The Role of a Warehouse Receipt System in an Agricultural Commodity Exchange.

A Case Study of the Malawian Agricultural Commodity Exchange

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<th>Acronym</th>
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<tr>
<td>ACE</td>
<td>The Agricultural Commodity Exchange for Africa</td>
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<td>ASWAP</td>
<td>Agricultural Sector Wide Approach</td>
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<td>CMA</td>
<td>Collateral Management Agreements</td>
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<td>ESOKO</td>
<td>Kiswahili for “E” (electronic) market.</td>
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<td>GTPA</td>
<td>Grain Traders and Processor Association</td>
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ABSTRACT

In many Western countries and elsewhere, agriculture commodity exchanges have been in existence for centuries. However, Africa did not follow the same route for various reasons. It was only in the mid-1990’s that farmers and stakeholders again started to ask, how should we go about to market our products, what are the alternatives? Western models, with commodity exchanges as a possible solution, were revisited.

Malawi, had a history of government controlled marketing followed by (partial) deregulation in 2006. The Agricultural Commodity Exchange for Africa (ACE) was established in 2005, survived with the help of donor funds and continued to grow slowly. It has now reached a point where it is on the verge of commercially implementing and rolling out a Warehouse Receipt System (WRS). This has brought forward questions such as what, is exactly is meant by a WRS, why is it important, what are the components of a successful WRS, and how does a WRS fit into the bigger picture of a commodity exchange?

The study concludes that through the WRS, ACE will now be able to guarantee its trades since the product is already deposited in a warehouse and backed by an ACE WR. This will greatly enhance its image. The components that make up a WRS are discussed. ACE would struggle to grow and function properly without a successful WRS.

If ACE could succeed, it will serve as a case study for other countries and exchanges in the region to learn from.
1 INTRODUCTION

1.1 BACKGROUND

In the United States and Europe commodity exchanges have been operating for centuries. At the end of the 1800’s there were five commodity exchanges worldwide; New York, New Orleans, Liverpool, Havre and Alexandria that all formed a global market with the connection to the transatlantic trade (Baffes, J. 2011). Not all were trading in grain commodities, for example, the Alexandria Cotton Exchange in Egypt (Raafat, 1997). These markets experienced a downfall after World War II but the re-birth of the exchanges occurred in 1970’s and is still thriving.

However, Africa did not follow the same route for various reasons. The main reason is that commercial production of basic agricultural commodities considerably lagged that of its counterparts in the Western world. In addition production was volatile – which necessitated, for example, the South African Government to intervene rather than wait for the free market to address the problem. The latter is well documented, not least by De Swart (1983).

It was only in the mid-1990’s after the demise of communism and a move in South Africa (as the leading grain producer) to abolish the controlled marketing system (not related), that farmers and stakeholders suddenly asked, how should we now go about to market our products, what are the alternatives? Commodity exchanges, as a solution, were revisited.

Malawi, was one of the African countries that had a history of government controlled marketing followed by (partial) deregulation in 2006. The Government sporadically still interferes and disrupting the functioning of the market. A recent example was the ban of exports in 2011. Despite this, the Agricultural Commodity Exchange for Africa (ACE) was established in 2005, survived and continued to grow slowly. However, it would not have survived had it not been for foreign grants covering the operational costs. It has now reached a point where it is on the verge of commercially implementing and rolling out a Warehouse Receipt System (WRS).

This has obviously brought forward a number of questions. The most prominent of these are what exactly is meant by a WRS, why is it important, what are the components of a successful WRS, and how does a WRS fit into the bigger picture of a commodity exchange?

The objective of this article is to determine the role of a WRS in an agricultural commodity exchange. If ACE succeeds in rolling out its WRS, it could serve as case study for other commodity exchanges in the region and elsewhere.
1.2 PROBLEM STATEMENT

Through their electronic trading system, ACE until the 2011 season were offering agricultural commodities (mainly white maize) for sale at a future date known as a ‘forward physical contract’. Like the practise was in the rest of the industry, ACE was not guaranteeing these contract sales but was merely advertising them. This did not go down well with the general image of a commodity exchange which is associated with some form of contract guarantee. This practise also prohibited any significant grow by ACE since inception in 2006.

A WRS will bring about a system where during and after trading the delivery of the product is guaranteed since it is already deposited in a warehouse. It addition, by means of a WR, the product can now serve as collateral in obtaining much needed finance.

A commodity exchange needs a carefully, well designed and custom made WRS in order to be successful and enable growth.

2 MALAWI

2.1 COUNTRY BACKGROUND

Agriculture plays a vital role in Malawi making up around 30% of total GDP of the country according to the USAID (2009) and employs over 80% of the labour force. It is the main sector of the country that is critical for the economy in terms of job creation, export opportunities, rural development and overall economic growth (USAID. 2009).

