WORLD BANK GROUP

AgriFin
Agriculture Finance Support Facility

Warehouse Receipt Financing

The Experience of Access Bank Madagascar

KNOWLEDGE NOTES

MARCH 2015

Introduction

In many developing countries, farmers do not own properties that can be leveraged as collateral for loans from financial institutions. They therefore often lack access to credit to meet their financing needs and are forced to sell their commodities immediately after harvest, often at lower prices. Warehouse receipt financing has been used as a mechanism to address this challenge to farmers and also financial institutions. A warehouse receipt financing system is a mechanism that allows the use of commodities as collateral to secure loans. In a typical warehouse receipt financing approach, a farmer stores commodities at a certified independent warehouse. The commodity will be graded and checked for quality and a receipt will be issued by the warehouse operator to the farmer, specifying the quantity and quality of the commodity. The farmer can use the receipt as collateral to access loans from financial institutions, while also enjoying the advantage of selling these commodities in the market when prices might be higher. For financial institutions, warehouse receipt financing help reduce credit risk in lending to farmers.

Experience has shown that in order for a warehouse receipt financing system to work well, the following key conditions have to be in place:

- Availability of warehouses to grade and store commodities
- Legal framework supporting the use of receipts as collateral
- Independent and professional warehouse operators
- Adequate monitoring and supervisory framework ensuring that warehouses operate as provided by the law, and
- Transport facilities at affordable costs

However, it has also been observed that often all these conditions are not fully in place and that there are alternative ways of using a warehouse receipt financing mechanism to finance farmers. In this respect, Access Bank Madagascar (ABM) has attempted to design and pilot a warehouse receipt loan in the absence of independent warehouses, without legal provision for or against using receipts, and with only limited transport infrastructure.

Access Bank Madagascar and Agricultural Lending

ABM was established in Madagascar in 2007 by a group of investors as a bank focusing on microfinance and small and medium enterprises (SMEs). By the end of September 2013, the back accounted for 1.7% of total assets and 2.5% of total loans outstanding of the banking sector in Madagascar. In December 2013, the bank had total assets of US$38 million and total outstanding loans of US$24 million. As a microfinance bank, ABM's core product type is lending for microbusiness (70%), followed by loans to SME and agriculture enterprises. The bank operates 21 branches across Madagascar, including at its headquarters in Antananarivo.

The agriculture portfolio was worth about US$5 million as of June 2014, and has been growing by more than 5 percent points faster than the broader portfolio because of the bank's special interest in expanding into more into rural areas. Most of the agricultural borrowers are engaged in primary production, followed by trading and processing activities. A majority of the producers are engaged in rice farming and household-based livestock production; mainly pig, chicken, and cow fattening. Agriculture loans are offered through a separate special unit, whose loan officers work on different agriculture and non-agriculture loans in rural areas. An agriculture loan coordinator located in the credit department at headquarters supervises all agriculture loans. The agriculture portfolio is judged to be healthy, with a portfolio at risk (PAR) +30 days of 1.2%, which compares with an overall rate of 4.2% for the entire portfolio.

Rice farms in valleys

Rationale and Process in Designing a Warehouse Receipt Loan Product

Rice is the most important crop in Madagascar in terms of both quantity (4.55 million metric tons [MT] in 2012) and value of production (US$ 906 million in 2012). There are two market seasons in accordance with rainfall patterns: the main season between February and May/June, and a shorter a season from October to January/February.

Paddy prices fluctuate substantially within a single year and across years. Prices across years fluctuate in line with domestic production, the quantity of rice imports, and the price of rice imports. Indeed, Madagascar remains dependent on rice imports[1]. Prices within the year also fluctuate in line with changing demand. The greatest price volatility occurs in the main season, mainly between mid-May and November; fluctuations in the second season are less marked and not suitable for speculation. The maximum increase of paddy prices between May and November is 100%, but often about 70% on markets of smaller or medium-sized towns.

