AN ANALYSIS OF THE PROFITABILITY OF STRUCTURED COMMODITY FINANCE: THE CASE OF STANBIC BANK ZIMBABWE AGRIBUSINESS DEPARTMENT

By

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DEDICATION

This dissertation is dedicated to my workmate Theresa Buluzi and my family members for their love support and time sacrificed during the research period.
DECLARATION

I, Vitalis Kereke, declare that I am the sole author of this dissertation, that during the period of registered study I have not been registered for another academic award or qualification, nor has any of the material been submitted wholly or partly for any other award. This dissertation is a result of my own research work, and where other people’s research was used, they have been duly acknowledged.

Date........................................ Signature........................................

CANDIDATE

Date........................................ Name: Mr. S. Gumbe

SUPERVISOR

Signature........................................

SUPERVISOR
I would like to take this opportunity to express gratitude to my supervisor Mr. S. Gumbe for his continued support and guidance during my research. I also want to thank the University of Zimbabwe library staff for providing me with useful information in the form of books, journals and important publications. Moreover, I wish to thank the following for their support, help and advice:

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- All staff and management of Stanbic Bank Zimbabwe who were respondents in this survey, I thank you for your participation and cooperation.
ABSTRACT

The study sought to establish how Structured Agro-commodity Finance contributes to sustainable profitability of Stanbic Bank Zimbabwe’s agribusiness department and the whole financial institution. The study was localised at agribusiness department level to allow in-depth coverage of the research dimensions and also taking advantage of the bank’s financial reporting framework that requires the bank to report at department level as well as consolidating financial reports to streamline non performing operations and products. Major problems at Stanbic Bank Zimbabwe are scarcity of loanable funds and the need to sustain profitability through efficient resource allocation. This research addressed the same problems through statistical research methods. The main purpose of this study was to assist management with such streamlining decisions at agribusiness department level by clarifying how profitable and important is Structured Commodity Finance to the department. Management is able to make informed allocation decisions on scarce loanable funds to all agribusiness products for optimum profits. The study has indicated that Structured Commodity Finance is a very important product to the overall profitability of the bank and it is a product that should be fully supported by the agribusiness leadership.
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ACCRONYMS AND ABBREVIATIONS

BOT        Balance of Trade
IMF        International Monetary Fund
ROE        Return on Finance
SBSA       Standard Bank South Africa
SBZ        Standard Bank Zimbabwe
SCF        Structured Commodity Finance
CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter offers a general introduction to the study that has been conducted by the author leading to the production of this full dissertation report. The chapter also gives relevant information about the industry and particularly Stanbic Bank Zimbabwe as the institution under study. Some of the headings covered in chapter one include problem statement, research objectives and questions, significance of the study, limitations of the study and ethical research issues. The main objective of the study is to investigate how profitable is Structured Commodity Finance in the agribusiness department at Stanbic Bank Zimbabwe.

1.2 Background to Industry Environment

The Zimbabwean Banking Industry is constantly exposed to acute risks and uncertainties threatening stability of individual banks and eventually the whole industry through systemic impulses, (IMF, 2013). Since year 2003, the Zimbabwean Banking industry has been characterized by serious challenges in the form of unforeseen policy shifts and micro-economic uncertainties on one hand and stiffening competition on the other hand as more and more related institutions penetrated the industry. All these challenges affected every individual bank’s profitability threatening its existence, eventually forcing most institutions to engage in illegal and parallel business activities outside their core functions among other strategies to remain afloat. As a result, some
banks lost their licenses through industry cleanup efforts by the Reserve Bank of Zimbabwe while some were technically competed out of business.

The introduction of multi-currency system in February 2009 came with a new wave to the industry’s competitive landscape as banks tried to strike a balance between cost of offering services and profitability. Most Banks were used to recording super-normal profits as a result of engaging in illegal and non core functions, but the risk of losing banking licenses became acute. The only available safe option is to operate within Banking regulations at a time when deposit books are extremely hard to grow due to lack of confidence in the country’s financial sector and increasing sensitivity to cost of accessing banking services. Stanbic Bank Zimbabwe is never spared in this whole storm and all strategies now need to focus around improving profitability of all banking operations.

Among several strategies to achieve sustainable profitability in the Zimbabwean Banking industry, product-line evaluation and streamlining remain critical as a modular approach to allocate more resources towards profitable products and discard noncore products that seem to pull down the bank’s overall profits. Structured Commodity finance is still very new to the Zimbabwean banking industry and it is a first move advantage to establish into such a product before any other bank dominates. Currently, a few banks are participating in structured agro-commodity finance and are yet to establish dedicated desks to take such transactions more seriously AMA, (20012). These are Stanbic Bank, Standard Chartered, Afro-Asia Kingdom Bank, Banc ABC and NMB Bank and the rest have not yet invested into the product. Before investing heavily into Structured Agro-commodity products, management needs to know expected returns of such investment.
1.3 **Background to Stanbic Bank Zimbabwe**

Stanbic Bank Zimbabwe is a legally registered commercial bank wholly owned by a regional banking group known as Standard Bank of South Africa. According to its website, [www.standardbank.com](http://www.standardbank.com) the bank is dedicated to make a difference to financial services in the region and other world markets by proving banking technologies and products that enhance customer service delivery. According to Stanbic bank Zimbabwe product guide, (2011) the banking group provides unique products and services in treasury, Investment, wholesale and retail banking categories. The bank is operating 18 branches throughout the country and its head-office is located in Harare.

1.3.1 **The Bank’s Vision**

All its activities in the market are heavily guided over a long foreseeable future by its vision. According to Stanbic Bank Zimbabwe annual report (2011), the bank’s vision statement states that it aspires to be a leading emerging markets financial organization.

1.3.2 **Mission Statement**

Pearce & Robison (2006) emphasise that mission statement ensures unanimity of purpose and is the organization’s tie post. He went on to mention that a mission statement provides a basis for organizational resource allocation and helps specify organizational purposes and their translation into goals and objectives. Stanbic bank Zimbabwe is also guided by a strong mission statement which states that the bank is committed to making a real difference to financial services in Zimbabwe by providing banking technologies and products to enhance customer service delivery.
1.3.3 Core Values

Stanbic Bank Zimbabwe employees and management are also guided with coordinated values with a complementary effort with its vision and mission. According to Stanbic Bank product guide of 2011, these are, being proactive, servicing our customers, growing our people, working on teams, upholding the highest level of integrity respecting each other, delivering to our stakeholders and guarding against arrogance. Closely linked to the core values are strategic deliverables to stakeholders and shareholders, namely:

- Develop and Grow people
- Balance return and risk with corporate governance
- Maximise synergies among strategic Business Units
- Appropriate Deployment of scarce capital

1.3.4 Organisational Structure

Stanbic Bank Zimbabwe departments are divided into two main categories by functions, namely Group Enabling Functions (GEFs) and Business Units. Group Enabling Functions are departments that are not core to the banking business and are not directly connected to business activities and the market. Their purpose is to assist core departments to execute their business activities on a daily basis. Core Business Units are departments of the bank that are directly linked to the main functions of the bank that generates and contribute to total revenue for the bank. They are also called product houses because they are responsible for management and offering special products to the market for a profit and these profits are expected to outweigh costs associated with Group Enabling Functions for the whole bank to attain a net profit position. All departments report in to the office of the Managing Director. Figure 1 bellow shows Stanbic Bank Zimbabwe’s organizational design by functions.
1.3.5 Agribusiness Department

The bank operates a fully fledged agribusiness department that specializes in satisfying market needs of clients directly or indirectly associated with agro-commodities. The department offers services to an assortment of clients ranging from individual primary producers to large corporate agro-commodity dealers. According to the bank’s agriculture finance strategy of 2013, going forward, the bank is moving from small scale primary production towards corporate secondary agriculture clients in its “Fewer Larger”
strategy. The unit is manned by seven people including four managers and one unit head.

The department also offers a wide range of products from plain vanilla tools such as overdrafts, fixed term loans and guarantees to asset financing and more modern and dynamic Structured Finance. The bank’s strategy paper for 2013 states that the bank will now increase its focus towards secondary agriculture which relates to key traders, importers and exporters. Figure 2 bellow shows how the bank’s agriculture finance intends to focus for 2013 business year.

Fig 1.2 Agribusiness Focus by Product

1.3.5.1 Structured Agro-Commodity Finance Products

Stanbic Bank Zimbabwe is very active in Trade Finance and Commodity Finance backed by its strong balance sheet, sufficient capital and liquidity, and a risk appetite and unmatched ability to manage risk in Africa. The bank is has a strong Structured Commodity Finance team at group level that is made up of individuals drawn from many countries and local support members at country level. The team has strong knowledge of Zimbabwean ago and related industry knowledge and other international markets. Stanbic Bank offers the following products related to agribusiness:

i. Documentary Credits and collections
ii. Contract prepayment
iii. Receivables Financing and invoice discounting
iv. Import and Export financing
v. Inventory finance
vi. Stock Insurance

1.4 Background to the Study

It is every business’ overall goal to attain profits and grow shareholder’s wallet while strengthening its balance sheet and improving capacity to generate more profits. Therefore, profitability is central to any banking institution’s continued existence. In today’s dynamic and highly competitive banking environment, strategy remains any bank’s first line of defence against competition as it focuses on a bank’s key success factors. The advent of the multi-currency regime in Zimbabwe has reduced the gap between banks in terms of profitability and size and quality of balance sheets, which literally mean competitiveness and attractiveness in the eyes of the market has significantly diminished. However, Stanbic Bank Zimbabwe has also been showing an upward trajectory in profits since dollarization while new products were also developed and introduced into customer space. Appreciation and utilisation of structured Agro-Commodity finance is still at its infancy stage, both in the bank and industry wide,
regardless of its vast potential in Zimbabwe. Zimbabwe is faced with a constantly large Balance of Trade (BOT) position which translates to large volumes of Agro-Commodity import business than local and export transactions and the bulk of the imports are in form of food products. This research seeks to establish and clarify how much additional profits can be attributed to structured Agro-Commodity finance at Stanbic Bank Zimbabwe’s agribusiness operations with the country’s Balance of Payments structure in mind as a foundation to research based strategic planning.

1.4.1 Zimbabwean External Sector Performance and Balance of Payments

Structured Finance profitability is closely linked to any country’s external sector performance because greater margins are realised by sourcing cheap around the world where there are more options and sell high locally or in other regions with acute scarcity. The place of the bank is bridging finance and facilitation of these transactions and exports and imports present such opportunities (Hoggarth et al, 1998). Zimbabwe is experiencing a reducing current account deficit which is significantly remaining large while the overall Balance of Payments position continuously deteriorating due to the worsening capital account. This is an implication that the country is a net exporter and the position will be maintained in 2014 as projected by Zimstat (2012). Table 1.1 overleaf shows the country’s Balance of payments position from 2011 into 2014.
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### 1.5 Problem Statement

The banking operating environment in Zimbabwe has remained turbulent and dynamic since the introduction of a multi-currency system to the economy. There is also increasing regulatory pressure exerted on all the banks by the Reserve Bank of Zimbabwe to reduce charges and interest rates. Loanable funds are also acutely scarce against sky-high market expectations with regulators pushing for high loan to deposit ratios. The government also expects all banks to offer a larger proportion of its loans and advances to the agriculture sector in support of the country’s land reform programme. These entire factors work against profitability of banking operations. The main challenge to be tackled by management and partly by this research at Stanbic Bank Zimbabwe agribusiness operations is about the appropriate allocation of these loanable funds towards profitable banking products in order to build an attractive portfolio of assets and strike a balance between meeting regulatory expectations and institutional profit motive.