The agricultural sector of Malawi is still dominated by a few food and cash crops despite numerous attempts to broaden the variety of produce. Maize remains the main food crop produced by most small holder farmers to secure their own food supply. Maize production flourished in the past 10 years growing from 1,560,000 tons in 2002/03 to more than double that of 3,900,000 tons of the 2011/2012 season indicated in Figure 1.

![Maize production of Malawi from 2000 to 2012](image)

Figure 1: Maize production of Malawi from 2000 to 2012
Source: USDA 2012
Such rapid growth has brought about the opportunity for exporting as seen in Figure 2, below. Export bans were lifted in 2007 due to intense lobbying of the Grain Traders Processing Association (GTPA) with the Malawi government but exports are still limited to only 300,000 per annum and most exports is destined for Zimbabwe.

![Maize Exports and Ending Stocks](image)

**Figure 2: Maize exports and ending stocks of Malawi from 2000 to 2012**

**Source:** USDA 2012

### 2.2 COMMODITY EXCHANGE OF MALAWI

To the outsider it may be a bit confusing, but Malawi initially had two commodity exchanges - one for local trade and the other for regional trade. There is also a possibility that a third one is on the way.

MACE, or the Malawi Agricultural Commodity Exchange, was established in 2004 and had the vision of making markets work better for the smallholder farmers through reliable market information and improving transparency in trade. It provided market information through SMS’s. (Talk is that it has “closed down” but no confirmation on this could be acquired.)

ACE, was established in 2005 and started operating an online trading platform in October 2006. NASFAM took the initiative to establish ACE as an attempt to ease the marketing effort for small farmers. The aim was to link national marketing institutions to create free information flows and facilitate regional trade growth. Shortly after launching, it had attracted the interest of 11 companies in Malawi, 6 companies in Zimbabwe and a growing number of members from South Africa, who are also members of the South African Futures Exchange (SAFEX) (AMPRIP, 2007).

Auction Holdings Limited (AHL) is setting up a “third” exchange that will be used as a platform to facilitate buying and selling of agricultural produce. (AHL controls the tobacco auctions.) AHL says that the facility, which will be ready in four months’ time, will offer central stocking, better commodity prices and increased exports with foreign buyers’ participation. The ambitious project intends to create a platform where farmers, local and
foreign buyers will be transacting under the facilitation of the exchange with daily market updates (The Daily Times, 2012).

From a practical point of view, of the three exchanges mentioned above, only ACE is presently functional and growing in volumes, support and initiative. ACE has a system whereby bids and offers are advertised on a screen. When a deal is struck between two parties it is supposed to be a valid forward contract. However, when the market price moves away from the transaction price, a culture has unfortunately established itself where the party losing out because she/he can now obtain a higher/lower price, walks away from the transaction. Apparently this is no different from any other transaction struck outside the exchange, but nonetheless it greatly tarnishes the image of the exchange. ACE does not guarantee the transaction but only advertises it. Although market participants are aware of this, outsiders compare ACE to that of a futures exchange where all transactions are guaranteed. For this reason, a system whereby warehouse receipts are traded and guaranteed by ACE will greatly enhance the image of the exchange.

Kennedy (2011) confirms this view in his analysis stating two criteria that hampered growth: A reputation was difficult to achieve due to contractual defaults (usually on the side of the seller) and the provision of realistic market information based upon trades agreed through use of the exchange was hampered by a lack of exchange trade volume.

ACE currently has an arrangement with the ESOKO project to use their SMS system as a platform with which to access farmers directly and to pass information concerning ACE exchange bids and offers. The coverage has reached 1000 “subscribers” to date and is growing rapidly.

The World Food Programme (WFP) needs special recognition. When the success and style of commodities exchanges are discussed in Africa, with South Africa being the only exception, the WFP is mentioned. For the rest though, convincing the WFP to purchase through the exchange, even if only part of their requirements, seems to be the ultimate achievement. The reasons are that the WFP is often the single largest buyer. This makes it a dominant player bringing a degree of stability and trust to the trading environment. No supplying agent would want to risk losing the chance to trade with them in the future by defaulting in the present. At times the WFP also pays above the market rates for grain so no one would want to default against them. Suffice to say, ACE has also brought the WFP on board. It is purchasing by way of the BVO system.

The BVO is a system uniquely designed for the WFP. It is based on their product specifications, which in the case of Malawi, differ slightly from the industry specifications. The WFP comes on screen as a single bid, specifying in reality only the quantity, while potential sellers have to outdo each other with offers. Only one bid is allowed, in this case the bid of WFP. Offers must also be valid for days during which WFP can decide whether they will accept or decline.
As said above, ACE adopted a virtual trading system. However, Kennedy (2011) in his SWOT analysis identifies the IT structure as a weakness. ACE currently charges 0.02% of contract value (tons x value per ton). Kennedy (2011) is of the opinion that this is a very small percentage for an exchange that is able to provide a constant stream of market information and the ability to bid, offer and contract through the transparent ACE platform. He is of the opinion a commission of 0.25% to 0.05% is more in line with accepted charges.

