

**Agricultural-based commodity chains and development: the case of the  
tobacco sector in Zimbabwe**

A full thesis submitted in fulfilment of the requirements for the degree of  
**MASTER OF SOCIAL SCIENCE (ECONOMICS)**

By

Stephen Richard Thring  
Student Number: 10T0128

Department of Economics and Economic History  
Rhodes University  
Grahamstown

February 2016

Supervisor: Ms Niki Cattaneo

## **ABSTRACT**

This thesis examines the nature of governance in the Zimbabwean tobacco value chain and what upgrading implications this has for participants at the lower end of the value chain, with a particular focus on smallholder tobacco growers. The nature of governance and upgrading opportunities will provide further implications for broader economic development in Zimbabwe. Value chain analysis was the over-arching method, adopting a mixed methods approach of both quantitative and qualitative data analysis. Data attained from the Tobacco and Industry Marketing Board (TIMB) was used to construct a Zimbabwean tobacco profile. This information was used to construct a simple Global Value Chain (GVC) framework in order to obtain an understanding of the Zimbabwean tobacco value chain. Information was gathered at the top end of the value chain via documents and data from British American Tobacco (BAT) and information was gathered at the middle and lower end of the value chain through interviews. It was found that the Zimbabwean tobacco value chain is characterised by two types of governance: modular and hierarchy. Modular governance existed where the value chain was disjointed by the leaf merchant and hierarchy governance existed where cigarette manufacturers have vertically integrated themselves backwards into the tobacco growing segment. It was found that contract lines offer smallholder tobacco growers' financial and technical support that would otherwise be difficult to attain. This increased the likelihood for smallholder tobacco growers to produce a high quality crop that met Good Agricultural Practices (GAP) and other compliancy requirements; therefore achieving product and process upgrading. However, the environmental impact of tobacco growing through deforestation and the possibility of lead cigarette manufacturers relocating their operations to a different geographical location (as is the nature of GVCs) threatens the sustainability of Zimbabwe's tobacco industry. Despite these issues it was argued that the tobacco value chain could assist Zimbabwe's economy in diversifying away from simple tobacco production towards value-adding tobacco sectors, such as processing, by-product processing and cigarette manufacturing.

## **DECLARATION**

This page declares that the work produced is my own and was conducted whilst completing Masters through dissertation at Rhodes University. This thesis has not been submitted to other Universities, Technicons or Colleges for degree purposes.

Stephen Richard Thring

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

## **ACKNOWLEDGEMENTS**

Firstly, I would like to express my gratitude to my supervisor Ms Niki Cattaneo for the continuous support, energy and time you have put into this thesis. Your professionalism, along with your guidance, made the process of writing this thesis a great experience. I sincerely believe I could not have asked for a better supervisor and it was a pleasure working together.

I would also like to thank Rhodes University and the Department of Economics and Economic history for the resources that were made available to me, allowing me to conduct my research. In particular, I'm truly thankful for the Department's and University's understanding and empathy in allowing me to suspend my studies when I sustained a serious neck injury in July 2014.

For the individuals in the tobacco industry who agreed to provide me with crucial information in my interviews, I cannot express my gratitude for giving up your time to assist me.

Lastly, a special thanks must be given to my parents Elizabeth and Richard Thring for the financial and motivational support throughout my studies. Your advice and encouragement has helped me attain academic achievements I would never have imagined.

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## LIST OF ABBREVIATIONS

BAT	British American Tobacco
CFUZ	Commercial Farmers Union of Zimbabwe
CNTC	China National Tobacco Corporation
CSR	Corporate Social Responsibility
GAP	Good Agricultural Practices
IMF	International Monetary Fund
JTI	Japan Tobacco International
PMI	Phillip Morris International
S RTP	Social Responsibility in Tobacco Production Programme
TIMB	Tobacco Industry and Marketing Board
TPZ	Tobacco Processors Zimbabwe
TZTC	Tian Ze Tobacco Company
WHO	World Health Organisation
ZTA	Zimbabwe Tobacco Association

## Introduction

According to the World Bank (2015), economic growth in Sub-Saharan Africa reached levels of 4.4 percent in 2014. GDP growth in Africa averaged 5.13 percent between 2006 and 2014 (World Bank, 2015). Africa's GDP growth rate averaged 5.33 percent between 2003 and 2013 (ABD, OECD and UNDP, 2014: 1). This is one of the most significant periods of high growth Africa has experienced since the independence era of the 1960s and early 1970s. Although this growth has been uneven, some African countries have grown faster than the rest of the world, a period that has been referred to as the "African Growth Miracle" (McMillan, Rodrik and Verduzco-Gallo, 2013: 2).

Despite these significant strides in growth the African continent is still characterised by widespread unemployment, poverty and hunger. African countries need a growth model that will also create growth in job creation and food security. Africa remains heavily reliant on extractive industries, which are highly sensitive to commodity price shocks, threatening sustainable growth and job security (McMillan *et al.*, 2013).

This leads to the broader question of Africa's development trajectory. One approach that has become prominent once again in reports from UN agencies and the ILO is that of development through industrialisation (UNIDO, 2013; Salazar-Xirinachs *et al.*, 2014). This entails moving the economic structure away from low value-adding sectors, such as agricultural and extractive activities, towards more productive value-adding industries, including processing and manufacturing (UNECA, 2013: 1). It is argued that when this shift of labour and other resources from the primary sector to modern economic activities occurs overall productivity will increase and incomes will expand (McMillan *et al.*, 2013: 1). This view considers beneficiation or value addition as a leading economic development plan for the continent.

However, many academics and development theorists, such as Hazell (2009), Diao, Hazell and Thurlow (2010) and Bezemer and Heady (2008), have advocated a focus on agricultural development and improving agricultural productivity as key to Africa's development trajectory. Hazell (2009) has argued that important lessons for Africa's development can be found when looking at the success of the Asian "Green Revolution" that took place from the 1960s until the early 1970s. Since many rural households in Africa depend on agriculture (directly and indirectly) and considering that agriculture comprises a large portion of many

African countries' economies, agriculture remains a key sector when it comes to economic growth and development (Diao *et al*, 2010: 1)

However, neither approach has been successful in creating sustained development in Africa. The value added sector is still far too small to make any significant impact. McMillan *et al*. (2013) argue that the effects of trade liberalisation and other aspects of globalisation may have perpetuated a reliance on and specialisation in primary products and extraction of natural resources. Poor state involvement has also compromised industrial growth in Africa. Development through agriculture has, in turn, been heavily criticised, as agrarian productivity is still generally very low and rural households still obtain most of their income from non-farm activities (Bezemer and Heady, 2008: 1347).

It could be argued that the development debate needs to move beyond simplistic arguments about agriculture versus industrialisation (or for that matter services-led) development trajectories to take account of the implications of the re-organisation of production, trade and work in global and regional value chains. Porter (1985: 36) defines a value chain as the production process or set of activities through which a firm adds value to a product, including production, marketing and services. In a global value chain (GVC), different parts of the production process take place in different parts of the world, with each process or activity adding value to the product (Humphrey and Schmitz, 2002: 1018). GVCs are driven by firms that make use of the advances in communication and the de-regulation of economies in order to enhance their sourcing strategies through the geographic separation of production processes (ABD, OECD and UNDP 2014: 124, Kaplinsky, Morris and Readman, 2003: 2)

Developing countries may seek to integrate into the GVC at any specific stage, most notably assembly in manufacturing and commodity production in agriculture (ADB *et al.*, 2014: 124). This could provide an alternative and easier method of structural transformation, as countries can add value to a product and provide skills at the stage they enter in without having to have all the other steps of the production chain in place (Kaplinsky, *et al*, 2003: 3). With GVCs, countries can link to an international production network and perform a specific task that adds value to a product without having to develop all the complex production capabilities (ADB *et al*, 2014: 129). Humphrey and Schmitz (2002) and Kaplinsky and Morris (2003) argue that by participating in the chain developing countries find opportunities to upgrade (that is “move up” the value chain into higher-value activities), enabling firms to capture a higher share of value

in the GVC and enhance competitiveness. In this way structural transformation could be facilitated.

However, GVCs are “governed” or controlled by multinational corporations at the top of the value chain (Moyer-Lee & Prowse, 2012: 8). Different governance types in GVCs are associated with different sets of power relations in the value chain (Kaplinsky and Morris, 2002: 66; Kaplinsky and Morris, 2014). This in turn has implications for developing countries’ prospects for meaningful upgrading and structural change (Gereffi *et al.*, 2005, Milberg and Winkler, 2011; Milberg *et al.*, 2014). In agricultural-based buyer-driven value chains, in particular, “conforming to buyers’ requirements often results in a select group of more adaptable firms and farms upgrading while others are excluded from participation in the value chain” (Moyer-Lee and Prowse, 2015: 161, Kaplinsky, *et al.*, 2003: 4). It is therefore important to analyse the prospects for both economic and social upgrading (where the latter relates to employment, pay and working conditions) in considering the development implications of GVCs.

Currently, Africa has a small, but increasing share of GVC activity. In 1995, Africa’s share in global trade of value added products was 1.4 percent, which grew to 2.2 percent in 2011 (ADB *et al.*, 2014: 18). Although African countries’ participation in GVCs is often limited to lower value added activities, if they are able to enhance those activities they could upgrade into higher-value activities (Trienekens, 2011: 52). Agriculture is also a large component of many countries’ GDP, with the agricultural sector comprising of one-third of GDP for the sub-continent as a whole (Diao *et al.*, 2010: 2). Adding value to these agricultural exports could facilitate structural change. The growth of agricultural-based commodity chains could, depending on the type of governance and upgrading, help modernise agriculture and stimulate beneficiation or value-adding industries.

One agricultural-based value chain that has been of importance for a number of African economies is the tobacco value chain. Tobacco is a significant agricultural export in many African countries, with Malawi, Zimbabwe and Zambia among the top tobacco producing countries on the continent. The tobacco industry has some of the key characteristics in the value chain that could contribute to overall economic development, including production, economies of scale, backward and forward linkages, and it is also labour intensive (British American Tobacco Central America, 2011: 5-6). Tobacco can also be manufactured into other non-

smoking products, such as liquor (tobaquito), paper from the cellulose of tobacco stems and nicotine tartrate for medicinal products. With the value chain and value tree of tobacco in mind, it can be suggested that the role of the tobacco GVC could be significant in a number of African countries' efforts to industrialise and modernise tobacco agriculture.

Zimbabwe is one of the poorest countries on the continent. However, it is the biggest producer of flue-cured tobacco in Africa (DAFF, 2013: 4). Zimbabwe's tobacco production peaked in 2000, but the consequences of the 2001 land reforms caused a large decline in tobacco production. Since 2007, however, production levels have risen significantly (Kwidini, 2008: 1). Tobacco is one of the leading agricultural exports in Zimbabwe, compared to other agricultural products (Zimbabwe Tobacco Association, 2013). The nature of the industry has also changed. The tobacco production base has switched from mostly white-owned, commercial farms to mostly smallholding, indigenous-owned farms (Latham, 2014: 2).

Despite the recent resurrection of tobacco production in Zimbabwe, it has become questionable whether there is still a sufficient global demand for tobacco products in the wake of health policies that have discouraged tobacco use over the past two decades.

There has been a significant decrease in the number of smokers in most developed countries, due to heavy smoking laws and regulations. However, there is still a growing demand for tobacco in other parts of the world. According to Action on Smoking and Health (ASH), over the past 30 years demand for tobacco in developed countries decreased by 33.5 percent (ASH, 2013: 1). However, at the same time smoking in developing countries rose by 3.4 percent per year (ASH, 2013: 1). In 2010, developed countries' portion of total global tobacco demand was 29 percent (a decrease from 34 percent in 1998), while developing countries' share was 71 percent (ASH, 2013: 1). Over 80 percent of the increase in demand is from the Far East, in particular China. Therefore there is still a large and growing demand for tobacco.

With the tobacco sector having an extensive value chain for a variety of different tobacco-based products and important sector characteristics, tobacco production could have a significant impact on Zimbabwe's efforts to develop. The growth of demand for tobacco products in the developing world, especially in China, means that tobacco is still a relevant although controversial global product. Tobacco's relevance on the global market and the

tobacco sector's value chain characteristics make tobacco production in Zimbabwe an interesting case to study using the GVC framework.

The goal of this thesis is to investigate the nature of governance and upgrading in the tobacco value chain in Zimbabwe, with a focus on the impact of governance structures on the potential for upgrading by participants at the lower end of the value chain. The following sub-goals are addressed:

- Construction of a profile of the Zimbabwean tobacco value chain, including production, employment, market structure, trade and market access.
- Examination of the governance structure of the tobacco value chain, with reference to the organisational relations between the actors in the chain.
- Exploration of whether these governance structures allow participants at the lower end of the value chain in Zimbabwe to upgrade to a higher-level in the chain and the possible nature of this upgrading, with a specific focus on the socio-economic impact on small-holder farmers.

The overarching method is value-chain analysis (Kaplinsky and Morris, 2003; Moyer-Lee and Prowse, 2015; DAFF, 2013). A mixed methods approach is adopted, making use of both quantitative and qualitative data analysis. The rationale for qualitative data analysis is that it is useful during the early stages of research, as it does not need a design plan before the research begins. It also helps to obtain detailed data, which will come in the form of literary descriptions. In a social science field this is helpful, as it provides context and social meaning. The quantitative method complements this by allowing for the measurement and analysis of data. This will assist in making more objective findings in the research.

Secondary data is presented on Zimbabwe's gross value of tobacco production; global share in production; employment in the entire tobacco value chain; domestic and market prices; export and import volumes; and growth in demand and total demand. This data has been collected from the Tobacco Institute of Southern Africa and the Zimbabwe Tobacco Association either through their official websites or through correspondence. The data provide information regarding Zimbabwe's current tobacco sector profile and provide some insight regarding the socio-economic impact of tobacco production in Zimbabwe, using a similar methodology to that of the South African tobacco profile constructed by DAFF (2013). The information

gathered is used to construct a simple GVC framework, analogous to Moyer-Lee and Prowse (2015) and described by Kaplinsky and Morris (2003), in order to obtain an understanding of the nature of the Zimbabwean tobacco value chain. The value chain analysis in this thesis uses a developing country value chain approach, as explained by Trienekens (2011), which distinguishes the following characteristics: network structure, value added and governance form.

Information has been gathered from firms at the top end of value chain. In particular, documents and data have been obtained from the Tobacco Institute of Southern Africa (TISA) and British American Tobacco (BAT). Interviews were conducted with agents in the middle (leaf merchants) and at the lower end of the value chain (tobacco growers). This information is analysed within a GVC framework.

The documents obtained from BAT and TISA include annual or semi-annual reports available on their websites. Purposive sampling took place, and interviews were structured, such that the interview consisted of ‘closed’ questions, but the participants were able to elaborate if they wished. This allowed for an analysis of the economic and social impact of Zimbabwe’s tobacco value chain, as well as the governance structure of the value chain.

There are seven chapters in this thesis, broadly divided into two parts. The literature study is covered in Chapters 1 to 4, while the case study research comprises Chapters 5 to 7.

Chapter 1 sets out the broader context of the research through the discussion of economic development theories and trajectories. Here, the debates surrounding development paths based on industrialisation and development through agriculture are discussed and analysed. Each theoretical perspective is discussed, followed by empirical examples and case studies that are used to support the theory. The African context and experience is then explored, leading towards the importance of the global value chain theory for contemporary development debates.

Chapter 2 examines the theory of value chains. The first section of the chapter covers value chain theory and the input-output structure of economic activities that operate in value chains. The concept of value chain “governance” is then defined and discussed, while looking into the different forms and variations of governance within a value chain. Another key concept that is

introduced is “upgrading”, an economic phenomenon in value chain theory that is influenced by governance, with various forms and types of upgrading defined and discussed. The examples highlighted in this chapter lead towards the need to investigate agricultural-based value chains.

However, a value chain analysis tool or framework will be needed in order to analyse agricultural-based value chains. Chapter 3 sets out the origins of and various approaches to value chain analysis. These discussions provide a basis for the examination of agricultural-based value chains.

Chapter 4 provides the main discussion of agricultural-based value chains, including how such value chains have changed and shifted between the periods 1930 to the 1980s and the early 1990s and 2000s. Here, case studies of agricultural-based value chains in African countries are investigated and critically discussed. The reason for discussing these shifts, along with the case studies, is to set out the context and global structure of agricultural-based value chains before specifying the Zimbabwean tobacco value chain. The case studies also serve as an introduction leading to the Zimbabwean tobacco value chain.

Chapter 5 presents the tobacco profile of Zimbabwe. This section briefly discusses the history of tobacco production in Zimbabwe. A tobacco sector profile is then presented, including information and statistics regarding tobacco production, prices, growers, employment and international trade. This leads to an analysis of the global tobacco governance structure, determining the lead firms and thus the dominant powers in the global tobacco value chain. Analysis of the global tobacco value chain governance structure provides context for the analysis of the Zimbabwean tobacco value chain in particular.

The governance structure in the Zimbabwean tobacco value chain is analysed in Chapter 6. The aim of this chapter is to determine who has the most influence in the Zimbabwean tobacco value chain and how this influence is distributed along the value chain. Various key factors are covered, including lead firm objectives, the leaf merchant-manufacturer contract system and the governance structure, and the leaf merchant-tobacco grower relationship and governance structure.

The concluding chapter of the thesis discusses what implications the governance structure along the Zimbabwean tobacco chain is likely to have on upgrading opportunities for smallholder tobacco growers. The chapter highlights the importance and relevance of smallholder tobacco growers in Zimbabwe before discussing the upgrading opportunities that smallholder tobacco growers can achieve and their prospects for capturing higher value in the Zimbabwean tobacco value chain. After discussing upgrading prospects, the chapter concludes by analysing the implications of these opportunities for the broader development of Zimbabwe's economy.

## **Chapter 1: Industrialisation and Development through Agriculture**

### 1.1 Introduction

The aim of this chapter is to explore some of the theoretical debates surrounding development trajectories based on industrialisation on the one hand, and development through agriculture on the other, with a focus on the African context. The purpose is to provide some useful theoretical and historical background to explain and support the emphasis in the rest of the thesis on the global value chain literature and framework.

Before considering potential development trajectories, it is useful to examine the current African economic context. A number of positive aspects of the African economic situation are starting to surface, indicating significant economic potential. Political tensions have eased in many African countries, and with the spread of democracy the political climate has made inward foreign investment more attractive. Domestic demand in African countries has grown, due to several factors, including increasing urbanisation and a rising middle class, a rise in trade and investment between developing nations, and improved governance and management (Elhiraika, 2014: 14).

The African continent as a whole has recently experienced the best economic conditions since the independence era of the 1960s. In the period 2000 to 2013 Africa had one of the highest growth rates of all continents reaching an average of 5.8 percent per annum (ADB *et al.*, 2014: 17). This growth has been spread across the continent and has until recently been sustainable, although growth remains far below its potential. Beneficiation within African nations is still very limited. For example East African countries only receive 10 percent of the total income of the global value chain of coffee (Elhiraika, 2014: 14). The other 90 percent accrues to developed, consuming countries, reflecting a loss of potential income for the region. Furthermore, according to UNECA (2015) there remains very little export diversification, as one or a few primary commodities still constitute a large portion of African exports, giving Africa the highest export concentration amongst all emerging nations. Some have argued that high commodity prices over the last decade and a half have only served to make African economies even more reliant on primary commodities and more reluctant to diversify into manufacturing, therefore perpetuating the problem of concentrated exports (UNECA, 2015:

14). In this view, large amounts of potential revenue are lost by not engaging in value-adding production of primary commodities. Others contend that the commodity boom has provided countries with the space to explore a broader range of industrial and other development policies more easily than before, which has contributed to improved economic potential and performance (Salazar-Xirinachs *et al.*, 2014: 8-9).

However, the decade-long commodities supercycle has significantly slowed down since August 2015. According to Chonghaile (2016) this raises a huge concern for African countries that rely on oil and mineral exports, as the significant decrease in the global (especially Chinese) demand for commodities will reduce export revenues, depreciate currencies, decrease FDI from China, lower domestic demand and increase debt costs. The decline in oil and metal-based commodity prices has had an impact on African countries' growth rates. According to the International Monetary Fund (IMF) (2015) GDP growth in Africa decreased from 5 percent in 2014 to 3.7 percent in 2015. Africa's GDP growth is expected to increase back to 4.3 percent in 2016 (IMF, 2015: 37). Despite this increase in growth, Africa may not have made full use of the period of high commodity prices to create the building blocks of sustainable development.

## 1.2 Debates on the role of industrialisation

Many theorists suggest that the best possible way for developing countries to transcend from low-income into middle-income economies is through industrialisation. This entails moving the economic structure away from agricultural and extractive activities towards more value-adding industries, such as processing and manufacturing (UNECA, 2013: 1). Industrialisation involves a significant change in the sectoral composition of GDP, where resources, employment and output in the primary sector are shifted to industry and modern services (Lopez, 2014: 1). This is known as structural change, where attention is given to key developmental elements in an economy.

The general theoretical result of changing the structure of the economy in this way includes increasing productivity and the expansion of overall income (McMillan, Rodrik and Verduzco-Gallo, 2013: 1). The potential benefits of industrialisation and value-adding production go further than this, including an increase in employment, price benefits and stability,

diversification of technology and industrial capabilities, lateral migration into other sectors, efficiency gains, positive spillover effects, such as knowledge and economies of scale, and the reduction of exposure to external shocks (Elhiraika, 2014: 14). Furthermore, when the economy moves towards manufacturing, it creates opportunities for jobs that require higher levels of skills, which contributes to the positive effect of increased incomes (Marti and Ssenkubuge, 2009: 1).

McMillan *et al.* (2013) point out that there are certain characteristics of an economy before industrialisation takes place that play a role during the industrialisation process. Developing economies are often characterised by large productivity gaps between various sectors of the economy (McMillan *et al.*, 2013: 1). For instance in a developing economy there is initially more economic activity in the traditional (rural) sector than in the modern (urban) sectors. This is supported by Lewis (1954) who discusses “disguised” unemployment in the agricultural sector. Lewis (1954) argues that the farming land is so small that if one of the inhabitants or family members had to leave the smallholding and work elsewhere it would make little difference to the level of production. These productivity differentials can even exist between firms and plants in the same industry. This means that there are allocative inefficiencies within the economy, which reduce overall labour productivity (McMillan *et al.*, 2013: 1). Another factor that contributes towards these inefficiencies is the relation between population and the amount of capital and natural resources. According to Lewis (1954) when the population far outweighs the size of capital and natural resources marginal productivity is negligible, zero or even negative.

However, McMillan *et al.* (2013) argue that these allocative inefficiencies can potentially become a vital engine of growth. During the industrialisation process labour and other resources move from less productive to more productive activities. Here, even if productivity does not grow at all within sectors, economic growth in the economy will still improve (McMillan *et al.*, 2013: 1). This type of structural change is thus an important factor in overall economic growth. In their study, McMillan *et al.* (2013) observe that high-income countries are those that once experienced significant growth-enhancing structural change.

Despite the theoretical benefits of industrialisation, it is argued that state policy plays a vital role in initiating the industrialisation process in developing countries. Ciccantell and Shin (2009) use South Korea's shipbuilding industry to illustrate the importance of state policy in industrialisation. The South Korean economy during the 1970s did not have the necessary skills or raw materials to develop a shipbuilding industry, however it became one of the largest shipbuilding nations in the world. South Korea's rise is closely linked to state policy that created international joint ventures (especially with Japan) and public-private sector cooperation, which enhanced the growth of the shipbuilding industry (Ciccantell and Shin, 2009: 4).

There has been extensive debate on the role of the state in industrialisation over the past few decades, with key contributions by authors such as Amsden (2001), Wade (2004), Rodrik (2008) and others. The apparent "rise, fall and rise again" of industrial policy in the current global environment has recently been reviewed by Salazar-Xirinachs *et al.* (2014). The discussion around appropriate industrial strategies and the importance of structural change for development has become a prominent theme once again in reports by international organisations such as the ILO, UNIDO and the UNECA (see, for example, UNIDO, 2013; UNECA, 2013). Salazar-Xirinachs *et al.* (2014: 5) argue that history suggests that industrial policy has always been present, despite different prevailing ideologies in recent decades, although it existed "under different names and guises". What is interesting for the purposes of the present study is how debates on industrialisation are impacted by the rise of global value chains (Milberg *et al.*, 2014; Kaplinsky and Morris, 2014), and the implications of the GVC context for development policy more broadly. These questions are considered further in subsequent chapters of this thesis.

### 1.3 Africa and industrialisation

Despite the economic benefits of development through industrialisation, attempts to industrialise African economies have had other, less-desired effects. McMillan *et al.* (2013) consider the effects of structural change in some African countries and compare their performances to structural change in Asia. It is found that broad patterns of structural change in Africa decreased rather than increased economic growth between 1990 and 2005. As noted earlier, the success of industrialisation depends on how the state plans and implements

structural change, but it also depends on how an economy integrates into the global economy (McMillan, *et al*, 2013: 2). In the case of several Asian countries, most notably China, South Korea and India, the state took advantage of globalisation, which helped to facilitate increasing high-productivity jobs and contribute towards overall economic growth.

However, in the case of Africa, it is argued that globalisation has been unsuccessful in creating a desirable kind of structural change. In many African economies labour has moved from more productive to less productive activities, such as activities in the informal sector (Diao and Hazell: 2009: 8) It could be argued that the reason behind this is that the industrialisation process has forced the least productive firms to exit the industry, leaving only the productive ones. However, productive firms have shed “excess labour” (McMillan, *et al*, 2013: 2). The displaced workers, with nowhere else to go, find themselves in even less-productive activities, most notably the informal sector (McMillan, *et al*, 2013: 3). This seems to have happened in a number of African economies that favour an industrialisation trajectory, particularly in the context of the extensive liberalisation and opening of African markets to the world economy that took place under structural adjustment programmes and policies.

In order to industrialise an economy successfully the effects of globalisation have to be taken into account. According to the theory of comparative advantage globalisation promotes specialisation (Brady and Denniston, 2006: 303). Africa is well-endowed with primary products and natural resources, and African economies are heavily reliant on these products and resources. Many African countries that have opened their economies to the global market have arguably had a reduced incentive to diversify their economies towards modern manufacturing and have simply perpetuated their reliance on and specialisation in primary products and the extraction of natural resources (McMillan *et al.*, 2013: 27). As discussed earlier these traditional sectors do not operate at high levels of productivity, and may also not create substantial employment opportunities, thereby continuing the cycle of poverty. According to Diao and Hazell (2009: 8), attempts by developing economies to industrialise in a context of globalisation and the opening of their markets require careful regulation and policy sequencing in order to offset the negative effects of rapid globalisation.

One of the major causes of Africa's failure to industrialise relates to state involvement and state policy. McMillan *et al.* (2013) compare state industrial policy in China with industrial policy in a number of African countries. When compared to the industrialisation success of Asia, the problem of productivity-reducing structural change in Africa lies in the pattern of structural change. In Asia labour was successfully moved from low to high-productivity sectors, due to a two-track development plan: the development of an import-competing industry that was supported by the state and the expansion of export-orientated activities. For instance China, until the mid-1990s, liberalised its trade regime where firms under special economic zones (SEZs) worked under free-trade rules, but domestic firms still had to operate under high trade barriers (McMillan *et al.*, 2013: 26). According to Marti and Ssenkubuge (2009) in many African countries there was virtually no plan or state policy whatsoever that could have facilitated industrial growth and directed the movement of resources to key industrial sectors. As a result import competition reduced production in many industries, thus "shedding off" labour to less productive activities that do not employ large amounts of labour and that provide small incomes. With no clear direction by the state, industrialisation in this context is often unsustainable and leads to "jobless" growth that is usually short-lived. The success of industrial policy depends heavily on local circumstances and choices made by policy makers in their respective economies (Marti and Ssenkubuge, 2009: 2)

However McMillan *et al.* (2013: 30) find, in the same study, that structural change has contributed positively to African economies' overall productivity growth since the early 2000s. There are certain global trends that contributed to Africa attaining this successful growth rate, such as increases in agricultural productivity, combined with more stable political and macro environments and the rise in global food and (until recently) commodity prices which made investors more willing to put their money into African agriculture (McMillan, *et al.*, 2013). In addition, wages in China have risen and are now higher relative to wages in some African economies. Africa has thus slowly become a more desirable destination for labour intensive manufacturing (McMillan *et al.*, 2013: 30). This will have positive employment effects in African countries, as Lewis (1954) points out that empirically capital accumulation has resulted in the reduction of the "reserve army" (excess labour). The increase in FDI towards labour intensive manufacturing in Africa can be expected to create employment. Lopez (2014) further supports the view of African economies become a more desirable destination for

industrialisation by pointing out that inward foreign direct investment (FDI) into Africa has been growing at a compound rate of 32.5 percent since 2007. The rate of return on inward FDI was 9.3 percent in 2011, which was the highest when compared to other areas of the world, including Asia (8.8 percent) and other developed economies (4.8 percent) (Lopez, 2014: 2). However African governments will have to take advantage of these economic opportunities and circumstances and develop industrial policy that will allow positive structural change to take place and stimulate significant economic growth. Furthermore, the impact of the recent collapse in commodity prices on inward investment into the continent remains to be seen. In this context, the position and importance of global commodity chains in Africa is of considerable interest.

#### 1.4 Debates on the role of development through agriculture

A different model for development involves a stronger emphasis on the development of agrarian activities within an economy. When looking at the widespread rural poverty in Africa and the success of the Asian “Green Revolution” it has been suggested that agriculture should play a key role in Africa’s development (Beyene, Birgegard, Bryceson, Havnevik and Matondi, 2007: 11-12). Early theorists believed that the dual economy model was the sole answer to a nation’s development woes. The dual economy model describes economic development as a growth process where factors of production must be reallocated from low-productivity sectors, such as agriculture, towards a modern industrial sector that has higher productivity and returns (Beladi, Chaudhuri and Yabuuchi, 2008: 2). In this view, the traditional agricultural sector was seen to contribute poorly to economic development, only serving to provide labour and food to facilitate the industrialisation process (Diao *et al.*, 2010: 1).

However many have argued the case for developing agriculture first in order to create broader economic growth. The success of the 20<sup>th</sup> century phenomenon known as the “Green Revolution” that took place in Europe between the 1940s and 1950s and in Asia during the 1960s and early 1970s has suggested that agriculture should be the initial engine of growth. The Green Revolution refers to significant public investment and policy support towards agricultural growth, leading to an increase in agricultural production throughout the global economy (Hazell, 2009: 1). This transformation of traditional agriculture into a modern sector indicates that agriculture has a huge potential as a growth sector and enabler of broader

economic development (Adelman, 2001: 103). Although linkages between agriculture and non-agricultural activities have long been recognised as being vital, many development theorists emphasise the significance that the role of agriculture has in rural development (Bezemer and Heady, 2008: 6).

Some studies have shown that agricultural growth has strong positive effects on rural development, especially where agriculture is dominated by small-holder farms (Diao *et al.*, 2010: 1). Essentially agriculture will play a large role in the early stages of development, which will form a strong basis for industrialisation. In Africa, a continent that generally has good agro-ecological conditions, agriculture could play a very large role in economic development. Theorists have argued that agriculture has always been the foundation of economic development throughout history. For instance, Bezemer and Heady (2008) state that all developed countries became advanced by first achieving substantial productivity gains in agriculture in the early stages of development. Those economies that were strong agricultural performers in the 19<sup>th</sup> century are now currently developed, Western countries (Bezemer and Heady, 2008: 5). The same was evident in the case of the emerging Asian economies. Examples include the pre-war agricultural growth in Taiwan and South Korea that led to their post-war industrialisation.

Agriculture had initially been the dominant sector in Taiwan and South Korea after World War II, and was characterised by mostly small-holder farms (Burmeister, Ranis and Wang, 2001: 5). By 1981 agriculture comprised only 7 percent of Taiwan's GDP and 18 percent of South Korea's GDP (Burmeister, *et al.*, 2001: 5). Despite the shrinkage of agriculture's share of GDP in these two countries output growth in this sector was almost more than double that of other south-east Asian countries between 1952 and 1970 and higher than the world average (Burmeister *et al.*, 2001: 5). In Taiwan agricultural growth resulted in net capital outflows within Taiwan towards the development of non-farm activities, increasing non-farm activities from 29 percent of total rural employment in 1956 to 67 percent in 1980 (Burmeister *et al.*, 2001: 6). This decentralised the pattern of industrialisation, which was primarily rural based (Burmeister *et al.*, 2001: 6). Agricultural growth in South Korea established food security, but also created economic surpluses that were invested in other targeted sectors, which added to overall development (Buck, Hart, Milder, Shames and Scher, 2013: 5).

