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The Case of Land Bank's Retail Emerging Markets (REM) Funding Model for Emerging Farmers

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By

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ABSTRACT

The Land Bank's retail emerging markets (REM) funding model was established in 2011. The main objective of the following study was to investigate whether the collaborations between agricultural industry players involved in the funding model, had been beneficial towards supporting the growth of black emerging farmers. The two funding approaches taken being, direct lending to individual farmers and the wholesale financing facility aimed at farmer groups, are explored in detail. The method of analysis adopted was mixed, comprising of a qualitative and quantitative approach. The quantitative approach was directed at the entire REM loan book, to obtain a view of the growth of the book over time; the performance of the loans and the level of non-performing loans within the book. The results thereof would be of interest given that emerging farmers were perceived to be of a high risk. The qualitative approach delved deeper into the relationship between the Land Bank and intermediaries which were tasked to provide end-to-end business support to the emerging farmers. The expected results would include an observation of the development and social impact, including skills development for the emerging farmers.

The questionnaire completed by a sample of black emerging farmers, working with intermediaries revealed a few positive factors. The emerging farmers not only received technical support, but also developed a range of skills which are suited to operating a successful farm and running a profitable business. Although affected by the drought, the farmers were able to generate a profit and also create employment in their communities, thereby making a contribution towards a social impact, through their development. However the farmers also spoke out about the challenges they still encountered in the industry. The quantitative analysis displayed that the portion of the REM loan book which consisted of non-performing loans was a small percentage, relative to the performance of the entire loan book. Furthermore, the REM loan book had increased sizeably since its inception, reaching out to a wider scope of emerging farmers. Overall, the Land Bank's REM funding model was a success.

TABLE OF CONTENTS

PLAGIARISM DECLARATION i
ABSTRACT ii
TABLE OF CONTENTS iii
LIST OF TABLES v
LIST OF FIGURES vi
GLOSSARY OF TERMS vii
ACKNOWLEDGEMENT viii
CHAPTER 1 9
INTRODUCTION 9
1.1 Introduction and Justification of Study 9
1.2 History of the Land and Agricultural Bank of South African 10
1.3 Land Bank's Business Model 11
1.3.1 REM: Direct Lending 12
1.3.2 REM: Wholesale Financing Facility (WFF) 12
1.3.3 The Comprehensive Agriculture Support Programme (CASP) 14
1.4 Problem Statement 15
1.5 Research Objectives 16
CHAPTER 2 17
LITERATURE REVIEW 17
2.1 Introduction 17
2.2 South African Agribusiness Sector 17
2.3 Overview of Emerging Farmers in SA and Zimbabwe 21
2.3.1 Agrarian Reform for Emerging Farmers 25
2.3.2 Potential of Employment Creation by Emerging Farmers 26
2.4 Credit Constraints facing Emerging Farmers 26
2.5 What is Credit Delinquency? 27
2.6 Access to Credit Products 28
2.7 An Insight into Vintage Analysis Techniques 29
CHAPTER 3 30
RESEARCH METHODOLOGY AND DATA 30
3 Introduction 30
3.1 Research Design 30
3.1.1 Quantitative and Quantitative Research Methods 31
3.1.1.1 The Advantages of Quantitative Methods 31
3.1.1.2 The Disadvantages of Quantitative Methods 31

3.1.1.3 The Advantages of Qualitative Methods 32
3.1.1.4 The Disadvantages of Qualitative Methods 32
3.1.2 Rationale for Using a Mixed Research Method 32
3.1.3 Determining the Sample Size 33
3.1.4 Instrumentation 33
3.1.5 Data Collection 35
3.1.7 Pilot study 38
3.1.8 Data Limitations and Constraints 39
3.1.9 Analysis and Interpretation of Data 40
3.1.10 Ethical Considerations 40
CHAPTER 4 42
RESEARCH FINDINGS AND DISCUSSION 42
4. Introduction 42
4.1 Interview Key Findings 42
4.1.1 The Role of Intermediaries in the REM Funding Model 42
4.1.2 The Critical Success Factors of the Intermediary's Involvement 43
4.1.3 Challenges Identified in the Funding Model 45
4.2 Questionnaire Data Analysis 45
4.3 Retail Emerging Markets Loan Book Data Analysis 48
4.3.1 REM Loan Book Growth 48
4.3.2 REM Loan Vintage Analysis 52
4.4 Discussion 57
CHAPTER 5 59
CONCLUSION AND RECOMMENDATIONS 59
5. Summary of the Study 59
5.1 Social and Development Impact for Emerging Farmers 60
5.2 Emerging Farmers' Loan Performance 61
5.3 Recommendations 62
REFERENCES 63
APPENDICES 68

LIST OF TABLES

Table 1: Retail Emerging Markets (REM) Direct Lending Facilities and Terms……12
Table 2: Sector Contributions to South Africa's Gross Domestic Product since 1965…..…..19
Table 3: South African Household's access to Agricultural Land…….....23
Table 4: Land Bank Retail Emerging Markets (REM) Loan Book…….....35
Table 5: Summary of Key Information of Co-operative Projects……43
Table 6: Agricultural Production Calendar for South Africa…….….46

LIST OF FIGURES

Figure 1: Wholesale Financing Facility (WFF) Government Support Model……..14
Figure 2: Functions of the Agribusiness Sector……18
Figure 3: The Contribution of Agriculture to GDP since 1911 (agriculture as % of GDP)….20
Figure 4: Agricultural Regions in South Africa……21
Figure 5: Principal Reason South African Farmers Engage in Agricultural Production……..24
Figure 6: Emerging Farmer Sample Distribution…….46
Figure 7: Retail Emerging Markets loan Book Growth Rate……49
Figure 8a: Agricultural Industries Financed by REM as at March 2012…….50
Figure 8b: Agricultural Industries Financed by REM as at August 2016……50
Figure 9a: Gender Breakdown of REM Clients as at March 2012…….51
Figure 9b: Gender Breakdown of REM Clients as at August 2016……52
Figure 10: Arrear Bucket 1 - Performing Loans……..54
Figure 11: Arrear Bucket 2 – Underperforming Loans……55
Figure 12: Arrear Bucket 3 - Non-Performing Loans……..56
Figure 13: Vintage Analysis – Bad Rate…….57

GLOSSARY OF TERMS

CASP	Comprehensive Agricultural Support Program
CO-OP	Co-operatives
CDB	Commercial Development Bank
DFI	Development Finance Institution
GDP	Gross Domestic Product
GSB	Graduate School of Business
HA	Hectares
KM	Kilometres
NDP	National Development Plan
NPL	Non-Performing Loan
PAIA	Promotion of Access to Information Act
REM	Retail Emerging Markets
SA	South Africa
SAS	Statistical Analysis Software
WFF	Wholesale Finance Facility

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CHAPTER 1

INTRODUCTION

1.1 Introduction and Justification of Study

The agricultural sector is widely seen as key in alleviating poverty in Africa. There is a lot of expectation too, that improvement in this sector will bring about the much needed growth, development and employment as well as contributing towards helping provide food for the increasing global population. In South Africa (SA), agriculture not only contributes to the economy but also provides employment for many people in country. Agriculture as a primary sector contributes less than 3% towards the country's gross domestic product (GDP); however with its forward and backward linkages, it makes an important contribution towards growing the manufacturing sector, providing inputs of approximately 70% for the food, beverage and textile sectors (DAFF, 2015). Furthermore, the use of fertilizers and implements within the agriculture sector creates further linkages with the manufacturing sector (Tregurtha and Vink, 2008).

The agricultural sector in SA is differentiated into two: the commercial and emerging sector. In the agricultural environment, as defined by Tregurtha et al (2010), the commercial sector is made up of more than 45, 000 farming units which equates to nearly 82 million hectares of farmland, from which more than 90% of SA's agricultural primary goods are produced. Meanwhile, the emerging sector is farming on approximately 14 million hectares, producing much lower levels of the country's primary goods (Tregurtha et al, 2010).

Financial institutions have a mandate to provide agricultural credit to meet the financial needs of both emerging and commercial farmers. However, mainstream banks have been reluctant to extend credit to emerging farmers due to the high risk associated with them. According to (Freguin-Gresh et al, 2012), challenges such as technical expertise and access to markets, still persist, making the process of transitioning emerging farmers into successful commercial farmers, an overwhelming task. Finance remains an important pillar for the development of emerging farmers, coupled with devoted policy objectives and technical support (Makhura, 2008). Therefore the existence of development finance institutions (DFI's) such as the Land Bank are important, as their core mandate is to "service areas that commercial banks cannot"

(Jacobs, 2013:110). An important role of a DFI, amongst others, is to ensure that emerging farmers can play a role in SA's economic growth.

A study by Stone et al (2012), which compiled various case studies on rural finance in Southern Africa, classified the constraints faced by lenders to emerging farmers at a macro and micro level. Among the constraints identified across the different macro and micro levels, which have an effect on emerging farmers were:

- Inadequate information on the agricultural sector
- Limited supply of support or capacity building by financial institutions (such as the provision of extension or technical services)
- Subdued levels of trust or lack of transparency within the agricultural value chain, and
- Risk and high costs of setting up farming operations in rural areas (Stone et al, 2012).

The justification of this study is centered on the important contribution of funding for emerging farmers to try and redress the land issues; to influence policy making and to make agriculture more attractive especially to the youth. With land reform being an important topic in SA, it was crucial to embark on a study which displays programs which have been implemented and also tests whether their implementation been successful, with the beneficiaries of land reform. The study sought to present an all-encompassing financing model, suited for emerging farmers, which also addressed the above mentioned constraints. Furthermore, the study would test the reliability and performance of this model to measure whether it had been successful in its objectives to assist and grow emerging farmers who aspired to operate at a commercial scale.

1.2 History of the Land and Agricultural Bank of South African

Before the 1900's, a majority of the black South African population was restricted to only 7.3% of the country's area, as part of a system created by the Natives' Land Act (Jacobs, 2013). Furthermore, black farmers were only allotted land in small portions, thus preventing any possible commercialization of black agriculture and inhibiting them the opportunity to own land. Monumental events such as the South African War and the drought which occurred in the 1980's, affected amongst others, a crucial sector which was contributing approximately 7 % towards SA's gross domestic product (GDP) at the time (Jacobs, 2013).

In the process of reviving the economy from these events, white commercial farmers needed financial institutions that would provide specific products and repayment terms that would

support them in their contribution towards the agricultural sector. This resulted in the formation of the Land and Agricultural Bank of South Africa in the year 1912, which provided vast levels of government support, both in the form of skills development and financial assistance to these commercial farmers. The financial assistance would address challenges such as; weak bargaining power due to the reliance placed on middlemen for marketing of fresh produce and high interest rates charged by commercial banks and private lenders. The Land Bank expanded the racial pool to which they granted loans, extending credit to Indian's who were farming on owned or leased land in 1965 and to Coloured farmers in 1978 (Jacobs, 2013). The Native's Land Act, amongst other discriminatory regulations, was removed in 1991. As a result, in 1993, the Land Bank expanded its mandate by extending credit to black emerging farmers who farmed on owned or leased land. This further led to the establishment of the Retail Emerging Markets (REM) funding model for emerging markets in 2011 (Jacobs, 2013). The REM model was targeted at small scale emerging farmers who were active in the primary agricultural sector. The typical challenges, which these farmers faced (and also labelled them as high risk by mainstream banks), were the same challenges that the REM funding model desired to address. These challenges included:

- Collateral and security requirements
- High interest rates related to the high risk and cost of funding
- A large number of loan defaults by emerging farmers, and
- Poor integration of emerging farmers into the agricultural value chain (Jacobs, 2013).

1.3 Land Bank's Business Model

The Land Bank created a business model consisting of four components. These included Retail Emerging Markets (REM); Retail Commercial Banking (RCB); Business and Corporate Banking (BCB) as well as the Land Bank Insurance Company (LBIC). For each of these component, the Land Bank raised funds from the capital markets, advanced loans and charged interest rates to the different categories of farmers. In order to have a country wide outreach, the Land Bank set up agricultural financial centres (AFC's) or branches where they would market the different loan options available and also process applications which would be approved at the head office. Land bank further implemented development scores and a pricing model. The overall credit offering by the Land Bank sought to expand across the entire agricultural value chain. However the focus of this study will be on REM whose target market was emerging farmers. The REM client base was typically 'high risk and low return in nature'

and therefore required start-up capital and continuous funding and forms of technical support for its success. The REM model was further split into two components being, Direct Lending for individual farmers and the Wholesale Financing Facility (WFF) for farmer groups (Jacobs, 2013).

1.3.1 REM: Direct Lending

The Direct Lending was appropriate for loan applicants who mainly farmed on an individual capacity on leased or owned land. This type of lending had a variety of products to suit the needs of the emerging farmer. Albeit the target market may be emerging farmers, they were required by the Land Bank to have access to owned or leased land. The bank would then apply a cash flow lending approach and request off take agreements to reduce market risk. The Land Bank provided a range of development loans to this target market, which were different to the product offerings given to commercial farmers. Some of the development loans were divided into categories displayed in Table 1 below.

Table 1: Retail Emerging Markets (REM) Direct Lending Facilities and Terms

Type of Facility	Limit (ZAR)	Repayment Term	Total Assets (ZAR)	Description of Loan and Target Market
Short Term Loan	<=R25 000	< 12 months	R50 000	Resource poor farmers can lend up to this amount to finance production inputs.
Medium Term Loan	<=R25 000	< 12 months	R50 000	Resource poor farmers can use this loan to finance livestock, machinery and equipment which also serves as security.
Short Term Loan	<= R250 000	5 – 10 years	>R50 000	Limited resource farmers can apply for this loan and repayment is dependent on the type of asset financed.
Medium Term Loan	<= R250 000	5 – 10 years	>R50 000	Limited resource farmers can apply for this loan and repayment is dependent on the type of asset financed.
Long Term Loan	<=R500 000	Up to 25 years		Special mortgage bond for previously disadvantaged farmers for the purpose of purchasing or extending owned land.

Source: History of the Land Bank (Financing Agriculture for 100 years) (2013)

1.3.2 REM: Wholesale Financing Facility (WFF)

The Wholesale Financing Facility (WFF) was established to assist emerging farmers to gain access to Land Bank's funding indirectly. The wholesale financing facility was mainly targeted for farmer groups. Due to the high credit risk associated with REM clients, the WFF facility was created, which is ring-fenced to safeguard the credit rating of the bank and therefore it had

its own balance sheet. The Land Bank would acquire capital at an interest rate of 6% or more from financial markets, of which a portion was approved for the REM funding model. Land Bank established relationships with intermediaries (mainly large, well established cooperatives) to play a pivotal role in this funding model approach (Jacobs, 2013). The intermediaries' main function was to provide end to end business support to emerging farmers; serve as their off takers and also to provide management and financial training.

The derived benefit by the Land Bank from this relationship would be, the reduced administration costs and sustained capital. The Land Bank would on-lend the ring fenced capital dedicated to REM to the intermediaries at an interest rate margin of 0%, which the intermediaries further on-lend to the farmers at an interest of 4% (Jacobs, 2013). Once the emerging farmer proved to be successful through their cycle of farming, they would be required repay the intermediary with the interest of 4%, which then repays the Land Bank (Jacobs, 2013). Although the Land Bank advanced financing to the intermediaries at a rate of 0%, this was a decision which was subject to change, given the successful implementation and sustainability of the funding model approach.

There was also an involvement from the Department of Agriculture, Forestry and Fisheries (DAFF) as they had a mandate to contribute towards the National Development Plan (NDP). DAFF provided capital at an interest rate of 4% (through the National Treasury), which served as a buffer for potential risks of loss in the model. Therefore the Land Bank would only take a knock of 2% should it find itself in a position to not repay the principle loan amount in full to the financial markets. Further capital was advanced to the intermediaries (by DAFF through the National treasury) to subsidize the cost of the technical, financial and management support provided by intermediaries to the emerging farmers on the receiving end of the funding model (Jacobs, 2013). Each intermediary and emerging farmer which participated in this model had to qualify with the credit terms and qualification criteria set out by the Land Bank.

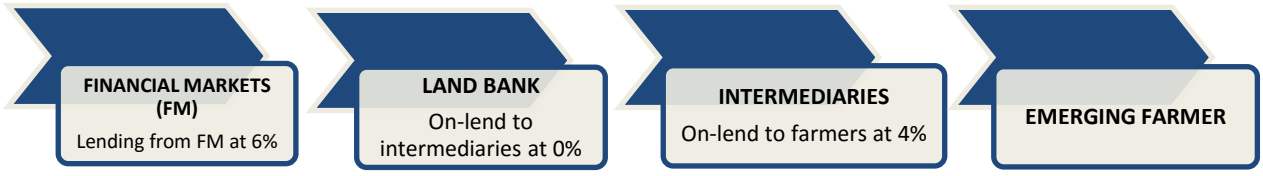
The implementation of the REM model, in partnership with the intermediaries included a scheme which presented a unique value proposition:

- Cash flow based lending
- Concessionary interest rates and funding
- Technical farmer support

- Cashless disbursement of the WFF funds, and
- Agricultural commodities which are appropriate for emerging markets (Jacobs, 2013).

The National Development Plan (2011), identified sub sectors within the agricultural sector which had the largest potential to create direct and indirect jobs. This was further linked to agricultural commodities which have the largest job creation potential and also formed part of the value proposition provided by the partnership between the Land Bank and the intermediaries. Figure 1 below illustrates the process followed to advance the Wholesale Financing Facility to emerging farmers. In addition to the model, the intermediaries play a pivotal role of providing technical farm support and providing a market to which the emerging farmers can sell their produce.

