The establishment of a cession security registration platform for agricultural financiers in South Africa

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ABSTRACT

The aim of this study is to conduct a thorough theoretical study on the establishment of a web-based cession collateral registration platform for agri-financiers in South Africa. The agricultural industry is earmarked for growth due to pressures of food security and the role it could play in rural development, job creation and social upliftment.

Agri-finance to farmers for primary input costs, is the catalyst which kick-starts the agricultural value chain. Due to many reasons, the traditional asset-based collateral in the fashion of mortgage bonds will become more and more unavailable to agri-financiers to secure their loans. Agri-financiers will have to rely on commodity-based collateral (cession) as security for repayment of their loans. The law of cession and trite common law principle of *first in time first in right* creates an undue credit risk to agri-financiers.

A market gap exists to establish a cession collateral registration platform in South Africa to mitigate the aforementioned credit risk assumed by agri-financiers. This platform is an entrepreneurial opportunity which could be operated as a viable and sustainable business enterprise.

The results of the empirical research have shown that the market will embrace such platform as solution to the credit risk associated with commodity-based collateral in the form of a cession of crop income.

Key words: Agri-financiers, loans, web-based platform, credit, risk.

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Acronym	Term
Agri-finance	Primary Agricultural Input Cost Finance
GDP	Gross Domestic Product
US	United States of America
CEO	Chief Executive Officer
SARB	South African Reserve Bank
NDP	National Development Plan of the Government of South Africa
Land Bank	Land and Agricultural Development Bank
CPA	The Consumer Protection Act
FSB	Financial Services Board
NCR	National Credit Regulator
FIC	Financial Intelligence Centre
OECD	Organisation for Economic Co-operation and Development

CHAPTER 1

SCOPE AND NATURE OF THE STUDY

1.1 INTRODUCTION

Neal Stephenson (2007:1), a US science-fiction author, once remarked that, "*if we listened to our intellect, we'd never have a love affair. We'd never have a friendship. We'd never go into business. Well, that's nonsense. You've got to jump off cliffs all the time and build your wings on the way down*."

Business is all about taking risks, ideally calculated risks. It is trite knowledge that a direct positive correlation exists between the amount of risk the business owner/manager assumes, vis-à-vis the level of return he/she could expect to gain should the risk not materialise, or if indeed, it is properly managed.

One can never protect oneself 100%. What one does is protect oneself as much as possible and mitigate risk to an acceptable degree. One can never remove all risk. This, after all, is what executives primarily are (or should be) occupied with.

This study does not purport to be a mere academic research exercise. It rather aims at practically identifying a particular business risk faced by all lending institutions in South Africa, especially those involved in agricultural/crop finance. It further proposes a risk mitigation solution which is unique and unprecedented in South Africa to date. In essence, this study aims at, based on an empirical and theoretical research, investigating a risk mitigation solution to agri-financiers, which solution in itself could be a profitable stand-alone business opportunity.

Agriculture as an industry is becoming more and more significant as a contributor to the South African economy and acts as the backbone of socio-economic development in the rural areas of the country. Agri-businesses will be instrumental in initiating economic development through building agro-based industries and providing new markets. In fact, agriculture has the ability to grow other industries, as it is the spark that initiates the start of a value chain. It has been said that a Rand spent in agriculture achieves more than a Rand spent in any other industry (PWC, 2014:3).

Primary input (crop) finance by agri-financiers plays a catalyst role in sparking the agricultural value chain. The agri-finance industry (finance of primary production) is however not without its unique risks. In recent times, the traditional asset-based collateral finance regime (loans secured by mortgage bonds) to farmers, has shifted to a great extent to a commodity-based collateral finance regime (loans secured by a cession of crop income), which basically means that agri-financiers secure loans to farmers by taking a *cession* of the to-be-produced crop income, instead of the traditional *mortgage bond* on immovable property (farms).

The prevailing law governing cession, coupled with the common law principle of *prior in tempore potior in iure* (first in time first in right), however, poses a significant credit risk to agri-financiers. In essence the latter means that he who is earlier in time is stronger in right, where there are two or more competing equitable interests in the same asset (in this instance, the crop) (Duhaime, 2014).

Consequently, a lender who extends credit to a farmer for primary production input costs and which loan is secured by a cession of the crop income, has no or very little knowledge whether the very same farmer has previously executed a cession over the same or future crops in favour of another lender for another debt, which off course, will jeopardize the subsequent lender's security ranking, and place the repayment of its loan at risk.

This study evaluates the extent of the above credit risk within the South African context, analyse the law pertaining to cessions and proposes a solution to agri-financiers, which in itself could be a profitable business opportunity.

1.2 PROBLEM STATEMENT

A number of vexing challenges are facing the South African business environment for agriculture, most notably the escalating costs of direct primary production inputs such as labour, electricity, seed, diesel and fertilizer (PWC, 2014:8). These costs, generally known as *input costs* to farmers, are mostly financed by farmers using a variety of agri-financiers, such as banks, agri-businesses, input suppliers, and others.

Due to the entry of new role-players in the agri-finance industry, with unique financing products, financing in the agricultural sector is now becoming more competitive than ever (PWC, 2014:48). The increased competition affords farmers the luxury of relatively dictating the terms and conditions of loan facilities, which they are prepared to accommodate. This is particularly true for big commercial farmers, who no longer have to take a begging stance in securing finance for the next production season.

To this extent, agricultural financing is systematically moving away from the *asset-based collateral financing,* to *commodity-based collateral financing*, as more and more farmers are unable or unwilling to pass mortgage bonds on their farms, if alternative risk-sharing security (such cession of crops) is available to lenders (PWC, 2014:48).

Other factors that support (or will support in future) this phenomenon, include:

1. The National Credit Act (No 34 of 2005) (SA, 2005) places pressure on credit providers to ensure that clients have sufficient repayment capacity (not only security) before credit is extended (SA, 2005). The emphasis of this has shifted to the analysis of the client's *cash-flow statement* as opposed to the traditional analysis of the client's *balance sheet;*
2. Beneficiaries under the Government's land reform initiatives are statutory prohibited to pass traditional mortgage security on

redistributed farm land in order to secure finance for crop input costs (De Klerk et al., 2013:18);

3. Due to the benefit of economies of scale, the phenomenon prevails that large commercial farmers are continuously farming on a larger scale, whilst small farmers exit the industry. This is achieved by large commercial farmers tending to *lease* farmland from small farmers exiting the industry, whose leased farmland cannot be secured by traditional mortgage bonds;

4. Due to escalating farm prices, it has become more popular (and profitable) to farm on leased land than buying land, with corresponding restriction on mortgage bond security as mentioned in paragraph (3) above;

5. Emerging and small farmers in the traditional homelands as well as farmers on tribal land, are restricted to secure primary production input cost loans by way of mortgage bonds;

6. Much farm land is already burdened with a mortgage bond as security for the acquisition of such land. Lenders are thus reluctant to pass 2nd or 3rd mortgage bonds on such property as security for primary production input cost loans.

Commodity-based financing is predominantly characterised by agri-financiers taking a cession on the to-be-produced crop income as primary security for repayment of their loan. Considering the high amounts extended by agri-financiers to farmers for primary production input costs, a cession as primary form of security, poses significant risks to such agri-financiers, as the existence of predated cessions in favour of other lenders in respect of the same crop will jeopardise their security ranking and the repayment ability of the farmer.

This study will investigate the above problem, namely the undue credit risk assumed by agri-financiers in extending credit to farmers in circumstances where real security in the fashion of mortgage bonds are unavailable, by:

1. briefly considering an overview of the agricultural industry in South Africa, in particular with reference to primary agricultural finance to various clusters of farmers (commercial, small-scale, emerging, and others);

2. analysing the prevailing law pertaining to cessions and investigate legal avenues to legally eliminate the risk to lenders associated with the problem;

3. evaluating whether the problem is actually perceived as real by agri-financiers, through the statistical analysis of an empirical study conducted with mainstream agri-financiers in South Africa;

4. proposing a business model, unique to South Africa, which could solve the problem for agri-financiers;

5. evaluating the proposed solution through the statistical analysis of an empirical study conducted with mainstream agri-financiers in South Africa.

1.3 CAUSAL FACTORS

The causal factors for this study include:

- Commodity-based collateral (cession of crop income) will become more relevant in future, or not;

- agri-financiers perceive commodity-based collateral as a real credit risk, or not;

- the prevailing law caters for an unique solution to mitigate the above credit risk, or not;

- a unique solution to the problem is palatable to mainstream agri-financiers, or not;

- the viability of converting the unique solution into a profitable business opportunity.

1.4 OBJECTIVES OF THE STUDY

1.4.1 Primary objective

The primary objective of this study is to identify and evaluate the credit risk, against the prevailing legal principles, associated with the phenomenon in agri-finance in terms of which the financing of primary agricultural crop input costs is shifting away from asset collateral based finance, towards commodity based finance in the form of security by way of cession of crop income.

1.4.2 Secondary objectives

The secondary objectives are to investigate, evaluate and propose a solution to the problem highlighted in the form of a web-based real-time cession security registration platform for agri-financiers in South Africa.

1.5 SCOPE OF THE STUDY

1.5.1 Field of study

The field of the study is credit risk mitigation within the agricultural primary production input cost financing industry. The outcome of the study could easily be extended to a variety of other industries, including the long-term insurance industry and the general banking industry.

1.5.2 The scope and boundaries of the study

The scope and boundaries of the study is limited to an overview of the agricultural and agri-finance industry and legal analyses of the relevant principles. The empirical study focuses on the mainstream agri-financiers in South Africa. The population sample will include credit, legal and executive managers of mainstream agri-financiers in South Africa.

1.6 RESEARCH METHODOLOGY

The methodology followed in this study consists of two parts, namely a theoretical literature study and an empirical study by way of a questionnaire.

1.6.1 Literature/theoretical study

The theoretical study will shed light on:

- The relevance and stance of the agricultural industry in South Africa.
- The relevance of agri-finance to farmers for primary production input costs.
- The various forms of security available to agri-financiers and the relevance of each in a future agricultural dispensation in South Africa.
- Distinction between various clusters of farmers and primary finance supply and demand characteristics of each cluster.
- Legal analyses of the law of cession, waiver and estoppel (with reference to case law).

1.6.2 Empirical study

Primary and secondary resources have been used to gather information during the study. The *primary sources* have been sourced by way of an empirical study questionnaire which was completed by senior and executive managers from mainstream agri-financiers. The target group represents in excess of 40% of all agri-financiers in South Africa, thus can be regarded as a representative sample of the population. Moreover, the senior level of management involved in the empirical study was deliberately selected since they represent the decision making authorities in the respective organisations which employ them.

The empirical study will, among other, shed light on whether the problem stated at inception of this report, is perceived as a real credit risk by the respondents, and whether the proposed solution of a web-based cession registration platform (refer to Chapter 4) is supported by them.

The secondary resources include text books, journal publications, authority publications, national legislation and law reports (case law), as well as information obtained from reliable Internet sources. The use of the secondary resources aim at providing an overview of the relevance of the agricultural industry in South Africa, as well as finding a legal avenue in order to address the problem statement, ironically, brought about by the prevailing law of cession in South Africa, as it has evolved from ancient common law.

1.7 LIMITATIONS OF THE STUDY

The proposed solution to the problem statement, being an online cession registration platform, is entirely novice to the South African market. The uniqueness of the topic posed a challenge to the study as no previous research could have guided this study.

1.8 LAYOUT AND CONCLUSION OF THE STUDY

The layout consists of the following:**Chapter 1 – Introduction and problem statement**

Chapter one identifies the problem statement and gives an overview of the context in which the problem must be viewed. The credit risk pertaining to commodity based security in agri-finance is highlighted. The increasing importance of agriculture as an identified growth sector in South Africa, is highlighted together with the increased role commodity based finance will play in a future agricultural dispensation.

Chapter 2 – Literature Study

Chapter two contains a literature review on the growing importance of agriculture as an identified growth industry, to ensure rural development and job creation. The current state of the industry is discussed, with emphasise on agri-finance, the various clusters of farmers in South Africa, finance and security types and the demand and supply factors of agri-finance. The law of cession, estoppel and waiver, as subset of the law of contract, is analysed in detail in an attempt to find a legal framework for a solution to the problem identified.

Chapter 3 – Empirical research

Chapter three contains a comprehensive analysis of the research methodology followed to complete the empirical study. This includes the data gathering process, as well as a statistical analysis of the findings and presentations of the results.

Chapter 4 – Conclusions and recommendations

In the final chapter, the literature study as well as the results of the empirical research are concluded and interpreted against the problem statement and objectives stated in Chapter one. A solution to the problem stated is outlined, and a brief description of the viability of the solution to a unique business opportunity, is discussed.

1.9 CONCLUSION

Agriculture is an important industry in the South African economy. The primary contribution of agriculture to the gross domestic product of the country may be relatively small, but it is trite knowledge that the secondary contribution is much larger due to the trigger effect it plays in a long value chain.

Agri-finance, as the kick-starter of primary agricultural production, is the first element in the abovementioned value chain. To such extent, the role of agri-financiers cannot be underestimated. As the country stands on the doorstep of a new agriculture dispensation, new ways of securing primary input cost loans are required, which pose new risks for agri-financiers. These risks, however, need not be a nail in the industry-coffin.

1.10 CHAPTER SUMMARY

This chapter outlines the structure of this study, setting the research objectives and highlighting the problem statement.

CHAPTER 2
LITERATURE STUDY

2.1 INTRODUCTION

Calculations based on official data for the first three quarters of 2013 indicate that 80% of the value added by agriculture is represented by gross operating surplus, compared to 62% for mining, 49% for the economy as a whole and a paltry 29% for the manufacturing sector. This figure stands at a creditable level of marginally above 60% for both wholesale and retail (PWC, 2014:7).

Over the past decade, the productivity of new capital formation in agriculture has also consistently outperformed the average for the economy as a whole, with future improvements being foreseen by farming experts as a result of new technologies (PWC, 2014:7).

South Africa has the most productive agriculture on the continent, yet faces a future of uncertain land reforms, increasing domestic pressure to expand and fierce international competition for everything it produces. At its most fundamental, South African agriculture is an intricate jig-saw puzzle of interlocking crops, local consumer trends and cost production constraints, while still possessing a dazzling overseas market potential.

To an outsider, the production capacity of the country’s farmlands is prodigious, yet the majority of farmers engage in low level subsistence agriculture. Recognised by the Government as a crucial contributor to GDP, South African agriculture is backed by industry associations, research institutes and statistical services that are the envy of the rest of the continent. Yet, competing demands for land reform and crop expansion due to food security fears, have revealed fissures in the agricultural bedrock (Nedbank Capital, 2012:3).