### 1.5 Africa and development through agriculture

According to Hazell (2009) proponents of agricultural development argue that the agricultural sector has higher growth-linkages and sufficient scale compared to other sectors in the initial stages of development, including the industrial sector. This has the potential to contribute significantly towards promoting “shared growth”, which could increase incomes for the majority rural population of Africa (Diao *et al.*, 2010: 2). Since agriculture makes up a large portion of African GDP (one-third or for some countries two-thirds of GDP), developing this sector will be key in stimulating growth. In a literature review on sectoral sources of aggregate economic growth in developing countries, Bezemer and Heady (2008) find that developing agriculture had the strongest linkages, compared to all the other sectors, to aggregate growth. Bezemer and Heady (2008) discuss other case studies that have performed similar tests that have found that the multiplier effects of modernising agriculture on the rural economy are more significant compared to the multiplier effects of other sectors.

According to Diao *et al.* (2010: 2), development of the agricultural sector through investing in rural infrastructure and technology would result in large gains which could push African countries’ agricultural productivity levels to those of developed nations. Furthermore, it has been argued that with Africa’s significant comparative advantage in agriculture, coupled with its relatively weak manufacturing sector, there are few alternatives for Africa’s initial development trajectory (Beyene *et al.*, 2007: 7). For instance, according to the World Bank (2015) in Africa between 2006 and 2014 manufacturing value added growth was 3.7 percent per annum, but off a very low base, whereas agricultural value-added growth was 4.8 percent per annum. The labour-intensive manufacturing sector in African countries has also been undermined heavily by competition from other emerging economies, such as China (Edinger and Sandrey, 2011: 14). Therefore, a combination of Africa’s dependence and comparative advantage in agriculture, as well as its weak industrial sector, could provide an argument for a focus on the modernisation of the agricultural sector first as the primary engine of development and growth.

According to the Food and Agricultural Organisation of the United Nations (2014), 62 percent of farming land in Africa consists of smallholder farms. However small-scale farms are often

viewed as unproductive and unviable, because supply-chains have become far more complex since the 1990s and international competition from successful large-scale commercial farms undermines the efforts of small-holder farmers in Africa (Diao *et al.*, 2010: 2). Some theorists suggest that these rural farmers should diversify their incomes away from agriculture and migrate to urban areas. Others argue that this would not necessarily lead to a positive outcome, especially if this movement away from agriculture is caused by stagnant agricultural growth or if rural people move into low-productivity urban activities (Diao *et al.*, 2010: 2). In fact migration is often not what is necessary for development to take place, especially in Africa. There still exists a huge potential in rural farming, most notably in the domestic and/or regional market, for staples and other food crops, as increasing commercialisation and urbanisation will generate significant future demand for these agricultural products (Diao *et al.*, 2010: 2).

Diao *et al.* (2010) examine whether agriculture could have a significant role in the development process in African economies. They present a series of case studies on six African countries with similar initial economic conditions. Their study simulates three different scenarios: a baseline scenario, agricultural-led growth scenario and non-agricultural-led growth scenario. The baseline scenario consists of the estimated growth trends from 2009 until 2015 that include the level of aggregate economic growth and the sectoral composition of the growth. The other two scenarios (agricultural-led and non-agricultural-led growth) are generated in which their additional contribution to reducing poverty is compared. In order to make the results comparable, poverty-growth elasticities are then applied in each scenario to calculate the relative effectiveness of agriculture and industry-led growth in reducing poverty. Table 1.1 shows the comparison between the various scenarios.

Table 1.1 Comparison between agricultural and non- agricultural growth scenarios

	Baseline scenario	Agricultural-led scenario	Non-agricultural scenario
Ethiopia (2003 - 15)			
Annual per capita GDP growth rate (%)	0.5	2.4	2.4
Annual GDP growth rate	3.1	5	5
Agriculture	2.5	5	2.7
Non-agriculture	3.7	5	7
Poverty headcount by 2015 (%)	44.3	26.5	37.3
Poverty growth elasticity		-1.66	-0.73
Ghana (2003 - 15)			
Annual per capita GDP growth rate (%)	2.2	3.1	3.1
Annual GDP growth rate	4.7	5.7	5.7
Agriculture	4.6	7	4.6
Non-agriculture	4.8	4.8	6.2
Poverty headcount by 2015 (%)	23.7	17.3	21.5
Poverty growth elasticity	-1.49	-1.78	-1.33
Kenya (2003 - 15)			
Annual per capita growth rate (%)	1.1	2.1	2.1
Annual GDP growth rate	3	4	4
Agriculture	3.4	6.1	3.6
Non-agriculture	4.2	3.4	4.2
Poverty headcount by 2015 (%)	46.2	36	44.1
Poverty growth elasticity	-0.67	-1.25	-0.57
Rwanada (2003 - 15)			
Annual per capita GDP growth rate (%)	0.7	3.2	3.2
Annual GDP growth rate	3.4	6	6
Agriculture	3.3	7.9	3.5
Non-agriculture	3.4	3.5	8.1
Poverty headcount by 2015 (%)	55.5	34.6	43.3
Poverty growth elasticity	-1.09	-1.41	-0.84
Uganda (2003 - 15)			
Annual per capita GDP growth rate (%)	1.6	2.8	2.8
Annual GDP growth rate	5.2	6.4	6.4
Agriculture	5.1	7.6	5.3
Non-agriculture	5.3	5.2	7.4
Poverty headcount by 2015 (%)	27.8	17.6	21.7
Poverty growth elasticity	-0.98	-1.58	-1.1
Zambia (2003 - 15)			
Annual per capita GDP growth rate (%)	2	3	3
Annual GDP growth rate	4	5	5
Agriculture	4.6	7.7	4.5
Non-agriculture	3.8	4	5.1
Poverty headcount by 2015 (%)	68.3	58.9	64.4
Poverty growth elasticity	-0.35	-0.58	-0.38

Source: Diao *et al.* (2010: 4)

It is found that industry-led growth is substantial in the short and medium term in reducing poverty, but not as substantial as agricultural growth (Diao *et al.*, 2010: 7). Since the agricultural sector is so large in many African countries it predetermines its potential impact

on aggregate growth. However what is more important is that agricultural growth is seen to be more pro-poor than industrial growth, because there is more room for participation by the poor in the growth process (Diao *et al.*, 2010: 8). Although industry-led growth has linkages, Diao *et al.* (2010: 9) argue that they are much weaker and do not create as many employment opportunities for poor workers compared to agricultural-led growth. These findings contrast with a significant literature that argues that industrialisation, and in particular manufacturing, has special features in terms of linkages, multipliers and economies of scale that make it the stronger engine of growth and development (UNIDO, 2013; Tregenna, 2008).

Nonetheless, both historical and current analysis of agriculture's role in development suggest that agriculture may still be a vital precondition for overall economic growth. According to Bezemer and Heady (2008) modernising agriculture will support growth, as it will provide cheap food for poor rural and urban dwellers, who spend a large portion of their income on food. This would enable them to spend their income on other vital expenditures that would foster economic growth, such as education and health. Agriculture requires a large amount of unskilled labour, which often dominates the labour force in African countries, but also requires skilled labour, suggesting that agricultural growth will create additional employment in a sector that has low barriers to entry (Bezemer and Heady, 2008: 6).

When developing the agricultural sector it is argued that state involvement is essential, either in the form of state support programmes or public policy. The theoretical rationale for state involvement is due to the private sector under-investing relative to the social optimum. Private investors under-invest, because the multiplier effects and the reduction in poverty are externalities which private investors do not realise (Bezemer and Heady, 2008: 7). Another theoretical reason for state involvement is because market failure in underdeveloped agriculture is pervasive. These market failures may include market distortions due to information asymmetry, high transaction costs, labour market distortions, volatility and covariance of incomes, and the indivisibility of rural investments (Bezemer and Heady, 2008: 7). With these distortions in mind a state role in the agricultural development process is justified. State involvement may include pricing, taxation and trade policies, support for agricultural research (direct or indirect), information provision, export potential, human capital development, quality

management, technological innovation and investment in infrastructure (Bezemer and Heady, 2008: 7).

Historically state involvement is evident in all European economies and the successful East Asian countries. For instance the government in South Korea and Taiwan initially launched their path of agricultural development with significant land reform, which offset many of the worst market failures. In order to reduce real labour costs without affecting workers' well-being, the government gradually lowered the price of food, which then facilitated industrial expansion (Byerlee, Diao and Jackson, 2005: 19). These low food prices did not create other market distortions or failure, as the government in South Korea and Taiwan counteracted these low food prices with policies that subsidised agricultural inputs, lowered risks linked to production and prices and invested in modern agricultural technologies (Bezemer and Heady, 2008: 8). Although these low food prices were essential, they were not excessive and did not last very long. In other cases, especially in African countries, government policy with agricultural development was less effective where land reform was not carried out properly and food prices were kept low without providing sufficient subsidies or other state expenditure support (Bezemer and Heady, 2008: 8). Effective state involvement in agricultural development is essential, as it yields high returns and facilitates the growth of other sectors, especially the industrial sector.

However the role of agriculture in development has been questioned, due to the influence of international economic institutions and current economic conditions. Despite the success of Asia's Green Revolution some theorists believe that this experience is irrelevant for contemporary Africa. Ellis (2005) argues that state support policies since the implementation of the structural adjustment programmes of the 1980s and 1990s have largely been dismantled and discouraged. The policies that were implemented during Asia's Green Revolution, such as fixed pricing, subsidies for agricultural inputs, public irrigation schemes, floor prices and trade protection could no longer be implemented by the state (Ellis, 2005: 3; Bezemer and Heady, 2008: 9).

Many theorists suggest that non-farming activities are currently more effective as the engine of growth and poverty reduction as opposed to agriculture. Some surveys have suggested that

rural people in developing countries attain most of their income from non-farm activities. For instance rural households in Africa have been found to derive 45 percent of their income from non-farm activities; in developing countries in Asia this is 30 percent and in Latin America 40 percent (Bezemer and Heady, 2008: 9). This suggests that diversifying away from agriculture could alleviate income inequality and reduce poverty.

However, Bryceson (2002) argues that agricultural development should not be ignored as a precondition for structural transformation and overall growth. Without modernising agriculture, industrial participation of poor workers will be casualised with low returns, high vulnerability and with no possibility of accumulation (Diao and Hazell, 2005: 19). Surveys by Ellis (2005) and Bryceson (2002) indicate that the highest income-earning groups in Africa also have the highest yields in agrarian activities.

It must be noted that non-farm and agrarian activities should complement each other rather than substitute for each other. Bezemer and Heady (2008) highlight the problem of “push urbanisation” where migration from rural to urban areas is emphasised and agricultural development is ignored. Here the supply of the labour force outnumbers that of non-farm activities that are also insufficiently labour-intensive. As a result, the labour force is not fully absorbed and poverty is perpetuated (Bezemer and Heady, 2008: 10). This is the case in most African and Latin American countries.

Despite the potential for the agricultural sector to play a critical role in economic growth, it still has to reach its full potential (Beyene *et al.*, 2007: 12)). According to Diao *et al.* (2010: 2), this has been due to factors such as inadequate investments, policies that are historically biased against any agrarian activities, weak institutions for rural development and declining agro-economic conditions in many countries in Africa. Another key factor is that global economic conditions have changed since the success of Asia’s Green Revolution. Although there were strong growth linkages during Asia’s Green Revolution, those growth linkages might not be as effective at present as the world economy is far more integrated, which makes the food market much more volatile (Diao *et al.*, 2010: 2). However, between 2009 and 2013 food and commodity prices in Africa rose steadily (McMillan, *et al.*, 2013: 30).

## 1.6 Conclusion

Recent levels of economic growth and investor confidence have not been experienced in African countries since the independence era of the 1960s. The economic outlook for Africa as a whole has been very positive, despite the continent's small value-adding sector and unproductive agricultural production. This positive outlook has more recently been dampened, however, by severe drought conditions, a slump in commodity prices and other uncertainties surrounding China and the global economy.

Nevertheless, the question of how African countries should take advantage of the continent's recent positive economic performance is still under debate. Two broad developmental trajectories emphasising industrialisation and development through agriculture provide some possible insights into African economies' struggle to develop and to eradicate poverty.

Industrialisation proponents suggest African countries should move away from traditional extractive and agricultural activities towards value-adding activities, such as manufacturing. The broad argument here is that traditional economic activities, especially agriculture, are low-productivity activities, while value-adding activities are highly productive. In this view, structural change will increase the demand for higher-skilled labour and thus increase overall incomes. Essentially this will reduce the poverty and unemployment that characterises almost all economies in Africa.

On the other hand development through agriculture also provides a possible path to direct African countries towards sustainable development. The general argument proposes that underdeveloped economies must initially modernise the agricultural sector before other development policies, such as industrialisation, are actively pursued. Empirical evidence suggests the success of this approach through the Green Revolution that occurred in Europe during the 1940s and 1950s and in East Asia between the 1960s and early 1970s. The theory holds that agricultural development is more pro-poor and that linkages in agricultural development are far stronger than in non-agricultural activities. This in turn could create a firm foundation for further development initiatives.

However, the effectiveness of both trajectories rests upon state policy and how such policy is implemented. Efforts to industrialise in many African countries have been compromised by poor state policy and implementation, which has resulted in industrial activities contracting over the past two decades. The failure of state policy has also meant that African countries have not taken the rising trend of globalisation into account, resulting in unproductive industries “shedding off” labour, which either flows into informal, unproductive sectors of the economy or which is unable to be absorbed into the economy at all. Despite efforts to industrialise, African countries are still reliant on extractive industries. Development through agriculture has also suffered from ineffective policies and poor policy implementation.

The discussion in this chapter suggests that industrialisation and the development and modernisation of the agricultural sector are both critical complementary aspects of development policy. Furthermore, the state has a key role to play in creating and implementing policies that will facilitate a development trajectory of industrialisation and development through agriculture. However, it is vital that policy makers and industries in developing countries, especially those in Africa, take account of the dominant trend of globalisation and the implications of the emergence of global value chains for both industrialisation and agricultural development goals.

Advancements in communications and transport over the past two decades have enabled companies, most notably multinational corporations, to do business on a global scale. Today production processes can take place anywhere in the world. Many multinational corporations outsource significant parts of their production processes in areas of the globe that have the best comparative advantage for a particular stage of production. This has led to the emergence of global value chains (GVCs), with important policy implications for developing countries.

It has been argued that African countries should gear their policies towards insertion into these global value chains in order to achieve development. This has implications for both agricultural and industrialisation strategies. The remainder of this study explores the global value chain literature, particularly in the context of agricultural-based commodity chains which combine aspects of development through agriculture and industrialisation, and applies the GVC framework to an examination of the tobacco value chain in Zimbabwe.



## Chapter 2: Global Value Chain Theory

### 2.1. Introduction

Since the 1990s firms around the world have separated their production stages in order to optimise their sourcing strategies. This has taken place through global value chains (GVCs). If African countries integrate themselves into the GVC strategy they could possibly accelerate efforts to industrialise and modernise agricultural production. Currently Africa as a whole has a small, but steadily growing share of GVC activity (ADB *et al.*, 2014: 124).

The value chain provides a key insight into how a product is transformed, grown or manufactured when inputs and services are fused together. It also reveals the physical movement of a product from the producer to the consumer and how each separate movement adds value to the product. According to Lambaste and Webber (2010) the value chain provides an understanding about relationships between firms, mechanisms for improving efficiency and different approaches to increasing productivity and adding value. Value chains can also act as a reference point for firms wishing to improve supporting services and the business environment in general.

In terms of development, value chains can provide vital links between small to medium enterprises and the market and create a platform for pro-poor initiatives. Since the 1990s value chains have been used as a guide and an engine to drive growth initiatives that focus on improving competitiveness, productivity, entrepreneurship and stimulating small and medium enterprises (SMEs) (Lambaste and Webber, 2010: 1). This could be important for African countries' development trajectories.

This chapter explores the theory behind value chains and GVCs in particular. The first section briefly explains the theory of value chains, drawing on the work of Porter (1985; 1990) and Gereffi and Fernandez-Stark (2011). The next two sections investigate two key concepts attached to value chain theory which relate to the development implications of this thesis: governance and upgrading. The fourth section looks into the early approaches to value chain theory and how these approaches have been built upon to construct a contemporary analysis of value chains. Lastly in order to narrow the focus towards value chains in agriculture, agro-based commodity chains will be discussed, using Gibbon's (2001) historical analysis on agro-based commodity chains with other supporting literature.

## 2.2 Value chain theory

Porter (1985, 1990) in his work on competitive advantage is noted as one of the main authors to develop the value chain concept. According to Porter (1985) “value chain” typically refers to the full range of different activities or processes of a product or service, with each activity or process adding value to the product or service. There are various activities and processes along the value chain, each adding value, including extraction of raw materials, assembly, physical transformation, acquiring certain services, such as logistics, and finally response to consumer demand (Lambaste and Webber, 2010: 9). Porter (1990) argues that one value chain does not operate in complete isolation, as it is connected through a series of linkages, which are all embedded in a value system. The activities or processes in a value chain can be carried out by a single firm or shared amongst different firms (Gereffi and Fernandez-Stark, 2011: 4).

Value chains are vertically linked, meaning they are interdependent processes that add value for the customer, but can also be linked horizontally to other value chains that provide intermediate goods and services (Lambaste and Webber, 2010: 9). The prime focus in value chains is on how to create value, which is achieved through product or process innovation, as well as marketing. Value chains also focus on the allocation of additional value during the production process. Porter (1990) emphasises that value chains should not be confused with supply chains. Although they are complementary, supply chains are a different set of processes. Supply chains refer to the flow of material through a network of different entities, including suppliers, carriers, manufacturing sites, distribution centres, retailers and customers (Lummus and Vokurka, 1999: 11).

Porter (1990) argues that, since its emergence in the late 1980s and early 1990s, globalisation has had a significant influence in changing the production process of goods and services. With improvements in telecommunications and transportation, industries all over the world have been globalised. The production process is no longer constrained to a single nation, but can span many different countries across the globe. This has led to the development of global value chains (GVCs). The GVC’s interconnected process of producing a particular product or service from conception and design through to manufacturing or production, marketing and final distribution is also referred to as an international production network (ADB *et al.*, 2014: 125).

GVCs operate much the same as a normal value chain, but each different activity or process of a product or service takes place in a different geographical location or country (Humphrey and Schmitz, 2002: 1018).

The advances in communication and liberalised economic regulation have enabled firms to optimise their sourcing strategies through separating stages of production in different countries depending on their comparative advantage (ADB *et al.*, 2014: 125). Developing countries usually offer low labour costs and raw materials, therefore firms choose to operate the lower segments of the value chain in those regions. On the other hand developed nations offer a high-skilled and educated labour force, therefore segments at the higher end of the value chain, such as product innovation and design and sales, operate in these regions (Gereffi and Fernandez, 2011: 6). Firm managers are therefore able to direct and manage production activities in factories, for instance in the Philippines, from their offices in New York. However, the geographical scope of GVCs continues to evolve and some GVCs operate at different geographical scales (local, regional and international/global). According to Gereffi and Fernandez-Stark (2011) there is a gradual trend towards the regionalisation of GVCs, due to the growing importance of large, emerging economies and regional trade agreements.

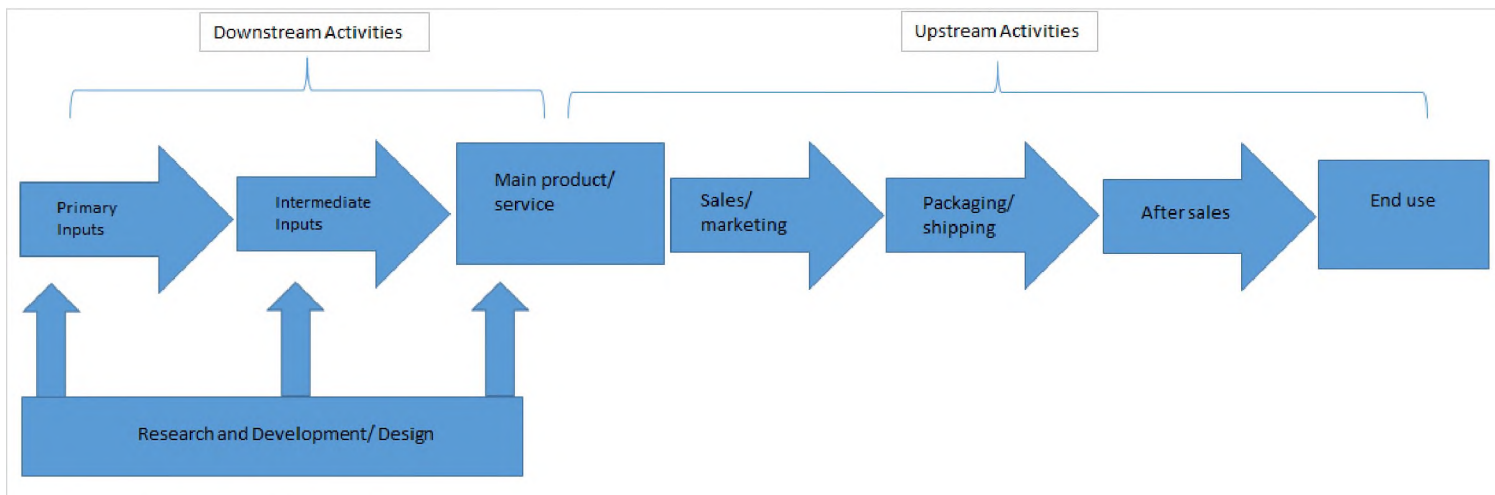
In order to understand the theory behind GVCs, an analysis of global industries and how they operate should include looking at industries from the top down (for instance seeing how multinational corporations “govern” firms and agents below them in the production process), as well as from the bottom up (how decisions and actions by high-end corporations affect the path of economic and social “upgrading” in certain countries). Three “core” structures of GVCs will be considered in this analysis. The first includes a brief outline of the input-output structure, which will provide insight into how a raw product is transformed into a final product. The second will delve into the various governance structures that command a GVC, explaining the different ways in which a GVC is controlled. Finally the GVC element of upgrading will be investigated, which will provide a description of how producers can shift between different stages of the value chain.

### 2.3 Input-output structure

According to Gereffi and Fernandez-Stark (2011) the value chain represents the entire life cycle or input-output process of a product or service from initial conception and design to final consumption by the consumer. Different industries or firms have varying segments of the value

chain, however there are segments that most industries or firms have in common. These include: research and design, inputs, production/manufacturing, distribution and marketing, and sales (Gereffi and Fernandez-Stark, 2011: 5). Recycling of products after use has recently become a common value chain stage amongst many industries or firms (Gereffi and Fernandez-Stark, 2011). ADB *et al* (2014) provide a diagram of a generic value chain.

Figure 2.1: Generic value chain



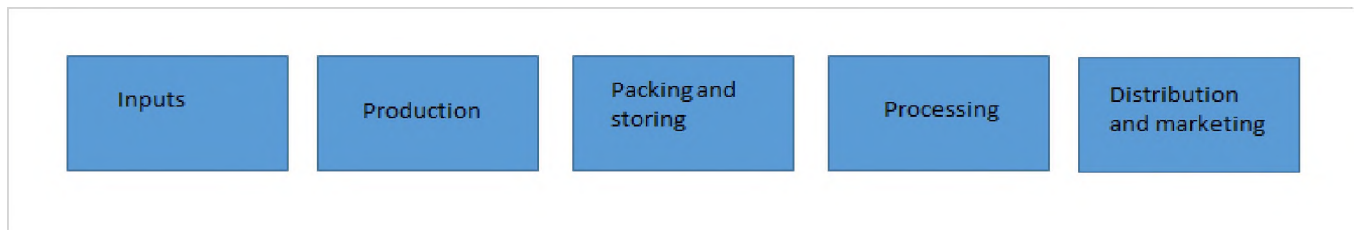
Source: ADB *et al* (2014: 124)

Goods and services, as well as a wide range of supporting firms or industries, are involved in the value chain for a certain product or service (Gereffi and Fernandez-Stark, 2011: 5). The entire value chain process is represented by value chain boxes linked by arrows, as the diagram above shows, which reveals the flow of goods and services (tangible and intangible) (Gereffi and Fernandez-Stark, 2011: 5). This helps one identify the value added at each stage of the value chain, as well as identifying agents at the bottom of the value chain and those at the top.

Gereffi and Fernandez-Stark (2011) provide an example of how the entire value chain or the input-output structure and the industries that support it should be understood. They state the importance of understanding the historical evolution of the industry, the trends that have moulded it and the way it is organised. Here, the different stages of the value chain can be identified and differentiated according to the value they add to the product. Gereffi and Fernandez-Stark (2011) then explain that through obtaining secondary data and information from interviews an explanation can be created of the principal activities in the value chain. This information will provide an explanation of how each segment adds value to the product or

service and how the value share returns are differentiated for each agent behind their respective segment in the value chain. Gereffi and Fernandez-Stark (2011) use the fruit and vegetable value chain as an example of how to analyse the input-output structure of the GVC, using a basic diagram to illustrate their findings (Figure 2.2).

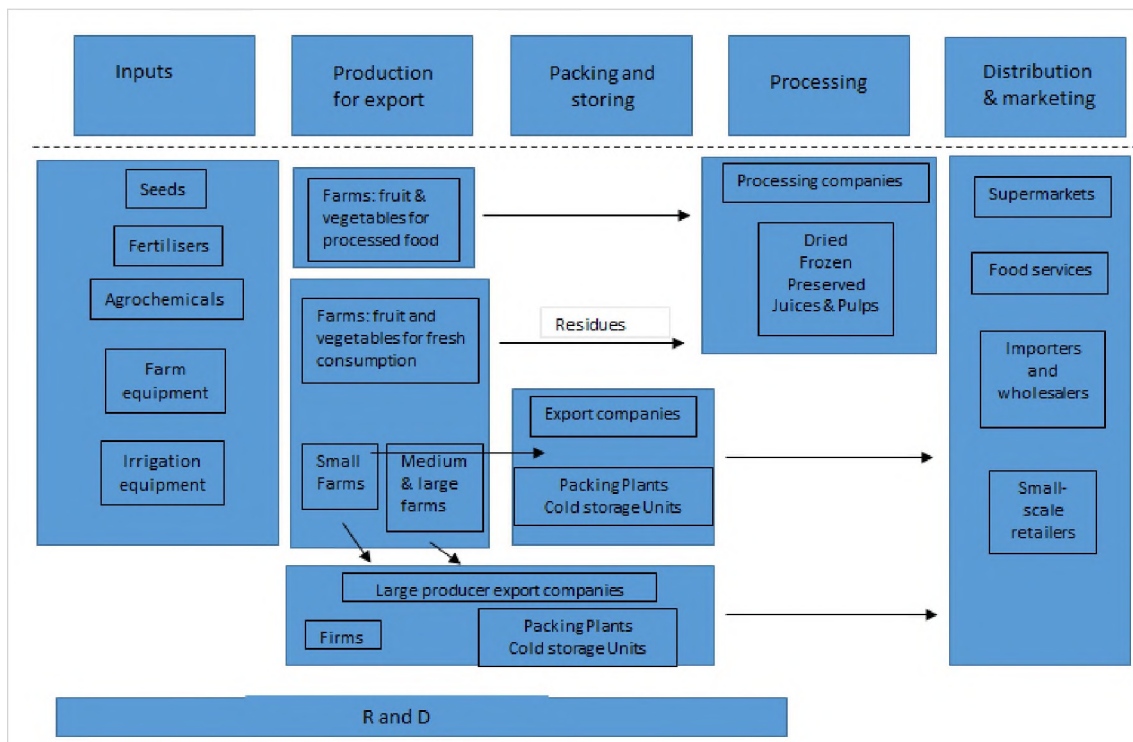
Figure 2.2: Fruit and vegetable value chain



Source: Gereffi and Fernandez-Stark (2011: 6)

Gereffi and Fernandez-Stark (2011) explain that each segment of the value chain will have specific characteristics and dynamics, such as preferred suppliers or particular sourcing practices. For instance, in the fruit and vegetable chain inputs for the “processing” segment may not have passed quality standards for export or may have been produced specifically for processing. In this particular segment of the value chain one can identify the agents and firms that operate in this segment. When looking at each segment separately the type of firms and industries involved can be identified, as well as their key characteristics. This will essentially provide insight into how the entire value chain is governed and what implications this may have for upgrading prospects. Figure 2.3 below shows the fruit and vegetable GVC and the agents and activities behind each segment.

Figure 2.3: Fruit and vegetable value chain segments and agents



Source: Gereffi and Fernandez-Stark (2011: 7)

## 2.4 Governance

The basic understanding of the concept of value chains developed above provides the background for a more in-depth analysis of the value chain from the top-down. In order to explore the developmental implications of particular value chains it is important to examine how the value chain is directed and coordinated or “governed”.

### 2.4.1. Theory of value chain governance

Gereffi (1994: 97) defines governance as the “authority and power relationships that determine how financial, material and human resources are allocated and flow within a chain”. Governance typically refers to the structural organisation of agents in the value chain and how these agents are organised along the chain in terms of power asymmetries (Moyer-Lee and Prowse, 2015: 161). The power asymmetries refer to the role each agent plays in the value chain and who has control or who decides the actions of agents in the value chain. Those who exert the most amount of influence on the value chain are usually those at the top end of the value chain or the “lead firms”, as Moyer-Lee and Prowse (2015) call them. For instance in the coffee value chain the firms that do the roasting have the greatest influence over the entire

chain. Other agents in the lower end of the value chain tend to have less and less control the further down the value chain they operate.

Humphrey and Schmitz (2002) point out five key parameters of value chain governance that define what is done in the governance structure:

1. Product definition or what is to be produced.
2. How it is to be produced, which includes elements in the production process, such as technology to be used, labour standards, quality systems and environmental standards.
3. When it is to be produced.
4. How much is to be produced.
5. What price should be specified. Although prices are usually seen as a variable in the market, sometimes major customers assert that their suppliers design and process products that target a certain price.

The notion of governance arises when firms in a value chain function according to the parameters that have been set by others. Here, governance structures may be required to provide certain information about parameters and enforce some sort of control. In other words, according to Humphrey and Schmitz (2002), governance consists of inter-firm relationships and institutional mechanisms through which non-market coordination and activities in the value chain are achieved.

However, this is not necessarily the full explanation of value chain governance. Many goods are traded in the market and each firm at its point in the value chain can define its parameters (Humphrey and Schmitz, 2002: 7). For instance, a firm may produce its own product according to its own estimates of market demand, producing a product that is not designed for a specific consumer (a standard product) and using its own processes. Therefore, the buyer has a ready-made and ready-to-buy product. However, inter-firm relationships can differ from this pattern in terms of the decisions of “when” and “how much” will be produced jointly by the producer and buyer (Humphrey and Schmitz, 2002: 7). This is when production is scheduled according to a “make-to-order” basis rather than a “make-to-forecast” process. Therefore, there has to be a certain amount of coordination and control between firms in the value chain and this requires a more sophisticated governance framework.

Gereffi, Humphrey and Sturgeon (2005) provide an explanation of how governance in value chains has changed, due to the change in the nature of production. Governance in GVCs has changed significantly over the past few decades, especially in terms of industrial organisation and international trade (Gereffi, Humphrey and Sturgeon, 2005: 78). As noted earlier, globalisation of production and trade have stimulated the growth of industrial capabilities in many developing countries that offer favourable industrial conditions and comparative advantage for a certain segment or segments of the value chain of a product or service.

Multinational corporations have taken on vertical disintegration, meaning that they have reduced their direct ownership or role in “non-core” or lower-end value chain activities, such as volume production and general services (Gereffi *et al.*, 2005: 79). In other words multinational corporations have outsourced many of their value chain activities to other firms in different geographical locations and have chosen to focus only on higher-end value chain activities, such as innovation and product market strategy and marketing (Gereffi *et al.*, 2005: 78). This fragmentation of the value chain has allowed production to take place in different countries, in cross-border production networks that are coordinated either between or within firms. According to Feenstra (1998) the integration of international trade has led to the disintegration of production. As a result international trade is occurring in components and other intermediate goods. Despite the complexities of fragmented production chains inter-firm coordination and control can occur without the lead firms having direct control.

This has also had an effect on governance structures within value chains. Ponte (2002), in his investigation of the global coffee value chain governance structure, found that power has shifted from producing countries to consuming countries since 1989. This was when the International Coffee Agreement (ICA) (where the price of coffee was controlled by Latin American states) was not renewed. When trade liberalisation became pervasive in the 1990s the role of the state in the market diminished. Coffee grower organisations around the world were unable to replace the state with a substitute institution to organise and control coffee exports (Ponte, 2002: 1107). As a result local exporters were unable to compete with international traders and have either vanished or merged with international traders. This gradually made the top-end firms (roasters) more powerful and also resulted in the market becoming more concentrated. For example, Nestle dominated the market, with a 56 percent of market share, and thus had most influence on the value chain (Ponte, 2002: 1108).

However, there are many empirical examples of governance in GVCs that all have different variables and factors. This makes analysing GVC governance complex. Gereffi *et al.* (2005) point out that different historical contexts, institutions, geographic and social contexts, rules of the game and dependence are factors that determine the relationships between firms and groups of firms and how they are linked in the global economy. A simple framework has been provided by Gibbon and Ponte (2006) and Gereffi *et al.* (2005) of the different types of governance within GVCs. This helps to isolate key variables and provide a theoretical basis for specific empirical contexts.

