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"Beyond the Sparkle"
Diversification of Mineral-rich Economies:
The Case of Botswana

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"I can do all things through Christ who strengthens me"
- Philippians 4:13

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Abstract

Botswana is known as Africa's growth miracle, having transformed from one of the poorest countries in the world at independence, into a middle-income economy in a short period of time. The country's success has been reliant on high revenues accrued from its diamond mining industry, however, government expects diamond production to decline rapidly in the next 10 – 15 years. Diamond depletion presents a threat to Botswana's economic growth, development and macro-economic stability, which has created the urgent need for economic diversification to be realised in the near future. This dissertation explores the concept and theory behind economic diversification for resource abundant countries. Country cases are reviewed alongside the literature on economic diversification, in order to build an analytical framework on economic diversification for mineral-rich economies. The drivers of diversification are classified under three themes: the environment enabling approach, the interventionist approach and the sector-driven approach. Botswana's efforts to diversify are evaluated against these themes, highlighting the prospects and barriers to success. The dissertation concludes that the quest for economic diversification is not an easy one, particularly in countries such as Botswana with single-resource dependence. Moreover, in order for Botswana to succeed, it will require a policy mix incorporating aspects of the three themes. The government of Botswana (GoB) must ensure that they develop an enabling environment to incentivise increased export development; they should invest in physical and human capital in order to facilitate private sector growth, and they should set policies and targets to support sectors that show potential to become internationally competitive.

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List of Acronyms & Abbreviations

AfDB	African Development Bank
BCP	Botswana Congress Party
BDC	Botswana Development Corporation
BDP	Botswana Democratic Party
BIH	Botswana Innovation Hub
BITRI	Botswana Institute for Technology Research and Innovation
BIUST	Botswana International University of Science and Technology
BMC	Botswana Meat Commission
BPC	Botswana Power Corporation
CEDA	Citizen Entrepreneurial Development Agency
Debswana	De Beers Mining Company Botswana
DTC	Diamond Trading Company
DTCB	Diamond Trading Company Botswana
EDD	Economic Diversification Drive
EEC	European Economic Commission
EPZ	Export Processing Zone
EU	European Union
FAP	Financial Assistance Policy
FCh	Fundación Chile
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GICO	Government Implementation Coordination Office
GoB	Government of Botswana
HDI	Human Development Index

IMF	International Monetary Fund
LEA	Local Enterprise Authority
MCM	Morupule Coal Mine
MFA	Multi-fiber Arrangement
MFDP	Ministry of Finance and Development Planning
MTI	Ministry of Trade and Industry
NDP	National Development Plan
NEPC	Nigerian Export Promotion Council
NHRDS	National Human Resource Development Strategy
NTX	Non-Traditional Exports
OECD	Organisation for Economic Co-operation and Development
OfD	Oil for Development
R&D	Research and Development
SACU	Southern African Customs Union
SOE	State Owned Enterprise
SSA	Sub-Saharan Africa
SWF	Sovereign Wealth Fund
TKR	Trans-Kalahari Railway
UN	United Nations
UNCTAD	United Nations Conference on Trade & Development
UNDP	United Nations Development Programme
US	United States of America
WEF	World Economic Forum

Chapter 1. Introduction

1.1 Background

Botswana is known as Africa's growth miracle, having transformed from one of the poorest countries in the world at independence, into a middle-income economy in a short period of time. Diamonds were discovered shortly after independence and through the foresight of the country's leaders, diamond revenues were used to drive economic growth and development. The country's success has since been reliant on high revenues accrued from the diamond mining industry, however, the government expects diamond production to decline rapidly over the next 10 – 15 years. Diamond depletion presents a threat to Botswana's economic growth and development, which has spurred on the urgent need for economic diversification to be realised in the near future. Economic diversification is the process of broadening the types of economic activity that a country is involved in, such that it is not dependent on a single sector or resource. It is not a simple process, especially for resource-abundant countries that have been dependent on a single resource for growth. This is the narrative that has inspired this research project, which looks to explore solutions to Botswana's economic diversification challenge.

Minerals are exhaustible and non-renewable in character. As in the case of Botswana, it is important that mineral-rich countries develop policies to ensure that the depletion of the resources is offset by a compensating increase in other forms of capital (Lange & Wright, 2002). Where this does not happen, countries can find themselves caught in a trap of over-specialisation, leading to resource dependence. According to the work of Solow (1974) and Hartwick (1977)[1], countries should; (1) ensure that the revenues from extraction are reinvested to offset depletion; and (2) ensure that alternative investments are at least as productive as the mineral assets they replace. These principles are at the core of economic diversification theory.

The dissertation seeks to explore the literature surrounding economic diversification in resource abundant countries, particularly mineral-rich economies. This will be done in order to evaluate Botswana's prospects for diversification away from its dependence on

[1] The work of Solow (1974) and Hartwick (1977) as cited in Lange and Wright (2002)

diamonds. In order to do this, the paper starts with an in-depth exploration of diversification as a concept. The goal is to build a foundational understanding of economic diversification, the drivers of diversification as well as the potential benefits or challenges. This is done in the form of a literature review, which is organised according to three schools of thought: the enabling environment, the interventionist approach and the sector–driven approach. Together these themes help to establish an analytical framework through which the measures to diversify can best be understood. Following this, the paper will focus on Botswana as a case study, providing a brief overview of the country's economic history, its growth trajectory and the development of the diamond sector as the dominant sector and driver of economic growth.

The dissertation will then outline the country's efforts at diversification thus far, providing an overview of the policies for diversification as well as the direct interventions implemented. This will act as the foundation for the analysis of the country's prospects for diversification. Botswana's diversification efforts are evaluated against the theory of diversification, and it is argued that successful diversification would be best realised by using a combination of enabling environment, interventionist and sector-driven approaches. The dissertation concludes by highlighting that for Botswana to grow, the GoB will have to better commit to its outward-oriented growth strategy, which is dependent on exports. This will require improvements to the macroeconomic environment in order to build an enabling environment for private sector industries to grow. Government must continue to invest in human and physical capital in order to provide inputs to enhance economic growth. At the sector level, Botswana should focus its efforts on promoting the service sector, which has experienced dynamic growth in recent years. Large opportunities exist in tourism, there is potential to develop a knowledge economy particularly off the back of the country's mining experience and finally, further exploration should go into the coal mining industry which has the potential to build a new export market for the country.

1.2 Research Questions and Methodology

This research is driven by the urgency to diversify Botswana's economy away from diamonds. It looks to develop a holistic view of economic diversification from both a theoretical and practical perspective. The dissertation thus aims to address the following questions:

1. What are the key drivers of economic diversification for resource abundant countries?
2. Is manufacturing the sole path to successful diversification or are there alternative routes to achieving successful diversification?
3. To what extent has Botswana been successful in its efforts to diversify?
4. What are the prospects for economic diversification in Botswana?

This is a qualitative study that depends largely on secondary data. The research design is that of a case study. The study presents an analysis of Botswana's diversification efforts. The analysis reviews topics around the need to diversify, the drivers of diversification and the goals and expected outcomes, which is then applied to evaluate Botswana's policy and sector interventions in its efforts to diversify its economy. The aim is to capture as much of the complexity of economic diversification as possible. This is done in order to provide an understanding on the process of economic diversification, taking the learnings from Botswana as a case study, to develop a theoretical approach that can be applied to other country cases.

1.3 Significance of the study

This paper contributes to a growing literature on Botswana's diversification efforts. Much of the existing literature on Botswana's economy has historically centred on evaluating the country's economic growth success from the 1970's to the 2000's, a success driven by resource revenues from diamond abundance. With diamond production in rapid decline, the focus has moved from the success of the past, to questions about the country's economic prospects given its dependence on a single exhaustible resource. There has been much talk of economic diversification by the government in Botswana, however, there has not been a wide focus within academic

literature to explore the country's prospects to diversify. The dissertation, therefore, looks to fill this gap, providing a comprehensive overview of Botswana's diversification efforts thus far and its prospects for success. This may be relevant as a reference to policy makers given that diversification is a key priority for the government of Botswana. Additionally, this will hopefully provide a base from which future research can take place.

Chapter 2. Literature Review

Economic diversification for mineral-rich economies can be a difficult task. The literature review sets the scene exploring diversification as a concept and reviews the literature in search of themes on how diversification occurs in practice. The review begins by exploring the character of mineral-rich economies before outlining definitions of economic diversification. Second, the literature review will outline arguments on why countries should diversify their economies. The challenges faced by resource-rich countries will be explored, including the Dutch disease and the resource curse. Following this, the review will consider whether a model or framework on economic diversification for mineral-rich economies can be established, taking the determinants of diversification into consideration. Finally, country examples will be considered, reviewing successful diversification in Mauritius, Norway and Chile and the failure to diversify in Nigeria, in order to draw lessons from their experiences.

2.1 Exploring Diversification

2.1.1. Characteristics of mineral-rich economies

In order to evaluate the prospects of diversification in resource-rich nations, one must first have an understanding of resource abundance and the characteristics of mineral-rich economies in particular. Gelb (2010) describes mineral-rich economies as those with a strong comparative advantage in a specific natural resource. This resource becomes central to the country's economy as it provides a large source of government revenue. The result is that resource abundant countries often have a large public sector (Jefferis, 2014a). Furthermore, resource economies are often undiversified and dependent on a single resource (Page, 2008). The challenge with depending on a single resource is that resources are known to be enclave in nature, which means that production linkages to the rest of the economy and employment opportunities arising from the sector are limited (Jefferis, 2014a). This is particularly relevant for mineral-rich economies as mining is capital-intensive. Additionally, resource dependence can lead to over-specialisation in one area, whereas the goal for a sustainable economy would be to have a broad range of economic activities (OECD, 2011).

2.1.2. Economic diversification defined

Economic diversification can be defined as the expansion of the range of economic activities that a country is involved in, to increase and diversify their income streams towards long-term sustainable growth and development (Page, 2008). Through diversification, economic activity is spread more evenly across sectors (Imbs & Wacziarg, 2003). As a result, diversification is often interpreted and measured in terms of the structure of GDP or production and the composition of GDP growth (Jefferis, 2014b). Whilst this is a valid means through which diversification can be evaluated, it requires further interpretation. Studies show that as a country matures, it will tend to diversify in terms of the economic activity (World Bank, 2015). In other words, as a mineral-rich economy matures, the share of mining as contributed to GDP is expected to decline. It would therefore be misleading to read the change in GDP composition as being caused by diversification but rather, an inevitable outcome of a growing economy. Jefferis (2014b) argues that diversification for mineral-rich economies should be measured according to the sustainability of economic growth, improvements in living standards and employment creation beyond the post-mining era levels. Despite the notion that growth will lead to diversification, for some countries, structural challenges exist which impede the maturity process, pushing them to seek out economic diversification strategies.