More recently, since 2011, registered warehouse operators have been able to take grain deposits from third parties and issue a WR as proof of grain stored in the name of the owner. The WR could then be offered on the ACE trading platform.

Registered buyers issue a hard copy with the initial owner/depositor’s photo on the receipt. The paper document has no value as a document of title – the electronic record, which is contained within the ACE registry, holds the real value.

3 LITERATURE REVIEW

Given that various commodity exchanges have been in operation throughout Africa for more than a decade with various degrees of success, sufficient literature is available on the subject matter. The CMEGroup (2012) defines a commodity exchange is a well-established market place that brings order to the commodity markets. It is a platform that brings together numerous buyers and sellers to trade commodity contracts that is standardized by the rules and regulations of the exchange. This platform gives way to options and futures trade to secure prices and physical delivery of the commodity contract on the predetermined date. Of importance is the referral to ‘physical delivery’ even is highly matured exchange. Even at the CME, physical delivery could not take place without the existence of a WRS, a different version but the same concept though.

The importance of a Commodity Exchange was again recently highlighted by UNCTAD in a presentation on “Development Impacts of Commodity Exchanges in Emerging Markets” (2009). It listed the following primary functions as indicated in the figure below of which the referral to the physical delivery is probably the most important in the context of this article:

![Agricultural Commodity Exchange](source: UNCTAD. 2009)
A commodity exchange is a much broader concept than a WRS. During the Conference of Ministers of Agriculture of African Countries (2009) they concluded that there are building blocks in the establishment of an exchange of which a WRS is one building block (or level) as depicted in Figure 4, below.

![Figure 4: Levels of an agricultural commodity exchange development](source: CMA/AOC. 2009.)

### 4 DISTINCTION BETWEEN A WRS AND A COMMODITY EXCHANGE

Whenever a new business model is developed, one of the first questions or statements is always, what are the requirements for success. However, the ‘requirements for an exchange’ and ‘the role (or requirements) of a WRS’ should not be confused. These are two distinct concepts. Requirements for an exchange involve a much broader concept and include aspects such as government policy like import and export regulations, composition of the farming sector – small farmers versus commercial farmers, the processing industry, national and regional supply and demand, levels of education, etc.

The role of a WRS looks at the core of the exchange and its operational functioning. It addresses the questions of what is required for the exchange to functions effectively within its unique country environment. An exchange might, from an operational point of view, be operationally efficiently but could still fail because of the broader requirements like government policies that are not in place.

At this point it is important to distinguish between the various exchanges. ACE is a commodity exchange, where physical delivery and receipt are crucial in selling the concept of a free market for commodities. There are many exchanges around the world that trade in contracts where cash settlement takes place at expiry. This is not limited to only financial contracts, but also commodity contracts. The ‘Corn’ contract traded on the JSE/Safex is one such example. Therefore a commodity exchange does not necessarily need a WRS. For the purpose of this article, when referring to an ‘exchange’, it is an exchange where physical settlement is important to the agricultural environment within which the exchange operates. If would typically also be the case for ‘new’ exchanges. Note, you could also have a WRS
without an exchange. This would then entail issuing, registering and possibly financing of WR but with no central trading taking place.

Thus, even if the broader exchange requirements are fulfilled, partially or entirely, a relative new exchange, similar to ACE, could not succeed without an efficient WRS. Inherent to the concept of an ‘efficient WRS’ is the buy-in of its key stakeholders. Thus, irrespective of any other criteria, the WRS remains crucial to the success of the exchange.

ACE has advocated for a WRS as an integral part of agricultural trade and financing since its incorporation in 2006. However, Malawi does not have a regulatory framework for warehouse receipts, so the system has to be built on a contractual relationship between grain depositors, storage operators, financial institutions and ACE. Lacriox and Varangis (1996) in research titled ‘Using Warehouse Receipts in Developing and Transition Economies’ support this view and depicted the WRS as core to the exchange, adjusted for the ACE model - Figure 5, below.

![Diagram of WRS within an agricultural commodity exchange](source: Lacriox,R, Varangis, P. 1996, adjusted.)

5 ORIGINS OF A WRS IN EASTERN AND SOUTHERN AFRICA

The development of a WRS emerged as an important means of improving the performance of agricultural marketing systems in Africa following liberalisation in the 1980s. Progress in promoting WRS and related market institutions in Africa has generally been slow or limited but interest remains high in Eastern and Southern Africa as well as elsewhere in Africa. Liberalisation initially created significant space for local subsidiaries of international
inspection companies to offer warehousing and commodity collateralisation services without any regulatory oversight.