#### 2.4.2 Types of governance

Gereffi *et al.* (2005) provide a complete typology of value chain governance that goes beyond (or even replaces) the general distinction between “buyer-driven” and “producer-driven” chains. The authors acknowledge that market-based relationships among firms and vertically integrated firms comprise opposite ends of a spectrum of explicit coordination. These firms also have network relationships that comprise an intermediate mode of value chain governance. In their study they refer to three factors that determine the governance type. The first is the complexity of transactions/information, which refers to the costs of coordinating activities along the value chain (Gereffi *et al.*, 2005: 84). Interaction complexity becomes higher when lead firms place new demands on the value chain, such as seeking product differentiation and short-term supply (Moyer-Lee and Prowse, 2012: 8). The second factor is codifying information, which is when firms in the value chain place new demands with respect to technical and/or process standards in order to lower complexity. Supplier capability, the third factor, refers to the ability of those lower down the value chain to meet the requirements of those higher in the value chain or the upstream buyers (Moyer-Lee and Prowse, 2012: 8). Gereffi *et al.*, (2005) add three distinct types of network categories: modular, rational and captive. They then present five types of value chain governance:

1. Market-based: here spot or repeated market-type inter-firm links are characterised by simplified information, ease of codification of information and high supplier capabilities (Gibbon and Ponte, 2006: 5). Market linkages do not necessarily have to be temporary, they can span a long period of time with repeated transactions. Essentially the costs associated with switching to new partners are low for both parties. Gereffi *et al.* (2005) use an example of the sub-Saharan African (SSA) to UK horticulture value

chain during the period before the mid-1980s. In this instance the value chain began with smallholder farms in Africa and ended with wholesalers in the UK. Transactions were characterised by arms-length market relations.

2. Modular value chains: inter-firm connectedness involve more specialised suppliers that make products to a customer's specifications. However, the supplier's technology is generic, which enables it to have a broad customer base. When providing "turn-key services" suppliers take responsibility for competencies surrounding process technology, the use of generic machinery that puts a cap on transaction-specific investments and provides capital outlays for specific components and materials on behalf of the customers. (Gereffi *et al.* 2005: 84). Modular governance is characterised by high complexity of information, ease of codification and capabilities of suppliers are high (Gibbon and Ponte, 2006: 5). Using the same SSA to UK horticulture example, Gereffi *et al.* (2005) point out that from the mid-1980s governance in this market became modular, because UK supermarkets decreased the number of suppliers and their requirements placed on suppliers increased.
3. Relational value chains: Interactions between buyers and seller are highly complex, resulting in mutual dependence and high levels of asset specificity (Gibbon and Ponte, 2006: 6). These inter-dependent relationships are formed through close social ties built over time, such as reputation and trust, or they are based on dispersed social groups, such as family or ethnic ties (Gereffi *et al.*, 2005: 84). This form of governance is characterised by high informational intricacies, ability to codify information is low and capabilities of suppliers are high (Gibbon and Ponte, 2006: 6). The global apparel industry of the 1990s is used as an example by Gereffi *et al.* (2005) to illustrate this form of governance. During this period apparel companies in East and South-East Asia switched to "full package supply", meaning that they took on extra responsibilities in the value chain, such as sourcing their own inputs.
4. Captive value chains: These value chains are characterised by small suppliers that are dependent on large buyers. Switching costs are high for suppliers, meaning that suppliers are "captive". Lead firms control and monitor these networks stringently. Informational complexity is high, codification of information can be achieved with ease and supplier capabilities are low. For instance, in the global apparel industry from the 1950s to 1980s production was based in companies in Japan and other East and South-East Asian countries, who depended on various inputs and instructions from purchasers (Moyer-Lee and Prowse, 2015: 162).

5. Hierarchical value chains: Vertical integration is the prime characteristic of this type of governance. Those at the lower end of the value chain are managed or controlled by those higher in the value chain, for instance the headquarters control the subsidiaries which control their affiliates (Gereffi *et al.*, 2005: 84). Here, there is high informational complexity, ease of codification is low and capabilities amongst independent suppliers are low (Gibbon and Ponte, 2006: 6). Going back to the SSA to UK horticulture market, Gereffi *et al.* (2005) explain that the increased requirements of UK supermarkets on smallholder farmers in SSA resulted in backward integration of exporters in order to have control over quality and standards.

## 2.5 Upgrading

GVC analysis is viewed from two vantage points: top-down and bottom-up. So far the top-down view has been investigated through the analysis of governance in the GVC, which focuses primarily on lead firms and how global industries are organised and controlled. This section deals with the bottom up concept of “upgrading”, which focuses on how local or regional producers improve or maintain their share of the value chain.

### 2.5.1 Theory of value chain upgrading

Upgrading essentially refers to the situation where firms or industries shift up in the value chain into higher value activities that will enable them to have a greater share of the value chain (Gereffi and Fernandez-Stark, 2011: 12). Upgrading is linked to a series of economic roles and capabilities in relation to export activities and production. Gereffi and Fernandez-Stark (2011) provide examples of these, including full-package production or original equipment manufacturing (OEM), assembly based on imported inputs, original brand name manufacturing (OBM), and original design manufacturing (ODM). This can be related to Gereffi’s (1999) study on Asian Newly Industrialised Economies (NIEs) apparel firms, where these firms began moving production offshore. This enabled them to focus on a more profitable design and marketing segments within the apparel value chain to sustain a competitive advantage (Gereffi, 1999: 51). The transformation of Asian NIE apparel value chains can be conceptualised as a form of industrial upgrading, which was driven by various types of economic and social networks between buyers and sellers.

Currently there is an increasing number of developing country producers in certain segments of the value chain, due to the competitive advantage they have over other, developed countries.

Humphrey and Schmitz (2002) provide a strong basis for why producers in low income countries need to upgrade. Since there is an increasing number of developing countries being integrated into the global market this puts downward pressure on the prices of manufactured and agricultural products (Humphrey and Schmitz, 2002: 19). In order to maintain or increase current incomes producers need to make their production activities more skills intensive and/or enter into niche markets that have barriers to entry, which will protect developing country producers from these external pressures to a certain extent. Humphrey and Schmitz (2002) refer to these strategies by developing industries as “high road” strategies. These shifts in activities in order to increase and sustain incomes are a characteristic of upgrading.

### 2.5.2 Types of upgrading

Humphrey and Schmitz (2002) identify four types of upgrading that firms or a group of firms within a GVC would want to achieve:

1. Process upgrading: this is when firms can upgrade processes, meaning that firms can transform inputs into outputs far more efficiently. This can be achieved by re-organising the production system or bringing in more advanced and superior technology. A simple example of this includes increasing yields on a farm and net margins by using better quality fertiliser and introducing advanced irrigation methods.
2. Product upgrading: firms upgrade by shifting into more sophisticated product lines or producing products of a higher value. This increases unit values of products, thus earning higher incomes. Gibbon (2001) expands on this with reference to the agricultural commodity chain, by pointing out that agricultural producers move up the quality grade ladder of existing forms of raw materials in order to capture higher margins.
3. Functional upgrading: here, firms either attain new functions or abandon existing functions in order to increase the skill content of their activities. This could entail complementing production with design or marketing or completely moving out of low-value activity. For example a firm engages in processing rather than extraction and exportation of a raw material.
4. Intersectoral or chain upgrading: this is when firms move into new industries, which are often related to the one they moved out of, using skills and capital (human, physical and social) acquired in their initial chain. Firms move into a different chain that

produces a more valuable product. For instance when a producer that manufactures TVs, such as Samsung, reaches a certain level of competence it branches into producing computer screens.

Value chain literature highlights the role governance plays in upgrading opportunities. As noted earlier, governance is a type of authority within institutions and in a wider sense is referred to as the coordination of activities in markets, firms or networks (Humphrey and Schmitz, 2002: 20). Governance does not necessarily have to involve market-type relationships exclusively. For example, Williamson (1979) argues that governance can be defined through the coordination of non-market networks. Although today it is considered that governance does involve the coordination within or between firms, governance can also involve coordination activities between public actors and public-private relationships and activities (Humphrey and Schmitz, 2002: 20).

However, GVC analysis still holds that upgrading and the knowledge or capability to upgrade still only lie in the value chain. Gereffi (1999) argues that it is the powerful lead firms that have control of the integration and coordination of internationally diffused value chain activities. With this control and directorship of the value chain, these global lead firms have the ability to create the structure of upgrading opportunities for local producers (Gereffi, 1999: 41).

According to Keesing and Lall (1992), Piore and Duran (1998), and Schmitz and Knorringa (2000), when producers enter into a segment of the value chain they learn from their global buyers how to improve their production processes, maintain and increase quality and improve on responsiveness, therefore enhancing their chances of upgrading. Gereffi (1999) points out that when consumers start to demand more sophisticated products, lead firms permit manufacturers or producers to upgrade their facilities in order to produce such products. This form of product upgrading can only be achieved once manufacturers or producers are competent in catering for the low end of the value chain (Gereffi, 1999: 53). Gereffi (1999) refers to this upgrading process as “organisational succession”. Bresky (1997) provides an example of the Thai apparel industry, saying that a particular merchandise manufacturer only catered for mass market retailers and discount retailers during the 1970s. Twenty years later the same manufacturer only produced for brands, such as Polo and Tommy Hilfiger. The manufacturer produces the same volume of apparel products, but has a much larger share of the value chain and has more than doubled his earnings

With respect to functional upgrading in the value chain context there are three different views. Gereffi (1999) investigates the upgrading prospects in the garment value chain. It is found that producers in the value chain have positive prospects for achieving functional upgrading as a consequence of “organisational succession” and “learning by exporting”. Gereffi (1999) uses the case of the East Asian garment producers, who managed to move from (a) assembly of imported inputs, to (b) overseeing the entire production process, to (c) the designing of branded products of other firms, to (d) selling their own branded merchandise in internal and external markets (Gereffi, 1999: 47). However, research on the footwear value chain by Schmitz and Knorringa (2000) suggests that movement from (a) to (b) is plausible, but movement from (c) to (d) cannot be achieved. This is because global buyers in some value chains discourage and even obstruct design, marketing and branding by local producers. These obstacles exist, because they sometimes violate buyers’ core competence. Ultimately governance in value chains may prevent upgrading opportunities and constrict knowledge flows in the chain (Humphrey and Schmitz, 2002: 23).

However, depending on the type of value chain firms feed into, the prospects for upgrading are different. As Humphrey and Schmitz (2002: 28) put it, “different forms of chain governance have different upgrading implications”. In an earlier study Humphrey and Schmitz (2000) formulate three conclusions from a comparative, but largely static, framework analysis. This involves analysing the different types of governance and what implications each type of governance could have on a developing country producer. It is found that, in a quasi-hierarchical value chain, conditions are favourable for fast process and product upgrading, but the ability of a producer to achieve functional upgrading is limited. Value chains that are characterised by market-based relationships slow down product and process upgrading, but functional upgrading is easier to attain. Finally, chains that are characterised by even networks provide an ideal environment for upgrading, but for a developing country it is much more difficult to create these ideal conditions. This is because it is harder for a developing country producer to reach the level of complementary competence that will allow for upgrading. To upgrade in agricultural-based commodities is far more straightforward compared to other consumer goods and services. In the production of homogeneous agricultural-based commodities, to upgrade may simply entail increasing yields and net margins, which can be achieved through improving the use of current inputs (Moyer-Lee and Prowse, 2015: 161).

However, upgrading in relatively homogeneous agricultural products that are nonetheless differentiated can be far more complex. According to Humphrey (2006) products can be differentiated on the basis of environmental impact, quality, community development and origin. Product differentiation based on these factors is part of the broader trend towards credence characteristics in the agricultural industry (Humphrey, 2006: 579). The creation of the “credence good” is a result of agricultural grades and standards.

Bingen, Busch, Codron, Harris and Reardon (2001) further explain the existence of a credence good in agriculture as a product that is new and complex that has certain safety and quality standards that are not known to the consumer, except through observation-in-consumption or sensory inspection. An example of a differentiated product with credence characteristics would be eco-friendly and certified organic coffees.

## 2.6 Conclusion

This chapter investigated the theory of value chains with a particular focus on GVCs. Porter (1985) was instrumental in developing value chain theory during the 1980s and early 1990s, defining value chains as a full range of production processes of a particular product or service with each segment of the process adding value to the product or service. Globalisation has had a significant influence on the development of GVCs, where value chains are dispersed in different geographical locations around the world.

All GVCs are “controlled” or “governed” by those higher up the value chain, often by those who add the most amount of value in the production process. Governance is defined as the structural organisation of participants and how participants and resources are organised and allocated in the value chain. Different types of governance structures were identified and defined in this section of the chapter.

This then led to a bottom-up investigation of GVCs. Section 2.5 explained how these different types of governance structures influenced prospects for upgrading. Upgrading in the GVC framework refers to how firms or participants in a certain GVC can “move-up” the value chain and achieve a higher share of the product or service. Just like governance, there are many different types of upgrading opportunities. However, different types of governance have different implications for upgrading. Different industries can have a diverse range of

governance and thus have a diverse range of upgrading opportunities. This is also true for agricultural-based value chains.

To investigate in more detail agricultural-based commodities, the focus must shift to agricultural-based value chains. Governance in these value chains could be specific and thus have different upgrading implications compared to those discussed above. The following chapter examines the different approaches to value chain analysis, which will help in analysing agricultural-based value chains such as the tobacco value chain.

## **Chapter 3: Approaches to value chain analysis**

### **3.1. Introduction**

There are two initial approaches to analysing value chains: world systems theory and value systems theory. World systems theory is based on the work of Wallerstein (1974) and Hopkins and Wallerstein (1986). Value systems theory is based on the work of Porter (1990). These early works provide the foundation for more complex and realistic approaches towards value chain analysis. The purpose of this chapter is to outline the different approaches to value chain analysis as background to the discussion of agricultural-based value chains such as the tobacco value chain in the remainder of the thesis. Sections 3.2 and 3.3 outline the early approaches referred to above. Section 3.4 examines how Gereffi and Korzeniewicz (1994) expand upon these initial approaches to develop global commodity chain analysis. The remainder of the chapter considers the theoretical contribution of Trienekens (2011), who distinguishes four streams of value chain analysis: global value chain, supply management, new institutional economics, and social network approaches. Trienekens (2011) then creates a framework for developing country value chain analysis.

### **3.2. World systems theory**

Wallerstein (1974) was influenced by the neo-Marxist dependency school of thought, in which he describes an uneven, structured, modern, capitalist world system of interdependencies (Phillips, 2010: 59). According to Wallerstein (1974), the international division of labour is created by historical hierarchies and exploitation. In order to describe the historical production system and the divisions of labour associated with it, Hopkins and Wallerstein (1986) provide a framework to pinpoint and construct relations among production processes across time and space (Phillips, 2010: 59). They achieve this by coining the term “commodity chain”, which they describe as a network of production processes and labour, which when put together create a finished commodity.

Hopkins and Wallerstein (1986) recognise that relationships between societies are located in a transnational global system of networks of increasing mutual dependencies and interactions of agents. In order to portray the division of labour in a commodity value chain, Hopkins and Wallerstein (1986) start by viewing the finished product and work backwards to the lower end of the value chain to the sources of primary raw inputs. Each major point of the value chain is referred to as a “node”. Here four properties are identified. These properties include the flow

of commodities to and from a particular node and the processes before and after the node; the relations within the node; the dominant organisation of production; and the geographical locations of the entire operation (Phillips, 2010: 59).

Although there have since been significant developments in the literature, Hopkins and Wallerstein's (1986) contribution emphasises the important historical influences of governance on the international division of labour. This refers to the legacies of colonialism that have subsequently "locked-in" developing countries into performing low-value activities, such as the extraction of raw materials and more notably the production of primary agricultural products.

### 3.3 Value systems theory

Porter (1990) moves this analysis from a macro level, presented by Hopkins and Wallerstein, towards a micro level analysis of activities within a firm. These activities are divided into a series of processes or tasks, such as production or marketing, much like nodes in macro level operations. As noted in Section 2.2, a value chain is formed when firms add value to a product after each stage of the production process.

The overall sum of a firm's activity represents its value chain (Phillips, 2010: 60). Here, Porter (1990) defines a value system, which is the series of linkages that constitutes each segment of the value chain. A value system is essentially all of the value chains that are involved in creating a certain product or service, including the activities of "downstream" suppliers and "upstream" buyers (Phillips, 2010: 60).

Porter (1990) then argues that firms focus on competitive advantage. Normally competitive advantage would refer to a nation's economic condition or circumstance that puts it in a favourable position. In the value chain, Porter (1990) argues that firms gain competitive advantage by comprehending new ways to conduct activities within their value systems (Phillips, 2010: 61). However, the level of advantage a firm can gain depends on its ability and influence to govern the entire value system.

Porter's study was intended to be adopted by states and by private corporations to increase their comparative advantages. This concept could also be applied to developing countries, as Porter (1990) argued that developing countries need to remove themselves from the "strait-jacket" of

comparative advantage in primary activities, such as primary commodities, that are sensitive to price shocks. This relates to Hopkins and Wallerstein's issue of "lock-in" of developing countries.

The world systems and value systems theories described above are too simplistic to be applied on their own in the present study. As Phillips (2010) argues, these approaches do not take into account the complexity of reality. These approaches were important, however, as Gereffi and Korzeniewicz (1994) built upon concepts from the world systems and value systems theories to develop the concept of global commodity chains (GCC).

### 3.4 Global commodity chain approach

Gereffi and Korzeniewicz (1994) were among the first to develop the GCC framework in the 1990s, which created the link between the concepts of value-added chains and the new emerging global organisation of industries. The literature at the time emphasised the importance of coordination across and within firms and also highlighted the importance of new global buyers. These new global buyers were the lead players in dispersing and fragmenting the organisation of production and distribution networks.

The GCC framework essentially analyses the extent of the power that an agent (normally a lead firm) has upon other agents within the chain of an internationally traded commodity. It focuses on the contemporary global industrial organisation of production, trade and consumption (Phillips, 2010: 63). Gereffi and Korzeniewicz (1994) moved the analysis from international core-periphery views of the world associated with world systems theory, towards a more contemporary, postcolonial view of the global economy. GCC analysis looks into the complex networks and relations within global firms and multinational corporations that trade within commodity chains. By doing this, GCC analysis reveals how global institutions shape the society surrounding them and their role in influencing trade and development. This enables analysis at a micro level to view the influence of local agency (firms' and other actors' ability to act and make decisions), whose knowledge asymmetries have an impact on how a commodity chain is shaped and governed (Gereffi and Korzeniewicz, 1994: 129).

In their work Gereffi and Korzeniewicz (1994) use the dominance of US retailers in the garment value chain to describe different types of power or governance in GCCs. These include

“buyer-driven” and “producer-driven” chains. The term “buyer-driven global commodity chain” refers to how global buyers of commodities use explicit coordination to create a supply base that would provide constant supply to global production and distribution systems without there being any direct ownership of the value chain. These global buyers usually consist of retailers and brand marketers that play vital roles in setting up decentralised production networks in a variety of different countries. Buyer-driven value chains are most prevalent in labour-intensive, consumer goods industries, such as consumer electronics, toys, garments, handicrafts and footwear (Gereffi, 1999: 42). In this type of value chain lead firms set the standards for quality and define the rules and conditions for participation, therefore determining the division of labour and barriers to entry along the value chain (Gibbon and Ponte, 2006: 3). This broad type of commodity chain governance highlights the influential role of large retailers, such as Walmart, as well as large brand merchandisers, such as Nike, who have control over the entire value chain of their products by requiring those lower down the value chain to meet certain standards and protocols (Gereffi and Fernandez-Stark, 2011: 8).

Buyer-driven commodity chains are usually characterised by highly competitive, locally owned and globally dispersed production systems (Gereffi, 1999: 43). Profits in buyer-driven value chains derive from high-value research, marketing and financial services, which make retailers, branded marketers and branded manufacturers act as strategic brokers in order to link factories located in another country with evolving product niches in the primary consumer market, design and sales (Gereffi, 1999: 43).

On the other hand there also exist what Gereffi (1994) refers to as “producer-driven global commodity chains”. This type of value chain consists of large, transnational manufacturers that play the central role in coordinating production networks (Gereffi, 1999: 42). Producer-driven chains are vertically integrated along all stages of the value chain (Gereffi and Fernandez-Stark, 2011: 8). Industries that are producer-driven are normally capital- and technology-intensive industries, such as computers, aircraft, automobiles, semiconductors and machinery. The automobile industry provides a good example of a producer-driven value chain, as it has multi-layered production systems in which thousands of different firms are involved, including parents, subsidiaries and subcontractors. For instance, an automaker’s production system in Japan comprises 170 first-tier, 4700 second-tier and 31600 third-tier subcontractors (Gereffi, 1999: 41).

Manufacturers in producer-driven value chains are the key agents in exerting control over backward linkages with raw material and component suppliers and forward linkages into distribution and retailing (Gereffi, 1999: 43). Transnational firms in the producer-driven value chain usually belong to global oligopolies. Ultimately industrial firms at the point of production are the ones that have control of the entire value chain.

### 3.5 Global value chain approach

GCC analysis mainly focuses on manufacturing chains and the power relations therein. The concept, over time, has been refined into global value chain (GVC) analysis, which has been used by researchers to analyse many different types of commodity chains, including those of agricultural commodities, such as cocoa.

GVC analysis primarily analyses relationships between multinational corporations (lead firms) and other agents in international value chains (Trienekens, 2011: 57). Power relations and asymmetrical information are core concepts when investigating global value chains. GVC analysis borrows the GCC notions of buyer- and producer-driven chains and the role of lead firms in order to recognise the influence of large manufacturers, processors and traders in commodity chains. Essentially GVC analysis emphasises the coordination of different agents along the value chain segments or activities that are involved in the production, processing and distribution of products (Phillips, 2010: 65). Kaplinsky and Morris (2001) therefore state that governance and upgrading opportunities in developing country value chains are the major focus in GVC analysis.

Kaplinsky and Morris (2001) emphasise three key concepts of value chain analysis. The first is that value chains should be perceived as repositories of rent. This means that rent derives from unequal access to resources, scarcity of resources and from differential productivity of factors, such as skills and knowledge (Trienekens, 2011: 58). The scarcity of resources creates a barrier to entry. Economic rent can take many different forms within a firm, which includes organisational, marketing, technological and skills capabilities. However, Kaplinsky and Morris (2001) stress that economic rent can also originate from purposeful activities that take place between groups of firms. This type of rent is referred to as relational rent. According to Kaplinsky and Morris (2001) the rise of technological intensity since the mid-nineteenth century has made economic rent an important factor in GVC analysis.

The second key concept notes that there is some degree of governance that effectively functions in value chains. Kaplinsky and Morris (2001) note that activities and interactions along value chains are repetitive and do not operate randomly. Governance ensures that interactions and processes remain constant and organised. Value chains are coordinated at different locations in order to ensure that intra firm and regional linkages are directed in a specific way (Kaplinsky and Morris, 2001: 29). Therefore, power asymmetry is a central theme in GVC analysis.

The third key concept Kaplinsky and Morris (2001) state that there are different types of value chains and these are normally either producer- or buyer-driven chains, concepts derived from Gereffi. Over the past three decades there has been an increasing shift from producer to buyer-driven value chains. However, Kaplinsky and Morris (2001) find the simple distinction of governance between producer- and buyer-driven value chains not to be robust enough. They suggest that GVC analysis needs an alternative perception of the notion of governance. According to Kaplinsky and Morris (2001) one alternative perspective includes the shift in governance in an increasingly competitive and globalised environment caused by the transition of rents accumulating from tangible activities to intangible activities in the value chain. This is due to the fact that intangible activities are becoming increasingly knowledge- and skill-based, which are entrenched in organisational systems. Knowledge that is incorporated is thus tacit in nature, which involves growing barriers to entry (Kaplinsky and Morris, 2001: 34).

These intangible activities are found in all links in the value chain, for example, the conception of advertising or the control of logistics. There are intangible activities that are heavily concentrated in certain links of the value chain, such as design and branding. Kaplinsky and Morris (2001) argue that this makes the shift from producer- to buyer-driven chains misleading, because branding and marketing are becoming increasingly vital in the value chain.

### 3.6 Supply management approach

Trienekens (2011) explains that the supply management approach emerged in the 1980s in the logistics literature. It originally focused on logistics planning and optimisation of inventories along the supply chain (Trienekens, 2011: 58). Currently it is oriented around the customer and emphasises the final consumer as the “leader” in the value chain. It describes how firms integrate planning and balance supply and demand across the entire value chain from the initial producer to the final customer (Trienekens, 2011: 58). The supply management approach also

focuses on how processes and quality can be improved on and the optimisation of distribution processes.

### 3.7 New institutional economics approach

New institutional economics (NIE), together with transaction cost economics (TCE) and agency theory branches, look into the rationale for governance choices regarding within-firm and inter-firm organisational relations (Trienekens, 2011: 58). In TCE, transactions between firms are the basic unit of analysis and firms choose the form of governance that minimises the costs of transactions. Firms across the value chain seek to prevent opportunistic behaviour through monitoring systems, joint investment and organisational agreements, such as contracts (Trienekens, 2011: 58). Agency theory, on the other hand, defines governance solutions achieved through one party (the principal) delegating work to another (the agent). In a developing country context, NIE is used to determine the best organisational solution, such as a contract or agreement, for developing country producers in environments that have weak institutions.

### 3.8 Social network approach

Trienekens (2011) explains that the social network approach views firms as embedded in a complex of vertical, horizontal and business support relationships with other firms and organisations. The social network approach emphasises social networks rather than just emphasising economic value systems. Here, relationships are also shaped by concepts of trust, power and reputation, which has an impact on the structure and the duration of inter-firm relationships (Trienekens, 2011: 59). Focus is placed on human agency that has a significant impact in the shaping of actor networks.

Network relations within a firm are seen as useful in creating “social capital”, which makes it easier to obtain information, technology and financial support and the transfer of knowledge between firms. This helps reduce transaction costs and improve access to new markets, therefore supporting the efficiency and effectiveness of business networks (Trienekens, 2011: 59). The concepts of trust, reputation and dependencies also prevent firms from engaging in opportunistic behaviour and force firms to maintain quality standards of goods and services. This implies that inter-firm relationships are far more complex than they initially seem.

A related concept includes Milberg and Winkler's (2011) notion of social upgrading. According to Milberg and Winkler (2011) social upgrading refers to the captured gains in living standards and conditions of employment over time. The basic aspects of this include employment and pay, as well as issues relating to working conditions. Milberg and Winkler (2011) argue that social upgrading can be determined by social institutions, because wages are the outcome of bargaining processes determined by relative strength on the two sides. Here, labour market institutions, such as minimum wages and union bargaining protections, have a major influence on the outcome (Milberg and Winkler, 2011: 344).

### 3.9 Framework for developing country value chain analysis

So far value chains have been viewed as production networks, where agents within the value chain exploit competitive resources and operate within an institutional environment. Therefore, the value chain is conceptualised as a network of vertically and horizontally integrated firms that jointly produce a good or a service for a market. Trienekens (2011) characterises a value chain by its value added, network structure and its governance, merging specific aspects of the four streams of value chain analysis outlined above to provide a special framework for developing country value chain analysis.

#### 3.9.1 Value added

Trienekens (2011) draws the value added production characteristic from NIE, supply management and GVC analysis. Transaction costs are a focus in the value added characteristic, which is derived from NIE and more specifically TCE approaches. Supply management focuses on how value is added along the value chain, which can be defined in terms of low cost, high quality and delivery time. The GVC approach contributes by pinpointing where value is added along the value chain (Trienekens, 2011: 59).

#### 3.9.2 Network structure

Trienekens (2011) uses supply chain management and the social network approach to develop the network structure of the value chain, which includes the market outlet (local, regional and international). Supply chain management focuses on how agents are linked in vertical connections when aiming to produce a product jointly for a market. The social network approach combines vertical and horizontal relationships between agents across value chains.

### 3.9.3 Governance form

Finally, Trienekens (2011) uses NIE, GVC and the social network approach in order to define the governance and bargaining positions of agents in the value chain and their relation to the value they are adding. NIE looks into the optimal governance structure between agents in and across the value chain. The social network approach focuses on formal and informal governance of vertical and horizontal relationships, and the GVC approach on determining governance structures throughout the chain.

### 3.10 Conclusion

This chapter investigated approaches to value chain analysis by first looking into the origins of the concept of value chain theory. The world systems theory developed by Hopkins and Wallerstein (1986) and the value systems theory advanced by Porter (1990) set the scene for value chain analysis.

This then led to the discussion of the global commodity chain approach developed by Gereffi and Korzeniewicz (1994), which linked the concepts of value-adding chains and the trends in the global organisation of firms and industries. The GCC approach emphasised the coordination within and across firms and the emerging new global buyers. The GCC approach focused on manufacturing value chains, resulting in the development of GVC analysis, which included all globally dispersed chains. This section highlighted how large, multinational corporations interacted with those located in the lower segments of the value chain. The different ways in which value chains are governed were found to be crucial in GVC analysis.

Section 3.6 described the supply management approach, which initially focused on logistics planning and the optimisation of inventories along the supply chain. The consumer wields influence along this type of value chain. In Section 3.7, the discussion turned to new institutional economics (NIE), transaction cost economics (TCE) and agency theory. These theories investigate the decision making of firms within a value chain. This was followed by the social network approach in Section 3.8, which explained the complexity of vertical, horizontal and business support relationships with other firms and organisations.

Section 3.9 presented Trienekens' (2011) characterisation of a value chain by its value added, network structure and its governance, merging specific aspects of the four streams of value chain analysis. This would be used for analysing GVCs in a developing country framework.

The various approaches to value chain analysis discussed in this chapter provide the basis for a more in depth examination of agricultural-based value chains or, in Gibbon's (2001) terminology, "agro-based commodity chains". The approaches discussed above will also assist in the construction of a framework for analysing the Zimbabwean tobacco value chain in later chapters of this thesis.

## **Chapter 4: Agro-based commodity chains**

### **4.1. Introduction**

The aim of this chapter is to explore how agro-based commodity chains have changed during the past few decades, and the impact this has had on governance structures and upgrading opportunities. Gibbon (2001) uses a combination of Gereffi's (1994) GCC as well as a convention theory framework in order to make a comparison of agro-commodity value chains between the periods 1930 to the late 1980s and 1990 to the early 2000s. According to Ponte (2005), convention theory uses the analysis of "quality" to explain the dynamics of governance in value chains, something that is particularly relevant when investigating agricultural-based value chains. The period from the 1990s and early 2000s was a significant period in the transformation of producer-driven and buyer-driven value chains. Gibbon (2001) discusses these changes in the case of tropical agro-commodity products, such as coffee, cotton, rubber, sugar and tobacco.

### **4.2. Tropical agro-commodities 1930-1990**

The most distinctive feature of tropical agro-commodities during this period was that supply sources were either state-owned or were regulated by monopolies (Gibbon, 2001: 61). This was already the case for some agricultural products in certain countries during the 1920s, but by the end of World War Two almost all tropical agro-commodities were state-owned or monopoly regulated, especially in colonised African and Asian countries and in independent Latin American countries (Sheingate, 2003: 127).

Due to the state having a large role in propagation and marketing in these agro-based commodity chains there existed barriers to entry to growing these commodities (Gibbon, 2001: 61). Production systems transformed from a plantation to a peasant basis, due to state support and involvement in small-holder agriculture (Fromm, 2007: 9). For instance some governments introduced credit-based input systems, price stabilisation mechanisms and provided loans to farmers with little or zero interest (Gibbon, 2001: 61). However, this created a problem of global over-supply, as many of these agro-commodities' demand was income inelastic (such as coffee and tobacco).

International agricultural producer organisations were established by individual producing states, in order to curb the effects of over-supply (Bolotova, 2014: 54, Sheingate, 2003: 95).

From the 1950s associations for sugar, coffee, rubber and tobacco were established primarily to control prices of these agro-commodities (Gibbon, 2001: 61). There were two forms of price control: buffer stock agreements, where an association would purchase global surpluses in order to set a designated price; and export control, where quotas were implemented on national exports (Gibbon, 2001: 61). These forms of price control proved to be very successful during the 30 years they were implemented.

World demand for these tropical agro-commodities was mostly concentrated in developed countries. Gibbon (2001) points out that demand was divided in distinct ways, as within developed countries there were different preferences for certain blends or combinations of a crop. Tobacco provides a good example, as some tobacco products (cigarettes) contain a certain blend of different tobacco leaves. Gibbon (2001) notes that agro-commodities during this period were differentiated in simple ways. A few basic physical properties of an agro-commodity would distinguish it. For instance cotton would be distinguished by its fibre maturity and strength (Gibbon, 2001: 61). Other properties that would distinguish an agro-commodity included the level of the impurities present and country of origin. In a way individual state marketing monopolies would also represent a trademark.