Figure 1: Wholesale Financing Facility (WFF) Government Support Model



**The Department of Agriculture, Forestry and Fisheries subsidizes the Land Bank with 4% as a buffer for the risk of default and subsidizes Intermediaries with 4% to cover the cost of support.*

Source: History of the Land Bank (Financing Agriculture for 100 years) (2013)

1.3.3 The Comprehensive Agriculture Support Programme (CASP)

The REM model was in response to some findings from the Strauss Commission. The Strauss Commission was a committee which was appointed to investigate the state of funding farmers in the rural areas and also to provide recommendations to the Land Bank following the change of government in 1994. Challenges were experienced in implementing programmes which would support new policies embarked on, such as Land Reform. One of the challenges was that the government of 1994 launched a Settlement Acquisition Grant which would assist previously disadvantaged households to acquire farm land. The flaw with this grant was that each household received R16 000 to purchase a small piece of land, often of poor quality, however they received no funding to develop and use the land productively. This lead to the launch of the Comprehensive Agriculture Support Programme (CASP).

The aim of CASP was to promote agricultural development towards the recipients of Land and Agrarian reform. This included recipients such as the hungry and vulnerable; subsistence and household food producers, farmers or beneficiaries of land redistribution and reform and lastly, commercial farmers operating in the macro - economic environment. Therefore CASP was a possible solution to these challenges and was a recommendation which stemmed from the Strauss Commission report. The areas of support provided to these beneficiaries were:

- Information and knowledge management
- Technical and advisory assistance
- Finance training
- Marketing and business development
- Training and Capacity building , and
- The knowledge of on-farm and off-farm infrastructure and production inputs (Strauss Commission, 2004).

The learnings which stemmed from previous programmes highlighted that the provision of purely land and capital was not sufficient for emerging famers. Rather, there was a greater need to enable farmers to effectively manage a sustainable thriving business and to operate profitably in a competitive environment. There is a gap between the provision of land and the provision of agricultural resources and this resulted in a backlog in the provision of agricultural services (DAFF, 2015).

1.4 Problem Statement

This study investigates the retail emerging markets (REM) funding model from the Land Bank, to understand if it is adequately designed to address the development finance needs of emerging farmers. Agriculture is not attracting enough youth, women and black farmers in general and one of the reasons is the difficulty in obtaining funding to run a successful agribusiness. This study seeks to address the reason why funding is difficult to obtain; how funding can be obtained and to investigate if black farmers have been successful and if not, why? Thus this study will establish whether Land Bank's REM funding model has been able to address the problems stated above. Focusing on the provision of land and funding, along with technical support to the emerging farmers.

1.5 Research Objectives

Research objectives are vital as they ensure focus on the problem under investigation. Furthermore, formulating objectives reduces the need to collect unnecessary data which does not address the problem under investigation. De Vos et al (2011), highlights that the actual point of a research proposal is to assert a research problem, to isolate the focal point of the study. The main objective of this study were:

- To investigate whether the REM funding model had been a success since its inception in 2011.
- To establish the behavioural trend displayed by loan recipients on their repayment ability or adherence to repayment terms as defined in their loan repayment contracts.
- To measure on the size and trend of the Non-Performing Loans (NPLs)
- Measure the size of the REM loan book along with its growth over the years since its inception.
- Measure if there has been an evident development impact experienced by the emerging farmers relating to the growth in their income earnings
- Measure if there has a positive social impact has been experienced by beneficiaries such as their families and the communities in which they reside.
- Explore if there has been skills transfer and development for the emerging farmers involved. Skills development would highlight whether the emerging farmers were in a position to operate independently without ‘hand holding’ and advance from being an assisted emerging farmer to operate their farm businesses independently.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

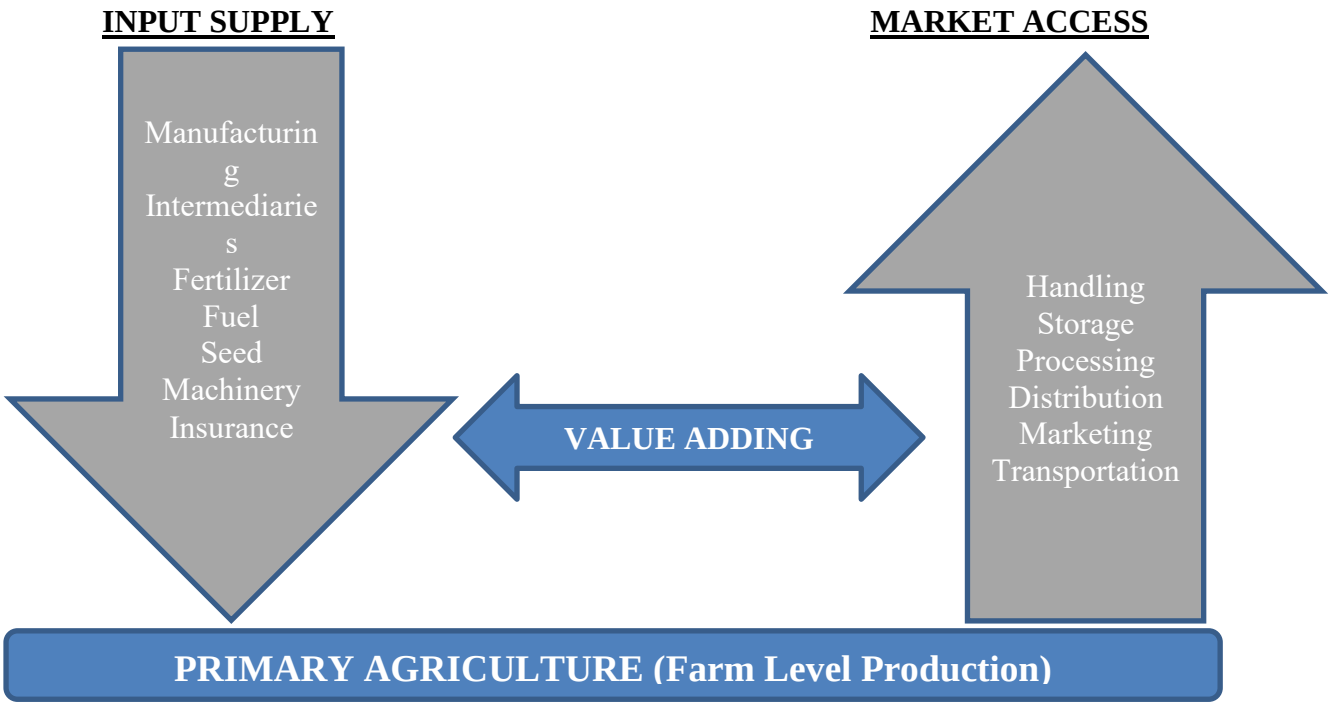
Primary producers in the South African agricultural sector are dualistic in nature, comprising mainly of commercial and emerging farmers. The literature review will provide an overview of the South African (SA) agricultural sector; an overview of emerging farmers in SA and in Zimbabwe and the different types of financing available to them, to aid in their development. The employment opportunities which lie in the developing or emerging sector will be investigated. Furthermore, the credit constraints leading to delinquencies amongst emerging farmers will be discussed, along with their causes, and mitigation measures which can be applied. The extent to which emerging farmers can access credit product will be examined. Lastly, the role of credit providers in the economy will be explored, particularly their contribution towards the development impact, measured by job creation, amongst other aspects.

2.2 South African Agribusiness Sector

In the early 1900's, agricultural activity occurred primarily on the farm and as the years developed, activity related to agriculture occurred beyond the farm gate, by developing agribusinesses. The primary and secondary agriculture both played a vital role in the economy. By definition, agribusinesses are key employers and producers of value added products, whose role is also to handle, process and market agricultural products (Esterhuizen 2006).

Figure 2 below provides a diagram illustrating the development of the sector from primary agriculture to agribusinesses and showing the forward linkages (manufacturing and market access) and backward linkages (input supply) which occur in the agricultural value chain. Primary agriculture contributes less than 4% towards the country's gross domestic product (GDP) and approximately 9% towards formal employment, while agribusiness (inputs, manufacturing and marketing) or the secondary level of agriculture makes a significant contribution of approximately R124 billion towards SA's GDP (Esterhuizen, 2006).

Figure 2: Function of the Agribusiness Sector



Source: Agriculture Business Chamber, 2000

In the last two decades, other sectors in the South African economy have developed at a faster rate than the agricultural sector. The contribution of the agricultural sector has declined from over 7% in the 1980's to just 1.9% in 2015 (DAFF, 2015). Although the contribution of primary agriculture has declined, it still remains a vital sector in supplying inputs for the manufacturing sector, employment creation and food security. While SA is classified as a middle income country, it possesses some contrasts when compared to the economies of other countries of the same caliber, particularly with regards to the contributions towards GDP.

The table 2 below highlights the percentages contributed by the different primary sectors in SA towards the country's GDP. The agricultural sector has displayed the largest decline compared to the other primary sectors in their GDP contribution in SA since 1965, and Tregurtha et al (2009) suggest that the decline by the agricultural sector is as a result of the sector being sensitive to changing climatic conditions (such as the drought) and the significant changes in the exchange rate over the years.

Table 2: Sector Contributions to South Africa's Gross Domestic Product since 1965

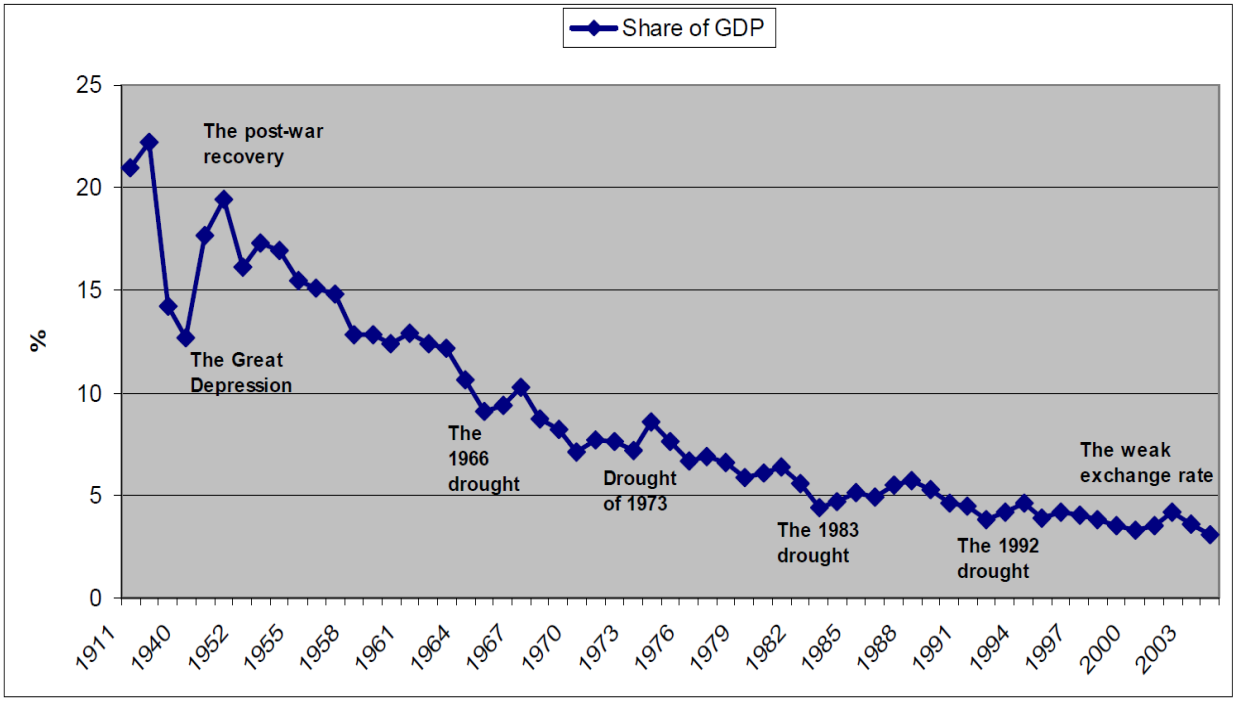
Period	Agriculture, Forestry, hunting & fishing	Mining and quarrying	Primary Sectors	Wholesale & retails trade, catering , accommodation	Manufacturing	Other
1965 – 69	9.14	9.83	19.98	22.18	14.38	44.46
1990 – 94	4.34	8.00	12.34	12.34	14.20	51.52
1995 - 99	3.88	6.86	10.74	10.74	13.90	55.52
2000 - 04	3.54	7.82	11.36	11.36	13.98	55.42
2005 - 07	2.93	8.03	10.97	10.97	13.80	56.83

Sources: **Adapted from NDA (2006) and Stats SA (2008)**

While the agricultural sector has displayed a declining trend in GDP contribution, it still remains a key sector in the economy. The profitability of agribusinesses is measured by net farm income which is when the cost of production is subtracted from the gross farm income made by farming enterprises (Tregurtha et al, 2009). Although the net farm income trend has not been volatile, there have been periods of high and low profitability in the agricultural sector. The main factors which influence profitability are changes in input costs and changes in the producer prices.

One more notable factor resulting in the GDP trend below is the agricultural sector exposure to global markets. This resulted in a sluggish growth of 1% per annum of agricultural GDP between the 1993 to 2007 periods (Tregurtha et al, 2009). A frequent occurrence of a drought is also evident in Figure 2. It was subsequently calculated to occur no less than one year each decade and the impact thereof being clearly indicated by the reduced agricultural contribution in the affected and subsequent years.

Figure 3: The Contribution of Agriculture to GDP since 1911 (agriculture as % of GDP)



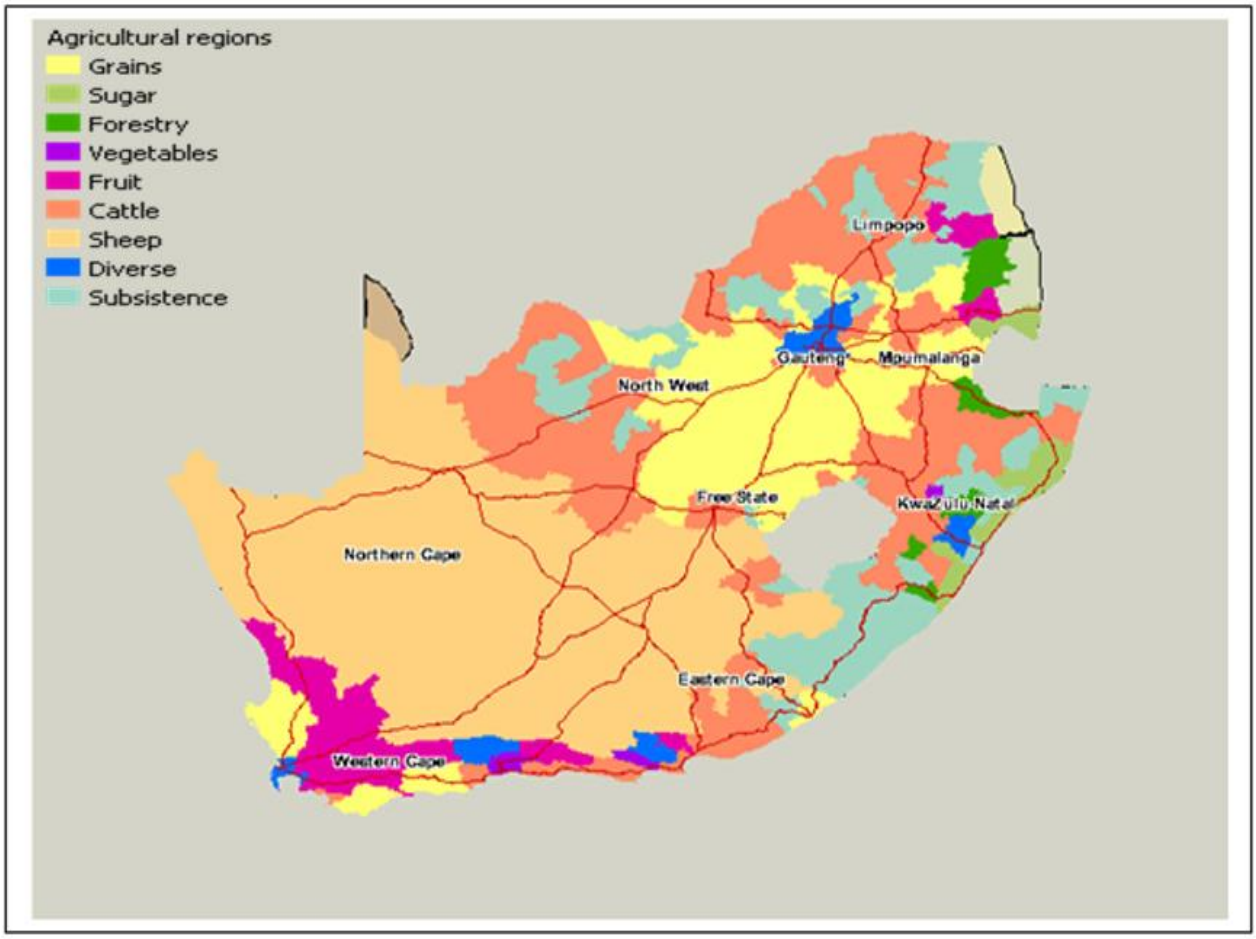
Source: Presidency Fifteen Year Review Project (2009)

Figure 4 below provides an illustration a regional distribution of the main agricultural commodities in the country. According to Tregurtha et al (2010), the agricultural sector is composed mainly of livestock and field crop production. They further mention that maize, which is the largest grain plant produced in SA, is produced mainly in the rain-fed areas namely, Mpumalanga, Free State and the North West provinces as indicated in the map below. The salient points below summarize the course taken by the main agricultural commodities in South Africa:

- The total maize planting area decreased by approximately 40% since the 1980's,
- Sugarcane production increased by approximately 25% to a total area of 5 million hectares largely due to the establishment of new production areas in Mpumalanga and growth of small to medium scale black farmers in the indsutry,
- The horticultural industries have displayed an increase since the 1990's due to increased exports (Tregurtha et al, 2010:11).

