and; how can more companies get involved in the storage function?

The models

To answer this question, we have studied various cases from around the world, and identified three models that might be applicable:

1. **The regulated elevator-company model** – elevator companies are grain merchants, trading companies and farmers' co-operatives, registered with and overseen by Government agricultural authorities. By Law, they are required to open up their stores to third parties, be they farmers or other trading companies. Government also establishes an official grading system and a State or State-licensed inspection company certifies the quality and grades of grain handled by elevators. Elevator companies are normally close to the farmers they serve, and buy from them, offering a variety of contracts that may be hedged on futures and options markets (when such facilities are available). Negotiable warehouse receipts may also be used as delivery mechanisms in commodity exchanges. To be licensed, elevator companies must satisfy net worth and professional requirements, they must be regularly inspected and submit audited accounts. Stocks must be insured, and elevator performance has to be underwritten – this is normally achieved by requiring companies to purchase bonds, or by requiring the entire industry to subscribe to an indemnity fund.
2. **The general warehousing model** – general warehouses are dedicated to the storage function, but store all kinds of goods, not simply agricultural products. They sometimes carry out other service functions such as freight forwarding, but tend to be barred from trading on their own account – so as to avoid conflicts of interest between service and trading functions. They often engage in “field-warehousing”, i.e. taking control of the stores of farmers, traders or manufacturers, and issuing warehouse receipts that are used to raise bank loans. They are licensed and overseen by public authorities dealing with trade or monetary matters, who normally place particular emphasis on capital adequacy requirements.
3. **The private trader model** – in countries without warehousing legislation, private traders will sometimes offer services similar to those described in the licensed elevator-company model, including the storage of grain on behalf of farmers. Where such services do not exist, Government, development finance institutions (DFI's) and donors may collaborate to provide a framework of incentives to encourage private traders to provide them.

Box 1 describes examples of the three approaches

BOX 1: THREE CONTRASTING EXAMPLES OF WAREHOUSE RECEIPT FINANCING			
The model	Regulated elevator company model	General warehousing model	Private company model
The case	USA	Hungary	Cargill, Krasnodar, Russian Federation
Policy and regulatory environment	<ul style="list-style-type: none"> History of successful private ownership Strong legal, policy and regulatory framework 	<ul style="list-style-type: none"> Liberalising economy, with history of strong state ownership High level of public subsidy for storage 	<ul style="list-style-type: none"> Heavy public intervention buying Regulatory processes and standards currently unworkable
Key Features	<ul style="list-style-type: none"> Strong legislative basis for standards, warehousing and commodity exchange Large number of licensed (trading) elevator companies High level of farmer protection through licensing, inspection, bonding etc. Negotiability of receipts on a commodity exchange and/or bilaterally 	<ul style="list-style-type: none"> Legislation governing standards and warehousing Weak system of public oversight Only (3) licensed non-trading general warehouse companies Large-scale management of on-farm stores Bi-lateral (e.g. bank to bank, or bank to miller) negotiability of receipts 	<ul style="list-style-type: none"> No effective legislative framework for lending to farmers Initially sponsored by USAID Farmer deposits collateral at warehouse, grain is independently inspected Trading company provides credit directly (not through bank) against title document
Performance	<ul style="list-style-type: none"> "Text-book" style performance, with standardised qualities, highly efficient marketing and input supply arrangements, and low risks. Past success of the system has reduced the need for warehouse receipts under current circumstances. 	<ul style="list-style-type: none"> Major impact over 6 year period, with annual lending against receipts reaching US\$100 million High level of lending against on-farm grain Problems of grain standardisation making exchange-based negotiability unrealistic. 	<ul style="list-style-type: none"> Potentially quick results as requires minimal state involvement In practice limited impact due to lack of "carry structure" in market prices

The regulated elevator company model has been furthest developed in the United States. In the grain sector, there were 11,000 elevators which storage capacity of 212 million tonnes of grain, all regulated by Federal and/or State authorities. When the oversight system was established in 1916, farmers made considerable use of warehouse receipts to raise loans, but with the development of other financing alternatives, they are now mainly used as a delivery mechanism on commodity exchanges. Notwithstanding this change, this regulated model is generally acknowledged to have had a crucial role in creating a relatively transparent and efficient system, involving narrow trading margins.

Many of the features of this system have been adopted in South Africa, but here it is the

commodity exchange, SAFEX, rather than Government, which oversees the warehouses, and only those warehouses used as SAFEX delivery locations. SAFEX futures contracts have moreover rendered warehouse receipts highly liquid and made them much more attractive to lenders than they would have been in the absence of the exchange. Here it should be noted however, that SAFEX owes its existence to unusual circumstances that hardly exist in other African countries, i.e.:

- a strong warehousing sector provided by co-operatives, which had been nurtured during the period of state control. These were needed to induce the banks to lend against warehouse receipts at a time when state marketing boards were being swept away
- a banking sector that was already involved with SAFEX through its financial futures activities, and had been instrumental in the creation of a clearing function.