In terms of governance in the agro-commodity chain during this period it is clear that most of the control and major coordination roles were directed by the state export marketing monopolies, and at the international level by producer associations, especially in the case of coffee, cocoa and rubber. It must be noted that coordination occurred horizontally (Bolotova, 2014: 54). Gibbon (2001) notes that the production of crops was supported by state export marketing organisations through the provision of inputs on credit, free extension services and maintaining quality controls. Quality standards were uniform and state export marketing organisations also exercised coordination through price controls for capital inputs and output (setting prices on a pan-territorial and pan-seasonal basis) and through seasonal price stabilisation (Gibbon, 2001: 62).

State export organisations only coordinated these value chains horizontally, not vertically. Vertical coordination was headed by a small number of international trading or trading – brokering companies (Gibbon, 2001: 62). These trading companies were based in the US (such as Cargill) or in Europe's traditional trading centres (for example, Louis Dreyfus and E. D. and F. Man) (World Bank, 2001: 24). They operated on a bulk basis, which enabled them to take

advantage of economies of scale in storage, transport and finance (Gibbon, 2001: 62). Vertical coordination occurred at “arm’s length”, involving multiple, but temporary contract-based relations, which only involved the exchange of the particular agro-commodity (World Bank, 2001: 24). Sales were conducted in a forward as opposed to a spot position, because exporters could guarantee a certain quality and in some cases volume. Sales were often arranged on a tender basis. International traders were usually only involved in direct production (Gibbon, 2001: 62).

The main coordination mechanisms that linked suppliers with international traders were “quality conventions”, which would differentiate a certain product into different grades according to the country of origin and certain physical properties. These grading matrices would determine the price and discounts prevailing in the trade, which were constructed by producers or producer country governments (Gibbon, 2001: 62). Producers also transferred the cost of monitoring quality to traders.

Gibbon (2001) and Ponte (2002) argue that governance during this period was essentially producer-driven, but did not resemble the pattern of Gereffi’s (1994) definition of producer-driven value chains discussed earlier. Agro-commodity chains during this period were not “driven” by manufacturing transnational corporations and did not involve “dedicated” supply relations. Relations were market-based as opposed to hierarchical-based, but producers still played a large role in setting the “rules of the game”, in terms of price determination and in determining quality and matching quality with price (Gibbon, 2001: 62).

Gibbon (2001) states that opportunities to upgrade in the agro-commodity chain were relatively restricted. Since these agro-commodity chains were guided and prices were stabilised by international regulatory bodies, there were no incentives for product upgrading above a level of “properly supervised” smallholder producers (Ponte, 2002: 253). For instance, when growing cotton, product upgrading simply entailed assuring good quality seeds, applying pesticides correctly in order to avoid crop contamination, harvesting the crop when it was mature and selling it in a presentable state. However, process upgrading was possible for certain producers in certain countries. Farmers could make production more capital-intensive, for instance by introducing mechanical harvesters, but this was confined to regions where labour was expensive. In developing countries, especially in Africa, labour was relatively cheap and thus capital deepening was not necessary. Also some regulative and pricing frameworks

would penalise farmers who mechanically picked crops with a price discount, as it was believed the crop would be more likely to be damaged (Gibbon, 2001: 63). Therefore, process upgrading was at this stage far less relevant in developing countries, especially in Africa.

Functional upgrading was facilitated by the regulatory system in three distinct ways, which national producers in developing countries used extensively. The first was for producers to occupy new commercial roles and sell crops to international traders on a spot basis and by private treaty. These commercial roles would include forward and tender sales and appointing overseas agents so that they could make direct sales to manufacturers, thereby by-passing international traders (Gibbon, 2001: 63). The second method of functional upgrading was for countries to have some control over transportation of agro-commodities through, for example, the creation of their own shipping lines. In fact the UNCTAD Code of Conduct allowed for developing countries to transport 40 percent of their overseas trade through their own domestic lines (Gibbon, 2001: 64).

The third method entailed the localisation of raw material processing. There were some raw agro-commodities that had to be processed in the country of origin in order to qualify for export, for instance the ginning of cotton. In addition, spinning cotton required low capital inputs, thus spinning industries were present in many developing countries. Secondary processing for most agro-commodities was performed in developed countries, but producers in developing countries could still strive to localise processing of agro-commodities during this period (Gibbon, 2001: 64). However, Gibbon (2001) points out that it was sometimes impractical for producers to localise secondary processing and thus producers often did not pursue this option. One reason was that processor and consumer preferences normally lay in blends of different products that originated in different countries. This meant that returns would be lower in exports of single-variety products. Another reason was that many secondary processing technologies prevailing in these value chains made it essential that processing occurred in a short time period of end-consumption. Both reasons had a similar effect, namely that secondary processing in developing countries could only be practical in the case of products destined for domestic consumption (Gibbon, 2001: 64). In order for producers in developing countries to upgrade into secondary processing they would either have to relocate to these markets or develop new technologies. This would be resource demanding and to relocate to a developed market would have threatened the existence of key importing

international commodity agreements. Therefore, upgrading into secondary processing could be achieved by local producers, but only in order to supply the domestic or regional market.

#### 4.3. Tropical agro-commodities 1990 – 2000s

Since the late 1980s and 1990s the agro-commodity chain has seen significant changes in its structure and organisation. These chains started to see a more diverse governing structure and principles, which has made upgrading opportunities much more restrictive, although new upgrading opportunities have emerged. Gibbon (2001) highlights that the value chain of agro-based commodities has changed most noticeably in terms of supply. Structural adjustment policies that were implemented in developing countries that are typically agricultural supply sources have resulted in the liberalisation of their markets. This has resulted in the former state marketing monopolies becoming commercialised, privatised or completely liquidated (Gibbon, 2001: 64).

Gibbon (2001) points out that there are three different common local market structures that have emerged as a result of the changing or diminishing state marketing monopolies. The first is that greater competition could arise over an entire territory between large numbers of private exporters, often followed by a short period (a few years) by a process of differentiation or re-concentration (Gibbon, 2001: 64). The second is the possible division of national markets into geographic monopolies, which are let to large-scale – sometimes foreign – private traders. The third market structure could be that former state marketing monopolies become privatised and remain powerful, maintaining large shares in the market.

According to Gibbon (2001) the first and second scenarios seem to have been more prevalent than the third between 1990 and the early 2000s. Developing countries that liberalised their markets have seen the dissolution of national regulatory and coordinative systems. Therefore, countries are unable to control or make estimates of crop volume and quality (Gibbon, 2001: 65). As a result international commodity agreements are unable to be revived by producing countries. Without these international commodity agreements, commodity prices fell and were accompanied by increasing price instability in domestic and international markets (Gibbon, 2001: 65). This is supported by Trienekens (2011) who also points out that price support mechanisms have fallen drastically over the past two decades, resulting in volatile commodity prices (Trienekens, 2011: 52).

Gibbon (2001) also highlights the changes on the demand side. With markets becoming saturated and decreasing prices from the eradication of international commodity agreements, falling supply predictability followed the dismantling of national market regulation. This had a large impact on international traders, as the phenomena noted above caused falling profit margins and increased the risk of contractual non-compliance (Gibbon, 2001: 65). However, upstream processors have benefitted from this, as they had stronger bargaining positions.

International traders reacted in various ways to these structural changes. Some either reduced or ended their involvement in the commodity trade. Gibbon (2001) gives an example of how one of the largest and oldest agro-commodity trading companies, E. D. and F. Man, liquidated themselves. Other international traders either changed their roles completely, by acting as brokerage agents or becoming retailers, for example, or diversified towards secondary processing or crop production. This is supported by UNCTAD (2009: 11) which points out that value in non-agricultural activities in agribusiness is steadily increasing, such as in retailing and other upstream activities. Ultimately this has resulted in the share of value shifting from agricultural-based production towards agricultural-related activities, such as the production of chemical outputs, biotechnological research and the creation of highly processed food (Caiazza and Volpe, 2012: 922). According to UNCTAD (2009) the expansion of new activities related to agriculture has resulted in firms that were not associated with agricultural production now becoming involved in this field.

Caiazza and Volpe (2012) add that political regulation has also changed significantly over the past two decades. Gibbon (2001) supports this notion, as his study points out that international policies in trade regulation govern the composition of suppliers of agro-based commodity exports from the “south” (developing countries) and their entry into markets in the “north” (developed countries). Also trade barriers in developed countries have decreased significantly, but the remaining barriers are still in place on agricultural products and labour-intensive manufactures, in which developing countries usually have a comparative advantage (Caiazza and Volpe, 2012: 921).

Governance structures have also shifted in the light of the changes outlined above. Gibbon (2001) explains that with the implementation of structural adjustment programmes and the resulting liberalisation of developing country markets and trade, the role of the state has been significantly eroded. Governments no longer provided support in the form of credit-based input

schemes, national systems of quality control, extension services and price controls (Gibbon, 2001: 66). Their diminishing role also meant that they could not coordinate exports. These functions were taken up by private agents on a localised basis through contract farming schemes. In some instances there emerged private marketing oligopolies with a national scope, which meant that coordination and support roles that were evident before were preserved (Gibbon, 2001: 66). However, the old system of horizontal coordination almost disappeared entirely.

International traders are characterised by direct “arms-length” vertical coordination. According to Gibbon (2001) international traders source directly from producing countries which offer large volumes, but are financially weak. International traders will also vertically integrate themselves in producing countries that are seen as strategic, as they provide unique variety of crop. Some producing countries are seen as strategic, due to the large global share they have of a particular agro-commodity and thus international traders have localised secondary processing in those countries. For example Cargill and ADM, leading cocoa traders, have established secondary processing of cocoa in Cote’ d’Ivoire, which is the largest producer of cocoa in the world (Gibbon, 2001: 69). The geographical coverage of most international traders is also shrinking, due to direct procurement.

Gibbon (2001: 66) finds that a new form of direct vertical coordination began to develop, involving the emergence of relations between specialised industrial processors commonly based in developed countries and suppliers in developing countries. This is still the case today. A study by Phillips (2012) finds that by focusing on governance and value at each point of production it is possible to identify the roles of a broader set of agents and processes at a macro level, where governance is directed by multinational corporations (agents) and foreign direct investment (processes) normally situated in developed countries. Phillips (2012) explains that over the past decade multinational corporations and foreign direct investments have played a larger role in determining governance structures and appropriation of value from commodity chains. Trienekens (2011) adds that developing country producers, when entering these value chains, are faced with asymmetric power relations, due to the increasing power and influence of developed country retailers and industries. This has kept higher value-adding activities in developed countries and lower value-added activities in developing countries (Trienekens, 2011: 52).

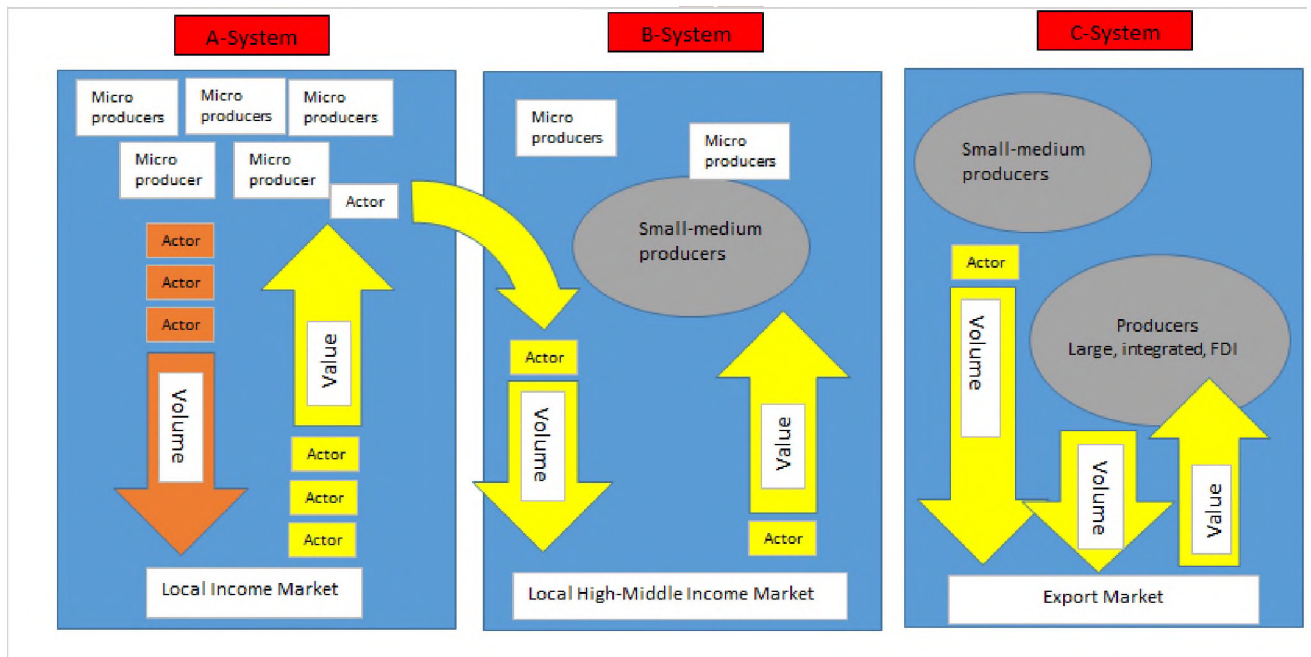
There are two versions of these new relations. The first involves developed country processors giving an incentive to developing country suppliers in the form of extended collaboration and eventually certification. According to Daviron (2002) an example of this is the emergence of homologised rubbers that are cultivated for single-rubber tyres, introduced by European tyre manufacturers in order to avoid costs of blending. The second version is similar to the first, but is introduced by already well established private producers in developing countries who offer themselves as long-term partners to secondary processors (Gibbon, 2001: 66).

During the period before the 1990s the foundations of coordination of agro-commodity chains were based on inclusive quality conventions that were conducted by producers who linked quality standards with certain prices. Currently these matrices have either been done away with or undermined, as most agro-based commodities are sold to international traders in uncategorised forms (Gibbon, 2001: 67). This is the case for most cocoa producing industries, except for Ghana, which happens to be the only cocoa producing country where a state marketing monopoly still plays a central role and where no other generic quality classification is used (Gibbon, 2001: 67). This means that poor quality crops can still enter the same market as good quality crops just by being processed for longer. This has been made possible by advances in processing technology at the downstream end of the agro-based commodity chain. For example poor quality cocoa beans can be processed for longer periods and end up being similar in quality to the good quality beans (Gibbon, 2001: 67).

There have emerged new “buyer-driven” quality conventions, either taking a “domestic” form, which identifies the region or estate where the product has come from, or a “civic” form, which identifies the fairness of the transaction (Gibbon, 2001: 67). Overall quality conventions are essentially private and buyer-driven and no longer public and producer-driven. Gibbon (2001) points out two other differences. The first is that quality matrices are no longer transparent and publicly agreed upon. The second difference is that buyers demand quality monitoring on an ex-ante, as opposed to an ex-post basis. In addition quality monitoring is done through process certification procedures, rather than product testing. For example producers have to ensure that they have EU regulation-conforming pesticide residue regimes, rather than inspecting the crop for a certain amount of residue after production. Along with this, producers have to meet increasingly strict health/sanitary requirements in order to have access to developed country markets. This is costly for buyers and often these costs are transferred to the producers.

The erosion of quality conventions and matrices, as well as stringent health and sanitary regulations, has led to the creation of certain food sub-systems with specific quality and safety requirements for producers in developing countries. Trienekens (2011) finds that the old quality matrices have been replaced over the past two decades by different market channels that are divided into local, national and international markets. This is shown in Figure 4.1 below.

Figure 4.1: Economic sub-systems in producing developing countries



Source: Trienekens (2011)

Trienekens (2011) explains that the A-system is characterised by agents in the local low-income chain. These are usually smallholder producers that use traditional production systems, aiming at local market outlets with staple products, but also low-end markets situated further away (Trienekens, 2011: 53). A-system chains are relatively long, because there are many intermediary parties (traders), resulting in limited availability of market information. Distribution of value is divided over a large number of agents and transportation distances are long (in terms of distance and time). A-systems provide a high share of agricultural production volume in developing countries, especially in Africa, but a very low share of value (Trienekens, 2011: 54). An example of an A-system is the production of cassava sorghum by smallholder West African farmers who supply local markets.

The B-system can be characterised as the high-middle to high income chain. It is comprised of small to medium sized producers that supply supermarkets in developing countries who are organised in cooperatives and/or linked in subcontracting arrangements (Trienekens, 2011: 54). B-systems adhere to national and sometimes international retail quality and safety standards. The production volume is smaller than that of A-systems, but receives a higher share of value. Kenyan vegetable producers providing to retailers in South Africa is an example of a B-system. The export chain is the core characteristic of the C-system. The core focus is on exports; however low-quality products are sold only in the national and retail market (Trienekens, 2011: 54). Here, there are increasing economies of scale and FDI, making the export chain more integrated with fewer actors (Trienekens, 2011: 54). It also means that the producers in these systems are far larger than those in the A and B systems. The value added is higher compared to A- and B-systems, despite the production volume being the smallest. According to Trienekens (2011) an example of a C-system is the table grape chain in South Africa that is primarily focused on export. Another example is the international flower value chains with production taking place in countries such as Ethiopia and Kenya. Market access into these systems is dependent on the technological capabilities of producers, available infrastructure, bargaining power and market knowledge (Trienekens, 2011: 54).

These changes in governance and market channels have different implications for upgrading. Some of the forms of producer upgrading available in the period before 1990 are still available in countries where elements of local horizontal coordination remain. However, prices are varied across the globe, due to the lack of differentiation of agro-commodities and purchases taking a spot-basis form (Gibbon, 2001: 67). This means that it has become more rewarding for producers to take on product upgrading and upgrading into new commercial functions, but absolute returns have decreased.

Gibbon (2001) finds that the localisation of processing does not seem to have changed, as there are still some cases where international trader-processors have increased their investments in local processing. Trienekens (2011) points out that this is still the case more recently, with reference to the Argentina-UK red meat value chain. Processing in the case of Argentinian red meat production is continuously improving through quantification, programmes of waste identification and elimination.

Another new trend that emerged in the early 2000s that was consistent with the period before 1990 involves large developing country-based traders relocating part of their processing activities to developed countries (Gibbon, 2001: 68). Privatisation of international traders has allowed former parastatals to raise capital from financial markets and thus enabled them to delocalise processing activities to developed countries. However, Trienekens (2011) finds that value adding activities are currently being relocated to developing countries, most notably primary processing activities, such as processing of fruit juices. Despite this movement of secondary processing to developing countries, higher value-added activities, such as specialised processing, branding and marketing, are still located in developed economies (Trienekens, 2011: 70).

Gibbon (2001) finds that the new forms of vertical coordination have created a new combination of product and process upgrading. Developing countries were able to develop differentiated - rather than just focusing on traditional – products. Current literature, including Trienekens (2011) and Docherty (2012), highlights that developing country agro-commodity chains are trying to differentiate their products, in order to decrease their reliance on their current customers, often Western retailers or industries. However, Docherty (2012) points out that it is difficult, especially for small producers, to enter another market channel. Although Trienekens (2011) finds that there are markets that are easier to enter, highlighting the example of South African fresh producers entering emerging economy markets, such as Brazil and East Asia. Trienekens and Willems (2007) also emphasise mango producers in Burkina Faso who aim at the domestic market in Niger rather than the European market. Although they miss out on attaining much higher value in the European market, they receive relatively higher value in the Niger market than their own. In many cases this is linked to new relationships between developing country producers and developed country traders, processors and even retailers.

Against the background of the GCC and Convention Theory frameworks, the discussion in Sections 4.2 and 4.3 indicates that agro-based commodity chains have become more buyer-driven than producer-driven. This implies that governance is mostly controlled by the buyers or the lead firms at the top end of the value chain. In most cases these lead firms are situated in developed countries and thus most of the value is gained in developed countries. Agricultural-based value chains have thus far been viewed from a theoretical perspective. However, it is important to discuss a few case studies of agricultural-based value chains in order to have an empirical scope to match the theory.

#### 4.4 Case studies: Introduction

The change in the governance structure of agricultural-based value chains in developing countries is evident in agriculture producing countries in Africa. Gibbon's (2001) findings on the changing nature of agricultural-based value chains are reflected in real situations in many African countries. This has implications for upgrading and thus for economic and social development.

Sections 4.5 and 4.6 consider a number of case studies of how agricultural-based value chains have changed in Africa. The Ethiopian, Tanzanian and Ugandan coffee value chains are discussed in terms of how the governance structure has changed since the 1990s and what implications this has had for upgrading. Thereafter, in order to narrow the focus towards the Zimbabwean tobacco value chain, Sections 4.7 and 4.8 briefly investigate the tobacco profiles of two African tobacco producing countries: Malawi and Zambia. This will provide background for a comparison with the Zimbabwean tobacco value chain later in the thesis.

#### 4.5 The Ethiopian coffee chain

The Ethiopian coffee value chain is an interesting case study of how reform of the global structure of the agro-based commodity market has had an impact on Ethiopia's production of coffee. Petit (2007) argues that the Ethiopian coffee value chain has seen significant changes since 1991, after the fall of the Derg military regime and the arrival of the Ethiopian People's Revolutionary Democratic Front (EPRDF). The new government introduced a number of political and economic reforms, most of which were in line with the prescriptions of the International Monetary Fund (IMF) and the World Bank (Petit, 2007: 246). These reforms had significant effects on all sectors of the economy, especially the coffee industry.

Ponte (2002) explains that since 1902 there have been attempts to control the world trade of coffee, but only in 1962 was there the establishment of the first successful international coffee agreement (ICA). This included producing and consuming countries, where a target price or "price band" for coffee was set and export quotas were given to various coffee producing countries (Muradian and Pelupessy, 2005: 2029). The ICA regulatory system would calculate indicator prices and if these increased then quotas were relaxed; if indicator prices were decreasing, quotas were tightened. During this period coffee was produced mostly by state marketing monopolies.

Ponte (2002) argues that this mechanism of control proved to be very successful, due to three key factors. Firstly, producing countries became “market units”, where the state had control over decisions regarding exports. Secondly, Brazil’s acceptance of a shrinking market share that resulted from successive ICAs ensured that market shares were spread more evenly across the globe (Ponte, 2002: 1104). Lastly, the strategy of import substitution in producing countries (which required maximum mobilisation of export earnings) ensured high commodity prices.

Ethiopia was also included in the ICA regime, which acted as the main governing leader in the Ethiopian coffee value chain (Kemegue and Pichop, 2006: 27). However, Petit (2007) explains that Ethiopian coffee marketing channels were under control of cooperatives and state owned firms. Over 80 percent of the coffee trade was governed by the Ethiopian Coffee Marketing Corporation (ECMC), which was responsible for most of the internal and external marketing of coffee (Petit, 2007: 247). Trade was also heavily regulated. Primary coffee collectors (sebsabies), suppliers (akrabies) and exporters were under strict licensing rules, as they were licensed separately and their activities were prescribed (Petit, 2007: 247). Washed coffee (a secondary process that takes place before coffee beans are roasted) could only be marketed by service cooperatives and the ECMC. Coffee beans were then traded at auction, where traders were issued with strict quotas and private exporters were prohibited from competing for coffee until the ECMC quota was met. This met the criteria established by the ICA in order to control global prices. Petit (2007) does point out that the National Bank of Ethiopia (NBE) did set floor prices for exports, but were always in check by the ICA’s quota system.

However, the ICA was constantly being undermined by the increasing volume of coffee traded with non-member importing countries, often at lower prices (Muradian and Pelupessy, 2005: 2029). It was difficult for quota allocations to be agreed upon by member countries and negotiations were often a failure. Although quotas remained stable, the negotiation process was extremely costly. In the 1980s US consumers progressively started importing soluble coffees instead of ground coffees. This made roasters that specialised in producing ground coffees fear that competitors could get access to cheaper coffee from non-member countries, which undermined their cooperation within the ICA system (Ponte, 2002: 1105). Finally Cold War politics led to the downfall of the ICA. Near the end of the 1980s the US no longer saw the left in Brazil as a threat and the rigidity of quotas meant that the US could not “punish” pro-

communist countries in Central America. In 1989 the ICA was not renewed and the coffee trade became liberalised.

For two years after the dissolution of the ICA, Ethiopia, under the Derg military regime, continued to govern the coffee industry under the ECMC. In 1992 the new EPRDF government implemented partial liberalisation policies. Initially the ECMC was split into two public companies. The one, the Ethiopian Coffee Purchase and Sales Enterprise (ECPSE), purchased coffee and delivered to auction. The other, the Ethiopian Coffee Export Enterprise (ECEE), bought coffee at auction for export (Petit, 2007: 247). These state companies were short lived and closed down, and all coffee export was then operated under private firms. Price controls and quotas were also done away with after the closure of the two state enterprises. Private firms can now operate in the trade of washed coffee and private investors can also export directly, avoiding the auction floors (Petit, 2007: 247). This implied that process upgrading can be attained and low-end growers can move up the value chain and wash their own coffee beans.

However, Petit (2007) and Muradian and Pelupessy (2005) argue that by the mid-2000s state control remained in several areas. Vertical integration is limited through stringent licensing rules and coffee that is deemed unsuitable for export is sold for domestic consumption. The government prohibits multinational governments from registering as exporters. The Ethiopian coffee value chain is currently much more locally controlled than in other African coffee producing countries. Government still has control over quality checks that are maintained at local and auction level. In 1999 the Coffee Liquoring Unit (CLU) was established in order to monitor the quality of unwashed coffee prior to auction and export. Petit (2007) argues that liberalisation has not compromised quality, as strict government control mechanisms are still in place. This means that product upgrading can still be achieved by local growers.

Overall the private sector's participation in the Ethiopian coffee industry has increased at different levels of the marketing chain. Growers have steadily been increasing their share of the export price, despite prices becoming more volatile. The volatility of coffee prices has devalued the Ethiopian Birr since the liberalisation reforms in 1991, which has further increased grower prices in terms of local currency. Coffee export performance has improved since 1991 and the supply response is positive.

Newman (2009) investigates the changing nature of the coffee industry since the demise of the International Coffee Agreement (ICA) in 1989 and the implementation of market liberalisation under structural adjustment programmes (SAPs) in developing coffee producing countries. Case studies include the Ugandan and Tanzanian coffee industries.

#### 4.6 Ugandan and Tanzanian coffee value chains

##### 4.6.1 Ugandan coffee value chain

Before any moves towards liberalisation, both Uganda and Tanzania operated under a regulated coffee market. Coffee exports in both countries went through a single, centralised channel. In Uganda coffee bean exports were controlled by the Coffee Marketing Board and in Tanzania coffee beans were sold via a state-run coffee auction (World Bank, 2011). Coffee production was dominated by small-holder farmers in both countries, although Tanzania was and still has a small estate sector (Newman, 2009: 552). Coffee exports in Tanzania were operated through the cooperative marketing system, while in Uganda coffee exports occurred through a dual local marketing system with both cooperative and private marketing channels.

The process by which the coffee markets were liberalised in each country differs. Liberalisation of the Ugandan coffee market began in 1990 and the process of liberalisation was rapid, remaining the most fully liberalised coffee market in East Africa today. Newman (2009) finds that the centralised marketing channel has almost disappeared and that most coffee exports are marketed through private local traders. Initially after the early stages of liberalisation there was a large increase in the number of coffee export companies peaking to 117 in 1995 from 34 in 1992. However, from 1995 the number of coffee export companies fell drastically to just 25 in 2006 (Newman, 2009: 552). The top five companies in the export sector have 70 percent of the market share, whereas in 1997 they only made up 52.2 percent. These companies are all subsidiaries of large multinational corporation trading houses, which have displaced local exporters from the top ten exporting firms and the coffee sector in general. In 1996 there were seven local exporters in the top ten exporting companies, but this fell to just three by 2006.

This implies that a large share of the Ugandan coffee value chain is held by multinational corporations outside the country, thus most of the value of Ugandan coffee flows out of the country. According to Newman (2009) all export companies are also based in Kampala and so rely on local traders to bring the coffee beans from the farms to the factory. Local traders buy “green” coffee beans or coffee beans that are not ready for export from the farmers and mill it

into what is known as Fair and Average Quality (FAQ) coffee. Exporters then purchase the coffee and process it for export. Since most of the exporters are subsidiaries of multinational corporations any prospects for upgrading into primary processing are very difficult. These exporting subsidiaries have control of most of the processing activity in Uganda and because they are supported by large multinationals it would be almost impossible for a local trader to compete against them.

However, it could be argued that some form of upgrading is possible, such as process upgrading. Although a very basic form of upgrading, coffee farmers can still implement measures that transform inputs into outputs more efficiently. Coffee farmers could re-organise the production system and/or introduce advanced technologies in order to increase yield and quality. Product upgrading is also a possibility where coffee farmers can shift production towards a more sophisticated product line. For instance, coffee farmers can improve the quality of their coffee beans or produce more “organic” or environmentally friendly coffee beans that appeal to a wealthier consumer market. As a result coffee farmers could receive a higher margin on their exports.

#### 4.6.2 Tanzanian coffee value chain

Newman (2009) discusses the liberalisation process in the Tanzanian coffee sector. The liberalisation process in Tanzania started in 1994, but, unlike in Uganda, the process is not complete. The cooperative unions are still in existence and the auction system has been maintained. In addition the centralised institution, the Tanzanian Coffee Board (TCB), stills plays a significant role in the coffee market. The TCB was initially launched as the Tanzanian Coffee Marketing Board (TCMB) in 1984 to deal with the marketing of coffee exports. In 1993 TCMB became TCB and its role changed to monitoring the activities of organisations in the coffee market. The functions of the TCB include regulating the industry, issuing licenses and permits, advising the government on policies and strategies that would facilitate the growth of the coffee market, collecting and realising statistics and running the coffee auctions. The TCB makes the rules and regulations, as well as regulating the grades and quality standards of coffee marketed in Tanzania. The TCB has also implemented strategic regulations in order to guide the domestic coffee market. The most notable policy implemented is that private coffee buyers (PCBs) have to apply for renewal of their trading licenses every year and can only purchase parchment coffee (dried but unhulled coffee) from specified locations (TCB, 2012) and not at farm gates. Along with this prices have to be revealed to farmers in advance. These rules are

made in an attempt for PCBs to compete equally with cooperative unions, which normally have a small capital base and have to rely on loans from the bank at high interest rates.

The year 2003 saw the end of the coffee marketing liberalisation process. A difference that was seen in Tanzania compared to Uganda was that there were already a small number of private exporters operating in the Tanzanian coffee marketing system before liberalisation took place. However, most of the green coffee beans were exported by cooperative unions, although the introduction of liberalisation saw a decrease in the cooperative union's share of exports. In 1994 cooperative unions had an 83 percent share of coffee exports, but this fell to 26 percent in 1999 (Newman, 2009: 553). The number of cooperative unions also decreased drastically and by 2007 there were only three left, with an 8.7 percent share of coffee exports. As in Uganda, the Tanzanian coffee sector became highly concentrated with the implementation of liberalisation. According to Newman (2009) in 1994 the top five exporters had a 59.5 percent share of total coffee exports, increasing to 63.7 percent in 2000 and in 2007 further to 67.7 percent. The liberalisation process, despite being incomplete, has attracted large foreign-owned multinational corporations that have ended up dominating the coffee market, despite the regulatory efforts of the TCB. In 1994 three of the top five coffee exporters were locally owned, decreasing to one in 2000. By 2007 all top five coffee exporters were subsidiaries of large coffee multinational corporation houses.

Since the Tanzanian coffee sector has become dominated by a few large multinational coffee subsidiaries, it can be suggested that a large share of the value of coffee exports is received by the foreign multinationals, as in Uganda. However, with the TCB retaining the auction system and Tanzania retaining many of its domestic primary processing factories, more value from primary processing has been retained. Upgrading opportunities are still as limited as in the case of Uganda, because the dominance of multinational corporation coffee house subsidiaries has made it almost impossible for locals to upgrade into the export market. Therefore, process and product upgrading seem to be the only upgrading prospects in Tanzania.

#### 4.6.3 Ugandan and Tanzanian coffee under a buyer-driven value chain

However, there is more to the picture for both Uganda and Tanzania. A study done by Haller, Ludi, Mbeyale and Mhando (2013) examines the effects of liberalisation of the Tanzanian coffee value chain and the effects of the coffee value chain becoming buyer-driven. Although the coffee trade in Tanzania is still relatively regulated compared to the coffee trade in Uganda,

with the fall of the ICA the coffee market in Uganda and Tanzania has become essentially buyer-driven. According to Haller *et al.* (2013), following liberalisation coffee traders became increasingly involved in coffee producing countries in order to control production. Quantity and quality requirements are determined by developed country coffee roasters who thus set entry barriers for producing countries. Governance related to coffee production has changed significantly since the demise of the ICA. Prior to liberalisation coffee producing countries dictated the market through the International Coffee Organisation (ICO) via quantity and quality requirements. Since liberalisation of these markets in Uganda and Tanzania market relations have replaced quota systems and buyers have become the main actors. As the main actors foreign coffee roasters are the lead firms in the coffee value chain and are those that govern and gain the most from the value chain.