Economic diversification is an all-encompassing term that can materialise in two forms; export diversification or product diversification. Export diversification refers to diversification in the external sector (Papageorgiou & Spatafora, 2012). On the other hand, product diversification consists of changes in the structure of production of domestic goods and services. Another form of diversification to be considered is product-quality upgrading. It is not as clearly a form of diversification, as the results are often indirectly realised in the form of export diversification. As the name suggests, this involves making improvements on existing products towards increased diversification (Papageorgiou & Spatafora, 2012). Upgrading has the potential to increase the prices of exports and thus has the potential to increase export revenue. It can shift a country's existing comparative advantage, boost its export revenue and utilise more of its human and physical capital.

2.1.3. Is manufacturing the sole path to diversification?

Economic diversification is said to occur naturally as part of a country's development path. Imbs and Wacziarg (2003) find that, this occurs in a U-shaped pattern, whereby poor countries will diversify up to a point as their level of income rises. There is a level of per capita income at which countries move from sectoral diversification to increased concentration of their activities as they start to specialise. Considering the product base, modernisation theory states that on the path to economic development, countries will often move from an agrarian base to a more industrialised, manufacturing centred economy. This is a popular view of structural development which suggests that countries should move from primary to manufactured products (Hesse, 2007). In the case of developing countries, Gelb (2010) finds that whilst the diversification process may take different forms, the most prominent has seen countries follow this path, with a shift away from their dependence on the resource sector towards increased manufacturing.

Beyond the process of diversification, Page (2008) highlights that what countries make matters for their economic development and performance (Page, 2008). This is because diversification into manufacturing production and exports is said to spur long-term economic growth. This view reflects the general consensus within the literature, that developing into a manufacturing-centred economy is the key to achieving sustainable economic development. However, manufacturing is not always possible for low-income and developing countries, due to various challenges including the cost of production, location, skills and other structural factors. Thus, this paper questions whether developing countries necessarily require manufacturing in order to diversify their economies towards sustainable development.

According to Gelb (2010), 80% of developing country exports in the 1960's were primary commodities; today, almost 80% are industrial products.[2] Countries such as Malaysia, Indonesia and Brazil that used to be primary based economies have managed to shift to become industrial powerhouses and are increasingly upgrading the sophistication and variety of their exports (Gelb, 2010). However, Gelb further asserts that this is not the sole path for economic diversification. Other successful developing

[2] Gelb notes that this change is largely due to the rise of China, Korea, India, Brazil, Mexico and Venezuela

nations have turned to upgrading their resource sectors. What this means practically is that they developed their exports away from the traditional and simple primary exports to more complex, yet still primary based products (Gelb, 2010). Despite these developments, the majority of developing countries in sub-Saharan Africa (SSA) have remained heavily dependent on primary commodities and the region as a whole has not been competitive in any sector that is not based on natural resources. On the other hand, the relative success that has been achieved by developing countries, has been realised through developing alternative sectors that were previously overlooked and untapped or going into new high productivity industries off the back of resource revenues. This is further explored in the following sections.

2.2 Why diversify?

2.2.1. Challenges associated with resource abundance

Traditional (Ricardian) economics encourages countries to rely on their comparative advantage[3] in order to be competitive in international trade (Wright & Czelusta, 2004). In this context, the topic of diversification causes one to question why countries would elect to move away from a strong comparative advantage in a specific sector. Economic diversification is key for a number of reasons. The first has been stated earlier – resources are limited; however, the challenges that mineral-rich economies face go beyond the question of scarcity. There is a wide range of literature around resource abundance and its relationship to economic growth, particularly for low-income countries. This section explores the challenges of resource abundance, which include the enclave nature of resources, Dutch disease and the resource curse.

Enclave nature of resources

The literature around resources has centred a lot on the enclave theory. Resources, particularly hard commodities such as minerals, have been found to be enclave in nature. This is the Singer (1950, as cited in Morris, Kaplinsky & Kaplan, 2012) argument, which

[3] Comparative advantage can be defined as the ability of one nation to produce goods and services at a lower opportunity cost in terms of other goods and services forgone than another nation (Lipsey & Chrystal, 2007).

states that production in the commodities sector, has limited linkage potential to the rest of the economy. For instance, the extraction of hard commodities like diamonds often takes place in isolation from the rest of the economy. This results in capital-intensive processes that do little to spur on job creation and rising employment. These processes are also characterised by low technology advancement in the country concerned, as mining processes are often not developed beyond the processes established at the discovery of the resource. This limits the potential for learning in other sectors of the economy (Morris et al., 2012). Instead, the overall benefits and spillovers from the resource sector are often then only realised in foreign countries where the mining companies are based as opposed to the country of extraction (Morris et al., 2012). Gelb (2010) supports this view highlighting that for mineral-rich economies, the resource rent is often realised solely in the form of fiscal revenue.

Resource Curse

The resource curse theory varies in its propositions, however, the overriding argument is that "natural resource abundance increases the likelihood that countries will experience negative economic, political and social outcomes including poor economic performance, low levels of democracy, and civil war" (Rosser, 2006). This idea follows from the works of economists ranging from Raul Prebisch in the 1950's and more recently, Sachs & Warner (1995). Sachs and Warner (1995) examined 97 countries over a 19-year period and found that resource-rich countries across the world had grown at a rate slower than other developing countries since the 1960's. The work they presented suggested that resource abundance (measured as the ratio of primary commodity exports to GDP) had a negative correlation to GDP growth in the subsequent period. This argument and study would go on to be the basis of the resource curse theory. Numerous reasons have been put forward as to why resource abundance would lead to slow economic growth, including an observed decline in terms of trade, the unpredictability of relative commodity prices and Dutch disease (Lederman & Maloney, 2008). Additionally, these countries are more likely to be characterized by poor savings performance, high unemployment rates, low human capital development levels, high levels of poverty and high export earnings instability, all of which lead to lower growth rates (Rosser, 2006).

The declining terms of trade argument according to the Singer – Prebisch view, dictates that resource abundant countries are likely to face a drop in the price of exports relative

to the price of imports (Ross, 1999). This could be due to a number of reasons including exchange rate volatility or changes in the prices of commodities as international commodity markets are unpredictable and prone to fluctuations. This creates instability within the domestic economies of resource-rich countries as it affects the flow of government revenues and their ability to build and manage foreign exchange reserves, which in turn makes private investment into the country highly risky (Ross, 1999). This has a negative impact on the current account, widening the growth gap between resource countries and their more industrialised counterparts.

Dutch disease is another phenomenon that has been associated with resource abundance and the resource curse theory (Morris et al., 2012). The Dutch disease theory argues that primary commodity booms push the exchange rate up in favour of non-tradable goods. As a country experiences a resource boom, the prices of exports are inflated, which results in an exchange rate appreciation (Ross, 1999). The appreciation undermines production in the tradable sector as the cost of production for exports in manufactured or agricultural goods rises (Morris et al., 2012).

Studies have since dispelled the findings of Sachs and Warner and the resource curse theory in general. An econometric study by Davies (1995) finds that there is not enough evidence to support the notion that resource dependent countries performed poorly in terms of growth and human development indicators. Lederman and Maloney (2008) argue that there is no inherent negative character to resource abundance and suggest that economic discourse do away with the resource curse theory. The measurement of resource abundance in the resource curse literature has also been brought into question. Wright and Czelusta (2004) find that the measure of resource abundance used by Sachs and Warner (1995) - exports of primary commodities as a share of GDP - was inappropriate. According to Wright and Czelusta (2004), the mere export of resources does not equate to resource abundance, and therefore, one cannot conclude that resource abundance is correlated with poor growth levels given the measure of exports. They suggest that there are more appropriate measures, for example looking at the reserves of resources per capita or the levels of natural resource exports per worker. Studies that have employed these measures do not find that the variables are negatively associated with growth (Wright & Czelusta, 2004). The variety of measurements

presented, with no sign of convergence or agreement on a suitable measurement of resource abundance in the literature brings doubt to the theory and its findings.

Overall, resource curse theory is treated with much scepticism and looking beyond the issues of measurement, a lot of the suggested negative challenges associated with resource abundance can actually be managed through sound macro-economic policy (Rosser, 2006). Credence has been given to Hirschman's theory on the enclave nature of resources and the Dutch disease, however, both of these challenges can be monitored and managed through government intervention. As such, much of the literature blames poor economic management rather than the existence of a resource curse, for cases where resource abundance has been associated with poor growth and development levels (Rosser, 2006).

Where curse-like effects are present, the question to be answered is how they can be overcome. The literature points to sound macro-economic policy which includes ensuring that countries avoid large foreign and domestic debt, build up budget surpluses, control inflation and pursue competitive exchange rates. Together, these measures should aid countries in avoiding Dutch disease (Rosser, 2006). Another option is the use of stabilization funds such as a sovereign wealth fund as per the Norwegian model. However, this requires that countries have strong, transparent and accountable institutions (Rosser, 2006). A number of economists suggest that resource abundant countries should diversify their economies in order to reduce their dependence on primary commodities, which would aid in avoidance of curse-like effects associated with resource dependence.

2.2.2. Benefits of Diversification

Much of the literature around the benefits of diversification is centred on the avoidance of curse-like effects and the challenges of resource abundance reviewed in the previous section. However, some economists have taken the conversation further to consider what the benefits *sans curse* look like. Benefits of diversification ultimately come down to the economic growth and development that is said to be associated with a diversified economy. Gelb (2010) argues that diversified economies perform better in the long run

than one-sector dominated economies. This is because diversification has a direct impact on the exports of a country. As a country diversifies its economic activity, the result expected is a change in the types of products or services that are exported. In their study, Imbs and Wacziarg (2003) find that the most prosperous countries are those that made successful investments into new areas of production. Furthermore, those that expand into manufacturing increase opportunities for growth as they develop new industries through the learning by doing process, which in turn has the potential to increase productivity and income (Gelb, 2010). Manufacturing is known to have greater prospects for linkage development compared to the primary sector (Sannassee, Seetanah & Lamport, 2014). Furthermore, diversification opens countries up to information about new markets, which can guide in the development of new economic activities that are in high demand. Effectively, countries open themselves up to new possibilities and capabilities, through knowledge and technology transfer from one sector to another. Additionally, countries will find themselves less vulnerable to external shocks as their dependence on one resource diminishes (OECD, 2011). They will open themselves up to increased trade opportunities as they expand their product range. Countries will improve their levels of productivity in capital and labour as they invest in more efficient processes. Further, diversification encourages countries to open up to deepened regional economic integration as they increasingly collaborate with new partners and markets (OECD, 2011). In doing so, countries develop economies that are more robust, reducing the effects of fluctuations in some export sectors (Sannassee et al., 2014). Overall, diversification is said to aid macroeconomic stability for single resource-dependent economies towards long-term sustainable development.