Although there was a decline in the planted areas for maize, the yields have increased, indicating increase efficieny in the prodcution methods adopted by farmers.

Figure 4: Agricultural Regions in South Africa



Source: FAO (2005)

Approximately 80% of the livestock sales in SA are supplied from feedlots, primarily due to the feed which gives them a competitive advantage over farmers who rely mainly on grazing, which may be of poor quality especially in winter or during periods of drought (Tregurtha et al, 2010). Figure 5 illustrates the production calendar for some field crops, horticultural products and vegetables produced in SA.

2.3 Overview of Emerging Farmers in SA and Zimbabwe

South Africa

The importance and relevance of agriculture has been discussed in the previous text, and more focus will be placed towards the performance of emerging farmers within the sector for the remainder of the report. It is important to note that information on the emerging farmer sector in SA and Africa is not widely available and is obtainable mainly through conducting surveys.

For the purpose of this study, emerging farmers include "African's, Coloured's, Indian's and South African Chinese" which were all previously marginalized individuals (REM Credit Policy, 2013:3).

These individuals were identified by the Land Bank to be:

- Struggling with access to finance;
- Operating farms on a small scale;
- Lacking access to resources vital to their business operations (e.g. infrastructure, technology and equipment) and,
- Displaying little experience in financial, agricultural and management skills to efficiently operate their agribusiness.

The Land Bank categorizes retail emerging farmers as black farmers who lack sufficient collateral to secure finance; who have limited access to infrastructure and equipment required to operate a farm business; with small scale operations and inadequate managerial, agricultural and financial skills to efficiently develop sustainable farming business (REM Credit Policy, 2013).

Significant changes have been noted in the commercial agricultural sector between the periods of 1994 to 2003. There were approximately 60 000 farming units, which have since declined to 45 000 farming units and the land area used for farming has also declined by almost 10%, resulting in a consolidation of farmland into larger units (Tregurtha et al, 2010). The larger commercial farmers were more involved in this transition as they could take benefit from the economies of scale, unlike the smaller farmers. Less efficient commercial farmers who operated on a smaller scale were forced out of the sector, while neighbouring commercial farmers who were involved in production at a larger scale, purchased these farms to increase their units (Tregurtha et al, 2010).

Households which farm on a small scale were found to be reliant on a variety of income sources (such as grants and old age pensions), with one major component being agricultural production. Data gathered in a household survey conducted in 2006, revealed that an estimated 96% of small-scale farming households were led by black people, of which more than 55% were women. The same survey indicated that 1.3 million, of the eight million households residing in the non-metropolitan regions or the former homelands of SA were involved in food production

and other farming related activities as a means of generating income (Tregurtha et al, 2009). Table 3 below indicates the percentage of small-scale farming households in SA and the size of agricultural land they have access to. The data revealed that a majority of households have access to smaller plots of agricultural land. Although the households have access to land and even though it appears to be insufficient and in small quantities, it is still a necessity in a majority of the household's livelihoods and can serve as a means of generating income.

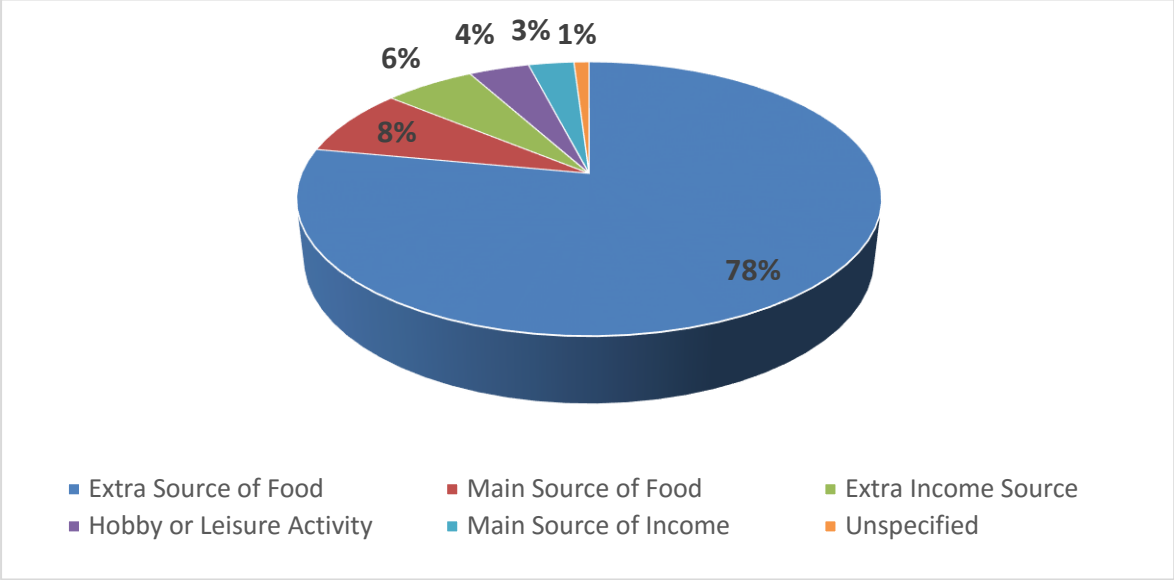
Table 3: South African Household's access to Agricultural Land

Area	Number (weighted)	Percentage
<0.5 ha	831 871	64.5%
0.5 ha – 1 ha	235 454	18.3%
1ha – 5 ha	138 196	10.7%
5 ha – 10 ha	38 146	3.0%
10 – 20 ha	11 940	0.9%
20 + ha	34 546	2.7%
Unknown	17 556	-
Total	**1 307 710**	**100%**

Source: Presidency Fifteen Year Review Project (2009).

The pie chart below substantiates the importance of farming by small scale farming households in SA. An estimated 78% of these households rely on farming as an extra source of obtaining food, while other households (8%) are entirely dependent on farming as their main source of food (Tregurtha et al, 2009). Furthermore, 9% of the households revealed that agricultural production was a direct and indirect method of generating income (Tregurtha et al, 2010).

Figure 5: Principal Reason South African Farmers Engage in Agricultural Production



Source: Presidency Fifteen Year Review Project (2010)

The period from 1996 to 2002 has seen a sizeable decline in the number of small scale farming households with access to farmland, coupled with deterioration in the household farming productivity levels. As a result, the dualistic nature of the agricultural sector still persists, with larger commercial farmers and less productive emerging farmers. This justifies for more focus on the emerging farming sector to aid their development and sustainability.

Zimbabwe

According to Vitoria, et al (2012), for most households living in rural areas for which agriculture is their main source of income, the available financial services are still poor. The FinMark trust undertook a study to test the current state of agricultural finance in Zimbabwe with the aim to become a benchmark for agricultural and rural finance in southern Africa. in Zimbabwe, the potential financial needs were identified for small scale farmers and these were:

- Purchase of seasonal inputs
- Purchase of fixed assets
- Mitigants against risks through crop insurance, and
- Savings instruments (Vitoria et al, 2012).

In Zimbabwe, the emerging farmers were identified as farmers with an average of 51 hectares of agricultural land, often farmed on a group basis and constituted the largest part of the farming population. Previous studies indicated that 45% of household farmers and 65% of emerging

farmers in Zimbabwe indicated a demand for agricultural loans, if they were to be offered by financial institutions. The study further indicated that Zimbabwe had a very strong culture of saving, which assisted emerging farmers to purchase agricultural inputs. Although emerging farmers in Zimbabwe indicated a demand for financial services for agricultural inputs much like South African farmers, their strong savings culture ensure they were still able to productively utilize their land. However these were informal savings (such as savings groups in the villages) because most savings were lost due to hyperinflation in Zimbabwe, which also lead to limited use of formal banking. The demand for agricultural finance in Zimbabwe changed due to the land reform policies which resulted in a large decline in the number of commercial farmers due to land seizures. Although farmers who benefited from land reform had access to better land, this did not guarantee success as the supply of financial services was still very limited (Vitoria et al, 2012.

The REM model was only specific to South Africa and the land reform presented an opportunity to ensure the emerging famers success by catering to their additional needs such as funds to farm their land productively.

2.3.1 Agrarian Reform for Emerging Farmers

The implementation of land reform commenced in 1994, however the design of the land reform policy was completed in a White Paper only in 1997 and contained detail on land restitution, tenure reform and land redistribution:

Land Restitution: placed a focus on the history and restoration of historical land rights.

Tenure Reform: dealt with the rules regulating the rights to land holding

Land Redistribution: focused on the transfer of agricultural land to remedy land ownership which was historically and racially biased (Tregurtha et al, 2010).

According to Bateman (2014), the state failed to play an active role in the proper implementation of the above stated land reform policies, which resulted in a deterioration of the black communities involved in the agricultural sector. However, the premise that not everyone is fit to be a farmer, also holds true (Makhura et al, 2008). The vision of a thriving rural community, able to adequately produce agricultural goods was plagued by issues surrounding poor access to arable land; overuse resulting in land degradation and a lack of

infrastructural support. This was followed by admittance by the state that the land reform initiatives failure rate was approximately 50%, owing to poor implementation and support provided (Tregurtha et al, 2010). In their study, they elaborated on how less than 5% of commercial farmland was reallocated through the land reform policy and that in addition, there was a lack of evidence on the positive impact the policy had afforded to its beneficiaries. Among the objectives of this study, is the investigation of whether a development and social impact has been achieved through the Land Bank's retail emerging markets funding model for the benefit of emerging farmers, their families and their communities.

2.3.2 Potential of Employment Creation by Emerging Farmers

One of the visions for the National Development Plan (2011: 196) to be achieved by the year 2030, is that of rural economies being supported by agriculture. One such vision is employment creation, amongst others, with the agricultural sectors potential being to create approximately one million jobs. Some agricultural sub sectors have the potential to expand production, thereby creating employment. These sub sectors are large labour intensive industries, small labour intensive industries and large industries with value chain linkages (National Development Plan, 2008:201). Of the three identified sectors, the one strategically linked to the emerging sector was the small scale, labour intensive agriculture. The commodities identified in this subsector, such as macadamia nuts, rooibos and berries, were regarded as containing the largest potential for growth (increasing employment opportunities) and growth especially in the export market.

2.4 Credit Constraints facing Emerging Farmers

Commercial farmers obtain finance for the expansion of their farming enterprises or for the purchase of additional land primarily from commercial banks. This category of farmers are usually considered for credit as they meet the lending criteria required by banks such as, a strong balance sheet which increases their ability to provide security for the capital they require and the management skills and technical expertise to operate their farming enterprise efficiently. Literature suggests that emerging farmers do not possess the same level of expertise and experience as that of commercial farmers, nevertheless they still require access to financial services for their development (Makhura, 2008). According to Olatunbosun (2012), numerous studies have classified credit constraints among the leading difficulties inhibiting agricultural development, not only in low income countries but globally. Despite the credit risk, financial interactions between emerging farmers and financial institutions remain vital. Makhura (2008:11) identified an exclusive challenge faced by emerging farmers, being that several

lenders, behave like commercial banks rather than agricultural financiers. He continues to explain that the credit products are created with the banks' balance sheet in mind, in place of the balance sheet of the farmer (Makhura, 2008).

Emerging farmers who lend from commercial banks tend to experience difficulties such as loan delinquencies, liquidations and sometimes bankruptcy. As a result, the reapplication for credit becomes more complex due to increased lending costs and more stringent loan policies. Commercial lenders have a responsibility to avoid reckless lending as they operate in financial markets where they on lend 'savers' money (Barry & Lee, 1983). Additional factors such as the size of the farm, the type of commodity in which the emerging farmers is involved in and the regulatory environment in which they operate, can increase financial stress to this group of farmers. Although credit constraints continue to exist, the increased uptake in financial services for the purposes of developing agriculture is still important in SA. The lending approach has been both to individual farmers and farmer groups and some literature has indicated that financial lending to farmer groups or cooperatives has the potential to reduce some of the risks associated with credit delinquencies.

2.5 What is Credit Delinquency?

Essien et al (2016), defines credit delinquency as a borrower's inability to repay their loan obligation when it falls due. The author further identified the causes of loan delinquencies as being, the size of the loans granted; inadequate farmer's net income and the costs of providing admin and technical supervision (Essien et al, 2016).

Further studies indicate the requirements to avoid credit delinquency such as adhering to repayment timelines; operating the farming enterprise profitably so as to be in a position to repay interest and the principle debt (Gerber, 2013). The ability to recycle loans amongst farmers in Sub-Saharan Africa has been constrained due to the high default rate, with the cost of credit delinquencies affecting both the lender and the borrower. A high level of loan delinquencies results in the borrower incurring losses in their interest rate charge; an increased opportunity cost of advancing the principal debt; allocating legal fees and other related costs to a different lender.

In a state in Nigeria, a majority of the farmers manage small scale operations, and as a result rely on informal lenders as a source of finance for their agricultural activities. Small farmers in

this area rely on informal credit sources as the availability of formal credit institutions is negligible. The credit defaults experienced by the lenders can be attributed to improper client selection and the lack of proper monitoring processes (Essien et al, 2016). According to Vogel (1981), low delinquency rates would be as a result of records of good repayment or a forceful loan collection process.

2.6 Access to Credit Products

Although credit providers such as banks and informal lenders have created products to fulfill their customer's needs, they are faced with the risk of credit delinquencies from their borrowers. This is a particular challenge facing emerging farmers in South Africa as a majority of the finance providers behave like commercial banks rather than agricultural financiers (Makhura, 2008). An important requirement and risk mitigation measure within the banking system, is the proper management of transaction costs, which aid in monitoring loan portfolios for default risks and decreasing delinquency levels, especially in agricultural credit (Choubey & Mishra 2011). This emerging farmer's inability to easily access credit, denies them the opportunity to be self-employed or manage their own businesses. Similarly, the small scale operations associated with emerging farmers result in them being excluded by banks, as the cost to serve them is high and therefore not worthwhile for finance providers to incur the increased transaction costs.

Since emerging farmers struggle to qualify for the credit products due to the challenges explained above, this presents an opportunity to not only focus on the products on offer from financial institutions, but the approach which can be taken to accommodate the emerging farmers. Unlike a commercial farmer who typically meets the qualifying criteria and can prove to be creditworthy, emerging farmers require an approach that prevents them from exclusion by banks. There is a need therefore to not only develop products for the poorer farming population, but build support structure which assist the farmers where they fall short.

According to Choubey and Mishra (2011:44), capacity building for emerging farmers is a possible resolution which creates awareness in understanding the terms and conditions of a loan and the procedure which would be followed by banks. Furthermore credit providers need to gain an understanding in the obstacles faced by the emerging sector. Although transaction costs associated with monitoring loan granted to emerging farmers may be high, there is an opportunity to spread the costs and reduce the risk of default (Choubey & Mishra, 2011). Banks

may outsource the appropriate intermediaries to take responsibility of parts of the monitoring process and provide feedback to the main lender. This is the approach between the Land Bank and the co-operatives which serve as intermediaries.

2.7 An Insight into Vintage Analysis Techniques

According to Bosman (2012:6), a vintage is a group of loans that all originate within a specific time period and the vintage analysis is used to identify the dynamics of a portfolio and behavioral patterns, based on a group of loans which have shared characteristics. He further identified the macro-economic shifts and the ageing of loans as having a significant influence on the performance of the credit portfolio (Bosman, 2012). Vintage analysis includes evaluating the net losses within a portfolio, by considering the origination of the loan (Sageworks, 2016). Other literature, defines vintage analysis as an instrument which compares the performance of segments in a portfolio, and these segments include the month of origination (or vintage) and the age or months of loan on the loan book (Mandsager, 2016).

Most banks invest time in monitoring the different types of risks they are exposed to such credit, foreign exchange and interest rate risks. However, according to Siarka (2011), credit risk is more complicated. He cites the reason for this, being that credit risk tends to emerge a whole after the granting of loans to individuals. As a result risk management is an important control applied by most banks and allows them the opportunity to make decision when before their risk indicators are breached (Siarka, 2011).

CHAPTER 3

RESEARCH METHODOLOGY AND DATA

3 Introduction

This chapter investigates the credit quality of the Land Bank's retail emerging markets (REM) loan book using two methods: quantitative and qualitative analysis. De Vos et al (2011) states that the researcher should be guided by the objectives of the study to select the most effective method. The quantitative approach includes the analysis of loan vintages and arrear bucket analysis, to assess the credit quality of the REM loan portfolio and one-on-one interviews will be held with the intermediaries and finally questionnaires will be completed by the emerging farmers as the end users of the loan products, which will address the qualitative analysis.

As noted earlier, the objectives of the study were to examine the success of the REM funding model, since its inception in 2011, by studying the behaviour demonstrated by the borrowers with regards to their loan repayments. In addition, the purpose was to monitor the growth of the REM loan book over time and the occurrence of non-performing loans (NPLs). Furthermore, an imperative metric which is linked to the mandate of development finance institutions was to conduct as assessment of the development and social impact achieved for the benefit of the beneficiaries and borrowers of REM loan products.

Therefore this chapter will discuss the application of a mixed research method, which is considered by some authors as a separate methodology to the conventional qualitative and quantitative approach. To elaborate further, a mixed research methodology is "a type of research design in which qualitative and quantitative approaches are used in types of questions, research methods, data collection and analysis procedures, and/or inferences" (De Vos et al, 2011:434). The expectation for the application of a mixed research method is to achieve findings that display a complete picture of the research problem, than when applying the research method separately.

3.1 Research Design

According to Creswell (2014), research design is an approach which follows a research plan and procedure; which stipulates the process to be followed from assumptions taken, to a detailed method of data collection, analysis and interpretation. The main research question in

this study was to examine whether the retail emerging markets (REM) funding model has provided value for emerging farmers. This would be achieved by placing a focus on components such as loan repayment; the level of NPLs and whether a development and social impact has been achieved. The study will provide detail of research methodologies linked to each objective in the study. Various literature define research design as an approach where a researcher obtains research participants and collects information from them for analysis (Wellman & Kruger, 2001 and Magi, 2009).