#### 4.7 Malawian tobacco value chain

Malawi is one of the most tobacco reliant economies in the world, as tobacco exports account for over 60 percent of export revenues (Moyer-Lee and Prowse, 2015: 159). The tobacco industry in Malawi has a long history, tracing back to the early 1890s, but only reaching rapid and steady production in the late 1970s. The country primarily grows Burley (air-cured tobacco, used as a cheap filler in American blend cigarettes) and flue-cured (tobacco cured in heat) Virginia Leaf. There are four distinct periods of Malawi tobacco production outlined by Moyer-Lee and Prowse (2015).

The first period refers to the years 1890 until the early 1920s, during which tobacco was grown using tenants on estates and out-growers on communal plots of land. Low prices experienced in 1937 led to discontent and riots amongst the peasants, resulting in state monopsony (a market situation where there is only one buyer) over the auction floor and all communal land (Moyer-Lee and Prowse, 2015: 6). This continued until 1964, when Malawi achieved independence from the British and the Malawi Congress Party (MCP) took control. At the time, estates were reformed into smallholder production, but were then quickly reversed back to estate production (Moyer-Lee and Prowse, 2012: 6). Capital support for estate expansion was provided by the Commercial Bank and the Reserve Bank, as the state was unable to secure foreign finance. The 1980s saw several policy changes, which led to the expansion of small-scale estates, which were mainly occupied by mid-level civil servants, former estate managers and “graduating” smallholders.

The United Democratic Front (UDF) took power in 1994 and emphasised smallholder production by lifting market entry restrictions. This led to the expansion of smallholder production, increasing from 10000 metric tonnes in 1994 to 80000 metric tonnes in 1999 (Moyer-Lee and Prowse, 2012: 6). The liberalised marketing structure led to the collapse of estate production, as it undermined the quality of tobacco reaching the tobacco auction floors. Leaf merchants emerged on the auction floors, which lowered the prices of tobacco. This continued until 2004 when greater government regulation emerged. State regulation came in the form of the creation of district markets and introduction of minimum prices (Moyer-Lee and Prowse, 2012: 7). International cigarette manufacturers have emphasised credence issues, such as child labour and green tobacco sickness, which has placed pressure on suppliers (leaf merchants). This has resulted in more farmers conforming to contract farming and shifting away from the tobacco auction floor.

Moyer-Lee and Prowse (2015) use a GVC framework to investigate how the tobacco value chain in Malawi is governed. They then present the upgrading implications this has for smallholder tobacco farmers. It is found that international cigarette manufacturers have increasing power over upstream suppliers and that these lead firms in the Malawian tobacco value chain are protected by entry barriers. These entry barriers have increased significantly over the past two decades, due to bans on advertising, certain production chemicals and various additives and flavourings, which has increased the cost of entering the cigarette manufacturing market.

This means that first-tier suppliers (leaf merchants) have to meet stringent requirements placed on them by the lead firms, such as Phillip Morris International (PMI), Japan Tobacco International (JTI) and British American Tobacco (BAT). These manufacturers require high quality tobacco at competitive prices, therefore their supply is concentrated in only a few trusted leaf merchants. International health policies have placed pressure on cigarette manufacturers to adhere to various compliance and traceability concerns. Therefore these cigarette manufacturers also emphasise traceability (adhering to strict agricultural and labour practices) and credence compliance (not using illegal or immoral practices, such as child labour), which they expect leaf merchants in Malawi to follow. In order to address these concerns leaf merchants have implemented a contract farming system and obtaining data reflecting smallholder production. Moyer-Lee and Prowse (2015) deduce that large cigarette

manufacturers are the lead firms, or have the greatest influence in terms of governance in the Malawi tobacco value chain, through their insistence on compliance and traceability concerns.

Moyer-Lee and Prowse (2015) find that adhering to these traceability and credence requirements implies improved product yields and quality, which further implies upgrading in the form of product and process upgrading. Leaf merchants under compliance and traceability (C and T) concerns will only buy from farmers that also meet these C and T concerns. This has resulted in a contract farming system whereby leaf merchants provide inputs to contracted farmers, such as seeds, fertilisers and chemicals. In return leaf merchants have exclusive purchase rights over a contracted farm. According to Moyer-Lee and Prowse (2015) C and T tobacco represents various elements of process and product upgrading. In process upgrading C and T tobacco will exhibit certain characteristics, such as increased volumes, improved quality and increased reliability (Moyer-Lee and Prowse, 2015: 167). With the provision of special inputs and supervision by the leaf merchant over farming practices, volumes were found to increase, risk was reduced and there was a significant improvement in financial management. Moyer-Lee and Prowse (2012) find that C and T farmers earned more than standard farmers.

With regard to product upgrading it is easy to differentiate between C and T tobacco and standard tobacco, due to the characteristics of C and T tobacco. C and T tobacco has greater value to lead firms, as it adheres to international regulations and is of better quality. This implies that contracted farmers receive higher incomes than standard farmers, since they have guaranteed access to high-value markets.

#### 4.8 Zambian tobacco value chain

Zambia also has a long history in tobacco production with the first tobacco production recorded in 1961 (Factfish, 2013). There was a drastic drop in production in the 1980s until the late 1990s, but production was revived in the 2000s through a state-led promotion campaign, which liberalised investment flows, thus increasing FDI into the industry (Brown and Wang, 2013: 27). Currently Zambian tobacco is the second most produced crop amongst smallholder farmers in the country after cotton, and Zambia is currently in ninth position of the top tobacco producing countries in the world (Hichaambwa and Janyne, 2012: 13).

Unmanufactured tobacco has increased from 9553 metric tonnes in 2000 to 62000 metric tonnes in 2013 (Factfish, 2013). Brown and Wang (2013) investigate the revival of the Zambian

tobacco industry and find that in 2003 tobacco exports earned Zambia \$20 million in foreign exchange, steadily increasing to reach \$160 million in the 2012 season. However, most of these exports are unprocessed or “green tobacco”. This means that they have not gone through the primary process of curing.

A report by the World Bank (2009) researches the governance structure of the Zambian tobacco value chain. Most smallholder tobacco farmers operate under contract with three major leaf merchants: Alliance One, Zambia Leaf Tobacco Company (ZLTC) and Africa Leaf. There is only one processing unit in Zambia, Tombwe Processing Limited. The leaf merchants noted above have exclusive purchasing rights over their contracted farmers and either export the unprocessed tobacco leaves to Malawi or Zimbabwe or process small amounts at the Tombwe processing facility for a fixed charge (World Bank, 2009: 44).

Before leaf merchants can buy tobacco from farmers they have to procure a license from the Zambian government. There are several obligations that the leaf merchant has to fulfil in order to acquire a license. These obligations include the sponsorship of a minimum tobacco production area (50 hectares). The sponsorship involves the leaf merchant providing inputs on credit to smallholder farmers under an out-grower arrangement (World Bank, 2009: 44). Some tobacco farmers operate under a tenant farmer scheme. For instance Alliance One would lease land from the state-owned enterprise Tobacco Board of Zambia (TBZ) under its Zembe Tobacco Scheme, where tenant farmers work on two hectares on average (World Bank, 2009: 44). TBZ was established by the Zambian Parliament to regulate the industry. It participates in a regional body with Mozambique, Malawi, Zimbabwe and Tanzania in order to prevent price collusion and harmonise tobacco legislation.

All tobacco produced in Zambia has to go through the auction floors. Although some tobacco farmers sell directly to a leaf merchant or a tobacco company (with an immediate cash payment), that tobacco is then graded and resold on the tobacco auction floors. This process assures farmers that their tobacco will be graded fairly, as an independent arbiter is available if there are any disputes. In this primary market, prices farmers receive are 70 percent of the auction floor price. The discount covers the costs of transportation, floor levies and fees, the opportunity cost of capital and risk (World Bank, 2009: 45).

Leaf merchants will set different prices for different grades of tobacco at the beginning of the buying season. When leaf merchants gain exclusive buying rights from farmers under the farming contract, they negotiate the grade of the tobacco and the price associated with it before the tobacco reaches the auction floors.

There are many loosely organised interest groups in which tobacco farmers participate. Although farmers have a commercial interest in farming tobacco with a company or leaf merchant, the group interest does not extend beyond this point (World Bank, 2009: 46). In other words these organisations do not deal with issues between the farmer and the buyers (tobacco merchants and tobacco companies). One of the major farmers' interest groups is the Tobacco Association of Zambia (TAZ) formed in 1964, which primarily aims to promote and support research and training. The group is responsible for linkages with research and training organisations, which include the Tobacco Research Board (TRB) and the Blackfordby Agricultural Institute of Zimbabwe.

Although TBZ regulates the tobacco value chain in terms of preventing price collusion and the provision of licenses to private buyers, it is not considered to be the "lead agent" in the Zambian tobacco value chain. Large cigarette manufacturing companies would be considered as the lead firm. The second most powerful participant in the Zambian tobacco value chain would be the leaf merchants, as they set the prices according to the grade they consider the farmer's tobacco to fall into under the farming contract. The leaf merchants make the final exports to processing countries, such as Malawi and Zimbabwe, and may sell a small portion to the local processing unit, Tombwe Processing Limited. Therefore, leaf merchants would appear to have the greatest governing power in the Zambian tobacco value chain.

This has very simple implications for upgrading. There is only one primary processing unit in Zambia, which processes a tiny amount of tobacco for export. It might seem that there is a gap for process upgrading for tobacco farmers; however Brown and Wang (2013) find that there is insufficient infrastructure that would support process upgrading. On the other hand product upgrading is a possibility in the Zambian tobacco value chain. Since leaf merchants determine prices based on quality local tobacco, farmers can produce better quality tobacco leaves in order to fetch higher prices and thus have a higher share in the value chain. Despite this possibility, product upgrading in this case would generate just a tiny fraction of the value share of the tobacco value chain in Zambia.

#### 4.9 Conclusion

The drive towards market liberalisation and the collapse of international and national agricultural regulatory institutions has had a significant impact on agricultural-based value chains within the African continent. Although liberalisation processes in agricultural-based value chains vary amongst African countries it can be suggested that these value chains have shifted from being producer-driven to more buyer-driven. This has changed the governance of these value chains and the implications for upgrading. Lead firms, often foreign multinationals, wield the greatest influence and control across agricultural-based value chains in various African countries. This has limited upgrading opportunities to only very basic forms, such as process or product upgrading. Domination by foreign exporters and traders has made it increasingly difficult and in some cases impossible for domestic actors to compete for higher positions in the value chain and gain a greater share of value.

## Chapter 5: Tobacco in Zimbabwe: a background analysis

### 5.1. Introduction

Tobacco production in Zimbabwe is not a recent phenomenon. Prior to the arrival of the colonialists the indigenous people grew a type of tobacco known as Nyoka tobacco (Zimbabwe Tobacco Association, 2011). However, the rest of the history of tobacco in Zimbabwe is one of settler colonisation. Colonial administrations played a significant role in the development of the tobacco industry by making large investments in tobacco research and the search for export markets (Mtisi, Vaughan and Woelk, 2001: 181). The early colonisation of what was later to become Rhodesia, commenced when the British South Africa Company (BSAC), under orders from Britain, occupied Mashonaland in 1890. Settlers were promised gold prospects, but no gold was found. In order to compensate for this the BSAC gave the settlers large tracts of land for farming (Mtisi *et al.*, 2001: 181). These tracts of land had soil suitable for growing tobacco and the first recorded successfully grown flue-cured tobacco was in 1894 in Mutare. In 1897 a Jesuit priest, Father Richartz, exhibited the first commercially grown tobacco at the first Agricultural Show in Harare (ZTA, 2011). In 1898 the Agricultural Department imported 15 different varieties of tobacco seed from the US, later finding that Virginia flue-cured tobacco grew the best in Zimbabwean soils. This initiated the commercial tobacco industry in Zimbabwe.

The first tobacco auctions in the country were held in 1910, but these were abandoned in 1914 due to uncompetitive production between buyers and over-production (ZTA, 2011). Various methods of sale were used, but most sales took place through private treaties and co-operative selling, where tobacco farmers were contracted to sell their tobacco to the centralised Tobacco Co-operative Society. This led to the oversupply of the South African market (the prime export market at the time), causing the collapse of the tobacco price and bankrupting many tobacco farmers, many of whom volunteered for the First World War. After the war, during the depression, Britain rationalised the governing of many of her colonies, including Rhodesia. Since most Rhodesian settlers were farmers, this gave tobacco farmers political power and established local institutions that had power and influence (Mtisi *et al.*, 2001: 181). Farmers became a highly organised and powerful political force.

In 1928 the Rhodesian Tobacco Association (RTA), later renamed the Zimbabwe Tobacco Association (ZTA), was formed in order to represent growers' interests in the production and

marketing of Virginia flue-cured tobacco. Despite its formation, the Great Depression of the 1930s caused many marketing problems, one of which was the removal and destruction of 20 percent of farmer's surpluses from the open market. It was realised that regulation was needed to avoid these issues, and thus the RTA lobbied for the passing of the Tobacco Marketing and Levy Act. This act led to the establishment of the Tobacco Marketing Board (currently the Tobacco Industry and Marketing Board, TIMB) and the act also made it compulsory for all tobacco to be sold via the auction floors.

In 1947 unfavourable economic conditions resulted in negotiations for a new market system in the tobacco industry, resulting in the "London Agreement". This offered preferential buying opportunities for British tobacco manufacturers, which compromised the system of free and unfettered auctions (ZTA, 2011). However, in 1962 the free auction system was re-introduced.

Following independence in 1980 there was an initial drop in production, as well as production units. By the late 1980s the trend had been reversed and annual production managed to reach 120 million kilograms, with the number of large-scale commercial growers at around 1500. In the 1990s a gradual land resettlement programme increased the number of indigenous, small-scale tobacco farmers to 6500. By 2000 there were 1700 large-scale commercial tobacco growers (ZTA, 2011). By the same year annual tobacco production had reached record levels of 267 million kilograms. At this stage Zimbabwe was the leading exporter of flue-cured tobacco, which accounted for over 40 percent of its foreign currency earnings and contributed 10 percent of the country's GDP (Masvongo, Mutambara and Zvinavashe, 2013: 296). Tobacco became an important sector of the Zimbabwean economy.

2001 saw the commencement of Mugabe's controversial land reform programme, which resulted in a significant decrease in the number of large-scale commercial tobacco growers, as well as tobacco production. Production plummeted from 267 million kilograms in 2000 to only 73 million kilograms in 2007 (ZTA, 2011). Large-scale commercial tobacco farms, mostly white-owned, fell from 1500 in the 1990s to about 100 in 2008. The value of tobacco exports to the US fell from US\$640 million in 2001 to US\$204 million in 2002, weakening Zimbabwe's competitive position in the world market for flue-cured tobacco (Masvongo *et al.*, 2013: 296). Along with the rest of the agricultural sector, tobacco farming was a struggling industry during the 2000s.

The 2010 season saw a revival of the sector. Tobacco production soared to 123 million kilograms and the global price of tobacco increased from US\$3.5 per kilogram between 2000 and 2008 to US\$5.5 in 2010 (Khumalo, 2013: 18). Tobacco production increased further to 160 million kilograms in 2013 and reached 180 million kilograms in 2014 (CFUZ, 2015). What is more striking is the increased number of new, registered tobacco farmers, despite the drastic fall of the number of large-scale commercial farms, due to the fast-track land reforms. The number of small-holder tobacco farmers increased from 6500 in 2000 to over 75000 in 2013, almost all of whom are indigenous black farmers (CFUZ, 2015).

From a broad perspective, it seems that the tobacco sector in Zimbabwe is one of the few success stories coming out of the controversial land reform programme. Currently Zimbabwe is one of the biggest producers of flue-cured tobacco in Africa and accounts for 3 percent of total global flue-cured tobacco production (DAFF, 2013: 4). These seemingly positive changes and the fact that tobacco is a controversial crop makes the Zimbabwean tobacco industry an interesting case study.

The remainder of this thesis uses a GVC framework to investigate the nature of governance and upgrading in the tobacco value chain in Zimbabwe. The main focus is on how governance structures within the value chain impact on the potential for upgrading by those at the lower end of the value chain. The remaining sections of Chapter 5 present a tobacco profile of Zimbabwe in order to provide some insight into the economy of the tobacco industry and the global tobacco profile. Chapter 6 considers the relationship between lead firms and leaf merchants, as well as the relationship between leaf merchants and tobacco growers. Here, the nature of the relationship is investigated and what type of governance structure exists between the participants. This leads into Chapter 7, which evaluates upgrading prospects in the Zimbabwe tobacco value chain, and concludes the thesis by exploring whether the tobacco industry in Zimbabwe has any positive implications for social and economic development in the country.

## 5.2. Zimbabwean tobacco profile

This section presents a basic tobacco profile of Zimbabwe, primarily using statistics over a ten year period, from 2004 to 2014 and the most recent information available. This tobacco profile aims to provide a basic understanding of how the Zimbabwean tobacco industry has changed and where it is at present. It also seeks to indicate how vital the tobacco value chain is to the

Zimbabwean economy and society and which foreign nations are key beneficiaries from tobacco production. This section reveals and analyses five core areas of the Zimbabwean tobacco profile: domestic production and share of global production levels; domestic prices; the number of tobacco growers; value chain employment; and international trade (imports and exports).

### 5.2.1. Domestic production and share of global production

During the ten year period between 2004 and 2014 Zimbabwean tobacco production figures reveal some interesting information. Following the 2001 land reform programme tobacco production fell significantly from over 200 million kilograms in 2000 to 69 million kilograms in 2004. The year 2008 saw the lowest level of tobacco production (and value), with only 49 million kilograms of tobacco produced valued at US\$156.66 million (Tables 5.1 and 5.2). These reduced levels of production and value were mostly due to the effects of the financial crisis. Two of the major effects included reduced FDI flows into Zimbabwe and lower global levels of demand for commodities. However, a significant improvement was experienced between 2009 and 2010. Tobacco production increased from 59 million kilograms in 2009 to 123 million kilograms in 2010 (Table 5.1). Since 2010 tobacco production has increased steadily. Flue-cured tobacco production increased by over 30 percent between the 2013 and 2014 seasons (Table 5.1). In 2014, 216million kilograms was produced compared to 166 million kilograms the year before. The 2014 season had the highest tobacco yield since 2000, when tobacco production peaked at 267 million kilograms.

Table 5.1: Total Tobacco Production (million kgs)

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
69	73	56	73	49	59	123	132	144	166	216

Source: TIMB (2014)

Table 5.2: Tobacco Production Value (million US\$)

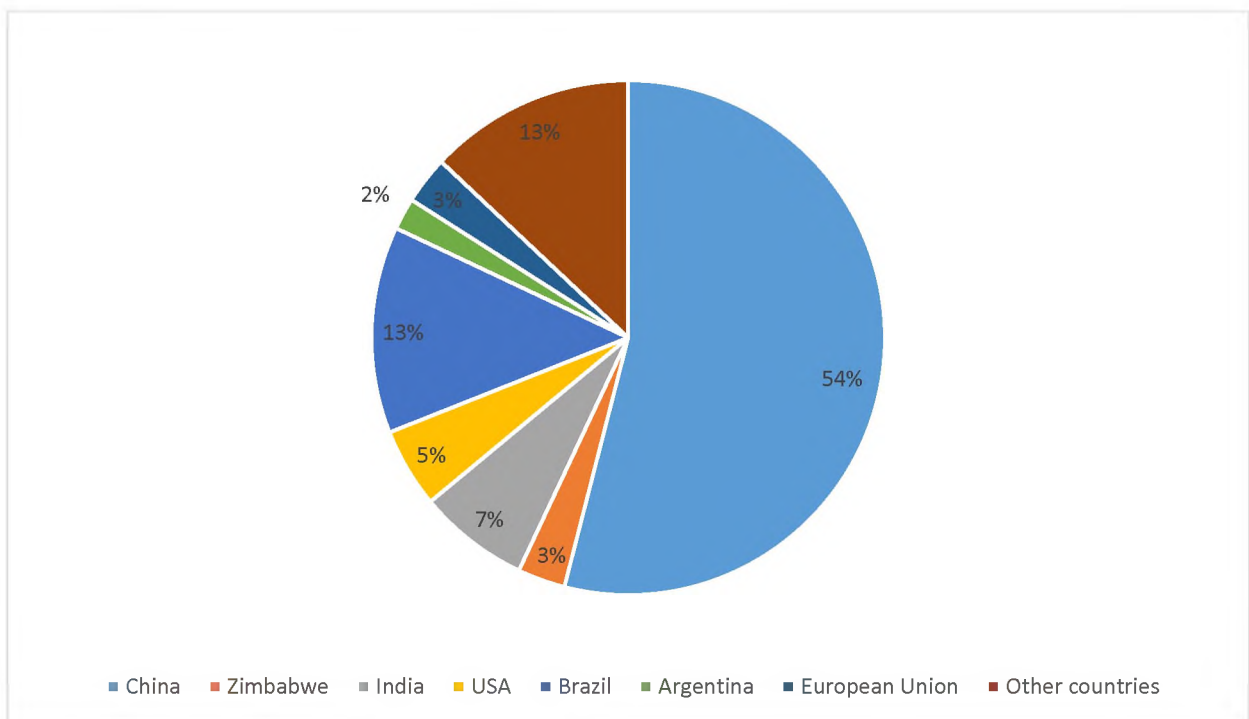
2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
106.01	124.1	110.88	169.16	156.66	174.5	355.57	361.48	527.8	612.14	685.24

Source: TIMB (2010, 2014)

This has resulted in an increase in tobacco revenue, although of a smaller margin. Tobacco value increased to US\$685.24 million in 2014 from US\$612.14 million the year before, amounting to approximately a 12 percent increase (Table 5.2). This is a significant improvement compared to the 2004 season, which only achieved a production value of US\$106.01.

According to DAFF (2013), Zimbabwe accounts for 3 percent of the total global tobacco output (Figure 5.1). Despite the large drop in its global share of tobacco production, Zimbabwe still produces the most amount of tobacco in Africa. Figure 5.1 shows that China is the dominant tobacco producer in the global economy by a significant margin (54 percent of total global tobacco production). Brazil comes in at second at 13 percent followed by India (7 percent) and the USA (5 percent).

Figure 5.1: Zimbabwe’s Global Tobacco Production Share



Source: DAFF (2013)

### 5.2.2. Domestic prices

Tobacco that was sold via the auction floor amounted to 50.75 million kilograms, which is roughly 23 percent of total production during the 2014 season. At the same time the highest price that was offered at the auction floor was US\$4.99 per kilogram. Tobacco sold through

contracted sales reached 165.54 million kilograms, accounting for 77 percent of total tobacco production in 2014. In terms of value, contracted production had a market share of 88 percent. The highest price achieved in contract sales was recorded at US\$6.20 per kilogram.

Table 5.3: Tobacco prices in Zimbabwe 2004-14 (US\$ per kilogram)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Average Contracted Prices	2.13	1.87	2.08	2.26	3.13	3.03	3.04	2.97	3.72	3.74	3.32
Average Auction Prices	1.95	1.44	1.88	2.4	3.44	2.86	2.63	2.42	3.52	3.54	2.69
Total Average Prices	2.04	1.7	1.98	2.33	3.28	2.94	2.83	2.69	3.62	3.64	3.01
Weighted Average Price	2.02	1.61	1.96	2.34	3.31	2.93	2.8	2.64	3.6	3.62	2.94

Source: TIMB (2014)

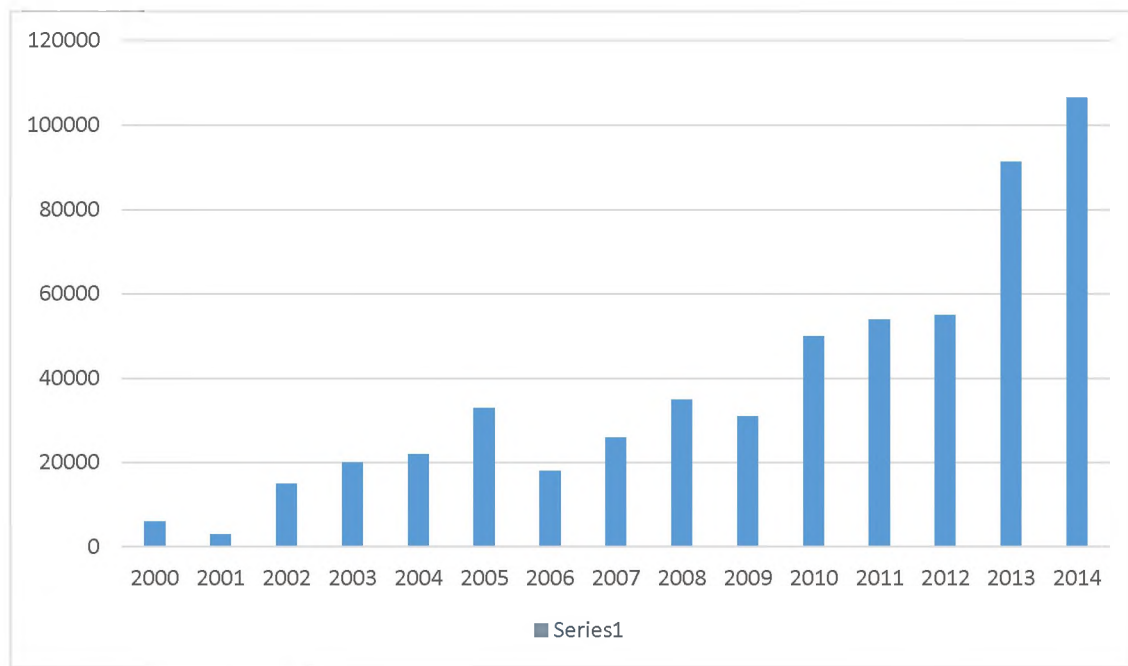
Between 2004 and 2014 average contract prices increased steadily, peaking at US\$3.74 in 2013 and dipping slightly to US\$3.32 in 2014 (Table 5.3). Auction prices have also increased, but far more gradually and have remained below contract prices. Average auction prices reached their highest level in 2013 at US\$3.54, but dropped significantly to US\$2.69 in 2014. On average prices have made a gradual comeback since the lowest recorded average price of US\$1.7 in 2005, increasing to US\$3.01 in 2014. However, the TIMB source provides simple average prices. Weighted average prices are more useful, and are therefore included in the last row of Table 5.3 for comparative purposes.

### 5.2.3. Tobacco growers

There are four main different sectors of tobacco growers in Zimbabwe: A1, A2, communal and small-scale commercial. There are two main models that were at the centre of the land reform programme: A1 and A2 schemes. The A1 scheme focused on resettling indigenous people on smallholder production farms and A2 schemes focused on resettling indigenous people on slightly larger commercial production farms (Mahanehene, Marongwe, Mavedzenge, Murimbarinba, Scoones and Sukume, 2011: 2). The figure below shows the number of

registered tobacco growers (those tobacco growers who indicate that they will be growing tobacco before the next season) (TIMB, 2014).

Figure 5.2: Number of registered tobacco growers, 2000-2014



Source: TIMB (2014)

Figure 5.2 reveals a striking change in the number of registered tobacco growers between the years 2000 and 2014. In 2000 there were around 6000 active growers. 1600 of those 6000 registered growers were large-scale mostly white-owned commercial farms (ZTA, 2011). The number of registered growers dropped sharply in 2001, as a result of the land reform programme (ZTA, 2011). Since 2002 there has been a steady increase in the number of active tobacco growers, with a large, sudden increase occurring from 55000 in 2012 to 91278 in 2013. According to TIMB (2014), the number of registered growers subsequently increased by 14 percent, from 91278 in 2013 to 106456 in 2014 (Figure 5.2 and Table 5.4). The sector that had the highest percentage increase in registered growers were A2 resettled farmers at 30 percent, while A1 resettled farmers had a drop in grower registration by 1 percent (Table 5.4). This is an interesting point to note, because between these two years the number of resettled indigenous farmers on smallholder production farms have decreased while the number of resettled indigenous farmers on bigger commercialised farms increased by a large number. Although A1 resettled farmers still comprise the largest category of tobacco farmer in Zimbabwe, A2 resettled farmers are growing.

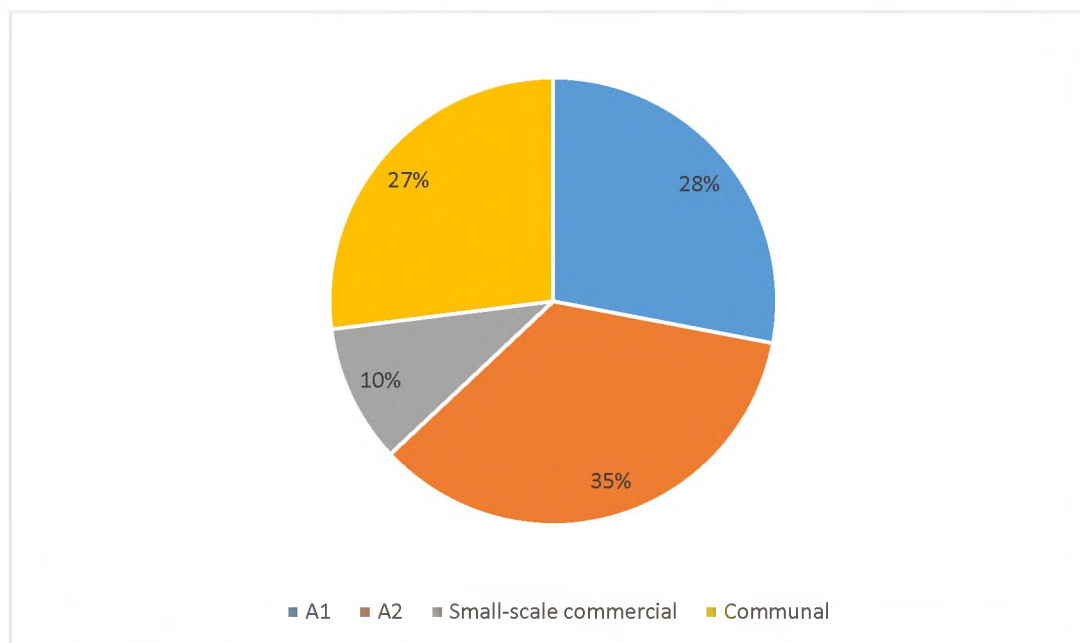
Table 5.4: Number of registered tobacco growers by sector, 2013-2014

Sector	2013	2014	% Change
A1	38020	37805	-1
A2	8218	11720	30
Communal area	36494	48292	24
Small scale commercial	8546	8639	1
Total	91278	106456	14

Source: TIMB (2014)

The reason why there is a short-term focus in Table 5.4 is that during these two years the recovery of the total number of registered tobacco farmers was particularly significant.

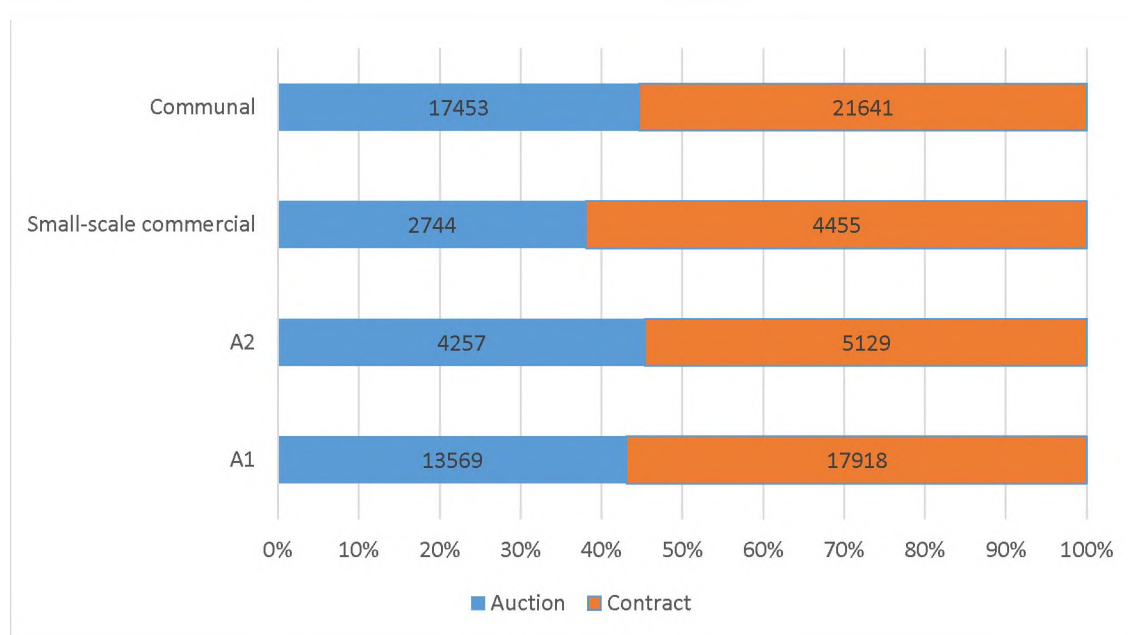
Figure 5.3: Grower class by mass sold (2014)



Source: TIMB (2014)

Figure 5.3 reveals that A2 tobacco growers produce the largest quantities of tobacco in terms of mass compared to the other tobacco grower sectors. A2 tobacco growers produce 35 percent of the total produced tobacco in Zimbabwe, with A1 tobacco growers with the second highest share of the total produced tobacco. Small-scale commercial tobacco growers produce the least amount of tobacco in Zimbabwe compared to the other tobacco grower sectors, as they are the smallest group.