Most of ABM's clients are engaged in the rice value chain and are affected by the seasonal price fluctuation. This indicated an opportunity for ABM to provide a working capital loan solution against stored rice stock. To further validate the opportunity and design an appropriate product, ABM undertook market research that revealed a significant demand among producers for a working capital loan, secured against their production stored in a warehouse. While there has been strong demand for the product, a number of producers indicated that they are concerned about the cost and security of transporting their commodities to warehouses in urban areas. Taking into account the client demand and challenges identified in the market study, ABM designed a warehouse receipt loan product to be offered to clients storing their commodities (mostly rice) at ABM-managed warehouses. The key features of the product are discussed below.

1 The average annual paddy production between 2009–2013 was 4.35 million MT. Paddy production reached only 3.61 million MT in 2013, but was expected to have recovered in 2014 to 4.3 million MT. Substantial volumes of rice had to be imported in 2013 (400,000 MT, twice the volume of 2012) and the first quarter of 2014 to bridge the supply gap following the sharp reduction in the domestic output. See http://www.fao.org/giews/countrybrief/country.jsp?code=MDG

Warehouse Receipt Loan

The market research found that there are no independent warehouses and warehouse operators that ABM could partner with to offer loans against stored commodities. Accordingly, ABM decided to manage and operate its own warehouses by leasing empty storage facilities from the market. To pilot the operation, three warehouses with a storage capacity of 650 MT were leased and refurbished. The warehouses are managed by a warehouse keeper employed by the bank to grade, certify, and issue deposit receipts to farmers.

Clients deposit paddy rice in standard bags of 50kg at the warehouse during normal working hours and receive a receipt from the warehouse manager. The warehouse manager marks each bag with the name and file number of the depositor.

Upon presenting this receipt to agricultural loan officers at the nearby branch, the farmer receives an ABM loan up to 100% of the current value of

Bags are marked with depositor name and reference number

BOX 1 **ABM Warehouse Receipt Loan: Key Features**

- Bank-managed and operated warehouses
- Managed by bank employee warehouse operator
- Receipt issued by bank to its clients to secure loans
- Receipt cannot be used for loans from other banks
- Finances working capital loans up to 100% the value of the stored commodity
- Storage and handling fee included in the loan
- Loans mainly for traders and producers

the commodity, based on the current market price at the location of the warehouse. Unlike other well-developed warehouse receipt financing systems, clients cannot use the receipts to obtain loans from other financial institutions.

The maximum duration of the loan is nine months, given that the price peaks usually occur within 4–5 months of the harvest. The maximum storage period is 9 months and there is no minimum storage period. Upon repayment of the loan, ABM will release the commodity based on the receipt issued at deposit to the client. Third-party buyers that purchased the commodity from the client can also withdraw commodities from the warehouse against proof of payment through the client's account in ABM.

Results From the Pilot Initiative

The product was launched toward the end of the main season in 2013 and this led to lower-than-expected storage and product uptake. The locust infestation in March 2013 that affected over 50% of the country also contributed to lower deposit levels. In the second season (2014/15), the bank saw improvement in product uptake. Total deposits in the three warehouses increased by more than a 100%, with a total deposit of 885 MT of paddy rice. This enabled the bank to disburse loans worth US$236,000, with an average deposit of 6 MT and an average loan of about US$2,400.

Some key changes in the product and in its marketing contributed to the increase in product uptake. The first was an intensive promotional campaign within farmers' communities prior to the harvest season. This raised awareness among farmers about the product with critical information about financial options available to them to meet their financing needs right after harvest. The second revision was to cover the cost of transport from the farm to the warehouse within the product. This enabled farmers to access transport facilities arranged by ABM at a minimum cost.

Benefits to Clients and the Bank

It is as yet too early to undertake a comprehensive profitability analysis at this stage. Existing price information indicates that farmers can obtain improved prices for their commodities through the storage facility offered by the warehouse loan.

On the assumption that the average loan duration would be 5 months, and that final sales prices realized by depositors would be the same as those of 2013, a depositor would realize a net profit in the range of US$112–US$263, equivalent to a return of 8–24%.

Whether ABM makes a profit from these loans depends on the utilization of warehouse capacity and the average loan duration. ABM assumes that it will not be possible to transfer the full cost of storage to clients through the interest rate and hence it absorbs all associated costs through the interest margin. ABM expects that high operating costs associated with the initial stage of the product and the storage facility will decline over time and loan volume will grow making the product more efficient.