2.3 Drivers of diversification

The characteristics of mineral-rich countries have important implications for the design of their diversification strategy, priorities and policy (Gelb, 2010). Whilst acknowledging this fact, the review will explore the drivers of economic diversification at a general level that can then be applied to different countries given their specific needs and context. The drivers of diversification are grouped into three schools of thought; the enabling environment approach, the interventionist approach and the sector-driven approach. The approaches are derived from Lall (2002), which highlights policies for export promotion as per the lessons learnt from the economic development trajectory of the Asian Tigers. Lall (2002) outlines two groups of policy for export promotion; permissive policies and positive policies which can further be broken down into functional and selective policies as *Table 1* shows below.

The dissertation has expanded upon Lall's ideas on export promotion to build approaches to understanding diversification policy as a whole. The approach is employed in order to develop an analytical framework through which diversification could be better understood. The approaches are not mutually exclusive. Countries can employ aspects from all three, or elect to follow one approach at a time. Furthermore, there are some general drivers that are pivotal to successful diversification despite the approach, such as good governance and the development of human capital. However, they have been divided in this manner as a means to categorise them based on the incentives, methods of implementation and outcomes expected from the different policy actions.

Table 1: Policy Approaches for Economic Diversification

Policy	**Permissive**	**Positive**	
Response to market	Policy reforms to reduce macroeconomic mismanagement and uncertainty to make exporting profitable	Works to overcome costs & market deficiencies associated with creating new advantages and build areas of competitive export activity	
Approach	**Enabling environment**	**Interventionist**	**Sector-driven**
Role	Creates a stable environment to allow for economic growth	Interventions by government to provide inputs for the market	Government selects specific skills or sectors to promote to drive economic development
Economic Theory	Strong neoclassical - market approach	Moderate neoclassical – market-friendly	Structuralist - government-led
Export Policy	Permissive export policy: Removes distortions caused by policies that deter exporting	Functional export policy: Remedies market failures to build new areas of export activity without influencing resource allocation between sectors	Selective export policy: Intention is to influence resource allocation by protection or through export subsidies
Impact	Direct effects on outcomes for diversification	Indirect effect on outcomes for diversification	Direct effects on outcomes for diversification
Actions	E.g. Policy: government policy in industrial and trade policy; macroeconomic policy in fiscal, monetary and exchange rate policy. Institutional: good governance, sound investment climate	E.g. Physical infrastructure development, technology advancements, investments in human capital, or SME support & training.	E.g. Could involve promotion of large firms/specific type of small firm. Development of specific skills or technology

Source: Adapted from Lall, 2002.

2.3.1. Enabling environment: The market-based approach

In a report on economic diversification in Africa, the OECD (2011) notes that diversification cannot occur in a vacuum – that governments need to create an enabling environment to make it possible. As *Table 1* indicates, this is a market-friendly approach. It encourages the implementation of permissive policies, which aim to reduce macroeconomic mismanagement and economic uncertainty in order to promote exports. A number of key areas are highlighted under the enabling environment approach including; a sound investment climate, trade and industrial policy, macroeconomic stability, a competitive exchange rate, expansionary but responsible fiscal policy and good governance. These are explored in further detail below.

Government Policy

Government or public policy encompasses the wide array of policy measures in the government's arsenal that work to boost diversification and ensure macroeconomic stability (Page, 2008). Policy measures include trade, fiscal and industrial policy. Page (2008) argues that these policies are implemented to advance institutional reform and to develop a public investment programme. Institutional reform involves changes to the laws and regulation that facilitate doing business in the country. This helps to improve the country's investment climate through measures such as reducing the cost of doing business, building an efficient bureaucracy, cutting down unnecessary red tape, reducing and managing corruption and ensuring that essential business support services are available (Page, 2008). Public investment on the other hand, refers to establishing a strategy that ensures that government expenditure is allocated in a manner that will offset the effects of Dutch disease that may arise. Gelb (2010) agrees, stating that good macroeconomic management is critical and should be centred on running countercyclical fiscal policy, reducing spending and raising taxes during a boom and vice versa during a recession in order to counter the massive boom-bust cycles that are associated with commodity exports. Without this cycle management, the tradable sector can be destabilised leading to slow growth (Gelb, 2010).

Hammouda et al. (2006) argue that government policy decisions also have an impact on trade and industrial policy, both of which are key to the diversification process. Countries

looking to diversify should aim to have a trade policy that is fairly open, or risk facing exchange rate over-valuation due to Dutch disease symptoms (Gelb, 2010).

Sovereign Wealth Funds

A sovereign wealth fund (SWF) is a means of protecting a country's assets against market shocks and fluctuations that may have negative implications on the economy. These according to Kern (2007) are "financial vehicles owned by states, which hold, manage or administer public funds and invest them in a wider range of assets". For the most part, SWFs are created to store wealth accrued from natural resource revenues, particularly non-renewable resources such as oil, gas and minerals, though funds can also be sourced from budget surpluses (Kern, 2007). There are two types of SWFs; savings funds and stabilisation funds and the two differ according to their purpose (Griffith-Jones & Ocampo, 2008). Savings funds are permanent long-term funds, built to create a store of wealth for future generations, whilst stabilisation funds are designed for the short term, to help smooth out and reduce the impact on fiscal revenue that is tied to volatile market prices (Griffith-Jones & Ocampo, 2008).

The economic rationale behind these funds is that they can help to shield economies against volatile commodity markets. They act as safety nets or a pot into which governments can save money in times of commodity price booms and withdraw in times of price shocks and low reserves (Kern, 2007). Furthermore, undertaking investments in offshore assets, particularly during a boom, helps to avoid exchange rate overvaluation and thus alleviates the impact of Dutch disease. SWFs aid in the diversification of the economy as they are often invested internationally, which opens up a wider range of potential assets to be invested in and therefore reduces the risk of concentration of assets (Kern, 2007). Because they are managed in the same manner as a professional portfolio, SWFs are less prone to corruption and rent-seeking, and further, will not fall prey to the immediate domestic needs and objectives of the country that governments are responsible for. *Table 2* provides a snapshot of data on countries that have established SWFs. The table shows that most SWFs are sourced from commodity revenues however there are many that are not. Furthermore, it also shows the diversity in the type of fund that countries have established from investments and pensions to funds reserved for poverty action and economic stabilisation.

Table 2. Overview of selected sovereign wealth funds worldwide

Country	Fund name	Fund Allocation (US $, billions)	Year of inception	Source
United Arab Emirates (UAE)	Abu Dhabi Investment Authority	875	1976	Oil
Singapore	Government of Singapore Investment Corporation (GIC)	330	1981	Non-commodity
Norway	Government Pension Fund - Global	322	1990	Oil
Nigeria	Excess Crude Account	11	2004	Oil
Chile	Economic and Social Stabilisation Fund	6	2007	Copper
	Chile Pension Reserves Fund	0.6	2007	Copper
Botswana	Pula Fund	4.7	1993	Diamonds and other minerals
Uganda	Poverty Action Fund	0.4	1998	Aid

Source: Kern, 2007.

Institutional variables

Institutional variables[4] that drive diversification forward include good governance, the absence of conflict and a strong investment climate (Hammouda et al., 2006). Facets of good governance according to the World Bank include political stability, accountability of the government to its people, the effectiveness of the government, the quality of regulations, the rule of law and the level of control over the country (Page, 2008). Good governance is key to ensure responsible management of natural resource deposits and revenues as well developing the policies that will ensure a sound business climate. This is important in order to attract private investments into the country, which will alleviate the

[4] Institutional variables in this case, refers to the intangible rules of the game that countries are governed by as opposed to physical institutions that enact government policy.

pressure on the public sector as one of the main drivers of economic activity. Furthermore, good governance is important in building strong institutions within the public sector and bureaucracy that will drive private investment and improve the business climate further.

The investment climate is another key factor for institutional reform (Page, 2008). An indicator often employed to reflect a country's business climate is the cost of doing business. According to Page (2008), the cost of doing business on the African continent is 20 – 40% above that of other developing regions, resulting in poor rankings in the investment climate indices. This is because in resource-abundant countries, rent-seeking leads to the deterioration of institutions that would have enforced and regulated rent-seeking behaviour. Rankings fall even lower for resource-rich African countries, particularly oil-abundant countries even in times of growth.

2.3.2. Interventionist approach

The interventionist approach refers to a policy perspective that supports government intervention in order to resolve market failures. As *Table 1* indicates, this approach is designed to promote the provision of increased inputs into the market to support export competitiveness and private sector growth. These inputs include physical and human capital, through infrastructure development and education, technology advancements to support a better functioning economy and enterprise development to build more entrepreneurs to drive the private sector forward.

Institutional capacity and human capital

In the definitions of diversification offered, the idea that countries need to build alternative sources of income to natural resource revenues is emphasised, however, in order to achieve this, they also need to build other sources of capital to support and complement their growth. This includes human capital and institutional capital (Gelb, 2010). Developing human and institutional capital ensures that the country manages its resources well but also has the human capacity to reap the benefits from resource revenues and realise its diversification goals. The OECD (2011) argues that human and institutional capital act as enablers that will facilitate the diversification process. Without these forms of capital, Gelb (2010) notes that it would prove difficult for countries to establish viable, competitive export sectors outside of the resource sector.

In order for human capital to be advanced and to play an enabling role in the diversification process, significant investments into education and research and development (R&D) in high growth sectors need to be prioritised (OECD, 2011). Institutional capacity on the other hand, is key for resource management and to further support and facilitate regional integration (OECD, 2011). Co-ordination at the regional level is pivotal to the diversification process, particularly for small, landlocked countries. Institutional capital will be beneficial towards developing trans-national infrastructure, customs and coordinating overlapping memberships in trade unions and regional communities (OECD, 2011).

Entrepreneurial Development

Entrepreneurship is central to private sector growth. The private sector is known to be the driver of innovation and economic activity in sectors that are often un-exploited (OECD, 2011). For African countries, where the private sector consists of more small-scale informal business as opposed to large-scale corporations, governments have to implement policies and initiatives that encourage and develop innovation and entrepreneurship. This includes supporting initiatives in training, technical assistance, incubation and investments into citizen-owned private businesses. Countries also have to reduce the red tape and bureaucracy involved in setting up businesses and foreign investments into the country in order to encourage increased FDI and to facilitate the growth of the private sector.

2.3.3. Sector-Driven Approach

The sector-driven approach can be seen to be a form of interventionism. However, where the two divulge is that the sector-driving approach goes beyond the interventionist's mandate of creating improvements to support and facilitate the growth of new economic activities. This approach involves direct influence over the identification and selection of new economic activities (Lall, 2002). This could be the advancement of a particular skill set or the decision taken on sectors to be promoted.