3.1.1 Quantitative and Quantitative Research Methods

This study will utilize both the quantitative and qualitative approach. The following discussion will outline the pros and cons of both the research methods used to justify the use of mixed methods in Chapter 3. Quantitative research is when the objectives of a study are tested in order to investigate the extent to which the objectives are supported by the respondents (Creswell, 2014). The variables associated with each variable can be measured on the basis of a research assumption. There are policies and laws that govern society and these can be tested and verified to obtain a better understanding of society. In this case, the study seeks to gain understanding on how emerging farmers have been impacted, whether positively or negatively by the retail emerging markets (REM) funding model, tailored for these farmers.

3.1.1.1 The Advantages of Quantitative Methods

Quantitative research methods frequently involve a rigorous process of formulating a hypothesis; collecting and analyzing data and lastly rejecting or accepting the hypothesis which is regarded as the core of a research methodology (Weaver & Lawton, 2006). The described procedure is viewed as reliable and reflective of the real world. A quantitative research approach was used in this study to analyze data provided by the Land Bank on the behaviour displayed by emerging farmers on the repayment ability of the REM loan products they possess.

3.1.1.2 The Disadvantages of Quantitative Methods

According to Ragin (1994), quantitative research methods tends to constrict data, resulting in a minimal amount of information about a large number of respondents or observations. This methodology is known to have inherent risk, such as the omission of relevant measures if they are not known prior to the beginning of the survey, being a disadvantage (Nykiel 2007:56).

3.1.1.3 The Advantages of Qualitative Methods

According to Stewart and Walsch (1994), the advantages of a qualitative study are that the findings are often more valid and less artificial, as the process involves a natural setting which allows the researcher to develop an understanding with higher accuracy. The research frequently involves a small number of participants, however the findings are considered in depth (Weaver & Lawton, 2006). As a result, qualitative research methods are often referred to as "data enhancers", allowing the essential elements of a problem to be seen more clearly (Ragin, 1994). A qualitative research is better suited where there is minimal information about the subject matter and it helps to gain insight in the topic in question. The qualitative data collected from the emerging farmers was analyzed to study the responses gathered from the questionnaires completed by the emerging farmers and interview responses from the intermediaries.

3.1.1.4 The Disadvantages of Qualitative Methods

The qualitative research method is often criticized for lacking accuracy and not providing valid result representative of a large group which are interview in qualitative studies (Goodman, 2003 and Weaver & Lawton, 2006). The challenge associated with executing a qualitative research method can be criticized if the assumptions made are unrealistic and compromise the results. Therefore it is not advisable to make generalizations when working with data collected from small samples or case studies. The presence of a researcher among the sample group being studied may also result in changed behaviors within the group, affecting the responses provided. The method of data collection and data analysis associated with this research method is often lengthy and intensive.

3.1.2 Rationale for Using a Mixed Research Method

Various authors support the use of both qualitative and quantitative research methods used in this study, along with their associated advantages and disadvantages (Maxwell & Loomis, 2003 and Tashakkori & Teddie, 2003). Attention was placed mainly on the advantages associated with both research methods, whilst the disadvantages were also considered, to ensure not to jeopardize the study. Some authors agree that the mixed research methods often complement each other, in order to guarantee that the findings of the study are credible. The questionnaire was structured in such a way that it achieved a combined effect with the quantitative data collected for the study so as to address the stated objectives. Johnson and Christenton (2011), explain that a majority of questionnaires incorporate open and closed ended questions, and

these are referred to as mixed questionnaires. The questionnaire used in this study incorporates this approach.

3.1.3 Determining the Sample Size

According to Welman et al (2005), a target population within the context of a sample, not only refers a group of individuals from a particular area, but a set of scenarios from which a sample can be selected. McMillan & Schumacher (2006) further state that the sample of individuals chosen from a population are referred to as a target population. For the purpose of this study, the target population which was identified included emerging farmers who were participants of projects managed by two large cooperatives. These co-operatives were chosen from the list of intermediaries provided by the Land Bank, which form an integral part of the funding model.

These participants (emerging farmers) were a wide age group and were all involved in agricultural activities, as a means of generating income. Included in the study were engagements with the representatives from the cooperatives who directly manage and work with the mentioned emerging farmers. The representative's mandate was to utilize the funds sourced from the Land Bank, as the intermediary and to allocate them accordingly to the end users, being the emerging farmers. The area in which the study was conducted was mainly in the Gauteng, North West and Mpumalanga provinces, although the population of emerging farmers spanned across a wider range of provinces within South Africa. Due to the wide dispersal of the participants involved in the study, the sample size in the case of intermediaries was limited to two cooperatives and a sample of emerging farmers from each of the cooperatives.

3.1.4 Instrumentation

Heaton (2004) expressed that one of the most common aspects of quantitative and qualitative research methods was the collection of data. Various research instruments such as conducting interviews, focus groups, surveys, taped interactions and questionnaires were means of collecting data. As a requirement for this study, a questionnaire was designed piloted to achieve a response to the research question and objectives. The main purpose of using a questionnaire was to ensure that it addresses the relevant objectives stated in the study. The literacy levels of the participating emerging farmers were considered. The questionnaire included a sample which spanned across three provinces. Due to this, there was a variance in the language medium spoken and therefore the questionnaire was translated into Setswana to accommodate some of

the emerging famers based in the North West. The questionnaire was administered on a person-to-person basis by the researcher to the respondents. The design of the questionnaire was tailored to qualify as a research instrument and was guided by the research objectives. Some of the questions which would address the objectives were:

- *"What is your level of income since joining the project?"*
- *"Have you created employment for members of your community?"*
- *"What technical skills have you gained from your involvement in the project?"*

The questionnaire included open and close ended questions. The close ended question were designed to collect quantitative data on pre-determined variables and the remaining questions would produce the qualitative data. The open ended questions allowed for more probing to seek clarification and for the respondent to elaborate more.

To address the quantitative research method, secondary data was acquired from the Land Bank. This data contained the loan book for the products offered under retail emerging markets (REM). The data covered a period of approximately six years, from the year of inception in 2011 to August 2016.

The following fields were available on the data set:

- The type of loan facility held by the emerging farmer
- The province in which the emerging farmer is based
- The gender of the emerging farmer
- The type of commodity that the emerging farmer was producing
- The loan amount granted
- The date on which the loan facility was granted
- The arrears on the loan
- The non-performing loans, amongst other fields provided.

Although the Land Bank began with the dispersal of loans which were approved from 2011, the data received only commenced from March 2012. Therefore the study on the REM loans will be presented from March 2012, due to the availability of the data. The provided data is as displayed on table 4 below.

Table 4: Land Bank Retail Emerging Markets (REM) Loan Book

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				FY 2012								
2012			FY 2012 Mar	FY 2013 April								
	FY 2012			FY 2013								
2013			FY 2013 March	FY 2014 APRIL								
	FY 2013			FY 2014								
2014			FY 2014 March	FY 2015 APRIL								
	FY 2014			FY 2015								
2015			FY 2015 MARCH	FY 2016 April								
	FY 2015			FY 2016								
2016			FY 2016 MARCH	FY 2017 APRIL								

Data Provided	
Data Not Available	
Financial Year	

Source: (Dlamini, 2016)

3.1.5 Data Collection

The instrumentation used in the collection of data was the questionnaire and the statistical analysis software (SAS) program. As aforementioned, the retail emerging markets (REM) loan book is divided into two components being, direct lending and the wholesale finance facility (WFF). The direct lending was mainly loan products advanced to individual farmers, while the WFF were loan products advanced to the emerging farmer groups, through engagements with intermediaries as per the model displayed on figure 2 above.

Under 'direct lending', the loan information provided included fields that were important to the study. The WFF loans also provided similar fields, however there were blanks in certain fields which could not be categorized. Since the wholesale finance facility was advanced to farmer groups (or intermediaries), it was difficult to provide indications of the gender and racial breakdown as the specific loan was allocated to a group of farmers and not a single farmer. The lack of a breakdown was due to the clientele being mainly farmer groups, unlike the Direct

Lending group which were individual farmers and therefore easily classified into a race and gender split.

3.1.6 Data Assumptions and Exclusions

Secondary data was obtained from the Land Bank, which was composed of monthly loan performance data from March 2012 to August 2016. Before some exclusions were made, there was a total of approximately 15 thousand accounts. However a total of 4321 accounts were excluded from the data. There limitations noted in the data, being:

- The monthly excel template in which the data was presented was inconsistent (especially the fields), resulting in one month being different from the next. This led to assumptions being made on the data and a process of aligning the available fields to create uniformity.
- The instalments for each account were provided in a separate file from the monthly performance data.
- The instalment data only populated the instalment amount paid in a particular month, however omitted the *required instalment*; *payment frequency* per account and the *fees* component. It was unclear whether the instalments which appeared to be monthly were inclusive of the service fees.
- Due to the limitations on the instalment data mentioned above, it would pose a challenge when calculating the arrears especially for the annual payers. It was not clear whether the arrear was triggered a month after the annual instalment was missed, or continuously every month after the missed instalment.

Due to the limitations provided above, there were assumptions made before proceeding with the data analysis. The assumptions were created to calculate the different arrear buckets and to define the default rate. The Land Banks definition of the different arrear buckets was as follows:

- An account which was 30 days in arrears, was classified as a *performing loan*
- An account which was 31 to 60 days in arrears was classified as an *underperforming loan*
- An accounts which was 61 to 90 days in arrears was classified as an *underperforming loan*

- An account which was 90 days (plus) in arrears was classified as a *non-performing loan*

Stemming from the above mentioned data limitations, a set of exclusions was drawn up. Before running the data, all accounts with zero balances were excluded and all accounts with less than zero (or negative) balances were also excluded from the study. However assumptions were made and were in line with the provided arrear bucket definition from Land Bank.
The following assumptions were made:

- It was assumed in the study that all *instalments* are paid annually. Although it may seem as a blunt assumption, it can be linked to the seasonality of the agricultural sector. Furthermore, figure 8 above indicates that the largest commodity financed under REM is an annual crop. Therefore since the farmers income would be annual, then the repayment of their facility would be aligned to their income frequency.
- It was assumed for the *final payment* field that it may include the instalment amount plus the interest portion (depending on the loan agreement).
- The arrear assumptions were as follows:
    - Arrear Bucket 1 = a customer who has missed one annual instalment
    - Arrear Bucket 2 = a customer who has missed two consecutive annual instalments
    - Arrear Bucket 3 or NPL = a customer who has missed three consecutive annual instalments
- A bad definition (default rate) was also created (guided by Land Banks arrear definitions stated above), to determine how the accounts in arrears would be placed in the arrear buckets or arrear categories. The bad definition was made of accounts which were underperforming or in NPL, therefore accounts which had missed more than two consecutive annual instalments.

Therefore in summary:

- If arrear is “0 or < 1 year” = Current (Current)
- If arrear is “> = 1 year but < 2 years” = Arrear Bucket 1 (Performing Loan)
- If arrear “> = 2 years but < years 3” = Arrear Bucket 2 (Under-performing Loan)
- If arrear is “> = 3 years” = Arrear Bucket 3 (Non-performing loan)

The instalments were used along with the arrear amount to calculate the bucket in which that arrear should be allocated to. The data was grouped into segments based on date of origination and formatted in a triangular fashion with the age (months on the loan book), as two axes (see appendix C to F).

3.1.7 Pilot study

It is important to conduct a test of the validity and reliability of the questions tested in the questionnaire through conducting a pilot study. This allows for some of the questions in the questionnaire to be adjusted and rephrased to provide more clarity to the respondents. Furthermore, a pilot study is necessary to produce as effective analysis of the results, removing vague and non-comparable responses. A pilot study is conducted to test whether the questions will provide the desired responses (Mwandla, 2002). The questionnaire was piloted to establish if there were any uncertainties in the questions and the extent to which the questions posed would address the desired research questions.

Baker (1994) states that an advantage of conducting a pilot study could be to test the appropriateness of the research instrument, with the benefits of indicating areas which could result in the project failing and to test whether the instrument is not inappropriate or too complex to be understood by the respondents. Therefore the test was conducted with two respondents to assess if the questions were consistent in addressing the same research question. The two respondents were purposefully engaged in conducting the pilot study and they were able to identify questions which appeared to be unclear. The respondents were the project managers from the two cooperatives working with the emerging farmers and therefore understood the subject matter. The findings from the pilot study indicated that some questions were ambiguous and needed to be rephrased, while some of the multiple choice questions required an elaboration on the options provided for selection by the respondents, such as the 'level of income earned' and the 'technical farming skills acquired' (refer to Appendix A). The updated questionnaire also gave an opportunity for the respondents to elaborate on some of their answers for the following questions:

- *"If your income has increase, has the profit enabled you to assist your family financially? Specify.*
- *"What level of income did you earn? If no income, how did you manage without an income? Specify."*

Moreover, the questionnaire was designed for data analysis as the responses of some of the questions could be captured and collated onto a data set on an excel spreadsheet. The results from the pilot study assisted to provide insight into the gaps that would have threatened a proper execution of the study. The restructuring of the questionnaire enabled better understanding of some of the concepts and a clearer alignment of the questions to the research objectives. Therefore the challenges associated with compiling a questionnaire were adequately addressed when the pilot study was conducted. The questionnaires were distributed to the list of emerging farmers supplied by the cooperatives. The researcher could communicate clearly and effectively with the respondents.

3.1.8 Data Limitations and Constraints

When identifying limitations, it's important to ensure that the data collected is reliable and valid, and to have measures in place to address any problems that may occur. The constraints also identify weaknesses in the study which are not within the control of the researcher (De Vos et al, 2011). The details of the retail emerging markets (REM) loan book was sourced from the Land Bank. The bank underwent an organizational review in the year 2015. This resulted in the Retail Emerging Markets (REM) loan book being merged with the retail loan book within the bank. Due to the merger, there were some changes that became evident in the fields of the data. This resulted in a new naming convention for the loan book which is now referred to as the Commercial Development Bank (CDB). However the details for the retail emerging market (REM) loans were still identifiable and could be distinguished from the retail loans, by using unique account numbers. The REM loan book remains a subcategory within the loan book data and can still be differentiated.

The loan performance data for REM is reported on a monthly basis. A limitation identified with the data were the fields which indicate the sections included in the data, such as the year in which a loan was granted; the type of commodity the farmer is producing and the loan amount granted etc. There was an inconsistency identified in the monthly files as some excel files included more fields than the other. As a result this created an inconsistency when the data had to be merged due to the irregularity in the number of fields reported. However all the essential data was available on all the REM monthly files.

3.1.9 Analysis and Interpretation of Data

The analysis of data involves breaking it up into manageable themes, patterns, trends and relationships (Mouton, 2008:108). In this study, the data collected was analysed and converted into tables, bar graphs and pie charts using the excel programme and the statistical analysis software (SAS). This includes the quantitative data and the qualitative data which was further collated into an excel spreadsheet to capture the feedback from the respondents.

The findings of the research approaches taken were presented in three different categories:

1. The findings obtained from the unstructured interviews
2. The findings obtained from the structured questions in the questionnaire
3. Lastly, the REM loan book data provided by the Land Bank

The vintage analysis technique would be applied to the loan book data. Vintage analysis is used to track how customers who have been with the bank for a similar amount of time have performed in servicing their loan repayments. A vintage would represent all the loans that were granted during a specific time period and they would be compared to each other. The vintage is derived using behavioural data and the "age" of the loan is assumed to represent the behaviour. In Appendix C, the table provides a visual of how the behaviour would be analysed, indicating the date on which the loan was granted on the left axis and the "age" of the loans on the right axis. Bosman (2012:6) "describes vintage analysis as a group of loans that all originate within a specific time period. Vintage analysis refers to the process of monitoring groups of loans and comparing performance across past groups".

3.1.10 Ethical Considerations

The research requirements stipulated by the graduate school of business (GSB) Ethics Committee, state that all research in the field of Master of Commerce requires clearance, therefore ethical considerations were taken into account prior to conducting the research and data collection. These included plagiarism, confidentiality, non-disclosure and anonymity. These ethical principles were applied throughout the study. Guthrie (2010) highlighted that adherence to the ethical considerations is vital before embarking in a research project or collecting data. In addressing some of the ethical considerations, the participants were afforded the option to accept or to decline participation in the research project. Participants were also informed that they had the right to withdraw from the study at any time. The confidentiality and privacy of the information provided by the respondents was protected by ensuring their

names were not disclosed, instead they were referred to as ‘candidates’ and were allocated numbers.

The Land Bank has an internal process which has to be adhered to for access to information which is not publically available (with the exception of newsletters, posters, market material and pamphlets). The process is governed by the Promotion of Access to Information Act of 2000 (PAIA) which gives the public rights to information. Therefore, a formal request procedure was followed to gain access to the retail emerging markets (REM) loan book, through completing of the required PAIA forms (refer to Appendix G). Approval was granted by the Land Banks information officer. Furthermore, an interview was conducted with the manager who was in charge at the inception of the REM funding model and they were able to provide context behind the objective for conceptualizing the REM funding model.

CHAPTER 4

RESEARCH FINDINGS AND DISCUSSION

4. Introduction

In this chapter, the researcher identified and presented the main outcomes which emerged from the questionnaires and the responses gathered from the unstructured interviews conducted with the intermediaries. In addition, the results gathered from analysis of the REM loan book data are also provided in this chapter.

4.1 Interview Key Findings

Unstructured interviews were conducted with two identified cooperatives which served as intermediaries in the Land Banks REM funding model. These cooperatives were not exhaustive. The main product utilized in the relationship between the Land Bank and the intermediaries was the wholesale financing facility (WFF).