It appears that the product is much more in demand by rice buyers and traders than by producers. The latter tend to have sociocultural barriers to depositing their rice in warehouses. Some farmers feel that by depositing their commodities outside their premises, they lose control over their stocks and are unable to access the commodities for household consumption, if they need it. Farmers are also said to be reluctant to be seen as borrowing and pledging their stocks to outside agencies. Considering these sociocultural barriers and the concerns of producers, ABM offered a so-called double key warehouse loan option that allows producers to store commodities in their households and obtain loans against the stored commodity.

Double Key Warehouse Loan Financing

Under the double key option, a client or group of clients deposit rice in a suitable storage place of their choice, which is then locked with two padlocks. The key to one remains in the possession of the bank, the other with the person owning or managing the storage. The minimum storage amount is 10 tons of rice The loan amount ABM grants against this deposit is obtained by multiplying the current commodity price by a factor of 75% to hedge against losses of stock, theft, mismanagement and other factors beyond the bank's control.

The product works as follows. A group of farmers contacts a loan officer and agrees to a visit at

Transport from farm to homesteads in rural Madagascar

the storage facility and at the house or business place of a group member. The loan officer then examines the suitability of the storage facility and the protection of deposits against rodents, insects, birds, and theft. Both parties ensure that the place is locked with two padlocks. An agreement is then reached in principle on the commodity, quantity, and intake price. The loan officer then prepares the loan applications. Farmers then meet the loan officer again when depositing their paddy and locking the store. All deposits are marked with the name of the depositor. The remaining data on individual deposit and loan amount are then entered into the agreement, which is signed by both parties. Farmers can then withdraw their individual loans from the branch. In case any depositor wants to retrieve stock, he or she negotiates a meeting with the respective loan officer and pays the amount required into the loan account at the branch. Loan officers are not allowed to accept payments from clients in the field, and will only permit stock withdrawals as far as repayments have been made.

ABM had initially envisaged that a loan officer would visit each deposit three times per season, but in actual practice this increased to 5–6 field visits. The product is apparently of interest mainly to producers rather than retail traders who need more ready access to their products when sales opportunities arise.

During the first season after introducing the double key option, ABM recorded just a few transactions. While the bank does not incur any costs for storage, the main expenses are wages and transport costs of the loan officer visiting the farmers. The margin for branch operating cost would be sufficient to cover this, provided that the trips could be combined with other tasks in the vicinity.

Lessons Emerging From the Pilot

- The experience of ABM in designing two options to deliver a similar product concept underscores the need to tailor products to different client segments. The market research and experience in the first pilot indicated that there are two types of potential users of the product: traders and producers. The two warehouse receipt loan product options reflect this segmentation. Traders have been using the storage facility in combination with the loan to increase working capital to buy produce at low costs and sell when prices peak, while farmers are using the double key product for any excess production not needed for home consumption or as seeds for the next season. Such clear segmentation may not be the case in other locations. It will be interesting to see if farmers, the intended target group for the product, will become more interested in double key operations once they develop more confidence, so that the product would become a commercial success.

- For a product like ABM's warehouse receipt loan, timing is very important. Loan disbursement timing has to take into account the production cycle of the commodity to be financed, allowing farmers to access financing when they need it most.

- A promotional and marketing campaign is critical to ensure client uptake. Product promotion using community-based channels is effective in delivering information to farmers.

- The cost of transporting commodities to warehouses is a major challenge in many rural areas, where there is limited transport infrastructure. As ABM's experience has demonstrated, bundling the cost of transport into the product increases client uptake.

- A key issue for all warehouse receipt and inventory credit operations remains the extent of price fluctuations. It would only be safe to start financing such speculative operations on the basis of solid knowledge of price volatility in the different markets, from farm gate to rural centers and larger cities and the capital. Financial institutions need to know the evolution of prices all year round and link loan amounts to the intake and anticipated sales prices to avoid over-financing the borrower and incurring higher risk levels. This would require more dedicated search for data by the financial institution, which comes at a cost.

- Diversifying the commodity types to be stored and financed enhances the efficiency of the product. Given the seasonality of agricultural commodities, it is necessary to ensure that the facilities are utilized at full capacity to make the operation viable. To this end, while exploring options to enter into other value chains besides rice, ABM has started leasing warehouses for the duration of the peak season as opposed to year round open warehouses.