### 1.6 Research Objectives
The major objective of this research it to investigate how profitable are Agro-Commodity Finance Products at Stanbic Bank Zimbabwe’s agribusiness department. Successful completion of this research will address the following specific objectives:

i. Establish whether there was any considerable and meaningful use of Structured Agro-Commodity Finance products at Stanbic Bank Zimbabwe agribusiness operations for the past four years.

ii. Establish a trend in profitability at the institution’s agribusiness department for the past four years.

iii. Establish profit contribution of agribusiness department to the profit and loss account at Stanbic Bank Zimbabwe.

iv. Establish the place of Structured Agro-Commodity Finance in the profitability ranking of agribusiness products.

v. Establish if Structured Commodity Finance contributes to the agribusiness department’s profitability.

1.7 Research Questions

This research seeks to provide clear and satisfactory answers to the following specific questions:

i. What Structured Agro-Commodity Finance products are offered at Stanbic Bank Zimbabwe for the past four years?

ii. What is the general profitability trend at Stanbic Bank Zimbabwe’s Agribusiness operations for the past four years?

iii. What is the profit contribution of the Agribusiness department to Stanbic Bank Zimbabwe’s profit and loss position?

iv. What are other products offered in the financial institution’s Agri-business Department?
v. What are other drivers of profitability in the Agribusiness Department and how can management best mix them with Structured Agro-Commodity Finance to grow shareholder value at the banking institution?

vi. How Structured Agro-Commodity Finance products can be effectively utilized (increase or decrease funding) at Stanbic Bank Zimbabwe Agribusiness Department to cause sustainable growth in profits.

1.8 Hypothesis

Profitability at Stanbic Bank Zimbabwe agribusiness department is positively related to value of Structured Commodity Finance deals executed.

1.9 Limitations of the Study

A multi currency regime was fully adopted in 2009 where traders use a basket of currencies and local currency was also fully suspended. This could create difficulties when analysing time series data and economic performance during the research period because income at different times in various currencies may widely vary in value expressed in the United States Dollar at another time using the ruling rate. At department level financial information is reported in actual currencies traded. To eliminate this challenge, all financial information to be used for analysis will be converted to a common currency, the United States Dollar using an average rate. During the same period, inflation has been stabilising towards a steady rate, therefore inflation adjusted statements were no longer a priority in the case of scarce United States Dollar and ratios calculated from financial information are to therefore be treated with caution. Industry performance information was also not being consistently and accurately produced as the Central Statistics Office has not been consistently producing statistical reports that could be crucial to this research.
Challenges are also expected in getting potential respondents to objectively complete questionnaires, also on time. These challenges will be minimised by the availability of published statements for it is an industrial requirement for all banks to do so in an objective manner regardless of their listing status. The researcher is also working in the same industry and also an employee in the organisation under study which puts him at a better position to collect all ranges of information.

1.10 Significance of study

Stanbic Bank Zimbabwe is private commercial bank whose existence is to a greater extent for the same motive of creating profits to full capacity. This research is important in assisting management in making informed decisions on loanable resources allocation with special attention to agriculture finance. Establishing the effect of Structured Commodity Finance to profitability of the bank’s agribusiness operations allows management to decide on how much of its financial resources should be channelled towards Structured Ago-Commodity Finance in order to attain maximum profits and returns. Stanbic Bank Zimbabwe has a primary vision of becoming the leading agriculture and investment bank in Zimbabwe and this has not been achieved. Its ranking is actually falling and the operating environment cannot be blamed alone as other institutions are rising up the ranks www.stanbic.co.zw. The research will clarify how important is the use of Structured Agro-Commodity Finance products to the bank’s competitiveness and profitability driving it towards improved market share and visibility as the country is now highly relying on agro-commodity imports. With this insight, management can make informed decision on the allocation of loanable resources towards Structured Trade deals with close knowledge of the quantum of returns expected from such trade investments.

1.11 Scope of the Study
The focus of the study has been limited as a way of allowing a more comprehensive research that produce accurate results and findings since time and financial resources are often constraints threatening coverage of a wide field. It is also understood in the academic sphere that no single research can be exhaustive, for which, any effort to do so can limit the quality of findings. This research will only concentrate on Structured Agro-commodity Finance issues at Stanbic Bank Zimbabwe and partially touch on industrial aspects when they are deemed directly connected to the situation at the financial institution.

The research will also concentrate on Trade Finance in context of agro-commodities literally excluding other commodities such as minerals, ornamentals and project supplies finance. Concentration on the effects of Agro-commodity structures on Stanbic Bank Zimbabwe’s profitability at agribusiness department level allows the researcher to produce more detailed results considering that Structured Finance is a wide field to cover in a single research. Micro studies at department level also allow in-depth analysis of the problem and generation of complete findings given limited time against several products offered by the bank which might make the whole equation to understand and objectively solve.

1.12 Ethical Issues of the Research

Ethics in research are the moral principles and values that affect the way the researchers implement their research activities (Korpela, 2011). Coverage and depth of this research report will be compromised by the existence of highly valued information privacy and secrecy policy in the Standard Bank Group. This policy will limit extend at which some company official secretes which might be critical and worth reporting in this paper to instil logic into conclusions to an external reader, since the researcher is bound by the same policy as an employee at the financial institution. However, to strike a balance between principle of objective reporting and this ethical concern, permission
has been sought to report objectively on some facts of the organization and comment on the same, only with academic intentions in mind.

1.13 Dissertation Outline

This dissertation is constructed of five chapters which are arranged as follows,

Chapter One: Introduction
This builds the background of the study, problem statement, and significance of study, research objectives, research questions, research proposition, and justification of research, scope of research and limitations of the study.

Chapter Two: Literature Review
The chapter discuss related literature to the study topic. Discussions focus on theories, concepts and literature on Structured Trade Finance and literature related to banking models and theories in relation to how banks create profits.

Chapter Three: Research Methodology
The chapter outlines the research methods that the researcher used to collect, classify, and present data in the study. These includes research design, study population, sampling techniques, data collection tools and methods, data analysis, validity and reliability of the research. Ethical issues and section conclusions come last in the chapter.

Chapter Four: Results and Discussions
The chapter looks at the research findings that feed into conclusions. These discussions are closely linked to literature discussed in the previous chapter (chapter two). Research findings are also presented and critically analysed to allow for deductive conclusions.
Chapter 5 Conclusion and Recommendations

This is made up of conclusions and recommendations made to the benefit of Stanbic Bank Zimbabwe management and the academic world.
2.1 Introduction

Limited literature has evolved over time in the field of Structured Agro-Commodity Finance as it is still a fairly new field that is also constantly changing as demands and expectations of traders respond to transforming international business landscape. Most literature is in form of journals and published academic papers. Probably more literature is expected to come out in the future, even in completely different dimensions as the world economy is becoming increasingly trade dependent as a result of country and region specialized production. Constant research and reporting over the past few years has allowed better understanding of the Structured Agro-Commodity Finance field as a special and fast developing niche of the modern day finance world. Different writers have put their ideas in writing, making them readily available for use by practicing managers and for further criticism and development by the corporate and academic world. This chapter is a collection of literature that directly builds into aims and objectives of this research as a logical way to enhance understanding of the problem statement and solutions surrounding it. The first part of this chapter majors on literature that highlights principles and techniques surrounding Structured Commodity Finance to aid understanding of the subject before turning to writings aligned to trade opportunities available for exploitation by the use of structured trade tools in the agribusiness space at Stanbic Bank Zimbabwe. The Literature also sets out to review the experience of Stanbic Bank in its use structured agro-commodity finance to understand its strengths and address its weaknesses as well as evaluate its profitability in order to facilitate wider use of Structured Finance in agriculture.

2.2 Structured Finance in Agriculture
Literature sources on Structured Finance in agriculture are limited. Michael et al. (2009); World Bank (2005); and the UNCTAD, through its various publications, provide comprehensive literature on the application and use of Structured Finance techniques and Structured Finance instruments in agriculture. These are the primary sources of literature that are used in this study.

2.2.1 Definition of Structured Finance in agriculture

Michael et al., (2009) gives a descriptive definition of Structured Finance, namely: “...a specialised and flexible financial assistance that is given towards agriculture and agribusiness to fund production operations and supporting activities accepting security not normally taken by banks but completely relying on the performance of the structure or transaction itself such as creditworthiness of the commodity off-taker”. The definition highlights two fundamental characteristics of Structured Finance.

The first fundamental characteristic of Structured Finance is associated with the first part of the definition, namely: “....the advance of funds to enterprises....using security which banks normally reject as credit cover....” This implies that, in Structured Finance the assets or commodity underlying the loan transaction is or can be used as loan collateral or part of the loan collateral. This is one of the advantages of Structured Finance, especially in developing and emerging economies where commodity producers’ access to credit, from formal financial institutions, is constrained by lack of traditional loan collateral (i.e., fixed assets such as land and buildings).

The second fundamental characteristic of Structured Finance is associated with the second part of the definition, namely: “....advance of funds to enterprises....relying on the performance of the structure or transaction such as creditworthiness of the commodity off-taker.” This implies that in Structured Finance, the financial institution’s
decision to lend is based on the cash-flows of the underlying transaction being financed and not on the prospective borrower’s balance sheet determining financial status. Therefore, Structured Finance lending techniques provide avenues of financing enterprises and commodity producers beyond the balance sheet.

2.2.2 The key Characteristics of Structured Finance

According to Langenbucher (2005) cited by Michael et al., quality of a Structured Finance deal is mainly measured and determined by the commodity or transaction to be funded and qualities of the borrower such as his level of associated risks, liquidity of the transaction and how profitable it is. Langenbucher (2005) went on to point that “Structured Finance does not consider fixed assets or real estate in the name of the borrower as comfort to the transaction. The kind of an arrangement is suitable where the borrower does not have enough collateral to cover the property or is not willing to offer his asset as cover to the deal. Cash-flows of the underlying commodity such as stocks in hand and owing are the only balance sheet elements that are crucial when evaluating these transactions and are equally acceptable to cover the borrowing.

Whereas traditional bank lending is based on a direct relationship between the bank and the borrower a Structured Commodity Finance deal involves many parties with different and well defined responsibilities. According to Michael et al., (2009) in most cases besides the borrower and the lender, there can be more players such as collateral managers, leasing companies, warehousing firms, transporters and export-import agents. In these structures risks are spread and shared to individuals best prepared to shoulder them. Lakshman (2001) also stressed that Structured Finance is closely embedded in the underlying commodity transactions and can be liquidated or repaid at any stage of the value chain except at the banking stage because that is the source of finance.
One of the major characteristics of Structured Finance greatly appreciated by these various authors is its self liquidation mechanism which are well built-in. These are automatic repayments targeted at any point of the value chain. Commodity flows and assignment of receivables based structures are familiar with these at-source repayment systems.