4.1.1 The Role of Intermediaries in the REM Funding Model

Co-op A - The mandate for this intermediary within the REM funding model was to create or develop commercial farmers, and also had a corporate social investment component, where they also worked with developing emerging farmers. Upon receiving the funding from the Land Bank, the cooperative would identify suitable candidates to whom they would then lend the funds. Upon identifying suitable candidates, the cooperative would assign a supporting team and would commit to working hand-in-hand with the selected emerging farmer for a period of five to seven years.

Co-op B – The mandate for this cooperative in playing its role in the REM funding model was to serve as a risk sharing partner with the Land Bank. Similar to the previous cooperative, they also set out to identify emerging farmers which required further development and support, and would on-lend the required facilities to the identified candidates.

Table 6 below provided a high level view of each project administrated by the two co-operatives. These intermediaries were both client who received loan funding from the wholesale financing facility (WFF) administered by the Land Bank. They in turn, on lent the funds to farmers who formed a part of the projects managed by the co-operatives. The table below indicates that both co-operatives had a similar size of emerging farmers as part of their project, all farming on approximately 100 or more hectares of land, which was mostly leased land. The co-operatives also provided technical support to the emerging farmer and access to the value chain by means of providing an off-taker or a market for their end product. The years in which the WFF facility was advanced is displayed on the table below, however the projects overseen by the co-operatives were in operation before these dates.

Table 5: Summary of Key Information of Co-operative Projects

	Co-operative A	Co-operative B
Year of WFF Loan Facility Granted	2012	2014
No. of Emerging Farmers	68	67
Land Size/ Farmer (Ha)	150	150
Land (Own/ Leased)	Leased/ Owned	Leased/ Owned
Main Commodity	Grain	Grain
Technical Support Provided (Y/N)	Yes	Yes
Off taker Secured (Y/N)	Yes	Yes

Source: (Dlamini, 2016)

4.1.2 The Critical Success Factors of the Intermediary's Involvement

The above mentioned cooperatives both shared a similar mandate and took a similar approach (with slight variances) on the commodity production process with the selected emerging farmers. They further identified important factors which were critical to the success of the retail emerging markets funding model as a whole, namely:

Technical Support **–** The intermediaries both provided technical support to the emerging farmers in their projects, albeit taking diverse methods. A critical support function provided by Co-operative B, was that of an agronomist to assist with the entire process spanning from soil preparation to harvesting. Being a supplier of fertilizer, the co-op was able to provide their expertise on the suitable fertilizers for the crop produced and risk mitigation measures against

force majeure, such as sourcing the suitable insurance products. Co-operative B also provided financial training. Co-operative A adopted a slightly different approach. This co-operative assigned an entire team to assist each emerging farmer, comprising of an agronomist, a mentor and industrial psychologist (to assess the farmer's attitude and provide emotional support during difficult periods, such as the drought). Furthermore, training on financial management was also provided. According to the illustration on Figure 2, the department of agriculture, forestry and fisheries, subsidizes the intermediaries for their cost of support. This addressed the lack of technical skills identified to be a challenge preventing the success of emerging farmers, as mentioned in chapter 2.

Agricultural Product Diversification - In the literature review, the maize field crop was identified as the largest field crop in production in SA. The core commodity being cultivated by the emerging farmers under both co-operatives, is maize. However, there are plans by both co-operatives to diversify in the future. Co-op B had identified opportunities in the production of pepper dews, while Co-op A has identified venturing into cotton production, livestock and horticultural products. These were amongst the agricultural products identified as having high employment creation potential in the National Development Plan (2011), as mentioned in chapter 2.

Value Chain Involvement - Both of the co-operatives secured off-take agreements for the crops produced by the emerging farmers. Furthermore, their involvement from the beginning stages and provision of technical support, influenced the quality of the product at the harvesting period. Without market access, a business ceases to exist. However involvement in the value chain requires more than the end product, however the quality of the product and timeous supply are also vital. This was a key success factor highlighted to the emerging farmers by the co-operatives.

Overall Benefit to Emerging Farmer – The overall achievement sought by both co-operatives, including the Land Bank as the initiator of the funding model, was assisting with the development of emerging farmers and to provide the required support thereby creating a quality farmer. It takes the emerging farmer approximately 5 – 7 years to grow and take more individual responsibility of the farm operations as the year's progress. The projects also aimed to assist the farmers in building a credit record, a farming history in order to be bankable, by not only development banks but also commercial banks in future.

4.1.3 Challenges Identified in the Funding Model

Although the above mentioned support was provided to the emerging farmers, numerous challenges arose in the process. The cost of mechanization which is essential in the production of maize was not easily attainable, due to the high capital expenditure costs which are associated with machinery. Therefore, the emerging farmers more often than not had to lease the machinery and implements, as and when required. Unforeseen challenges could arise in a model where an intermediary has the dual role of an input supplier and a provider of a market to the farmer. Such a scenario could occur if the intermediary manipulates the prices of production inputs which the emerging farmer has to purchase, resulting in high planting costs or buying the end product at an unfavourable price to the emerging farmer. Farmers are generally price takers or do not have much influence in the price at which they sell their goods, because of the demand and supply principles, therefore emerging farmers would have to learn the importance of improving efficiencies in their farming operations to make up for any losses in their profit margins.

4.2 Questionnaire Data Analysis

A total sample of seven farmers formed a part of the group which completed the questionnaire. This was due to the logistical challenges as a result of the large distance between the farms in three provinces. The total distance covered was over 600 km. In addition, since the study coincided with the planting season of summer crops, the farmers could only be accessed elsewhere but only on their farms as they were planting. Table 6 below provides a breakdown of the planting, harvesting and seasonal period of selected field crops and vegetables in South Africa.

Figure 6: Emerging Farmer Sample Distribution

Only one set of emerging farmers from Co-op B were able to participate in completing the questionnaire. Due to the language differences spoken in the areas visited, the questionnaire has to be translated into Setswana and two of the seven participants utilized the translated questionnaires.

Table 6: Agricultural Production Calendar for South Africa

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maize					h	h	h	h		p	p	p
Sunflower	p				h	h	h				p	p
Soya beans					h	h					p	p
Groundnuts				h	h					p	p	P
Drybeans	p	p	p/h	p/h	h	h					p	p
Sorghum			h	h						p	p	p
Barley			p	p						h	h	
Wheat	h			p	p	p	p				h	h
Oats					p	p	p					
Sugar Cane				h	h	h	h	h	p/h	h	h	h
Cotton										p	p	
Cash Crops												
Potatoes	s	s	s	s	s	s	s	s	s/p	s/p	s/p	s/p
Fruits												
Citrus Fruit				s	s	s						
Deciduous Fruit	s	s	s								s	s
Tablegrapes	s	s	s	s						s	s	s
Avocado			s	s	s	s	s	s	s			
Mango	s	s	s	s								s
Litchi	s	s										

p = planting, h = harvesting, s = in season
Source: Land Bank (2016)

Table 7 below displays the responses gathered from the emerging farmers which were part of co – op B. All of the farmers who completed the questionnaire were male and over 90% of them were involved in field crop production and livestock farming. 75% of the emerging farmers had children attending primary and high school. Two of the total number of farmers were between the age's 50 -59; two farmers between the ages 40 - 49; two farmers over the ages of 70 and older and only one emerging farmer in the age range of 30 – 39. Only two farmers indicated that their income source had always been farming, while three farmers obtained incomes from either a job or running a business. These farmers chose to retire in the farming fraternity. Only one of the farmers had a government grant as their only source of income prior to joining the project as an emerging farmer. Approximately 43% of the farmers were below the age of 50, which indicates an interest from younger individuals in farming.

Over 70% of the emerging farmers had been working with the co-operatives for more than four years and only one farmer had joined the co-operative four years prior to the other farmers. The majority of farm incomes were between the ranges R0 –R50 000 and R100 000 – R150 000. However, post joining the project, one farmer declared a profit of at least R700 000, while 43% of the farmers' incomes were in the R150 000 plus bracket. Although there was a noted increase in the incomes, only 43% of the emerging farmers were able to make a contribution towards caring for their families financially. Conversely the remaining 57% of farmers indicated otherwise and they cited the reasons. An emerging farmer based near Coligny in the North West spoken stated that "The drought impact of approximately two years affected the business badly". Another farmer between the ages of 40 – 49 years who farms in the Ventersdorp area disclosed the following: "I have had to carry over debt since joining the project, and this was mainly due to the drought which affected our area".

Approximately 86% of the participants had some level of farming skills, but also indicated that that they gained a variety of skills since being on the project and this included: financial skills, farm management, weed control, record keeping and marketing. The lack of these skills were among the challenges identified which faced emerging farmers. Only two of the seven farmers were farming on owned land, while the remaining farmers were operating on leased land. Part of the objectives of this study was to measure social and development impact, and skills development for the emerging farmers. The social impact was evident in the employment created as the emerging farmers created a combined total of 41 jobs. Therefore this had a multiplier effect for the 41 workers who could in turn, financially provide for their families.

The development impact noted was that of farmers being able to increase their incomes and generate profit which enabled them to provide for their families and take their children through school. The skills development for the emerging farmer was evident from the variety of skills they continue to gain by being a part of the project.

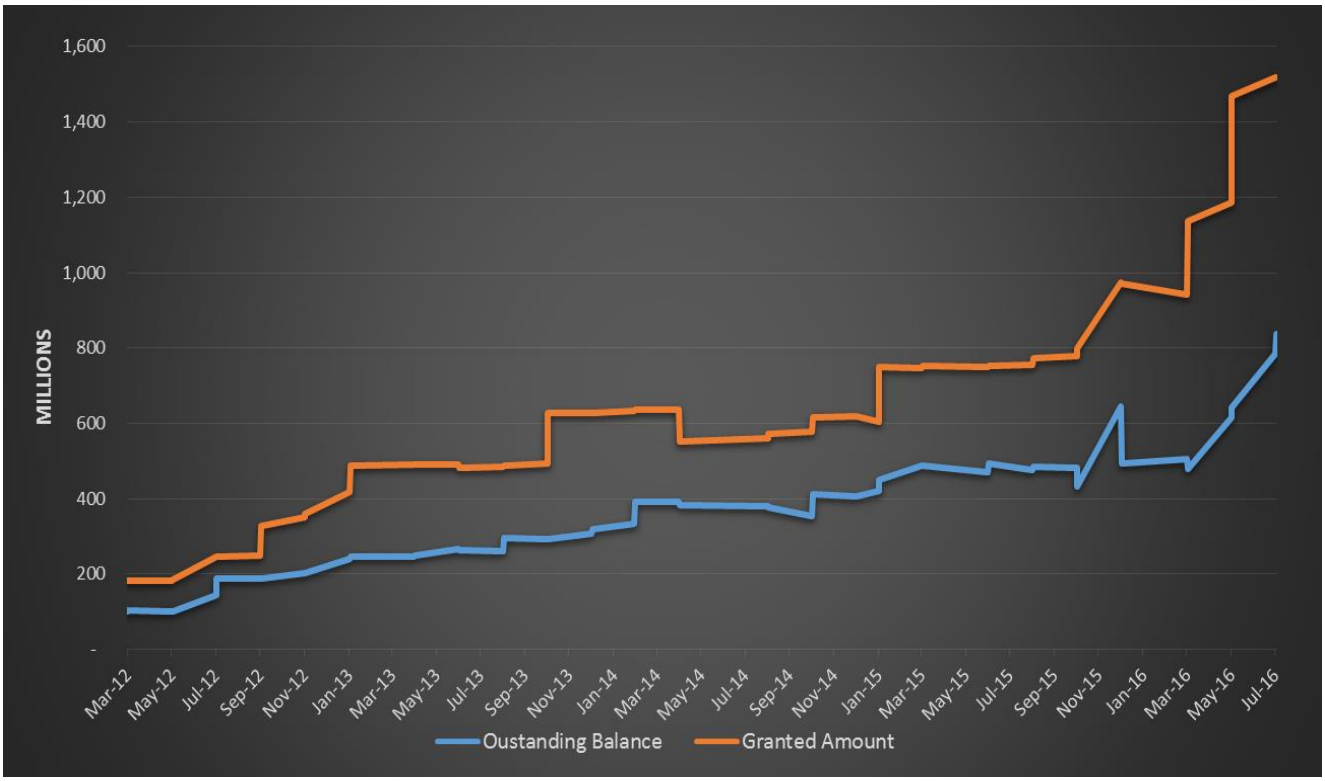
4.3 Retail Emerging Markets Loan Book Data Analysis

4.3.1 REM Loan Book Growth

The concept of the REM funding model commenced in the year 2011. However the data obtained from the Land Bank only revealed the loan performance data from the beginning in March 2012 to August 2016. This is also indicated by the *outstanding balances* and the *granted amounts* in March 2012 which did not begin from zero (see Figure 7 below). The graph illustrates the growth of the REM book from March 2012 to August 2016. The pay-out of REM loans in this period indicated an increase of over 700%. The outstanding balances indicate the loan amounts drawn either by the direct lenders of by the intermediaries (wholesale financing facility).

The REM loan book displayed a steady increase throughout the period. It is difficult to identify a trend due to the seasonality of agriculture. Typically, loan drawn downs would increase before the planting season for summer crops and winter crops, in line with the planting periods indicated on the calendar in table 6 above. As this point farmers would require capital to spend on land preparation and the purchase of production inputs. The same would occur for other agricultural field crops. The largest increases noted in the outstanding balances were in December 2015 (R212 million increase) and in July 2016 (R142 million) increase. However the largest portion of the increases were driven by drawn downs of the WFF facility. In December 2015, 48% of the total outstanding balance was due to draw downs from two intermediaries, and in July 2016, 58% of the total outstanding balance was due to draw downs from three intermediaries. While some intermediaries focus on the production of summer crops, others are more diversified in the types of agricultural commodities they produce. Therefore it is difficult to align the trend of the drawdowns to a particular field crop.

Figure 7: Retail Emerging Markets loan Book Growth Rate



When the first REM loan was paid out, there wasn't a wide variety of agricultural commodities financed were as per the display on Figure 8a below. The largest industry financed was Sugarcane (69%). However this was a pay-out for the WFF facility. This was followed by cattle (29%) and Grain (2%). This has seen a considerable shift when compared to the spread of industries financed, as at August 2016. In figure 8b, the largest industry financed was 61%, which is a combination of grain and oilseed. This was followed by a combinations of other industries at 8%, cattle (4%) and sugarcane at 3%. There were numerous industries making up 1% to 2% of the industries financed. It is important to note that industries with high employment potential, form a part of the industries financed by the Land Bank. The labour intensive industries include citrus, macadamia nuts, some cash crops and meat processing.

Figure 8a: Agricultural Industries Financed by REM as at March 2012

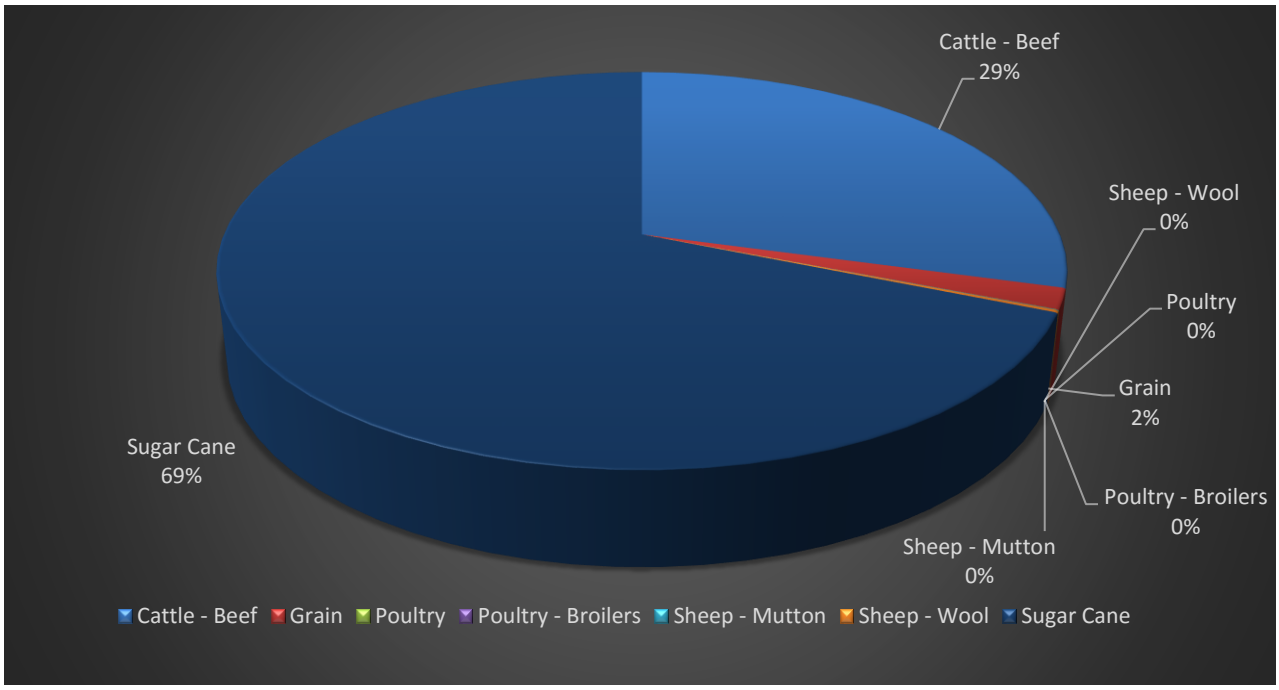
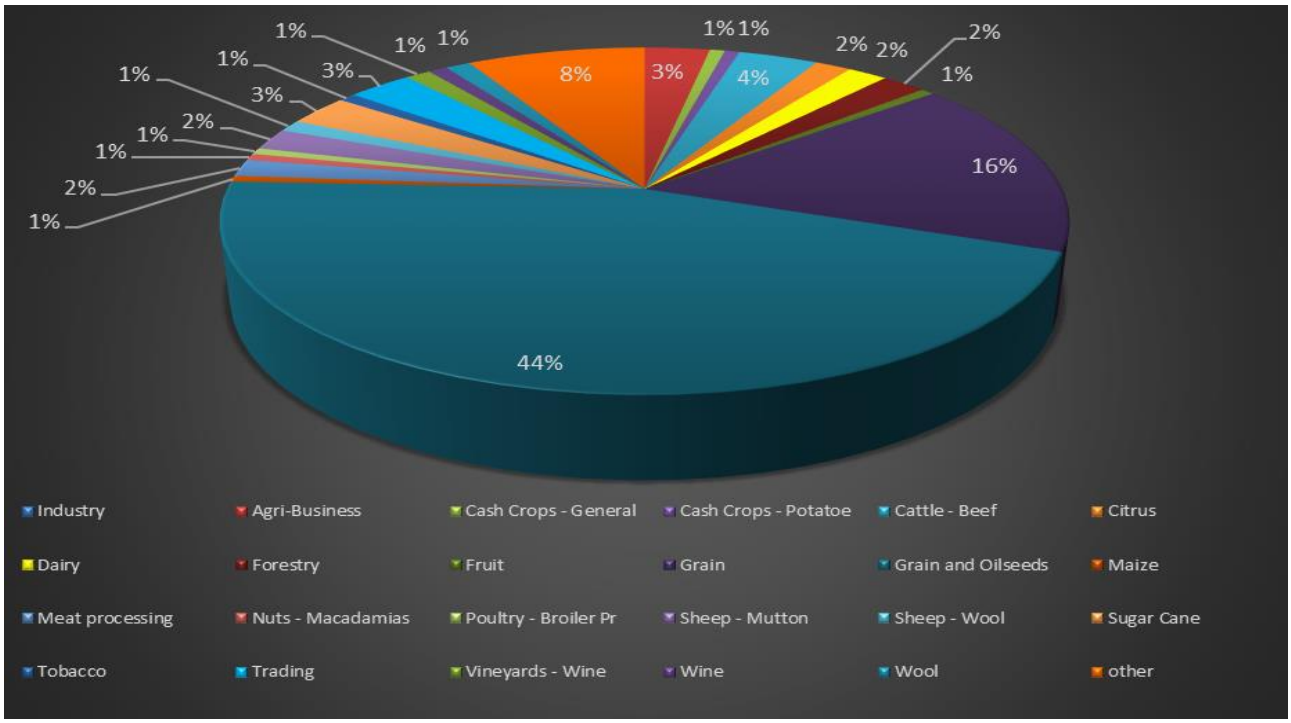