Since the institution of the democratic Government in 1994, much emphasis has been given by the state in creating a more racially representative agricultural sector, led by its policy of land reform. The *land restitution* and *land redistribution* thrusts of this policy have established a class of land reform beneficiaries in the former 'white rural areas' that, in most cases, are attempting in large scale commercial farming. State grants for land, improvements and machinery have not been matched by the farms' ability to raise working capital, which has been seriously hamstrung by tenure restrictions which do not allow beneficiaries to use their physical assets as collateral for loans. About 50% of such farms are no longer functional (De Klerk et al., 2013:7)

Whether we speak of large scale established commercial farmers, emerging farmers or subsistence farmers, the entire value chain is triggered by agri-finance. Agri-finance for primary production input costs in particular, is probably the most important element in a value-chain, which arguably contributes most (in primary and secondary spheres) to the country's GDP. Moreover, it is where the answer to fears of food security, rural development and job creation really starts. Without a properly established and structured agri-finance industry, all efforts to allay fears of food security or unlock the hidden potential of agriculture, with no doubt, will fail.

As a new dispensation for agriculture in South Africa is looming, agri-financiers will have to align themselves to offer the right finance products for all classes of farmers. As much as the traditional *asset*-based collateral (mortgage bonds over farmland) will never disappear, a definite movement towards *commodity*-based collateral is evident in the industry. Various factors contribute to this phenomenon and it is submitted that such forms of security will become more relevant in future.

One popular example of *commodity*-based collateral for primary input cost loans, is a cession over the income to be derived from the to-be-produced crop. Cession as a form of collateral for primary agricultural lending forms - the subject of this study - in particular the inherent credit risk attached thereto for lenders - due to the highly unregulated nature of it in South Africa. This credit risk is based squarely on the common law legal principle of *prior in tempore potiur in iure*, meaning *first in time first in right*.

To date, very little initiatives (if anything at all) have been implemented by agri-financiers in South Africa to mitigate the risk associated with crop cessions. This neglect is surprising, as it is estimated that approximately R90 billion is loaned annually to farmers for agricultural primary input costs. This chapter will investigate the theoretical aspects of the credit risk associated with crop cessions as a form of collateral for primary input cost credit.

2.2 AGRICULTURAL OVERVIEW

In order to understand the context of the problem statement, the first part of this chapter will be dedicated toward outlining the macroeconomics applicable to agriculture in South Africa currently, emphasising agri-finance.

2.2.1 The South African economy

According to Dr Roelof Botha, Economic Advisor to PWC, prospects for agriculture in 2014 are considerably more uncertain than for the macro-economy, where some momentum towards higher GDP growth seems to be on the cards. Volatile weather patterns, a drought in large parts of the North West Province, higher input costs due to currency depreciation, and lingering uncertainty surrounding land reform, currently add to the already high risk profile of farming in South Africa (PWC, 2014:7).

Fortunately, agri-businesses can look forward to an improvement in the macro-economy during 2014 and probably beyond. A near-universal consensus exists over brighter global economic prospects in 2014, especially for the sub-Saharan African (SSA) region. According to the World Bank, global GDP growth should firm, from 2.4% last year to 3.2% in 2014, with a further increase to 3.5% being forecasted into 2016.

The South African economy is likely to follow the global upward growth trend in 2014, with the World Bank predicting GDP growth of 2.7%, up from 1.9% last year. Upbeat regional growth expectations also exist for 2014, with the World Bank projecting GDP growth in SSA to accelerate to 5.3% in 2014, rising further en route to 2016. As a general rule, what is good for Sub-Saharan Africa is good for South Africa, with sectors linked to agriculture, likely to benefit from sustained growth in inbound regional tourism and the continent's steady march towards greater prosperity.

A survey conducted by PWC late last year, has indicated that African business leaders are more bullish about short-term revenue growth prospects than their global counterparts. An impressive 90% of CEOs surveyed, expected their revenue from Africa to expand during 2014. Arguably the most significant positive element of the latest World Bank forecasts is the expectation for the US to grow by a creditable 2.8% in 2014, compared to an estimate of only 1.8% last year. Following two years of economic contraction, the Euro Area is expected to record real GDP growth of 1.1% in 2014, whilst China, the world's second largest economy, is expected to record growth of between 7% and 8% this year (PWC, 2014:8).

As South Africa is recalibrating itself for a higher interest rate, environment sees the economic growth outlook weaken for the period 2014–2018. Figure 2.1 depicts the economic outlook for the country until 2018.

Figure 2.1: South African Economic Outlook until 2018

Figure 2: Summary	**2014**	**2015**	**2016**	**2017**	**2018**
GDP (real, %)	2.4	2.8	3.3	3.8	4.0
Total domestic demand (real, %)	3.1	3.5	3.9	4.4	4.6
HCE (real, %)	2.5	2.7	3.3	3.9	4.1
GCE (real, %).	4.1	4.2	4.0	4.1	4.2
GFCF (real, %)	4.2	5.4	5.5	6.7	6.5
Real Change in Inventories (R'bn)	10.2	10.5	10.8	10.8	11.7
GFCF as a % GDP	20.5	21.0	21.5	22.0	22.6
GDE (real, %)	3.4	3.5	3.9	4.4	4.6
Export (goods & non-factor services) - (real, %)	4.8	5.2	6.4	5.7	4.8
Imports (goods & non-factor services) - (real, %)	7.5	6.6	7.4	7.0	6.3
Balance: Current Account (saa) - R'bn	-238.4	-261.4	-275.8	-305.9	-339.6
Balance: Current Account (saa) - % GDP	-6.5	-6.5	-6.2	-6.3	-6.3

Source: Bischop (2014)

South Africa's early 2014 interest rate hike occurred as the South African Reserve Bank (SARB) raised its inflation forecasts above the 3-6% target range, following the marked rand weakness. The markets are pricing in a further 2.00% hike in domestic interest rates this year, although the SARB has said such a trajectory is not 'automatic'. There is a prevalent view that further monetary tightening will occur in 2014, but the consensus is for another 0.50% increase only. The impact of higher interest rates is likely to be more marked than in previous upward interest rate cycles, as households are more highly indebted. The current high ratio of debt to disposable income indicates that the subduing effect on demand-led inflation from monetary tightening should be quite significant, and economic growth is likely to be weaker than currently expected, resulting in the need for fewer interest rate hikes. The slowdown in economic growth of South Africa's largest export destination is also a concern for the economic outlook of South Africa, at a time when the rand's weakness had been expected to boost export demand and so support economic growth (Bischop, 2014).

Figure 2.2 depicts projected household consumption expenditure for South Africa over the same period, recorded from 2012.

Figure 2.2: South African Household Consumption Expenditure

Household Consumption Expenditure	2012	2013	2014	2015	2016	2017	2018
Total - (real, %)	3.5	2.7	2.5	2.7	3.3	3.9	4.1
Durable Goods (real, %)	11.1	7.3	3.0	3.2	3.7	4.0	3.9
Semi-Durable Goods (real, %)	6.2	6.5	2.8	3.1	3.6	4.0	4.4
Non-Durable Goods (real, %)	2.7	2.3	2.2	2.7	3.3	3.9	4.1
Services (real, %)	1.7	0.7	2.5	2.3	3.0	3.7	3.9
Real disposable income (real, %)	3.8	2.6	2.5	2.7	3.3	3.9	4.1
Population growth (%)	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Unemployment rate (%)	25.1	25.2	25.6	25.6	25.5	25.2	24.9
Employment growth rate (%)	1.9	2.5	2.2	1.2	1.3	1.5	1.5

Source: Bischop (2014)

Of relevance is the growth in non-durable goods which category includes expenditure on food and agri-related products. When comparing January 2013 to January 2014, significant price inflation (6% or more) was experienced for the following products in the food basket: rice, white bread, cabbage, potatoes, tea, maize meal, margarine, instant coffee and milk. This could have a negative impact on household food security in South Africa, affecting the affordability of important staple foods (rice, bread, and maize meal), as well as other food items making a major contribution to dietary diversity.

The outlook on maize in early 2014 indicated that potentially South Africa could have faced a scenario where consumers could have entered a retail store for their weekly or monthly grocery shopping, only to find that the maize meal shelf were not stocked, or that the maize meal was so expensive that they rather chose to buy rice, bread or potatoes. The stock levels of both white and yellow maize were running dangerously low (NAMC, 2014). Food price inflation of course has a direct positive correlation with circumstances prevailing in the agricultural sector.

2.2.2 The economy and impact on Agri-businesses

One cannot divorce the prevailing national economic environment from its impact on agri-business. However, even though a modest improvement for the national economy is forecasted, vexing challenges in the agri-industry may not be removed by such positive outlook.

The escalating costs of labour, electricity, diesel and fertilizers have already been mentioned. Other problem areas include an unstable labour market, decaying infrastructure in many rural areas, the prevalence of semi-dysfunctional local authorities and the unwillingness of the Government to counteract the exceptionally high levels of farming subsidies that exist in many trading partners, especially Europe (PWC, 2014:9).

The picture for agri-business is however not all so dull. There are a number of growth drivers which shed a positive light on the future of agriculture in South Africa. According to Dr. Roelof Botha, these growth drivers include (PWC, 2014:9):

- Firstly, interest rates are unlikely to further increase during 2014, based on expectations for consumer inflation to remain within the SARB's target range of 3% to 6%. Even a marginal breach of the upper level of this range will probably not induce stricter monetary policy, due to the fairly desperate need to strengthen the economy's growth performance and to create jobs;

- Secondly, significant job creation is expected to flow from the imminent implementation of the youth wage subsidy. Despite opposition from the trade union federation Cosatu, National Treasury has completed the legislative requirements for enacting this new incentive aimed at employing young people without previous work experience.

- Thirdly, since the 3rd quarter of 2010, the economy has already created close to one million new formal sector jobs and further progress with employment creation is bound to lead to an acceleration of household consumption expenditure on non-durables. The latter is dominated by food, which comprises more than 60% of this expenditure category and almost 16% of the total GDP. Statistics indicate a welcome recovery in the growth trend of household consumption expenditure on non-durables (in real terms), which should gain further momentum in 2014.

- Fourthly, optimism over growth in the country's largest single source of final demand, is based on the gradual return of the so-called 'wealth effect', which is poised to gain momentum in 2014, fuelled by a fortuitous combination of rising real salaries, modest increases in residential property prices and capital gains on equity investments. This phenomenon is largely responsible for the exceptionally strong growth in household consumption expenditure on durables and semi-durables, which recorded real annualised growth rates of 8% and 7%, respectively, during the first three quarters of 2013.

- A further growth driver is the existence of fundamental fiscal stability. National Treasury is maintaining a sound balance between public debt levels and the need for infrastructure maintenance and upgrading.

Any economic outlook however contains an element of a balanced look into a crystal ball. This is especially true for the agriculture industry which is subjected to other uncontrollable variables, of which uncertain climatic conditions are only one factor.

All things being equal, one certainty that can be expected is population growth and whether such population will be able to afford red meat or staple food, thus food security will become more and more important in years to come. It appears that the highest levels of population growth over the period until 2021 will be realised with regard to the African population where a total population growth of about 15.4% is anticipated. For both the Asian and Coloured population groups a total population growth of about 10% will be realised, while for the White population there will be a loss of about 8.2% over the projection period. Figure 2.3 depicts the projected South African population growth divided into the four dominant ethnic clusters:

Figure 2.3: South African Population Growth Estimation

Year	African	Asian	Coloured	White	Total
2014	38 750 152	1 210 586	4 186 561	5 012 324	49 159 622
2015	39 043 456	1 213 550	4 194 231	4 980 891	49 432 128
2016	39 356 893	1 215 912	4 201 715	4 949 104	49 723 624
2017	39 693 290	1 217 746	4 209 758	4 917 163	50 037 957
2018	40 057 637	1 219 090	4 218 713	4 885 383	50 380 822
2019	40 445 466	1 219 986	4 228 614	4 853 600	50 747 665
2020	40 857 487	1 220 452	4 239 152	4 821 400	51 138 490
2021	41 230 385	1 220 517	250 025	4 788 935	51 549 834

Source: Van Aardt & Lamb (2007:2)

South Africa is considered to have the most advanced and productive agricultural sector in Africa. Africa is considered to be the next bread basket of the world with 60% of the world's land capable of growing crops, and at a time when farmland is disappearing fast (Albright, 2014). It is widely known that increased food production will ensure that the growing population is food secure, therefore the role of the agricultural sector in alleviating poverty and ensuring food security for all, precede all other roles it has (DAFF, 2010:5).

2.2.3 The National Development Plan

The National Development Plan (NDP) lists agriculture as a priority sector in South Africa to achieve various objectives, including (NDP, 2012:17):

- Affording rural communities better opportunities to participate fully in the economic, social and political life of the country;

- Ensuring people are well nourished, healthy and increasingly skilled;
- Successful land reform, infrastructure development, job creation and poverty alleviation;

These objectives can only be achieved by, among others, focusing on:

- Agricultural development based on successful land reform and employment creation. To achieve this, irrigated agriculture and dry-land production should be expanded, with emphasis on smallholder farmers where possible. To this end, established agricultural industries must be enabling partners.

- Quality basic services, particularly education, health care and public transport. Well-functioning and supported communities enable people to seek economic opportunities. This allows them to develop their communities further through remittances and the transfer of skills, which will contribute to the local economy.

- In areas with greater economic potential, industries such as agro-processing, tourism, fisheries (in coastal areas) and small enterprise development should be developed with market support. Special focus is needed to enhance skills and capabilities of rural women entrepreneurs with access to land and finance. The strategy should ensure access to basic services, food security and the empowerment of farm workers. It should also recognise the wide range of opportunities present in rural areas and develop strategies tailored to local conditions.

As the primary economic activity in rural areas, agriculture has the potential to create close to 1 million new jobs by 2030, a significant contribution to the overall employment target. To achieve this, South Africa needs to:

- Expand irrigated agriculture. Evidence shows that the 1.5 million hectares under irrigation (which produce virtually all South Africa's horticultural harvest and some field crops) can be expanded by at least 500 000 hectares through the better use of existing water resources and developing new water schemes;

- Use some underused land in communal areas and land-reform projects for commercial production;

- Pick and support commercial agriculture sectors and regions that have the highest potential for growth and employment;

- Support job creation in the upstream and downstream industries;

- Find creative combinations between opportunities. For example, emphasis should be placed on land that has the potential to benefit from irrigation infrastructure; and

- Develop strategies that give new entrants access to product value chains and support from better-resourced players.

The NDA acknowledges that achieving the above objectives will not be easy. It will require credible programmes, sound implementation, significant resources and stronger institutions. Despite the challenges, with the right approach, it is possible to reverse the decline in the agriculture sector, promote food production, and raise rural income and employment. White commercial farmers, agribusinesses, and organised agricultural industry bodies, could help to bring these objectives to fruition (NDP, 2012:220).

It acknowledges that a large number of the land reform beneficiaries, mainly of the restitution programme, have not been able to settle on the land or use it productively. In part, they have lacked infrastructure, inputs and technical support. To realise opportunities, security of tenure is required. Investment by farmers will occur if they believe that income streams are secure. This requires infrastructure and functioning market institutions. Land-reform beneficiaries in commercial farming areas have to fund their land purchase upfront, making it almost impossible to farm profitably because of the high debt burden. Since the state has limited means to provide post-settlement support, a possible solution would be to use the Land Bank, established to address the difficulty of entry into commercial farming (NDP, 2012:222).

