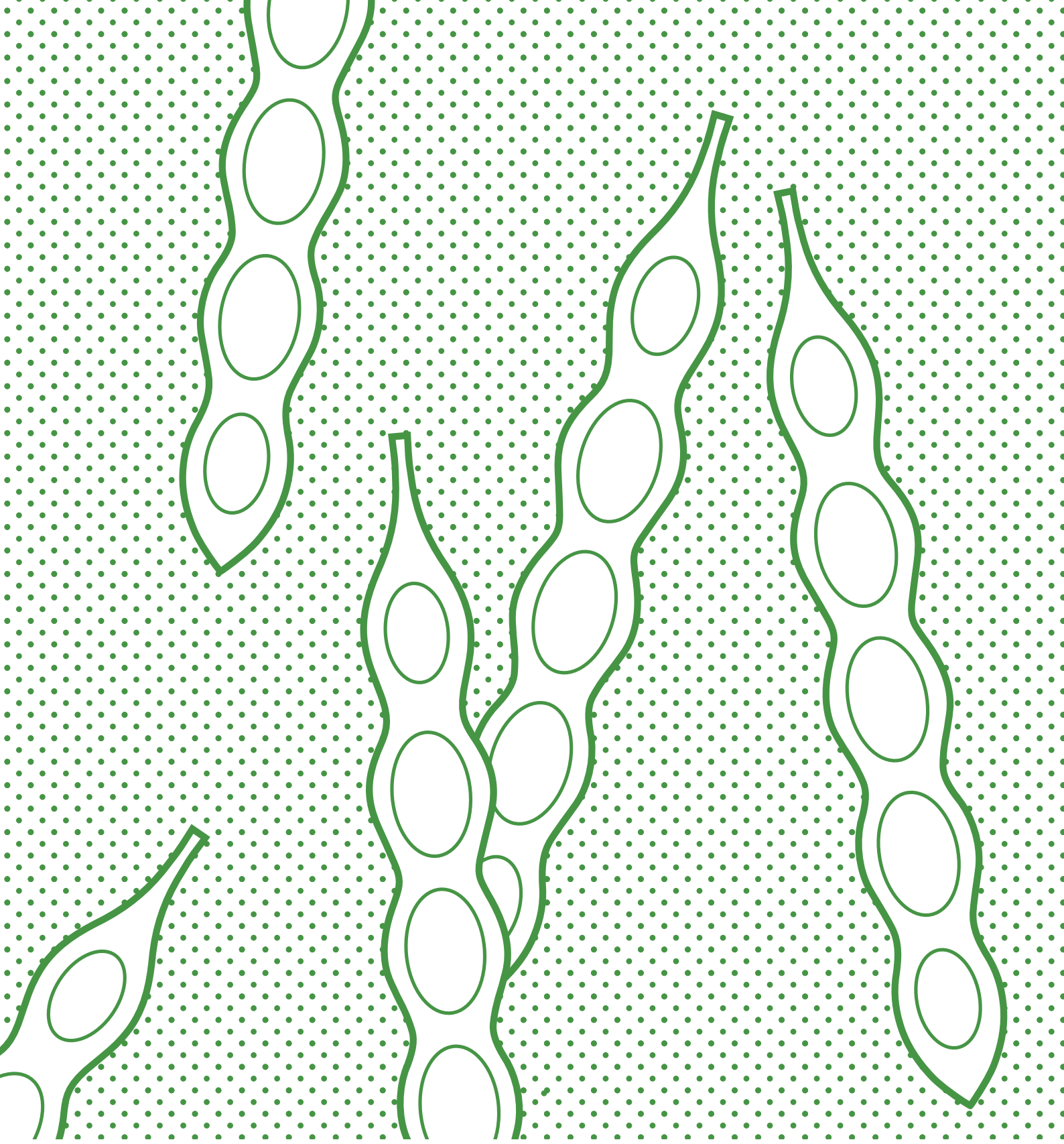

ACE in Focus

Building structured agricultural trade in Malawi

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A collection of articles, published 2023-2025, reflecting on ACE's challenges, learnings, and solutions to the complex agricultural problems facing Malawi.

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Building structured markets

Contents

Ace

- Trade facilitation
- Market Information
- Warehouse Receipt System
- Risk mitigation

CSL

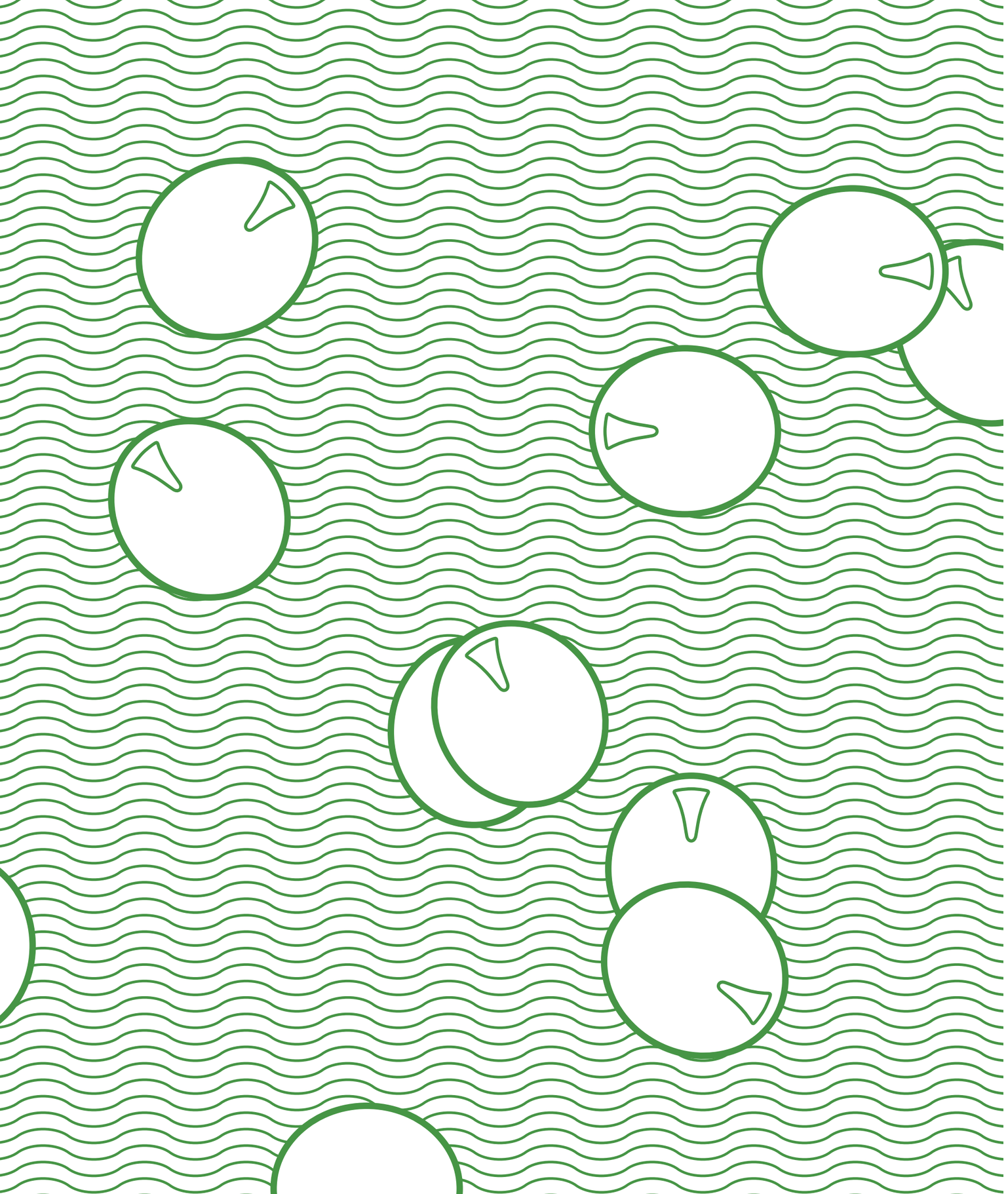
- Collateral management
- Quality and quantity analysis
- Warehouse management
- Professional guarantees
- Training