Figure 8b: Agricultural Industries Financed by REM as at August 2016



In March 2012, the percentage split by gender of customers to the Land Bank was 2% of Males, 1% Females and an unspecified portion making up 97%. The unspecified percentage was

owing to the wholesale financing facility, which is a portion of capital lent out to intermediaries or co-operatives. It was not possible to capture the gender split as the lending was to a group of individuals. Due to the numerous blank fields in the data, the reason for the high 'unspecified portion' could have been as a result of the blanks. There was a significant change by August 2016, also influenced by the growth of the REM loan. Male clients had increased to 69%, females at 13% and unspecified portion was at 19%. This is indicates a transformation as it encompasses many more woman joining the agricultural sector. Figure 9a and figure 9b below indicate the gender breakdown under the REM loan book.

Figure 9a: Gender Breakdown of REM Clients as at March 2012

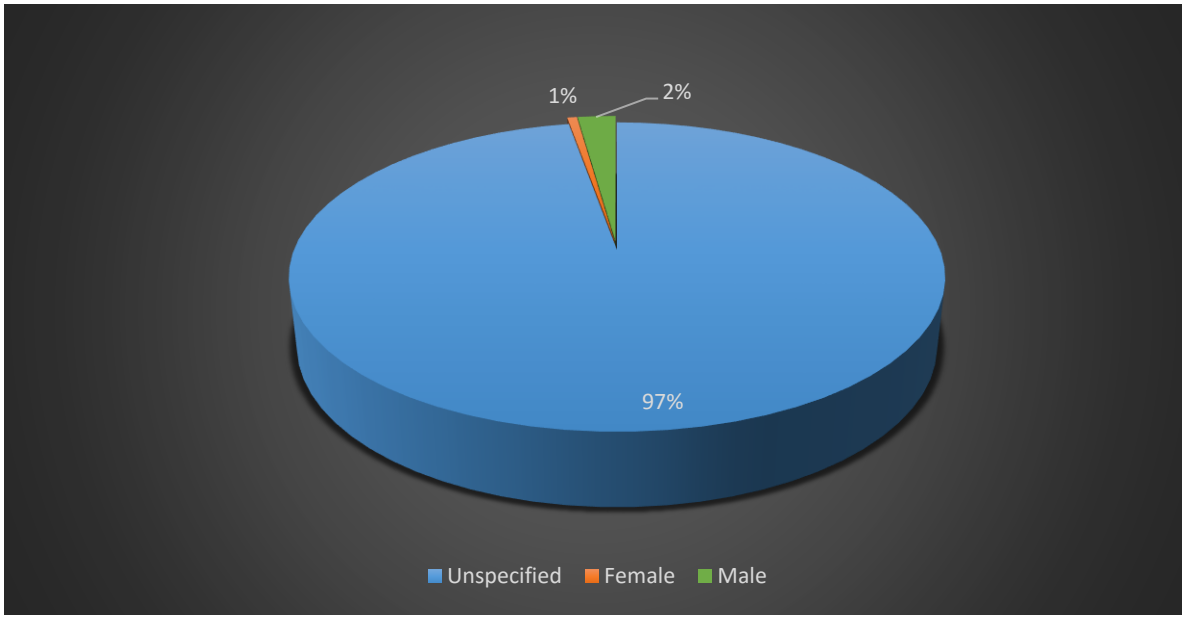
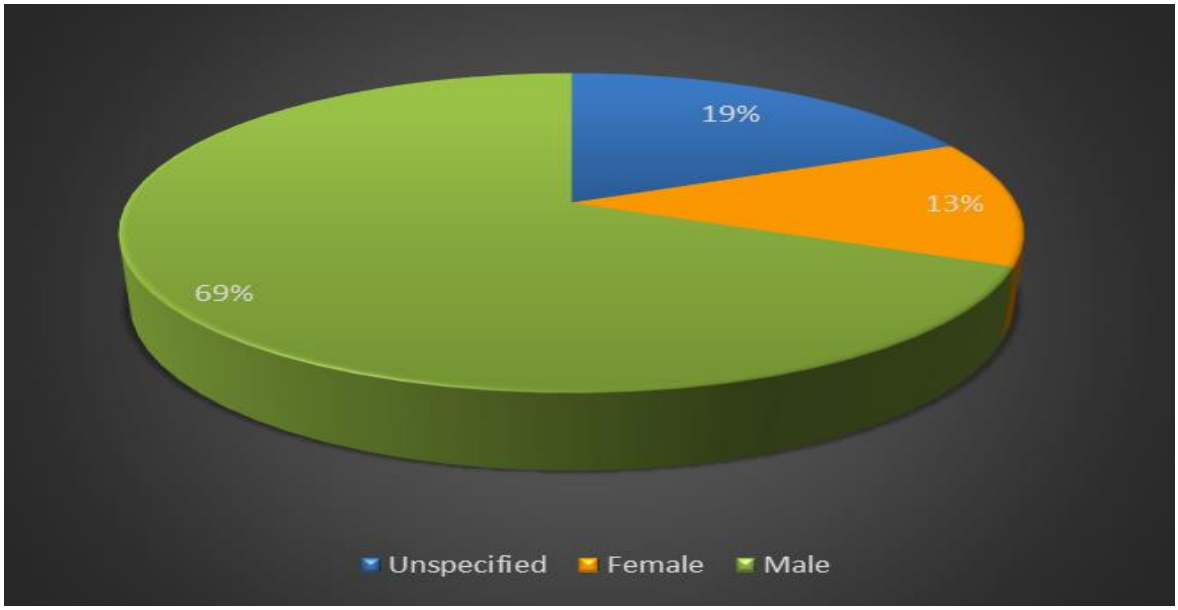


Figure 9b: Gender Breakdown of REM Clients as at August 2016



4.3.2 REM Loan Vintage Analysis

Vintage analysis is the method which calculates the credit quality of a loan portfolio. It further tracks the performance of customers who have been with the bank for a similar amount of time. One of the objectives in the study was to identify the behaviour displayed by loan borrowers in the repayment of their loans. The figures below, indicate a vintage analysis using a six year life of the loan and the missed instalments rate in that period. The aim was to identify the credit losses which are occurred and detect the underlying trend. The identified trends could assist the bank to implement risk mitigation measures in future, where there were high losses identified. Moreover, some of the losses could be linked to macroeconomic events or climatic events.

According to Bosman (2012:13), "the analysis of historical information based on static vintages is one of the most effective approaches to infer accurate parameters for the determination of the default probability distribution of future pools." For the purpose of the discussion below, age refers to the time since the loan was granted and the month refers to the calendar date when the outcome was determined.

The identified behavioural trend can also be linked to primary drivers such as macroeconomic indicators. Figure 10 displays the vintage based on volumes in the arrear 1 bucket, where the

bad rates (or percentages of instalments missed) are on the left hand size and the volume of deals are on the right hand. The bottom axes displays the volume of deals on that specific date. There is an expectation from the Land Bank as the lender, that the borrower should repay their first instalment at the end of the agreed period. However, some instalments were missed by the borrowers due to macroeconomic events and severe climatic events. These include:

- *Appreciation of the Rand* – A weak rand negatively affects farmers who purchase specific inputs (such as imported fertilizer), however favours agribusinesses in the horticultural industries, which export some of their produce. Hedging against currency risk would reduce the negative impact.

- *Labour Unrests*- Labour unrests which occurred in 2012 had an impact on the agricultural sector. This was mainly due to the demand of an increase in the farm wages minimum pay. An agreement was reached in 2013 where the agricultural minimum wage was increased by 52% (Farmers Weekly, 2013). The ability to negotiate with the labour unions is important to reduce impact and vulnerability to the sector. However this increase was perceived to be high by some farmers, and increased their overhead costs.

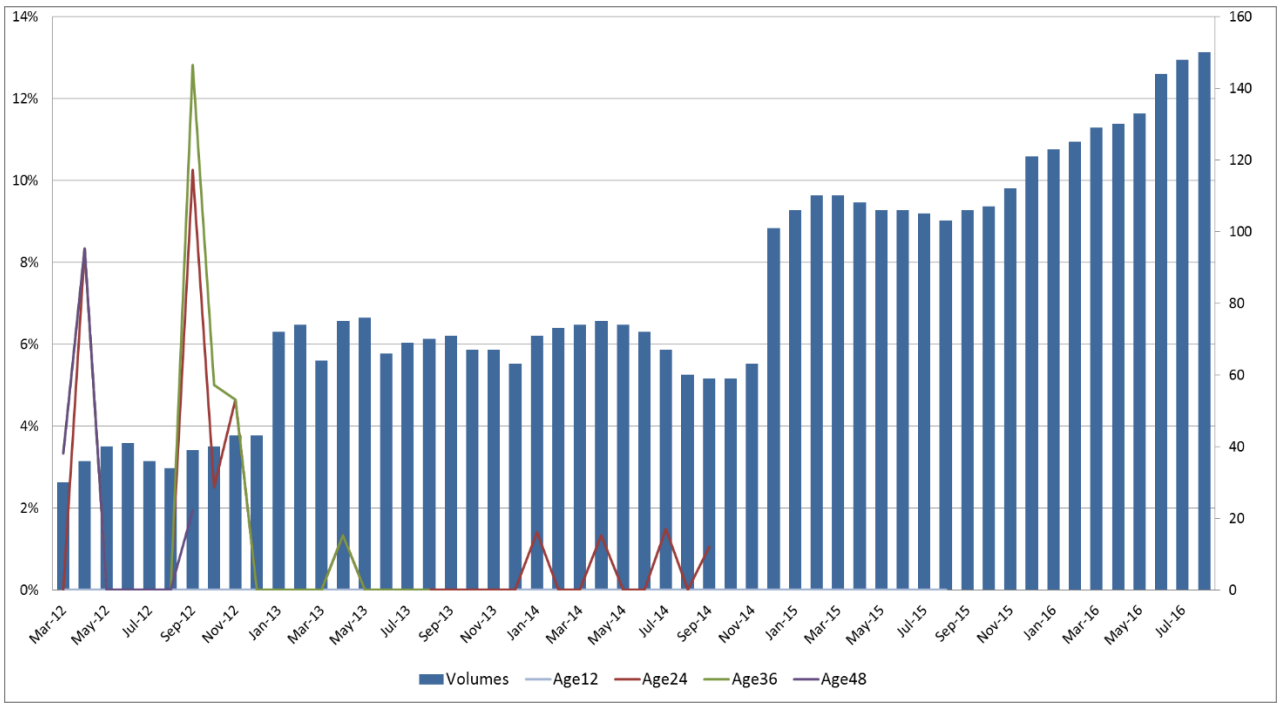
- *Erratic Climate* – South Africa is prone to drought and just went through the worst drought since 1904 (Farmers Weekly, 2016). The drought mainly affects field crops cultivated on dry land and also the grazing quality of the veld, which would otherwise be a source of feed for livestock. As mentioned previously, the grain crop is the largest produced crop in the country and is done so on dry land. The risk of this event would threaten agricultural production and employment for various agricultural industries. A risk mitigating factor would be insurance for the grain farmers and alternative sources of feed for livestock.

Figure 10, 11, 12 and 13 below indicates the vintages according to the arrear bucket 1; arrear bucket 2; arrear bucket 3 and the bad rate. Figure 10 represents the deals origination throughout the period who have missed one instalment are in the first arrear bucket as a result. These are however still classified as performing loans. Figure 11 represents the deals originated throughout the period who have missed more than two instalments and are in the second arrear bucket or classified as underperforming. Figure 12 represents the deals originated throughout

the period and have missed more than three instalments and are classified and non-performing loans. Figure 13 represents deals which were in arrears for over 36 months and were not likely to cure back to the earlier buckets.

In figure 10, of the deals originated from March 2012 to August 2016, only an average of 1% missed their first instalment after 12 months and therefore moved into the first arrear bucket. A further 2% of the borrowers missed their first instalment in the first 36 months and 2% of the borrowers missed their first instalment in the first 48 months (see Appendix C for the cumulative loss table). The older loans have a higher vintage than the loans originated at a later period (from November 2014 onwards).

Figure 10: Arrear Bucket 1 - Performing Loans

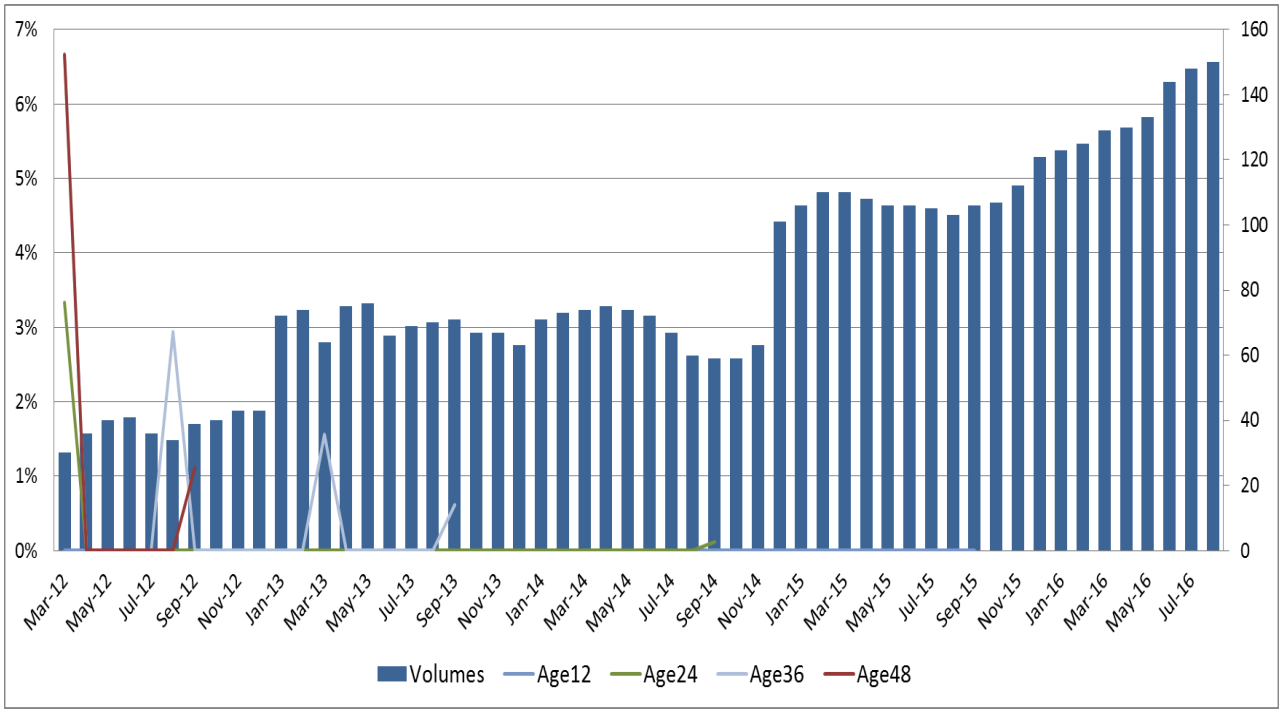


	12 months	24 months	36 months	48 months
Average	0.00%	1.0%	2.0%	1.9%

In figure 11, of all the deals originated in the period between March 2012 to August 2016, an average of 0.1% went bad (or missed their second instalment) in the first 24 months, 0.6% missed their second instalment in the first 36 months and just over 1% missed their second instalment in the first 48 months. This indicates that all deals which were under-performing (see Appendix D for the cumulative loss table).