Figure 5.4: Comparing contract and non-contract tobacco growers by sector, 2014



Source: TIMB (2014)

The 2014 season saw 87166 active growers (those who deliver tobacco yields at the end of the season) deliver tobacco at various selling points, an increase from 78579 in 2013. A total of 38023 or 44 percent of active growers sold their tobacco through tobacco floors, while the other 43143 (66 percent) of active growers sold their tobacco through contract merchants (Figure 5.4). The reason for most tobacco growers selling their tobacco under contract lines is that contractors often offer higher prices and provide financial and input support. This aspect is discussed in more detail in Chapter 6.

#### 5.2.4. Value chain employment

Employment in the tobacco industry is a vital statistic to consider with respect to socio-economic development along a global value chain in a developing country. TISA (2012) commissioned a report that measured the primary elements of the tobacco value chain in 15 African countries, including Angola, Botswana, Egypt, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe, all of which are part of the COMESA/SADC/SACU<sup>1</sup> regional blocs. The report covers the primary segments of the tobacco value chain: farming, manufacturing and retail and wholesale activities.

<sup>1</sup> Common Market for Eastern and Southern Africa (COMESA); Southern African Development Community (SADC) and The Southern African Customs Union (SACU).

TISA (2012) compiled a sample of most tobacco-related activities in the three regions. These activities include farming (on-farm production, curing, grading and marketing); processing, which includes primary processing, green leaf threshing (GLT), manufacturing and packaging; selling (wholesale, retail and informal trade); international trade (import and export of unmanufactured tobacco and finished tobacco products, such as cigarettes, pipe, chewing tobacco and snuff); and taxes (value added tax, excise tax and custom duties). The reason for the array of activities is to see the different parts of the value chain. The sample countries that are part of COMESA include Egypt, Ethiopia, Kenya, Malawi, Uganda, Zambia and Zimbabwe. SADC countries include Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. Out of the 15 sample countries Botswana, Lesotho, Namibia, South Africa and Swaziland are also part of SACU. There is therefore some overlapping membership of the three regional groupings, reflected in the data in Table 5.5 below. The table summarises the key findings of the TISA (2012) study.

Table 5.5: Tobacco value chain: regional summary

		COMESA	SADC	SACU	15 country total
Farming	Num. farmers	951,600	1,066,287	177	1,179,787
	Employment	3,209,100	3,661,914	9,904	3,885,414
	Num. dependents	13,898,203	16,959,332	40,000	17,840,375
	Hectares planted	338,490	447,641	5,353	485,531
	Tonnes tobacco produced	575,466	616,494	15,000	665,566
	Value of production	875	1,195	60	1,290
	Processing (manufacturing & GLTs)	Num. enterprises	51	30	8
Employment		37,109	32,491	3,831	53,067
Num. dependents		158,520	142,582	3,800	232,570
Selling (wholesale & retail)	Num. enterprises	143,572	194,095	122,316	296,890
	Employment	202,971	331,321	181,780	428,065
	Num. dependents	1,011,338	1,052,222	629,044	1,664,686
International trade	Total imports (\$m)	622	419	317	959
	Total exports (\$m)	1,493	1,789	200	2,157
Total taxes paid		3,788	2,313	1,570	5,614
Total formal & informal employment		3,449,180	4,025,726	195,515	4,366,546
Total population reliant tobacco*		18,517,241	22,179,862	868,359	24,104,176
Tobacco value chain total value (\$m)**		6,777	5,716	2,146	10,020

Source: TISA (2012)

In the 15 countries covered, the tobacco industry, farming, processing and selling provides employment for 4.4 million people, supporting an additional 24 million dependents, according to this report. A total of US\$6 billion was paid in taxes, including VAT, excise and customs duties in the 15 sample countries in 2014. The total value of trade (imports and exports) reached US\$3 billion, with the total value of the entire tobacco value chain of those 15 countries standing at about US\$10 billion in 2012 (Table 5.5).

However, Chilewa (2012) points out some inaccuracies in the TISA (2012) report. Data for the number of smallholder tobacco farmers (1.2 million), their employees in the region (3.9 million) and those dependent on the employed (18 million) only comes from 9 out of the 15 countries in the sample above. The same applies to the value of raw tobacco produced in these countries in 2011, which amounted to US\$1.2 billion. Angola did not report any of the data above and Egypt, as well as the BLNS countries, had a “not applicable” entry against their names (Chilewa, 2012: 2).

Another fault Chilewa (2012) highlights is the methodological error in what the report refers to as the tobacco value chain total value for the 15 countries. This value was estimated at US\$10 billion, which the report defined as the summation of the value of the raw tobacco produced, the value of total exports and imports and total taxes paid. According to Chilewa (2012) the authors are guilty of double counting. An example of double counting in this scenario would be adding production value at the farm gate to tobacco exports. In addition to this, part of Kenya’s exports form a portion of Zambia’s imports, so adding these two figures together would be double counting. Therefore, the US\$10 billion estimate is likely to have been overstated.

Despite these criticisms, Chilewa (2012) did not report any flaws in the Zimbabwean tobacco employment statistics. Table 5.6 provides the Zimbabwean tobacco value chain employment summary, indicating both employment and dependent statistics with respect to farming, processing and selling.

Table 5.6: Zimbabwe tobacco value chain employment summary, 2011

		Number of enterprises	Full time and seasonal employment	Number of dependents
Farming	Farmers	65,600	1,135,000	5,675,000
Processing	Manufacturers and GLTs	10	6,343	31,715
	Wholesalers	36	72	360
Selling	Formal retailers	5000	10000	50000
	Informal retailers	8000	8000	40000
Total		78,656	1,159,415	5,797,075

Source: TISA (2012)

There are few key findings in the figure above. In the 2011 season there were over 65000 registered farmers that employed 1.13 million workers, supporting 5.67 million dependents, which is almost 55 percent of the Zimbabwean population. There were three GLT processors and seven cigarette manufacturers that provided employment for over 6000 workers, supporting around 32000 dependents. In this year tobacco was Zimbabwe's largest agricultural export by value, contributing 25 percent of total export earnings.

However, it seems unlikely that 55 percent of the Zimbabwean population are dependent on the tobacco sector. According to the World Bank (2016) the Zimbabwean population was 14,3 million in 2011. In order for the Zimbabwean tobacco value chain to support 55 percent of the Zimbabwean population the number of dependents must equal 7,9 million people, not 5,79 million as indicated in Table 5.6. Therefore the TISA (2012) findings that 55 percent of the Zimbabwean population are dependent on the sector is questionable.

#### 5.2.5. International trade

Zimbabwe's tobacco exports totalled 135.5 million metric tonnes in the 2014 season, which is an 11.6 percent drop from the year before. According to TIMB (2014) this decrease in exports was caused by a global oversupply of flue-cured filler tobacco for the previous three years. Despite this, the global demand for high quality flavour tobacco was still increasing. Total export earnings were US\$772.6 million in 2014 compared to US\$877.5 million in 2013.

Table 5.7: Zimbabwe's export volumes and value, 2004-14

Year	Mass (metric tonnes)	Value (US\$) (Million)
2014	135,528.4	7,7
2013	153,350	8,7
2012	129,699	7,7
2011	144,275	7,2
2010	86,815	3,8
2009	58,706	2,9
2008	61,376	1,9
2007	74,424	2,3
2006	50,374	1,4
2005	64,404	2,04
2004	69,967	2,6

Source: TIMB (2014)

Table 5.8: Zimbabwe's physical exports to selected regions 2004-14 (mass in tonnes)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EU	29,027	22,237	14,780	11,973	16,611	21,347	30,870	32,355	29,728	37,587	37,999
Far East	20,864	20,274	10,097	12,247	15,917	18,333	22,749	64,853	64,888	72,410	58,131
Africa	6,225	10,679	3,227	16,359	11,438	9,840	15,496	24,537	21,405	26,402	20,071
Middle East	5,779	3,442	2,032	8,170	9,174	5,884	12,858	16,892	7,712.3	7,661.5	10,525
Rest of Europe	6,407	6,005	5,243	5,217	8,066	2,704	4,190	4,062	5,366.3	6,986.9	6,747.0
Americas	1,094	286	517	55	157	119	329	1,396	536.5	2,005.0	1,939.3
Australasia	571	1,481	538	1,141	13	475	323	179	79.2	297.0	115.2
Total	69,967	64,404	36,434	55,162	61,376	58,702	86,815	144,275	129,716	153,350	135,528

Source: TIMB (2014)

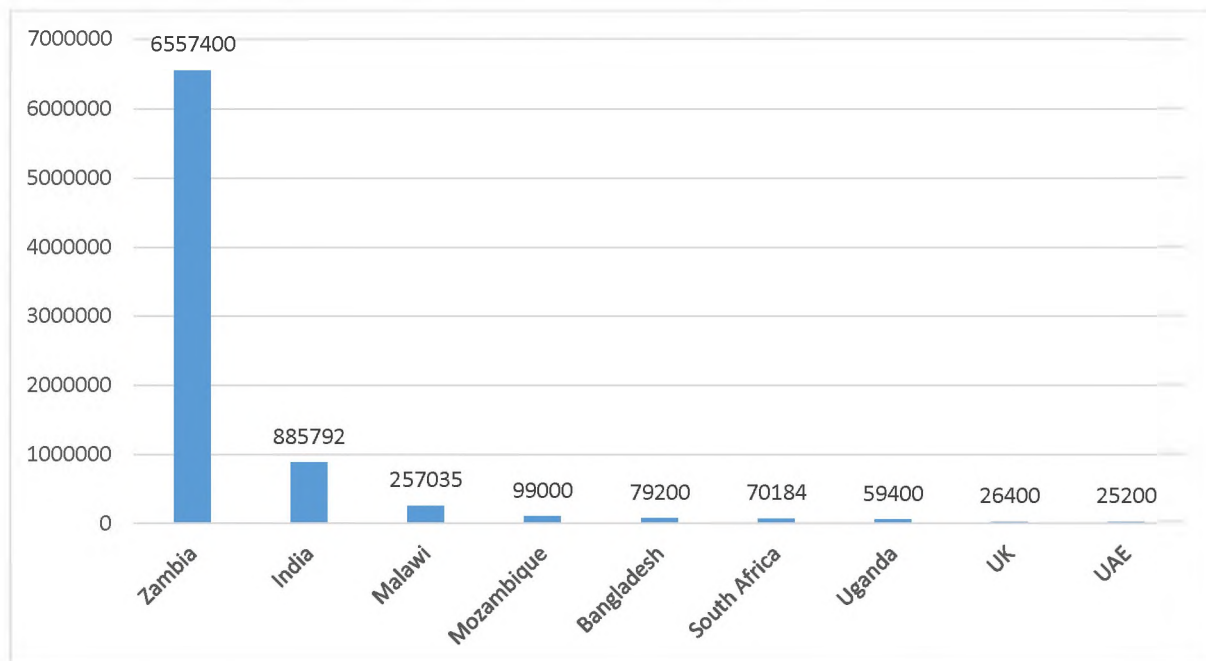
Table 5.9: Top 5 export destinations 2013-14

2014				2013				
Destination	Mass (kg)	Value (US\$)	US\$/kg	#	Destination	Mass (kg)	Value (US\$)	US\$/kg
China	48,001,165	401,983,136	8.37	1	China	60,370,350	475,606,786	7.88
Belgium	29,743,266	131,546,303	4.42	2	Belgium	27,458,566	137,358,180	5.00
South Africa	13,001,194	52,104,475	4.01	3	South Africa	17,323,391	58,880,603	3.4
U.A.E.	9,203,596	29,100,952	3.16	4	Sudan	6,274,120	27,981,115	4.46
Russia	4,793,344	14,278,819	2.98	5	U.A.E.	5,630,422	15,069,396	2.68

Source: TIMB (2014)

The top export destination for both years is China, despite importing 26 percent less tobacco in 2014. China imported approximately 48001 kilograms with an average price of US\$8.37. Exports to various African countries accounted for 15 percent of total exports, decreasing by 25 percent compared to 2013 exports. The cause of this fall in African exports is the decrease of exports to South Africa by over 30 percent. In terms of prices China offers the highest price for both years (US\$7.88 in 2013 and US\$8.37 in 2014). The major reason behind the large difference in export prices offered by China and the other export destinations lies in China's consumer preference for high quality, Zimbabwean tobacco. Tian Ze, a Chinese leaf merchant that is a subsidiary of China Tobacco International, purchases high quality tobacco from both the auction floors and contracted tobacco growers, which is sold at higher prices. According to Mutenga (2014) the increase in demand from China has resulted in export prices being pushed up to much higher levels compared to prices offered by other export destinations. The lower prices offered by other importing nations is due to their relatively low level and/or decreasing level of demand for tobacco products.

Figure 5.5: Zimbabwe's imports, 2014 (Mass in kilograms)



Source: TIMB, 2014

Total imports of 8,1 million kilograms were imported by nine leaf merchants, most of which came from Zambia. A vast majority of Zambia's tobacco is still unprocessed. The tobacco imported into Zimbabwe from Zambia was either processed or blended by local cigarette manufacturers. In 2013 the same number of leaf merchants imported 14.3 million kilograms of flue-cured tobacco.

A significant amount of tobacco products leaving and entering Zimbabwe is not accounted for, affecting the 'normal' trade figures presented in 5.2.5. These products mostly include cigarettes, which are traded in the illicit market. According to Van Walbeek (2013) the illicit trade in cigarettes refers to the large-scale smuggling (operated by criminal syndicates where no tax is paid), small-scale smuggling or bootlegging (where individuals purchase cigarettes in countries that impose comparatively lower taxes and resell them in countries that have a comparatively higher tax), counterfeiting (the product bearing the trademark without the permission of the owner of the trademark) and illicit manufacturing (where manufacturing breaches taxes and other laws) (Van Walbeek, 2013: 1). According to SADC (2012) a questionnaire response from South Africa indicated that Zimbabwe is a key source country for illicit cigarettes and other tobacco products.

There are two major detrimental consequences of the illicit cigarette market in Zimbabwe. Firstly, the Zimbabwean government would lose tax revenue that could have been used to fund vital state services and goods (Van Walbeek, 2013: 2). Secondly, cigarette manufacturers would have their brands and market shares undermined if the illicit trade took the form of counterfeiting (Van Walbeek, 2013: 2).

#### 5.2.6. Cost Components of Cigarettes

In order to see where most of the value lies in the tobacco value chain one must unpack the cost components of the product. The most common tobacco product are cigarettes, thus this section will investigate the cost components of cigarettes in South Africa.

A complete pack of cigarettes will be used as an example, which includes cigarette sticks, tobacco, paper, filter paper, filter tips, wrapping on the inside, cigarette box and wrapping on the outside. The cost of the complete pack before taxes and Value Added Tax (VAT) equals R1.20 (including VAT the cost per pack is R1.37) (SARS, 2015). The South African Revenue Service (SARS) current excise duty on a pack of cigarettes equals R10.92 excluding VAT (R12.45 including VAT) (SARS, 2015). Therefore, the total cost per cigarette pack equals R12.12 excluding VAT (R13.81 including VAT).

In South Africa the average retail price of cigarettes for popular brands, including Marlboro, Peter Stuyvesant, Camel and Dunhill, is R34. This means that those at the higher end of the value chain (blue-chip cigarette manufacturers) capture between R18-R20 per cigarette pack. To break it down even further one must unpack the value per cigarette pack. In a pack of 20 cigarette sticks each stick costs R0.12, however it is sold at a retail price of R1.49 per cigarette. That means the average value per cigarette equals R1.37.

When viewing the lower end of the value chain (processors and tobacco growers) about half of the value is left. In Section 5.2.2, Table 5.3 the current average tobacco price per kilogram in Zimbabwe was around US\$3.01. That means the average tobacco grower in Zimbabwe fetches around R48.16 per kilogram of tobacco. The average cost per tobacco per cigarette is between R0.03 and R0.05, as each tobacco crop yield is between 1000 and 1500 cigarettes. Therefore, tobacco growers only have a R0.03 and R0.05 share in the cigarette cost of R0.12, meaning that tobacco processors have a R0.09-R0.07 share in the cost price of cigarettes.

### 5.3. Governance of the global tobacco value chain

In order to unravel the structure of governance of the Zimbabwean tobacco value chain it is important to investigate the governance of the global tobacco value chain. This will be achieved by looking into three areas of tobacco production: estimated tobacco production on a regional and global scale; the largest or lead tobacco firms; and entry barriers into cigarette manufacturing. The focus of this section will be on the flue-cured global tobacco value chain, since flue-cured tobacco is Zimbabwe's largest tobacco export.

Table 5.10 depicts flue-cured tobacco production across major global regions: North and Central America and the Caribbean; South America; Europe and the Commonwealth of Independent States (CIS); Africa and the Middle East; and Asia and Oceania. The country that produces the most flue-cured tobacco in each region is presented as well.

Table 5.10: Global flue-cured tobacco production (in million kilograms)

Region	2007	2008	2009	2010	2011	2012	2013 (e)	2014 (p)	+/-
North and Central America and Caribbean									
USA	220	219	236	222	169	222	199	226	27
<b>Sub Total</b>	<b>242</b>	<b>235</b>	<b>251</b>	<b>249</b>	<b>194</b>	<b>251</b>	<b>230</b>	<b>258</b>	<b>28</b>
South America									
Brazil	643	608	608	567	708	620	605	600	-5
<b>Sub Total</b>	<b>749</b>	<b>713</b>	<b>711</b>	<b>682</b>	<b>818</b>	<b>714</b>	<b>703</b>	<b>704</b>	<b>1</b>
Europe and CIS									
EU	125	130	140	135	126	112	121	126	5
<b>Sub Total</b>	<b>141</b>	<b>150</b>	<b>158</b>	<b>155</b>	<b>146</b>	<b>130</b>	<b>145</b>	<b>148</b>	<b>3</b>
Africa and Middle East									
Zimbabwe	73	49	60	120	132	145	167	190	23
<b>Sub Total</b>	<b>232</b>	<b>203</b>	<b>218</b>	<b>325</b>	<b>383</b>	<b>330</b>	<b>364</b>	<b>435</b>	<b>71</b>
Asia and Oceania									
China	1950	2300	2350	2461	2391	2690	2660	2520	-140
<b>Sub Total</b>	<b>2511</b>	<b>2876</b>	<b>2990</b>	<b>3138</b>	<b>2968</b>	<b>3256</b>	<b>3279</b>	<b>3145</b>	<b>-134</b>
<b>Global Total</b>	<b>3875</b>	<b>4175</b>	<b>4328</b>	<b>4549</b>	<b>4511</b>	<b>4681</b>	<b>4721</b>	<b>4690</b>	<b>-31</b>

Source: Tobacco Board (2014)

(e) = estimate, (p) = provisional, +/- = difference between € and (p)

The table shows that the global production of flue-cured tobacco was expected to decrease marginally by 31 million kilograms in 2014. Asia and Oceania produce the largest amount of flue-cured tobacco, followed by South America. The country that produces the most flue-cured tobacco is China, followed by Brazil, USA, EU and Zimbabwe respectively. The USA and Zimbabwe were expected to increase their production yield from 2013, while the others were estimated to decrease flue-cured tobacco production. This did occur, as indicated in Table 5.1

where tobacco production increased from 166 million kilograms in 2013 to 216 million kilograms in 2014.

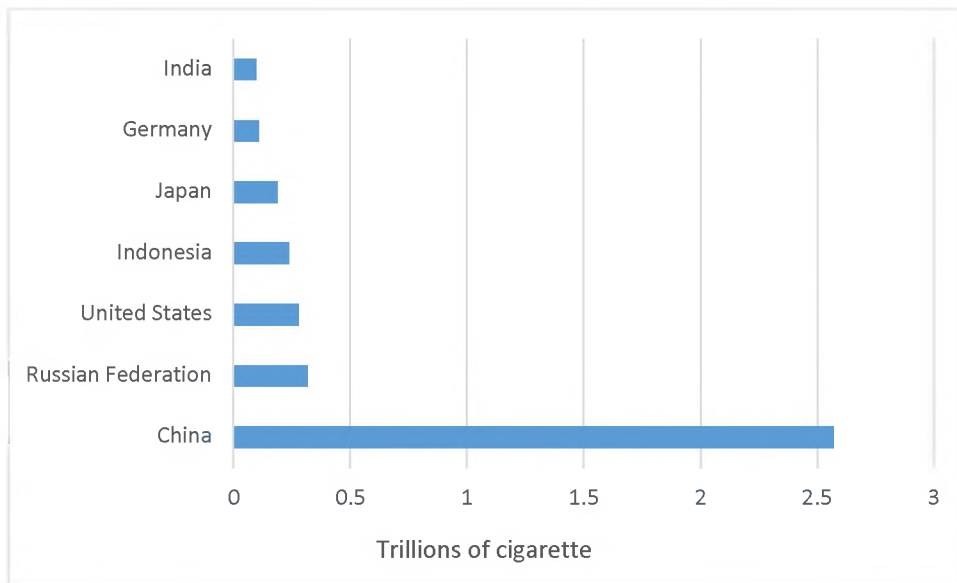
Table 5.11: Top five cigarette manufacturing countries in the world, 2014

Rank	Country	Quantity (kilograms)	% global production
1	China	2424500	40.29
2	Russia	387000	6.43
3	USA	318892	5.30
4	Indonesia	294000	4.8
5	Germany	204000	3.39

Source: Tobacco Board (2014)

China heads the cigarette production charts at a significant 40.29 percent of total global cigarette production. There is a large gap of 33.86 percentage points between China and the second largest cigarette manufacturer, Russia, which has a 6.43 percent share of total global cigarette production. Those countries that produce the most cigarettes are also those which consume the largest numbers of cigarettes in the world. Figure 5.6 depicts the top cigarette consuming countries in the world in 2014.

Figure 5.6: Top cigarette consuming countries worldwide, 2014



Source: Statista (2015)

China again takes first place in cigarette consumption at 2.57 trillion cigarette sticks during 2014. Russia comes in second with 0.32 trillion, the USA third with 0.28 trillion, fourth Indonesia with 0.24 trillion and fifth Japan with 0.19 trillion cigarette sticks in 2014. According to Moyer-Lee and Prowse (2015) the reasons these countries are the largest consumers of cigarettes include their large populations and their cultural attitudes towards cigarette smoking. Currently supplying these markets is a lucrative business and lead firms in the tobacco GVC (cigarette manufacturers) take strong action to enhance and protect their positions in supplying these markets (Moyer-Lee and Prowse, 2015: 163).

There are over ten large multinational cigarette corporations that have significant shares in the global cigarette market, but this section will consider the top five. According to Rehn (2014) the largest multinational cigarette corporation is the China National Tobacco Corporation (CNTC), which has a 37.1 percent share of the global cigarette market, mainly supplying the Chinese market. CNTC had revenue of US\$91.7 billion for 2014, producing 2.1 of the 5.9 trillion cigarettes that are globally produced. Philip Morris International (PMI) comes in at second, maintaining a 17.4 percent share of the global cigarette market and receiving US\$67.7 billion in revenue in 2014. British American Tobacco (BAT) is the third largest multinational cigarette corporation that holds a 12 percent share of the global cigarette market. Revenue for 2014 reached US\$51.8 billion. Japan Tobacco International (JTI) comes in at fourth

maintaining a 9.6 percent share of the global cigarette market, earning US\$65.9 billion in revenue. In fifth place is Imperial Tobacco, holding a 4.9 percent share in the global cigarette market and earning US\$38.4 billion in 2014. This leads to a highly concentrated market, with these five multinational cigarette corporations together having an 81 percent market share.

An important reason for this concentrated market share is the existence of significant entry barriers linked with the manufacture of cigarettes. According to Moyer-Lee and Prowse (2015) various factors and policies have made it extremely difficult for new cigarette manufacturing companies to enter the market. The costs of entering the cigarette manufacturing market have increased as a result of widespread health initiatives imposed by governments and health organisations, including bans on advertising, chemicals used in production and certain flavourings and additives (Moyer-Lee and Prowse, 2015: 162). Increasing regulation in key markets is an important factor, especially in the USA where the Federal Food and Drug Administration now regards tobacco as a food crop and regulates it as such.

Other forms of entry barriers include the large expenditures multinational cigarette corporations put towards marketing, litigation and research and development. For instance cigarette manufacturers spent US\$0.75 per cigarette pack in order to maintain or increase their market share in 2006 (Moyer-Lee and Prowse, 2015: 162). The fall in demand for cigarettes in regions that were once strongholds for cigarette manufacturers, such as the USA and Europe, has caused multinational cigarette corporations to invest heavily in marketing and research into buyer behaviour and preferences. Litigation processes have also served as an entry barrier into cigarette manufacturing. Van Liemt (2002) stresses that multinational cigarette corporations spend a large portion of their revenues and require technical resources for occasional multi-million dollar pay-outs and high legal fees. It is also pointed out by Moyer-Lee and Prowse (2015) that cigarette manufacturers invest heavily in leaf agronomy, research on consumer preferences and innovation. In the context of high regulation and health policy initiatives on cigarettes, manufacturers see a need to ensure that they have new products that can be launched in order to replace current products that have been outlawed.

A key factor behind the concentrated market share in cigarette manufacturing is the liberalisation process that occurred in global markets during the 1990s. According to WHO (1999) there were over 7000 medium to large state-owned cigarette manufacturing companies in 1980. Since then these have been privatised through merging with existing private cigarette

manufacturers, such as BAT and PMI, resulting in the rapid growth and increased market share of these companies. Another example of the cause of the cigarette market share concentration was the pressure the International Monetary Fund (IMF) placed on tobacco manufacturing countries, such as South Korea, Maldives, Turkey and Thailand, to privatise their state tobacco industries as a condition for receiving loans (WHO, 1999).

Market concentration is a key element of market structure and has a vital influence on the conduct and the performance of a particular market (Kanyenga and Mangisoni, 2007: 40). Market structure refers to how markets and industries are organised, which is dependent on the number of participants or firms in the market or industry and the extent of market control of each participant. Therefore market concentration determines the nature and reflects the degree of competition in a market. According to Kanyenga and Mangisoni (2007) there is an inverse relationship between market concentration and competition and efficiency. In this view, as market concentration increases, competition and efficiency decrease. Higher market concentration may also increase chances of collusion and monopoly. Thus, a more highly concentrated market reflects a greater lack of competition as only a few participants dominate the market (Kanyenga and Mangisoni, 2007: 40). The concentrated nature of the cigarette manufacturing market has significant implications for how the Zimbabwe tobacco value chain is coordinated and thus governed.

#### 5.4. Conclusion

Zimbabwe has a long history of tobacco production and tobacco remains an important industry in the Zimbabwean economy. Zimbabwe has experienced a dramatic trend in tobacco production over the past decade. After reaching over 200 million kilograms in 2000 tobacco production plummeted to a mere 49 million kilograms in 2008, following the fast track land reforms implemented in 2001. However, a comeback in tobacco production has been made steadily since the 2008 season, with 216 million kilograms of tobacco produced in 2014. The main reason behind these steady increases in production is attributed to the increase in tobacco growers.

Along with production levels, tobacco prices per kilogram and tobacco production value have also steadily increased over the same time period. It was found that tobacco prices under contract lines were higher on average compared to prices on the auction floors.

Not only has the number of tobacco growers changed significantly, but the different types of tobacco growers have also changed. In 2000 the majority of tobacco growers consisted of large, white-owned commercial farms. Currently there are four different classes of tobacco growers (A1, A2, communal and small-scale commercial). Most tobacco growers within these classes sell their tobacco under contract lines, as opposed to selling on the auction floors.

The chapter then discussed employment along the entire value chain, including the processing, selling and international trade segments. Firstly regional employment was discussed in the COMESA, SADC and SACU regions. Employment in the Zimbabwean tobacco value chain was then examined. It was highlighted that 1.13 million farm workers (supporting 5.67 million dependents) were employed by the 65000 tobacco growers in 2011. While TISA (2012) argues that the Zimbabwean tobacco value chain supported as much as 55 percent of the population, this figure is questionable.

International trade of Zimbabwean tobacco was then discussed. Between 2004 and 2014 Zimbabwean tobacco exports volumes, along with value, have increased. China is currently the largest export destination and offers the highest average export price by a significant margin compared to the other export destinations. Most of Zimbabwe's imported tobacco comes from Zambia, almost all of which is still unprocessed. The unprocessed tobacco imported from Zambia is then processed in Zimbabwe, as there is an appropriate processing capacity in the country.

Section 5.2.6 provided interesting insights into the cost composition of cigarettes sold in South Africa. This section found that most of the value of cigarette production went in favour of blue-chip cigarette manufacturers, who earned R1.37 per cigarette. On the other hand, those at the lower end of the value chain (processors and tobacco growers) earned R0.12 per cigarette stick. Tobacco growers captured between R0.03-R0.05 and processors received R0.09 and R0.07. Therefore, it can be confirmed that a large portion of the value lies with cigarette manufacturing and marketing.

The governance structure of the global tobacco value chain was investigated and discussed in Section 5.3. The section discussed the top tobacco producing countries, top cigarette manufacturing countries and the top cigarette consuming countries in the global market. The section went on to outline the top global tobacco companies in terms of size and market share.

It was found that tobacco manufacturing is highly concentrated and there are numerous barriers to entry. These include marketing, litigation and research and development.

Against this background, Chapter 6 discusses the governance structure in the Zimbabwean tobacco value chain. This is done by exploring and explaining the relationships between the three key players in the value chain: tobacco growers, leaf merchants and cigarette manufacturers.

## **Chapter 6: Governance in the Zimbabwean tobacco value chain**

### **6.1 Introduction**

This chapter examines the governance structure along the Zimbabwean tobacco value chain. In order to explore the nature of the relationships between top-tier firms and those lower in the value chain and thus how power is wielded and by whom, this section investigates several factors. These factors include objectives of lead firms in Zimbabwe; the leaf merchant-manufacturer contract system; the governance structure; and the leaf merchant-tobacco grower relationship. The perspectives of the small-holder tobacco growers are also discussed.

The investigation and discussion of the factors above is based on information gathered from interviews with a leaf merchant company that operates in Zimbabwe, as well as three small-holder tobacco growers. Due to the sensitivity of the industry all participants that were interviewed requested to remain anonymous and no details of who they work for and with is exposed. The content of these interviews is supported by information gathered from company websites, articles and references to authors who have done research in these areas. Theory from the literature review will also be included to provide further support and clarify the trajectory of the discussion.

### **6.2 Lead firm objectives in Zimbabwe**

According to BAT (2014), British American Tobacco (BAT) is the largest customer and lead cigarette manufacturer in Zimbabwe, having a 90 percent stake in the Zimbabwe tobacco market. Japan Tobacco International (JTI)/Gallaher is the second largest customer and cigarette manufacturer, having a 5.3 percent share of the Zimbabwean tobacco market. In third place is Phillip Morris International (PMI), with a 1.8 percent market share. Swedish Match, which was recently bought out by PMI, dominates the pipe and snuff market in Zimbabwe and was the second largest tobacco manufacturer in 2014 (TIMB: 2014). All these lead tobacco firms demand a reliable supply of tobacco of reliable quality at competitive prices. Therefore, these lead tobacco firms concentrate tobacco supplies by contracting a small number of leaf merchants. In most cases these leaf merchants have been supplying their customers for an extended period of time and have thus established a relationship with large tobacco manufacturers based on trust.

Over the past two decades there has been increasing pressure for lead tobacco firms to adhere to certain compliance and traceability measures, for example with respect to the chemicals that can be used in the farming of tobacco. Therefore, cigarette manufacturers have introduced measures that allow them to gain intimate knowledge of the production process of the tobacco they wish to purchase. Reasons for the pressure on cigarette manufacturers regarding compliance and traceability include the global regulation of certain chemicals that can be used in the production process of cigarettes and other tobacco products (Moyer-Lee and Prowse, 2015: 164). In addition, the pariah status associated with the tobacco sector places cigarette manufacturers under constant pressure to establish and maintain good public relations to a greater extent than most other industries worldwide. However, each cigarette manufacturer will have a different variation of compliance requirements and some have more, while others have less.

This has caused many blue-chip cigarette companies to invest heavily in corporate social responsibility (CSR) programmes. An example of this would be BAT's Social Responsibility in Tobacco Production Programme (SRTP) (BAT, 2014). This programme can be regarded as a form of a compliance and traceability measure, which Moyer-Lee and Prowse (2015) investigated in their study of the governance structure of the Malawi tobacco value chain. The primary goal of the programme is to address the environmental and social issues that are often associated with growing and processing tobacco. According to BAT (2014) the programme reviews all the suppliers (leaf merchants) that purchase tobacco on BAT's behalf. The SRTP programme is compulsory for all leaf merchants that supply BAT tobacco, which sets out the minimum performance levels that are expected from leaf merchants. The programme requires leaf merchants to perform good agricultural practice (GAP) on and outside the farm. This includes a combination of viable tobacco production and positive environmental management, such as soil and water conservation, promoting afforestation programmes for growers who use wood in their curing process and the appropriate use of agrochemicals. It also focuses on other social and economic issues, such as child labour. The implementation of compliance and traceability measures is a significant example of how lead firms, such as BAT, exercise their power in the tobacco value chain in Zimbabwe. This forces leaf merchants to invest increasingly in implementing their own policies of compliance and traceability, as well as those of the cigarette manufacturers they are selling to.