Initially the companies that benefitted most from these arrangements were those international subsidiaries that had access to substantial insurance and professional indemnity cover from international insurance companies. However, one of its major drawbacks was the exclusion of small-scale producers and traders as the main users are large-scale operators. The system was predominantly used for financing import and export transactions but rarely for non-traded commodities, except where the depositor is a large processor or major trading company. In most African countries, there have been very limited benefits to the domestic agricultural trade.

Partly in response to the exclusion of smallholder farmers from accessing the CMAs, attempts were made by Non Governmental Organizations (NGOs) to establish inventory credit systems targeting farmers’ groups. The primary objective was to enable producers to utilise inventory credit to delay sale of produce and therefore benefit from the seasonal rise in commodity prices, especially in the staple grains markets.

The successful implementation of a WRS forms the core of the operations of all commodity exchanges in Africa. However, the mere creation of a warehouse receipt system is not enough. According to Robbins (2010), this needs to be extended to the base of the pyramid (see ‘model’ above), where most of the stakeholders of the industry might benefit. This will latch onto the idea of establishing thousands of properly run depots for smallholders, something that should have been taken up decades ago and does not require a commodity exchange. Robbins is of the opinion that it will require an independent certifying body to access and monitor the operators of the warehouses and warehouse receipt system. This view is also echoed by others including the WR Consultancy Team (see below) and Kennedy (2011).

The challenges of establishing a successful WRS, is also highlighted by Moller (undated), who says that even though ACE originates from the initiatives of NASFAM, they, like any other farmer organisation, do not have storage space, which is an absolute necessity to participate in structured trade.

Kennedy, in his report on a business process and strategy for ACE, contemplates the idea that the management of the WRS should fall under the authority of “another” body, more specifically the Grain Traders and Processors Association (GRPA).

The WR Consultancy Team is a World Bank funded initiative between GTPA and Senwes that was launched in 2007, with the objective of implementing a WRS using, in part, the silos/warehouse of ADMARC, by way of a lease agreement. In their final submission they outline what they considered to be the main conditions for a successful warehousing industry, as follows:

- Emulates the existing grain market structure as closely as possible so that the market participant is willing to accept the WRS.
• Be financially attractive to both the providers and the clients.
• Be credible, efficient and trustworthy, and accepted as such by the stakeholders.
• Enable the collateral financing of grain at both the commercial level (to foster trade) and at village level (to alleviate cash needs).
• Create a system to those who want to own grain but do not want to be involved in the storage.
• Provide a safe and affordable alternative for the grain that farmers currently store on their farms.
• Enable grain to be retained in rural areas, thereby increasing efficiencies and minimising cost, and in particular transportation cost.

The WR Consultancy Team also recommended that a WRS should be housed in a specially instituted Agency for this purpose and it should have the following main functions:
• Registering the service providers and maintaining such a registration, as well as promoting future registrations.
• Monitoring compliance with the rules and regulations.
• Taking responsibility for the printing of the relevant documentation.
• Promoting the use of WRs
• Several other functions related to training, arbitration and market information.
• Maintain a register

The WRS is not universally supported though. Robbins (2010) reports that the banks in Uganda were not interested in lending against warehouse receipts. (This problem apparently has been overcome, at least according to Uganda Commodity Exchange (UACE’s) website (UCE.co.ug, 2012). The establishment of a WRS also had its challenges. In the case of UCE it took ten years. It now incorporates full traceability.

6 IMPORTANT ASPECTS TO TAKE INTO CONSIDERATIONS BY ACE IN THE IMPLEMENTATION OF A WRS

6.1 STAKEHOLDERS.

It is easy at the start to state that an exchange represents all stakeholders equally, but is this true? Who are the stakeholders?

In Malawi, the National Small Farmers Association of Malawi (NASFAM) took the initiative, as mentioned above. Moller (undated) says that “ACE has a very close relationship and together they are promoting the concept”. The Malawi Government should certainly be counted as another stakeholder. It has included ACE in its National Agricultural Policy, combining efforts to make a greater impact (ACE, undated). ACE also integrates with the Government’s vision for agriculture with the Agricultural Sector Wide Approach (ASWAP), the green belt initiative, fertilizer subsidy, increase public storage and improved infrastructure.
6.2 THE NEW COMMODITY EXCHANGE-BASED REFORM PROCESS

In Sub-Saharan Africa, according to Robbins (2010) in research titled ‘The role of commodity exchanges’, it seems trading market mechanisms have been recommended as a way of introducing a further round of agricultural marketing reforms. Robbins describes the model as follows: The components of the proposed system consist of a pyramid of institutions with, at its apex, a commodity exchange. In this model, the exchange is supposed to be linked to a warehouse receipt system. Prices which are recorded by the exchange as deals are struck would form the basis of a market information service. The commodity exchange, initially of a very basic design, is established in the capital city. Some large warehouses are either, built, requisitioned from state ownership, or leased from the private sector. These warehouses then go through a certification process overseen by the staff of the exchange. To qualify for certification from the exchange, each warehouse must comply with certain fixed standards of security, must be provided with proper quality-testing and weighing equipment, and must be managed with a high degree of probity. These, what we might call district warehouses, are supposed to act as hubs for very large numbers of small produce collection depots. It is to these depots that small-scale farmers are supposed to bring their products and come into negotiating contact with buyers.