AceTrust

- ACE Marketing School
- Partnerships
- Project design and implementation
- Development of structured trade institutions and modalities

Chithumba

- Input distribution
- Market Maker
- Zaulimi app
- AgriShare app
- Production training



Abbreviations

ACE	Agricultural Commodity Exchange for Africa
ACF	ACE Commodity Fund
ADMARC	Agricultural Development and Marketing Corporation
AfCFTA	African Continental Free Trade Area
AgDiv	Ag Diversification Activity
AICC	African Institute of Corporate Citizenship
CSL	Commodity Services Limited
FO	Farmer organisation
IFPRI	International Food Policy Research Institute
JSE	Johannesburg Stock Exchange
MAIIC	Malawi Agricultural and Industrial Investment Corporation
MT	Metric tonne
NASFAM	National Smallholder Farmers' Association of Malawi
SGR	Strategic Grain Reserve
SMEs	Small and medium-sized enterprises
TMX	Tanzania Mercantile Exchange
WRF	Warehouse receipt finance
WRS	Warehouse receipt system
ZAMACE	Zambian Commodities Exchange
ZMX	Zimbabwe Mercantile Exchange

Foreword

Dr. Betty Chinyamunyamu

CEO National Smallholder Farmers' Association of Malawi (NASFAM)
Trustee ACE Trust

I am honoured to write the foreword for this publication, having followed the journey of the Agricultural Commodity Exchange for Africa (ACE) since the first whispers of a commodity exchange could be heard in the halls of NASFAM more than twenty years ago. What began as a simple idea to provide market information and market access to our farmers has evolved into something far beyond what any of us initially envisioned.

Being a service provider in Malawi's agricultural sector is no easy task. The market is fragmented, volatile, and uncertain. Service providers are often the first in line to be affected when challenges arise, and I have witnessed ACE navigate both triumphant highs and difficult lows. Through it all, what has impressed me most is ACE's remarkable ability to adapt and change their services to better fit the market – a truly agile approach that has been essential to their survival and growth.

One aspect that particularly stands out is how ACE has developed talent from within. All three Managing Directors featured in this publication have grown from junior positions to take on significant responsibility. This speaks to ACE's commitment to nurturing Malawian talent and creating opportunities for growth.

The ***ACE Retrospective***, published in 2020, captured the learning phase beautifully – years of understanding the market, testing approaches, piloting innovations, and discovering where ACE could add real value for farmers, traders, and processors. Now, with ***ACE in Focus: Building Structured Agricultural Trade in Malawi***, we see the fruit of those lessons: a clear concentration on core activities and services that truly make a difference.

It is pleasing to note that, for the first time, ACE is generating consolidated profit across all entities this season. Given ACE's unique structure, it is even more pleasing that these profits will be reinvested directly into structured trade development and farmer integration. Looking across the continent at similar commodity exchange initiatives, very few have achieved commercial profitability, and none is structured like ACE. Having achieved this milestone makes me particularly proud as someone who has been part of this journey from the beginning.

What excites me most about this achievement is that it positions ACE to think beyond Malawi's borders. With the revenue model and service offering now taking shape, it's time to look at regional integration. Under the African Continental Free Trade Area (AfCFTA), ACE has joined forces with the region's exchanges – ZMX in Zimbabwe, ZAMACE in Zambia, and TMX in Tanzania – to be first movers to interconnect markets. The vision is ambitious yet simple: a farmer in Malawi should be able to deposit commodity in a certified warehouse, and buyers across all participating countries and exchanges should be able to bid for it, with the exchanges handling logistics and settlement.

I acknowledge this sounds easier than it will be to implement. Getting systems in place where commodities move at scale across borders is extraordinarily complex. But this is the future ACE is building towards – a truly integrated regional market that serves farmers across East and Southern Africa.

From those early conversations at NASFAM to today's sophisticated structured trade ecosystem, ACE's journey exemplifies what's possible when vision meets persistence, when learning leads to focus, and when profit serves purpose. This publication captures not just where ACE has been, but where it's heading – and I couldn't be more excited to continue being part of that journey.

Meet the senior leadership

Prisca Muona

Managing Director
ACE Africa

I've been with ACE for ten years, starting as a Project Accountant, progressing to Finance Manager, and now serving as Managing Director of ACE Africa. This progression has given me a unique perspective on how all the pieces of our structured trade puzzle fit together.

I believe ACE Africa can be transformational for agriculture in Malawi. My immediate focus centres on building volume within the warehouse receipt system, which I see as the foundation for economic and rural development. We're working closely with banks to develop robust financing modalities that make warehouse receipts truly functional, while collaborating with regulators to create an enabling environment where structured trade can flourish. These partnerships are essential to establishing the infrastructure that will support sustainable agricultural growth.

Looking ahead, my vision for ACE Africa is clear: to be instrumental in creating a transformational agricultural system across Malawi and the broader region. I believe structured trade has the power to change millions of smallholder farmers' lives by integrating them into organised value chains where aggregation becomes their strength. When farmers understand and use these systems effectively, we unlock not just individual prosperity but regional food security and economic resilience.

Madunga Mvula

Managing Director
Commodity Services Limited

I've been with ACE for ten years, starting as a Junior Inspector and working my way up to Managing Director of Commodity Services Limited (CSL). This journey from the warehouse floor to management has shown me exactly why our collateral management services are so crucial for unlocking agricultural finance.

My focus is solving a problem I've watched first-hand for years: banks want to support agriculture, but they need confidence in their collateral. At CSL, we bridge that gap by combining legal protection through warehouse receipts with physical security through our collateral management services. What sets us apart is our attention to quality – I've seen too many cases where quantity was monitored but quality was neglected, leading to losses for everyone involved.

Looking ahead, I'm building CSL to be the trusted partner that financial institutions need to confidently lend into agriculture. My vision is to leverage technology to provide real-time monitoring and reporting that gives lenders complete confidence in their agricultural collateral. I believe that when we build this trust systematically, we unlock not just individual loans, but an entire ecosystem of agricultural finance that can transform how farmers access capital and grow their operations.

Meet the senior leadership

Jacob Kumwenda
Managing Director
Chithumba

I've been with ACE for 11 years, starting as a Programme Officer and now leading Chithumba as Managing Director. This experience has taught me that real agricultural transformation happens when you address both sides of the farming equation: what farmers need to produce and where they can sell what they produce.

Chithumba's unique strength is how we integrate the supply side through input provision with the demand side through our Market Maker modality. We're not just giving farmers seeds and fertilizer; we're ensuring they have a market for what they grow.

Right now, I'm expanding our buying sites for the Market Maker, piloting sustainable farming practices, and diversifying into high-value crops like pigeon peas that can access regional and export markets.