Boosting Non-Traditional Sectors

The risks associated with resource dependence and over-specialisation in primary commodity sectors have been presented. Thus, some economists suggest that in order to diversify, countries should look to drive investments towards the development of non-traditional exports (NTXs), especially NTXs that go to promote the manufacturing sector (Helleiner, 2002). Given the law of comparative advantage, primary commodity sectors are what constitute traditional exports for SSA countries and thus their NTXs are found in manufacturing or services (Helleiner, 2002). There are different ways to which countries can look to drive the growth of non-traditional sectors; measures which are often country-dependent (Gelb, 2010). Therefore, countries need to diligently consider where potential untapped sectors and strengths lie that would inspire innovation. This can happen through exchange programmes with partner countries inspiring a knowledge and technology transfer. It could also be driven by demands of key export markets or through an evaluation of pre-existing productive sectors (Gelb, 2010; Page, 2008). In principle, driving the growth of non-traditional sectors requires significant investment into R&D to identify new sectors that will grow organically. In addition, investments that propel entrepreneurship and innovation will be key to private sector growth. The countries reviewed in the following section illustrate how driving the growth of non-traditional sectors takes place in practice.

Natural Resource Advancement

For most mineral-rich economies in Africa, the topic of diversification has been centred on how they can diversify away from minerals. Morris et al. (2012) dispel the theory that natural resources are corrosive to industrial development. Hansen (2013) agrees stating that there is no validity to the enclave theory. These economists present the view that natural resources can be the springboard from which diversification is realised through the opportunities for synergistic links that exist between manufacturing and the resource sector.

Linkage development in the resource sector is increasingly being recognised for its potential to drive a country's diversification strategy particularly its industrial development. Staples theory is a theory which explains Canada's export-led growth story (Morris et al., 2012). The theory argues that Canada's industrialisation was driven by the development of primary commodity sectors. Canada was largely an export-oriented

economy, exporting staple products including fish, fur, timber and minerals. In order to process these goods for export, Canada developed an industrial sector characterised by backward and forward linkages. Backward linkages were created through the production of agricultural machinery and forward linkages were developed through food processing (Morris et al., 2012). Thus, the origins of Canada's industrial sector were based on primary commodities and linkages that were developed through synergies between the resources and manufacturing sectors.

The concept of synergies between the resource sector and industry was formalised by Hirschman (1981, as cited in Morris et al., 2012). According to Hirschman, there are three types of linkages that may develop between the commodities and manufacturing sectors: fiscal linkages; consumption linkages and production linkages (cited by Morris et al., 2012). Fiscal linkages arise from the resource rents that the government gains from the commodities sector in the form of taxes and royalties. This is the revenue that would be invested into a sovereign wealth fund and for the linkage to be developed, revenues would be used to invest into the manufacturing sector, promoting the production of goods and services outside of the resource sector (Morris et al., 2012). Consumption linkages arise, as increasing revenues in the resources sector drive the demand for manufactured goods up. Production linkages, on the other hand, can arise through the processing and transformation of commodities into manufactured goods, known as forward linkages. Alternatively, production linkages are the result of backward linkages, whereby countries produce the inputs required in the process of the production of resources (Morris et al., 2012). These linkages according to the work of Hirschman show that "one thing can lead to another" as linkage development in the resource sector can and will often occur as a natural outcome of market forces (Morris et al., 2012).

2.4 Review of diversification by country

In order to build a holistic framework of economic diversification, one must consider the process from a theoretical and practical perspective. This section reviews examples of resource-rich countries that have managed to diversify their economic and export bases as well as those that have made efforts to diversify but were not as successful. Gelb (2010) highlights that there are not many positive examples of developing countries that successfully diversified away from mineral dependence. The dissertation, therefore, reviews examples of countries that made efforts to diversify from single resource dependence in general. Cases from Mauritius, Norway, Chile and Nigeria are considered, despite that not all are mineral-rich economies. Their experiences of diversification are relevant to the analysis despite the differences in their resource bases.

Mauritius is a small island economy that is limited in its resource endowment and limited to a small domestic market (Sannassee et al., 2014). Despite this, the country has successfully transformed from a low income, single-crop economy, reliant on sugar exports, towards middle-income status that has seen them become one of the most successful countries on the African continent (Sannassee et al., 2014). In its early years, the country's exports were heavily concentrated in sugar, which accounted for one-third of employment, one-third of export earnings and one-quarter of GDP in the 1970s (Zafar, 2011). The sugar industry was developed on the back of international market access agreements. The sugar industry benefitted from the EU's sugar protocol in 1970 which allowed for Mauritius to negotiate preferential treatment, giving sugar exports free access at very high price rates (Zafar, 2011).

The textile industry was later developed to support the declining[5] sugar industry and to bring in increased revenue to the country. Start-up capital from the sugar industry was invested into textiles. This not only created linkages and synergies between the country's largest export sectors at the time, it boosted export revenues and provided job creation. In order to incubate and accelerate textiles further, the government developed Export

[5] Zafar (2011) shows that the sugar industry faced challenges in the form of commodity price shocks and the global move towards international trade liberalisation. In 2005, the WTO declared preferential treatment unfair trade and the EU drastically cut sugar prices, forcing the government in Mauritius to consider alternatives to sugar in their export sector.

Processing Zones (EPZs) that provided incentives for producers manufacturing goods for export to foreign markets (Zafar, 2011). EPZs provided incentives such as duty-free inputs for manufacturing and tax incentives to help subsidize export firms. By the 1980's EPZs accounted for over 60% of Mauritius' export revenue and employed over a third of the formal sector workforce (Zafar, 2011). Garments produced in EPZs were exported to the EU and the US, negotiated through the Multi-fiber Arrangement (MFA)[6]. These were markets that had high textile demand, which helped the zones expand even further. The country's dramatic success and movement towards middle-income status can thus be largely credited to the success of these EPZs – they had high local participation, created employment opportunities, with the unemployment rate dropping from 20% in the 1980's to under 5% from the mid-1970's to the 1990's, and they attracted large amounts of FDI (Zafar, 2011).

The end of the MFA and the end of sugar quotas forced the Mauritian government to work to develop the sugar and textile sectors to a point where they could remain internationally competitive (Zafar, 2011). Furthermore, it forced them to look beyond these industries, and to diversify exports towards more high-value sectors, focusing on the tourism and services sector. Through multiple measures, Mauritius was able to successfully diversify away from a dependence on commodity exports towards expanding into new areas of high-value-added economic activities.

Since the 1980's, the commodities export sector has seen growth in areas including food and live animals and manufactured goods, whilst travel and personal services exports have grown in the services sector (Sannassee et al., 2014). The services sector is where Mauritius has begun to centre its diversification efforts. Tourism in particular, has done well, expanding rapidly thanks to the country's beaches and coastal resorts. Policy has been dedicated to the growth of exports in new sectors such as land-based oceanic activities, hospitality, property development and the development of a knowledge-hub (Sannassee et al., 2014), which indicates that the government is committed to continued export diversification.

[6] The MFA was phased out in 2004. Without the MFA, Mauritius had to compete against textile and garment giants such as China where labour is significantly cheaper and where they are a lot more advanced in the efficient production processes of the textile industry. Mauritius was less competitive at the international level, resulting in significant losses in the local industry.

Like Mauritius, *Norway* is a relatively small country with a population of 5,2 million people, yet considerably wealthy in terms of its GDP per capita, sitting at US $74,400 in 2015 (World Bank, 2016). Norway's wealth lies in its resources, with large volumes of oil and gas as well as an array of other more traditional resources, including hydropower, fish, forests and minerals (Ville & Wicken, 2012). The country traditionally had an export share of 50% of GDP, with resources accounting for 80 – 90% share of total commodity exports – as such, one can comfortably describe Norway as a resource-based economy, as it derives much of its economic wealth from resources (Ville & Wicken, 2012).

At the time of oil discoveries Norway was not considered to be rich by OECD standards, however, through fiscal prudence and sound macroeconomic policy, they managed to build their economy off the back of oil revenues whilst continuously innovating within the sector and building knowledge that had positive spillovers into other sectors in the economy (Havro & Santiso, 2008). They used their resources as a base from which to innovate, develop new technologies and new products. With the discovery of oil, Norway invested into expanding its education system, developing knowledge in oil extraction and the science around petroleum and as a result, they have developed expertise in deep sea, cold-water oil extraction processes. This led to further innovations in technologies for environmental safety, new technologies were developed for detection and drilling methods and they also established new regulations around the oil sector (Ville & Wicken, 2012). Norway has thus become a market leader in knowledge around the oil sector, offering advice to resource-rich developing countries. They have developed a programme called Oil for Development[7], which supports developing countries that are highly dependent on oil as a resource (Havro & Santiso, 2008).

[7] Oil for Development (OfD) was established in 2005 to answer the call from numerous developing countries that sought to manage oil resources sustainably (Norad, 2015). Knowledge shared centred on the Norwegian experience includes strategic ownership by the state, strong institutions, continued accumulation of technical knowledge whilst ensuring environmental safety and the ownership of oil resources being vested in the society. The approach is to build capacity development through collaboration between several Norwegian institutions with partner country institutions. It was collaborating with 11 countries in 2015 including Angola, Cuba, Ghana, Uganda, Tanzania, South Sudan and Kenya.

Policy in the 1970's was intentionally interventionist, with Statoil, a state-owned enterprise (SOE) established in 1972 to manage the oil sector. Statoil granted licenses to companies that required the use on-shore Norwegian bases, utilised the local labour force, advance local technology development and contributed to local efforts towards R&D (Havro & Santiso, 2008). Norway has been successful, but it must be noted that the country's human capital levels were high at the time of oil discovery, which meant that they had the talent to manage the SOE and the oil resources. There was little corruption as they had already established quality institutions, a strong bureaucracy and civil service (Havro & Santiso, 2008), unlike most developing countries and low-income countries.

Norway is therefore not the ideal country comparison for mineral-rich economies in the developing world, but it does provide an interesting case study of how the resource sector can act as a base for growth and development, provided countries invest into ensuring continuous innovation in the sector, invest in knowledge of the sector and ensure that they create linkages to other sectors such as education.

Chile is another diversification success story. Chile has not followed a diversification path driven by manufacturing. It has instead become a diversified exporter of "high-value primary-based products that draw on its resource base" (Gelb, 2010). Chile is resource rich in minerals, particularly copper (Havro & Santiso, 2008). In 2012, Chile held 38% of the world's copper resources and was the world's largest copper producer accounting for 33.5% of global output (Varas, 2012). Beyond copper, they are a leading supplier of molybdenum, rhenium, iron, gold and other minerals, with much of the national income being sourced from mining revenues (Varas, 2012). Chile's success has been driven by a combination of factors, employing strategies with elements to build an enabling environment, with some government intervention and sector-driven policies. Fiscal policy was pivotal as they maintained a high savings rate during the copper boom years and would dis-save during recessions (Gelb, 2010). They also sought to improve the business climate of the country, advancing in the World Bank's ease of doing business rankings to become the top-rated country in Latin America for 2010.[8]

[8] In 2010, Chile was ranked as the 40th country on the doing business rankings (Gelb, 2010). According to updated 2017 figures, Chile has since fallen to position 55, behind Mexico, Colombia, Peru and Puerto Rico amongst other Latin American countries (World Bank, 2017).