6.3 FAILURES OF FREE MARKET SYSTEMS AND WAREHOUSE RECEIPT SYSTEMS.

Several literature studies refer to the shortcomings of the free market and/or a WRS and the importance for an exchange to address these issues in order to be successful. Mostly it lacks the following (Onumah, 2010 and Robbins, 2010):

- Transparency
- Suitable storage infrastructure
- Competition
- Market information
- Legal and regulatory support
- Bargaining power of small scale producers
- Lack of requisite skills
- Missing or weak market institutions
- Available credit

6.4 STANDARDIZED SIZE OF CONTRACT AND/OR MINIMUM LOTS.

For some reason the size of the contract lots traded on an exchange is a very contentious issue. Robbins is of the opinion that the minimum ‘lot’ which can be traded on the exchange is often as much as 50 tons – a quantity that only the largest farmers could produce at one time. Below this level of very large transactions, therefore, another completely different scale of market mechanism is needed to benefit the millions of typical small-scale producers who represent the vast bulk of participants in the agricultural sectors of these countries.
In the case of Malawi, ACE confirmed (2012) that from the exchange side, there will be no minimum requirement. However, each warehouse owner could set its own requirement. Malawi banks have also expressed an interest that there should be a minimum but no decision has been taken.

6.5 LEGAL FRAMEWORK

There are several references to the legal environment. However, there are different views. The two most important ones are the government legislation under which an exchange functions, and access to a robust legal framework with reference to private litigation as and when required.

Importantly though, Onumah (2010) states that although it is helpful, particularly in assuring lenders of their security interest in underlying commodities, specific warehouse legislation is not required before launching a WRS. He stresses that South Africa is a perfect example where a very successful “silo receipt system” is not backed by specific warehouse legislation. South Africa demonstrated that a strong market institution, such as a commodity exchange, can self-regulate its supporting receipt system on the basis of existing contract law. This is feasible where the existing exchange promotes the WRS.

When it comes to private litigation, research documented indicates that the Malawi legal system is not up to standard. Kennedy (2011), when discussing defaulting on contracts, comments that it is often unenforceable in Malawian courts. Moller observed (2012) that from his understanding this is not due to a lack of legislation, but rather because of the backlog in courts.

6.6 MARKET INFORMATION

Esoko is a marketing information system developed in Ghana and used by ACE to provide market opportunities and information to mobile partners. By May 2011 (AMIS InterAg), 1256 sms’s of various offers and bids on the exchange had been sent via Esoko market information system generating 60 smallholder farmer contracts in the first months.
6.7 GOVERNMENT INTERVENTION

Minot (2010) Staple food prices and policy options for Malawi, concluded that: “One the main challenges facing policymakers in Malawi is to design a framework for public sector intervention in food markets which is flexible enough to allow it to respond to emergencies, yet limited, transparent, and predictable enough to provide the private sector with a business environment that will favour trade, storage, and marketing investment.”

7 REQUIREMENTS FOR A MALAWI WRS

7.1 GENERAL

ACE has advocated for a WRS as an integral part of agricultural trade and financing since its incorporation in 2006. There is a substantial need in the market for a system that will reduce the risk of contract/performance defaults in agricultural trade and also facilitate competitive financing with agricultural commodities as collateral. Malawi does not have a regulatory framework for warehouse receipts, so the system has to be built on a contractual relationship between depositors, storage operators, financial institutions and ACE. The initial success of the WRS is very much dependent on the active involvement of all participants and this is why it took 6 years before the first WR was issued, financed and traded in Malawi (ACE, 2012).
7.2 ACE

The following criteria could be considered as key to a successful ACE WRS:

7.2.1 The financing of a WR

Across the Southern Africa region, smallholder farmers and emerging commercial farmers sell their produce shortly after the harvest each year when markets are in surplus and prices are low. If only they could hold out for a month or two, then they would be able reap the benefit of higher prices, but as they are in need of money, they have no choice but to sell early. WRs could be a solution to their predicament. Under this arrangement, the owner deposits his product in a warehouse and a receipt is issued that stipulates the quantity, quality and type of product deposited. The WR would generally be negotiable, meaning ownership is transferable, which makes it quite suitable for collateral purposes. Financial institutions may therefore be willing to extend loans against this security in the appropriate environment for a portion of the value of the underlying commodity. In these circumstances the farmer would have access to funds to sustain her/himself until such time that she/he is ready to sell the commodity.