A stepped programme of financing would address most of the financing problems of land-reform beneficiaries. Land access in communal areas is treated as though land rights and the right to use land for different purposes, are the same thing. In practice, land rights differ depending on how people use the land. Securing tenure is important when land is used to grow crops. The focus should be on cooperating with traditional leaders to secure tenured irrigable land supported by fully defined property rights. This will allow for development and give prospective financiers and investors the security they require to provide crop finance.

Failing to adequately address tenure security for black farmers in the communal areas and under the land reform programme, would pose a major risk to agricultural expansion. As long as these farmers (especially women farmers) do not have secure tenure they will not invest in the land and agricultural production will not grow at the rate and pattern required for growth in employment (NDP, 2012:225). To this extent, the NDA recommends financing alternatives and vesting private property rights to land-reform beneficiaries in a way that does not hamper beneficiaries with a high debt burden (NDP: 2012:226).

2.2.4 The role of financing in Primary Agriculture

2.2.4.1 Definition of Agricultural Finance

There can be no doubt that agri-finance will play a significant part in achieving the desired outcome of the country’s agricultural policy and successful combatting food insecurity. Agri-finance generally means studying, examining and analysing the financial aspects pertaining to farm business. The financial aspects include money matters relating to the production of agricultural products and their disposal (Anon., 2014).

William Gordon Murray defined agricultural finance as “an economic study of borrowing funds by farmers, the organization and operation of farmlending agencies and of society’s interest in credit for agriculture” (Murray, 1947).

2.2.4.2 Significance of Agricultural Finance

As stated earlier in this study, agricultural finance plays an important role in the country’s economy. Among other, it (Anon., 2014):

- assumes vital and significant importance in the agro-socio-economic development of the country, both at macro- and micro-levels;
- plays a catalytic role in strengthening the farm business and augmenting the productivity of scarce resources. When newly developed potential seeds are combined with purchased inputs, such as fertilizers and plant protection chemicals in appropriate/requisite proportions, it will result in higher productivity;
- instigates the use of new technological inputs purchased through farm finance to increase the agricultural productivity;
- results in increased farm income levels leading to the increased standard of living of rural masses;
- also reduces the regional economic imbalances and is equally good at reducing the inter-farm asset and wealth variations;
- is like a lever with both forward and backward linkages to the economic development at micro- and macro-levels.

2.2.4.3 Agricultural finance collateral at the cross-road

Traditionally, the largest part of agricultural finance to farmers was by far *asset-based* secured in the form of mortgage bonds over the land they farm. For the purpose of this study, finance to acquire movable assets (mechanical equipment, and others) or corporate loans for food processing plants, are excluded from this research. The study only focuses on agri-finance for the purpose of primary production input costs.

It is submitted that this phenomenon is likely to change quickly and that agri-financiers must in future be more and more willing to accept *commodity-based* collateral (in the form of crop cessions) as primary security for repayment of their loan facilities. Various factors contribute to this vision. Each of these factors is briefly discussed below:

2.2.4.3.1 The emergence of new classes of farmers

The South African agriculture is of a highly dualistic nature, where a developed commercial sector co-exists with large numbers of subsistence (communal) farms (OECD, 2006). Since democratic transformation in 1994, a new class of farmers evolved from the Government's land redistribution policies, namely the so-called emerging farmers. With the private sector generally catering adequately for land reform beneficiaries' and small farmers' financial service needs in respect of savings and insurance, the state policy to assist these farmers has focused on capital provision in the form of once-off grants for fixed and movable asset acquisition (De Klerk et al., 2013:10).

An acute shortage of working capital, such as annual capital for input costs, is experienced by these farmers and can be best appreciated against commercial grain farmers' rule of thumb of needing to spend the equivalent of the combined value of a farm's land, fixed improvements and movable equipment on annual input. Very little support is prevailing for such high working capital requirements of small and emerging farmers.

Most commercial banks are reluctant to disclose details of their lending to small farmers and land reform beneficiaries. However, Absa reports a portfolio to the value of R360 million (advanced to about 1000 farmers), mainly funding value-chain off-take agreements with large processors, while FNB refers to a facility of R50-R100 million where acceptable collateral is lacking. In the parastatal realm, the most significant lender is the Land Bank, which is mandated to provide financial assistance to the agricultural sector. Although much of the largest part of its loan book by value is in large scale commercial farming, about a third of its roughly 21 000 retail clients, to whom standard collateralized short-, medium- and long-term loans are advanced, are black farmers. Loans to these black farmers only stood at R876 million end 2012, just more than R100 000 per black farmer on average (De Klerk et al., 2013:10).

Many of these loans are problematic and are secured by either crop cession or lien. The total value of these loans to black farmers is not known, but is estimated at R170 million, which is a drop in the ocean considering the total value of the loan book of the Land Bank. It is submitted that the main reason for the inability for land reform beneficiaries to raise comparable finance as their commercial counterparts, is the restrictions placed on using assets (redistributed land) transferred as collateral for loans (De Klerk et al., 2013:11).

What would help greatly would be the evolution of existing land tenure systems to allow more readily for the usage of redistributed land for collateral for loans. This would open up the possibility for those small farmers wishing to enter or expand into commercial production to acquire the use of sufficient land to generate an income which competes well with earnings from other sources and to realize economies of scale. The inability of both small farmers in ‘traditional’ black rural areas and land reform beneficiaries, to use the land that they farm as collateral for bank loans, makes lending more difficult, if not impossible (De Klerk et al., 2013:12).

2.2.4.3.2 Agricultural land price inflation

According to Futuregrowth Asset Management, the venture capital arm of Old Mutual, the returns of investments in South African farmland consistently outstrip those of local and international equities, bonds and real estate (Sherry, 2013:1).

This has resulted in that the prices paid for farm land currently exceeds its productive value by far (Vercueil, 2014:1). It is common knowledge that quality farm land in the dominant maize production areas in the Free State Province, is easily marketed at prices exceeding R50 000 per hectare. This has led to farmers who wish to expand their farming activities, selecting to rather rent farm land from land owners who exit the industry, as oppose to buying farm land at prices exceeding its productive value.

It goes without saying that landlords of farm land are unwilling to consent to mortgage bonds being registered over the asset as security for input cost bank loans by the lessee while the lessee has no alternative to offer a crop cession to banks as security for finance obtained for purposes of input costs on the leased farm.

2.2.4.3.3 Small commercial farmers exiting the sector

According to Leon Louw, editor of the *LandbouBurger*, the number of commercial farmers decreased in the past 15 years from 66 000 to only 28 000 currently (Vercueil, 2014:1). This is the result of many factors, most notably the inability of small commercial farmers to compete in an international market wherein the Government to a great extent subsidise farming activities, increased violent crime on farms and high input costs, which can only be afforded through large scale economies of scale.

It is thus a common phenomenon that large-scale commercial farmers continually farm larger areas of land and small commercial farmers exit the sector. These exiting small commercial farmers typically lease their farm land to the large scale commercial farmers, who has obtained economies of scale. This again leads to more farming activities being conducted a leased farm land which, as stated in the previous paragraph, cannot be mortgaged as collateral for input cost bank loans.

2.2.4.3.4 Normal market dynamics

Large-scale commercial farmers, or corporate farming entities, are increasingly building significant wealth. The market imbalance between such large-scale farmers and traditional cooperatives (which extends finance to farmers), has shifted to the farmers with more and more cooperatives being willing to finance these farmers without any requirement for asset collateral, just to retain these farmers' other business (grain storage, retail, grain marketing, and others). Loans to these large scale commercial farmers are (and will become increasingly) secured by means of crop cession.

2.2.4.4.5 Tribal land

Some 41% of the entire South African land surface used to belong to the black homelands and is now State-owned land. Those are all state lands where millions of black people continue to live and run subsistence-farms. With very few exceptions, these farmers are also unable to use the land that they farm for collateral, as the state owns almost all the land in the 'traditional' black rural areas. This not only makes borrowing more difficult, but it also obstructs land rental, thereby hindering the development of economies of scale for those who would like to farm commercially. In the absence of freehold ownership – unlikely in the foreseeable future - even firm defined period rental agreements might make banks less reluctant to advance working capital loans to smallholders in these areas (De Klerk et al., 2012:19).

This land is thus incapable of being mortgaged as security for input cost loan and the extent that this fertile land be converted into commercial farming, consequently crop cession will be the predominant form of collateral offered to agri-financiers.

2.2.5 Agricultural financiers in South Africa

The South African private and public sector caters well for agri-finance with many companies and parastatal institutions being well-developed to provide primary input cost loans to any class of farmer. These are the institutions that could benefit from a central web-based crop cession registration platform, as will be discussed later in this study. Some of these institutions formed part of the empirical investigation which was conducted as part of this research.

A brief overview of the main role-players in the South African agri-finance industry, is depicted in Table 2.1 below (De Klerk et al., 2012:47):

Table 2.1: Agri-Financiers in South Africa

	ABSA Today, tomorrow, together	Standard Bank	FNB First National Bank	NEDBANK
Year Established	1991 – Amalgamated Banks of South Africa Limited was formed through the merger of UBS Holdings, the Allied and Volkskas Groups and certain interests of the Sage Group.	Standard Bank has a 149 year long history in South Africa. It has been listed on the JSE since 1970.	First National Bank has its early roots in the Eastern Province Bank and FNB was listed on the JSE in 1998 and now trade as a division of FirstRand Bank.	Nedbank ordinary shares were first listed on the JSE in 1969. .
Number of Branches	990 staffed outlets	703 branches and loan centres in South Africa.	722 representation Points, branches, agencies	121 staffed outlets including 68 regional offices
Number of Customers	12.1 million *Less than 1000 emerging farmers*	12.3 million	7.1 million	Unknown
Agri-Finance focus	Yes	Yes	Yes	Yes
Emerging Farmer product offering	Off-take agreements with large processors/retailers that provide production support & market access	Unknown	Supply chain lending model that helps to secure markets for emerging farmers, while managing to avoid some of the challenges faced by	Unknown

			emerging farmers to secure credit when they lack collateral	

Development finance institutions

DBSA Development Bank of Southern Africa	The DBSA is committed to investing in commercial agriculture, given the multiplier effects that lead to job creation, food security and growth in the rural economy. In partnering with other stakeholders, such as LB, IDC and NEF, the DBSA has endorsed its commitment towards commercial agriculture with a view to helping to achieve the Millennium Development Goals. DBSA's assistance to the agricultural sector is mainly through technical assistance grants and loan funding in the following areas: • On-site private/project fixed infrastructure – e.g. irrigation schemes; • Land as part of a project package structure, but not subject to land claims or part of the land reform process; • Movable assets/equipment; and • Production input finance (in exceptional cases).
LAND BANK 1912 - 2012	The Land Bank is mandated to provide financial services to the agricultural sector and is now structured into three divisions, namely Business and Corporate Banking, which caters for the corporate agricultural sector, Retail Commercial Banking and Retail Emerging Markets which started operations in October 2011 as a transitional segment for emerging farmers. The bank has 27 branches, 15 of which are in the northern region. The four main products are mortgages for land acquisition, production finance, and instalment sale finance for moveable assets and medium-term loans for Infrastructure.
IDC Industrial Development Corporation	The Industrial Development Corporation was established in October 1940. It is a development finance institution, mandated and fully owned by the Government and reports to the Ministry of Economic Development. In the agro-industries division, focus areas include agro-processing, food and non-food, beverages, alcoholic and non-alcoholic, and aquaculture. The IDC does not fund pure, primary agricultural projects, or applications, which are referred to the Land Bank.
National Empowerment Fund Growing Black Economic Participation	The National Empowerment Fund (NEF) was established by the National Empowerment Fund (Act No 105 of 1998) (SA, 1998). The sectors earmarked for funding include primary and secondary agriculture, agro-processing, manufacturing, tourism, agroforestry, retail property development, aqua- and marine-culture, small-scale mining and renewable energy.
KHULA ENTERPRISE FINANCE LTD innovative solutions for entrepreneurs	Khula Enterprise Finance Ltd was recently incorporated into the SEFA division of the IDC called the Small Enterprise Finance Agency as part of a merger with SAMAF. Prior to the merger, it was established in 1996 to focus on the promotion and development of small and medium enterprises (SMEs). Its role was to maximise access to finance for small businesses with the purpose of promoting job creation and sustainable and economic growth. Until recently, Khula was purely a wholesale finance institution, working through intermediaries, such as banks and microfinance institutions. However in 2011, it commenced retail operations through its Khula Direct business unit on a pilot basis for micro and small enterprises. Khula had two main products namely the Credit Indemnity Scheme and the Land Reform Empowerment Facility (LREF), a wholesale finance facility that aims to support previously disadvantaged (black) emerging farmers.

Casidra	Cape Agency for Sustainable Integrated Development in Rural Areas (Casidra), is a wholly owned implementing agency of the Western Cape Provincial Government that works closely with the province's Department of Agriculture, that provides its funding.
Ithala Development Finance Corporation	Ithala Development Finance Corporation offers loans for land and fixed asset improvement (for up to 20 years), equipment, for working capital (for varying terms) and for bridging finance.

Agri-businesses

AFGRI	Afgri, through its UNIGRO division, offers the farmer a competitive and economical finance structure, including input cost finance.
Senwes	Senwes Credit provides financing for agricultural oriented inputs, Fixed and movable assets for farming purposes and marketed grain through an array of financing products.
SUIDWES Die Eerste Keuse	Suidwes Agriculture offers farmers a variety of agri-services including primary input cost finance through secured loans by means of mortgage bonds and crop cession.
Logo???	AgriCapital is a specialised farmer finance enterprise that focuses on primary agri-finance mostly to commercial farmers.
NWK	NWK Financing offers year accounts to producers who would like to purchase their input resources for the cultivation of summer and winter crops at NWK.
GWK	GWK offers a complete range of products and services, offered by a diverse group of businesses that focus on comprehensive solutions for modern agribusiness, including primary finance to farmers for input costs.
KAAP AGRI	Kaap Agri is a retail services group that supplies a variety of products and services mainly to the agricultural sector, but also to the general public. Kaap Agri has 167 operating points that stretch over 88 cities, towns and places, and include areas such as the Swartland, Boland, Winelands, Overberg, Langkloof, Namaqualand, Orange River, Sondags River Valley, Namibia and adjacent areas, as well as Limpopo, Mpumalanga and Gauteng.
vkb	The main aim of the financing provided by VKB is to enable producers to obtain input means and other agricultural requirements on credit with a view to produce agricultural products successfully and in a sustained manner.
OVK	OVK is an agricultural company that is head-officed in Ladybrand and offers primary production finance to farmers in the Eastern Free State and Northern Cape provinces.

Source: De Klerk et al. (2012:47)

The above table contains a list of the dominant agri-businesses which currently is still responsible for providing the bulk of agri-finance to commercial farmers for primary input cost in South Africa.

2.3. REGULATORY OVERVIEW

The South African legal system is well-developed to regulate any form of credit extension and financial services, including agri-finance. Most of the regulation is statutory in nature.