What excites me about Chithumba is that we're proving a different model is possible – one where farmers don't have to choose between getting inputs and getting good prices for their produce. My vision is to position Chithumba as a premium brand that connects Malawian farmers directly to regional and global markets. I see Chithumba becoming a demonstration that when you integrate input supply with guaranteed market access, you create something powerful: farmers who can plan, invest, and grow with confidence. This integrated approach doesn't just serve farmers – it creates the consistent quality and volume that buyers need, making everyone more successful.

Esther Kawale
Senior Programme Manager
ACE Trust

I've been with ACE for 11 years, starting as a Programme Officer and working my way up to Senior Programme Manager. This journey has given me deep insight into what really works when it comes to supporting farmers and building lasting change in rural communities.

My focus right now is delivering ACE Trust's partnership approach with farmer organisations (FOs). What I'm passionate about is our four service packages model: where farmers can choose the services that best fit their needs rather than being forced into a one-size-fits-all approach. This flexibility is what makes our partnerships so effective. I spend my time fostering these relationships with FOs, ensuring they understand how to leverage our different service offerings to truly empower their members.

What drives me is seeing how this partnership approach transforms not just individual farmers, but entire organisations. When FOs can select from our market information, training, warehouse receipt services, input provision, or trade facilitation based on their specific context and readiness, they become true partners in development rather than passive recipients.

My vision for ACE Trust is to perfect this partnership model so that every farmer organisation we work with becomes a self-sustaining hub of opportunity for their members. I want to see FOs confidently choosing and using our services to build their own capacity and independence, creating lasting change that continues long after our direct involvement ends.

1 FARMERS SHOULD STORE AFTER HARVEST

The results are clear: farmers have lost.

Not from storing and delaying sales – but from not storing and delaying sales. Since the inception of the warehouse receipt system (WRS) in 2011, ACE has encouraged farmers to aggregate commodities after harvest – to access an aggregation premium and, by delaying the sale, a higher price later in the season.

The **aggregation premium** is straightforward: processors need volume and they are often prepared to pay a premium to get it quickly. In September 2023 the ACE price for soya was K800/kg. This price is based on 5 MT delivered to Lilongwe. At the same time, 90 MT of soya was sold for K820/kg. That's a K20/kg premium. The cost of aggregating was K5,000/MT for handling at warehouse and K90/MT/day. So, if it took farmers two weeks to aggregate the 90 MT, it would have cost K5,000 + K1,260 = K6,260 or K6.26/kg to make K20/kg.

It is very hard for most farmer organisations (FOs) to aggregate 90 MT, but that is the whole essence of the WRS. FOs can aggregate collectively – you just need ten to aggregate 9 MT each to access the premium. The handling and storage fees are also a great source of income for the FOs. ACE is experiencing more FOs moving in this direction, but for most farmers this aggregation does not happen. They sell for cash early in the season and at a discount. This needs to change!

The aggregation premium offers a win-win: buyers access large volumes while farmers enter higher-value markets.

The **seasonality premium** is less straightforward. The market in Malawi is very volatile and often unpredictable. The general trend is that the price is lowest after harvest and rises gradually as lean season arrives. The problem, however, is that this trend is not cast in stone. Storing and delaying sales can result in a loss. The biggest loss registered on ACE was in 2017 when India placed a ban on pigeon pea imports from Malawi. This immediately led to the price dropping 80% in Malawi, causing significant losses to both depositors and banks. Those who chose to store lost.

This prompted the African Institute of Corporate Citizenship (AICC) to announce that the WRS was dead and AgDiv to proclaim that warehouse receipt financing doesn't work for rural farmers. The receipt system had hit trouble, no doubt – banks stopped financing receipts and volume plummeted. However, ACE was and is still adamant that the problems facing the receipt system was a mirror image of the problems facing the agricultural markets as a whole. 2017 was a black swan – a rare event. ACE knew the WRS would bounce back. And it did – there is four times the volume and finance on the system now than before the 2017 crash.

ACE was also adamant that warehouse receipt finance works for rural farmers. ACE had the data. On average, year to year, depositors were making profits. There were losses: in 2014, ADMARC sold maize at half the market value, resulting in low prices and losses to nearly all maize depositors; in other years, there would always be receipts that were bought too expensive, too late in the season, making storing a bad decision. But, in general, depositors would make a profit.

ACE asked the International Food Policy Research Institute (IFPRI) to look at this data with the aim of recommending some rules of thumb: if the market price after harvest is X, then there is a high chance for profit if you store for Y months, etc. Unfortunately, the data set was not comprehensive enough and the seasons were also very different, making it hard to create general rules. IFPRI confirmed that, on average, depositors were making profits, but also showed that about 50% of all receipts ever issued made a loss. This was a huge surprise to ACE – it didn't reflect our expectations nor match with the feedback we'd been getting from depositors over the years. The explanation turned out to be straightforward enough: most receipts were issued in 2017. The receipt system had grown rapidly, and the majority of loss-making receipts were linked to the 2017 crash. This muddied the narrative around the WRS. From being a recognised instrument for developing agricultural markets and integrating smallholder farmers, the WRS in Malawi was now controversial! Opponents would claim that 50% of all receipts had made a loss. ACE would say that most losses on the receipt system could be linked to government interventions (Malawi or India) and that years without interventions were providing farmers with profits. The receipt system is not the problem – market interventions are.

It became harder to secure development partner support and banks were apprehensive to provide finance for farmers. This made the years following 2017 hard, but ACE managed to continue.

As volumes grew each year, more banks got involved. Today, nine banks are financing receipts in some way. One bank has even started, at very small scale, financing farmers again. So, what should ACE do this time – advise farmers to delay sales or say: "just sell early – it's too risky"? Five years had passed since 2017 and ACE decided to ask the simple question: "What would have happened if farmers had stored, accessed finance, and delayed sales in the period 2018-2023?"

ACE contracted industry expert Adam Gross to do the analysis and he wrote *Returns for Producers on Warehouse Receipt Finance in Malawi: A Quantitative Analysis* – you can find the full study at www.aceafrica.org.

The results were very clear: farmers have lost! Not from storing and delaying sales – but from ***not*** storing and delaying sales.

Farming in Malawi is risky business. When a farmer puts a seed in the ground, they have no idea if they will recover their investment – price volatility means that the price will be below cost of production in some years. This is the very reason why Malawi doesn't have large commercial farming in cash crops – it is simply too risky. Rural farmers don't have a choice – they need to produce. They are forced to take the risk and hope for the best. What Malawi really needs is a way for producers to hedge the price early in the season so they are guaranteed a return on their investment – imagine what that would do to production levels!

ACE will keep promoting early aggregation and delaying sales for rural farmers. It cannot be done blindly – 2017 can happen again! But there can no longer be any doubt: if, by default, farmers aggregate and store to delay sales, they will make more profit than if they don't – even if black swans fly by! While this does mean higher prices for the farmers, it doesn't guarantee farmers a price that is higher than the cost of production. Farming is still risky. ACE needs to look into that – and we are, but that's for another chapter...

Warehouse receipt systems are regulatory frameworks to license and oversee warehouses that issue negotiable warehouse receipts to depositors, which can be pledged to banks as collateral against a loan – known as warehouse receipt finance (WRF).

The theory behind WRF is that smallholders can avert distress sales immediately after harvest (when prices tend to be lowest) and use WRF funds to cover expenses while waiting to make sales later in the season (when prices may have risen).

The smallholder can follow prices through market information distributed by ACE while waiting for a good time to sell their produce later in the season. After making the sale, the WRF loan can be repaid out of the sale's proceeds, with a net gain accruing to the producer from the higher price.