### 2.2.3 Structured Finance Techniques and instruments in agriculture

Michael et al (2009) pointed that Structured Finance techniques in agriculture can be classified into two (2) major groups, namely: Collateralized Lending Mechanisms and Agricultural Value Chain Financing Mechanisms. Figure 1 below depicts the classification of Structured Finance lending techniques in Agriculture. As shown in Figure 1, each class has different types of instruments.

In collateralized lending mechanisms, already existing (inventory) assets (or commodities) or future receivables are used as loan security (loan collateral). Instruments in this class include warehouse receipts system, repurchase agreements, forfeiting, factoring, securitization, export receivable financing and project financing, *inter alia* (Michael et al 2009).

Agricultural Value Chain financing mechanisms are by far the most widely used Structured Finance techniques; they involve the use of the Agricultural Value Chain (AVC) as a conduit for financing (Michael et a ., 2009). There are several instruments that are used in this class; however, the instruments are general classified into two subclasses, namely: (a) direct value chain finance instruments (internal AVC financing); and (b) indirect value chain financing instruments (external AVC financing). The two classes of Structured Finance techniques and their respective instruments are discussed below.
Fig 2.1 Classification of Structured Finance in Agriculture

2.2.4 Collateralized Lending Mechanisms

International trade in agricultural goods continues to expand, while at the same time traditional and innovative collateral securitization mechanisms develop to finance these trade flows. Developing countries, however, have not benefited as much from the increase in trade flows and alternative financing mechanisms as developed countries. (Michael et al, 2009). Warehouse receipt financing and other related collateralized lending mechanisms can provide an alternative to traditional lending requirements of banks and other financiers and are particularly relevant for emerging economies.
The basic rationale behind any collateralized commodity transaction is a structural risk change for the lender: instead of lending money based on the strength of a firm’s balance sheet when issuing a corporate loan and hence taking credit risk, the lender now takes performance risk. But through warehouse receipts, even performance risk is minimized because the lender has the ability to sell off the asset in case of non-performance. In traditional secured lending, the underlying collateral is the second source of repayment that needs to be mobilized when something goes wrong; in collateralized commodity lending, it is the first source of repayment. Rather than relying on the borrower’s willingness to repay the loan and his existence as a going concern, the lender relies on the borrower’s ability to conduct the underlying commodity transaction and has the possibility to sell off a very liquid asset, namely the commodities, as soon as the loan is in default.

The concept of collateralized lending is not new and on the face may not be viewed as an innovation (FAO, 1998). However, what is innovative is the use of warehouse receipts as a catalyst to extend financing in markets where other attempts have failed, as well as the creative use of the basic principle collateralized lending in order to design new financing instruments. This section briefly discusses the instruments under the collateralized lending mechanisms – thus: warehouse receipt financing and the other alternative collateralized lending techniques which are also common to Zimbabwe’s secondary Agriculture.

2.3 Warehouse Receipts Financing

In warehouse receipt financing, in the agricultural, the underlying collateral is soft commodities such as grain, cotton, coffee or cocoa. Figure 2.2 below, displays the basic mechanism of the financing cycle.

Fig 0.2 A generic Warehouse Receipts Financing Model
A generic warehouse receipt financing cycle starts, after harvest, with the agricultural firm (farmer) depositing the commodities (or grain) into a licensed warehouse. The licensed warehouse issues a receipt proving that the commodities have been received and are physically stored in the warehouse. Ideally, the warehouse receipt consists of two parts: a Certificate of Pledge (CP) and a Certificate of Title (CT). The CP and CT form the basis of the financing [Step 1 in Figure 2.2].

When issuing the CP to a lender, the farmer, trader, or agricultural company is able to take out a loan: he borrows against the collateral, hence the commodities and hereby covers his working capital needs. Lenders usually advance funds as a specified percentage of the value of the underlying commodities. This percentage needs to account for the costs that lenders have to incur when selling the commodities in case of
a loan default, as well as the potential value decrease caused by price volatility in the respective commodity market [Step 2 in Figure 2].

Subsequently the farmer sells his commodities either to a trader or a primary processor; to validate this sale he transfers the CT [Step 3 in Figure 2]. The buyer eventually pays back the loan plus interest directly to the lender and receives in exchange the CP that had been deposited with the lender when the loan was issued [Step 4 in Figure 2]. Once the buyer has both, the CP and the CT, he can release the commodities from the licensed warehouse [Step 5 in Figure 2].

The advantages and versatility of warehouse receipts make them particularly relevant for emerging economies. In all countries, but particularly in challenging markets, it is easier to handle security given in the form of a possessory pledge, dealing with incontestable identity of collateral, as opposed to disputing ownership or competing over claims. In case of a loan default, the collateral is covered and can be auctioned off and sold at relatively low costs to a liquid market. The holder of the warehouse receipt has a claim against the issuer, hence the warehousing company and the borrower in case of nonexistence or unauthorized release of the collateral. In some countries the existence of competing creditors and unpaid sellers is often difficult to verify, having a document of title to goods in store can cut off claims of such competing creditors.

Because of the easy recourse and the ability to sell a liquid collateral asset in case of default, warehouse receipts-based lending lowers the risk and reduces typical transaction costs of commodity transactions, such as high loan servicing costs due to limited volumes, high information costs, and high supervision costs. Borrowers do not need a balance sheet or long credit history because the lender is not relying on the company as a going concern, but on the value of the commodity. Thereby, lending costs for financiers are reduced, which, as a result, brings down interest rates for borrowers in sectors that are seen as high risk in any economy - commodity production, processing and trade - but which are of great importance for an emerging or transition country.
A warehouse receipt-backed transaction allows a financier to shift his risk away from the borrower to a liquid asset and in some cases, to even enhance it further through the creditworthiness of a strong off-taker.

From a lender’s perspective, warehouse receipts allow the type of asset pledged – agricultural commodities – to match the type of financing offered – working capital financing. In those cases where banks take fixed assets as collateral for the production of agricultural commodities, there is a mismatch between the loan and the underlying asset. Fixed assets are more appropriate collateral for long-term financing, where lending maturities would match asset type. In the absence of warehouse receipts, the farmer will pledge fixed assets, such as land, house, and equipment, or whatever he has to offer to obtain production finance (World Bank, 2005). This leaves the farmers without any assets to pledge and unable to access long-term financing when they want to make a capital expenditure investment as their fixed assets are already being pledged for working capital purposes. Hence, the farmers are confined to their current production volumes and cannot grow.

The study done by the (World Bank, 2005) highlights the prerequisites and challenges of warehouse receipts as well as other collateralized lending techniques in agriculture. Warehouse receipts are the basis for collateralized commodity transactions. More complicated structures can be observed in developed markets, such as Special Purpose Vehicles (SPV) that issue commodity backed securities, which are then credit enhanced by a financial institution to achieve investment grade rating. The following overview of some other forms of collateral-financing schemes indicates that there are many ways to deepen collateralized agricultural finance structures alongside the development of more sophisticated financial markets.
2.3.1 Securitization

According to Andreas, (2005) securitization is a financing technique where individual streams of expected future cash flow from an agricultural commodity are grouped and traded on capital markets to pension fund and other managed funds the general public governments and brokers. Andreas also admitted that securitization is widely applicable and is also extensively used in the financing of fixed properties, movables, receivables, commercial properties and other such classes of assets. Michael et al., (2009) mentioned that securitization provides cheaper funding to transactions because a pool of highly rated assets lowers risk assumed by the financier.

2.3.2 Repurchase Agreements (Repos)

Repurchase agreements (“repos”) are simple forms of commodity finance: the bank, rather than taking a pledge over the goods being stored or shipped, actually buys the goods and simultaneously signs a contract for resale at a certain point in time and at a price that reflects the cost of funds from the original time of sale to the resale. Repo finance for agricultural commodities has spread to over a dozen countries in recent years and is particularly popular in jurisdictions that do not allow for adequate laws and regulations regarding the registration of pledges, as well as enforcement and foreclosure mechanisms (World Bank, 2005b).

2.3.2.1 Export receivables financing

In export receivables financing, a loan is made to the exporter on the back of assigned export contracts either already executed or to be executed with the funds of the loan. Such assignment would normally be acknowledged by the buyer with payments made directly to the lender. Where an export receivables facility is granted post shipment, it is
regarded as re-financing to keep the exporter in funds, enabling him to continue operations without having to wait for the buyer’s payment (UNCTAD, 2001).

2.3.2.2 Factoring

Factoring is the assignment by a supplier of receivables arising from contracts of sale of goods made between the supplier and its customers (debtors) to a factor, in which the factor is to perform at least two of the following functions: (i) finance for the supplier, including loans and advance payments; (ii) maintenance of accounts (ledgerring) relating to the receivables; (iii) collection of receivables, and (iv) protection against default in payment by debtors (UNCTAD, 2001).

2.3.2.3 Project Financing

Project Financing is a form of financing in which lenders look solely or primarily to the cash flows of a project to repay debt service and to all of the underlying project assets (including all physical and contractual assets) as collateral for the loan. Project finance is a technique that is used to repackage financing risks in such a way that they become acceptable to the financiers and therefore, the actual structure of the financing is closely adapted to the conditions of the project and the country in which it is to be executed. For example, taking the underlying assets as collateral may be difficult under local law; then, the project finance has to be structured in such a way that sufficient comfort can be attained even without such collateral (UNCTAD, 2001).

2.3.2.4 Agricultural Value Chain Finance

“An Agricultural Value Chain sometimes known as a Supply Chain is defined as the sequence activities that add value to the final product or service. It starts from
production to consumption via processing and commercialisation. Any agricultural value chain can be thought of as a “from farm to the consumer” kind of a process that involves supply of inputs, production, and marketing ending with the consumer. Each segment of a chain has one or more backward and forward linkages”, (Miller & da Silva, 2007). When credit or other financial services flows through the actors along the chains, it (credit) appropriately called Value Chain Finance.

According to Michael et al., (2009) “integration or disintegration of value chains differ with countries and industry setups. Vertically integrated value chains of are suitable for Structured Finance lending techniques. Coordination of activities and players enable spreading risks and allocates such risks to those able to handle them best, therefore minimising the total risk of the value chain. The bank needs to have thorough knowledge of the industry for it to fund appropriately (Michael et al., 2009).

On the other hand, a complete value chain links the primary producer, the financier and the off-taker and the task of bank managers as business people is to identify a point where funding can be applied facing minimum risk. Therefore it is prudent for a bank to finance down the value chain by identifying a point or player with a better financial background and track record than the farmer in an effort to minimise default or performance risk, (Michael et al., 2009). The fact that value chain financing is strongly dependent on the liquidation of the underlying commodity rather than conventional security as the fist fallback position, there is need for airtight commitments and agreements which can be legally binding.