According to Bosman (2012), loans which have been recently originated would hage the least default data which would explain the 0% average in the first 12 months.

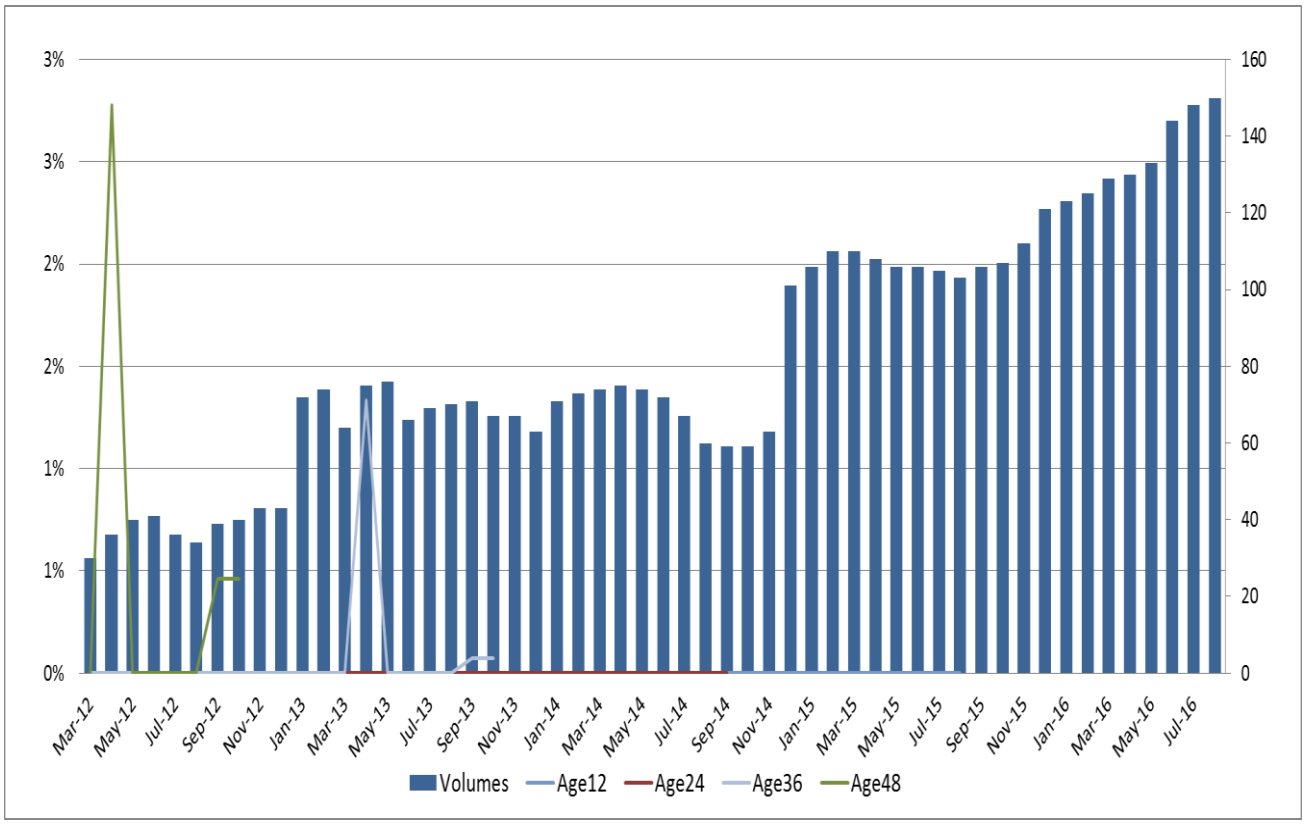
Figure 11: Arrear Bucket 2 – Underperforming Loans



	12 months	24 months	36 months	48 months
Average	0.00%	0.11%	0.62%	1.11%

In Figure 12, of all the deals origination from March 2012 to August 2016, 0.07% missed their third instalment in the first 36 months and 0.46% of borrowers missed their third instalment in the first 48 months of the borrowing period. (See Appendix E for the cumulative loss table). These loans posed the lowest chance of being able to cure back to the earlier buckets.

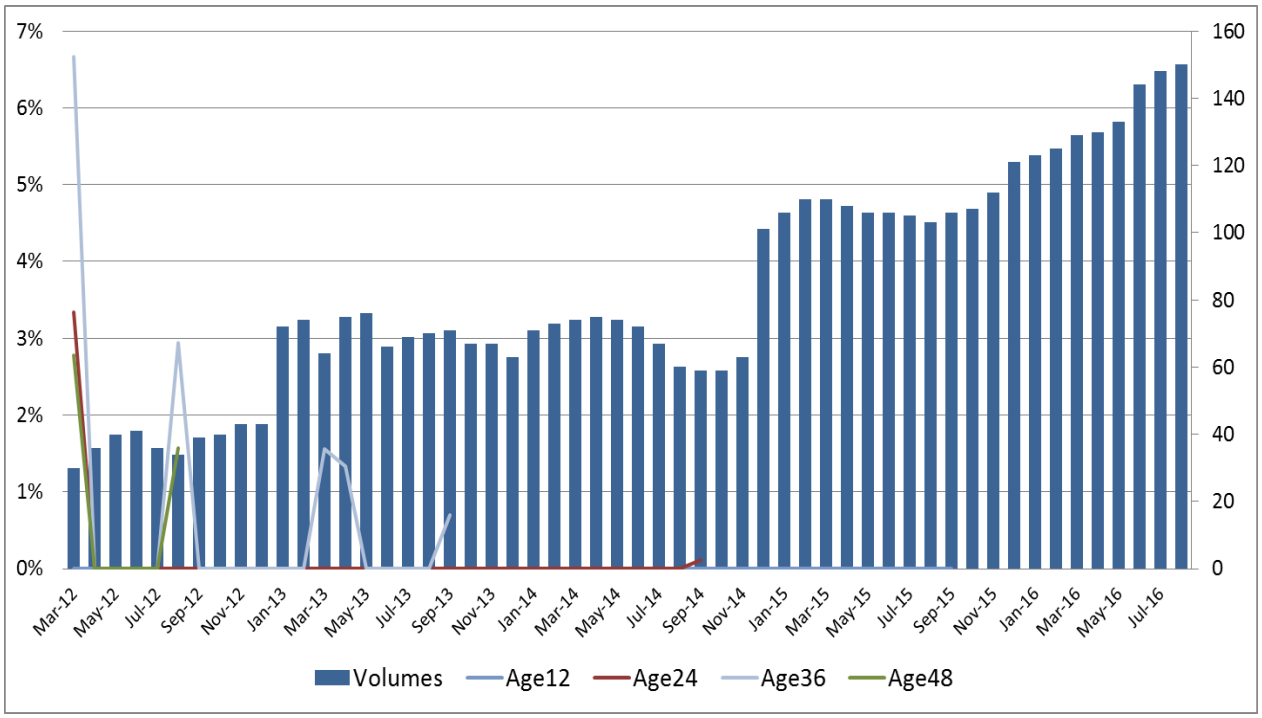
Figure 12: Arrear Bucket 3 - Non-Performing Loans



	12 months	24 months	36 months	48 months
Average	0.00%	0.00%	0.07%	0.46%

It was previously mentioned in the arrear definitions, that there is a bad rate definition. The bad rate is defined as a combination the deals which are under-performing and non-performing. This includes deals which are two and three months in arrears (figure 13). When considering all the deals originated from March 2012 to August 2016, an average of 0.11% went bad in the first 24 months. An average 0.69% of the originated deals went bad in the first 36 months and 1.57% of the deals went bad in the first 48 months. According to the cumulative bad rate table in Appendix F, the highest bad rate are evident after 24 months and the highest bad rate is 7%. The term *bad*, refers to deals which not only missed their instalments, but were unable to cure or catch up with their instalment repayment, resulting in the arrears rolling forward into the NPL bucket.

Figure 13: Vintage Analysis – Bad Rate



	12 months	24 months	36 months	48 months
Average	0.00%	0.11%	0.69%	1.57%

The expectation from the above graphs is that the bad rates for the newer vintages would be lower, or zero as displayed in figure 12. The reason being that older vintages have more months of history. The vintage analysis graph (Figure 12), provides a view of the total NPL percentage of the retail emerging markets (REM) loan book. Upon considering the bad rate for the vintage analysis graph, the average bad rate across the entire loan portfolio is approximately 0.6%. Therefore this indicates that the total credit quality of the REM loan portfolio is good and performing well thus far with minimal losses. It is assumed that the performance of deals in arrear bucket 1 cure and roll back into the performing bucket or remain in arrear bucket 1.

4.4 Discussion

The purpose of this section was to provide answers and discuss if the findings of this study answer the research objectives; to identify new findings and indicate how the findings support existing knowledge on the subject. Existing knowledge suggests that emerging farmers are struggling to productively farm on their land and something needs to be done, such as providing systematic support. The results which indicated the performance of the recipients of REM loans

above, will assist to forecast future trends of expected default rates on loans granted to future recipients of REM funding and also indicate their expected performance rates. The new findings that have emerged from the study is that is possible to implement programs targeted to emerging farmers and make a success of them. Thus removing the perception that emerging farmers pose a high risk and cannot be funded due to lack of collateral. The objectives which was to measure the success of the REM funding model has been address by the finding. There has also been evident findings of a social impact achieved for the emerging farmers in the WFF program through job creation, improved incomes and skills transfer.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5. Summary of the Study

In this chapter, the main arguments and concepts which emerged from the study will be revisited. The aim is to connect the research findings to the initially stated objectives and to link themes from the literature review to the research findings.

The main aim of retail emerging markets (REM) was to lend to emerging farmers. Furthermore, the mandate of the Land bank as development finance institution was to respond to challenges faced by this group of farmers, namely; minimal access to technical support; access to markets; high interest rates and lack of business support in general. The support to emerging farmers through REM would not only assist the famers, but also contribute towards development within the agricultural sector. Although two main farmer groups exist, being commercial farmers and emerging farmers, the group with the greatest needs remained as the emerging farmers. The financing approach of a split between direct lenders (or individual emerging farmers) and the wholesale financing facility (aimed at farmer groups) was a smart approach and would see the positive impact of the Land Bank being experienced far and wide. Another important aspect was the identification of intermediations (mainly large South African co-operatives) in order to form collaborative efforts. The intermediaries became in an integral part of the entire REM funding model. The objectives of the studied were two pronged. To establish the behavioural trend displayed by the borrowers in repaying their loan facilities and consider the performance of the REM portfolio as a whole. Secondly, the objective was to measure the social and development impact experienced by the emerging farmers who were beneficiaries of the WFF approach.

The literature review drew attention to the importance of the primary agricultural sector and its importance as an input supplier into agribusinesses or the secondary level of agriculture. A comparison of the gross domestic product contribution of the agricultural sector to the other industries, revealed that the agricultural contribution was amongst the lowest. However with the forward and backward linkages to input supply and manufacturing, the sector still remained an important one. An overview of emerging farmers was provided, covering aspects such as the challenges faced by emerging farmers and the amount of land an average emerging farmer

has access to, which determines the types of farming they can be involved in due to the hectares available. Furthermore, a discussion ensued on the emerging famer's ability and capacity to create employment. The study went on to highlight the credit constraints faced by emerging farmers and the difficulty they face in getting access to credit products. Due to the type of analysis applied in this study, a background on credit delinquencies and vintage analysis was provided to give clarity on the type of research that would be applied to the REM loan book.

5.1 Social and Development Impact for Emerging Farmers

A mixed methodology approach was taken in the data analysis. The aim of the data analysis was to address the objectives of the study. A quantitative analysis was applied to measure the social and development impact to the emerging farmers and communities at large. A questionnaire was used as an instrument to collect qualitative data. The questions were structured in a way that the responses would indicate whether there was a social impact experience by the communities in which the farmers operate, and whether the farmer's skills were developed and if they experienced a development impact from being beneficiaries of the Land Banks WFF facility.

The data obtained from the questionnaire indicated that farmer's income had increased, some to the point of being able to financially provide for their families. However some farmers who were affected by the drought did not achieve high profit due to their crop being impacted by the dry conditions. Over and above completing the questionnaires, the emerging farmers shared their learnings from the years they had been working alongside the intermediaries. Some of the lessons learnt included, saving profit in the good farming years and investing it back into the farm, or storing those reserves to assist in the bad farming years. From a sample of seven farmers, a total of 41 permanent employment positions was created. Emerging farmers along with the supporting staff from the co-operatives stressed that emerging farmers should not completely exit the projects with the co-operatives. Their reason was that, for commercial farmers to be successful, be able build strong balance sheets, farm efficiently and increase their economies of scale, they would have had decades of training and knowledge passed down the generations. Therefore emerging farmers could also build a similar legacy, by working alongside their main support system, being the co-operatives and Land Bank as a source of finance. Emerging farmers were also encouraged by the co-operatives to assume more responsibility as they become more experienced in farming. Some challenges were identified, which limited the emerging farmer's potential of growth. Most of the challenges which are not

new but still remain, include access to owned land, and access to machinery and implements. Other unique challenges identified were logistical costs which emerging farmers incur, which affect their profit margins. These included the hiring of machinery (such as tractors, planters and harvesters) which at times were quoted as a high prices, especially for smaller farm lands. Furthermore, the cost of hiring trucks to transport the harvested product to the local silos were also high. Emerging farmers urged the Land Bank and intermediaries to consider the depth of the words *transformation* and *development.* Their argument was to say that transformation and development should not be limited to themselves as emerging farmers, however to be advanced to emerging black business owners who could also form a vital part of the value chain as contractors providing the services of hiring the essential farming machinery and implements, along with trucks to transport the harvested product to the silos.

5.2 Emerging Farmers' Loan Performance

Although the REM loan portfolio included a split for direct lending and the wholesale financing facility, the approach for this analysis combined the two. The analysis was based on secondary data provided by the Land Bank. The findings revealed that the REM loan book had grown steadily since its inception in 2011. There were extensive shifts worth noting throughout the six year period of the REM portfolio. The variety of the agricultural industries grew wider, allowing the Land Bank to contribute towards agricultural industries which were identified under the national development plant, as having high employment creation potential. There was also a notable increase in the gender split of the customers financed by the Land Bank. This indicated that although farming is a male dominated industry, there was some interest shown from woman in wanting to join the agricultural sector as primary producers.

In the last six years, there have been macroeconomic events and climatic events which have had a negative (and positive) impact on the agricultural industry. The prominent events includes, the increase of the farmer's minimum wage; the worst drought since the 1900's, labour unrests and fluctuating interest rates. All these events had an effect on the Land Bank's customer's ability to repay their loans. Therefore the missed instalments and bad rates were an indication of the farmer's ability to repay their loan obligations, faced with the macro-economic and climatic events.

The emerging farming sector is perceived to be a high risk, which is the reasons why they experience difficulty obtaining loan funding from commercial banks. However the approach

adopted by the Land Bank revealed success. Studying the percentage of non-performing loans in the entire portfolio for the period from Mach 2012 to August 2016, this revealed an average of less than 2% of non-performing loans. The loans which at some point in the six year loan period missed an instalment, cured back to a performing status or remained in the arrear one bucket until they could catch up with their instalment repayments.

The problem statement at the beginning of the study was highlighted was why funding is difficult to obtain; how funding can be obtained and to investigate if black emerging farmers have been successful and if not, why? The aim was also to demystify the perception that emerging farmers are too high of a risk to finance, due to the challenges they face, spanning from minimal financial knowledge and a lack of technical and marketing skills. The results emanating from qualitative and quantitative approach, indicated that the appropriate synergies can provide a social and development impact, not only to the emerging farmers but also to their communities. Furthermore, the collaboration allows for risk sharing between the involved industry players and they all contribute the required efforts to ensure the farmers are in a position to repay their debt obligations.

5.3 Recommendations

This study included interviews with two co-operatives, however only managed to visit emerging farmers from one co-operative. Future research can expand the data sample of participants in the questionnaires to beneficiaries working with different co-operatives and especially different agricultural crops or livestock, to understand their unique challenges. Furthermore, the relationship between emerging farmers and the co-operatives from which they receive support can be explored further, focusing on the flexibility provided to the farmer to purchase their production inputs elsewhere (allowing for cost comparisons), even though the direct co-operative is a supplier of production inputs. Future research can also focus on the level of involvement by the Land Bank, in the decisions taken by the intermediaries which directly affect the emerging farmers and their profit margins. An example is granting opportunities for development in the providers of logistical services to emerging farmers.