Analysis shows that farmers can gain significantly from healthy post-harvest price rises in the maize and soya value chains, with price rises sometimes delivering spectacular gains.

ACE price data 2018-2023

Maize	Ave. price rise	Min. price rise	Max. price rise
1 month from harvest	19%	9%	33%
3 months from harvest	46%	-3%	86%
6 months from harvest	64%	13%	108%

Soya beans	Ave. price rise	Min. price rise	Max. price rise
1 month from harvest	48%	3%	77%
3 months from harvest	66%	18%	100%
6 months from harvest	82%	22%	141%

2 THE WAREHOUSE RECEIPT SYSTEM

As long as there is enough maize on the warehouse receipt system, Government can always respond efficiently to food emergencies.

The previous chapter was about the mechanics of using the warehouse receipt system (WRS) to increase smallholder farmers' income – but the WRS is much more than that.

The WRS has become the core foundation of ACE. It was introduced in 2011 to enable ACE to guarantee a seller's performance. When an independent warehouse operator issues a warehouse receipt, they become liable for that receipt. So, a buyer can purchase a warehouse receipt with the confidence that the quantity will be available on demand and at the right quality: the receipt is guaranteed by the ACE-certified independent warehouse operator. Over the years, the WRS has evolved and become an integral part of the agricultural industry.

The WRS is really a registry of commodity stock, benefitting all parties involved. For *depositors*, it offers safe storage, guaranteeing less than 1% storage loss, access to finance, and access to markets. For *banks*, the WRS ensures the protection of their collateral by preventing double pledging. On the physical side, the independent warehouse operators become collateral managers, and on the legal side, the Warehouse Receipt Act provides the legal protections for financiers. Finally, for *buyers*, the WRS offers readily available stock, quality assurance, and access to multiple aggregation sites across Malawi.

WRS and food security

ACE has gained a wealth of experience in implementing the receipt system and analysing the effect on farmers, financiers, agribusinesses, and warehouse operators. A central premise was always that the WRS is more than a transactional instrument for sellers, buyers, and financiers: it is a systemic framework that can drive the development of agriculture in Malawi in a positive direction. When looking at the impact of the WRS on food security in Malawi, several aspects can be considered.

The obvious and immediate impact on food security is the reduction in post-harvest losses. The warehousing modality underlying the WRS has a maximum of 1% handling loss – compared to an estimated 10-30% post-harvest loss under rudimentary storage at home or in other informal sheds.

The previous chapter highlighted two potential incomes that smallholder farmers can derive from a WRS: the aggregation premium and the seasonality premium. These can boost smallholder farmers' food security and further drive incentives to increase production. However, it is with the potential market impact and development that the WRS has the most potential to directly improve food security.

In Malawi, policies and interventions enacted with good intentions have turned out to be counterproductive. This is mainly due to a lack of quality and timely information. Malawi has seen export bans when the country had enough maize, resulting in surplus supply, low prices, and therefore reduced production the following year. It has also experienced significant maize imports into a surplus local market, again leading to low prices and reduced production the following year. The subsequent maize price volatility effectively creates a perpetual food security trap. Overall, these consequences point to the importance of developing sound data and information gathering practices to inform optimal decision-making and guide enabling food security and trade policies.

The WRS should hold enough stock to be able to provide reliable and real-time information on commodity stock level availability. If there is enough stock available, and therefore food security in the country, policies should allow the free movement of commodities – domestically and internationally. This will enable farmers to benefit from higher prices by reaching export markets, other countries will be more likely to reciprocate to mitigate regional food security challenges, and it will enable processors to secure supply from a wider region, scaling their businesses in Malawi.

Accordingly, the WRS could advantageously complement the Strategic Grain Reserve (SGR) – first, with stock information, but also for the SGR to buy maize receipts for distribution if humanitarian situations arise. If there are a million metric tonnes of maize available on the WRS, then there is no need to hold as much as 200,000 MT in the SGR, which is very costly for Government to procure and maintain. As long as there is enough maize on the WRS, Government can always respond efficiently to food emergencies.

To this end, ACE and ADMARC Limited are in discussions on a modality where ADMARC could open their warehouses and markets for storage solutions, which would enable smallholder farmers and traders to access the WRS through ADMARC. Imagine a scenario where ADMARC storage is full of maize without having to pay for it in advance. Not only will this ensure food security when maize and other crops are required (as the commodities will already be with ADMARC), it will also make ADMARC commercially sustainable on storage fees alone.

The main point is: if there are excess maize stocks in Malawi, stocks on the WRS should be allowed and even encouraged to be exported. Essentially, Government could have the first option to buy the maize (but they must do so at export parity prices); but, if Government doesn't buy, export must be allowed. This will bring back commercial incentives in maize production and should ensure a demand with farm-gate prices that are higher than production costs. As a result, maize production and food security could be guaranteed every year.

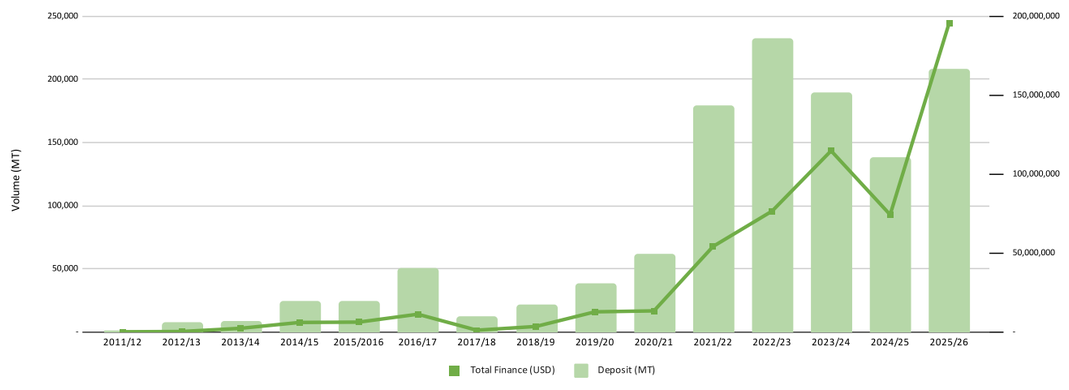
Warehouse receipt system: status

Currently, the WRS has 126 certified storage sites with a capacity of 595,552 MT (this includes 35 owned by farmer organisations). From the 2022/23 season to the 2024/25 season, 557,322 MT of commodity was deposited, and eight banks financed K221 billion worth of warehouse receipts.

The main driver of high volumes is finance. Banks want the warehouse receipts for legal protection of their collateral, and the standard approach is to instruct their collateral manager to issue warehouse receipts to the bank. In fact, there is a direct correlation between the introduction of the Warehouse Receipt Act in 2018 – which protects financiers – and the growth in WRS volumes. ACE really commends Government for the work done on regulating commodity exchanges and the WRS – it is world-class and offers the market precisely what is needed.

From 2011 to 2017, banks were predominantly offering warehouse receipt products, namely, haircut finance and forward contract finance. After the pigeon peas market collapse in 2017, banks became more conservative and reverted to bank-client facilities with traditional collateral management. As shown in the graph below, this modality has experienced significant natural growth, which is a great enabler and driver for volumes on the WRS.

Since 2017, ACE has worked with banks to develop and reintroduce warehouse receipt finance products, offering access to finance for smallholder farmers and micro, small, and medium enterprises. It has been challenging, but ACE is still attracting more interest from banks to enter this market. To accelerate the process, ACE has developed the concept of an ACE Commodity Fund to co-finance and take risk with the banks – see the next chapter.