2.3.1 Statutory regulation of Agri-finance

Table 2.2 depicts how national legislation regulates the financial services offering to farmers in South Africa (De Klerk et al., 2012:33):

Table 2.2: National Legislation Regulating Financial Services

National Credit Act (No. 34 of 2005)	To promote a fair, prudent and non-discriminatory marketplace for access to consumer credit
Banks Act of 1990	To provide for the regulation and supervision of the business of public companies taking deposits from the public; and to provide for matters connected therewith
Mutual Banks Act (No. 124 of 1993)	To provide for the regulation and supervision of the activities of juristic persons doing business as mutual banks
Financial Advisory and Intermediary Services Act (No. 37 of 2002)	To regulate the rendering of certain financial advisory and intermediary services to clients
Financial Intelligence Centre Act, 2011	To establish a Financial Intelligence Centre and a Counter-Money Laundering Advisory Council in order to combat money laundering activities and the financing of terrorist and related activities
Consumer Protection Act (No. 68 of 2008)	To promote a fair, accessible and sustainable marketplace for consumer products and services
Cooperatives Act (No. 14 of 2005)	To provide for the formation, registration and winding up of cooperatives and the establishment of a Cooperatives Advisory Board
Cooperative Banks Act (No. 40 of 2007)	To promote and advance the social and economic

	welfare of all South Africans by enhancing access to banking services under sustainable conditions; to promote the development of sustainable and responsible co-operative banks; to establish an appropriate regulatory framework and regulatory institutions for cooperative banks that protect members; to provide for the registration of deposit-taking financial services cooperatives as cooperative banks; to provide for the regulation and supervision of cooperative banks; and to provide for the establishment of a cooperative bank supervisor and a development agency for cooperative banks
Land and Agricultural Development Bank Act	To provide for a juristic person known as the Land and Agricultural Development Bank (Land Bank); to provide for the mandate of the bank; to provide for governance of the bank; to regulate the management and control of the bank; to provide for the funding of the bank; to provide for the business of the bank; to provide for risk management of the bank

Based on the laws highlighted in the table above, the following regulatory bodies exist to regulate and enforce prudential and market conduct legislation:

- *National Credit Regulator (NCR)* – the NCR is responsible for the registration of credit providers, debt counsellors and credit bureaus in South Africa and the regulation thereof;

- *South African Reserve Bank (SARB)* - the Reserve Bank is responsible for bank regulation and supervision in South Africa;

- *Financial Services Board (FSB)* - regulates insurers, intermediaries, retirement funds, friendly societies, unit trust schemes, management companies and financial markets in general;

- *Cooperative Banks Development Agency (CBDA)* – the CBDA is responsible for the development of financial services cooperatives to meet the requirements of a registered cooperative bank and to regulate cooperative banks;

- *Financial Intelligence Centre (FIC)* - to oversee compliance and to provide high quality, timeous financial intelligence for use in the fight against crime, money laundering and terrorist financing, in order for South Africa to protect the integrity and stability of its financial system, develop economically and to be a responsible global citizen.

However, there are no specific laws or regulations on agricultural finance, other than those governing the operation of the Land Bank, which, inter alia, permit the bank to lend for most standard agricultural purposes but not to accept deposits or operate current (cheque-type) accounts. However, depending on the product or the institution providing the product, all of the above laws could apply (De Klerk et al., 2012:35).

This study concerns a *cession* as a legal concept by means of which agri-financiers could secure primary input cost loans to farmers. In the previous paragraphs it were revealed that cession of crop income, so-called commodity based collateral, will increasingly become more popular to banks and agri-financiers, due to the factors listed. It is hence imperative that a proper analysis of the legal concept of cession be conducted in order to understand the benefit, but more importantly, the risk thereof to banks and agri-financiers.

2.3.2 A legal analyses of the legal concept of cession

2.3.2.1 Definition of cession

The legal concept of cession under the South African law, was defined by the then Appeal Court in the matter of Johnson v Incorporated General Insurance Ltd (1983) as "*an act of transfer to enable the transfer of the right to claim to take place. Accomplished by means of an agreement of transfer entered into* *between the cedent and the cessionary and arising out of a iusta causa, from which the intention of the cedent to transfer the right to claim appears or can be inferred and from which the intention of the cessionary to become the holder of the right appears or can be inferred*".

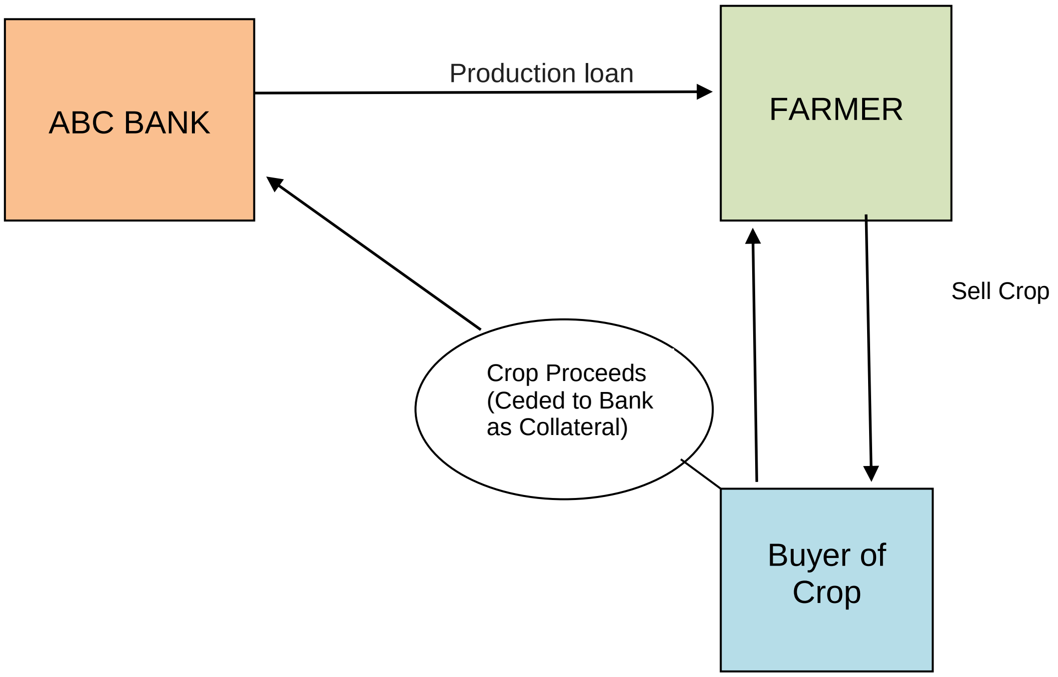
Cession involves the substitution of a new creditor (the cessionary) for the original creditor (the cedent), the debtor remaining the same (Christie & Bradford, 2011:481). Different rights are transferred in different matters. For instance, real rights in movable property are transferred by delivery of the movable object to the transferee. Real rights in immovable property are transferred by means of registration in the Deeds Office.

Since the object of a personal right is the as yet unrealised performance due by another, delivery or possession of the object by the cedent, is not possible in a physical sense. Transfer is accordingly achieved not by reference to the object of the rights (i.e. the performance), or the concurrence of the debtor who is to render it, but by the interactive *meeting of the minds* of the transferor and the transferee (Lawsa, 2014:132). By the mere *agreement*, the transfer is affected, irrespective of the knowledge, or consent, or subsequent notification to the debtor.

For purposes of this study, the right transferred by cession is a personal right which the cessionary (farmer) has against a third party debtor (typically the right to claim payment from the entity which buys the crop from it), which right is transferred to the cedent (the agri-financier that advance a production loan to the cessionary farmer) as collateral for repayment of the loan.

The interrelationship between the cedent, the cessionary, and the debtor, is depicted in Figure 2.4 below:

Figure 2.4: Interrelationship between Debtor, Cedent and Cessionary



2.3.2.2 Undisclosed transfer of rights problematic

It is this very manner of transfer of the right, i.e. a mere agreement between the transferor and transferee, with no knowledge or consent or notification required on the part of the debtor, that brings about the uncertainty in practice which holds significant risk for lenders relying on a cession as primary security for a loan. Unlike transfer of other rights which can be easily verified or is visible in the commercial world, a cession is a silent act which is not disclosed to the commercial sphere. The visibility of transfer of other rights is evident because of the following:

a) Transfer of real rights in movable assets

Delivery of a *physical* object (such as a television set) constitutes transfer of the right thereto. If a debtor wishes to use such movable object as security for loan, he can physically pledge it by handing it to the lender who will retain possession thereof until the loan is repaid. The possession of the object in this way is physically removed from the debtor and the very same debtor is practically not able to pledge the same object to another lender for another loan.

b) *Transfer of real rights in immovable assets*

Transfer of immovable property only takes place once it is registered in the name of the transferee in the Deeds Office in accordance with the provision of the Deeds Registry Act (No. 47 of 1937) (SA, 1937). Similarly, a mortgage bond must be registered in the Deeds Office before the immovable property can serve as security for a loan. To this extent, any prospective lender can verify whether such property has already been encumbered in favour of another lender, by a mere enquiry at the Deeds Office.

c) *Transfer of incorporeal rights to intellectual property*

Rights to intellectual property (such as a patent) are transferred in the strict manner prescribed by statute. Similarly, an investigation whether an intellectual property right has been transferred or encumbered in favour of a lender can be revealed easily.

2.3.2.3 Legal formalities of a cession

Unlike a mortgage bond over immovable property, a cession has no formal legal formalities which must be complied with in order to be legally effective.

As long as:

a) the right transferred inherently belongs to the cedent; and

b) an agreement (written or verbal) is reached between the cedent and the cessionary to transfer the right;

A valid cession will come into existence. A cession may validly be made orally or even tacitly. What is necessary is that the intention to cede must be clearly proved (Botha v Fick, 1995).

Since the cession by a farmer of his right to future crop income, the question must be asked whether a cession of a *future right* or a *spes* may validly be ceded.

2.3.2.4 Cession of a future right

A right, the extent of which is yet to be determined, such as a claim for damages, is capable of cession (Schreuder v Steenkamp, 1962). A right such as the performance of which is not yet recoverable because of a time clause or a suspense condition may likewise be ceded (Oudtshoorn Town Council v Smith, 1911).

In each of the afore stated instances however, the ceded right will be subject to a contingency for a cessionary's title, and can never be superior to that of a predecessor. This restriction is based on the legal maxim *nemo plus iuris transfere potest quam ipse habet,* meaning; no one can transfer more rights to another than he himself has (Oxford, 2014). However, a cession of right to a potential crop income should be distinguished from the aforestated *contingent* rights.

Contingent rights, which exist though not yet enforceable, are not to be confused with future rights or *spes*, which are not and may never become existing rights (Du Plessis v Protea Inryteater (Edms) Bpk, 1965). A cession of future crop income typically falls into this category, as there is no guarantee that the right will ever come into existence.

The question whether a future right can be ceded has been a topic of debate in our courts for many years. In a long line of cases, our courts held that a future right or *spes* (the hope or expectation that a right might in future materialise), is capable of cession (Jenkins & Co v Roberts, 1912). This notion that it is feasible to transfer something which is not and may never come into existence has been widely criticised, on both historical and dogmatic grounds. But there is a practical need for parties to be able to pre-arrange and correlate their commercial expectations, especially when money is advanced to farmers on the strength of future crops.

The legal basis of the acknowledgement of the capability of cession of a future right, is construed as a cession *in anticipando*. If the right or *spes* is taken at face value, the right, when it does accrue, will vest in the cessionary. To be effective as a cession *in anticipando*, the cession agreement must comply with all the substantive and formal requirements of a transfer agreement, being:

- that the right to be transferred must be certain or ascertainable; and
- the cedent, at the time that the right accrues, must possess the capacity to cede; and
- the arrangement between the cedent and the cessionary must not be adverse to public policy (for instance, an employee who cede all his future earnings) (Lawsa, 2014:148).

Notwithstanding the above, there are *dicta* to be found in the case of First National Bank v Lynn NO (1996) to the effect that future rights cannot be ceded. But in the case of Headleigh Private Hospital (Pty) Ltd v Soller & Mining Attorneys and Others (2001) Judge Cameron showed that the bark of these *dicta* is worse than their bite and concluded that "*the doctrinal and factual position resulting from First National Bank v Lynn NO is not without complexity, but even the judgement of Joubert JA contemplates that parties may at a remote point in the past agree to cede and transfer a future right of action or future debt as and when it comes into existence and accrues or become due and payable*".

It is currently widely accepted that cession of a right to future crop income is legally sound, and many cases of this nature are heard by our courts annually without being contested on the basis of their validity. There is thus no need for the purpose of this study to analyse the legality of crop income cession further.

2.3.3 *"First in Time First in Right"*

The very basis of the problem as stipulated in Chapter one, and corresponding credit risk to agri-financiers, relying on a cession to the right of future crop income as primary collateral for repayment of an input cost loan, lies at the door of the legal principle *Qui Prior Est Tempore, Potior Est Iure.*

This maxim literally means he who is earlier in time is stronger in right/in law. Accordingly, where there are two competing equitable interests (such as competing cessions in the same crop income), the general rule of equity is that the person/entity whose equity attached to the property/crop, will be first entitled to priority over the other. The first in time will thus prevail (Learn Law, 2014).

This rule, commonly known as the *Prior Est Tempore*-rule, has its origin in the English common law, as it was established in the case of Dearle v Hall (1828). Under English common law, the rule broadly provides that where the equitable owner of an asset purports to dispose of his equitable interest on two or more occasions, and the equities are equal between claimants, the claimant who first notifies the trustee/legal owner of the asset shall have a first priority claim (Dearle v Hall, 1828).

For obvious reasons, the *Prior Est Tempore*-rule has been controversial since its inception. In the case of Ward v Duncombe (1893), Lord Macnaghten remarked, "*I am inclined to think that the rule in Dearle v Hall has on a whole produced at least as much injustice as it has prevented*". This inherent injustice associated with the rule, has however, not prevented it from being extended from a rule regulating the priority of interests in trusts, to the regulation of the priority interests in debts and other similar intangibles, such as a right to crop income and rights in contracts, which is considerably more important in terms of modern commerce.

The fact of the matter is that this rule has found its way to many Commonwealth countries, including South Africa. Today, this rule is alive and well and is enforced by our courts as part of the South African common law. For purposes of this study, the rule finds its applicability when two or more agri-financiers rely on competing cessions on income from the same crop. The cession document concluded that first in time will prevail over subsequent cessions concluded, leaving those financiers with inferior or no collateral for repayment of their loan.

The aim of this study is to propose a solution to this risk of agri-financiers at the hand of another common law principle, the principle of *Waiver of Rights* and *Estoppel*.

2.3.4 Waiver of Rights

The South African common law recognises the phenomenon that a party can waive a right (contractual right, common law right and even in certain circumstances a statutory right) to which such party is entitled to. Although the term *waiver* is used in many legal contexts, it essentially means a unilateral act of one person that results in the surrender of a legal right, which legal right may be constitutional, statutory, contractual, or derived from common law (The Free Dictionary, 2014).

Another definition entails, "*the voluntary and intentional giving up of a right, either by an express statement or by conduct, such as not enforcing a right*" (The Free Dictionary, 2014). The author prefers this definition as it expressly provides for the party waiving his right, to be able to do so intentionally.