2.3.2.5 Direct Value Chain Financing Instruments

To address the shortage of financial services from banks and other financial institutions, agribusiness often construct quite extensive systems of direct value chain finance: a buyer advancing credit to commodity producers, producer organizations providing
inputs on credit to members, an agro-processor advancing credit to its clients and input suppliers providing inputs on credit to commodity producers, *inter alia* (Joshua et al, 2008). These financial flows between value chain actors often take the form of ‘in-kind’ transfers, thus, the lender advances inputs such as seed or fertilizers for payment at a later date. Frequently the lender takes payments in the form of produce. In most cases cash does not change hands. Direct Value Chain Finance instruments includes: Trader Finance, Input Supplier Finance, Marketing or Processing Company Finance and Contract Farming and Out-grower schemes financing. These instruments are briefly discussed below as follows.

### 2.3.2.5.1 Trader finance

According to the UNCTAD (2006) with Trader Finance, the trader is able to advance funds with the guarantee of a crop to be harvested, or in some cases a crop or product to be grown or produced. The price is normally fixed at the time of financing but in the many countries without functioning commodity exchanges, this price-setting is often set by the trader on speculation without knowing what the market price or the quality will be at the time of delivery. In order to reduce trader risk, the prices offered tend to be low and therefore a disadvantage to the farmer.

### 2.3.2.5.2 Input supplier finance

The goal of input supplier finance is to facilitate and increase sales, not finance. Finance may be given directly by advancing products on consignment or commission. For proven clients this can work well but for others can be problematic. Supply finance can also be done indirectly through a triangular relationship in which the supplier facilitates finance through a financial organization so the buyers can pay the input suppliers. This
has the advantage of letting financial entities handle the financing, using their expertise and systems in place to do so (UNCTAD 2006).

2.3.2.5.3 Marketing or processing company finance

Marketing company finance works in a similar way but whereas traders tend to be smaller and normally operate as intermediaries between producers and processors and marketing companies, the marketing financing is normally driven by the interest of the company to secure products to meet their marketing goals and commitments (Klapper, 2005). They may or may not directly manage the funding since they may choose to involve a bank or other financial institution to directly manage disbursements and collections are managed through receipt of the product. There is often an established relationship between the company and the producers or producer groups.

Marketing companies may have more options to secure advance prices for their commodities and therefore have a more secure basis for setting prices of the products they procure through advancing funds to traders and producers. Marketing finance is often the primary source of funding for commodities even though the relative roles of each varies by region and by commodity.

2.3.2.5.4 Contract Farming and Out-grower Schemes

Contract farming financing has some of the characteristics of marketing company finance but has strict contractual relationships that specify the type of production, quality, quantity and timing of the production to be delivered (e-MFP, 2011). Finance and technical assistance provision, if needed, is written in to the binding contract. Contract farming can be defined as an agreement between farmers and processing and/or marketing firms for products under forward agreements and frequently at pre-
determined prices. The contractual commitments provide bankers with a signal of security and seriousness as well as a potential for ensuring repayment through discounting from sales income.

Contracts can be formal or informal, even verbal when there is a sufficient level of trust and mutual interest. Less formal and less rigid forms of commitment between producers and buyers are called out-grower schemes which can function similarly to that described above. Out-grower or contract farming schemes generally involves the development of mutually beneficial relationships between parties who need and depend on each other such as with export crops and dairy. This is the most popular source of small scale finance in Zimbabwe.

2.4 Profits Measures and Determinants of Commercial Banks

Profitability

There have been a number of research papers on determinants of profitability of commercial banks. Some of the research papers focused on single country and others too concentrated on panel of countries. But the underlining fact of these papers is that the profit measurements which also serve as the dependent variable in the profitability model are in the form of ratios. Devinaga Rasiah (2010) documented that most researchers who focused their studies in this area are for instance, Demirgüç-Kunt and Huizinga (1999), Cavallo and Majnoni (2001), Bennaceur (2003), Bikker and Metzemakers (2004), Davis and Zhu (2005) Toni U homoibhi (2008) divide the determinants of commercial banks performance and profitability into two categories thus, the Internal and the External factors.

2.4.2 Profit Measures of Commercial Banks

In most research papers relating to this study the profitability is measured in the form of ratios which are normally reported by commercial banks in their annual reports.
Devinaga Rasiah (2010) claims that the use profitability ratios are not influenced by changes in price levels. And it is said to be the most appropriate way of measuring profitability as one makes use of time series analysis. This is because the real value of profits cannot be affected by the varying inflation rates. According to Devinaga Rasiah (2010) for one to realise how well a bank is performing it is much more useful to consider return on assets (ROA) and return on equity (ROE); Bourke (1989) and Molyneux and Thornton (1992).

Return on assets (ROA) is the ratio of Net Income after Taxes divided by Total Assets. The ROA signifies managerial efficiency in other words it depicts how effective and efficient the management of banks has been as they seek to transform assets into earnings. And the higher ratio indicates the higher performance of the banks. It is a useful tool for comparing profitability of one bank with other or the whole commercial banking system. Moreover, the ROE is said to measure the rate of return on the bank’s shareholders equity and it is calculated by dividing banks net income after taxes by total equity capital which includes common and preferred stock, surplus, undivided profits, and capital reserves; Bourke (1989), and Molyneux and Thornton (1992). This measure of profitability gives an indication of what the banks earns on the shareholders’ investment; Devinaga Rasiah (2010). According to Anthony Karkrah and Ameyaw (2010) many researchers have presented ROA as an appropriate measure of bank profitability. Among them are Rivard and Thomas (1997) who argued that bank profitability is best measured by ROA in the sense that, ROA cannot be distorted by high equity multiplier. However, Hassan and Bashir (2003) also claims that as ROA tend to be lower for financial intermediaries, most banks heavily utilized financial leverage to increase their ROE to competitive levels.
2.4.3 Internal Determinants of Commercial Banks Profitability

According to Husni (2011) the internal determinants of banks profitability are normally consisting of factors that are within the control of commercial banks. They are the factors which affect the revenue and the cost of the banks. Some studies classified them into two categories namely the financial statement variables and non-financial variables. The financial statement variables include factors that are directly related to the bank’s balance sheet and income statement. Whiles, the non-financial statement variables include factors like the number of branches of a particular bank, location and size of the bank etc; Haron, Sudin (2004).

2.4.4 Income

Rasiah (2010) presented that banks generate income mostly on their assets and the assets could be termed as income and non-income generating. With regards to commercial banks income Rasiah (2010) classified it into two, namely interest and non-interest income. The interest income consist of rates charge on loans, overdraft and trade finance which the banks offers to customers. Whereas, the non-interest income is consisting of fees, commissions, brokerage charges and returns on investments in subsidiaries and securities. According to Vong et al (2009), the major source of banks revenue is interest income. It contributes about 80% of commercial banks earnings. The other source of banks revenue includes dividends and gains from dealing in the securities market. There could be also some minor sources of income for instance earnings from trust activities and service charges on deposit accounts (Vong et al 2009).
2.4.5 Loan Quality

As it has been mentioned above, one of the major roles of banks is to offer loans to borrowers and loans serve as one of the ultimate source of earnings for commercial banks. In other words loans represent one of the highest yielding assets on banks’ balance sheet. It is obvious that the more banks offer loans the more it does generate revenue and more profit; Abreu and Mendes (2000). But then banks have to be courteous in offering more loans because as they offer more loans to customers they expose themselves to liquidity and default risks which impacts negatively on banks’ profits and survival (Rasiah, 2010). Example is the recent financial crisis which started in the United States of America in 2007 and 2008. It is well known that most banks engaged in the offering of more loans including non-prime loans during this period. And when the housing prices fell most banks suffered large number of defaults on non-prime loans which in turn resulted in loss of profits and the collapsed of some banks (Gaurav & Kelly 2011). Even as the Ghanaian banks are said to be experiencing profits during these years of global financial crisis, (IMF Country Report 2011) has indicated that the commercial banks’ in Ghana exposure to stability risk has heightened as a result of continues increase in non-performing loans.

Moreover, empirical evidence from Suffian et al (2008) on the profit determinants of banks in Philippi reveals that the proportion of loan loss provisions to total loans was statistically significant. As the amount of loan loss provisions indicates the level of credit risk, the results claims that Philippines banks with higher credit risk tend to exhibit lower profitability levels. Also study conducted by Vong et al (2009) indicated that the asset quality, as measured by the loan-loss provisions, negatively impacts on the performance of banks in Macao.

With regards to the loan to total assets (LOTA), Vong et al (2009) findings revealed that instead of positively affecting profitability, it rather decrease profitability and according to these authors, this result was in confirmation with the initial finding of Vong (2005).
According to them the reason is that it is due to stiff competition in the credit market and interbank placement of idle funds in foreign countries. Their finding was also in line with the citation they made on the observations of Bashir and Hassan (2003) and Staikouras and Wood (2003) which reveals that a higher loan ratio actually impacts negatively on profits because banks that depend more on non-loan earning assets are more profitable than those that rely heavily on loans. On the other the investigation of Husni (2011) reveals that interest margin on loans provided by the banks in Jordan is a significant driver of profitability and poses a positive relationship with profitability. This is in line with a citation made by Vong et al (2009) on findings of Abreu and Mends (2000) which exhibits a positive relationship between the loan ratio and profitability.

To measure the quality of loans on the banks’ balance sheet Rasiah (2010) suggested the use of non-performing loans as an indicator of the loans quality. And. Vong et al (2009) used the amount of loan-loss provision to total loans (PRTO) as proxy to non-performing loans. In addition, in order to incorporate loans and advances (interest income) as a variable in the profit determinants model, Anna P. I. Vong et al (2009) used loans as a percentage of total assets (LOTA) as variable in the model. LOTA is measured by total loans divided by total asset.

2.4.6 Deposits

Banks are said to be heavily dependent on the funds mainly provided by the public as deposits to finance the loans being offered to the customers. There is a general notion that deposits are the cheapest sources of funds for banks and so to this extent deposits have positive impact on banks profitability if the demand for bank loans is very high. That is, the more deposits commercial bank is able accumulate the greater is its capacity to offer more loans and make profits; Devinaga Rasiah (2010). However, one should be aware that if banks loans are not high in demand, having more deposits could decrease earnings and may result in low profit for the banks. This is because deposits
like Fixed, Time or Term deposits attract high interest from the banks to the depositors (Devinaga Rasiah 2010). Investigation done by Husni (2011) on the determinants commercial banks performance in Jordan disclosed that there is significant positive relationship between ROA and Total liability to total Assets. To capture deposits in the model Anna P. I. Vong et al (2009) presented the effect of deposits (DETA) on profitability as deposits to total assets ratio.

2.4.7 Capital Ratio

Devinaga Rasiah (2010) and P. I. Vong et al (2009) included capital ratio (EQTA or CTRA) as a variable in their study of determinants of banks profitability and performance because capital also serve as a source of funds along with deposits and borrowings. They argue that capital structure which includes shareholders’ funds, reserves and retained profit affect the profitability of commercial banks because of its effect on leverage and risk. They documented that, commercial banks assets could be also financed by either capital or debt. But debt financing could be very risky as compared to capital financing with regards to credits and liquidity risks with which commercial banks are expose to. This is because for instance, if a commercial bank experience lost of profit as result of credit default or liquidity problem the bank still has the obligation to services its debt, on the other hand a commercial bank with enough capital is able take higher risk and also absorb shocks which emanate from liquidity and credits risks.