From a financial perspective, the product is not complicated, but it requires that key fundamentals be in place. It is essential that good physical warehousing facilities are available so that all parties to the transaction can be confident that the produce is well protected and secure. High levels of trust must exist amongst the participants, particularly the assurance that the warehouse operator will not release the product to any party other than the owner. The legal environment must be supportive of the bank’s right to realise security quickly and unilaterally in the event of default, usually by selling the warehouse receipt to a third party. The involvement of an agricultural commodity exchange can further add significant value by the registration of certified warehouses and by providing a trading platform facilitating both price discovery and transparent trade.

ACE has advocated for a WRS as an integral part of agricultural trade and financing since its incorporation in 2006. However, Malawi does not have a regulatory framework for WRs, so the system has to be built on a contractual relationship between grain depositors, storage operators, financial institutions and ACE. This took time to achieve but in 2011 ACE was able to register the GSL silos in Kanengo, Lilongwe as the first WRS storage facility. On 2 August 2011, ACE was able to issue the first WR. The owner eventually sold the warehouse receipt at a profit of 72% after all costs were deducted, compared to the market price prevailing at the time he deposited the maize.

This has generated a lot of new interest in WRs issued by ACE and traded on the exchange for the 2012 season that commenced at the end of April 2012. The importance of financing in the WRS is as such that it is being dealt with in a separate article by Van der Vyver & Nordier (2012).
7.2.2 Should a central independent body manage the warehouse receipt system?

The literature reviewed, has indicated that several experts are of the opinion that a WRS should be managed by an independent body. In the section below, a case will be made why it is recommended that ACE perform this function.

Why ACE? Probably the two most important reasons are:

- ACE took the initiative and is the only body that has to date been able to achieve practical successes. ACE successes, albeit small, have brought industry buy-in, gave the process momentum and obtained positive media exposure.
- Cognizance must be taken of the fact that should the WRS come off the ground, there will be two systems, so to speak, possibly mirrored on the South African system

Other than the fact that it will be known as an ACE warehouse certificate, it will be linked to a warehouse operator (a company or legal entity), and to a specific depot. The fact that ACE will guarantee the performance of the certificate is by far the most important aspect. This is what will ultimately build the reputation and the “brand name” of the certificate. And, this is what prospective buyers will pay for

7.2.3 Grading regulations and quality issues

An integral part of the WRS is the grading regulation and quality issues. In a well-developed system, like South Africa, this has over time taken a back seat, as all participants have absolute faith in terms of the quality that they are entitled to on a WR. However, in a newly established WRS, this will not be the case and there will be uncertainty as what to expect when the WR owner arrives to withdraw her/his product. It is emphasised that this will not always be the case but it will happen at some warehouse structures.

In Malawi there seems either to be no national statutory grading regulations or they are not enforced. It is recommended that this issue be re-visited by the industry as a matter of urgency.

The closest national grading regulations are the regulations used by the National Food Reserve Agency (NFRA), which is a government parastatal. The main criteria where parties differ, is in respect of the moisture content. NFRA is on 12.5% - that is the maximum moisture content at intake (unless the operators have drying capabilities.) This is what is referred to as an “ACE 1” grade. WFP recently increased their moisture level to 14.0%. This now called an “ACE 2” grade.
From a depositor’s point of view, maize can be delivered on either one of the specifications. The buyer on the other hand, must specify what grade he is purchasing. An ‘ACE 1’ grade can be delivered on an ‘ACE 2’ contract.

The different grading regulations applicable are a matter of concern.

### 7.2.4 Proof of ownership of warehouse receipt

Until recently, warehouse receipts were issued by way of an original hard copy document. In a well-established WRS, the original WR document is normally transferable and sometimes negotiable. That meant that the holder of the original WR could arrive at the warehouse and claim title to the product. Unless the WR was reported lost or stolen, or ownership reported as being in dispute, the holder is fully entitled to withdraw the product. The warehouse operator keeps a record of the person or entity that withdraws the product, and of course to whom the WR was originally issued, but in between, record of transfer of ownership is not required.

With new technology at hand, ownership is registered on a central databank server. In most instances when ownership is transferred, it is now required to report/register such transfer on the central databank since there is no longer a hard copy of the WR. If a WR hard copy exists, it has no legal standing. The electronic registration and record keeping (transfer) of WRs, also in respect to financing, is a great improvement and has minimised operational problems of lost or stolen WR and fraud.

ACE has opted for the electronic issue of WR. This decision is supported. All exchanges are using, or will in due course switch to using this method. When introducing a WRS, it makes sense to utilise the latest technology available. It does, however, place an additional burden on the software requirements and management.