There are no formal legal formalities in order to affect a waiver of a right, other than that:

a) the individual must have the voluntary intention to waive the right;

b) he should express his intention in action or in writing;

c) he should have normal contractual capacity when waving his right i.e. he should be of legal age, possess sanity and more;

d) the waiver must not be against public policy or be prevented by statute – for example, public policy shall dictate that it would be unlawful for an employee to waive all future remuneration. Similarly, certain legislation, such as the Consumer Protection Act (No 68 of 2008) (CPA) explicitly prohibits a *consumer* to waive his rights under the Act (SA, 2008).

It is important to note that in many instances, a waiver of a right may be construed from a party's conduct, sometimes resulting from a misrepresentation made by the right holder. The onus of proof of the waiver rests with the innocent party claiming that the right has been waived by the right holder. In Feinstein v Niggli (1981), Trollip JA held that the innocent party must make out a *prima facie* case as the right holder, that he was firstly aware of the discrepancies between the misrepresentation and the real facts, and that he was aware of the right so waived by the misrepresentation. It is therefore necessary to prove both the facts and the rights, that is supported as there is no conceptual difference between waiver, election and abandonment in this context (Christie & Bradford, 2011:299).

Provided that the above requirements are met, the author submits that the common law right of priority ranking under the *Prior Est Tempore*-rule, is typically a right which is capable of being waived. This forms the basis of the solution to the problem statement which is proposed in this study. In the solution to the problem statement, it will be proposed that the waiver of this right will be captured in an *explicit* agreement between the agri-financiers participating in the collateral registry.

Once such right is validly waived by an agri-financier, the protection afforded to other financiers, who may have second or third ranking rights because of competing cessions of crop income, lies in the law pertaining to *Estoppel*, a concept that will henceforth be briefly discussed.

2.3.5 Estoppel

Estoppel operates as a defence in law and closely related to the legal principle of waiver. Estoppel can be defined as a rule of law that when person A, by act or words, gives person B reason to believe a certain set of facts upon which person B takes action, person A cannot later, to his (or her) benefit, deny those facts or say that his (or her) earlier act was improper (Duhaime, 2014).

Another definition of estoppel can be articulated as a legal defence tool used when someone reneges on or contradicts a previous agreement or claim. Estoppel prevents someone from arguing something contrary to a claim made or act performed by that person previously. Conceptually, estoppel is meant to prevent people from being unjustly wronged by the inconsistencies of another person's words or actions (Investopedia, 2014).

The question bears to be asked whether the test, if a party is estopped from relying on a fact or right, is a *subjective* or *objective* one. This question was obiter answered in Thomas v Henry (1985) in which the court held that if the requisites of estoppel are present, the innocent party's explanation of the subjective reasons for his conduct will not assist him. The allegation of estoppel will be regarded as decisive hence the test is objective without only reference to the subjective reasons for the conduct.

This position was affirmed by Cloete JA in Concor Holdings (Pty) Ltd v Potgieter (2004) in which the learned Judge of Appeal remarked, "*Our law is that a person may be bound by a representation constituted by conduct* *if the representor should reasonably have expected that the representee might be misled by his conduct and if in addition the representee acted reasonably in construing the representation in the sense in which the representee did so.*"

It is submitted that agri-financiers that explicitly waive their entitlement to rights under cessions based on the *Prior In Tempore*-rule in a written agreement, will be prohibited from exercising such rights based on the principle of waiver, and if they indeed attempt to exercise such rights, other agri-financiers who participate as contract parties, shall successfully raise the defence of estoppel against such claims. This is the essence of the solution proposed to the problem statement raised in this study concerning competing cessions on crop income.

2.4 CONCLUSION

Although primary agriculture does not contribute significantly to the GDP of the country, it is a trite fact that the secondary contribution is enormous. Agriculture is also still one of the largest employers (directly and indirectly) in South Africa and the NDP has identified the role of agriculture as a primary driving force for job creation and rural development and upliftment in the country. The importance of the sector cannot be underestimated, especially against the background of global concerns over food security. South Africa possesses the most productive commercial agricultural sector in Africa while Africa is posed to have the potential to play a significant role in fighting food insecurity, as the continent has the biggest potential to develop commercial food production due to the high number of underdeveloped arable agricultural land available.

Primary agriculture is where it all starts, in particular the need by all classes of farmers, commercial, emerging, subsistence and small alike. Due to factors such as land reform and distribution, the phenomenon of more farmers renting farms for production and high land prices, there can be no doubt that traditional collateral available in the form of mortgage bonds to lenders of input costs, will become less popular and will be replaced by commodity based collateral, mainly cession of the income from the crop to be produced.

Due to the legal principle of *first in time, first in right*, such lenders run a significant credit risk due to the uncertainty of prior cessions in favour of other creditors over the same crop income. This risk will be evident from the empirical analysis to follow in Chapter three.

The proposed solution to this problem is the subject of this study, namely to creatively use other legal mechanisms to bring certainty of security to lenders who participate in a proposed collateral registry in South Africa. This can be achieved by using the common law principles of waiver and estoppel. A full legal analysis of the legal principles of waiver or estoppel is not required for purposes of this study. More importantly is that these concepts exist and can be used to afford lenders to primary agriculture the protection they require.

2.5 CHAPTER SUMMARY

Chapter two briefly outlines the macro environment pertaining to agriculture in South Africa, the important role it will play in the economy and the socio-political objectives the sector can fulfil as outlined in the NDP of government. It emphasises of the factors which in future will move primary agriculture financing collateral away from asset based collateral, to commodity based collateral. It explains the inherent risks to lenders associated with commodity based finance and discussed legal mechanisms which can be utilised to reduce these credit risks.

CHAPTER 3
Empirical Research

3.1 INTRODUCTION

The empirical research on the establishment of a web-based cession/collateral registration platform was conducted using a convenience sample method and not a random sample. Convenience sampling refers to data collection from a population conveniently available to participate as the best way to collect the data effectively and quickly (Welman et al., 2005:69).

A questionnaire (Appendix A) was developed by the author. The questionnaire (Appendix A) was structured in such a way that the problem statement and conclusion in the literature study (Chapter two), were verified for validity and to investigate whether the solution to be proposed in Chapter four, is palatable to the target market.

In this chapter the focus will be on the research methodology that was used to test the objectives listed in Chapter one. The results of the empirical research are outlined. An interpretation and analysis of the results of the empirical research, together with its application to the research objectives, follow in Chapter three before a final conclusion is reached on the outcome and proposed solution to the problem statement.

3.2 THE RESEARCH PROBLEM

The research problem identifies the research destination and what will be researched. The nature of the research will determine whether the research methodology, will be:

Exploratory	The research has been conducted to clarify and define the nature of a problem
Descriptive	The research aims to describe the characteristics of the population and sample which can be qualitative

	or quantitative in nature
Casual	The research is defined as a cause and effect relationship among variables when the research problem has been identified
Convenient	As opposed to random, the research was conducted among a sample of the population who was available and willing to participate in the research

The study aims at researching and answering the problem statement, namely whether an undue credit risk is assumed by agri-financiers in extending credit to farmers in circumstances where real security in the fashion of mortgage bonds are unavailable. And to the extent that the answer to the afore stated is affirmative, the study further aims at researching whether the establishment of a web-based real-time cession collateral registration platform for agri-financiers in South Africa, may serve as a sustainable solution to this problem.

The empirical study was focused on mainstream primary input cost agri-financiers in South Africa. In particular, individuals in various levels of seniority in the credit, legal or managerial (or combination of these) divisions of these agri-financiers, were identified. In particular, the author wanted to target individuals in authoratative positions which will typically be able to make a decision (or at least influence the decision) to join the proposed business as solution to the research problem.

A quantitative research approach was followed for practical purposes.

3.3 THE SCOPE AND PROCEDURE OF THE QUANTITATIVE RESEARCH

The empirical study (refer questionnaire as Appendix A) is concentrated on agri-financiers in South Africa. It is intended to:

firstly establish the demographic background of each of the sample participants	*Questions 1 - 7*
secondly establish whether the sample participant extend primary input cost credit to farmers secured by cession over the potential crop income	*Questions 8.1 – 8.6*
Thirdly establish whether the sample participant perceives the research problem as a credit risk (that cession of crop income carriers the inherent risk of inferior ranking to prior unknown cessions)	*Questions 9.1 – 9.8*
Fourthly establish whether the sample participant will support a central web-based cession security platform as solution to mitigate the perceived (if so) credit risk	*Questions 10.1 – 10.5*

3.3.1 Target population

A *population* refers to all the items or individuals from which one wants to draw a conclusion (Levine et al., 2011:34). The target population for this study includes agri-financiers of primary input cost to any class of farmer. The population does not amount to high numbers of entities, as agri-finance in its nature is much specialised and a limited number of entities possess the know-how, skills or technical background to finance primary agricultural input costs. It is estimated that at the most, 35 agri-financiers that fit the population profile for this study, operates in South Africa.

As mentioned, the author used the *nonprobability convenience* sampling method to collect the desired data. In a nonprobability sample, one selects items or individuals without knowing their probabilities of selection (Levine et al., 2011:252). The author selected this method due to the ease, inexpensive and convenience of the sampling process.

3.3.2 Study Population

The study population comprises all agri-financiers in South Africa of primary input cost to farmers which are likely to secure such loans by way of cession over the crop income to be received from the crop to be produced.

3.3.3 Measuring instrument

The instrument used in this study was a self-compiled questionnaire. The questionnaire was compiled by the author and aimed at establishing the validity of the research problem as perceived by the target population, as well as the general perception of the target population whether the proposed solution will be palatable. The questionnaire was informed by the literature study described in Chapter two. The questionnaire is included as Appendix A. The questionnaire consisted of 10 main questions, totalling 25 sub-questions and an opportunity for general comments.

Table 3.1 below explains the constructs and the questions interrogating each of the respective constructs.

Table 3.1: Empirical Research Constructs

	Constructs	Questions	Associated Questions
1.	Sample Demographics (“**Demographics**”)	1 – 7	
2.	Sample Involvement in Agri-Finance (“**Relevance/Involvement**”)	8	Q8.1 – Q8.6
3.	Sample Perception of Research Problem (“**Research Problem**”)	9	Q9.1 – Q9.8
4.	Sample Perception of Proposed Solution to Research Problem (“**Solution**”)	10	Q10.1– Q10.5

3.4 DATA ANALYSIS AND FINDINGS

The author engaged the services of the Statistical Consultation Services at the Potchefstroom Campus of the North-West University to perform the data analysis. The data was analysed using descriptive statistics. Table 3.2 depicts the descriptive statistical analysis were conducted on each of the constructs:

Table 3.2: Descriptive Statistical Analyses per Construct

	Constructs	Analysis
1.	**Demographics**	Frequency
2.	**Involvement/Relevance**	Frequency
3.	**Research Problem**	Frequency, Mean, Standard Deviation, Correlation
4.	**Solution**	Frequency, Mean, Standard Deviation, Correlation

3.4.1 Sample participants

Table 3.3 below describes the agri-financiers who participated in the empirical research as well as the frequency percentage of each participant. A total of 16 questionnaires were returned.

Table 3.3: Sample Participants in Empirical Research

Sample Participant	Frequency	Valid Percentage	Cumulative Percentage
AGRI CAPITAL	1	6.3	6.3
BKB	4	25.0	31.3
GWK	1	6.3	37.5
NWK	1	6.3	43.8
OVERBERG AGRI	1	6.3	50.0
SENWES	1	6.3	56.3
SUIDWES	3	18.8	75.0
TWK	2	12.5	87.5
VKB	1	6.3	93.8
NTK	1	6.3	100.0
Total	**16**	**100.0**	

It is submitted that the participants listed in Table 3.3 above is a representative sample of the population, as a very limited number of agri-financiers are operating in South Africa and the viewpoints of the above participants will be relevant to this study.

3.4.2 Descriptive Statistics (Frequency, Mean and Standard Deviation)

The arithmetic mean, or mean, is the most commonly used measure of central tendency that will indicate the balance point in a set of data (Levine et al., 2011:114). The mean, denoted $\bar{x}$, is the sum of the values in a set of data divided by the number of values in the same set of data, then the mean calculation becomes equation 1 (Levine et al., 2011:115):

Equation 1: Mean

$$\overline{X} = \frac{\sum X}{N}$$

(Source: Levine et al., 2011:115)

Where:

$\bar{x}$ = Mean

Σ X = The sum of all the observed values in the data set

N = Sample size

The standard deviation measures the average distribution around the mean. The majority of the values lie within an interval of minus or plus one standard deviation below or above the mean (Levine et al., 2011:121). A formula to calculate the standard deviation is set as per equation 2.

Equation 2: Standard deviation

$$S = \sqrt{\frac{\sum_{k=1}^{n}(x_k - \bar{x})^2}{n-1}}$$

(Source: Levine et al., 2011:121)

Where:

$\bar{x}$ = Arithmetic mean

n = Sample size

$\Sigma(x - \bar{x})^2$ = The sum of the squares of the difference between the observed values and the average values of the data points

S = Standard deviation

The *frequency analysis* and where applicable, the *mean* and *standard deviation* of each question in each Construct is listed in the Table 3.4 below:

Table 3.4: Construct 1 – Frequency Analysis, Mean and Standard Deviation

SAMPLE AGE (Q1)	Frequency	Percent
30 – 39	6	37.5
40 – 49	6	37.5
50 – 59	4	25.0
Total (*n*)	16	100.0

SAMPLE GENDER (Q2)	Frequency	Percent
Male	11	68.8
Female	5	31.3
Total (*n*)	16	100.0

SAMPLE ETHNICITY (Q3)	Frequency	Percent
White	16	100.0

SAMPLE YEARS AT EMPLOYER (EXPERIENCE) (Q4)	Frequency	Percent
	1	6.3
1 year up to 2 years	1	6.3
2 years up to 5 years	6	37.5
5 years up to 10 years	4	25.0
10 years up to 15 years	1	6.3
15 years up to 25 years	2	12.5
25 or more years	1	6.3
Total (*n*)	16	100.0

SAMPLE DEPARTMENT (Q5)	Frequency	Percent
Finance	3	18.8
Legal or Secretariat	4	25.0
Credit	9	56.3
Total (*n*)	16	100.0

SAMPLE SENIORITY LEVEL (Q6)	Frequency	Percent
Junior Management	4	25.0
Senior Management	6	37.5
Executive Management	6	37.5

<u>Interpretation</u>

From the frequency analyses of Construct 1, it is apparent that a healthy mix of individuals was targeted for the empirical research. The sample age is well-spread. What is a typical phenomenon in the agricultural sector, is apparent from the fact the males are still dominating as decision makers and that all the respondents were white. A contributing factor for the lack of employment equity in this sector is purported to be the fact that most agri-financiers (especially traditional cooperatives) are based in rural areas and suitably qualified and experienced black candidates are mostly unwilling to substitute lucrative urban opportunities to relocate to predominantly Afrikaans rural areas. This phenomenon is however a topic for another study. A healthy mix of years' experience, professional background and levels of seniority of the sample, is further evident with no single category dominating the other.