Chile's economic activity has shifted into new industries including salmon, wine, pork and berries (Varas, 2012). Their successful move into new sectors was driven largely by the *Fundación Chile (FCh)* initiative - a public-private joint venture between the Chilean government and a private US company ITT Corporation (Phyne, 2010). This is an institutional innovation, which seeks to encourage increased investments into new innovative projects that promote technology transfer and new business models that would boost the country's growth. Effectively, FCh finds venture capital investors, looking to invest in tech-based and innovative start-ups, assisting them with business training and business development, until a stage where the start-up becomes fully operational. FCh then sells its stake, reinvesting the profits into new projects in the Chilean economy (Varas, 2012).

It is through the FCh programme that the salmon industry was developed in Chile. FCh drew on the experience of successful salmon farmer, Norway, adopting Norwegian technology in aquaculture to farm Chilean salmon in the 1980's. American and Japanese firms received compensation to implement the technology transfer programme and to establish a successful aquaculture salmon industry in the country (Phyne, 2010). Chile became the second largest salmon exporter in the world; exporting US$ 2.4 billion worth of salmon exports in 2008 (Varas, 2012). The growth of the salmon industry was a combined result of foreign and local firms. Many Chilean firms would later diversify into salmon production following the success of the FCh programme, which drew in existing seafood producers and new entrants from different sectors (Phyne, 2010).

These countries illustrate that there is no set or clear path to realising success in economic diversification and that it is a country dependent process. Mauritius and Norway illustrate that a strong record in political stability, investments into building good infrastructure and sound government policies are vital to the creation of an enabling environment for private investment to thrive. Further, all of the countries reviewed have been committed to trade openness with multiple benefits. Liberalising trade opens the door to international partnerships that bring in financial investments, new technologies and innovations. These partners bring in their learned experience to help countries avoid the same diversification pitfalls. Trade openness was particularly good for Mauritius to overcome the challenges associated with having a small domestic economy. In all three countries, diversification was developed off the base of their traditional sectors, using

export revenue from the sugar, oil and copper sectors to invest into the growth of new high value-adding sectors. Diversification strategy has not forced a complete diversion away from the traditional sectors, it has rather increased productivity in these sectors and has built an additional comparative advantage in non-traditional sectors.

A number of countries in SSA can be cited as examples that have failed to diversify their economies, given that the majority of them are heavily dependent on primary commodities (Gelb, 2010). Where manufacturing exists in these countries, it is largely in the form of light manufacturing at a small-scale level or in the form of primary products that have only been "modestly processed" (Gelb, 2010). *Nigeria* presents a case of a country that has failed in its efforts to diversify its economy. This is a country heavily dependent on oil that has found it difficult to develop industries outside of the sector (Adenugba & Dipo, 2013). Like minerals, oil is a non-renewable and finite resource that is prone to price volatility. Changes in the oil price can drastically affect economies where it is the single driver of growth. Diversification policy has therefore been at the forefront in Nigeria in order to try move away from oil as the single dominant resource, however, efforts thus far have largely been unsuccessful.

Nigeria is abundant in multiple natural resources beyond oil. It has an agricultural sector that boasts cattle, cocoa, groundnuts, palm oil, poultry, cassava, yams and corn exports and a mining sector that includes coal, gold, tin, bitumen, limestone, uranium, asbestos and iron ore (Suberu, Ajala, Akande & Olure-Bank, 2015). In the 1970's Nigeria experienced an unprecedented boom in the oil industry that would go on to produce 70-80% of the country's export revenue consistently over decades (AfDB, 2012). This boom would drive non-oil commodity exports, especially agricultural exports, into decline as the effects of Dutch disease hit the economy through an appreciated exchange rate (Suberu et al., 2015). As such, Nigeria has since been classified as a mono-economy – dependent on a single resource, in this case, oil.

Efforts to diversify the economy have been few and shallow and therefore have not realised successes. Institutions have been set up as early as 1976 to drive economic diversification forward, such as the Nigerian Export Promotion Council (NEPC), mandated to spearhead efforts in export development and promotion (Adenugba & Dipo, 2013). Diversification is highlighted as a key objective in the country's long-term

development plan, Vision 20:2020[9], in addition to job creation, the reduction of poverty, and the creation of an enabling environment to advance sustainable economic growth (AfDB, 2012). As at 2011, oil and gas represented 79% of government revenues and 71% of export revenues, despite that agriculture represented 40% of GDP and employed 70% of the country's labour force (AfDB, 2012). These figures illustrate that the few diversification efforts implemented have not been successful. The reality is that it is more profitable for Nigeria to export oil over establishing new mining industries or attempting to revive old agricultural exports that have become unproductive. The mining and agricultural sectors would require a huge boost in infrastructure development, new technologies to bring old farming techniques up to speed, they would need to create incentives for oil producers to move their investments into non-oil commodity exports, as well as resolve the dearth of social, institutional and bureaucratic challenges[10] the country faces that continue to act as a major deterrent for foreign direct investments. In addition to these domestic challenges, it must be noted that it is not easy to access new markets, particularly in the developed world (Adenugba & Dipo, 2013). Developed countries have placed protectionist measures on trade, which ensure that the sale price of goods exported is excessively inflated, making it difficult to compete with already established exporters.

A few lessons can be drawn from Nigeria. Firstly, domestic policies were poorly conceptualised and not well implemented. It shows that successful diversification requires political will and commitment to ensure that successes are realised. Where there is an abundance of a resource in such high demand, there exists little urgency to diversify as oil continues to bring in a consistent source of income. Secondly, incentives were biased against exports, particularly manufacturing exports, as there was more to be gained by investing in the oil sector. The third factor is that of market concentration. Nigeria follows the key market concentration strategy in their export policy, whereby

[9] Vision 20:2020 sets out to make Nigeria one of the top 20 economies globally by the year 2020 (AfDB, 2012).

[10] Challenges include: the current mismanagement of the oil industry which is rife with rent-seeking and corruption; the huge infrastructure deficit which makes it costly and difficult to do business – electricity is particularly a problem; the limited capacity for policy creation and implementation; and the social development challenges – high unemployment, high poverty rates and the lack of non-inclusive growth (AfDB, 2012).

they concentrate their efforts towards reaching specific markets. Nigeria's markets are the US and Europe, developed areas that have however started to look into alternative forms of energy, drastically reducing their demand for oil and natural gas (Adenugba & Dipo, 2013).

Chapter 3. Botswana's Economic Growth Trajectory

Botswana is a small middle-income country in southern Africa with a population of two million people[11] (AfDB, 2017). The country has been referred to as an "African Success Story" (Acemoglu, Johnson & Robinson, 2001) and the "African miracle" (Samatar, 1999), given its exceptional economic growth record since independence in 1966. This chapter explores Botswana's economic growth trajectory. It is descriptive in nature as it looks to outline the economic characteristics of the country in order to develop a base understanding of the country's growth story. It concludes by outlining the increasing dependence on minerals in order to provide context for the evaluation of the country's diversification prospects that will follow in later chapters.

3.1 State of the Economy - Growth and Structural Change since Independence

When Botswana gained independence from Britain in 1966, it was listed as one of the poorest countries in the world (Harvey & Lewis, 1990). The country was under severe drought, foot and mouth disease was spreading nationally and, politically, Botswana was surrounded by a group of hostile neighbours. Agriculture was the sole sector driving the country's economy, built on cattle farming that consisted largely of subsistence farming. Prospects for success were low, so much so that former President Sir Ketumile Masire is often quoted as saying, "when we asked for independence, people thought we were either very brave or very foolish" (Harvey & Lewis, 1990).

This picture was to change quite rapidly following independence. From 1965 to 1999, Botswana experienced the highest rate of economic growth in the world. Real GDP per capita grew at an average of 7%, a rate higher than that of high growth countries such as Singapore and Korea (Leith, 2005). Tsie (1996) provides a snapshot of the economic growth record between the 1980's to the 1990's, highlighting that the economy was the healthiest in SSA. GDP per capita in 1992 reached US $3000, foreign exchange reserves increased from US $100 million to an incredible US $4 billion and the country not only had successes in growth but in its development record too as Botswana was ranked as a

[11] See Appendix A for more background information on the country

top 10 performer in the United Nations Development Programme (UNDP) Human Development Report in 1994 (Tsie, 1994).

A series of key events and decisions were taken which led to this high growth. The discovery of diamonds shortly after independence, catapulted the growth that saw Botswana move from a least developed country towards middle-income status (Mbayi, 2011). The GoB established a successful partnership with DeBeers Mining Company to mine Botswana diamonds, creating Debswana Mining Company; a 50-50 joint venture between the two parties (Mbayi, 2011). Through diamond mining, Botswana was able to sustain continued high GDP growth rates for over three decades, which provided revenues to help the government develop the country. Diamond revenues helped to finance key infrastructure in the building of roads, schools and hospitals, it also helped to finance investment into a welfare system that provided free healthcare services and free education to its people (World Bank, 2015). On the other hand, diamond-led growth also resulted in an undiversified economy, overly reliant on a single resource, with few alternative sectors making strides outside of diamond mining.

Table 3 below provides a detailed picture of the progression of sectoral development in Botswana, providing data on the value each sector added in current prices from 1966 – 2015 (Statistics Botswana, 2016). At independence, agriculture was the sole economic driver in Botswana, with value added of P14,5 million representing almost 37% of the P39 million GDP. However, this was short lived as mining grew to become the dominant sector in Botswana's economy. In 1966, mining was near to none existent contributing only P100,000 to GDP. This figure increased to P22,3 million in 1975, an increase that was driven by the establishment of the first diamond mine in Botswana in 1971 (Mbayi, 2011). These numbers continued to rise dramatically as new diamond mines were established. Diamond revenues continued to rise with mining providing revenues of P 10,024 million in 2000 and just over P 26,500 million by 2015. The overall picture illustrates the swift move away from an agrarian-based economy towards becoming a mining-driven economy. Rising figures for construction from the 1970's, reflect a growing society that was investing in infrastructure, whilst the rising share for trade, hotels and restaurants alongside banks, insurance and business services, reflect the rising potential for Botswana to grow in its services sector, through tourism and the financial sector.