### 7.2.5 Transferability

The issue of transferability is very much at stake in the decision making process. Although the WR gives the owner the right to the product stored in a commercial warehouse, this is not unconditional. The WR can be issued in two pre-determined formats, transferable and non-transferable. The WR Consultancy Team also recognized this distinction during their investigation in 2007.

- When “transferable”, it will mean that the initial owner of the WR could transfer (sell) it to a third party. The new owner will then be liable for the outstanding costs and financing obligations, should it wish to redeem the WR.
• If “non-transferable”, that means that the original owner will first have to make good on the outstanding costs and financing obligations. The WR will only then be transferred by the exchange to the new owner of the product. Whether the administration procedures of the exchange require the WR to be cancelled and a new WR issued, or whether the WR is transferred from one owner to the next is immaterial. Note - the new owner is not obligated to withdraw the product, neither does it have to pay the upfront fixed handling cost again. It will only be liable for the daily storage cost as from the date of issue the new WR.

ACE has opted for a ‘non-transferable’ WR in the beginning. I could be reviewed at a later stage.

7.2.6 Expiration of warehouse receipt

Another aspect that needs to be raised is whether a WR expires. In other words, must the owner withdraw the product by a certain date, for example, by the end of season?

It is recommended that a WR expires for the following reasons:
• It will be beneficial for a financier who needs to discount the value of the WR in order to determine the percentage it is willing to finance.
• For the financier, it is of most importance that his collateral is reconfirmed from time to time.
• The date of expiration should be at the end of the season, for example, end April.
• It will greatly assist warehouse operators who prefer to do maintenance before the new harvest comes in. It will not mean that all warehouse structures will be empty, but simply that they would be in a position to manage the process together with the WR owner.
• A substantial part of the income of the warehouse owner comes from the initial fixed fee charged at intake. The warehouse operator would therefore prefer to be in a position to either have capacity to take in new grain or re-charge this fee should the WR owner not wish to withdraw her/his product (yet).
• On the last point, if the WR owner does not wish to or prefers, for whatever reason, not to withdraw the product at the end of the season, she/he could negotiate with the warehouse owner. However, it is more than likely that she/he will be liable for paying the upfront charges again.
• For ACE, re-issuing WRs at the beginning of the new season is also a form of control to reconfirm the existence of the product.
7.2.7 Who is entitled to withdraw the grain in storage?

Issues at stake are:

- WR owner – the legal entity who can rightfully claim title to the product and who should be registered on the ACE data bank.
- WR holder – no such a concept exists when a WRS is based on electronic WRs.
- Holder of a WR hard copy. Although a WR hard copy was issued at the time of deposit, this document has no legal standing.
- Authorised representative of the WR owner. This will be natural person who has written proof that he is authorized to withdraw the grain on behalf of the WR owner.
- Proof of identity and credentials:
  - A natural person should be in possession of an official identification document and authorisation on the letterhead of the WR owner.
  - ACE software capabilities. When a WR is cleared for withdrawal and instructions are issued to the warehouse owner, such instruction should specifically indicate who (the name of the individual) and her/his capacity (for example, employee or contract transporter) will arrive to withdraw the product.

7.2.8 IT infrastructure

ACE is developing the trading software locally with the assistance of an international IT expert. The local developer is doing much of the coding with technical support from the expert.

The ACE trade system has three components:

- the normal bid/offer matching functionality,
- the Bid Volume Only (BVO) auction system, and
- the warehouse receipt system.

Basic functions such as issuing a WR, financing a WR and trading a WR have been completed and are functioning. More advanced functions, such as splitting a WR or merging two receipts, have to be done manually. The automatic calculation of finance and storage cost and the listing of the WR audit trail, are also still conducted manually.

It does appear as though the biggest concern presently experienced in the conduct of the ACE operations, relates to the software. It should be emphasised, not because there may be inherent problems, but simply because there is so little known about the software.

The virtual issue of WRs, links to banks that would receive and approve applications for financing on-line, all interdependent on the software, call for a transparent management solution.
Research has indicated that ACE has ownership of a well-functioning (online) trading system. There are however, some limitations: The trading system was developed and is maintained abroad. Little is known of the developers and/or the company. From what could be ascertained, it is a small business venture with one or a limited number of developers. A local developer is also employed. The ideal would be that a legal contract exists, regulating the relationship between ACE and (the) developer(s) and/or the developing company. Given the strategic importance of a trading system, many exchanges prefer to develop and/or maintain their system on an in-house basis, subject, of course, to expertise and costs. Although these aspects are important, it should be stressed that ACE at present owns and has access to a modern online trading software system that subscribe to the operation objectives of the exchange.
BENEFITS OF A SUCCESSFUL WRS

The benefits of a successful agricultural exchange have been confirmed in various reports, not least Onumah in 2010 which highlights the following:

- Traditionally there is a lack of sufficient storage space and therefore postharvest losses are huge in some cases – estimated up to 30%. The WRS forces industry to improve on the storage opportunities and thereby reduces postharvest losses.
- It offers small time farmers the opportunity to bulk their crops, grade and store them which in turn means they could be offered to a wider geographical area and trade “unseen” based on the WR.
• A WRS guarantees delivery thereby reducing counterparty risk.
• A WRS goes hand in hand with the supply of market information. The latter is usually heavily upgraded and expanded.
• It greatly improves the integrity of the system since all products are now inspected and graded.
• It enhance liquidity in rural areas, either through financing as collateral or as a liquid saving – call it a grain bank whereby the owner can sell product when in need of cash.
• It increases welfare levels in the industry since producers are not forced to sell at harvest time when prices are typically at its lowest.

9 PROGRESS REPORT

In 2011, ACE registered the GSL silos in Kanengo, Lilongwe as the first WRS storage facility. The GSL facility has a capacity of 12,000 MT and it was open to deposits from any interested third party. In 2011, three small rural warehouses of 500 tons each were registered. A fourth warehouse with a capacity of 2000 tons was under consideration in an arrangement with the UNDP Millennium Villages Project. It would have operated under the banner of NASFAM, assisted and supervised by ACE, for the balance of the 2011 season (ACE, 2011 and Kennedy, 2011).

Storage fees were set by GSL and advertised by ACE. The fees cover all costs and the depositor will have no additional costs. This includes bagging in new bags and printing these bags where WFP is the buyer (AMIS InterAg).

The NFRA plays a very important part when it comes to maize storage and marketing in Malawi. The NFRA came about in 1998 when the government, under pressure of the IMF and World Bank programs, agreed to eliminate price support operations for maize by ADMARC and prepare it to operate on a strictly commercial basis. It agreed to establish an agency to handle disaster relief involving the management of the strategic grain reserve in the place of ADMARC, with a clear delineation of responsibilities between the two agencies.

The NFRA had for some years taken deposits from selected large traders, and occasionally the banks called NFRA to obtain confirmation of physical stock before approving finance. This was, in effect, an unstructured warehouse receipt. The NFRA was quick to confirm that they would participate in the WRS and issue WRs from their Kanengo (Lilongwe) silos. NFRA has storage sites in other locations and also confirmed that they will apply the procedures that have been implemented and tested in Kanenga (Lilongwe) to these sites (AMIS InterAg). ACE confirms that NFRA has 240,000 tons of silo capacity under management and they are in consultation for the registration thereof (2012).

Other than the NFRA warehouses, ACE has targeted a total 16 facilities with a combined storage capacity of 53,200 tons.
During May 2012, ACE sent its inspectors to the warehouse owners (below), responding to their application based on the new proposed requirements:

- Rab Processors Lilongwe
- Rab Processors Blantyre
- Farmers World Lilongwe
- Agora Blantyre
- KU Distributors Blantyre
- Transglobe Blantyre
- Rice Milling Blantyre

Individual feedback is still confidential, but it could be reported that four sites were unconditionally approved, one conditionally and two declined. It is considered a good mix, proving the point that inspections are thorough and that in some instances grain has been stored in facilities that are not up to standard. ACE certification will most definitely improve the industry standard. Informed market participants will not be confident if they know that they store product at a facility that is substandard according to the ACE requirements.

10 CONCLUSION

A WRS now enables ACE to overcome the problem of constant default on exchange trades. Trades in future could be guaranteed back by a WR.

ACE is in the fortunate position of having already and successfully negotiated the participation of a number of privately owned warehouses through its owners. This should not necessarily be taken for granted. ACE has to set the rules for the exchange in the best interest of all stakeholders which is not necessarily, or at all times, in the interest of the warehouse owners. Nonetheless, the agreement now enables ACE to issue certificates and for the WR-owner to redeem the certificate.

The WRS is backed by a customised IT system. An online system that could manage and secure the issuing, financing and withdrawal/cancellation of WR’s, forms the backbone to a successfully WRS.

These two developments now makes is possible for financial institutions to offer financial loans to small producers using WR as collateral. This will greatly enhance the success of ACE. The financing of commodity products, not only after harvesting time but throughout the year, is interdependent on a transparent price discovery and trading system.

The combined result of the above criteria and others as outlined in the body of this article, are a well-designed and custom made Warehouse Receipt System for ACE. ACE will struggle to function and grow without it. ACE could overcome many other obstacles such as inappropriate government interferences, export restrictions, exchange rate devaluations, lack
of education, inadequate marketing, insufficient price dissemination, etc. However, ACE needs to be operationally competent and for them this is tied to a successful WRS.

If ACE could succeed, it will serve as a case study for other countries and exchanges in the region to learn from.
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