Table 3.5: Construct 2 – Frequency Analysis, Mean and Standard Deviation

Is the organisation involved in extending finance to farmers for crop/produce production? (Q8.1)	Frequency	Percent
Yes	16	100.0

As security for such finance, does the organisation from time to time requires the farmer/producer to cede his/her rights to the crop/produce as security for repayment? (Q8.2)	Frequency	Percent
Yes	16	100.0

What approximate percentage of the organisation's total debtors book to farmers, is predominantly secured by way of a cession of rights to crop/produce? (Q8.3)	Frequency	Percent
<10%	2	12.5
10% - 30%	3	18.8
31% - 50%	4	25.0
51% - 80%	5	31.3
>81%	2	12.5

Do you think a cession of crop/produce as a form of security for agricultural production finance, will become more popular in future? (especially if no mortgage bond can be passed due to crop/produce being produced on leased or state land) (Q8.4)	Frequency	Percent
Yes	14	87.5
No	2	12.5

Do you agree that farm land received by emerging farmers under land reform or tribal land will in all likelihood be incapable of being mortgaged? (Q8.5)	Frequency	Percent
Yes	16	100.0

Are you aware of the legal principle *first in time first in right* applicable to cessions? (Q8.6)	Frequency	Valid Percent
Yes	16	100.0

Interpretation

Construct 2 poses the question to what extent the target population is involved in agri-finance using commodity based collateral. All respondents responded positively to these questions and overwhelmingly agree that commodity-based collateral will become more relevant in future. All respondents furthermore are aware of the legal principle of *first in time first in right.*

Table 3.6: Construct 3 – Frequency Analysis, Mean and Standard Deviation.

The uncertainty of knowledge of any predated cessions over crop/produce is a credit risk when we rely on a cession of crop as security for repayment of our loan.	Frequency	Valid Percent	Mean	Standard Deviation
Agree Strongly Agree	5 11	31.3 68.8	4	0.5

I am aware of a past situation where a dispute arose between lenders because of cessions over a similar right.	Frequency	Valid Percent	Mean	Standard Deviation
Agree Strongly Agree	3 13	18.8 81.3	4	0.4

I am aware of a lender who had to write off debt due to a conflicting cession over a crop/produce, unknown to it at the time of extending credit to a borrower	Frequency	Valid Percent	Mean	Standard Deviation
Strongly Disagree Agree Strongly Agree	1 7 8	6.3 43.8 50.0	3	0.8

When taking a cession over crop/produce as security for a loan, there is really no guaranteed way to know for certain that no predated cession/s exist over the same crop/produce.	Frequency	Valid Percent	Mean	Standard Deviation
Agree Strongly Agree	6 10	37.5 62.5	4	0.5

Cession over crop/produce as a form of security for agricultural production finance will become more popular in future due to, among other: • more farmers farming on leased land (which cannot be mortgaged); or • due to land redistribution to emerging farmers which will not be capable of being mortgaged; or • due to large-scale financially sound farmers becoming more reluctant to pass mortgage bonds over owned land.	Frequency	Valid Percent	Mean	Standard Deviation
Strongly Disagree Disagree Agree Strongly Agree	1 1 9 5	6.3 6.3 56.3 31.3	3	0.8

Not only agricultural financiers (banks/agri-business) tend to take cession over crops/produce as security for loans, but also input suppliers (seed, fertilizer and more) for supplying product on credit.	Frequency	Valid Percent	Mean	Standard Deviation
Agree Strongly Agree	10 6	62.5 37.5	3	0.5

Agricultural production finance is a booming business.	Frequency	Valid Percent	Mean	Standard Deviation
Disagree Agree Strongly Agree	2 6 8	12.5 37.5 50.0	3	0.7

Agricultural production finance is essential for a healthy agri-industry and food security.	Frequency	Valid Percent	Mean	Standard Deviation
Disagree Agree Strongly Agree	1 3 12	6.3 18.8 75.0	4	0.6

Interpretation

Construct 3 relates to the perceived credit risk by the target population pertaining to commodity-based collateral by way of cession of crop income as outlined in the problem statement.

Almost 70% of the respondents strongly agree that the above collateral poses a credit risk to them. 81% of the respondents strongly agree that they are aware of a past situation where conflicting crop cessions gave rise to a dispute between lenders, and overwhelmingly 94% of respondents either agree or strongly agree that they are aware of a past situation where an agri-financier had to write off debt due to a prior conflicting crop cession.

Furthermore, 100% of respondents agree or strongly agree that there is no transparent system currently in place which could disclose prior conflicting crop cessions when extending agri-finance to farmers, thus no guarantee can be derived when assuming this credit risk.

This overwhelming response poses no doubt that a market exists for the proposed solution to the problem statement tables in this study.

Table 3.7: Construct 4 – Frequency Analysis, Mean and Standard Deviation

It would be beneficial to agri-financiers to know for certain that no predated cession/s exist over crop/produce financed by them and secured by a cession of the very crop so financed.	Frequency	Valid Percent	Mean	Standard Deviation
Agree Strongly Agree	5 11	31.2 68.8	4	0.59

I will support a system ("the System") in terms of which cession security are registered in real-time and are transparent to all other agri-financiers based on the principle that 1st registration ranks first in right. A system similar to registration of mortgage bonds over property.	Frequency	Valid Percent	Mean	Standard Deviation
Disagree Agree Strongly Agree	1 5 10	6.3 31.3 62.5	4	0.6

In exchange for the benefit from the certainty the above System will provide, I may be comfortable to agree with other agri-financiers (participants) to waive the legal principle of first in time first in right based on date of conclusion of the cession, and agree that the principle will apply based on the date of registration of the cession on the system.	Frequency	Valid Percent	Mean	Standard Deviation
Strongly Disagree Disagree Agree Strongly Agree	1 2 10 3	6.3 12.5 62.5 18.8	3	0.8

I/the organisation will be willing to pay a reasonable fee to benefit from such a System.	Frequency	Valid Percent	Mean	Standard Deviation
Disagree Agree Strongly Agree	3 12 1	18.8 75.0 6.3	3	0.5

I/the organisation may be willing to participate as equity partner in developing such a System.	Frequency	Valid Percent	Mean	Standard Deviation
Strongly Disagree Disagree Agree Strongly Agree	1 2 11 2	6.3 12.5 68.8 12.5	3	0.7

Interpretation

Construct 4 investigates in more detail whether the proposed solution to the problem statement tabled in this study, is perceived by the target population as commercially viable. All of the respondents agreed/strongly agreed that it would be beneficial to know for certain that no predated cession/s exist over crop/produce financed by them and secured by a cession of the very crop so financed.

94% of the respondents agreed/strongly agreed that they will support a system, as proposed herein, in terms of which cession collateral are registered in real-time and are transparent to all other agri-financiers, based on the principle that first registration ranks first in right - a system similar to registration of mortgage bonds over property. A comparable high percentage of respondents (80%) are prepared to waive their common law right of *first in time first in right* in order to obtain the certainty that could be provided by the proposed solution.

Furthermore, more than 80% of the respondents declared their willingness to pay a fee to participate in the system proposed as solution to the problem statement and even take up equity in such venture. This overwhelming positive reaction by the target population bears testimony to the commercial viability (entrepreneurial opportunity) that exists in the market.

3.4.3 Descriptive Statistics (Correlation)

Correlation is a statistical measure of how two variables move in relation to each other. Correlation is computed into what is known as the *correlation coefficient*, which ranges between -1 and +1. Perfect *positive* correlation (a correlation coefficient of +1) implies that as one variable moves, either up or down, the other variable will move in the same direction. Alternatively perfect *negative* correlation (-1) means that if one variable moves in any direction, the variable that is perfectly negatively correlated, will move in the opposite direction. If the correlation is 0, the movements of the securities are said to have no correlation, in other words they are completely random. (Investopedia, 2014).

When the *correlation coefficient* is close to zero there is no evidence of any relationship. Confidence in a relationship is formally determined not just by the correlation coefficient, but also by the number of pairs in the data. If there are very few pairs the coefficient needs to be very close to 1 or –1 for it to be deemed 'statistically significant', but if there are many pairs a coefficient closer to 0 can still be considered 'highly significant'.

The standard method that statisticians use to measure the '*significance*' of their empirical analyses is the *p-value*. The p-value is a number between 0 and 1 representing the probability that the data would have arisen if a null hypothesis were true. The calculation of the p-value is based on a number of assumptions that are beyond the scope of this discussion. A low p-value (such as 0.01) is taken as evidence that a null hypothesis can be rejected (Levine et al., 2011:333).

For the purpose of this study, the p-values are reported for completeness sake, but will not be interpreted, since a convenience sample instead of a random sample methodology was used.

3.4.3.1 Correlation – demographic data with constructs 3 and 4

The data of constructs 3 and 4 were tested for correlation with certain demographic data (questions 1, 4 and 8.3). Table 3.8 below displays the correlation coefficient and p-values of the respective variables:

Table 3.8: Construct vs Constructs 3 & 4 Correlation coefficient and P-values

Constructs 3 & 4 Questions		Age	Years Employment	% of debtors book cession secured
Question 9.1	Correlation Coefficient	.218	-.076	-.255
	p-value	.417	.780	.340
	N	16	16	16
Question 9.2	Correlation Coefficient	.111	-.306	-.214
	p-value	.683	.249	.426
	N	16	16	16
Question 9.3	Correlation Coefficient	.047	-.274	-.667**
	p-value	.862	.304	.005
	N	16	16	16
Question 9.4	Correlation Coefficient	.030	-.247	-.043
	p-value	.913	.357	.874
	N	16	16	16
Question 9.5	Correlation Coefficient	-.074	-.132	.119
	p-value	.786	.627	.661
	N	16	16	16
Question 9.6	Correlation Coefficient	.119	-.203	.216
	p-value	.660	.451	.422
	N	16	16	16
Question 9.7	Correlation Coefficient	-.293	-.441	-.047
	p-value	.270	.087	.864
	N	16	16	16
Question 9.8	Correlation Coefficient	-.143	-.066	.171
	p-value	.598	.807	.528
	N	16	16	16
Question 10.1	Correlation Coefficient	.062	-.500*	.240
	p-value	.819	.049	.370
	N	16	16	16
Question 10.2	Correlation Coefficient	.550*	-.142	.035
	p-value	.027	.600	.899
	N	16	16	16
Question 10.3	Correlation Coefficient	-.157	-.671**	-.163
	p-value	.561	.004	.546
	N	16	16	16
Question 10.4	Correlation Coefficient	.285	-.181	.631**
	p-value	.284	.502	.009
	N	16	16	16
Question 10.5	Correlation Coefficient	.301	-.204	.649**
	p-value	.257	.448	.007
	N	16	16	16

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Interpretation

From the above table, it is significant to note the high positive correlation between willingness of respondents to pay for a system as the proposed solution (and even take up equity in such venture) and the percentage of their total debtors' book secured by commodity-based collateral (cession). This is an indication that highly exposed credit financiers are more likely to financially support the proposed solution.

If one considers the high percentage of respondents who agrees that cession collateral will become more popular in future (100%, construct 2), the reference may thus be drawn that as agri-financiers in future secure their exposure more and more by way of crop cession, new entrants may have much more appetite to financially support the proposed system as suggested in this study.

3.4.3.2 Correlation – Constructs 3/4 data

The data of constructs 3 and 4 were tested for correlation with each other. Table 3.9 below displays the correlation coefficient (*r*) and p-values of the respective variables. Reference to *Q9N1* is reference, as example to question 9 sub-question 1. *N* equals 16 in the table.

Table 3.9 follows on next page

Table 3.9: Correlation coefficient (*r*) and p-values

Table ___		Q9N1	Q9N2	Q9N3	Q9N4	Q9N5	Q9N6	Q9N7	Q9N8	Q10N1	Q10N2	Q10N3	Q10N4	Q10N5
Q9N1	r	1.000	.713**	.328	.870**	.016	.522*	.290	.193	.418	.514*	-.220	.097	-.089
	p-value	-	.002	.215	.000	.952	.038	.276	.474	.107	.042	.414	.722	.743
Q9N2	r	.713**	1.000	.409	.620*	.175	.372	.651**	.413	.713**	.550*	0.000	.206	.212
	p-value	.002	-	.115	.010	.516	.156	.006	.112	.002	.027	1.000	.443	.431
Q9N3	r	.328	.409	1.000	.189	.180	.047	.344	-.068	.082	.128	.171	-.034	-.129
	p-value	.215	.115	-	.484	.506	.862	.192	.804	.763	.638	.525	.901	.635
Q9N4	r	.870**	.620*	.189	1.000	.063	.600*	.370	.111	.592*	.394	-.210	.333	.119
	p-value	.000	.010	.484	-	.817	.014	.158	.683	.016	.131	.435	.208	.660
Q9N5	r	.016	.175	.180	.063	1.000	.597*	.451	.115	.443	.116	-.050	.499*	.424
	p-value	.952	.516	.506	.817	-	.015	.080	.670	.086	.669	.855	.049	.101
Q9N6	r	.522*	.372	.047	.600*	.597*	1.000	.309	.092	.522*	.345	-.226	.462	.324
	p-value	.038	.156	.862	.014	.015	-	.245	.733	.038	.191	.399	.071	.221
Q9N7	r	.290	.651**	.344	.370	.451	.309	1.000	.668**	.741**	.376	.157	.400	.454
	p-value	.276	.006	.192	.158	.080	.245	-	.005	.001	.151	.561	.125	.077
Q9N8	r	.193	.413	-.068	.111	.115	.092	.668**	1.000	.483	.434	.202	.124	.208
	p-value	.474	.112	.804	.683	.670	.733	.005	-	.058	.093	.454	.646	.439
Q10N1	r	.418	.713**	.082	.592*	.443	.522*	.741**	.483	1.000	.617*	.203	.676**	.659**
	p-value	.107	.002	.763	.016	.086	.038	.001	.058	-	.011	.452	.004	.005
Q10N2	r	.514*	.550*	.128	.394	.116	.345	.376	.434	.617*	1.000	.057	.396	.457
	p-value	.042	.027	.638	.131	.669	.191	.151	.093	.011	-	.835	.129	.075
Q10N3	r	-.220	0.000	.171	-.210	-.050	-.226	.157	.202	.203	.057	1.000	-.017	-.003
	p-value	.414	1.000	.525	.435	.855	.399	.561	.454	.452	.835	-	.951	.991
Q10N4	r	.097	.206	-.034	.333	.499*	.462	.400	.124	.676**	.396	-.017	1.000	.907**
	p-value	.722	.443	.901	.208	.049	.071	.125	.646	.004	.129	.951	-	.000
Q10N5	r	-.089	.212	-.129	.119	.424	.324	.454	.208	.659**	.457	-.003	.907**	1.000
	p-value	.743	.431	.635	.660	.101	.221	.077	.439	.005	.075	.991	.000	-

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Interpretation

The following significant *positive* correlations (> 0.7, marked in red) beg for comment:

Table 3.10: Positive correlations

Questions	Description	Comment (Reference Drawn)
Q9N1 & Q9N4	No knowledge of prior conflicting cession/s is a credit risk and there is no guaranteed measure to currently obtain such knowledge.	This positive correlation describes the age-old notion that knowledge is power. Risks are hidden in the lack of knowledge. It was thus expected that no knowledge, or at least no method to know, will inevitably pose a credit risk to the respondents. The proposed solution therefor correctly attempts to establish a system which will disclose the existence of conflicting cessions.
Q9N2 & Q9N1	No knowledge of prior conflicting cession/s is a credit risk and the respondent is aware of past disputes in respect of conflicting cessions.	It is again anticipated that the respondents based their perception of the credit risk on the history of conflicting cessions and subsequent legal disputes in that respect between lenders.
Q9N2 & Q10N1	The respondent is aware of past disputes in respect of conflicting cessions and it would be beneficial to agri-financiers to know for certain that no predated cession/s exist over crop/produce financed by them and secured by a cession of the very crop so financed.	This high positive correlation reaffirms the notion by the respondents that only knowledge of prior conflicting cessions will mitigate the credit risk of disputes. The proposed solution in this study does not only provide such knowledge, but further aims at establishing a new regime of cession ranking, being ranked according to registration of the cession on the system as opposed to date of conclusion of the cession.
Q9N7 & Q10N1	Agricultural production finance is a booming business and it would be beneficial to agri-financiers to know for certain that no predated cession/s exist over crop/produce financed by them and secured by a cession of the very crop so financed.	As expected, in a rapidly expanding industry, the credit risk associated with the problem statement will escalate and it comes as no surprise that respondents who agree that the agri-industry is booming, would naturally confirm that a mitigator to such credit risk, is much needed.