## 6.3 Merchant-manufacturer contract system

### 6.3.1 Buying process between cigarette manufacturers and leaf merchants

This section draws on interviews with a leaf merchant in order to understand how typical business processes are performed between the cigarette manufacturer and the leaf merchant. There are various ways in which cigarette manufacturers purchase tobacco. However, the general system is based on an indication from the cigarette manufacturer of the quality and quantity of certain grades or styles of tobacco that they intend to purchase from the contracted leaf merchant (Leaf merchant, 2015, personal communication). The leaf merchant will then approach growers and contract them to grow the grades/styles and volumes of tobacco specified by the cigarette manufacturer.

Once the tobacco is bought from the contracted farmers, samples are sent to the manufacturer to indicate pricing and availability of volumes (Leaf merchant, 2015, personal communication). The manufacturer is required to confirm (or otherwise) the transaction. At this point manufacturers may order a certain volume of tobacco or they might visit the leaf merchant and set up trial runs and sampling. Once a price and volume is agreed upon, the leaf merchant will process and transport the tobacco to the manufacturer (Leaf merchant, 2015, personal communication). At this stage the exact price for the final processed tobacco will be unknown until after final processing and inspection. According to the leaf merchant interviewed, in many cases some of the larger cigarette manufacturers will purchase and process the tobacco under their own supervision (Leaf merchant, 2015, personal communication). For example BAT will sometimes purchase green tobacco and process it in their own processing facility in Zimbabwe.

### 6.3.2. Price model between leaf merchant and manufacturer

The pricing process between the leaf merchant and the cigarette manufacturer highlights the power of cigarette manufacturers (lead firms) over leaf merchants (suppliers). The standard pricing model takes account of demand and supply forces, the cost of production and the rate of return objectives and aspirations of the leaf merchant (Leaf merchant, 2015, personal communication). This is what Moyer-Lee and Prowse (2015) describe as a “cost-plus” model. Here the cigarette manufacturer will pay the leaf merchant’s purchase price plus processing costs and a small margin. The margin is often determined by a “hurdle rate”, based on a minimum rate of return that the leaf merchant must achieve, which is then important in the

determination of the final price. According to Moyer-Lee and Prowse (2015) these margins can range between 6 and 12 percent. Different prices will be set for different grades of tobacco.

This pricing model has made the leaf merchant's cost structure the basis of the pricing of tobacco, which creates intense competition between different leaf merchants in terms of costs. Many leaf merchants invest heavily in processing factories and full service operations, which puts them under added pressure to keep costs low. Some leaf merchants carry very little overhead, process their tobacco as a third party in another factory and thus do not have to invest as much, keeping costs low. As a result they are able to compete aggressively. It also helps these leaf merchants when their customers do not have such heavy compliance demands.

This cost-plus pricing model is indicative of how the nature of governance between the cigarette manufacturers and leaf merchants is buyer-driven. The most important characteristic of the relationship between cigarette manufacturers and leaf merchants that indicates the buyer-driven nature in this segment of the tobacco value chain is that the lead firms set the standards for the quality of the product. Cigarette manufacturers also set the rules and conditions for participation through their requirement of GAP that leaf merchants have to meet. The need for leaf merchants to meet certain standards and practices reveals how cigarette manufacturers hold the majority of power and influence along the tobacco value chain.

#### 6.4 Governance type between cigarette manufacturers and leaf merchants

The governance structure of the Zimbabwean tobacco value chain in most cases is broken down into two separate parts: cigarette manufacturer-leaf merchant governance and leaf merchant-tobacco grower governance. Most tobacco growers in Zimbabwe are not directly contracted to large cigarette companies and thus do not deal with them directly (Smallholder farmer 3, 2015, personal communication). Independent leaf merchant companies play the intermediary role between the two participants by being contracted to the cigarette manufacturer as its supplier and, in turn, contracting tobacco growers as a buyer. As a consequence of these two different roles, the governance structure along the value chain becomes disjointed in the middle where there exist two separate flows of influence: cigarette manufacturer to leaf merchant and leaf merchant to tobacco grower.

In some cases, however, it can be said that tobacco growers have a direct relationship with cigarette companies. This occurs when cigarette manufacturers establish subsidiary leaf

merchant companies to provide the role of the supplier. These subsidiaries then contract the tobacco growers. Although some of these subsidiary leaf merchants have their own company names they are still directly associated with the cigarette manufacturer.

These scenarios create two different types of governance structure in the Zimbabwean tobacco value chain between cigarette manufacturers and leaf merchants: modular governance and hierarchical governance.

#### 6.4.1 Modular governance

A large proportion of tobacco in Zimbabwe is sold to blue chip cigarette manufacturers, most notably BAT. The relationship between blue chip cigarette manufacturing companies and leaf merchants in the Zimbabwean tobacco value chain is mostly characterised by a modular governance structure (see Section 2.4.2). Inter-firm connectedness between the cigarette manufacturer and the leaf merchant is characterised by the contracting of more specialised suppliers that produce a product according to a customer's specifications.

This is indeed the case, as leaf merchants are firstly required to abide by strict specifications in terms of quality standards that the cigarette manufacturer demands. Blue chip cigarette manufacturers' primary focus is to produce premium blends of cigarettes that appeal to a high-end consumer market. This forces the leaf merchants towards competencies in processing technology.

#### 6.4.2 Hierarchical governance

However a consistent hierarchical governance structure is also evident in the Zimbabwean tobacco value chain. In this case there is high information complexity, information can be codified easily and supplier capabilities are low (see Section 2.4.2). The major characteristic of this type of governance is that those at the higher end of the value chain directly manage operations at the lower end of the value chain. This is seen through the decision of some cigarette manufacturers to vertically integrate themselves backwards into the tobacco value chain through establishing and using subsidiary leaf merchants as their suppliers. Vertical integration is a key characteristic in this type of governance, as stressed in Section 2.4.2. This would mean that cigarette manufacturers would have complete control over the production process on tobacco farms, through the provision of specified inputs and visits to the farm.

According to Moyer-Lee and Prowse (2015) the rationale for the important decision on the part of manufacturers to source their own tobacco directly rather than imposing specified demands on independent suppliers is to ensure that quality standards are always met. Most importantly, though, some cigarette manufacturers have resorted to backwards integration because of the heightened pressure to abide by compliance and traceability measures. Some cigarette manufacturers that source tobacco from Zimbabwe would rather manage the value chain entirely than risk purchasing tobacco that, for example, was produced using a banned pesticide or processed with chemicals that health institutions would deem as unfit for human consumption.

An example of a hierarchical governance structure in the Zimbabwean tobacco value chain would be China National Tobacco Company (CNTC) and its subsidiary leaf merchant Tian Ze Tobacco Company (TZTC). In order for CNTC to secure a supply of high quality and a sufficient quantity of tobacco the Company has integrated backwards through the establishment of its subsidiary leaf merchant company, TZTC, in 2006. The ownership of Tobacco Processors Zimbabwe (TPZ) by Northern Tobacco Company, Tribac and Classic Leaf serves as another example of vertical integration of cigarette manufacturers along the Zimbabwean tobacco value chain (TPZ, 2011).

## 6.5 Buying process between the leaf merchant and tobacco grower

### 6.5.1 Problems in Zimbabwe's tobacco production

Before looking into the interactive relationship between leaf merchants and tobacco growers it is important to understand the recent background of the Zimbabwe tobacco industry and how various challenges experienced in the industry have changed its nature.

The trade liberalisation programme of the 1990s that was implemented in many countries worldwide saw a dramatic increase in tobacco production in Zimbabwe (Moyo, 2014: 22). After the land reforms most smallholder farmers took to growing tobacco, as it was seen to be far more profitable than other traditional crops, such as maize and wheat. According to FAO (2003) tobacco is 6.5 times more profitable than other crops that can be grown in Zimbabwe. However, there is a high cost involved in growing tobacco. A study done by Leaver (2004) used the Nerlovian model to measure the supply response function of tobacco in Zimbabwe, found that tobacco farmers are highly unresponsive to changes in prices. This was found to be

primarily due to the high capital and opportunity cost involved in creating the necessary infrastructure, most of which is very specific to the tobacco sector.

Zimbabwe is facing an impending food shortage crisis, due to an erratic 2014/15 rainfall season (Nyabeze, 2015). It must also be noted that currently Zimbabwe is a net importer of food, according to Famine Early Warning Systems Network (2014). The Zimbabwean government is thus finding it difficult to invest further in tobacco production, a crop that cannot be consumed for dietary purposes. The government has focused its resources on providing inputs for food staples in an effort to curb food insecurity. Since the implementation of the land reform programme in 2001 the government has provided support for food crops, such as maize and other small grains. The tobacco industry has not benefitted from these schemes, mainly due to the health hazards associated with tobacco consumption and the fact that it is not a food staple.

This lack of support from external institutions has brought about many challenges for tobacco growers in Zimbabwe. However, smallholder tobacco growers have been affected the most. The biggest challenge facing smallholder tobacco growers is their limited access to farming inputs and other farming resources. They do not benefit from having large tobacco yields that can generate enough income to fund the farm itself, like most large-scale commercial tobacco farms.

The difficulties related to accessing farming inputs and other farming resources seem to be due to the high associated transaction costs and the problem of asymmetric information. Many of the smallholder tobacco farmers in Zimbabwe acquired their farming land as a result of the fast-track land reform, but most of this land is communal or government-owned. This means that most smallholder growers do not have any title to the land. If these smallholder growers want to access credit they cannot use the land as collateral, making access to credit difficult and sometimes impossible (Smallholder farmer 1, 2015, personal communication).

Many smallholder tobacco growers in Zimbabwe are resource constrained. For instance they often have to burn firewood to cure tobacco leaves in barns, which has resulted in deforestation in the surrounding area and environmental degradation (Smallholder farmer 2, 2015, personal communication). Many smallholder tobacco growers do not have access to electricity. Using coal to heat up their curing barns is too expensive and thus they have to resort to burning firewood (Smallholder tobacco grower 2, 2015, personal communication). For many

smallholder tobacco growers planting their own woodlots are too expensive and have to resort to sourcing their firewood from the natural forests surrounding their farm (Smallholder farmer 2, 2015, personal correspondence). According to Christy (2013) the Zimbabwe Forestry commission estimated that Zimbabwe was losing 330000 hectares of woodland per year, putting indigenous tree species at risk, stating tobacco production as the biggest contributor. This poses a huge problem for lead cigarette manufacturers, such as BAT, PMI and JTI that have to comply with sustainable farming measures. According to the Christy (2013) some leaf merchants encourage their contracted tobacco growers to establish woodlots. These woodlots mostly consist of eucalyptus trees, however one of the farmers interviewed pointed out that these take a long period of time (usually six years) to mature and therefore does not serve as an immediate solution (Smallholder farmer 2, 2015, personal communication). According to this smallholder farmer, the contracted leaf merchant does not offer direct assistance in establishing a woodlot and it is left up to the tobacco grower to do so. This poses a huge challenge in the sustainability of tobacco growing by smallholder tobacco growers.

In addition, inadequate access to inputs leads to poor yields. According to Moyo (2014), unlike food crops, tobacco farming does not receive support from donors, such as the FAO and the Bretton Woods institutions, due to the negative sentiment that surrounds tobacco. Furthermore, the Zimbabwean government finds itself with insufficient financial resources to support tobacco farming.

Smallholding tobacco growers also face the problem of crumbling farming infrastructure (Smallholder farmer 1, 2015, personal communication). Normally the smallholder tobacco growers would invest in farming infrastructure, however the land ownership structure makes this difficult. This has a negative impact on farming efficiency and productivity, creating a combined problem of poor infrastructure and low productivity, which increases the risk of crop failure. If a smallholder tobacco grower experiences crop failure this impacts on the farmer's credit worthiness and thus makes accessing credit even more difficult and costly.

The problems of access to finance and inputs, as well as the lack of appropriate agricultural infrastructure has made smallholder tobacco growing an extremely risky business. All of the farmers interviewed argued that they are left to fund themselves in an economic environment where borrowing money is either costly or impossible (Smallholder farmer 1-3, 2015, personal communication). Since most tobacco growers in Zimbabwe are smallholders, this does not

provide an optimistic outlook for the development of smallholder tobacco growing and the livelihood of the individuals and families of smallholder tobacco farms. However, the rising trend of contract farming could be the solution to the finance and input provision that smallholder tobacco growers so desperately need.

#### 6.5.2 Definition of contract farming

There are various definitions of contract farming, but the most comprehensive term is given by Roy (1972). Contract farming defined by Roy (1972) includes the written or oral contractual agreement between farmers and firms regarding the conditions of production and/or marketing of an agricultural product. It can also be added that contract farming involves the production and marketing of an agricultural product that has to adhere to specific terms, such as market quantity, grade, size, inspection, timing and pricing, set out by the buyer to the farmer before production of that agricultural product is undertaken.

According to Baumann (2000) there are three types of contract farming practices. These include market specification contracts, resource-providing contracts and production management contracts. A market specification contract guarantees a market that a farmer can enter, provided that the farmer meets the specified product standards. The contractor is limited only by the grading of the agricultural product to access a market. Here there is no provision of production inputs, finance or agronomical supervision. Moyer-Lee and Prowse (2015) refer to this type of contract farming as contract selling, where there is a conventional market-specification contract between a firm and farmer at a given price. The price would correlate with the grade or standard of the agricultural product

Resource-based contracts provide credit in the form of production inputs, such as fertiliser, seeds and machinery, and financial capital. Credit is paid back once the farmer has sold his or her produce. This type of contract also provides extension services and there is a high chance of technology transfer (Moyo, 2014: 29). Moyer-Lee and Prowse (2015) refer to this type of contract farming as contract growing, which includes resource provision and production management. Contract growing may entail different levels of buyer involvement, from the mere provision of production inputs and limited supervision to a fully integrated production system.

Lastly production and management contracts are simply a combination of the two. Since tobacco marketing in Zimbabwe is controlled by TIMB, which provides a ready market through the auction market system, the second and third types of contract farming are more relevant in the case of Zimbabwe tobacco.

### 6.5.3 Fall of auction floors, rise of contract lines in Zimbabwe

Contract farming has been widely used around the world, especially in developing countries. It arose from problems of market and information imperfections, which affected farmers' access to credit and produce markets, leading to low productivity and income. Contract farming provides credit to farmers without the need for collateral, which is demanded by formal financial institutions.

Before the existence of contract lines in Zimbabwe almost all tobacco growers used the auction floors to sell their tobacco. According to Musodaza (2009), the auction floor was once the primary channel between growers and leaf merchants, where over 98 percent of tobacco sales in Zimbabwe occurred. Although the auction floors are still in existence today, they are not as efficient and popular as they used to be. Zimbabwe was once world renowned for its transparent auction system, taking place on the Harare Auction floors. The Zimbabwean auction floors were so efficient and transparent that they were once used to predict global tobacco prices (Musodza, 2009: 3). On the auction floors tobacco is bought by leaf merchants through representative buyers bidding for tobacco; thus there is minimal contact between buyers and suppliers.

The auction floors provide a market for tobacco growers, however they receive no assistance in terms of finance and market knowledge. The grading system and storage facilities during the time periods between delivery and auctions are still preserved in the auction system. The auction floors purely provide a medium of interaction for the growers and the leaf merchants (buyers). The trade is short-term, similar to the selling process in spot-markets, and works through a bidding system, like any other normal auction, where prices are adjusted downwards or upwards for the highest bidder. The buyer has the choice to turn down a bid on the basis of the quality of the tobacco leaf. The floor price or minimum price is determined by the amount of tobacco (supply) and the number of buyers (demand) on the tobacco auction floors. Growers who sell their tobacco via the auction system would have to access finance from commercial financial institutions and/or from tobacco institutions (Musodza, 2009: 12).

Following the implementation of President Mugabe's controversial fast-track land reform programme the agricultural sector in Zimbabwe contracted sharply, resulting in the deterioration of the tobacco auction system and the tobacco growers' shift towards contract lines. Another reason for the shift towards contract lines was the collapse of the financial sector. Hyperinflation ballooned from 112.1 percent in 2001 to over 2.5 million percent in 2009 and lending interest rates were increased to over 600 percent in 2009 from 38.2 percent in 2001 (Global Economy, 2015). This made seeking finance from local commercial banks extremely difficult. Leaf merchant contracts offer financial support at a far cheaper rate than commercial banks and leaf merchants have the capacity to finance imported inputs for growers, such as fertilizer and machinery (Mago and Parirenyatwa, 2014: 242) Leaf merchants also offer other services to the grower in exchange for the grower's crop, which is why many growers turned to contract lines. By the 2014 season over 66 percent of active growers sold their tobacco through leaf merchant contract lines (see Section 5.2.3).

#### 6.5.4 Role of leaf merchants in Zimbabwe's tobacco industry

Tobacco buyers or leaf merchants purchase tobacco from tobacco growers either for direct export, as semi-processed "green tobacco" or for the processing and manufacturing of cigarettes for local and regional consumption (Musodza, 2009: 11). The tobacco that is bought by leaf merchants is either bought through the Auction floors or through contract lines. The price that tobacco growers and leaf merchants agree on is determined by the quality of the tobacco leaf. Quality is determined by the weight and colour of the tobacco leaf.

Despite there being an increase in tobacco production levels over the past seven years, quality has remained low. Therefore leaf merchants, who previously used to act only as intermediaries between the grower and the manufacturer, have diversified their operations and have started farming contracts with tobacco growers. These contracts were not only aimed to guarantee a secure supply of tobacco, but also to regulate the quality of the tobacco leaf.

The primary objective of a leaf merchant is to contract both commercial and smallholder tobacco growers (Leaf merchant, 2015, personal communication). Leaf merchants operating in Zimbabwe contract tobacco growers, but also participate in the auction system and purchase non-contracted tobacco there. When under a contract line the tobacco grower has to grow tobacco under certain compliance and sustainability conditions. For instance, the leaf merchant

interviewed stated that their company require their contracted farmers to follow a good agricultural practices (GAP) method. Leaf managers and technicians visit the farms in order to provide tobacco growers with agronomical support. These managers and technicians are locally employed experts and thus have knowledge of conditions that are specific to the Zimbabwean agricultural environment. They are sent to the field to contracted tobacco growers to make contractual agreements, supplying seeds and providing advice on propagation, the use of chemicals and fertilisers and integrated pest management (Leaf merchant, 2015, personal communication). They also provide growers with access to more efficient farming methods and technologies that are often otherwise out of reach, especially for smallholder tobacco growers. For example, technicians might provide growers with new seed varieties or fuel efficient curing barns. BAT (2013) argues that this support is intended to ensure the viability and efficiency of tobacco farms, maintain and improve leaf quality and a secure supply of tobacco leaf to BAT manufacturing plants.

Some leaf merchants also provide advice and technical support regarding other food crops. Since tobacco is a seasonal crop, certain leaf merchants try to encourage tobacco growers to grow food crops, such as maize or vegetables in order to improve food security or as an alternative income source during the off-season. Some cigarette manufacturers, such as BAT, have also attempted to ensure that food crops are grown by sending their own technicians to tobacco growers to provide the food crop seeds and agronomical advice on how to grow the crop successfully.

Prior to contracting tobacco growers, area managers from the leaf merchant company are sent to inspect the farm in order to ascertain whether the tobacco grower has the appropriate infrastructure, such as tobacco curing barns, labour and technical expertise to grow the crop. At the start of the tobacco growing season tobacco growers are required to develop a business plan with their area managers, which includes a projected seasonal cash flow statement. The cash flow statement presents a guideline as to when, how and at what stage of the tobacco plant's life cycle funds are released to the tobacco grower (Leaf merchant, 2015, personal communication).

Tobacco growers are contracted at the beginning of the tobacco season, which is around the months of May and June. Tobacco growers are selected via a series of criteria. These include demand and supply, location (average annual rainfall, distance from buying centre, altitude and

soil type), historical performance, quality (quality index measure), historical performance with respect to debt repayment, size of the farm and adherence to the leaf merchant's GAP requirements (Leaf merchant, 2015, personal communication). This selection seeks to ensure that selected tobacco farmers do not produce a poor crop and default on the financial and input loan.

Once the business plan has been approved by the area manager and the leaf merchant company, negotiations take place regarding the value of sponsorship that the leaf merchant will give to the tobacco grower and how much tobacco the grower must yield. When these have been agreed, contracts are signed and inputs are arranged depending on the model of the grower (Leaf merchant, 2015, personal communication). Some tobacco growers will receive a credit line at an agricultural input supplier, but some may receive inputs directly from the leaf merchant. According to the leaf merchant interviewed, these inputs include fertiliser, approved chemicals, implements, seasonal financing, seedlings, capital financing and cash advances (Leaf merchant, 2015, personal communication). Once the crop is grown and has been harvested the tobacco growers will bring their tobacco in for sale and payment is made with deductions for input loans. Typically, leaf merchants charge an interest rate far below the Zimbabwean lending rate for financial capital. For instance, the Chinese subsidiary leaf merchant of China National Tobacco Company, Tian Ze Tobacco Company, charges an interest rate of around 5 percent (Mago and Parirenyatwa, 2014: 243). This interest rate is far lower than the lending rates charged by commercial banks of 20 to 30 percent.

Leaf merchants are required to provide on-the-ground support for their contracted tobacco growers in the form of agricultural extension services through visits to contracted tobacco growers' farms by leaf technicians. These visits are also intended to reduce asymmetric information by confirming the number of labourers, machinery, tools and farm vehicles (tractors) in relation to the figures provided by the tobacco grower. On average leaf technicians visit tobacco growers five times per season (Leaf merchant, 2015, personal communication). In return the contracted tobacco grower is expected to grow the tobacco in accordance with the leaf merchants' compliance specifications that have in turn been stipulated by the cigarette manufacturer.

In order to explore whether leaf merchants do in fact provide the support they say they do, the smallholder farmers interviewed were asked what they receive in terms of financial and input

support from their contracted leaf merchants. All smallholder farmers interviewed stated that support and loans have been consistently provided according to their contracts devised before the start of the season (Smallholder farmers 1-3, 2015, personal communication).

Tobacco is then bought by the leaf merchant from the contracted farmer and processed in factories belonging to the leaf merchant company according to the specifications of their customers (cigarette manufacturers) (Leaf merchant, 2015, personal communication). The processed tobacco is then distributed to cigarette manufacturers. For example, Alliance One International (AOI) owns a processing factory in Zimbabwe, Mashonaland Tobacco Company (MTC), where all tobacco purchased from AOI leaf merchants gets processed for export. MTC employs around 1000 workers and in the 2014 season purchased US\$79.9 million worth of tobacco, most of which came from contracted tobacco growers (TIMB, 2014). Cigarette manufacturers also have their own processing facilities in Zimbabwe and purchase unprocessed tobacco from the leaf merchants. Tobacco Processors Zimbabwe (TPZ) is owned by several cigarette manufacturers, including Northern Tobacco, Inter-continental Leaf Tobacco Company, Tribac and Classic Leaf. BAT also has a processing facility based in Zimbabwe.

Contracted tobacco growers are obligated to acquire agricultural insurance that will protect them against crop damage caused by weather (hail, drought or flooding) and insect damage. However, agricultural insurance does not cover against low crop yields due to man-made errors. Leaf merchants always attempt to renew contracts with existing tobacco growers who have performed well (Leaf merchant, 2015, personal communication). It is often the case that a permanent relationship and partnership is established, which, according to the leaf merchant interviewed, is a preferable way of doing business.

This type of contract line would fit into Baumann's (2000) resource based contract framework. This is because the leaf merchant provides inputs and financial capital, where the loans are deducted from the tobacco grower's income once the tobacco has been sold. Therefore, contract lines in tobacco farming in Zimbabwe would be referred to as contract growing, not contract selling, using the Moyer-Lee and Prowse (2015) terminology.

Some aspects of the contract system have been heavily criticised by smallholder tobacco growers in neighbouring African countries. This is especially the case in Malawi, a country that regards its tobacco industry as the backbone of the economy, with tobacco production

constituting 11 percent of Malawi's GDP and 60 percent of its foreign exchange earnings (Chinele, 2015). Malawian smallholder tobacco growers have complained that tobacco prices have not recovered from their steep drop of 50 percent to US\$0.92 per kilogram in 2011. Although the price doubled to US\$2.03 per kilogram the following year it has dropped steadily by 14 percent to US\$1.75 per kilogram in the 2014 season. This has made paying back loans almost impossible for many smallholder tobacco growers, keeping them in a cycle of increasing debt (Chinele, 2015). Also many farmers have complained that the rejection rates of farmer's tobacco are high, therefore many farmers are unable to obtain revenue from their tobacco. This makes repaying loans difficult. They lay the blame on the integrated production system (IPS), which they believe buyers are forcing on them and yields exploitatively low prices (Chinele, 2015). The core function of the IPS is to ensure blue chip cigarette manufacturers better quality control and that tobacco produced meets compliancy measures. However, tobacco growers have argued that the system has become problematic, as loans have become costly to pay back, and there have been disagreements with prices and high rejection rates (Chinele, 2015). Some farmers receiving loans in the forms of inputs are not informed how much they will owe, as well as the interest rate (Chinele, 2015). Therefore, the issue of farmers of being caught in structural debt is caused by a combination of the lack of the recovery of low prices and the misinformation between the farmer and the leaf merchant.

However, this does not seem to be as big a problem in Zimbabwe. Between 2011 and 2014 tobacco prices under contract lines have averaged at US\$3.43 per kilogram. According to the Tobacco Board (2014) between 2004 and 2014 Zimbabwe achieved the second highest price for tobacco per kilogram on average in the global tobacco market. Zimbabwe averaged US\$2.81 per kilogram and the US averaged US\$3.83 per kilogram between 2004 and 2014.

This is supported by a study done by Sibindi (2012) who investigated the impact of contract farming on smallholder tobacco growers in the Mashonaland Central Province on Zimbabwe. Sibindi (2012) summarised the loan recoverability trend from 2007 and 2010 by three agribusiness firms involved in tobacco contract growing. Data was collected from both the smallholder tobacco growers (demand side) and the contracting firms (supply side). It was found that during the four year period there was an improvement in recoverability of loans, as the default rates fell significantly (Sibindi, 2012: 51). According to Sibindi (2012) the Mashonaland Central Province had a default rate of 5 percent.

However, one of the farmers interviewed did point out that it has been known that other smallholder tobacco growers under contract lines have failed to repay loans (Smallholder farmer 2, 2015, personal communication). Sibindi (2012) cites a mixture of cases from before 2010 where default rates were as high as 50 percent in many tobacco growing provinces in Zimbabwe.

All farmers interviewed stated that paying back loans was initially difficult, but after a period of time they were better able to meet their commitments (Smallholder farmers 1-3, 2015, personal communication). They argue that they have received fair prices and have thus been able to avoid defaulting on loan repayments. According to smallholder farmer 3 (2015) the compliancy requirements have helped encourage their operation to produce a better quality leaf and thus receive a higher price (Smallholder farmer 3, 2015, personal communication). Smallholder farmer 3 (2015) also added that by using inputs provided by the leaf merchant, such as environmentally friendly fertiliser, the tobacco he is growing will be sold to a large cigarette company that only demands high-quality tobacco blends. This means that a higher price (compared to auctioned, non-contracted tobacco) will be received.

However, there are still possibilities where smallholder tobacco growers could be exploited in Zimbabwe in terms of social upgrading. As explained in Section 3.8 social upgrading is largely determined by wages, which are often determined by the outcome of a bargaining process between two parties. In this case the process would occur between leaf merchants and the tobacco growers. The outcome is determined by the relative strength of the two sides. Since leaf merchants have a mandate from the cigarette manufacturers to procure a tobacco leaf that has to meet certain quality standards they have more knowledge of what is deemed 'good quality' and thus have more power in determining price. This results in an imbalance in the bargaining power between the two parties in favour of the leaf merchant. Therefore, the leaf merchants have a greater say in the price of the tobacco leaf, which could be argued to lead to exploitation of smallholder tobacco growers.

Between 2004 and 2014 the US has experienced consistent average prices, whereas in Zimbabwe prices remained low until 2010 when production levels increased significantly from 59 million kilograms in 2009 to 123 million kilograms in 2010. Initially low prices (along with production levels) followed the land reforms of 2001, where skilled, white commercial tobacco growers had their farms expropriated and in several cases were replaced with less experienced,

less skilled smallholder tobacco growers who were unable to produce quality tobacco that could fetch higher prices (Smallholder farmer 1, 2015, personal communication) However, as time went by, these smallholder tobacco growers gained some experience and vital skills to produce successful crops that could achieve higher prices.

All of the farmers interviewed did not raise prices as an issue, with Smallholder farmer 3 stating that they are satisfied by the fact that they receive higher prices compared to those usually offered at the auction floors (Smallholder farmer 1-3, 2015, personal communication).

According to TIMB (2014) there are currently 12 main leaf merchant companies operating in Zimbabwe, which has made the purchase of quality tobacco a relatively competitive arena. Leaf merchants compete to get the best growers in a contract; however leaf merchants still purchase tobacco on the auction floors from uncontracted tobacco growers as they are not restricted to purchasing all their tobacco under contract lines (Leaf merchant, 2015, personal communication). There are always seasons where a leaf merchant can purchase good quality tobacco and/or purchase tobacco at good prices. Tian Ze Tobacco Company, a subsidiary of China National Tobacco Company, is the largest leaf merchant operating in Zimbabwe due to its significantly larger budget relative to other leaf merchants to spend on contracts and purchase tobacco on the auction floors (Khumalo, 2014: 46).

#### 6.5.5 Pricing structure between leaf merchants and tobacco growers

Prices for contracted tobacco are directly linked to the price per grade paid on the auction floors the previous day (Leaf merchant, 2015, personal communication). TIMB collates the prices per grade from the auction floors and distributes the price matrix to all stakeholders. This is the basis for pricing for various contract sales. A TIMB representative will always be present on the auction floors to arbitrate. The price matrix is used as a minimum price for contracted tobacco. Prices in contract lines can exceed the TIMB price matrix, which is often the case, especially for top quality tobacco.

#### 6.6 Governance type between leaf merchants and tobacco growers

The buyer-driven nature of the relationship between cigarette manufacturers and leaf merchants has a significant impact on the governance by leaf merchants of tobacco growers at the bottom of the value chain. Cigarette manufacturer demands for specified grades of tobacco force leaf merchants to acquire advanced processing technology and machinery. It also forces them to

integrate backwards to a certain extent into the growing of tobacco. This is where the tobacco value chain governance structure becomes disjointed. For a good quality tobacco leaf one needs to use the correct farming methods and inputs to guarantee that quality is reached. In order to increase the chances of meeting their customers' specifications leaf merchants have taken active steps to ensure that the tobacco grower uses the best inputs and farming methods. This is done through the provision of very particular fertiliser, seeds and pesticides, as well as regular visits to the farm to oversee and assist production. If the tobacco growers fail to produce a successful crop then the contract for the next season is not renewed. The leaf merchant's management of the growing process is indicative of a hierarchical governance structure between the tobacco grower and the leaf merchant.

This hierarchical governance structure between leaf merchants and tobacco growers is also determined by the increasing pressure blue chip cigarette manufacturers face from governments and international institutions to use environmentally-friendly and consumer-friendly inputs throughout production. Various health and social issues also have to be addressed, such as farmers contracting green-leaf sickness and the use of child labour on tobacco farms. This explains why leaf merchants provide certain fertilisers and chemicals to their contracted tobacco growers. It could also explain the regular seasonal visits to the farm by leaf merchant area managers and technicians, to see whether tobacco growers are abiding by GAP measures. The nature of the modular governance structure between the cigarette manufacturer and the leaf merchant leaves the responsibility for preventing and addressing these issues to the leaf merchant. To fulfil these compliance and traceability requirements leaf merchants have to manage the bottom segment production process. This provides another reason for the hierarchical nature of the relationship between leaf merchants and tobacco growers.

## 6.7 Conclusion

The chapter began an investigation of the governance structure of the Zimbabwean tobacco value chain by identifying the lead firms at the top of the value chain. These consist of large, multinational cigarette manufacturers, with BAT having the most influence in the Zimbabwean tobacco market. An important factor of how lead firms influence the Zimbabwean tobacco value chain is the compliancy requirements that are demanded from leaf merchants, as a way for lead firms to maintain good relations with governments, global institutions and the public. The GAP requirement for tobacco growers is a key example of how cigarette manufacturers have significant influence in the Zimbabwean tobacco value chain.

The next section discussed the type of governance structure in the Zimbabwean tobacco value chain. It was found that there are two types of governance: modular and hierarchical governance. Modular governance exists where cigarette manufacturers contract leaf merchants to purchase tobacco either from the auction floors or from tobacco growers they contract themselves. In the hierarchical governance structure some cigarette manufacturers have vertically integrated backwards into the tobacco growing segment of the value chain.