Sufian F. et al (2008) argued that banks in developing countries needs a strong capital structure, because it provides them strength to withstand financial crises and offers depositors a better safety net in times of bankruptcy and distress macroeconomic conditions. And according to Molyneux (1992) banks with high level of equity can reduce their cost of capital and that could impact positively on profitability. In addition, Both Basel II and III accord admits that most frequent bank insolvencies are mostly coursed by credit losses and for this reason it is prudent for commercial banks to have
higher quality of capital in order to be able to absorb more loss hence to better withstand stress periods; (Basel Committee’s response to the Financial Crises 2010). Berger (1995) also asserted that lower level of capital put the banks into risky position and impact negatively the bank’s profitability.

The argument presented above makes the decision of the bank of Ghana to continue increase regulatory capital requirement in the banking industry very appropriate because having the strong capital structure would enable them to reduce cost of capital and withstand financial crises hence continues experience in profitability. The Ghanaian banks’ Capital to risk weighted assets is said to have experienced an increased from 9.1 % in 2003 to 19.1% in 2010 whereas, the Tier I capital to risk-weighted assets has also increased from 16.2% in 2005 to 18.6% in 2010 (IMF Country Report 2011). This proves that the total minimum capital of the commercial banks in Ghana is even much higher than the Basel II accord total minimum capital which stands at 8% (Basel Committee’s response to the Financial Crises 2010). This might be one of the reasons behind continues experience in profitability by the Ghanaian banks during these years of global financial crisis.

Empirical evidence presented by Karkrah and Ameyaw (2010) on profitability determinants of commercial banks in Ghana revealed that the equity ratio which is the measure of the capital strength of the banks posted a positive relation with the banks ROA. They documented that their finding is in line with the findings of Suffian et al (2008) which reveals positive relation between Philippines banks level of capitalization and profitability. The result was also consistent with the finding of Berger (1995), Demirguc-Kunt and Huizinga (1999), Pasiouras and Kosmidou (2007). Capital ratio was presented in Devinaga Rasiah (2010) study as (CTRA) Capital and reserve as a percentage of total assets.
2.4.8 Liquidity Ratio

According to Devinaga Rasiah (2010) commercial banks are required by regulators to hold a certain level of liquidity assets. And the reason behind this regulation is to make sure that the commercial banks always possess enough liquidity in order to be able to deal with bank runs. He further argue that a bank assume the status of highly liquid only if it has been able to accumulate enough cash and have in possession other liquid assets as well as having the ability to raise funds quickly from other sources to be able to meet its payment obligation and other financial commitments on time. He claims that for instance, in a situation where a commercial bank is faced with the problem of bank run, the bank may encounter liquidity problem. In such a situation the bank might be compelled to raise additional liquid funds by borrowings or selling off some of their liquid assets and it is well known that short-term borrowings are usually costive. In addition, the situation where by the bank rush to sell off the liquid assets creates an impression in the minds of investors that the bank is trying to dispose of bad assets and for this reason these liquid assets normally attracts lower prices from investors and as a result there could be loss of income from the sale of liquid assets. These two issues tend to have an adverse effect on commercial banks profitability. This is relative to what happened in the United States in 2007-2008 at the early stage of the crisis most banks experience bank runs and the inter-bank market freeze lending to counter parties due to the loss of confidence in the banking systems as result of huge default of sub-prime loans and there was strong decline of prices of securities associated with the sub-prime loans. This made it difficult for the banks to refinance these sub-prime loans and borrowing became very expensive for banks. This situation triggered the global financial crisis. For this reason the Basel III accord introduced the liquidity coverage ratio (LCR) with which banks are required to have enough high quality liquid assets to be able deal with stress funding situations (Basel Committee’s response to the Financial Crises 2010). This means that commercial banks in Ghana are in better position to withstand stress funding situations hence making profits during these years of global financial crisis. This is because the findings of Bourke (1989) on concentration and other
determinants of bank profitability in Europe, North America and Australia indicated a positive relationship between banks level of liquidity and profitability. The IMF Country Report 2011 has indicated that Ghanaian banks are more liquid and liquidity with regards to the banks’ assets has increased tremendously after the financial crisis. The report estimated that Liquid asset to total assets in 2010 recorded 25.3% and Liquid asset to short-term liabilities in 2010 stood at 32.9%. So, Ghanaian banks having high level of liquidity might be one of the reasons for recording profit in these years of the crisis.

However, Devinaga Rasiah (2010) asserted that the lower returns on liquid assets and excessive fund which has not been invested may also negatively affect the profitability of banks. And because of this, liquidity management serves as an important determinant of commercial bank profitability. It may not be prudent for commercial banks to hold huge amount of an idle funds because it deprive the banks of income and profitability. This is because the more the banks turn funds into loans or invest them the more its accumulate income and profit. This has been confirmed by the study of Eichengreen & Gibson (2001) which documented that the fewer the amount of funds tied up in liquid investment and the liquid assets the higher the profitability.

In order to capture liquidity ratio in profitability model Devinaga Rasiah (2010) used loan to deposit ratio (LIQ) as a proxy for liquidity. He did this with the view that data on loans to deposits of commercial banks are normally disclosed in their annual reports and also because the loans to deposit ratio can be calculated.

2.4.9  Non-interest Income

Non-interest income represents other sources besides earnings from loans of the commercial banks. This type of sources of income may include fees earned from offering unit trust services, service charge on deposit account, standard fees and
charges for other bank services. Devinaga Rasiah (2010) stated that the traditional commercial bank business with regards to financial intermediation has gradually been change towards the provision of other financial services as result of on-going financial globalization and liberalization and because of that commercial banks are able to increase their income and profit. This seems to be supported by the empirical findings of Karkrah and Ameyaw (2010) which revealed that non-interest income is an important driver of commercial banks profitability in Ghana and there is a positive relationship existing between non-interest income and profitability in the Ghanaian banking sector. However P. I. Vong et al (2009) cited in their study that the findings of Gischer and Juttner (2001) prove that non-interest income generating services impact negatively on commercial banks’ profitability. According to them, Gischer and Juttner (2001) claim that the negative relationship exhibited by their observation is attributed to the fact that the non-income generating services are more prone to intense competition than the traditional income activities of the banks.

Meanwhile, the study of P. I. Vong et al (2009) captured the importance of fee-based services and other income resulting from diversification to commercial banks profitability by the non-interest income to gross income (NIGI).

2.4.10 Expenses

Expenses as a variable in the profit determinants model of commercial banks is found in almost all the studies done in this area of study; examples are P. I. Vong et al (2009), Rasiah (2010) etc. According to some of these researcher especially Rasiah (2010) the commercial banks expenses reflects on the expenditures that fall within the control of banks management and they could be classified into two categories thus interest and non-interest expenses. One of the major expenses incurred by the commercial banks as they generate revenue is interest paid out to depositors which is termed as interest expenses. On the other hand, non-interest expenses include overhead expenses,
operating expenses, salaries and wages paid to employees and miscellaneous expenses. Even though it is obvious that the more expenses incurred by the bank, the less profit the bank will make. But according to P. I. Vong et al (2009), the effect of expenses as a variable on banking performance and profitability is mixed. They stressed that investigations of Bourke (1989) and Jiang et al. (2003) revealed a negative relationship between expense and profitability which implies that banks with low operation cost makes high profits. This is in line with the observations of Karkrah and Ameyaw (2010) which revealed that non-interest expense represent a significant driver of profitability of commercial banks in Ghana and impacts negatively on profitability.

On the other P. I. Vong et al (2009), further document that the findings of Molyneux and Thornton (1992) show that, the expense variable impact positively on European banks profitability because the payment of high wages and salaries to employees reflects on the higher level of productivity of the employees which is in line with the efficiency theory. Moreover, Bennaceur (2003) and Guru et al. (2002) also observed positive relationship between profitability and expenses. Both researchers argued that this relationship exist because banks are able to pass on their overheads cost to depositors and borrowers in terms of lower deposit rates and larger lending rate P. I. Vong et al (2009). In order to include the expense variable in their model, Karkrah and Ameyaw (2010) and P. I. Vong et al (2009) presented the ratio of non-interest expenses to total assets (NETA) as proxy for total expenses.

### 2.4.11 Taxation

P. I. Vong et al (2009) defined the tax variable (TOPB) in their study as taxes over operating profit before tax. This study treated it as separate variable others like Devinaga Rasiah (2010) added it to the expense variable but whatever way one sees it, one still cannot ignore its impact on the profitability of banks. P. I. Vong et al (2009)
argues that if a positive relationship exists between the tax variable and the profitability, it indicates that the bank is able to pass the tax cost on to its customers by increasing the fees and the interest spread. Moreover, they further stressed that findings of Demirguc-Kunt and Huizinga (1999), Bashir (2000) and Jiang et al. (2003) indicated a positive relationship existing between the tax variable and profitability.

2.4.12 External Determinants of Commercial Banks Profitability

External factors are said to be the factors that are beyond the control of the management of commercial banks. The external determinants of commercial banks profitability are indirect factors, which are uncontrollable, but have an enormous impact on bank’s profitability. According to Karkrah and Ameyaw (2010) macroeconomic variables has been a major components of the external profit determinants in most studies. The most external factors that have been presented in most studies include competition/market share/firm size, inflation, GDP growth, and interest rate (Haron, 2004).

2.5 Chapter Conclusion

Modern banking techniques are moving away from the traditional balance sheet lending towards sophisticated structured finance that closely matches requirements of participants and minimize risk exposed to each part. This trend makes structured commodity finance a very important tool in the banking business, particularly in the agribusiness in both developing and developed banking systems as highlighted in the literature presented in this chapter. This literature will be used to analyse a special case of Stanbic Bank Zimbabwe Agribusiness Department.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on the overall approach that the researcher employed in solving the research problems and meeting objectives highlighted in chapter one of this report. The chapter also stands as a map to the whole research process such that findings are relevant to the research problems in question. It looks at the research paradigm, methods and design adopted in an effort to address the same research questions and objectives raised. It also seeks to explore the different methods and techniques that were used to collect data for this study as a progressive method to reaching informed conclusions and recommendations.

3.2 Structured Agro-Commodity Finance and Sustainable Profitability

This research seek to establish how relevant structured commodity finance is to the overall profitability of Stanbic Bank’s Agribusiness Department by analysing the relationship between level of use of Structured Commodity Finance and sustainability of profit levels over a synchronised period. This seeks to establish if Structured Commodity Finance has any effect to the department’s overall sustainable profitability. To achieve this, structured deals facilitated by the bank are identified and quantified in terms of turnover, interest and non interest incomes and margins and their associated costs in order to clarify how much they have been contributing to the department’s profit levels over time. Overall profitability is traced to see if it is correlated to volumes and values of structured deals handled by the bank over the same period.
3.3 Research Philosophy

According to Saunders, et al (2009) there are different views about the way in which knowledge is developed. The two major philosophical schools of thought that have dominated literature on the research process are positivism and phenomenology (Fisher, 2004). Gill and Johnson (2002) cited in Saunders et al. (2009), state that the principles of positivism emphasise a high degree of structured methodology with objectives that can be quantified to allow for statistical analysis. This research takes a quantitative or positive approach due to the nature of data collected and analysed. Structured deals by value and volume and profits and losses formed the main variables of this research and they are all highly quantifiable which improves chances of making more accurate conclusions.