Table 3. Breakdown of value added per economic activity at current prices (millions of Pula[12])

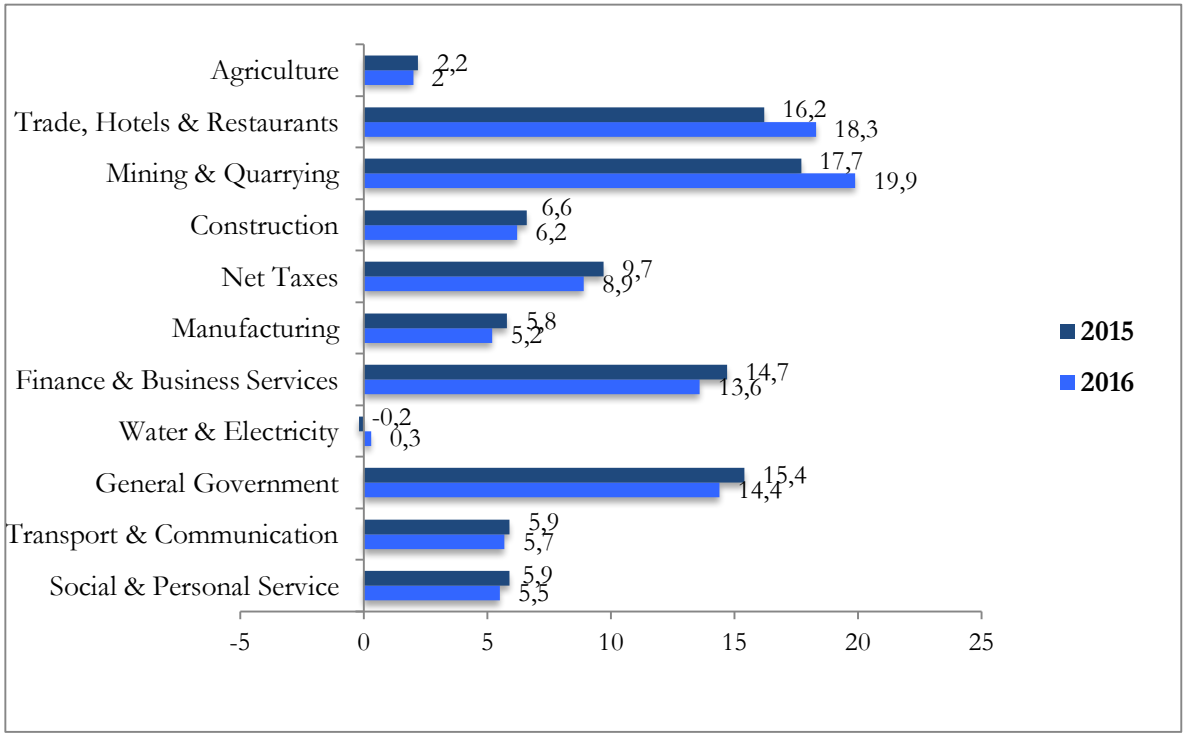
Economic Activity	1966	1975	1980	1990	2000	2010	2015	2015 (%)
Agriculture	14.5	69.8	100.3	306.9	825.3	2,161.3	3,168.6	2.2
Mining	0.1	22.3	241.4	2922.2	10,024.1	16,660.8	26,593.7	18.3
Manufacturing	2.9	14.7	28	318.5	1661.7	5,548.3	8,347.3	5.7
Water & Electricity	0.3	6.9	15	157.5	512.6	411.9	-509.4	-0.3
Construction	2.1	22.6	58.1	465.4	1474.6	5056.1	9526.6	6.5
Trade, Hotels, Restaurants	6.2	17.5	46.9	459.4	2968.8	13,084.30	23,506	16.1
Transport & Communications	1.5	n/a	12.8	178	969	4,470.8	8552.8	5.9
Banks, Insurance & Business Services	2.4	n/a	60.1	467.1	3268.6	11,609.6	21,456.80	14.7
General Government	6.1	6.6	99.3	801.2	4,313.5	13,377.3	22,291.4	15.3
Social and Personal Services	1.3	14.6	20.7	234.9	1042.20	5242.70	8653	5.9
Total Value Added, Gross	37.4	29.3	682.6	6311.1	27,060.5	77,623.10	131,586.9	90.3
Net Taxes	1.9	8.5	87.2	228.6	2470.3	9244.4	14,127.70	9.7
Total GDP at current market prices	39.3	212.8	769.8	6539.7	29,530.8	86,867.4	145,714.6	100.0
GDP per capita	72.8	327	880.7	5133.2	17,991.2	43,705	66,801.2	

Source: Statistics Botswana, 2016.

Figure 1 below depicts value added in percentages from 2015-2016 (Statistics Botswana, 2016). It illustrates the changing face of the economy in recent years. The services sector, as driven by financial services and tourism, is growing at a rate faster than diamond mining. The services sector overall represents just under 40% of value added to GDP, indicating the decline in the contribution of diamonds.

[12] Current US Dollar to Pula exchange rate is US $1.00: P10,40. Current Rand to Pula exchange rate is R1,00: P0,76 (Bloomberg, 2017).

Figure 1. Distribution of GDP by Economic Activity (2015-2016)



Source: Statistics Botswana, 2016.

The country has followed an orthodox comparative advantage strategy, directing efforts towards the diamond sector, which became the main source of revenue for the government (Good, 2008). Diamond revenues were channelled through government to be invested in infrastructure, health, education and financial assets. This model served Botswana well, however, it occurred with very little investment and efforts directed towards the growth of alternate sectors of the economy, locking the country into a dependence on minerals, specifically diamonds (Good, 2008).

Botswana's diamond dependence is reflected through the value of minerals in total exports. In 2014, diamonds accounted for 85.9% of total exports, rising up from 83.5% in 2013 (Harvey, 2015). This figure has since risen to an incredible 92.5% as at December 2016 as reflected in *Table 4* below (Statistics Botswana, 2016). Whilst Botswana does export other goods such as copper-nickel, soda ash and coal, the table shows that their contribution to export revenues is insignificant.

Table 4. Principal Exports Composition – December 2016

Export	Value (%)
Diamonds	92.5
Meat & Meat Products	1.2
Salt & Soda Ash	1.2
Machinery & Electrical Goods	1.0
Other Goods	4.0

Source: Statistics Botswana, 2016.

Furthermore, diamond dependence is reflected through the diamond share in government revenues, with government receiving over 80% of its revenues from the sector (Sebudubudu & Botlhomilwe, 2012). The challenges associated with this dependence are the reasons behind the urgent need to diversify the economy, as explored in the following section.

3.2 Diamond Dependent Wealth and the Challenges Associated

The government has relied on diamond revenues to sustain its growth and development since independence. However, a continued dependence on the resource could be detrimental to the country's economy. As presented in the literature review, a dependence on primary commodities that are vulnerable to external shocks is particularly problematic. The world financial crisis in 2008 and its effects on Botswana are evidence of this (Sekwati, 2010). Following the crisis, international demand for diamonds was low, coupled with fluctuating commodity prices. The overall impact of the crisis in Botswana was realised in a 4.6% decline of real GDP from 2008 to 2009, a fall driven by the decline in real value added from the mining sector (Sekwati, 2010). Total output from the diamond-mining sector decreased by 31.4% from 2008 to 2009, whilst mineral revenues reported a 32% decline in 2009 as compared to 2008 levels (Sekwati, 2010).

Beyond issues of market volatility, diamond deposits in Botswana are reported to be in decline, posing an additional, more urgent challenge to the country's future economic growth prospects. Estimates of future diamond production vary, however most project the sharp decline to happen in the 2030s if no new deposits are discovered (Mbayi, 2011). Harvey (2015) argues that production from Botswana's two largest diamond

mines is expected to continue for an estimated 10 to 15 more years. Government revenues accruing from diamonds are expected to reach their peak in 2017 with a sharp fall expected from 2021 onwards (UNDP-UNEP PEI, 2013). Estimates of the expected decline in diamond revenues are based on the projected shortfalls in fiscal income from the mining sector, and projections suggest that the value of diamonds will fall drastically in 2020 (UNDP-UNEP PEI, 2013). Basdevant (2008) estimates that fiscal revenue will decline by two-thirds of current revenue in the period 2021 – 2029. According to Basdevant (2008), diamond production will slow down which will likely lead to the closure of surface mines. In the face of this, Debswana will have to adapt and adjust to underground mining, a process that has higher costs at decreased output levels. This will in turn result in lower profits and therefore decreased revenue accruing to Botswana's government from the sector (Basdevant, 2008). From a revenue perspective it is clear that the government needs to urgently find alternative sources of income to replace diamond revenues.

The challenges highlighted above are those directly resulting from or within the diamond mining sector, however, as the growth miracle starts to wane, there are added challenges realised beyond the diamond sector as a consequence of the country's failure to diversify. The impact is seen through the overall decline in the country's economy which is facing recession (Konopo, 2017). The pace of economic activity has been in decline since 2014, as a result of modest growth in the mining sector coupled with challenges in the country's water and electricity supplies (AfDB, 2016). Real GDP growth contracted by 1.9% in 2015, dropping from 4% in 2014 to 2.5% in 2015 (AfDB, 2016).

With the mining sector in decline, there is increased pressure for non-mining sectors to perform. Jefferis (2014a) finds that the non-mining industry has been more dynamic than the mining sector, driving growth more so than mining from 1998-2008. He acknowledges that despite this change, non-mining sectors have not been a strong stimulus to the labour market, as job creation remains a problem in Botswana. Unemployment figures in the country continue to rise. Official figures place unemployment at 19%, with youth unemployment estimated to be over 40% (Konopo, 2017). Furthermore, poverty, particularly in rural areas is extensive with an estimated one out of five people living on less than US $2 a day (Konopo, 2017). Jefferis (2014a) presents that Botswana has in the past made an effort to improve poverty rates, with the

provision of universally free primary school education and free healthcare serving as a cushion to the poor. However, income inequality in the country remains high. Botswana's Gini coefficient[13] is measured at 0.61, making it one of the most unequal countries in the world (Econsult, 2016). Income disparities between the rich and the poor are high with a large number of households having to depend on very low incomes. Furthermore, this diamond driven growth model has led to a dependence on the state as the main investor and employer in the economy (World Bank, 2015). These are some of the challenges that need to be addressed by the diversification strategy, to ensure that the economy is dynamic enough to boost job creation and for government to build an enabling environment for the private sector to grow and develop new sustainable economic sectors.

[13] The Gini coefficient is a standard indicator or measure of income inequality. It ranges from 0 to 1, where 0 reflects a perfectly equal society and 1 represents an unequal wealth distribution (Harvey, 2015).

Chapter 4. Botswana's Economic Diversification Strategy

The government of Botswana has long recognised the importance and the need to diversify its economy. These efforts can be traced through the various National Development Plans (NDPs)[14] that have been implemented since independence (Sekwati, 2010). However, in recent years, direct policy has been designed to focus on economic diversification including the Botswana Excellence Strategy rolled out in 2008 and the more recent programme, the Economic Diversification Drive (EDD) launched in 2010 (OECD, 2014). This chapter outlines the current policies and efforts towards the promotion of economic diversification in Botswana

4.1 Policy Overview Post-Independence

Botswana aims to follow the export-led growth model similar to that of the Asian tigers. The GoB initially opted for the free-market route following independence having witnessed the failure of socialist regimes in the rest of the continent. However, more recently, Botswana has been described as a developmental state given that the government is an active participant in the workings of the economy, playing a facilitator role. Export-led growth is driven forward by the country's industrial policy, which is designed to promote manufacturing sectors, the development and support of large-scale enterprises, increased privatisation and the promotion of selected industries in tourism and agriculture (Sekwati, 2010). More recently, as the need to diversify intensified, government policy became more clearly centred on economic diversification, highlighted within the overarching NDPs but also in the form of the Botswana Excellence strategy and later the EDD which are explored below.