Section 6.5 investigated and discussed the buying process between the leaf merchant and the tobacco grower. Problems regarding the Zimbabwean tobacco growing industry were presented. The most interesting issue that was highlighted was the lack of financial support from local banks and government for smallholder tobacco growers. This led to the discussion on contract growing and the possibility that it could provide a solution to the financial constraints of smallholder tobacco growers. Various definitions and types of contract growing were discussed, based on Baumann (2000); Roy (1972) and Moyer-Lee and Prowse (2015).

The next section discussed the reasons behind the shift of smallholder tobacco growers from the auction floors towards contract lines. The major reasons behind the shifting trend were the financial collapse the Zimbabwean economy after the land reform programme in 2001, with hyperinflation and high interest rates. This made accessing finance from commercial banks virtually impossible for smallholder tobacco growers, encouraging the shift to contract lines where there was better access to financial support.

The role of leaf merchants was then discussed, explaining how the contract system works between leaf merchants and tobacco growers. The discussion was orientated towards the objectives of leaf merchants and what processes and steps are taken when contracting a tobacco grower. The main process included providing financial loans, inputs and extension services to contracted tobacco growers. The smallholder farmers interviewed confirmed these processes and guarantees.

This led to the identification of the governance structure between leaf merchants and tobacco growers. The buyer-driven and backward integrating nature of cigarette manufacturers has created a hierarchical governance structure between leaf merchants and tobacco growers. The next chapter investigates and discusses what implications this has for upgrading opportunities

for smallholder farmers. This will help to explore the broader developmental implications of the structure of the tobacco value chain in Zimbabwe.

## **Chapter 7: Smallholder tobacco growers and governance structure implications for upgrading**

### 7.1 Introduction

This chapter explores the influence of the governance structure discussed in Chapter 6 on upgrading prospects for smallholder tobacco growers in the Zimbabwean tobacco value chain. The chapter begins by outlining and emphasising the importance of smallholder tobacco growers in Zimbabwe (Section 7.2). Section 7.3 then considers smallholder upgrading opportunities, while Section 7.4 discusses the developmental implications for the broader Zimbabwean economy. Information from interviews and literature are used to support the argument.

Section 7.5 provides a final conclusion to the thesis, which will synthesise the aims and findings of each chapter and present the final findings of the thesis.

### 7.2 Importance of smallholder tobacco growers in Zimbabwe

The fast-track land reforms benefitted smallholder farmers in Zimbabwe, who are now the leading suppliers of livestock, food crops and cash crops (Masvongo *et al*, 2013: 295). This indicates the importance of smallholder farmers in Zimbabwe in ensuring food security and contributing significantly to exporting cash crops, such as cotton and tobacco. The Zimbabwean tobacco growing landscape is dominated by smallholder tobacco growers, as noted in Section 5.2.3. The significant presence of smallholders in tobacco growing emphasises the important role they play in the Zimbabwean tobacco value chain.

According to ZimStat (2012) smallholder farmers are currently the major source of employment in rural areas in Zimbabwe, consisting of around 28 percent of the grower class (combining A1 and small-scale commercial growers). As noted in Section 5.2.4, tobacco production has been singled out as a major contributor towards agricultural exports (at 61 percent of total agricultural exports), as well as overall national exports (25 percent of total national exports). Due to the labour intensive nature of tobacco growing, the tobacco farming industry is the leading employer in Zimbabwean agriculture. As discussed in Chapter 6, contract lines between leaf merchants and smallholder tobacco growers have enabled smallholder tobacco growers to attain inputs and financial capital.

It could be argued that because tobacco growers are shifting towards contract lines and are able to access vital inputs and financial loans, contracted smallholder tobacco growers could increase their income and create more jobs in the surrounding rural areas. As noted in Section 1.3.1, it can be argued that agricultural growth and growth in the Zimbabwean smallholder tobacco growers industry will have strong linkages into other industries, such as the manufacturing of fertiliser, farm equipment and tobacco seeds. These activities are located higher up in the horizontal tobacco value chain. It could then be argued that this in turn would boost the agricultural sector and thus contribute to sustainable economic and social development in the rural Zimbabwean landscape. However this is dependent on the governance structure of the tobacco value chain. According to value chain literature, governance plays a crucial role in upgrading opportunities (see Section 2.4).

### 7.3 Smallholder upgrading opportunities

The way in which lead firms (cigarette manufacturers) demand a certain high grade quality of tobacco through leaf merchant-tobacco grower contract lines is a prime example of how they govern the tobacco value chain in Zimbabwe, as noted in Sections 6.3 and 6.4. The insistence by lead firms that tobacco be grown under compliance and traceability measures, including the use of environmentally-friendly fertiliser, and prohibitions on the use of banned chemicals and child labour on tobacco farms, is also a strong indicator of how top cigarette manufacturers coordinate and control the tobacco value chain.

Product upgrading can be achieved in the Zimbabwean tobacco value chain. As discussed in Section 2.4.2, this type of upgrading occurs when firms shift into more sophisticated product lines or produce a product of higher quality, and therefore higher value. There exist two variations of tobacco which can be seen as two differentiated products: tobacco sold via the auction floors and contracted tobacco. Auction floor tobacco would be considered as the “standard” tobacco. Contracted tobacco, on the other hand, has to be of a higher quality demanded by the cigarette manufacturers (and therefore the leaf merchants) and its production processes and inputs are closely monitored. These distinctions are drawn from the findings of Moyer-Lee and Prowse (2015) in their study of the Malawian tobacco value chain.

Most importantly though, contracted tobacco is differentiated from standard tobacco because it will always either match the average price reached on the auction floors or it will exceed it. According to the leaf merchant that was interviewed, the contracted tobacco price usually

exceeds the average auction floor tobacco price. Agricultural-based value chain theory suggests that an agricultural product of a higher grade and thus higher price would differentiate itself from the conventional product, as noted in Section 2.4.2. Therefore, contracted tobacco has sufficiently different characteristics to be differentiated from standard tobacco.

Growing tobacco under a contract line with a leaf merchant can be argued to represent product upgrading. Contracted tobacco is of greater value to the top cigarette manufacturers, as they can process that tobacco into their top, high-earning cigarette brands, such as Marlboro, Peter Stuyvesant and Kent. Switching from growing standard tobacco to contracted tobacco can therefore be considered as product upgrading. If a tobacco grower were to sell on the auction floor and then change to selling their tobacco on a contract line then it could be argued that they would obtain a higher price and earn a higher income, attaining a greater value of the tobacco value chain (Section 2.4.2).

It could be argued that contracted tobacco growers can achieve process upgrading through the support given by the leaf merchant. As discussed in Section 2.4.2, process upgrading refers to upgrading that results from firms using and transforming inputs more efficiently. When under contract, leaf merchants should send a leaf technician to the contracted tobacco grower's farm on at least five occasions each season to provide technical support. It can be argued that in this way there is a transfer of knowledge regarding more efficient use of inputs and the tobacco growers' time, reorganising the production system. In addition to this knowledge transfer, it would be in the best interest of the leaf merchant to provide the most advanced farming technology and inputs in order to yield a higher quality crop. The provision of technical support and appropriate inputs would achieve process upgrading for the smallholder tobacco grower.

Improved performance in the form of crop yield is another characteristic of process upgrading. Contracted tobacco growers seem to perform better than non-contracted tobacco growers in this regard. Moyo (2014) conducted a survey in the Mazowe district of Zimbabwe in order to compare yield performance between contracted and non-contracted tobacco growers. It was found that contracted tobacco growers achieved a much higher yield per hectare compared to non-contracted tobacco growers. ANOVA tests were done over a five year period on tobacco grower production. Results suggested that because contracted tobacco growers had access to inputs, extension services and working capital they achieved higher production than non-contracted tobacco growers. Most non-contract tobacco growers did not have access to these

services. The 35 percent of non-contracted growers that did have access had to rely on government extension services (Moyo, 2014: 52). Contracted tobacco growers were provided with loans, while non-contracted tobacco growers either had no access or had to rely on their own savings. The advantage of having access to inputs, loans and extension services is that it produced a higher quality crop and thus fetched a higher price. Those tobacco growers without this advantage turned to using inputs of lower quality. They did not meet lead firm compliance and traceability measures, leading them to produce a lower quality crop and thus fetch far lower prices.

According to Chikukwa and Chimbwanda (2013) contracted tobacco growers achieve a yield of 1988 kilograms of tobacco per hectare compared to a yield of 1296 kilograms per hectare achieved by non-contracted tobacco growers. Since contract lines allow tobacco growers to gain access to inputs, loans and extension services they are able to utilise land and labour more fully, resulting in better yields and quality. Chikukwa and Chimbwanda (2013) also point out that, when introduced to a more efficient input market, tobacco growers have access to efficient inputs at a lower price.

In the case of smallholder tobacco growers who only have a hectare to work with, this is a significant difference, especially when contracted tobacco growers are receiving a much higher price than non-contracted tobacco growers. Smallholder tobacco growers under contract lines have a better chance receiving a higher margin, and thus income, on their tobacco yields. Therefore it could be argued that the governance structure in a contract-based relationship between leaf merchants and smallholder tobacco growers enables the possibility of both product and process upgrading.

#### 7.4 Implications for development

The Zimbabwean tobacco value chain has been investigated under a GVC framework. The discussion suggests that a GVC approach has important implications for the economic and social development trajectories of poor countries. As discussed in Chapter 2, many developing countries have looked at their insertion into GVCs as a possible solution towards alleviating poverty and unemployment, as it combines both an industrialisation and development through agriculture approach. Zimbabwe's tobacco value chain does have a number of positive implications for future development.

It is clear that the tobacco value chain plays a crucial role in Zimbabwe's economy, due to its long historical prevalence and its significant contribution to GDP. Tobacco production constitutes 8 to 10 percent of total GDP and around 25 percent of total agricultural exports. Export quantities have increased steadily since 2008, bringing in much needed foreign exchange. A large number of people are employed in the tobacco industry, accounting for 33 percent of the total active workforce in the country (Moyo, 2014: 3). The number of tobacco growers has increased significantly since the fast-track land reforms. There were around 5000 large-scale commercial and smallholder tobacco growers in 2000. In 2014 there were around 91000 tobacco growers, most of whom are smallholders (see Section 5.2.3). The state also earns an income from the tobacco industry through taxation and levies on the product.

Due to dependence on tobacco production in Zimbabwe, it can be argued that shifting away from this industry will be difficult and take a long period of time. Many Zimbabwean tobacco growers might also be reluctant to shift into other agricultural practices, because there is still a major demand for tobacco products globally. This is especially due to the growing demand in China and the unchanged smoking culture in countries like Germany and Japan. The decrease in cigarette demand in many developed nations has been offset by the increase in demand in other emerging economies and continued demand in some developed countries. This means that tobacco will remain a relevant, though controversial, industry over the long term.

The Zimbabwean tobacco value chain seems to have a large, concentrated blue chip presence, as 90 percent of the market is comprised of BAT, as noted in Section 6.2. The other 10 percent is mostly made up of other blue chip companies, such as JTI/Gallaher and PMI, as noted in Section 6.2. This is due to the nature of buyer-driven chains, which are highly concentrated and protected by high barriers to entry. The GVC framework used in this thesis emphasises the increasing power that large, international cigarette manufacturers have over upstream suppliers (leaf merchants) and how this power is wielded along the Zimbabwean tobacco value chain. Blue chip cigarette manufacturers demand high quality tobacco in order to produce premium, high quality blend cigarettes. The demand for new tobacco has increased the need to contract more tobacco growers, as contracted tobacco growers are a more reliable source of good quality tobacco. The increasing number of contracted tobacco growers in Zimbabwe is indicative of this demand. Essentially this creates a whole new market for new tobacco and creates opportunities to obtain higher prices and income. With 56 percent of tobacco growers selling

tobacco via contract lines, there is still scope for other tobacco growers to upgrade into these lines.

However, an important question to consider is what this means for those tobacco growers who have not reached the levels of efficiency that would allow them to be considered as “contractable” by leaf merchants. According to Moyer-Lee and Prowse (2015) there still exist smaller cigarette manufacturing companies that do not have as strict compliance and traceability measures as the larger cigarette manufacturers. They also do not have such a strong demand for high quality tobacco. There are still buyers in the lower end of the market (on the auction floors) that will “mop up” any grade of tobacco (Moyer-Lee and Prowse, 2015: 165). Leaf merchants use both the contract and auction market to purchase their tobacco, as high quality tobacco at low prices can still be found on the auction floors. Therefore tobacco growers will always be able to sell the tobacco they grow, but they may receive very low prices and attain a low income for their efforts. However, according to TMA (2014), Zimbabwe has the second highest average price per kilogram of tobacco. In the 2014 season tobacco sold at between an average of US\$3.01 and US\$3.17 in Zimbabwe, coming second only to the US, which sold at an average of US\$3.80 per kilogram.

Contract farming has become popular amongst tobacco growers in Zimbabwe and, as noted above, it comprises a significant amount of total tobacco production. It seems that many tobacco growers are shifting towards contract lines in an effort to obtain funding and support that they do not get from the state or from other financial and agricultural institutions. The rise in popularity of contract lines may also be explained by the increasing compliance and traceability specifications instituted by cigarette manufacturers, especially the blue chips. As explained in Section 6.5, for leaf merchants to meet these demands they have to vertically integrate themselves into the production process of growing tobacco. It could be argued that the demand for high quality tobacco by blue chip cigarette manufacturers can also be seen as a basis for leaf merchants to turn to contract farming, so that they can increase their chances of acquiring grades of tobacco specified by their customers.

This has a number of implications for the development of tobacco growers. Firstly they have a better chance of growing a successful crop, as they receive agricultural inputs, financial capital and technical assistance. According to the leaf merchant interviewed, leaf merchants rely on their contracted tobacco growers to produce a high quality leaf and at the same time abide by

the strict compliance and traceability measures set out by their customers, most of which are blue chips. Being able to procure loans at much lower interest rates compared to local commercial banks makes financial access easier for tobacco growers. It can then be argued that they can acquire the resources they need to yield a good quality and maximum quantity crop.

It can be argued that the provision of inputs and extension services has positive implications for the tobacco growers' development. Many tobacco growers do not have complete knowledge of the best and most suitable inputs to use when considering compliance measures. With leaf merchants having to know their customers' compliance specifications they provide the suitable inputs to the tobacco grower. This narrows any information asymmetries between the tobacco grower and the leaf merchant. Furthermore, by providing certain inputs and extension services it can be estimated by both the tobacco grower and the leaf merchant what quality the tobacco leaf will be. This lowers the chance of disputes over the grade and price of the tobacco leaf between the leaf merchant and tobacco grower. There is far more assurance of what the estimated price will be.

It has been argued that the provision of this support by leaf merchants gives the tobacco grower an increased chance of achieving product and process upgrading. Leaf merchants have been forced to increase their investment into research on GAP, so that they learn what the best seeds and fertilisers to use are, for instance, or how plants are to be watered in the most efficient way. It is in the best interests of the leaf merchants to apply the most efficient and sustainable methods of tobacco growing with their contracted tobacco growers, which will obviously be to the benefit of the tobacco grower. The application of these GAP measures and policies will assist the tobacco grower in yielding a high quality crop, which will be sold in a specialised product line (premium blend cigarettes).

Improvements in the quality and quantity of the tobacco yield will result in higher incomes for the tobacco grower, which will in part be spent in the surrounding rural area. This will have a multiplier effect on other industries, due to strong agricultural linkages. By modernising and achieving efficiencies on tobacco farms there will be more of a demand for other goods and services in the surrounding areas. This should attract and stimulate economic activity in the area, thereby benefitting other industries and participants in those industries. Poor rural landscapes could achieve significant developmental and general welfare benefits. It can be

argued that leaf merchants have to some extent taken over the “development” role, which would normally be undertaken by the state or private investors.

Contract lines in tobacco growing arguably create a “win-win” situation for both the leaf merchant and the tobacco grower, especially for smallholder tobacco growers. Leaf merchants are able to have access to a guaranteed supply of tobacco at good prices without having to take over large tracts of land and undertake the production process themselves. Other than receiving inputs and extension services, smallholder tobacco growers have a guaranteed market and are linked into a GVC without having to achieve this on their own.

A problem arises regarding how tobacco growers are selected. Leaf merchants contract tobacco growers based on past performance. Smallholder tobacco growers often have poor access to inputs and financial capital and incomplete knowledge of achieving efficient farming techniques, since many of them are new to the industry and are poor to begin with. This may compromise their ability to have a record of producing a successful crop. They would also have had to borrow money from commercial banks that charge high interest rates and struggle to repay loans, causing them to have a poor history of debt repayment. These factors limit their chances of being contracted and receiving the support they need. Development in these rural areas that are dominated by smallholder tobacco growers may thus be adversely affected, with a resulting cycle of rural poverty.

Another factor that has a positive implication for development relates to one of the core arguments for development through agriculture, namely that by modernising farming food supply will increase significantly and force food prices down (see Section 1.3.1). This will provide cheap food for urban workers and thus increase their disposable income to be used towards other crucial expenditure, such as education and health, stimulating the economy even further. Although tobacco is not a food product, leaf merchants provide food staple seeds by and encourages tobacco growers to grow food crops. This would occur during the off seasons, as a way to earn an additional income and ensure food security to the tobacco grower and the surrounding rural community.

Despite technical assistance for growing these crops tobacco growers are not specialised in growing a successful food crop. There are instances in which tobacco growers would prefer to let their harvested tobacco fields lie fallow in order to regain nutrients for the next season

(Smallholder farmer 1, 2015, personal communication). It can be argued that even if food crops are set aside in a separate plot it will likely not be enough to supply a rural community and suppress food prices.

Despite this, the tobacco industry in Zimbabwe does include segments higher up the tobacco value chain than just tobacco growing. Many local and some international leaf merchants base their processing factories in Zimbabwe using local employees. The processing segment is located at the upper stages of the tobacco value chain and thus a higher share of the value chain is retained in the local economy. BAT also has a cigarette manufacturing facility in Zimbabwe, a segment of production that is located at the top of the chain. However, these industrial activities are small, as over 98 percent of tobacco that is exported is merely processed tobacco that has yet to be manufactured into a final product. This implies that a major part of the value of the tobacco value chain lies outside the Zimbabwean economy.

## 7.5 Conclusion

This thesis commenced the discussion of the Zimbabwean tobacco value chain governance and implications for upgrading and development by engaging with broad economic theories of development. Industrialisation and development through agriculture have been at the forefront of debates regarding Africa's development. Chapter 1 aimed to present these opposing views and discuss them in the light of African countries' pursuit of economic and social development trajectories.

Industrialisation's main premise is an economy's movement or shift away from agricultural and extractive industries towards industries that are value-adding, such as processing and manufacturing. The overall theoretical result in this shift towards value-adding activities includes increases in productivity and increased incomes.

However, in the African context industrialisation attempts have experienced adverse effects in some cases. McMillan *et al* (2013) found that broad patterns of structural change decreased rather than increased economic growth between 1990 and 2005. This was primarily due to the design and implementation of state policy, as well as how the continent integrated into the global economy. However, there are some African countries that have benefitted from structural change since the early 2000s. Various economic and political conditions, such as the competitively cheap labour and more stable political environments, have made foreign

investors more willing to invest in certain African countries in labour intensive manufacturing. For instance, Lopez (2014) found that inward investment into Africa has been growing at a 32.5 percent compound rate since 2007.

On the other hand, it has been argued that development through agriculture should be the developmental trajectory due to the continent's abundance of arable land and suitable climate for agricultural production. Development through agriculture refers to the modernisation of agricultural activities. With reference to the "Green Revolution" that occurred in Europe during the 1940s and 1950s and in Asia during the 1960s and 1970s, theorists have argued that agriculture should be the initial engine of growth. It has also been argued, most notably by Bezemer and Heady (2008), that developed countries became advanced by reaching productivity gains in agriculture in the early stages of development. Higher growth linkages in agriculture compared to other sectors, such as manufacturing have been emphasised by some theorists, as has the sector's role in developing rural areas. Most African countries are dominated by rural, smallholder farms and for some African countries agriculture consists of a third or even two-thirds of GDP. A study by Diao *et al* (2009) on six different African countries found that agricultural growth was more effective than industry-led growth in reducing poverty.

However, it was argued that development through agriculture will not be substantial enough to reduce poverty, because the global economic environment since the "Green Revolution" has changed significantly. Focusing on agriculture in order to stimulate growth might be less relevant for contemporary Africa. It has also been found that non-farming activities generate more income than farming activities and many rural dwellers in Africa attain most of their income from non-farm activities.

The possible reduced relevance of development through agriculture could be due to its inability to take the context of globalisation sufficiently into account. However, globalisation should be taken advantage of, considering that it includes the significant advancement of communications and transport. These features have enabled multinational corporations to perform business operations on a global scale. Since the late 1980s and early 1990s different production processes can take place in different regions or countries. This has led to the emergence of GVCs, which could provide an alternative developmental trajectory for African countries, including strategies both to boost industrialisation and modernise agricultural production. This

could essentially combine the benefits of industrialisation strategies and development through agriculture.

Chapter 2 expanded the analysis and discussion of GVCs and their implications for development. The chapter aimed to define and discuss value chain theory, eventually focusing the analysis on GVCs in particular. With reference to the work of Porter (1985; 1990) and Gereffi and Fernandez-Stark (2011) the chapter began by presenting a brief explanation of value chain theory. This then led to the investigation and discussion of two core value chain concepts: governance and upgrading.

Value chains are defined as a full range of production processes of a good or service with each segment of the production process adding value to the particular good or service. GVCs, on the other hand, refer to a value chain of a good or service that is globally dispersed. This led to the top-down analysis of value chains, which included the analysis of governance. These value chains are “governed” by participants located at a particular point of the chain, usually at the top segment of the value chain. Governance refers to the structural organisation of participants and how participants and resources are allocated and organised along the value chain. It was found that there are five variations of governance, including market, modular, relational, captive and hierarchical governance structures.

Section 2.5 then provided a bottom-up analysis on how governance influences prospects for upgrading. In a GVC framework upgrading refers to how firms or participants can shift-up the value chain into segments located above the segments they operate in. Here, participants or firms can achieve a higher share or greater value within the chain. There are four different types of upgrading, including process, product, functional and intersectoral or chain upgrading. However, different forms of governance produce different prospects for upgrading. The question of what type of governance and thus upgrading opportunities exist in agricultural-based value chains was therefore discussed.

Before analysing agricultural-based value chains, the various approaches to value chain analysis were discussed in Chapter 3 in order to understand better the frameworks under which agricultural-based value chains are analysed. The first section described the first two approaches to value chain analysis. These include world systems theory based on the work of Wallerstein (1974) and Hopkins and Wallerstein (1986), as well as value systems theory drawn

from the work of Porter (1990). The chapter then expanded on these initial theories by discussing more complex and contemporary value chain analysis approaches, beginning with the global commodity chain approach developed by Gereffi and Korzeniewicz (1994). This approach linked the concepts of value-adding chains and trends in the globalisation of firms and industries. However, this approach only focused on manufacturing value chains, resulting in the development of GVC analysis that included all types of globally dispersed value chains.

This led to the discussion of various other specialised approaches, primarily drawing on the works of Trienekens (2011). These approaches included new institutional economics (NIE) transaction cost economics (TCE) and agency theory branches, followed by the social network approach. The chapter then explained how Trienekens (2011) combined certain aspects of each of the four specialised approaches to construct a framework for GVCs in a developing country.

Chapter 4 presented and discussed literature that analysed agricultural-based value chains. The chapter aimed specifically to discuss how agricultural-based value chains have changed in terms of governance between the period 1930 to the 1980s and the period of the 1990s to 2000s. This chapter emphasised the work of Gibbon (2001) who analysed the changes in tropical agro-commodity chains using a GCC and a Convention Theory framework. Various case studies of agricultural-based value chains in African countries were used to illustrate and discuss these shifts.

It was found that the trend towards liberalisation and the collapse of key international and national agricultural regulatory institutions had a significant impact on the structure and organisation of agricultural-based value chains in African countries. These agricultural-based value chains have shifted from being producer-driven to buyer-driven value chains. This has changed the governance structure, as formerly the producers had the most power, but currently lead firms located at the end of the agricultural-based value chains have attained most of the influence within the value chain. These often include foreign multinational corporations and foreign exporters and traders. The change in governance structure has also changed prospects for upgrading in such a way that in most cases producing economies can only achieve process and product upgrading.

Following the discussion of the various agricultural-based value chain case studies in Africa the analysis was further narrowed to the Zimbabwean tobacco value chain. Chapter 5

introduced the empirical section of the thesis by presenting a tobacco profile of the country, similar to the South African tobacco profile compiled by DAFF (2013). Statistics presented covered the period between 2004 and 2014. The aim of this chapter was to analyse how much the tobacco industry in Zimbabwe has changed and what trends exist. Five core areas of the Zimbabwean tobacco industry were investigated, including domestic production and its share of global production levels; domestic prices; the number of tobacco growers; value chain employment; and international trade (imports and exports).

The governance of the global tobacco value chain was then discussed. The aim here was to provide a background of who the leading firms are and thus who has the most influence in the global tobacco value chain. This would give an indication of how the governance of the Zimbabwean tobacco value chain is structured.

In terms of tobacco production levels it was found that Zimbabwe has experienced a significant fluctuation in production during the past decade. In the year 2000, a record tobacco production level of 200 million kilograms was reached, but this fell to a low of 49 million kilograms in 2008. Tobacco production has made steady increases since 2008 and in 2014 tobacco production reached 216 million kilograms. During this time period prices per kilogram of tobacco have also risen steadily. The TIMB (2014) report revealed that contracted tobacco growers received higher prices than those who sold on the auction floors.

One of the largest changes in the Zimbabwean tobacco industry is the variation in the number of tobacco growers. In 2000 there were 5000 registered tobacco growers, 1600 of those being large, white-owned commercial entities. In 2014 there were 106456 registered growers, most of whom are smallholder tobacco growers. These smallholder tobacco growers are typically categorised in four classes: A1, A2, communal and small-scale commercial, and 66 percent of these growers sell their tobacco under contract lines.

The chapter then looked into employment in the Zimbabwean tobacco value chain. It was noted that the Zimbabwean value chain supports a significant number of people, as farmworkers that were employed supported a wide network of dependents.

International trade of Zimbabwe's tobacco was discussed. The main findings include the increase of tobacco exports, alongside tobacco value, between 2004 and 2014. China was the

largest export destination and offered the highest export prices. Zimbabwe also imports tobacco, mainly from Zambia, which mostly exports unprocessed tobacco.

It was interesting to note in Section 5.2.6 that there is an uneven spread of value in the cigarette value chain process. It was found that the vast majority of the value lay with blue-chip cigarette manufacturers and the least amount of value with tobacco growers. This finding was based on the cost breakdown of a pack of cigarettes. Here, excise tax and VAT were included to establish the retail price of a pack of cigarettes. The amount that was made per stick by cigarette manufacturers was calculated, which assisted in establishing the value captured at the lower end of the value chain. It was found that cigarette manufacturers made a R1.37 per cigarette stick, while tobacco growers only made a R0.03-R0.05 per cigarette stick. Therefore, most of the money is made at the higher end of the value chain (by blue-chip cigarette manufacturers).

Section 5.3 analysed the global governance structure of tobacco. This section identified the top tobacco producing countries, cigarette manufacturing countries and cigarette consuming countries. Market share and the size of tobacco manufacturing companies were discussed, with the market share found to be highly concentrated.

The discussion of governance of the global tobacco value chain led into the discussion of the governance structure of the Zimbabwean tobacco value chain. Chapter 6 analysed and discussed the Zimbabwean tobacco value chain governance through a top-down and bottom-up analysis of the value chain. This included identifying and discussing objectives of lead firms in Zimbabwe; the leaf merchant-manufacturer contract system; the governance structure; and leaf merchant-tobacco grower relationship.

The lead firms of the Zimbabwean tobacco value chain consist of large, multinational cigarette manufacturers. BAT has the largest share of the Zimbabwean tobacco market of around 90 percent. Governance is directed and organised around compliancy requirements that cigarette manufacturers place onto leaf merchants who, in some cases, have to vertically integrate themselves backwards into tobacco production in the form of contract lines.

It was found that there exist two types of governance structure: modular and hierarchy. Modular governance exists where cigarette manufacturers do not purchase tobacco directly from tobacco growers, but from leaf merchants. However, some cigarette manufacturers have vertically

integrated themselves backwards to tobacco growing in an attempt to ensure that compliancy and GAP requirements are met, creating a hierarchy governance structure.

The discussion on the relationship between leaf merchants and tobacco growers raised a vital issue of the lack of financial access for tobacco growers. This led into the analysis of contract lines in Zimbabwe and the smallholder tobacco growers increasing trend away from the auction floors to selling under contract lines. Section 6.5.2 briefly explained the concept of contract farming and the various forms it takes.

The reasons why smallholder tobacco growers were shifting towards contract lines was discussed. The main finding was that the financial collapse after the land reform programme in 2001 caused hyperinflation and thus high interest rates, making financing tobacco growing either expensive or impossible. However, according to interviews with the leaf merchant and smallholder tobacco growers, leaf merchants have taken over the role of providing finance to tobacco growers who would normally access loans from commercial banks. In an effort to meet certain compliancy and GAP requirements and ensure a good quality tobacco leaf, leaf merchants also provide farming inputs, as well as extension services.

In the light of the discussion in Chapter 7, there are four primary conclusions. Firstly, contract lines between leaf merchants and tobacco growers may prove to be highly beneficial in maintaining good quality tobacco leaf, as well as more stable production levels and prices. It can be argued that this would increase the likelihood of smallholder tobacco growers achieving simultaneous process and product upgrading. Smallholder tobacco growers would also be linked into a GVC that would otherwise be difficult to achieve.

Although leaf merchants and tobacco growers are required to follow GAP that would ensure the sustainability of the farm and the environment, produce a more consumer-friendly product and prevent social problems, such as the use of child labour, this is only met to a certain extent. The issue of burning firewood for the curing process in curing barns is a vital concern. From what was revealed in the interviews and other literature most smallholder tobacco growers source their wood from indigenous forests, resulting in significant deforestation and environmental degradation, such as soil erosion. A key problem here is that although leaf merchants may encourage establishing woodlots or accessing alternative energy sources, they

do not provide any on-the-ground assistance or financing for this. This poses a threat to the sustainability of tobacco growing amongst smallholders, as well as the environment.

Secondly, the participation of leaf merchants who do business with a variety of customers ensures that all tobacco produced under contract lines in Zimbabwe will be bought. A guaranteed market for their produce will always provide some sort of income for the smallholder tobacco growers who are under contract. Another interesting point is the high demand for Zimbabwean flue-cured tobacco from the Chinese. It was revealed that the Chinese consumers have a specific preference for Zimbabwean tobacco blends. There is an increasing growth of Tian Ze leaf merchants contracting Zimbabwean tobacco growers and purchasing tobacco on the auction floors. This is encouraging for Zimbabwean smallholder tobacco growers, because China is the largest export destination and offers the highest prices (US\$7.88 in 2013 and US\$8.37 in 2014), as indicated in Section 5.2.5. The next highest export price is from Belgium, offering US\$4.42 in 2013 and US\$5.00 in 2014. The price difference between the two export destinations is significant. If Chinese preference for Zimbabwean tobacco continues and increases, it will benefit smallholder tobacco growers.

Thirdly, it could be argued that the rapid shift towards contract lines may increase the competition between leaf merchants, offering better prices and more support to smallholder tobacco growers. This may result in those smallholder tobacco growers who were previously looked over becoming contracted and receiving the support they need to modernise their operations.

Lastly, the tobacco value chain in Zimbabwe can promote some elements of industrialisation and development through agriculture through the fragmentation of production processes that are based in the local economy (processing and manufacturing factories). These upper rung segments are certainly not significant, but they do exist. However, a problem arises in the possibility of a GVC shifting to a different region or country. Section 2.2 states that segments of a GVC operate in countries or region that have a comparative advantage in that specific value chain segment. This implies that lead firms (cigarette manufacturers), such as BAT or PMI could relocate their tobacco processing facilities to a region outside of Zimbabwe if they feel that particular region has a better comparative advantage in the tobacco processing segment than Zimbabwe. This could have dire consequences and the Zimbabwean economy could lose

significant value, as well as employment. This would create unemployment and a reduction in foreign earnings, therefore negatively impacting on social and economic development.

Development through GVCs in the tobacco industry still needs to expand further in Zimbabwe, but as competition increases amongst leaf merchants then competition in the processing segment could be encouraged. Ultimately this would force current processing operations to become more efficient while more processing operations are established, employing more of the local population. Once a level of competition and efficiency has been achieved in the processing segment this could encourage the establishment of manufacturing facilities to compete with those, such as the BAT cigarette factory, retaining more of the value of tobacco production in the country.

These developments in the industry could help diversify the Zimbabwean economy away from simple tobacco growing and broaden the scope of the economy towards value-adding tobacco sectors, such as tobacco processing, cigarette manufacturing and processing of tobacco by-products that are currently insignificant or non-existent in the Zimbabwean economy.

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