3.4 Research Approach

In an effort to come up with a sound research design, the researcher has chosen a deductive approach that allows him to make supported conclusions basing on logic of facts rather than experimentation. According to Fisher (2004), deductive approach involves reaching a conclusion using logic and not on experience and experimentation. This has been chosen as a suitable approach due to the nature of variables under study which are difficult to control as they are affected by many environmental factors. For example, high profitability can be a result of high value lending in the department in one year and can be a result of a sharp decrease in the cost of funds and operating. Deductive approach allowed the researcher to take all the possible determinants of profitability into picture in order to make an exhaustive conclusion. This approach is deemed most suitable for such a multi dimensional and dynamic study like one underway.
3.5 Research Strategy

The research is strongly guided by a strategy that acts as a general plan that contain clear objectives and assist in answering research questions that have been set, (Saunders et al, 2009). This research employ an exploratory approach as a strategy utilized to finding out what is happening, seek new insights, ask questions and to assess phenomena in a new light as described by Robson, (1993). This is the most suitable strategy for new fields of study such as structured finance currently under study. In the research underway, the researcher sought to explore sustainable profitability trends at Stanbic Bank Zimbabwe and understand how they are related to structured agro-deals executed by the bank’s agri-business division. Further understanding of business activities and profit and loss constructs of the bank allowed the researcher and management to explore new opportunities in agro-deals, which is the final destination of this research.

3.6 Population

A population refers to a body of people or a full set of cases under consideration for research purposes from which a sample is taken (Saunders et al, 2009; Collis and Hussey, 2003). The target population for this research is the entire Stanbic bank Zimbabwe staff. This includes the board, managers and clerical and non clerical employees who have any form of knowledge regarding the bank’s business. The population for this study is indicated in Table 3.1 below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Board</th>
<th>Managers</th>
<th>Clerical and Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stratum Size</td>
<td>8</td>
<td>134</td>
<td>359</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>501</td>
</tr>
</tbody>
</table>
3.7 Sampling

This research, in line with arguments by Saunders, et al (2009) utilised samples because it is not practical to survey the whole population. A sample of 150 cases has been chosen by the author as it is manageable and it represents a cross-section of the population. In coming up with the sample, the researcher used stratified random sampling because of the nature and characteristics of the population. Three population strata have been identified with special respect to level of authority and involvement in the daily business of the bank that also influences the type of information that is likely to be collected from each stratum. Stratified random sampling is a technique that divides the whole population into mutually exclusive and heterogeneous strata on the basis of some predetermined criteria. (www.ryerson.ca). in this study stratified random sampling was utilized by selecting randomly from each staff class.

Random sampling was only applied at stratum level targeting a specific number of respondents for each to improve reliability of findings. Henry as cited by Saunders et al (2009) advises against use of probability sampling in populations of less than 50 cases. He argues that the influence of a single extreme case on subsequent statistical analysis is more pronounced than for larger samples and data should therefore be collected on the entire population. The target population for this research is large and diverse enough to warrant random sampling. Table 3.2 bellow shows sample sizes per stratum.

<table>
<thead>
<tr>
<th>Category</th>
<th>Board</th>
<th>Managers and Directors</th>
<th>Clerical and supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Units</td>
<td>2</td>
<td>52</td>
<td>96</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>150</td>
</tr>
</tbody>
</table>
Relatively more respondents (38%) were targeted for managers’ class because they are more close to day to day business decisions of the bank and are also likely to give relevant responses than clerks and non clerical staff (26%). Only two board members were be targeted because the stratum is naturally small and their availability for detailed interviewing is limited.

3.8 Data Collection Methods

3.8.1 Questionnaires

According to Collis and Hussey, (2003), ‘a questionnaire is a collection of decisively structured questions, chosen after considerable testing , with an aim of gathering reliable responses from a selected sample’, Questionnaires are an efficient way of collecting responses from a large sample (Saunders et al., 2000) because each person answers the same set of questions.

Prior to using the questionnaire to gather data it should be ‘pilot tested’ (Saunders, et al, 2009). The same was done with 10 members of management across all banking departments so as to enable the researcher to obtain feedback on the questions’ validity and the likely reliability of the data that was to be collected. The question format used in this research used the rating scales according to a carefully graduated scale (Fisher, 2004). With a rating scale of 0 – 5 at most, which was verbally defined, respondents were required to indicate the nature of their opinions by ticking a box of their choice.

3.8.2 Interviews

Interviews which can be used for both positivist and phenomenological methodologies are a data collection method in which selected participants are asked questions about what they do, feel and think about the subject matter (Collis and Hussey, 2003). Collis and Hussey (2003) pointed out that one of the strengths interviews is the process of open discovery. The use of interviews in this research was insignificant to mention as they were restricted because of the positive nature of the research. Interviews were only
used to follow up and clarify responses obtained through questionnaires and infer into specific areas not properly covered and clarified by the use of that same questionnaire.

3.9 Sources of Data

3.9.1 Secondary Data

Ghauri and Gronhaug, (2000) argue that secondary data helps answering some or all research problems and by using secondary data the author will manage to save time and money, broaden the base from which conclusions can be drawn, quicken the verification process, enhance the reliability of the information and conclusions as well as facilitate better handling of research questions. The researcher makes use of published financials and reports for the same reasons highlighted by Ghauri and Gronhaung. Stanbic Bank Zimbabwe generates quarterly financials for the whole bank which is then broken down into departmental figures which pave way for exclusive analysis of agribusiness profitability. Some of the objectives which are not directly answered through recorded facts are addressed with the use of a questionnaire.

3.9.2 Primary Data

Primary data used help answer research questions through surveys and interviews. Primary interview research methods will only be used to follow up on responses given to the questionnaire where they sound not very clear to the researcher. Therefore, no particular set of questions are preset for interviews.

3.9.3 Time Scale

The research covers information over four years from June 2009 to June 2013, a period which reflects on the bank’s financial performance in a steady currency and stable micro-economic environment characterised by relatively stable exchange and inflation rates. The period is also long enough to establish a pronounced trend in the use of
Structured Trade Finance and profitability and all the financial information available are in one currency.

3.10 Data Analysis

Fisher (2004) recommends that for more than 100 questionnaires a software for analysis is required. This research however has analysed 100 questionnaires, and utilised SPSS to consolidate and analyse the data. Interviews data collected is then categorised into common themes that feeds into data collected through the use of questionnaire as per research plan.
<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Objectives</th>
<th>Data Required</th>
<th>Method of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>What Structured Agro-Commodity Finance products were offered at Stanbic Bank Zimbabwe for the past four years?</td>
<td>To Establish whether there was any considerable and meaningful use of Structured Agro-Commodity Finance products at Stanbic Bank Zimbabwe agribusiness operations for the past four years.</td>
<td>Primary data and literature review on SBZ product offering</td>
<td>Descriptive statistics, literature review</td>
</tr>
<tr>
<td>What is the general profitability trend at Stanbic Bank Zimbabwe’s Agribusiness operations for the past four years?</td>
<td>Establish a trend in profitability at the institution’s agribusiness department for the past four years.</td>
<td>Secondary data on performance</td>
<td>Descriptive Statistics</td>
</tr>
<tr>
<td>What is the profit contribution of Structured Agro-commodity Finance products to the Agribusiness department’s profit and loss position?</td>
<td>Establish profit contribution of Structured Commodity Finance products to the profit and loss account at Stanbic Bank Zimbabwe’s Agribusiness department.</td>
<td>Secondary Data on Performance</td>
<td>Descriptive statistics</td>
</tr>
<tr>
<td>What are other products offered in the financial institution’s Agribusiness Department?</td>
<td>Establish the place of Structured Agro-Commodity Finance in the profitability ranking of agribusiness products.</td>
<td>Primary Data and Secondary Data</td>
<td>Descriptive statistics and literature review</td>
</tr>
<tr>
<td>What are other drivers of profitability in the Agribusiness Department and how can management best mix them with Structured Agro-Commodity Finance to grow shareholder value at the banking institution?</td>
<td></td>
<td>Primary Data</td>
<td>Descriptive statistics</td>
</tr>
<tr>
<td>How much additional profits can be attributed to the effective use of Structured Agro-Commodity Finance at Stanbic Bank Zimbabwe’s Agribusiness Department?</td>
<td></td>
<td>Secondary Data</td>
<td>ROE and Descriptive statistics</td>
</tr>
</tbody>
</table>
The table outlines the quantitative and qualitative data used for the study and the method of analysis for each objective and research question.

### 3.10.1 Descriptive statistics

Measures of dispersion and location were used. These include mean, standard deviation, maximum and minimum. The mean provides a good measure of central location. In addition percentages were used for the analysis. This is a measure that locates values in the data that are not necessarily central locations. Use was also made of standard deviations which is the square root of variance.

### 3.10.2 Literature Review

For objective 1 a comprehensive literature review on the existing product and service offering was done. Furthermore another literature review was done to investigate the issues surrounding the profitability of Structured Commodity Finance. Factors like pricing cost of structuring, riskiness and losses, regulatory requirements, capacity utilisation and competition were looked into.

### 3.11 Research Credibility

#### 3.11.1 Reliability

Reliability looks at whether evidence and conclusions drawn from a research can stand up to the closest scrutiny and be able to be replicated, (Collis and Hussey, 2003). They further argue that the positive approach, which the researcher has adopted for this research, has high reliability as compared to the phenomenological approach. To improve on the reliability of the findings in this research, times of questionnaire disbursement are carefully selected to allow maximum contribution from participants.
and minimize subject error. Observer bias which relates to interpretations or perceptions are minimized by utilizing a multi-method approach to get clarification on issues which seem ambiguous.

### 3.11.2 Validity

The positive approach which is adopted in this study allows for extraction of data which is rich in facts and accurately describes the situation on the ground. ‘Validity is the extent to which the research findings accurately represent what is really happening in the situation’, (Collis and Hussey 2003). Validity in this study will be achieved through the use of factual data in making deductions and conclusions. A multi-method approach in the form of interviews on questionnaires so as to check and verify whether the findings are really about what they appear to be about has been employed to increase validity of findings.

### 3.12 Conclusion

This chapter concentrated on the research method used for this study. A research design section outlining the choice of research designs available and the one chosen for this study was done. This was followed by an outline of the research population and sample procedures used. In addition research instruments used were presented and lastly the chapter closed on data collection procedures, data presentation and analytical procedures used for this study.
CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Introduction

The discussions in this chapter focus on the results from a questionnaire survey to Stanbic Bank Zimbabwe staff members and also secondary data obtained from Stanbic Bank Zimbabwe. One of the objectives of this chapter is to characterize the structure of Stanbic Bank Zimbabwe. The characterization shall look at the details of the staff and their knowledge of Agribusiness department. In addition to that the chapter looks at the profitability of Stanbic Bank Zimbabwe, agribusiness department. Lastly the chapter will look at future of agribusiness department looking at the factors affecting its performance.