4.2 Botswana Excellence Strategy

Botswana Excellence – the strategy for economic diversification and sustainable growth, was released in 2008 in order to address the country's primary economic challenge of the impending depletion of minerals (Government Implementation Coordination Office

[14] Botswana's National Development Plans are documents that outline the country's short to medium term initiatives. The current NDP is the 11th, set to run from 2017 – 2023 (MFDP, 2016).

(GICO), 2008). Developed by the Botswana Economic Advisory Council (BEAC)[15], the strategy was modelled on the lessons learnt from developing countries that had successfully diversified their economies. These include Mauritius, Singapore, Dubai and Malaysia, some of which were starting from positions more unfavourable than Botswana's (GICO, 2008). Government was encouraged by these countries as most had achieved diversification within a 10 – 15 year time frame.

Botswana Excellence identified the following actions and instruments as the necessary functions to be achieved:

- Creating an enabling framework for diversification
- Fostering a positive mind-set change, increased empowerment and openness of Batswana
- Developing policy and institutions, instruments and projects to drive diversification

The last function on projects is expanded in the Excellence strategy to highlight projects that were earmarked as key drivers (GICO, 2008). Agriculture and tourism were outlined as leading sectors where growth was expected. Efforts designed around the key sectors include commercialising and restructuring the cattle sector, the introduction of agro-processing and the development of industry on the back of the agriculture sector, in addition to the improvement of access, service provision and utilisation of the available tourism offerings. Various initiatives were further highlighted under the projects banner that include: establishing Botswana as a transport hub, positioning the country as an air, road, rail and logistics hub for Southern and Central Africa; the introduction of free zones that would provide business incentives to investors in specific ventures; and the development of the Botswana Innovation Hub (BIH), a platform that would provide infrastructure, space and incentives to tech companies, including start-ups, in the country (GICO, 2008). Other projects identified are the development of diamond beneficiation and processing, enhancing banking and financial services, developing mining diversification around coal and gas energy industry and finally, to create areas of excellence. The Excellence strategy however, was not specific and clear regarding the measures to be taken to realise these very ambitious goals (OECD, 2014). It was aspirational more than it was actionable. As a result, the government developed a master

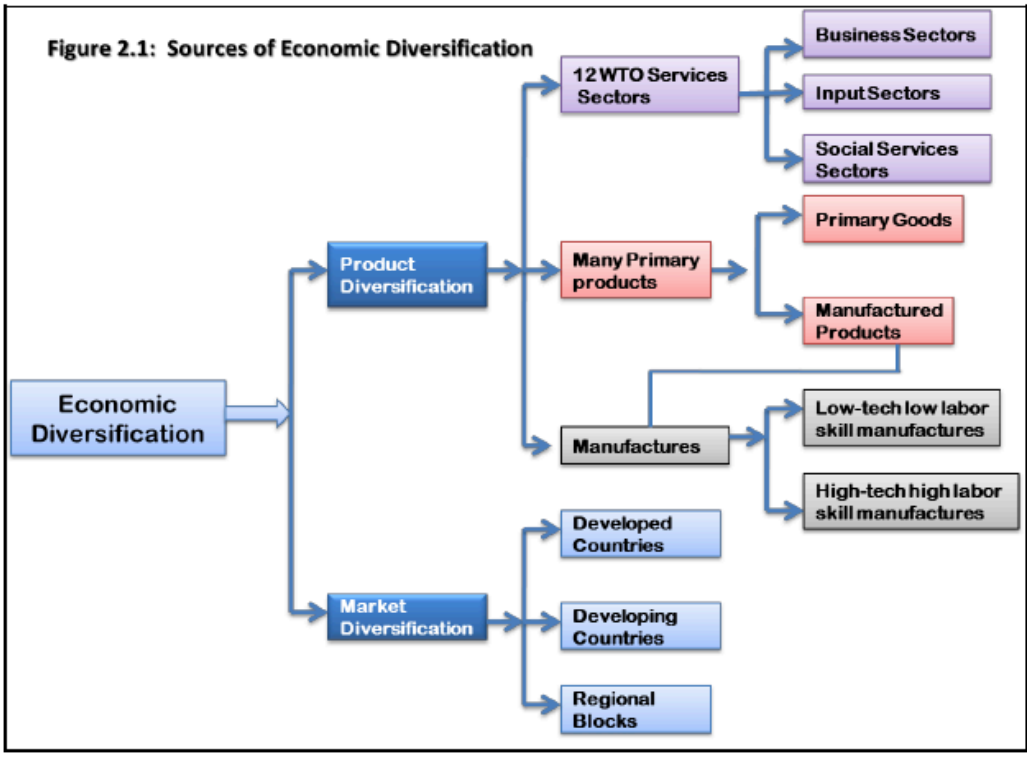
[15] See Appendix B for the mandate and role of the council

action plan based on the ideas underlined in the Botswana Excellence Strategy, in the form of the Economic Diversification Drive (EDD).

4.3 Economic Diversification Drive (EDD)

The Economic Diversification Drive is a government policy that ran from 2011 - 2016 (Mbayi, 2016). Established under the Ministry of Trade and Industry (MTI), the benchmark for successful diversification was to reach a point where no one sector could be singled out as the driver of economic growth. *Figure 2* below provides a visual depiction of the sources of diversification expected by government (MTI, 2011). As the image shows, government expected to realise economic diversification through product and market diversification, where product includes primary and manufactured goods and services, and market diversification refers to the country's access to markets (MTI, 2011). This was an ambitious plan that would require multiple interventions over a long period of time.

Figure 2. Potential Sources of Economic Diversification in Botswana



Source: Ministry of Trade & Industry, 2011

EDD was divided into two strategies, the short-term and the medium to long-term strategy. The short-term strategy of the EDD was aimed at achieving quick wins (MTI, 2011; Mbayi, 2016). It centred primarily on local procurement with the goal to increase government purchases from local manufacturers and service providers, in order to stimulate local production and consumption (Mbayi, 2016). Quick and positive results were expected in the short term as local procurement is used as a tool to capture the "early harvest of low hanging fruits in targeted sectors of the economy where private sector efficiency and competitiveness may be achieved quickly" (MTI, 2011). One of the other key goals for the short-term strategy was to reduce the country's large import bill, which had been recorded at an average of P 20 billion annually from 2006 – 2011 when EDD was first launched (MTI, 2011).

The EDD short-term goals and principles cannot, by design, support long-term sustainable diversification as they are heavily depended on government support and intervention, which does not align with the principles of an outward-oriented growth strategy (MTI, 2011). Therefore, an additional strategy was designed under the EDD banner to support diversification and growth beyond the short term. The two strategies were designed to run alongside one another, as it would take time before the goals of the short-term strategy were realised and before firms would become competitive enough for the global market.

The key underlying principle behind the medium to long-term strategy is to diversify the economy through the systematic development of globally competitive enterprises that will require little or no government protection (Mbayi, 2016). The MTI (2011) presents that this strategy will diversify the economy into sectors that will continue to grow even after diamonds have been depleted. The goals outlined in the medium to long-term strategy are: (1) to develop globally competitive sectors; (2) to diversify exports and export markets through the private sector; (3) to develop goods and services that comply with local and international standards and; (4) develop an entrepreneurship culture in Botswana (MTI, 2011).

Seven key thematic areas to be addressed through the EDD were identified as the following (MTI, 2011):

- Sectoral Development and Business Linkages
- Export Development and Promotion
- Investment and Finance
- Quality Control, Standards and Production
- Technology Development, Innovation and Transfer
- Research and Development
- Entrepreneurship Development

The first two themes, sectoral development and business linkages and export development and promotion form the core of the EDD strategy. The *Sectoral Development and Business Linkages* theme is centred on developing Botswana's priority sectors to become globally competitive and act as the drivers of growth (MTI, 2011). The goals were to promote local content in goods and services, technology transfer and innovation, knowledge transfer and increased FDI as the SMME sector is developed. *Export Development and Promotion* looks to develop an enabling environment that will cultivate diversification of export products and export markets (MTI, 2011). Measures outlined to see this through include: efforts to increase the percentage of revenues accrued from non-mining sectors; to increase the percentage of private sector funding and; increasing export competitiveness. The *Investment and Finance* theme is outlined as being the key to ensuring that "foreign and domestic investors make Botswana the investment destination of choice" (MTI, 2011). This includes the promotion of "Brand Botswana", and efforts to align and harmonise investment policies (MTI, 2011). *Technology Development, Innovation and Transfer* aims to support research and development (R&D), with efforts to increase awareness, uptake and utilisation of available technologies (MTI, 2011). *Entrepreneurship Development* is centred on job creation, increased citizen participation and economic empowerment (MTI, 2011). Strategic objectives under this theme include the promotion of entrepreneurship culture, improvements in the business regulatory environment and the facilitation of increased access to finance for entrepreneurs.

Brief Policy Evaluation

Botswana's policy regime has involved a mix of permissive, functional and selective policies. The Excellence strategy was very selective, highlighting the priority sectors of tourism and agriculture; however, it did not have a strong focus on implementation. Following recommendations from BEAC, EDD was designed and developed as the action plan for diversification to rectify the Excellence Strategy's problem of implementation. EDD was a more detailed plan, however, it was given a short implementation cycle of 2011 – 2016, which does not provide enough room to see through the goals of a medium to long-term strategy. NDP 11 (MFDP, 2016) presents that aspects from the EDD will be absorbed into the new industrial policy, however, this limited time horizon reflects poor long-term planning on the part of policymakers.

In reference to policy pre-dating the EDD, Sekwati (2010) argues that challenges for economic diversification stem from policy design as well as challenges with the environment in which policies are implemented. Numerous policies have been rolled out, yet they remain fragmented and uncoordinated. Furthermore, the government has presented policies with grand ideas but very little information on clear and practical implementation strategies, particularly around performance indicators and monitoring thereof (Sekwati, 2010). Additionally, there are a plethora of organisations and institutions assigned to the implementation of these strategies; creating an unnecessary duplication of efforts and rivalries that undermine the work intended (OECD, 2014). Despite policy documents citing the private sector as the key driver for diversification efforts in Botswana, the economy remains highly dependent on government support and government expenditure. Government has been criticised for not being responsive to the needs of stakeholders in the private sector. As a result, the private sector is "narrow and shallow with weak sectoral diversity and production links" (Sekwati, 2010).