The warehouse receipt system Receipt volume (MT) and finance (USD)

Policy considerations

A major challenge in Malawian agriculture, particularly in the maize market, is price volatility and unpredictability. When smallholder farmers put a seed in the soil, they have no idea what the price will be. In some years, the price will be lower than the production cost, which is the very reason why there is no commercial farming of maize and little commercial farming of any cash crop. It is simply too risky. Smallholder farmers don't have a choice – they must farm and hope for the best! That is why Malawi needs policies that drive commercial markets, create demand, and therefore ensure prices higher than production costs. This can catalyse commercial farming, enabling Malawi to become the food basket it should be. As such, ACE believes the following initiatives could provide solutions:

- **Open Government storage facilities** to allow smallholder farmers and traders to store and access the WRS. This has the potential to accelerate commodity aggregation and lower storage fees.
- **The WRS should be Government's procurement mechanism of choice**, providing for all Government institutions such as hospitals, prisons, and schools. This can drive aggregation and enable the WRS to provide critical stock information for sound policies. Procurement can be done either through an auction for price discovery, or, in case Government sets a price, after the first in-first out principle. So, the first stock registered on the WRS will be the first stock to be sold to Government – this will be an advantage for farmers. The right price should be the export parity price, meaning that farmers should not lose value due to trade restrictions. Ultimately, the process must be open and transparent and enable smallholder farmers to actively participate.
- **Allow maize exports in seasons when there is excess stock** that Government will not buy. If maize prices crash in Malawi due to non-exportable oversupply, farmers will produce less maize and there will likely be a shortage the next season – the food security trap!

It is ACE's firm conviction that these three initiatives will drive the market and significantly increase production in Malawi. The policies should apply to all commodities, but for maize it is particularly important.

In addition, policies could be introduced to incentivise aggregation and formal trade, including:

- **A risk-sharing mechanism** developed by Government to accelerate bank finance for aggregation. In return, banks must finance stock at the lowest interest rates possible. This will help accommodate the main driver for aggregation: access to finance.
- **A waiver of withholding tax** for any stock in the WRS. There is a real need to incentivise formal trade since any tax on agricultural commodities will prompt informal markets. As the structured markets develop, opportunities to introduce more appropriate taxes on agriculture will emerge.
- **Free trade** for any stock on the WRS (with the restriction proposed for maize), meaning no export permits, no licences, no registrations. In return, Government will have full access to stock and stock movements, both domestically and internationally, and be able to ensure that export proceeds and taxes on profits are settled.

These three points can drive commercialisation, demand, and therefore production.

Lastly, policies derisking agriculture should be considered. If the market is failing, any attempt to increase production – whether development projects, input subsidies, or promotion of mega-farms – will lose its effectiveness. Again, if commercial farms do not produce, it is because it is too risky. Thus, Government should consider:

- **Subsidising the cost of price insurance**: this will help farmers secure a minimum price that covers production costs plus a small margin; as a result, farming will be profitable and commercial.
- **Scaling down input subsidies to fund the price insurance subsidy**: banks will finance agricultural production if there is no price risk; at the same time, Government should continue input subsidies for non-bankable farmers and introduce initiatives to make them bankable.
- **Converting input subsidies to cash transfers**: this will enable productive land to be accessed by bankable (now commercial) farmers.

3 THE ACE COMMODITY FUND

If finance is not available, the choice to store is not an option.

Farmers need cash at the time of harvest; they will be forced to sell regardless of price if finance is not available. The ACE Commodity Fund helps unlock this finance and give farmers a choice.

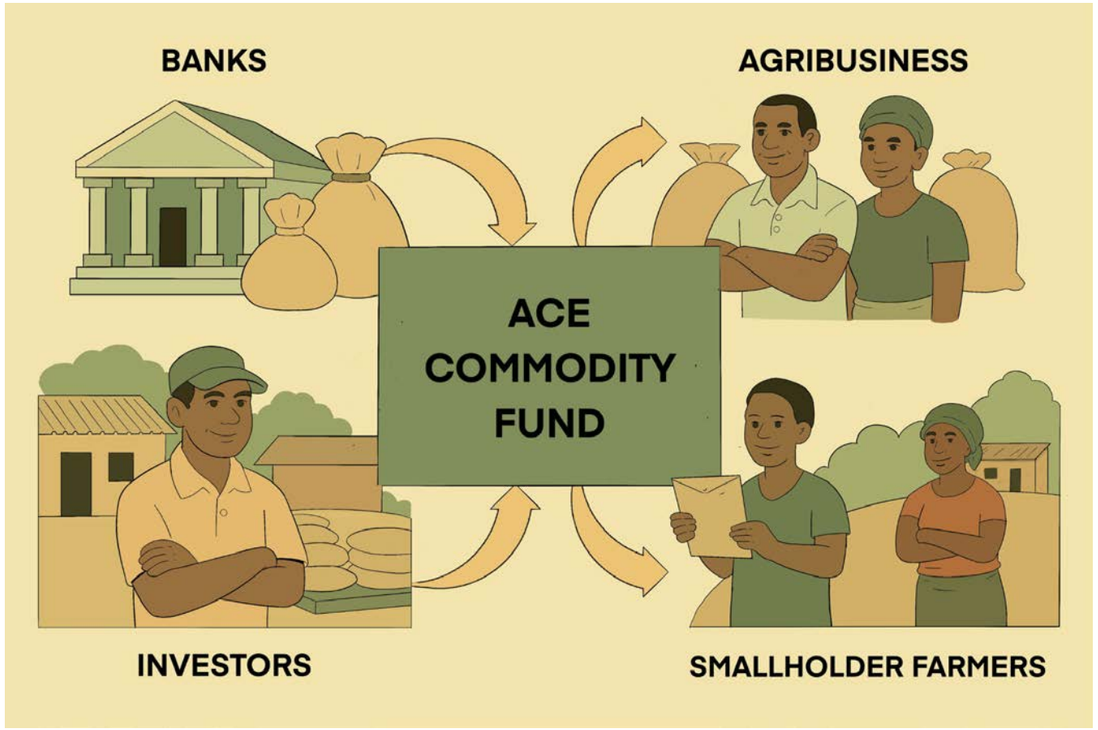
The ACE Commodity Fund (ACF) is a pot of dedicated capital intended to help agricultural value chain actors like smallholder farmers, farmer organisations, and small- and medium-sized enterprises (SMEs) increase their access to warehouse receipt finance (WRF) and other forms of important agricultural credit. Until now, value chain actors have experienced bottlenecks which the ACF aims to overcome.

The ACF will offer finance modalities to actors along the whole value chain. Upstream, close to the producers, it will be all about solving the bottlenecks of access to finance. Downstream, close to the processors, it will be all about increasing liquidity in the agricultural sector and thereby strengthening the demand, ensuring favourable farm-gate prices for farmers.

As touched on in the previous chapters, WRF is a form of credit provided by financial institutions that uses the stored commodity as the collateral to secure the loan. It is indeed access to WRF that unlocks aggregation and seasonality premiums for farmers, i.e. a higher price for selling later in the season. For ACE, the essential idea is to give farmers a choice: sell or store. ACE firmly believes this choice empowers farmers, but it is strikingly clear: if finance is not available, the choice to store is not an option. Farmers need cash at the time of harvest, and they will be forced to sell regardless of price if finance is not available. The ACF helps unlock this finance.