Q10N5 & Q10N4	The respondent will be willing to pay a reasonable fee to benefit from a system as proposed and the respondent will be willing to invest as equity partner in such commercial venture.	This positive correlation is welcomed and expected to exist. The commercial viability of such venture is integral to this study.

3.5 CONCLUSION AND CHAPTER SUMMARY

In this chapter the results of the empirical research study as analysed, have been presented. The study aimed at researching and answering the problem statement, namely whether an undue credit risk is assumed by agri-financiers in extending credit to farmers in circumstances where real security in the fashion of mortgage bonds are unavailable. As is evident from the results of the empirical research, the answer to the aforestated question is affirmative. The research has further investigated whether the establishment of a web-based real-time cession security registration platform for agri-financiers in South Africa may serve as a sustainable solution to this problem. Likewise, from the results it appears to be palatable.

The results of the empirical study has been analysed statistically and presented in table format. These have been analysed critically and the positive correlations that have been highlighted are welcoming gestures as these underscore the author’s submission that a significant market gap exists that poses an entrepreneurial opportunity which can be exploited for financial gain.

CHAPTER 4
CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION AND GENERAL CONCLUSION

Agriculture as a major industry sector contributing, directly and indirectly, to the South African GDP, is plagued with challenges such as land reform and redistribution, changing climatic conditions, political and social transformation and issues pertaining to food security. However, the industry is also set for dramatic expansion due to the emphasis placed in the NDP on rural development and food security and its potential to create jobs.

Integral to the industry is primary agriculture, as kick-starter of the entire value chain. In turn, it is trite knowledge that agri-finance is the first link to primary agriculture. Rising farm prices and input costs have contributed to a highly competitive primary agriculture sector and, with very few exceptions, farmers are generally reliant on agri-financiers to finance crop input costs on an annual basis.

Agri-financiers are in turn faced with unique financing challenges, in particular the unavailability of farm land as primary collateral for production loans to farmers. Various factors contribute to this phenomenon, which is likely to increase in future. As alternative, it is envisioned that more and more agri-financiers will be reliant on commodity-based collateral, in particular cessions over the income from the crop, to be produced by their farmer-borrowers. The law of cession however poses a significant credit risk to such agri-financiers as in South Africa, prior conflicting cessions in favour of other lenders or input suppliers are not disclosed to the market, which may jeopardize the ranking of the collateral.

This study identified and investigated this credit risk as primary objective and proposes a solution in mitigating the credit risk as secondary objective.

An empirical study was conducted amongst mainstream agri-financiers in South Africa. The result of the empirical research overwhelmingly underscores the credit risk associated with cession of crop income as primary collateral to agri-financiers, as well as supports the proposed solution as a credit risk mitigator.

This chapter will highlight certain aspects of the previous chapters, consider it, propose a high level solution to the risk, and briefly consider similar solutions in other jurisdictions.

4.2 CONCLUSION ON CHAPTER 2 (LITERATURE STUDY)

Agricultural Sector and Agri-Finance

South Africa has the most productive agriculture sector on the continent, yet faces a future of uncertain land reforms, increasing domestic pressure to expand, and fierce international competition for everything it produces. To this extent, prospects for agriculture in 2014 are considered more uncertain than for the macro-economy. However, an upward swing in the macro-economy will no doubt benefit the agriculture industry, and agri-businesses can look forward to industry improvement nonetheless, during 2014 and onwards.

Expected population growth over time and an increase in expenditure by the general public, especially on non-durable goods (which include food and agri-related products), will contribute to an increase in already high food inflation figures. In particular, it is expected that staple food (such as maize meal, rice and bread) will be hardest hit by food price inflation. To this extent, all classes of farming activities (commercial, emergent or small-scale) will play a pivotal role in satisfying the market requirements.

Primary agriculture, faced with its own unique challenges, is nonetheless identified as strategic growth point in the NDP. The industry is identified as major catalyst for rural development, social upliftment, job creation and food insecurity mitigator. The NDP recognises the important role that agri-businesses, such as agri-financiers, will play in the reaching of the objectives it set. It further recognises that a large number of land reform beneficiaries have not been able to use redistributed land productively due to a lack of resources, including adequate finance for crop input costs. Redistributed land is not capable of being mortgaged in favour of agri-financiers and as such commodity-based collateral will serve as the primary form of collateral to agri-financiers who finance the crop input costs of these farmers. Various other factors contribute to this phenomenon of moving towards commodity-based collateral, including:

- Agricultural land price inflation;
- Consolidation of industry – large-scale commercial farmers becoming larger and small-scale farmers exiting the industry due to high input costs and lack of economy of scale;
- Tribal land which cannot be mortgaged as collateral;
- Market dynamics.

Legal Analysis

Commodity-based collateral in the form of a cession of crop income, poses a significant credit risk to agri-financiers, mainly due to the operation of the legal maxim, *first in time first in right*. The very common law (which governs cessions) which informs this risk to agri-financiers, ironically can also be applied to find a creative solution to the problem. The solution lies in the common law principles of *waiver* and *estoppel*.

It is quite possible for agri-financiers to contractually agree amongst each other that another legal regime will govern the relationship between them in respect of cession collateral. By contractually waiving the protection under the legal principle of *first in time first in right* and agreeing an alternative regime of ranking and disclosure of cession collateral, agri-financiers could mitigate the risk *in toto*. This is the basis of the solution recommended later in this study.

4.3 CONCLUSION ON CHAPTER 3 (EMPIRICAL RESEARCH)

An empirical research was conducted amongst mainstream agri-financiers in South Africa using a questionnaire which was aimed at collecting data in respect of four constructs, namely:

- Demographics;
- Involvement/Relevance;
- Perception of the research problem;
- Perception of the proposed solution.

The sample selected for the research was well-balanced insofar as it concerned gender, age, seniority, qualifications and experience. The results were statistically analysed, mostly testing frequency and correlation.

The analysis indicated that the research problem was relevant to all respondents and that all respondents perceived the problem statement as a valid risk. Similarly, an overwhelming majority of the respondents indicated that the proposed solution to the problem statement (as will be described in more detail later in this study) is workable and could be a viable commercial opportunity.

4.4 RECOMMENDATIONS

4.4.1 **Introduction**

As part of the secondary objective of this study, the author wishes to recommend a solution to the credit risk identified as part of the primary objective of the study. It must be emphasised however that the purpose of this study is not to elaborate in too much detail on the mechanics of the proposed solution.

It is evident from the empirical research that the proposed solution has high commercial potential. The author has already engaged in discussion with investors and business partners in developing the recommendation outlined in this study as a commercial venture. To this extent, the details pertaining to the development, operation, capital structure, financial model, target market and information technology, which shall underpin the anticipated venture, is proprietary sensitive and confidential.

4.4.2 A web-based cession collateral registration platform for agri-financiers in South Africa ("the Platform")

As a brief outline, the recommendation as a proposed solution to the problem statement shall contain the following elements:

a) Collaboration between Agri-Financiers

All agri-financiers in South Africa must be identified and engaged in order to secure as much collaboration between them as possible. The success of the Platform shall depend on how many agri-financiers are prepared to take part in it. The more the better, as the legal protection which the Platform will afford shall only be valid between participating agri-financiers.

b) Inter-Party Agreement

Essential to the success of the Platform, all participating agri-financiers ("**the Participants**") will have to conclude an inter-party agreement. The terms of this agreement may vary, but will at least contain the following provisions:

- the Participants must agree to waive their respective common law rights in respect of the *ranking* of cessions (*first in time first in right*) of crop income to be concluded after an effective date. The effective date will be negotiated and may well be retrospectively valid. The essence is that the Participants agree that from the effective date, the <u>date of conclusion</u> of any cession over crop income will no longer be the deciding factor of the ranking of such cession whenever a dispute arises with any other Participant over the ranking of conflicting cessions;

- the Participants must agree to join the Platform;

- the Participants must agree that, after the effective date, the date on which each of their respective cessions is <u>registered</u> on the Platform, shall be the determining date of the ranking of each such cession relative to any other cessions of the other Participants;

- Preference ranking shall only apply in respect of income from a crop to be produced on a specific farm/s, as described according to title deed description and/or GPS coordinates;

- Each Participant agrees that each registered cession shall be visible to the other Participants in order to afford total transparency to Participants of prior registered cessions which could affect their ranking of subsequent cessions;

- the Participants must agree that they will not dispute the ranking of cessions after the effective date, but that the registered date shall be conclusive proof of ranking. In other words, Participants shall bind themselves to be legally *estopped* to claim a ranking priority of the cession as registered and disclosed on the Platform;

- the Participants shall agree to pay a prescribed fee to participate on the Platform. The fee could be calculated as either:

    - a percentage of the value of the credit facility for which the cession serves as collateral; or
    - a fixed annual/monthly fee; or
    - a fixed fee per Platform visit; or
    - any combination of the above.

- the Platform administrator shall agree to certain service level requirements, including Platform uptime, registration turnaround time and functionalities, and more options;

- The Participants must agree to a quick, inexpensive and limited dispute resolution process.

c) The Platform

The Platform shall be the engine room of the solution. A secure, reliable and robust transactional website will be developed, which would be accessible to Participants using a username and password. The essential features of the website must be as follows:

- it must be transactional – it must cater for the automatic registration of cessions by Participants, 24 hours per day;

- on each successful registration, an automatic registration certificate must be emailed to the registering Participant confirming the full details of the registration, which will include:

    - the name of the Participant and Participant member number;
    - the date and time of the registration;
    - the ranking of the registration;

- the details of the ceded rights that is, the borrower entity, the credit amount which the cession aims to secure, the farm/land description of the crop, the quantity and cultivar of the crop ceded, and more;
- whether the cession is evergreen or seasonal (the term of the cession);

- it must have a strong search functionality enabling Participants to enquire whether the prior ranking cession are already registered by borrower entity, farm/land/title deed/GPS description, cultivar, or quantity description, and so on.

- it must be fully transparent in order for Participants to view all details pertaining to prior registered (thus ranking) cessions, the credit provider in whose favour such cession exist, the term, cultivar, quantity, and more;

- it must be user-friendly.

d) The contact centre

The Platform must be supported by a functional contact centre to enable Participants to retrieve any data from the website telephonically. All calls will be recorded. Participants will also be able to register a cession telephonically following a strict recorded question and answer process. Confirmation of each telephonic registration shall be electronically transmitted to the registering Participant in the form of a registration certificate.

4.4.3 Conclusion on Recommendations

The recommendation contemplated in paragraph 4.4 is intentionally outlined in brief terms. The Platform and related functionalities will no doubt be extremely sophisticated and technologically advanced.

4.5 CRITICAL EVALUATION OF THE STUDY OBJECTIVES

The success of this study can be measured in terms of the primary and secondary objectives formulated in Chapter one.

4.5.1 Primary objectives of this study re-visited

The primary objective of this study is to identify and evaluate the credit risk, against the prevailing legal principles, associated with the phenomenon in agri-finance in terms of which the financing of primary agricultural crop input costs is shifting away from asset collateral based finance towards commodity based finance in the form of security by way of cession of crop income. This has been achieved through the literature study conducted in Chapter two and the empirical study in Chapter three. It is submitted that the research in the afore-stated Chapters have succeeded in satisfying the primary objective of the study, in that a theoretical basis has been established to explain why commodity-based collateral has (and will in future) become more popular to agri-financiers. This submission is supported by the statistical analysis of the results of the empirical study as contemplated in Chapter three.

4.5.2 Secondary objectives of this study re-visited

The secondary objectives are to investigate, evaluate and propose a solution to the problem highlighted in the form of a web-based real-time cession collateral registration platform for agri-financiers in South Africa. It is submitted that this objective was duly achieved by the statistical analysis of constructs 3 and 4 in Chapter 3 (empirical research), which overwhelmingly indicated that mainstream agri-financiers perceive such platform as a possible solution to the credit risk they assume by relying on a cession of crop income as primary collateral for repayment of loans to farmers. Chapter 4 contains the proposed solution to the problem statement.

4.6 RECOMMENDATIONS FOR FURTHER STUDY

This study focused on *agri-finance* being loans by agri-financiers to farmers for purposes of procuring and covering input costs in the primary agricultural production, secured by means of a cession of the income to be derived from the crop to be produced. It identified and verified the credit risk that is assumed by agri-financiers, due to the inherently undisclosed nature of cessions and the legal principle of *first in time first in right*. It further recommends a solution as risk mitigator in the fashion of a web-based cession collateral registration platform for South Africa.

The proposed solution in the fashion of the Platform could however easily be expanded to include cession collateral in other industries, such as the financial services industry. It is common knowledge that banks and other financiers from time to time rely on cessions of life insurance proceeds or proceeds from other financial products, as collateral for repayment of loans. The same credit risk applies to such lenders.

As a subject for further research the appetite of such non-agri financiers could be evaluated through an empirical research.

4.7 CONCLUSION

Agriculture as an industry in South Africa is plagued with challenges, mostly ranging from changing climatic patterns and socio-political pressures of land reform and redistribution. However, the industry is earmarked for growth due to pressures of food security and the role it could play in rural development, job creation and social upliftment.

The industry indirectly contributes significantly to the GDP of South Africa, as it involves a long value-chain of finance, primary agricultural production, food processing, wholesale and retail activities. Agri-finance to farmers for primary input costs is the catalyst which kick-starts this value chain.

Due to many reasons, the traditional asset-based collateral in the fashion of mortgage bonds, will become more and more unavailable to agri-financiers to secure their loans. Agri-financiers will have to rely on commodity-based collateral (cession) as security for repayment of their loans. The law of cession and the common law principle of *first in time first in right,* creates an undue credit risk to agri-financiers.