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APPENDICES

APPENDIX A

QUESTIONNAIRE

Intermediary: **CO-OP B** ☐

Interview Candidate No. ☐

1. Male ☐ Female ☐
2. Age

a. 20 – 29 ☐ 30 – 39 ☐ 40 – 49 ☐ 50 – 59 ☐ 60 – 69 ☐ 70+ ☐

3. Do you have children attending school between Grades 1 – 12?

a. Yes ☐ No ☐

b. How many children? ☐ Primary School ☐ High School ☐

4. In which year did you join the respective project?

a. _____ (☐ years)

5. Did you earn an income before joining the project?

a. Yes ☐ No ☐

6. If yes, what was your source of income?

a. Permanent/ Temporary Job ☐ Business ☐ Government Grant ☐ Farming ☐ Other ☐

b. What level of income did you earn?

c. Monthly ☐ Quarterly ☐ Bi-annually ☐ Annually ☐

d. R0 – R50, 000 ☐ R50, 000 – R100, 000 ☐ R100, 000 – R150, 000 ☐ R150, 000+ ☐

Other ☐

Specify_____

7. If no, how did you manage without an income?

Specify:_____
_____
_____

8. What is your level of income since joining the project?
9.

a. Monthly ☐ Quarterly ☐ Bi-annually ☐ Annually ☐

b. 0R0 – R50, 000 ☐ R50, 000 – R100, 000 ☐ R100, 000 – R150,000 ☐ R150, 000+ ☐

Other ☐

Specify_____

10. If your income has increased, has the profit enabled you to assist your family financially?

a. Yes ☐ No ☐

b. Specify_____
_____
_____
_____

11. Have you created employment for members of your community?

a. Yes ☐ No ☐

b. How many employees do you have? ☐

12. What commodity are you farming?

Field crops ☐ Livestock ☐ Horticulture ☐ Aquaculture ☐ Forestry ☐
Other ☐

a. Specify
_____
_____
_____

13. Did you have farming skills before joining the project?

a. Yes ☐ No ☐

14. What technical skills have you gained from your involvement in the project?

a. Financial ☐ Farm Management ☐ Disease control ☐ Weed control ☐

Climate requirements ☐ Animal handling ☐ Record-keeping ☐ Marketing ☐ other ☐

Specify_____

_____

15. On how many hectares are you farming?

0 – 50 ha ☐ 50 – 100 ha ☐ 100 – 150 ha ☐ 150 – 200 ha ☐ 200 ha+ ☐

APPENDIX B

LEKWALO POTSO

Intermediary: **CO-OP B** ☐

Interview Candidate No. ☐

1. Male ☐ Female ☐
2. Age
   a. 20 – 29 ☐ 30 – 39 ☐ 40 – 49 ☐ 50 – 59 ☐ 60 – 69 ☐ 70+ ☐
3. A o na le bana ba ba tsenang sekolo go simmola ka Grade 1 -12?
   a. Yes ☐ No ☐
   b. O na le bana ba ba kae?)? ☐ Primary School ☐ High School ☐
4. O simolotse projecti e leng?
   a. _____ (☐ years/ dingwaga)
5. A o ne ona le mogolo pele projecti e simolla?)
   a. Yes ☐ No ☐
6. If **YES**, o ne o fumana mogolo go tswa kae?
   a. Permanent/ Temporary Job ☐ Business ☐ Government Grant ☐ Farming ☐ Other ☐
5. O ne o fumana mogolo o ka nang kae?
   a. Monthly ☐ Quarterly ☐ Bi-annually ☐ Annually ☐
   b. R0 – R50, 000 ☐ R50, 000 – R100, 000 ☐ R100, 000 – R150, 000 ☐ R150, 000+ ☐

Other ☐

(If Other) Please Specify_____

6. If **NO**, Pele o etsa projecti o ne o tshela jang?

Specify:_____
_____
_____
_____

7. Bontsha ka go khetha ka motlase gore mogolo wa hao ke bokae mole wa simollang projecti?

   a. Monthly ☐ Quarterly ☐ Bi-annually ☐ Annually ☐

   b. R0 – R50, 000 ☐ R50, 000 – R100, 000 ☐ R100, 000 – R150, 000 ☐ R150, 000 ☐ Other ☐

(If other) Please Specify_____

8. Fa mogolo o eketsehile mola wa simollang projecti, a o khona go thusa batho bangwe kgotsa ba lesika?

   a. Yes ☐ No ☐

   b. Specify_____
   _____
   _____
   _____

9. Gona le diphahla tiro tse o di hlodileng ka projecti e na?

   a. Yes ☐ No ☐

   b. O na le babereki ba ba kae? ☐

10. Bontsha ka go khetha ka motlase hore o sebetsa ka eng?

    Field crops ☐ Livestock ☐ Horticulture ☐ Aquaculture ☐ Forestry ☐ Other ☐

    a. Specify
    _____
    _____
    _____
    _____

11. O ne o na le tsebo ka tsa temo pele ha projecti ?

a. Yes ☐ No ☐

12. A go na se o ithutileng sone ka tsa temo mole was simmolang projecti ena?

a. Financial ☐ Farm Management ☐ Disease control ☐ Weed control ☐ Climate requirements ☐ Animal handling ☐ Record-keeping ☐ Marketing ☐ other ☐

b. Specify_____
_____
_____

13. Tulo e le etsang projecti teng ke hektara tse kae?

0 – 50 ha ☐ 50 – 100 ha ☐ 100 – 150 ha ☐ 150 – 200 ha ☐ 200 ha+ ☐

APPENDIX C

Questionnaire Data from Emerging Farmers in Co-op B

REM QUESTIONNARE DATA: CO-OP B								
CANDIDATE NUMBER:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
GENDER								
Female								
Male		●	●	●	●	●	●	●
AGE								
20 - 29								
30 - 39				●				
40 - 49					●	●		
50 - 59		●	●					
60 - 69								
70+							●	●
CHILDREN								
Yes				●	●	●		
No		●	●				●	●
(Number)				3	12	1		
SCHOOL								
Primary				1		1		
High				1				
YEAR								
2009			●					
2010								
2011								
2012		●						
2013				●			●	
2014					●	●		●
2015								
2016								
INCOME								
Yes		●	●		●	●	●	●
No				●				
INCOME SOURCE								
Perm / Temp Job						●		
Business		●					●	
Government Grant								●
Farming			●		●			
Other								
INCOME LEVEL	BEFORE PROJECT							
Monthly		●				●		
Qurately								
Bi-Annually								
Annually			●		●		●	●
SALARY								
R0 - R50 000						●		
R50 000 - R100 000		●	●					
R100 000 - R150 000					●			
R150 000+								●
Other								

Questionnaire Data from Emerging Farmers in Co-op B (Continued…)

REM QUESTIONNARE DATA: CO-OP B								
CANDIDATE NUMBER:		**1**	**2**	**3**	**4**	**5**	**6**	**7**
INCOME LEVEL	AFTER PROJECT							
Monthly				●				
Qurately								
Bi-Annually								
Annually		●	●		●	●	●	●
SALARY								
R0 - R50 000				●	●			
R50 000 - R100 000								
R100 000 - R150 000			●					
R150 000+						●	●	●
Other		●						
(Specify)		R700,000						
PROFIT								
Yes		●	●	●				
No					●	●	●	●
					Comment	Comment	Comment	Comment
EMPLOYMENT								
Yes		●	●	●	●	●	●	●
No								
(Number)		15	6	6	2	2	7	3
COMMODITY								
Field Crops		●	●	●	●	●	●	●
Livestock		●	●		●	●	●	●
Horticulture								
Aquaculture								
Forestry								
Other								
FARMING SKILLS								
Yes			●	●	●	●	●	●
No		●						
TECHNICAL SKILLS GAINED								
Financial			●		●	●	●	
Farm Management		●	●	●		●	●	●
Disease Control					●	●	●	
Weed Control				●	●	●	●	
Climate Requirements					●	●	●	
Animal Handling						●		
Record Keeping		●	●	●		●	●	
Marketing		●			●	●	●	
Other								
HECTARES								
0 - 50								
50 - 100								
100 - 150		●						
150 - 200				●				●
200+			●		●	●	●	
(Owned/ Leased Land)		Owned	Owned	Leased	Leased	Leased	Leased	Leased

Source: Dlamini (2016)

APPENDIX D

AGE OD DEALS - ARREAR BUCKET 1

Date	Age0	Age1	Age2	Age3	Age4	Age5	Age6	Age7	Age8	Age9	Age10	Age11	Age12	Age13	Age14	Age15	Age16	Age17	Age18	Age19	Age20	Age21	Age22	Age23	Age24	Age25	Age26	Age27	Age28	Age29	Age30	Age31	Age32	Age33	Age34	Age35	Age36	Age37	Age38	Age39	Age40	Age41	Age42	Age43	Age44	Age45	Age46	Age47	Age48	Age49	Age50	Age51	Age52	Age53
Mar-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Apr-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	11%	11%	11%	11%		
May-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Jun-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
Jul-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%					
Aug-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
Sep-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	1.9%					
Oct-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%						
Nov-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%							
Dec-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%							
Jan-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%							
Feb-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%							
Mar-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%							
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APPENDIX E

AGE OF DEALS - ARREAR BUCKET 2

Date	Age0	Age1	Age2	Age3	Age4	Age5	Age6	Age7	Age8	Age9	Age10	Age11	Age12	Age13	Age14	Age15	Age16	Age17	Age18	Age19	Age20	Age21	Age22	Age23	Age24	Age25	Age26	Age27	Age28	Age29	Age30	Age31	Age32	Age33	Age34	Age35	Age36	Age37	Age38	Age39	Age40	Age41	Age42	Age43	Age44	Age45	Age46	Age47	Age48	Age49	Age50	Age51	Age52	Age53
Mar-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	0%
Apr-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
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Apr-15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																								
May-15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																									
Jun-15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%																											
Jul-15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																												
Aug-15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																													
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Jul-16	0%	0%	0%																																					
Aug-16	0%	0%																																						

APPENDIX F

AGE OF DEALS - NPLs

Date	Age0	Age1	Age2	Age3	Age4	Age5	Age6	Age7	Age8	Age9	Age10	Age11	Age12	Age13	Age14	Age15	Age16	Age17	Age18	Age19	Age20	Age21	Age22	Age23	Age24	Age25	Age26	Age27	Age28	Age29	Age30	Age31	Age32	Age33	Age34	Age35	Age36	Age37	Age38	Age39	Age40	Age41	Age42	Age43	Age44	Age45	Age46	Age47	Age48	Age49	Age50	Age51	Age52	Age53
Mar-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.00%	0.00%
Apr-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	6%	6%	6%	5.56%	
May-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Jun-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
Jul-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Aug-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
Sep-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%				
Oct-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.5%				
Nov-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%					
Dec-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%					
Jan-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%					
Feb-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%					
Mar-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%					
Apr-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%									
May-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%											
Jun-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%												
Jul-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%													
Aug-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%															
Sep-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%															
Oct-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.1%															
Nov-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																	
Dec-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																	
Jan-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																	
Feb-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																	
Mar-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																		
Apr-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																				
May-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																					
Jun-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																					
Jul-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																					
Aug-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																					
Sep-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																					
Oct-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																					
Nov-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																					
Dec-14	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																							
Jan-15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																							
Feb-15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																							
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APPENDIX G

AGE OF DEALS - BAD RATE

Date	Age0	Age1	Age2	Age3	Age4	Age5	Age6	Age7	Age8	Age9	Age10	Age11	Age12	Age13	Age14	Age15	Age16	Age17	Age18	Age19	Age20	Age21	Age22	Age23	Age24	Age25	Age26	Age27	Age28	Age29	Age30	Age31	Age32	Age33	Age34	Age35	Age36	Age37	Age38	Age39	Age40	Age41	Age42	Age43	Age44	Age45	Age46	Age47	Age48	Age49	Age50	Age51	Age52	Age53
Mar-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	107%	7%	136570%	0%
Apr-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	100%	0%	113889%	
May-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%		
Jun-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%			
Jul-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Aug-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	0%			
Sep-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	1.6%			
Oct-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
Nov-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
Dec-12	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
Jan-13	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%				
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APPENDIX H

APPENDIX A

FORM A

REQUEST FOR ACCESS TO RECORD OF PUBLIC BODY

(Section 18 (1) of the Promotion of Access to Information Act, 2000

(Act No. 2 of 2000))

[Regulation 6]

FOR DEPARTMENTAL USE

Reference number: .....

Request received by.....

(state rank, name and surname of information officer/deputy information officer) on .....(date) at .....(place)

Request fee (in any):..... R .....

Deposit (if any): R .....

Access fee; R .....

.....

SIGNATURE OF INFORMATION OFFICER/
DEPUTY INFORMATION OFFICER

A. Particulars of public body

The Information Officer/Deputy Information Officer:

EXECUTIVE MANAGER : STRATEGY, MARKETING, COMMUNICATION & POLICY

LOYISO NDLOVU

.....

.....

.....

B. Particulars of person requesting access to the record

(a)	The particulars of the person who requests access to the record must be given below.
(b)	The address and/or fax number in the Republic to which the information is to be sent, must be given.
(c)	Proof of the capacity in which the request is made, if applicable, must be attached.

Full names and surnames: MANDISA DLAMINI

Identity number: 86 02 01 09 16 083

Postal address: UNIT B12/10, PHOENIX REGENT ESTATE 2,
PLATBERG STREET, NOORDWYK, MIDRAND

..... Fax number.....

Telephone number: 076923 6711 E-mail address: madlamini2@gmail.com

Capacity in which request is made, when made on behalf of another person:

.....

C. Particulars of person on whose behalf request is made

This section must be completed ONLY if a request for information is made on behalf of another person.

Full names and surname: .....

.....

Identity number: .....

D. Particulars of record

(a)	*Provide full particulars of the record to which access is requested, including **the reference number if that is known to you, to enable the record to be located.***
(b)	*If the provided space is inadequate, please continue on a separate folio and attach it to this form.* ***The requester must sign all the additional folios.***

I WOULD LIKE TO REQUEST A COPY OF LAND BANKS CDB LOAN BOOK FOR THE MONTH OF MAY 2016.. I WOULD LIKE TO USE THIS DATA FOR MY MASTERS RESEARCH PAPER.

2. Reference number, if available: .....

3. Any further particulars of record: I WOULD LIKE THE DATA TO INCLUDE THE FOLLOWING FIELDS : GENDER, RACE, PROVINCE, TYPE OF LOAN, LOAN AMOUNT, LOAN BALANCE

E. Fees

(a)	*A request for access to a record, other than a record containing personal information about yourself, will be processed only after a* ***request fee*** *has been paid.*
(b)	*You will be notified of the amount required to be paid as the request fee.*
(c)	*The* ***fee payable for access*** *to a record depends on the form in which access is required and the reasonable time required to search for and prepare a record.*
(d)	*If you qualify for exemption of the payment f any fee, please state the reason for exemption.*

Reasons for exemption form payment of fees: I AM A MEMBER OF STAFF AT THE LANDBANK AND REQUEST EXEMPTION OF ANY PAYMENT FEE..

F. Form of access to record

If you are prevented by a disability to read, view or listen to the record in the form of access provided for in 1 to 4 below, state your disability and indicate in which form the record is required.

Disability:.....	Form in which record is required:..... ....

Mark the appropriate box with an ***X***

NOTES:

(a) Compliance with your request for access in the specified form may depend on the form in which the record is available.

(b) Access in the form requested may be refused in certain circumstances. In such a case you will be informed if access will be granted in another form.

(c) The fee payable for access to the record, if any, will be determined partly by the form in which access is requested.

1. If the record is in written or printed form:

	Copy of record*		Inspection of record

2. If records consists of visual images –

(this includes photographs, slides, video recordings, computer-generated images, sketches, etc):

	View the images		Copy of the images*		Transcription of the images*

3. If record consists of recorded words or information which can be reproduced in sound:

	Listen to the soundtrack (audio cassette)		Transcription of soundtrack* (written or printed document)

4. If record is held on computer or in an electronic or machine-readable form::

	Printed copy of		Printed copy of information derived	X	Copy in computer readable form* (stiffy or

	record*		from the record*		compact disc)

*	If you requested a copy or transcription of a record (above), do you wish the copy or transcription to be posted to you? **Postage is payable**	YES	NO X

Note that if the record is not available in the language you prefer, access may be granted in the language in which the record is available.

In which language would you prefer the record? ENGLISH

G. Notice of decision regarding request for access

You will be notified in writing whether your request has been approved/denied. If you wish to be informed in another manner, please specify the manner and provide the necessary particulars to enable compliance with you request.

How would you prefer to be informed on the decision regarding your request for access to the record? I WOULD LIKE TO BE INFORMED VIA EMAIL ON THE DECISION : mdlamini@landbank.co.za

Signed at CENTURION this 05 day of JULY 20 16

.....

SIGNATURE OF REQUESTER/ PERSON ON WHOSE BEHALF REQUEST IS MADE

Land Bank Access to Information

Section D: Particulars of Record

I would like to request a view of the Retail Emerging Markets (REM) loan book from its date of inception (month and year) to date:

- Please include the breakdown of the data in a monthly form (if possible)
- Kindly advise whether the REM wholesale facility has a breakdown of the ethnic group, gender, province, industry, amount granted and loan balance
- Please give an explanation of the loan status, pre legal, contract, legal NPL loan balance
- Please confirm or alternatively also provide a definition/ explanation that:
    - 0 = current
    - 1 = 1 month arrears
    - 3 = 90 days plus in arrears
- Is it possible to include the year in which the loan was granted in the data request?
- Where the BP category reflects an "organization", is it not possible to see the ethnic split in that organization or is the assumption that, where the organization is commercial then it's a white group and where its development then it's a black group
- Where there are blanks throughout the spreadsheet, please advise what could be the possible cause of this. Was the information omitted while the application was captured or is it not available for the REM Wholesale facility?

NB: Please note that I had received a copy of the loan book in August, however with the development of my research, I now require a larger data set for its completion. Your consideration for my request will be appreciated.

signature removed

Signature of requester

APPENDIX H

Consent Letter

Dear Participant

TITLE OF THE STUDY: ***The Case of Land Bank's REM Lending Model for Emerging Farmers: Was it a Success?***

PURPOSE OF THE STUDY: The purpose of the study is to investigate Land Bank's retail emerging markets (REM) funding model. The main purpose of the investigation to test if it has been a success in supporting emerging farmers, through working with intermediaries (mainly co-operatives) who's main role is to provide technical support and market access to the emerging farmers. One objective of this questionnaire, is to measure whether there has been a social and development impact experience by the emerging farmers as the beneficiaries of the funding model.

CONFIDENTIALITY: Your responses to the survey will be anonymous, therefore please do not write any identifying information on the questionnaire. Every effort will be made by the researcher to preserve your confidentiality, such as assigning a candidate number (instead of a name).

- This research has been approved by the Commerce Faculty Ethics in Research Committee.
- Your participation is voluntary. You can choose to withdraw at any time.
- The questionnaire will take approximately 10 minutes to complete
- Should you have any questions regarding the research, please feel free to contact the researcher (contact details provided)

Researcher: Mandisa Dlamini (076 923 6711)

Researcher Signature: signature removed **Date:** 30 / 11 / 2016