Many agricultural value chain actors, especially those that operate at a small scale, have struggled to access credit because they do not have the kinds of collateral that banks traditionally require such as land, buildings, and machinery. However, they do have agricultural produce. By enabling banks to accept agricultural produce as collateral to secure credit, WRF can increase access to finance for these actors.

With WRF, value chain actors can store their goods and wait until later in the season to sell when prices are usually higher. Most smallholder farmers and SMEs need cash, especially at harvest after investing their resources in production. They cannot afford to store and wait to sell later in the season unless they receive cash in the meantime.



This is where the WRS comes in:

- Firstly, it enables reliable, professionally managed warehouses where borrowers can store their goods;
- And secondly, it facilitates access to WRF credit from financial institutions, so borrowers have the cash they need while they wait to sell their produce later in the season for a higher price.

The loan is then repaid out of the sales proceeds. Even after repaying the loan to the bank with interest, as well as paying the associated storage fees, data (referenced in the first chapter) show that agricultural value chain actors can usually realise significantly higher income from selling their goods later in the season.

The ACF will work with financial institutions like banks and microfinance institutions to reduce the risks of providing WRF and other important forms of agricultural credit. Accordingly, it will increase the amount of credit available to agricultural value chain actors around the season.

This will create a virtuous cycle of investment and return:

- WRF credit is leveraged to drive farmer income gain through improved yield, reduced post-harvest loss, and higher market price.
- In turn, this will enable further investment by the farmer into productivity gain, post-harvest handling, and market access.

The ACF is a risk-sharing facility, which will co-finance with the banks' WRF and other qualifying agricultural loans, taking different first-loss risks, thereby derisking WRF for the banks. This means the latter will have more funds available to loan agricultural value chain actors. In effect, each loan carries lower risk as a portion of the losses will be taken by the ACF.

Of course, most WRF and other agricultural loans will not result in loss – most will generate interest income – so the ACF will itself benefit and grow over time. As it grows, it will enable more loans to be provided to farmers and other value chain actors.

It is worth highlighting that the ACF's focus is to work with banks to increase WRF, rather than acting like a bank of its own. In practice, this means that the ACF will not directly provide credit to the borrower. Instead, the financial institutions – banks and potentially microfinance institutions – will provide the credit to the borrower.

Facilitation of access to WRF and other types of agricultural credit will be fully integrated within the entire range of ACE ecosystem support services. These include farmer-level organisation, inputs, extension services, post-harvest services, market information, digital and financial literacy training, storage, and market linkages. Specifically, a part of the ACF's profits will be set aside to drive these inclusivity initiatives, to ensure that small-scale operators are integrated, empowered, and benefit from access to finance.

ACE believes this approach has a unique proposition to development partners and social investors. Leveraging the capital in the ACF will expand access to finance for the small-scale sector and increase finance in the agricultural sector – and this even before investing capital in more traditional development activities. As a result, the impact gained for every tambala invested will rise significantly.

The development capital gets to spin two wheels. The first wheel will be using the capital in the ACF to unlock finance from banks and directly increase farmer income. The second will be investing in farmer capacity, warehouse and aggregation infrastructure, technology, and partnerships.

ACE has estimated the impact the ACF could have. A concrete proposition is that for every $1 million investment over ten years, the ACF will reach 94,000 smallholder farmers alongside other value chain actors and unlock an additional $75 million of bank funding into the agricultural sector in Malawi. The additional income for farmers from taking the WRF loan and receiving services from ACE is about $5 million. Through the ACE Inclusivity Initiative, close to 200,000 farmers will benefit from SMS-based market information and related training: production training covering climate-smart agriculture, good agricultural practices, 'farming as a business', marketing, and financial and digital literacy training, including mobile money and digital finance migration. Overall, 450 farmer organisations should benefit from governance support, capacity strengthening, warehouse management training, and market linkages.

By funding the inclusivity activities alongside the risk-sharing facility provided to banks, the ACF helps build demand, reduce risk, secure its capital, and ensure maximum impact on the investment.

The ACF will effectively open up two fronts in the battle to increase access to finance for smallholder farmers and other small-scale borrowers: funding and inclusivity initiatives. Over the years, ACE's experience has shown that capacity building, learning, or training have the desired effect only if there is capital available that generates real opportunities to apply the new learning. The ACF will ensure this.

4 THE ACE MARKET MAKER: BRINGING MARKETS TO FARMERS' DOORSTEPS

Rural farmers get the urban price, minus transport and tax, paid immediately.

This solves the age-old problem: farmers sell fragmented at significant discounts for immediate cash, while buyers need consolidated volume and are willing to buy at a premium. The ACE Market Maker bridges this gap.

The term 'market maker' is traditionally used on derivatives exchanges for entities or individuals who continuously buy and sell. They provide depth and liquidity to the marketplace and make profit by having a spread between the buy and sell price. Although there's no reason a market maker couldn't operate in the spot market, no entities have been willing to offer this service on ACE.

As a result, ACE has always struggled with low volumes of trade across the exchange. While Government and World Food Programme procurement, and the availability of warehouse receipt finance, boosted volume at times, trading was motivated mainly by access to premium price and finance rather than by the ACE marketplace itself. ACE's vision was always a liquid marketplace where buyers and sellers could interact with transparent, dynamic price discovery.

The trade facilitation challenge

ACE has long grappled with what we call our Achilles' heel: the ability to facilitate substantial trade volume between smallholder farmers and buyers. The problem has been a classic chicken-and-egg situation: buyers need reliable, aggregated volumes to justify transactions, while farmers need guaranteed buyers and immediate payment to justify aggregation.

Rural traders with cash in hand continue to dominate farm-gate purchases, offering immediate payment but at significantly reduced prices. The convenience of immediate cash has proven more compelling to farmers than ACE's promise of better prices through aggregation and structured markets, especially when those markets require waiting and coordination.

Facing these realities, ACE developed the innovative ACE Market Maker modality, drawing inspiration from similar initiatives in other African countries. The fundamental insight was that certain market inefficiencies require direct intervention to overcome – sometimes you need to be the market you want to see.

The Market Maker modality

The ACE Market Maker effectively forces aggregation by buying directly at rural warehouses. It takes the ACE urban market price, deducts legitimate transport costs and taxes to arrive at a fair rural price, and offers this price to farmers and small traders delivering to ACE-certified warehouses. Farmers see

both prices and, if they choose Market Maker, payment is made promptly via mobile money or bank transfer, meeting farmers' need for immediate cash.

This approach provides smallholder farmers with access to true market prices rather than the heavily discounted prices typically offered by rural traders. By bringing urban market prices directly to rural areas, the Market Maker bridges a critical gap that has hindered ACE's trade facilitation services in the past.

The mechanics are straightforward but powerful:

- The Market Maker posts transparent daily buying prices based on urban market rates minus reasonable transport costs
- Farmers and small traders deliver commodity to ACE-certified warehouses
- Quality is verified, and payment processed swiftly
- As volume reaches critical mass of approximately 100 MT, it is offered to buyers at a transparent selling price
- The Market Maker aims to buy and sell quickly, avoiding speculative positions or holding inventory

Making the economics work

The economic viability of the Market Maker model hinges on what we call the 'aggregation premium'. When ACE Market Maker purchases commodities at a rural warehouse, several costs are added:

- Storage and handling costs at the warehouse (for the 2025/26 season: K9,500/MT for handling and K160/MT/day for storage)
- Cost of finance while holding the commodity
- 1% margin for ACE
- 1% margin for the Market Maker
- 0.5% incentive for the farmer organisation (FO) owning the warehouse
- 0.5% allocation for risk management

This means the selling price to buyers will necessarily be higher than the prevailing market price. However, experience has shown that when volumes reach approximately 100 MT, buyers are willing to pay an aggregation premium to secure a guaranteed volume of quality commodity. In September 2024, for example, while the ACE price for maize in Lilongwe was K720/kg, a 90 MT lot sold for K760/kg – a K40/kg aggregation premium that covered the cost of aggregation and margins.