<table>
<thead>
<tr>
<th>RESEARCH METHOD</th>
<th>TARGET</th>
<th>RETURNED</th>
<th>After Data Cleaning</th>
<th>PERCENTAGE (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaires</td>
<td>150</td>
<td>138</td>
<td>101</td>
<td>67</td>
</tr>
<tr>
<td>Interviews</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The research population as stated earlier was the 501 Stanbic Bank Zimbabwe staff, and for the purposes of this study a sample of 150 was randomly selected from this number. A questionnaire was distributed and their responses were used to analyze the Structured Commodity finance within the Agribusiness department. A total of 150 questionnaires were distributed and out of these only 101 were used for the data analysis, the other 49 were removed from the data set for any one of the following: not returned, removed during data cleaning. A relatively high response rate was achieved.
because respondents targeted were concentrated in one organization and were all given enough time to complete the forms. Table 4.1 shows the response rate.

4.2 Stanbic Bank Zimbabwe

4.2.1 Characteristics of the Population (SBZ Staff)

The study population has a fair gender distribution with 41 percent of the respondents being male and the remaining being female. Generally, female employees are more patient to participate in a research which therefore resulted in a good response rate.

Fig 4.1 Gender Distribution

![Gender Distribution Chart]

The average age of the respondents was the 31 to 40 age group which was also the modal age group. The youngest respondent was found in the 20-30 age group while the oldest was in the above 61 category. This is an indication that Stanbic Bank
Zimbabwe has a fairly young staff compliment that are fairly patient to participate in research and willing to learn new concept. This had a positive bearing on a better response rate achieved.

**Fig 4.2 Age of respondents**

Results from Data analysis shows that the Stanbic Bank Zimbabwe has a fairly high staff retention rate which is indicated by the average of 8.29 years of experience. The lowest was found to be less than 1 year while the highest number of years was found to be in the more than 15 years category. The modal years of experience category was found to be the 5-10 years category. The distribution is skewed to the right indicating that most of the respondents have more work experience such as low experience. This has a positive effect on the reliability of responses obtained since most of the people targeted for research were already in the institution for the time under study.
Staff position, as indicated in figure 4.4 below, is skewed to the left indicating that most of the staff is junior level. 41 percent of the respondents occupy the clerical positions with 37 percent occupying the position of the supervisor, 18 percent are managers while the rest are in the positions of Directorship and board positions. This typical of an organization with cost conscious leadership, hence sustainable profitability.
4.3 Knowledge of Agribusiness Department

In terms of the relationship of current position of respondents to Agribusiness department: the majority of the respondents indicated that their current job position does not have a direct link to Agriculture financing operations. This is substantiated by 24 percent who indicated no relationship between the two, 29 percent having a weak relationship and the rest having a weak to very strong relationship. These figures give us an indication that our research findings will be reliable given the relationship of the position of the respondent to Agriculture Financing Operations.
Supporting this is the evidence of a high level of acquaintance with Agriculture finance operations, as shown in fig 4.6 below. Percent indicated that they have a high level of understanding of Agriculture finance, while only 21 percent indicated a low level of understanding.
Further substantiating this is an analysis on the level of training received, with respect to Agriculture Finance. 84 percent gave evidence of having received training while the remaining 16 percent did not receive any form of training to do with agricultural finance. This indicates a strong relationship between training and knowledge of agricultural finance.
A further analysis on the knowledge of Structured Agro-commodity Finance indicated that most of the respondents have a moderate level of knowledge. It was found out that 7 percent have a high knowledge of Structured Commodity Finance. These levels of knowledge are acceptable for the research considering that Structured Commodity Finance is a specialist product that is fairly new to the Zimbabwean market.
A further analysis using cross tabulation technique shows that there is a strong relationship between experience and knowledge. This is shown in table 4.2 below.
Table 4.2 Years of Experience against Knowledge

<table>
<thead>
<tr>
<th>Years of experience</th>
<th>Agric Finance Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>less than 1 year</td>
<td>0</td>
</tr>
<tr>
<td>1-5 years</td>
<td>9</td>
</tr>
<tr>
<td>6-10 years</td>
<td>6</td>
</tr>
<tr>
<td>10-15 years</td>
<td>4</td>
</tr>
<tr>
<td>15 + years</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
</tr>
</tbody>
</table>

Results from the table above indicates that a less number of the highly experienced staff members have low knowledge of Agric finance. The more the staff members are experienced the more agric knowledge they possess.

Table 4.3 Cross tabulation of Agric Finance Training & Agric Finance Knowledge

<table>
<thead>
<tr>
<th>Agric Finance Training</th>
<th>Agric Finance Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Yes</td>
<td>21</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
</tr>
</tbody>
</table>
Table 4.4 Cross tabulation of Grade & Agric Finance Knowledge

<table>
<thead>
<tr>
<th>Grade</th>
<th>Agric Finance Knowledge</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clerk</td>
<td></td>
<td>10</td>
<td>15</td>
<td>16</td>
<td>41</td>
</tr>
<tr>
<td>Supervisor</td>
<td></td>
<td>6</td>
<td>12</td>
<td>19</td>
<td>37</td>
</tr>
<tr>
<td>Manager</td>
<td></td>
<td>4</td>
<td>5</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Director</td>
<td></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Board</td>
<td></td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>21</td>
<td>34</td>
<td>45</td>
<td>100</td>
</tr>
</tbody>
</table>

The evidence shown in the tables above show that training, experience and grade (position) have a positive influence on the level of knowledge possessed by each of the staff member.

4.4 Bank Performance

Following the introduction of the multicurrency system in Zimbabwe, performance measurement has been easy to perform owing to the use of the much stable of US Dollar. In addition to that year on year inflation has been stable within the 1 figure range. An analysis of the nominal profit figures for the period under review indicates a general upward trend in net after profit figures
In order to verify the performance of the bank, performance was measured using Return on Equity (ROE). Fig 4.9 below indicates a general fluctuation and stability around the 34 and 36% range. In 2012 however the ROE increased to 42% becoming the highest on the market (Stanbic Industry Review 2012). This was attributed to the significant growth in trading revenue and net interest income.
An analysis of the return on equity indicates that, the ROE has been on an upward trend since 2010. The lowest ROE of 34 percent was recorded in 2010 while the highest of 42.4 percent was recorded in 2012. The average return on equity for the period under review is 37 percent. A review of the industry statistics show that this performance is the best in Zimbabwe’s banking industry were other banks have been recording figures of as low as 10 percent- Kingdom and EcoBank (Stanbic 2012) . This indicates that there is increased return on shareholder funds.
4.5 SBZ Agribusiness Division

4.5.1 Products Offered

The Agribusiness department at Stanbic Bank Zimbabwe, as explained in chapter one, is one of the business units in the organisation. Its main function is in the provision of banking services specifically to the agricultural sector. To achieve this, the bank works in synergy with other organisations across the agricultural value chain to afford innovative funding models to enable small-holder farmers and commercial entities to maximize production at all levels, (www.stanbic.co.zw). The product offering is summarised in table 4.6 below.

**Table 4.5 Product Offering**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Tenure</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Term loan</td>
<td>For Capital expenditure the financing of</td>
<td>12 months</td>
<td>Collateral, interest on reducing balance basis</td>
</tr>
<tr>
<td>Overdraft</td>
<td>For working capital needs e.g. wages</td>
<td>Maximum 12 months subject to renewal</td>
<td>Fluctuating balance</td>
</tr>
<tr>
<td>Asset finance</td>
<td>To finance acquisition of serialised equipment and machinery</td>
<td>12 months</td>
<td>No need of collateral self collaterised</td>
</tr>
<tr>
<td>Guarantees</td>
<td>Undertaking by the bank to the supplier that in the event that payment is not paid on time the bank pays and the amount advanced is treated as a loan to the client</td>
<td></td>
<td>Security Required</td>
</tr>
<tr>
<td>invoice discounting</td>
<td>Advance payment for confirmed orders.</td>
<td></td>
<td>No need of collateral self collaterised</td>
</tr>
</tbody>
</table>

**Fig 4.10 Agribusiness profit, Funds Allocation to SCF and Total Assets**
Research findings indicate that there has been a growth in funds allocated for the purposes of Structured Commodity Financing. This has seen funds growing from USD230 000 in 2009, USD800 000 in 2010, USD2 500 000 in 2011 and USD3 400 000 by June in 2013. This has also been coupled by an increase in overall assets for the department, the asset base has increased from USD 2 011 000 in 2009 to USD8 670 000 in 2012. This growth has caused the growth in nominal profits for the department where the mean (average) profit was USD 655 200 for the period 2009 to 2013. However analysis shows that the data is negatively skewed meaning that the profits have been increasing at an increasing rate that is mostly explained by a more than proportionate increase in funds allocated towards Structured Commodity Finance alone. The other three commodities can are responsible for the profit balance. However,
assets and funds loaned out increased at a faster rate than increase in profits which is explained by subsequent fall in interest rates and charges due to regulatory pressure and effects of competition.

**Fig 4.11 Agribusiness versus Bank ROE**

![Graph showing Agribusiness ROE and SBZ Return On Equity over years 2009 to 2012.]

A study of profitability measures shows a downward trend for agribusiness department. Return on equity for the department shows that the highest ROE was recorded in 2009 when the United States Dollar was first introduced, 44 percent and this has declined to 31 percent in 2012, with the average ROE for the period being 35 percent. Figure 4.11 shows that while the Agribusinesses’ Return on Equity has been declining that of the Stanbic Bank Zimbabwe has been on an upward trend. This decline is attributed to the
reduction in interest rates in compliance with regulatory requirements from the fiscal and monetary authorities as well as price wars rampant in the market.

**Fig 4.12 Agribusiness Profit Contribution**

During the same period under review percentage contribution of the department to the bank profits (nominally) has also been on an upward trend as shown in Fig 4.12 above. The average profit contribution from this department in the period under review was found to be 4 percent the lowest being 2 percent in 2009 and the highest 5 percent in 2012.
4.5.2 Factors Affecting profitability

In order to validate the profitability of Structured Commodity Finance within Stanbic Bank Zimbabwe agribusiness department, an analysis of factors affecting the profitability of structured commodity finance was done. Results of literature review are summarised in table 4.7 below.

**Table 4.6 Effect of Profitability Factors**

<table>
<thead>
<tr>
<th>Profitability Factor</th>
<th>Positive or negative Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing</td>
<td>Negative</td>
</tr>
<tr>
<td>Cost of Structuring</td>
<td>Positive</td>
</tr>
<tr>
<td>Riskiness and losses</td>
<td>Positive</td>
</tr>
<tr>
<td>Regulatory</td>
<td>Negative</td>
</tr>
<tr>
<td>Capacity Utilisation</td>
<td>Negative</td>
</tr>
<tr>
<td>Competition</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Pricing was found to have a negative effect on profitability because the higher the cost of finance the more it reduces the profit margin on the finance instrument. Secondly cost of structuring has a positive effect since the higher the cost the bigger the percentage it contributes to the profit realized from the finance. The current regulatory environment was found to have a negative effect on profits since there are few laws regulating the financing sector. In addition capacity utilisation has a negative effect as the toll is still to be fully utilized with competition having a positive effect on profitability as it exerts downward pressure on the price.