A market gap exists to establish a cession collateral registration platform in South Africa to mitigate the aforementioned credit risk assumed by agri-financiers. This platform is an entrepreneurial opportunity which could be operated as a viable and sustainable business enterprise.

The results of the empirical research have shown that the market will embrace such platform as solution to the credit risk associated with commodity-based collateral in the form of a cession of crop income.

4.8 CHAPTER SUMMARY

In this final chapter the literature study and empirical research were concluded and a recommendation was presented based on the outcome of Chapters two and three. A web-based cession collateral registration platform was suggested as solution to the problem statement contemplated in Chapter one.

The primary and secondary objectives were re-visited and by achieving these objectives, it could therefore be concluded that a market exists to establish a web-based cession collateral registration platform for agri-financiers in South Africa. A recommendation for further study was discussed, namely to research the market appetite for such platform to be expanded to other industries, such as the financial services industry.

REFERENCE LIST

Albright, M.B. 2014. Africa and China Agriculture: The New Breadbasket? http://theplate.nationalgeographic.com/2014/06/30/africa-and-china-agriculture-the-new-breadbasket/ Date of access: 27 May 2014.

Anon. 2014. Presentation on Agricultural Finance. http://www.academia.edu/3723295/Presentation_on_Agricultural_Finance Date of access: 2 June 2014.

Bischop, A. 2014. Economic outlook for 2014 – 2018: Recalibrating for higher interest rate environment sees economic growth outlook weaken. https://www.investec.co.za/research-and-insights/economy/economic-research/macro-economic-forecasts/economic-outlook-for-2014-2018--recalibrating-for-a-higher-inter.html Date of access: 15 June 2014.

Christie, R.H. & Bradfield, G.B. 2011. Christie's The law of contract in South Africa. 6th ed. Johannesburg. South Africa. LexisNexis.

De Klerk, M., Fraser, F. & Fullerton, K. 2013. The status of agricultural and rural finance in South Africa.http://www.finmark.org.za/wp.../pubs/Rep_statusAgrRurFin_SA_2013_FNL.pdf Date of access: 22 Aug. 2014.

Department of Agriculture, Forestry and Fisheries (DAFF). 2010. The declining contribution of agriculture to GDP: Is the role of agriculture becoming less important? http://www.daff.gov.za/daffweb3/Resource-Centre Date of access: 29 Aug. 2014.

Duhaime. 2014. Prior in tempore potiur in iure. http://www.duhaime.org/LegalDictionary/Q/QuiPriorEstTemporePotiorEstJure.aspx Date of access: 15 May 2014.

England. 1828. Dearle v Hall (1828) 3 Russ 1

England. 1893. Ward v Duncombe (1893) A.C. 369

Fenton, N. & Neil, M. 2012. Risk Assessment and Decision Analysis with Bayesian Networks. CRC Press.

Investopedia. 2014. Correlation. http://www.investopedia.com/terms/c/correlation.asp Date of access: 17 Jun. 2014.

Investopedia. 2014. Estoppel. http://www.investopedia.com/terms/e/estoppel.asp Date of access: 21 Jun. 2014.

Learn Law. 2014. Estoppel Legal Definition. http://www.duhaime.org/LegalDictionary/E/Estoppel.aspx Date of access: 5 Sep. 2014.

Learn Law. 2014. Qui Prior Est Tempore, Potior Est Jure Legal Definition. http://www.duhaime.org/LegalDictionary/Q/QuiPriorEstTemporePotiorEstJure.aspx Date of access: 22 Jul. 2014.

Levine, D.M., Stephan, D.F., Krehbiel, T.C. & Berenson, M.L. 2011. Statistics for Managers. 6th ed. Upper Saddle River, NJ: Pearson.

Lubbe, GF. 2014. Cession. LAWSA

Murray, W.G. 1947. Agricultural Finance: Principles and practices of farm credit. 2nd ed. Iowa. Iowa State College Press.

National Agricultural Marketing Council (NAMC). 2014. Food Price Monitor Issue February 2014. http://www.namc.co.za/upload/Food-Price-Monitor-February-2014.pdf Date of access: 23 May 2014.

Nedbank Capital. 2012. African Agriculture Review 09/2012. http://www.capital.nedbank.co.za/nedbank/action/media/downloadFile?media_fileid=808 Date of access: 12 Sept. 2014.11.12

Organisation For Economic Co-operation and Development (OECD). 2006. OECD Review of Agricultural Policies South Africa. http://www.oecdilibrary.org/agriculture-and-food/oecd-review-of-agriculture-policies_1990004x Date of access: 22 Aug. 2014.

Oxford Reference. 2014. Nemo plus iuris transfere (ad alium) potest quam ipse habet. http://www.oxfordreference.com/view/10.1093/acref/9780195369380.001.0001/acref-9780195369380-e-1448 Date of access: 3 Sep. 2014.

PriceWaterhouseCoopers (PwC). 2014. How confident are you? Agribusinesses Insights Survey 2013/2014. http://www.pwc.co.za/en_ZA/za/.../agribusinesses-benchmarking-survey-2014.pd.. Date of access: 21 May 2014.

Sherry, S. 2013. SA's farmland outperforms stocks, bonds. http://www.futuregrowth.co.za/news/sa-farmland-outperforms-stocks-bonds Date of access: 1 Aug. 2014.

South Africa. 1911. Oudtshoorn Town Council v Smith 1911 CPD 558.

South Africa. 1912. Jenkins & Co v Roberts 1912 CPD 937.

South Africa. 1937. Deeds Registry Act 47 of 1937

South Africa. 1962. Schreuder v Steenkamp 1962 3 All SA 475 (O).

South Africa. 1965. Du Plessis v Protea Inryteater (Edms) Bpk 1965 3 All SA 166 (T).

South Africa. 1981. Feinstein v Niggli 1981 2 SA 68 (A)

South Africa. 1996. First National Bank v Lynn NO 1996 (2) SA 339 (SCA)

South Africa. Headleigh Private Hospital (Pty) Ltd v Soller & Mining Attorneys and Others 2001 (4) SA 360 (W)

South Africa. Consumer Protection Act 68 of 2008

South Africa. 1983. Johnson v Incorporated General Insurance Ltd 1983 (1) SA 318 (A)

South Africa. 1985. Thomas v Henry 1985 3 SA 889 (A)

South Africa. 1995. Botha v Fick 1995 (2) SA 720 (A).

South Africa. 2004. Concor Holdings (Pty) Ltd v Potgieter 2004 6 SA 491 (SCA)

South Africa. 2005. National Credit Act 34 of 2005

South Africa. The Department of the Presidency. 2012. National Development Plan 2030 Our future – make it work. Pretoria.

Stephenson, N. 2007. The end of big ideas. World Policy Journal, Volume XXVIII, No 3. http://www.worldpolicy.org/journal/fall2011/innovation-starvation Date of access: 17 Jul. 2014.

The Free Dictionary. 2014. First in time first in right. http://legaldictionary.thefreedictionary.com/%22Between+equal+equities+the+first+in+order+of+time+shall+prevail.%22 Date of access: 7 Sep. 2014

The Free Dictionary. 2014. Waiver. http://legal-dictionary.thefreedictionary.com/waiver Date of access: 24 Aug. 2014

Van Aardt, C. & Lamb, M. 2007. Population and household projections for South Africa by province and population group, 2001 – 2021. http://www.unisa.ac.za/contents/faculties/ems/docs/Press364.pdf Date of access: 7 June 2014.

Vercueil, L. 2014. Minder boere spel groter werkloosheid. http://www.landbou.com/.../minder-boere-spel-groter-werkloosheid Date of access: 3 September 2014.

Welman, J.C., Kruger, S.J. & Mitchell, B. 2005. Research Methodology. 3rd ed. Cape Town: Oxford University.

APPENDIX "A"

EMPIRICAL RESEARCH QUESTIONNAIRE

The establishment of a cession security registration platform for agricultural financiers in South Africa

Dear Sir / Madam

The aim of this study is to do research and develop a crop/produce cession registration platform for agricultural financiers in South Africa.

The South African common law states that a cession of rights to a crop/produce concluded as form of security for an outstanding debt, **ranks ahead** of any other subsequent cession concluded by the debtor. The principle of *first in time first in right* applies. In practice, various agricultural financiers obtain *evergreen* cessions for outstanding or future debt which entail that any crop/produce produced in future by a farmer, will serve of security for outstanding of future debt.

The risk for agricultural financiers who rely on crop/produce cessions for repayment is that, unless the debtor farmer discloses any prior cessions to them (which may be years old), their security may be legally inferior. This study will investigate the potential of the establishment of a compulsory/voluntary web-based cession security registration platform which will be transparent to all financiers in order to mitigate the above risk.

The study will only be conducted amongst mainstream agricultural financiers in South Africa. This study forms part of a mini-dissertation to be submitted in partial fulfilment of the requirements for the degree Master in Business Administration (MBA) at the Potchefstroom Business School.

You/the organisation you represent have been selected to assist with this investigation and you are kindly requested to complete this form. It will require about 5 minutes of your time. Your involvement and time set aside to contribute to this study is highly appreciated. All responses will be treated as strictly confidential and participation in the study is voluntary. The results of the study will be made available to you on request.

Will you please be so kind as to fill in the attached questionnaire on / before the 10th of September 2014?

Kind regards

Researcher:	**Supervisor:**
Mr Derek Linde email: derekl@suidwes.co.za Telephone: 018 581 1022 / 082 526 0995	Mr Pieter Greyling Email: greyatt@telkomsa.net Telephone: 018 468 8221

Questionnaire

QUESTION 1: AGE

1.	18 – 29	
2.	30 – 39	
3.	40 – 49	
4.	50 – 59	
5.	60 – 65	

QUESTION 2: GENDER

1.	Male	
2.	Female	

QUESTION 3: ETHNICITY

1.	White	
2.	Coloured	
3.	Indian	
4.	Black	

QUESTION 4: YEARS OF EMPLOYMENT AT CURRENT EMPLOYER

1.	Less than 1 year	
2.	1 year up to 2 years	
3.	2 years up to 5 years	
4.	5 years up to 10 years	
5.	10 years up to 15 years	
6.	15 years up to 25 years	
7.	25 years or more	

QUESTION 5: DEPARTMENT OF WORK

1.	Finance	
2.	Legal or Secretariat	
3.	Credit	
4.	HR	
5.	Internal Audit	

QUESTION 6: JOB LEVEL

1.	Junior Management	
2.	Senior Management	
3.	Executive Management	

QUESTION 7: HIGHEST QUALIFICATION

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QUESTION 8: **STUDY PROBLEM**

		1	2
1.	Is the organisation involved in extending finance to farmers for crop/produce production?	Yes	No

		1	2
2.	As security for such finance, does the organisation from time to time requires the farmer/producer to cede his/her rights to the crop/produce as security for repayment?	Yes	No

		1	2	3	4	5
3.	What approximate percentage of the organisation's total debtors book to farmers, is predominantly secured by way of a cession of rights to crop/produce?	Less than 10%	More than 10% but less than 30%	More than 30% but less than 50%	More than 50% but less than 80%	More than 80%

		1	2
4.	Do you think a cession of crop/produce as a form of security for agricultural production finance, will become more popular in future? (especially if no mortgage bond can be passed due to crop/produce being produced on leased or state land)	Yes	No

		1	2
5.	Do you agree that farm land received by emerging farmers under land reform or tribal land will in all likelihood be incapable of being mortgaged?	Yes	No

		1	2
6.	Are you aware of the legal principle *first in time first in right* applicable to cessions?	Yes	No

QUESTION 9: **MARKET RISK ANALYSIS QUESTIONS**

The following questions relate to the legal principle *first in time first in right* applicable to cession security and the risk associated with it for agricultural financiers. This principle means that a cession over a similar right that predates another ranks ahead of the latter.

Read each item carefully. For each item, what number best describes your view?

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

Nr	Statement	
1.	The uncertainty of knowledge of any predated cessions over crop/produce is a credit risk when we rely on a cession of crop as security for repayment of our loan.	
2.	I am aware of a past situation where a dispute arose between lenders because	

	of cessions over a similar right.	
3.	I am aware of a lender who had to write of debt due to a conflicting cession over a crop/produce, unbeknown to it at the time of extending credit to a borrower	
4.	When taking a cession over crop/produce as security for a loan, there is really no guaranteed way to know for certain that no predated cession/s exist over the same crop/produce.	
5.	Cession over crop/produce as a form of security for agricultural production finance will become more popular in future due to, among other: • more farmers farming on leased land (which cannot be mortgaged); or • due to land redistribution to emerging farmers which will not be capable of being mortgaged; or • due to large scale financially sound farmers becoming more reluctant to pass mortgage bonds over owned land.	
6.	Not only agricultural financiers (banks/agri-business) tend to take cession over crops/produce as security for loans, but also input suppliers (seed, fertilizer etc) for supplying product on credit.	
7.	Agricultural production finance is a booming business.	
8.	Agricultural production finance is essential for a healthy agri-industry and food security.	

QUESTION 10: BUSINESS SOLUTION ANALYSIS QUESTIONS

The following questions relates to a possible solution to mitigate the credit risk associated to cessions as security to agricultural financiers (*first in time first in right*). The proposed risk mitigating proposal is to establish a transparent web-based database on which all participants register cessions of crop/produce with the date of registration to be the ranking date.

Read each item carefully. For each item, what number best describes your view?

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

Nr	Statement	
1.	It would be beneficial to agri-financiers to know for certain that no predated cession/s exist over crop/produce financed by them and secured by a cession of the very crop so financed.	
2.	I will support a system ("the System") in terms of which cession security are registered in real-time and are transparent to all other agri-financiers based on the principle that 1^{st} registration ranks first in right. A system similar to registration of mortgage bonds over property.	
3.	In exchange for the benefit from the certainty the above System will provide, I may be comfortable to agree with other agri-financiers (participants) to waive the legal principle of *first in time first in right* based on **date of conclusion** of the cession, and agree that the principle will apply based on the **date of registration** of the cession on the system.	
4.	I/the organisation will be willing to pay a reasonable fee to benefit from such a System.	
5.	I/the organisation may be willing to participate as equity partner in developing such a System.	

QUESTION 11: GENERAL

IF YOU HAVE ANY REMARKS WHY SUCH SYSTEM WILL/WILL NOT BE EFFECTIVE, PLEASE INDICATE BELOW

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APPENDIX "B"

LETTER FROM LANGUAGE EDITOR

DYNAMIC MANAGEMENT & BEAUTY CONSULTANTS (BK)
Esselen str 71
Potchefstroom
2531
Tel: (018) 293-3046
CK 95.17794\73

November 10, 2014

TO WHOM IT MAY CONCERN

Re: Letter of confirmation of language editing

The dissertation **"A business case for the establishment of a cession security registration platform for agriculture financiers in South Africa"** by **Derek Linde** (10234128) was language, technically and typographically edited. The sources and referencing technique applied was checked to comply with the specific Harvard technique as per North-West University prescriptions. Final corrections as suggested remain the responsibility of the student.

Antoinette Bisschoff
Officially approved language editor of the NWU since 1998
Member of SA Translators Institute (no. 100181)