The primary risk for the Market Maker is price volatility during the period between purchase and sale. If market prices fall significantly before the aggregated volume can be sold, the Market Maker could face losses. This makes speed essential – the faster the Market Maker can aggregate the target volume and sell it, the lower the risk.

From Chithumba to Market Maker

The Market Maker modality builds on ACE's experience with the Chithumba model, which was initially developed as an innovative input finance scheme. Under Chithumba, farmers receive inputs on credit and repay with a portion of their harvest. This created the initial infrastructure and relationships with FOs that made the Market Maker possible.

In fact, the Market Maker has now been integrated with Chithumba, operating as a subsidiary that focuses specifically on the input activities: commodity aggregation and selling. This integration allows ACE to leverage existing relationships with FOs while creating a more direct market access mechanism to support farmers.

It's not only farmers who benefit from the Market Maker: when farmers deposit at FO warehouses, the FO earns storage and handling fees, creating a sustainable revenue stream. This allows FOs to offer valuable services to their members while building their organisational capacity and financial independence – strengthening institutions essential to long-term market development.

Three years of learning

Since piloting the Market Maker modality three years ago, ACE has gradually increased the number of participating warehouse sites from five to 15, with transaction volumes growing by approximately 35% each season. The key test has been whether the model can achieve the critical mass needed for economic viability: can we aggregate 100 MT quickly enough to capture the aggregation premium while minimising price risk; and can we facilitate at least 3,000 MT to ensure commercial viability?

Results have been mixed but overall promising. On the positive side, the Market Maker has successfully:

- Maintained the safety and quality of commodity with less than 1% shrinkage across all sites
- Delivered proper settlement to farmers, with over 90% of payments processed within 24 hours
- Provided true market prices in rural areas, averaging 20-30% higher than local trader prices
- Demonstrated increasing volumes year-on-year (though still below target levels)

Challenges remain, however. Volumes have grown more slowly than anticipated, and we've identified key factors that need addressing.

First, the location of warehouses can significantly impact aggregation potential. Many were built to empower specific FOs rather than positioned along natural commodity trade flow corridors. While these warehouses serve their FOs well, they may not be situated in areas that naturally attract additional volume from surrounding communities.

The Market Maker is now analysing which warehouses are positioned at strategic junctions in the rural supply chain – places where commodity naturally converges on its way to urban markets. Future expansion will prioritise these natural aggregation points to accelerate volume growth.

Ace Prices

Domestic market • 1 October 2025

indicative of 5MT • prices are MWK/kg/DAP

Commodity	Blantyre	Lilongwe
Soya	2,350	2,200
Maize	1,150	1,000
CG 7 & 9	-	6,600
Chalimbana	-	6,900
Unshelled groundnuts	4,000	4,000
Pigeon peas	1,450	-
Sunflower	1,400	1,470

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Chithumba MARKET MAKER

Kuli msika wa mbewu lero pa **30 July 2025** motere:

WAREHOUSE	DISTRICT	CONTACT	MAIZE		SOYA		G/NUTS	
			BUY	SELL	BUY	SELL	BUY	SELL
Gwiritse	Lilongwe	0983100949	1130	-	2215	-	-	-
Kapirimutu	Dedza	0981138017	1120	-	2210	-	-	-
Chikwatula	Ntchisi	0999180459	1115	-	2205	-	-	-
Mgwilizano	Dowa	0998051865	1125	-	2215	-	-	-
Naphini	Lilongwe	0996232791	1125	-	2215	-	-	-
Chilimika	Salima	0995109224	1110	-	2200	-	-	-
Kasipa	Nkhotakota	0994419908	1105	-	2195	-	-	-
Nathenje	Lilongwe	0897841973	1130	-	2220	-	-	-
Tasanganapo	Mzimba	0994240020	-	-	2125	-	-	-
Nabulenje	Mchinji	0993676307	1105	-	2195	-	-	-
Chibwata	Kasungu	0995234628	1115	-	2195	-	-	-
Chilanga	Kasungu	0996922370	1110	-	2195	-	-	-

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Vision for the future

The ultimate vision for the Market Maker modality is ambitious. The goal is to create a network of 100 strategically positioned rural warehouse sites where the Market Maker just needs to purchase 1 MT daily at each location, reaching the critical 100 MT across all sites. This will enable it to sell it the same afternoon at the premium price. After that, it will all be about logistics.

As this system generates consistent volume and establishes reliable relationships between rural aggregation points and buyers, the Market Maker will gradually step back. Farmers will begin to aggregate independently once they trust that buyers will purchase their commodity promptly at fair prices. The rural warehouses will become self-sustaining hubs of commercial activity, with the Market Maker having served as the catalyst rather than a permanent market intermediary.

The Market Maker also boasts potential to tackle food insecurity in rural areas during the lean season – this occurs between harvests and is marked by low food supply and high prices, causing distress among farmer communities. With the Market Maker, however, storing commodities means that these are accessible all year-round, and can support food security throughout this period. As we expand the Market Maker presence across the country, we envision scaling this impact.

Chithumba is introducing new commodities and has expanded to 20 sites, focusing on locations with the highest aggregation potential and implementing measures to accelerate volume accumulation. This expansion represents a critical test of the model's scalability.

Conclusion

The Market Maker modality represents ACE's innovative response to one of the most persistent challenges in agricultural markets: achieving the critical mass of aggregation necessary for efficient trade. By temporarily stepping into the market to catalyse aggregation, ACE aims to break the chicken-and-egg problem that has hindered trade facilitation.

While this approach may appear to contradict the traditional separation between an exchange and market participants, it recognises the unique challenges of developing agricultural markets in Malawi. Sometimes, catalysing market development requires unconventional approaches.

The Market Maker serves as a bridge – not a permanent structure – designed to establish the volume, relationships, and trust necessary for a self-sustaining agricultural marketplace. By bringing the market to farmers' doorsteps today, we aim to build the foundations for a thriving, farmer-empowering market system tomorrow.

5 RISK MITIGATION: THE KEY TO UNLOCKING AGRICULTURAL POTENTIAL

Price risk is the fundamental barrier to agricultural investment in Malawi.

Without the ability to hedge prices when putting a seed in the ground, commercial farming remains too risky, while smallholder farmers have no choice but to hope for the best.

The agricultural risk landscape

Agriculture in Malawi, indeed across Africa, involves numerous risks: weather, pests, seed quality, and low mechanisation. Yet, from ACE's perspective as an agricultural commodity exchange, price risk stands as the overarching issue. In an already volatile agricultural market, not knowing what price your produce will fetch when you put a seed in the ground is the main reason why Malawi and other African countries see low productivity.

Commercial farming simply becomes too risky without the ability to hedge prices. Subsistence farmers, on the other hand, do not have a choice – they must plant and hope for the best. They can minimise price risk through diversification and good crop rotation, but at the end of the day, a mechanism where farmers can hedge the price would transform the agricultural landscape.

This reality explains why commercial farms in Malawi predominantly grow tobacco, seeds, and other niche crops under contract. Cash crop production without contracts is virtually non-existent. While contract farming does provide a first step toward price risk mitigation, it has limitations. The traditional narrative suggests farmers will side-sell when market prices rise, causing buyers to lose interest. However, it works both ways – when market prices plummet, buyers have been seen to abandon their contractual obligations. When neither party trusts the other, a contract is only as good as the paper it is written on.