**Fig 4.13 Profitability Factors**
Fig 4.14 Structured Commodity Finance Profitability
79 percent of the respondents indicated that Structured Commodity Finance is a profitable product to the bank. This was against 19 percent who indicated that the product is not profitable. This assertion by the 79 percent was substantiated by annual report figures in fig which showed that the department has experienced an upward trend in profits per annum and during the same period Structured Commodity Finance realized largest growth in funding in the agribusiness space.

**Fig 4.15 The Future of Structured Commodity Finance**
With respect to the future of SCF within the Agribusiness department, 21 percent suggested that the allocation of funds for the product should be reduced, 45 percent were of the opinion that they should just be maintained with 34 percent saying it should be increased. From the figure above it is clearly evident that the distribution is negatively skewed indicating that the majority of the respondents suggest that the product should at least be maintained at the current levels or increased.

4.5.3 Conclusion
This chapter presented research findings resulting from statistical analysis of primary and secondary data. Presentation of results is accompanied with detailed analysis of statistical results paving way for informed conclusions and recommendations in the next chapter.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

73
5.1 Introduction

This chapter majors on conclusions of the whole research based on the discussion of findings in Chapter Four and related recommendations to management and the academic world. The whole research was centered on research questions raised earlier in Chapter One, which reads as follows:

i. What Structured Agro-Commodity Finance products are offered at Stanbic Bank Zimbabwe for the past four years?

ii. What is the general profitability trend at Stanbic Bank Zimbabwe’s Agribusiness operations for the past four years?

iii. What is the profit contribution of Structured Agro-commodity Finance products to the Agribusiness department’s profit and loss position?

iv. What are other products offered in the financial institution’s Agri-business Department?

v. What are other drivers of profitability in the Agribusiness Department and how can management best mix them with Structured Agro-Commodity Finance to grow shareholder value at the banking institution?

vi. How Structured Agro-Commodity Finance products can be effectively utilized (increase or decrease funding) at Stanbic Bank Zimbabwe Agribusiness Department to cause sustainable growth in profits.

vii. How much additional profits can be attributed to the effective use of Structured Agro-Commodity Finance at Stanbic Bank Zimbabwe’s Agribusiness Department?

The Study hypothesis was:
Profitability at Stanbic Bank Zimbabwe agribusiness department is positively related to value of Structured Commodity Finance deals executed.

### 5.2 Conclusions

1. Through the method of scrutinising literature and analysis of the status of Stanbic Bank Zimbabwe agribusiness department, utilisation of Structured Commodity Finance products is satisfactory and above industry average. However there is room for improvement as the market develops by allowing profitable introduction of commodity derivatives and hedging techniques.

2. Stanbic Bank Zimbabwe’s main agribusiness finance products since year 2009 are Overdrafts, Fixed Term Loans, Asset Finance, Structured Commodity Finance, Invoice Discounting and guarantees.

3. Stanbic Bank Zimbabwe agribusiness department has been experiencing a general increase in profits since year 2009 in line with the profitability trend of the whole bank. All these products are offered at a profit; therefore the bank is in the right track by persistently offering structured products.

4. The bank has also experienced an increase in the value of assets and liabilities in line with growth in profits experienced in the agribusiness department.

5. Return on Equity (ROE) for the bank also increased over the four years under study while that for agribusiness department gradually declined because the business is now structuring more facilities at reduced interest rates and charges than the rest of the business units. However, the department has remained profitable because the business is now concentrating on non interest income.

6. Profit contribution for agribusiness department towards overall profitability of the bank increased over time with an average of 4 percent which is significant.
considering that the unit is a small proportion of the whole banking business in terms of assets and liabilities.

7. Profitability of the agribusiness department also depends on other products offered such as overdrafts, fixed term loans and guaranteed. Structured Commodity Finance stands as the highest contributor to total department profits.

8. In order to achieve sustainability in profitability in the agribusiness department, Structured Commodity activity should be at least maintained or increased. Maintain strategy will be suitable where there are no meaningful counterparts and deals in the market or when there is no meaningful growth in liabilities to justify additional lending considering that these facilities are large by nature.

9. Directly linked to the hypothesis, value of assets in the Structured Commodity class is directly linked to the level of profitability in the agribusiness department. As level of loans and advances towards Structured Commodity Finance increased, levels of profits for the department increased over the period of time under study.

10. Increase in the level of Structured Commodity Financing leads to a fall in the ROE for the department because the product is generally low priced by nature.

11. Non-interest income is significantly becoming more important to profitability of the department, such as cash withdrawal fees and transactional charges because the bulk of funds allocated towards Structured Commodity Finance yields less interest income but created high transactional income.

12. Deductively, increase in funds allocated towards Structured Commodity Finance leads to a more than proportionate increase in profits in the agribusiness department which also positively contributes to the overall profitability of the bank. Therefore, Structured Commodity Finance is a very important product to the agribusiness department and the bank at large.
5.3 Recommendations

1. Funds permitting, Stanbic Bank Zimbabwe should increase volume and value of Structured Commodity Finance in order to sustain growth in profits for the department and the whole bank. The product is characterised with low pricing and slim margins which make its profitability hitched mostly on volumes, a factor that favours sensible increase in transactional income. There is also increasing pressure from the Reserve Bank of Zimbabwe to reduce bank charges and interest rates on all products, therefore allocating more resources towards Structured Commodity Finance gives a default advantage because interest rates and charges for the product are already low and in the acceptable range on the back of its very low risk.

2. Stanbic Bank Zimbabwe should also create a Structured Commodity Finance desk within the agribusiness department to properly gear up with the bank’s increased participation in agro-commodity structures. This will enable proper streamlining of collateral risks and increased marketing efforts that will lead to accumulation of high quality assets.

3. The bank should also increase training efforts with special attention to structured commodity finance on all relationship managers. This will allow effective cross selling of the product by all eligible employees besides only those in the agribusiness department.

4. To cope with mounting pressure to reduce bank charges and interest rates while sustaining profitability in the department, the bank needs to manage its overall costs downwards. Cost cutting efforts should be directed towards Group Enabling Functions to avoid a balloon in costs allocated towards Business Functions such as the agribusiness department. Streamlining Business Functions costs up to certain levels might have a negative effect on profitability of that same unit as it may lead to compromise of important business activities that directly relate to revenue generation. Therefore, Group enabling functions are the best candidates for the introduction of the
cost cutting drive to offload pressure on Business Functions before moving to Business units.

5.4 Areas of Further Study

In real academic and professional worlds, it is not practical to carry an exhaustive single research due to time and coverage constrains. This research has only managed to effectively research on the effect of Structured Commodity finance to the profitability of Stanbic Bank Zimbabwe’s agribusiness department. There are other prospective and connected researches of a similar nature which needs to be carried on all other products offered by the financial institution’s agribusiness department in order to come up with a complete best allocation mix of Loanable Funds and achieve optimum profitability of the whole department. The same studies also need to be applied to the rest of banking products offered by other product houses to achieve optimum profitability for the whole bank, which is the overall aim of management.
1. [www.ryerson.ca](http://www.ryerson.ca) Business Research guidelines, Royerson University Official website accessed 15/06/2013


27. IMF, (2012) Zimbabwe: Staff Report for the 2012 Article 6 Consultation


44. Stanbic Bank Zimbabwe 2012 Financials, published.


46. Stanbic Bank Zimbabwe, Microeconomic Environment update, 2013


49. The Basel Committee's response to the financial crisis: report to the G20, 2010


51. UNCTAD (United Nations Conference on Trade and Development), 2006 “Collateralized Commodity Financing, with Special Reference to the Use of Warehouse Receipts


57. WWW.stanbic.co.zw, Official website, accessed, 13/07/2013


Appendix 1: QUESTIONNAIRE

I am a final year student of Masters of Business Administration at the University of Zimbabwe’s Graduate School of Management. I am currently researching on the profitability of Structured Commodity Finance at Stanbic Bank Zimbabwe with special attention to its Agribusiness operations. Your co-operation in completing this form would be greatly appreciated. The questionnaire might take 10 to 20 minutes to complete. Any Stanbic Bank Employee is eligible to complete this form when selected to do so. Please do not write your name on the form as your responses are confidential and anonymous.

SECTION A: DEMOGRAPHIC

1. Gender: I am: Male ☐ Female ☐


3. How many years of experience at Stanbic Bank?

<table>
<thead>
<tr>
<th>Clerk</th>
<th>Supervisor</th>
<th>Manager</th>
<th>Director</th>
<th>Board</th>
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<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

4. For how long have you been in Stanbic Bank Zimbabwe?

Less than 1 year ☐ 1-5 years ☐ 6-10 years ☐ Above 10 years ☐
SECTION B: OCCUPATIONAL

5. How related is your job to Agriculture Financing operations?
   - No Relationship
   - Weak Relationship
   - Strong Relationship
   - Very Strong Relationship
   - That is my Job

6. What is your level of understanding of Agriculture Finance?
   - Low
   - Moderate
   - High

7. Did you receive any form of training related to Agriculture Finance?
   - Yes
   - No

SECTION C: PRODUCTS AND PROFITABILITY

8. What are the major products offered in the Agribusiness Department excluding Structured Finance?
   1. .................................................................
   2. .................................................................
   3. .................................................................
   4. .................................................................
   5. .................................................................
   6. .................................................................
   7. .................................................................

9. How do you rate your understanding of Structured Agro-Commodity Finance?
   - Low
   - Moderate
   - High

10. Do you think Structured Agro-commodity Finance is a profitable product to Stanbic Bank Zimbabwe?
    - Yes
    - No
11. How do you rate profit determinants (High/Low) in the table below for Structured Commodity Finance? Tick applicability and briefly explain.

<table>
<thead>
<tr>
<th>Profitability Factor</th>
<th>High</th>
<th>Low</th>
<th>Brief Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cost of structuring</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Riskiness and losses</td>
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<tr>
<td>Regulatory</td>
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<td></td>
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<tr>
<td>Availability and Utilisation</td>
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<td></td>
</tr>
<tr>
<td>Competition</td>
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</tr>
</tbody>
</table>

12. How do you rank all agriculture finance products (drivers of profitability) including Structured Commodity finance in terms of contribution to profitability of the department? (1 being most profitable and 8 being least profitable.)

1
2
3
4
5
6
7
8


**Very Low** 1 2 3 4 5 6 7 8 9 10 **Very High**
14. How do you rank Agribusiness Department among 10 business divisions of the bank in terms of profit contribution to the bank’s bottom line? (For Example 9. 1 being the most profitable and 10 being the least profitable).

Your Rating..........................................................

15. What do you think should be the future of Structured Agro-Commodity Finance in Stanbic Bank Zimbabwe?

Reduce □
Maintain □
Increase □