The public warehousing model is widely used in Code Law countries², particularly in Latin America, and it has recently found favour in Eastern European countries that have resurrected pre-war legislation. Performance has been varied:

- In Hungary, three warehousing companies are now the cornerstone of agricultural lending, and with the aid of public storage subsidies, now issue receipts worth more than US\$100 million or 10% of total grain production. Field warehousing accounts for over 80% of the total.
- In Argentina, ten companies have played an important role in the expansion of agricultural lending resulting from economic stabilisation and liberalisation in the 1990s, and the value of warrants for all goods including grains now exceeds \$1 billion.
- In Colombia by contrast, financial sector liberalisation has weakened the general warehousing companies, which were formerly the beneficiaries of a system of preferential agricultural credits. They have been heavily regulated (many consider over-regulated) by the monetary authorities, but they still enjoy a reputation for financial probity. This feature is much valued by the agricultural commodity exchange (BNA) which seeks to develop REPO (repurchase) financing backed by warehouse receipts issued by the companies³.
- In Brazil, warehouse receipts have by and large performed poorly, notwithstanding long experience under an Act of 1903. The sector has become over-dependent on public storage contracts, and hence on political patronage. Systems of public oversight have been very weak, though the current Government has started taking steps to rectify the problem.

The *private trader model* was recently implemented by Cargill in the Krasnodar area of Russia, with some financial support from USAID. The scheme has so far only had a fairly limited impact (15,000 tonnes were stored in 1997/98), but this can be attributed to policy factors and the lack of a carry structure rather than to the concept *per se*. On the one hand public-sector intervention has flattened the seasonal price curve, greatly diminishing incentives for private storage. On the other hand, there is a local disincentive: Krasnodar harvests relatively early, and so prices are likely to fall during

² Countries with codified laws based on the Napoleonic model, to be contrasted with Common Law countries whose legal systems are based on English law.

³ Key investors will be pension funds and will purchase a 30 or 60 day fixed interest security, guaranteed by BNA's clearing house.

part of the storage period.

This would not be a major problem in African countries, most of which now have strong carry-structures.

Pros and cons in the African context

The *regulated elevator company model* has major financial and practical advantages over the *general warehousing model*. It involves existing trading companies, and thereby gives it maximum geographical coverage. Local elevator companies are well placed to develop close relationships with the farming community, and this helps create successful input supply and marketing arrangements, free of the default culture that is having such an adverse effect on African agriculture. As trading companies, they generate a larger turnover than they could through storage alone, and this reduces the costs of their services. The general warehousing company, by contrast, is often an unspecialised operator, and may not perform as well in maintaining quality standards.

Given successes in countries as far apart as Argentina and Hungary, one should not immediately dismiss the general warehousing model. A possible advantage of this model, is that it is less demanding on public regulatory capabilities, since a company which only stores commodities faces fewer business risks than one which takes a multiplicity of trading positions. Even in the United States, where there is general culture of trust in agricultural trading circles and a range institutional mechanisms to minimise risk, elevator companies have been associated with some notable business failures on account of their trading activities – particularly in the case of “hedge-to-arrive” contracts. By contrast, the Hungarian system has survived to date despite very limited public oversight – the department concerned has a staff of three.

The general warehousing model is also strongly associated with the development of field-warehousing services. African-based inspection companies sometimes provide such services, and they might be extended to a much larger number of operators, making better use of existing storage facilities and local labour.

The advantage of the *private sector model* is that it can be instituted in circumstances where there is practically no regulatory framework whatsoever. There are also some disadvantages: such schemes can only be operated by a few large (often multinational) companies which enjoy a high credit rating, and; they contain no external checks and balances to protect the interest of depositors.

One might ask why such companies have not set up schemes of this kind in countries such as Zambia and Tanzania. The reason is probably that with high inter-seasonal price variability it is much more profitable to speculate with grain than to finance farmers who themselves wish to take long positions. Under these circumstances, limited financial support of aid donors (as provided by USAID in Krasnodar) may not provide sufficient incentive for them to establish schemes.

Despite this observation, one should not dismiss the private company model. Certain kinds of companies, e.g. millers, may be more interested in long-term market share than in short-term trading gains, and be seeking to develop a strong rural production base which ensures a steady supply of raw material.

Conclusion

Warehouse receipts have a crucial role to play in improving the performance of African grain markets, and should be prioritised by policy-makers.

Brazil's 100-year experience with warehouse receipts underlines a fundamental consideration in the design of appropriate systems. There is a range of political pressures that tend to undermine the credibility of the warehouse receipts, and given the political sensitivity of agriculture and food supplies, these pressures are particularly strong in developing countries.

In view of this, we believe that in the current context, an *ideal system* is likely to consist of an elevator-company model regulated by a professional licensing agency completely insulated from day-to-day political pressures. One might call this *the Bundesbank model*⁴, in honour of Europe's success in moving decisions about money supply out of the political arena. Paradoxically with such models, however, they depend on political processes for their design and ratification, and some assistance in enforcement of the overseers' decisions.

Such an approach has in effect been achieved in South Africa, with SAFEX taking over the role normally assigned to Government. However, the unusually favourable circumstances that existed in South Africa, and which served to unite players with divergent interests, are missing in other African countries. Moreover, given concerns about the policy climate in most countries, business is unlikely to take the necessary long-term view. Such matters at least partially explain why it has proved difficult to organise a commodity exchange in Uganda, and to expand the Zambian exchange (ACE) beyond its present one-broker status.

In the absence of a business-led solution, countries wishing to institute a proper elevator-company model should consider appointing an independent and internationally reputed body with proven expertise in this area, to licence and oversee warehouses, and enforce grain standards. In the current state of African agriculture, a bold measure of this kind would provide much needed confidence, and help create a *virtuous circle of growth*.

Such an approach would be most effective if implemented on a regional basis. In the case of Southern Africa, this would facilitate links to commodity exchanges and help create a more transparent and competitive regional grain market.

A less ambitious solution would be to institute *the private company model* — this might for example require companies tendering for Government warehousing facilities to formulate specific commitments regarding the development of warehouse receipt systems.

⁴ Otherwise known as the Gordon Brown model