From choices to options

Since its inception, ACE's approach has been to provide farmers with choices – the option to sell immediately at the best available price, or to store and delay sales. As detailed in earlier chapters, this approach doesn't eliminate price risk entirely, but in most seasons where starting prices are below or close to production costs, prices will increase throughout the season and thereby limit the price risk.

ACE's premise has been simple: give farmers a choice, and the choice alone will ensure a better price. This limits price risk, or at least opens an opportunity to counter it. That said, the choice to store requires more than just warehouse access; farmers need income at harvest time and can only delay sales if finance is available. In the years when banks made finance available, it was the main catalyst for commodity aggregation, with

many farmers taking the opportunity to delay sales and increase their income.

The Haircut Finance product presented potential but was withdrawn after the 2017 pigeon peas market crash, as discussed earlier. ACE is making big steps forward with the Malawi Agricultural and Industrial Investment Corporation (MAIIC) by reentering the market with a 50% Haircut Finance product. While 50% may be on the low side to be attractive for small traders and entrepreneurs using their stock to access finance for further aggregation, it can be sufficient for farmers looking to delay sales. The choice is back.

True risk mitigation, however, requires more sophisticated instruments.

Options contracts: true price insurance

In established markets, farmers use option contracts as price insurance. An option gives the holder the right, but not the obligation, to sell at a predetermined price. If market prices drop, the farmer can exercise the option; if prices rise, they can sell on the open market and let the option expire. In essence, it is price insurance.

ACE approached option providers in South Africa who operate on the Johannesburg Stock Exchange (JSE). After reviewing ten years of price data for soya in Malawi, they concluded that the market volatility was simply too extreme for a commercially viable option contract. The premium would be too expensive for farmers or banks to afford.

Nevertheless, ACE found a promising angle. Banks financing through the warehouse receipt system (WRS) typically financed 70% of the market value, meaning they don't need to hedge the full market price – just the discounted value. With this approach, option premiums became much more reasonable.

ACE partnered with Stable, a global company specialising in price insurance and options for non-listed agricultural products, to develop a Malawi product that eliminates the banks' price risk. The (insurance) premium was viable, especially when compared to the (interest) premium banks charge when financing the smallholder segment. Since the banks' only significant risk when financing through the WRS is price volatility, this approach should have been straightforward. Not only should banks pay this premium – they should also lower financing costs for the small-scale segment as a result.

Despite pitching to several banks, none have yet operationalised this product. We hope that with MAIIC reentering with Haircut Finance, we can finally launch these options and help banks familiarise themselves with these instruments – the first of their kind in Malawi.

Through this work, it became increasingly clear that while protecting banks is important, the farmers themselves need direct access to price insurance. Option contracts present great potential as they can be purchased when planting

What is an options contract?

An options contract in agriculture works as price insurance. A 'put' option gives farmers the right (but not the obligation) to sell their commodity at a predetermined price (the strike price) regardless of market movements. If market prices fall below the strike price, farmers exercise the option to secure the higher price. If market prices rise above the strike price, farmers can sell on the open market instead and simply let the option expire. Farmers pay a premium for this protection, similar to an insurance policy.

and insuring the price after harvest. The challenge here is that inter-seasonal volatility is significantly higher than within-season volatility, making premiums potentially more expensive.

One solution is to lower the strike price to just above production costs, plus a small margin. This ensures farmers at least break even and, more importantly, can access production finance with this instrument. ACE is investigating what premiums would look like for such products.

Learning from South Africa's success

To understand what is possible, we need only look at South Africa, the sole country in Africa with a fully developed commodity exchange. The JSE (formerly SAFEX) provides valuable lessons for institutions like ACE.

South Africa's exchange developed partly because large commercial farmers, with track records of producing thousands of metric tonnes, had relationships with banks willing to finance them. However, the banks required the farmers to hedge prices on SAFEX. This banking requirement became the catalyst for exchange activity – farmers wanting production finance had to hedge on SAFEX.

This dynamic created a virtuous cycle that led to SAFEX becoming a robust institution managing agricultural risk throughout South Africa, significantly contributing to the country's thriving agricultural sector.

Could Malawi replicate this model? The challenge is that most Malawian farmers are small-scale and not individually bankable. The few commercial farmers in Malawi are already engaged in contract farming. To create the same dynamic, we need more bankable farmers generating demand for exchange services through price hedging.

There are two potential paths: developing individual bankable farmers with track records and investments, or working through well-organised cooperatives that can be financed as entities and serve their smallholder members.

The Mega Farm Opportunity

The Government's Mega Farm initiative presents a fascinating opportunity to recreate South Africa's successful model. With approximately 900 mega farmers receiving various forms of input finance and assistance this season, we could establish precisely the right conditions for structured trade development and price risk instruments.

For this to succeed, farmers must repay their input loans so the Government funds managed by MAIIC can grow and scale. After the first year, MAIIC experienced challenges with repayments. ACE therefore recommends that mega farmers be required to deposit their harvest in certified warehouses, where MAIIC can secure their finance through the warehouse receipt system.

ACE recommends three scenarios for marketing mega farmers' produce:

1. Farmers negotiate with any buyer directly, settle MAIIC's finance, and withdraw their commodity;
2. Farmers register their ready-to-trade commodity on the ACE WRS, making it visible to buyers who can place bids to buy;
3. Stock is aggregated across warehouses and sold through auctions to secure premium prices for large quantities.

The maize market as a whole will benefit from this initiative, by introducing commercial incentive to production and trade. This market presents particular challenges as a result of political interventions and export bans. Since the export ban was implemented in 2011, Malawi has been caught in a cycle of food insecurity every two to three years. When there is a maize surplus, prices crash because exports are prohibited. Farmers consequently reduce maize production, growing just enough for themselves and switching to cash crops for the rest. A small yield reduction of just 10% then creates shortages of around 300,000 MT, requiring scarce foreign currency for imports.

To increase maize production, it is crucial that a farmer can sell at the best price available, even if this means exporting. Therefore, ACE recommends allowing international and regional buyer participation in the maize auctions. The Government could retain the first right of refusal to purchase at the discovered price for strategic reserves, allowing it to secure maize for humanitarian interventions. If the Government chooses not to buy, farmers should be free to sell wherever and to whomever they wish, including export markets. This creates commercial incentives to produce more maize, which will limit the Government's need to buy, and thereby free up Government funds. A healthy cycle will begin, replacing recurrent food insecurity with investments, exports, and food security.

As previous experience shows, this is possible. When Malawi began its input subsidy programme, maize exports were permitted; and the country exported between 400,000 and 500,000 MT annually for several years. Only after the 2011 export ban did the cycle of food insecurity begin.

As such, the Mega Farm modality can be the catalyst for change. It will succeed if farmers trust that they can access the best market prices, which will secure repayments to MAIIC. And equally important for positive change will be Government trade policies which incentivise commercial production and trade.

Price risk mitigation will then be the missing link in Malawi's agricultural development. By implementing options contracts for farmers through the Mega Farm programme, the same virtuous cycle that built South Africa's successful commodity exchange can be established – with financial institutions driving demand for risk management tools.

The formula is pretty straightforward: secure physical stock through warehouse receipts, provide transparent market access through auctions, and protect value through options contracts. This threefold approach could transform agricultural finance and productivity in Malawi.


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