Furthermore, Botswana's diversification policy has been criticised for being inward driven despite claims to drive an outward driven policy (Jefferis, 2014b; World Bank, 2015). Industrial policy has centred largely on the development of local industries. Where the development of firms is concerned, industrial policy provides greater returns to domestic producers of non-tradables as opposed to incentivising firms to export their goods and services across the region (World Bank, 2015). Additionally, the implementation of the EDD thus far has focused strongly on the implementation of

local procurement preference schemes, which are inward-driven and highly dependent on government procurement. The Citizens Entrepreneurial Development Agency (CEDA)[16] also pushes an inward agenda as it seeks to provide funding and support to local entrepreneurs only. Immigration policy has also become more inward-looking as it has become increasingly difficult to hire foreigners despite specialised skills (Jefferis, 2014b). Botswana should be focused on developing a more competitive, outward-oriented private sector, one that will drive the growth of employment-intensive sectors in the areas where it can exploit an international comparative advantage (World Bank, 2015). Whilst this is highly championed in the recently launched NDP 11 (2017 - 2023), more effort will be required to reform this policy environment in order to develop a new outward growth model.

[16] See Appendix B for CEDA role and mandate

Chapter 5. Evaluation of Botswana's diversification prospects

Botswana's economic data illustrates that the country has not been very successful in its efforts to diversify away from diamonds. Through growth in the finance and tourism sectors, the service economy has over time grown to become the largest contributor to Botswana's GDP, indicating that some structural change has occurred (Fessehaie, Rustomjee & Kaziboni, 2016). However, whilst there has been a shift in the composition of GDP, it has not been a truly transformative shift, as diamonds remain the dominant source of government's revenue. This growth has failed to realise true structural transformation in the economy as labour is being absorbed into low-productivity sectors such as government, retail and community services Fessehaie et al., 2016). High productivity sectors in manufacturing continue to lag behind and remain stagnant whilst mining has never been able to absorb much of the labour force. Given the country's extensive policy efforts to resolve this, the question arises as to why Botswana continues to fail to diversify its economy.

In this section, the paper will analyse Botswana's economic diversification prospects, given the principles, methods and drivers outlined in Chapter 2. The chapter explores Botswana's efforts to establish an enabling environment, the level of government intervention in the economy and the sectors identified to drive the diversification agenda forward. In doing so, opportunities for diversification and growth are identified, as well as the constraints hindering Botswana's diversification goals. These will be evaluated to highlight how successful current efforts have been, where the country can stand to do better and how Botswana can learn from other resource-rich economies.

5.1 Enabling Environment Approach

Botswana has been hailed for its successful macroeconomic management and has consistently been rated amongst the top in Africa in investment ratings and doing business rankings. This section of the paper explores Botswana's efforts at developing an enabling environment for industry and the private sector to grow successfully. An enabling or conducive environment creates a framework through which industries can grow to be profitable, whilst costs to investors and exporters are minimised (Lall, 2002).

5.1.1. Macroeconomic policy

Botswana's macroeconomic regime can be summarised as follows. Fiscal policy has traditionally been based on prudence, monetary policy prioritises price stability and the exchange rate system has remained flexible, adjusted over time to the country's economic needs at different stages of development (Lange & Wright, 2002). The GoB developed a public finance management programme early on during a time of severe drought, the principles of which remain today. The lessons developed were to ensure that government increased savings in times of surplus and would use the reserves to compensate during bust cycles (Lange & Wright, 2002). The public finance management programme encouraged the appropriate use of mineral rents, as diamond revenues were reinvested into public service delivery and the accumulation of assets. Thus, there has been a strong balance between investment spending and recurrent spending with provisions made for future budgets on development projects (Jefferis, 2014a).

As part of this strategy, government developed two funds in the first budget following independence to act as the vehicles to preserve diamond revenues (Auty, 2001). The Revenue Stabilisation Fund and a Public Debt Service Fund were established at a pivotal time, before the first diamond mine was built, indicating the GoB's commitment to prudence early on. Financial reserves grew rapidly and by 1998, accumulated reserves reached US $5.9 billion, equivalent to 125% of the country's GDP at the time (Auty, 2001). The Pula Fund was later developed in 1994. It is Botswana's SWF, a long-term investment portfolio established in order to preserve diamond export revenues for future generations (Bank of Botswana, 2017). The fund has performed well since it was established, however, there have been instances of significant outflow, particularly following the global financial crisis in 2008 (Bank of Botswana, 2017). The Bank of Botswana is not openly transparent with the value of the fund and transactions performed, however, figures released in 2015 reflected the fund to be valued at P61 billion[17] (Konopo, Newel, Ntibinyane & Letlole, 2016). Konopo et al. (2016) argue that this reflects a slow growth rate of the fund, given that gem prices have been significantly high over the past two decades. The growth of the fund is further challenged by the looming decline in diamond production, and thus the GoB cannot rely on these reserves

[17] About R81 billion or US$ 5,9 billion (Bloomberg, 2017)

to sustain the economy for long in the post-diamond era. Additionally, the governance of the fund has been criticised for a lack of clarity on rules regarding oversight and transparency, and the Santiago Principles[18] (as cited in Konopo et al., 2016) have declared the fund to be governed under "unclear, confused and overlapping objectives, which keep changing over time".

Beyond investing into the funds, diamond rents have also gone to finance key sectors including infrastructure, health and education (Hillbom, 2008). Overall, macroeconomic policy has been hailed as being stable. Government has ensured prudent management of diamond rents, good management of the exchange rate to keep it under control, and the avoidance of external debt problems, all of which aided in the avoidance of Dutch disease in Botswana (Hillbom, 2008). Despite these efforts, the economy particularly the export sector has not responded adequately (MFDP, 2016). The manufacturing sector has failed to grow, reflecting the one area where Botswana is said to suffer symptoms of the Dutch disease (Hillbom, 2008; Harvey, 2015). Botswana has not experienced Dutch disease in the traditional sense of an appreciated exchange rate (World Bank, 2015). Rather, it has symptoms of the disease in the form of high structural unemployment, a high share of employment concentrated in the public sector and a domestic business community that operates with a focus on non-tradables and government contracts. These are symptoms that cannot be simply cured through macroeconomic policy but will require further interventions to develop a strong competitive private sector.

5.1.2. Institutional Variables – Institutional Reform & Good Governance

Botswana is well celebrated for its institutional capacity and investment climate. The country is said to have quality institutions that are secure, well-defined property rights, and it is on the back of these that the country attained its economic growth success (Acemoglu et al., 2001). Institutions according to North (1990) can be defined as the rules of the game in society (Leith, 2005). Good institutions in Botswana according to Acemoglu et al. (2001) came down to pre-existing traditional institutions, benign neglect

[18] The Santiago Principles are the Generally Accepted Principles and Practices for SWFs (Bank of Botswana, 2017). They are voluntary international guidelines which countries adhere to in order to promote openness and accountability of their SWFs (Konopo et al., 2015). Botswana was one of the architects of the principles and has adhered to them since 2008 (Bank of Botswana, 2017).

on the part of the coloniser and the alignment of interests of elites with development interests for the nation. The *kgotla*[19] system is cited as the key institution that created a strong base for good leadership and a sound system of governance (Acemoglu et al. (2001); Harvey & Lewis (1990); Leith (2005)). The openness, transparency and inclusive nature of the *kgotla* was the basis for a state that was vested in democratic principles, allowed for political freedoms, participation in the makings of the state and developed a culture of accountability (Acemoglu et al., 2001).

Furthermore, Botswana has a history of good governance, having been consistently ranked amongst the top countries on the continent. Governance has aided in ensuring the balance between growth and redistributive policies (World Bank, 2015). Diamonds were discovered once these ideals had already been set in place, and with good leadership, well-established democratic principles, accountability on the part of elites amongst others, the resource was managed successfully. However, the institutional capacity of the public sector has come into question in recent years as government policy has not realised economic growth success nor has it improved upon the country's development record. The development of multiple public investment projects such as the Morupule B power station, Sir Seretse Khama International Airport, national stadiums and more, has been riddled with delays due to contracts with inefficient suppliers, negligence, corruption and overall poor management. This highlights the government's limited capacity to plan and implement projects (World Bank, 2015). The diminishing capacity of the public sector is concerning given the country's reliance on public investments programme and a further indication of the need for the private sector's role to increase within the economy.

5.1.3 Investment Climate

The investment climate of a country is best evaluated by the ease of doing business rankings as set by the World Bank. Economies are ranked from 1 to 190 based on 10 measures considered to build a country's score (World Bank, 2017). Botswana is currently ranked at number 71, moving 1 place down from its 2016 ranking of 70. Within

[19] The kgotla is a public assembly where men of the tribe gathered periodically to discuss issues of public interest, disputes amongst families and amongst tribesmen (Leith, 2005). A platform through which law was dispensed and cases were heard under the rule of the dikgosi/chiefs.

Africa, only Mauritius and Rwanda outrank Botswana at 49 and 56 respectively. Despite this success, constraints remain when it comes to the ease of starting a business, enforcing contracts and access to electricity. Longstanding bottlenecks associated with doing business have been around immigration, with issues around the provision of work permits to foreigners. The process of getting a work permit has suffered from inefficiency and long delays in processing, which in turn has discouraged the expansion of current business activities and potential inflows of FDI (GICO, 2008). Additionally, utilities in electricity and water are expensive with unreliable supply (BIDPA & World Bank, 2006). This results in high business costs making it difficult for exporters to be competitive on the global scale. Reforms to the processes associated with starting a business and reforms to the utilities sector, electricity, in particular, are vital towards developing an enabling environment for new economic activities or new exports to be cultivated.

5.1.4 Industrial and Trade Policy

Industrial and trade policy are highlighted in the diversification literature for their potential to help inspire the development of high productivity sectors including manufacturing goods, which have the potential to be exported at an internationally competitive level. They are enablers as they present incentives to incite production and to open doors for increased exports and therefore increased revenues. Both Botswana's industrial and trade policies are outward-oriented with a focus on global competitiveness (Zizhou, 2009).

The manufacturing industry and the potential for policies in trade and industry to succeed are stifled by structural challenges that cannot be easily resolved (Zizhou, 2009). Botswana's trade is limited due to the country being landlocked and far from ports (World Bank, 2015). This raises the costs of trade. Secondly, access to capital is a challenge. Botswana has a limited domestic capital base, which makes it difficult for citizens to establish large-scale industries (Zizhou, 2009). Few citizens are equipped with the business acumen to establish and sustain such industries, requiring continued support through business development training. Additionally, the country has a limited input base, which presents a further hindrance, as it would require high import costs and

support services are limited in the form of skilled personnel and infrastructure as they are no well-established industries to learn from. Finally, Botswana's small domestic market is not able to sustain large-scale industries. (Zizhou, 2009). The market limits Botswana's ability to reach the scale required to increase productivity and growth required to trade across regional markets (World Bank, 2015).

These factors are not encouraging in terms of the prospects of the manufacturing industry, which begs the question whether Botswana should, in fact, be striving towards achieving diversification through industrialisation or other means such as promoting the service sector or knowledge economy. As highlighted earlier, Mauritius has overcome similar challenges to develop strong competitive industries through trade openness, focusing industrial policy on building an enabling environment that incentivises production for export through special economic zones and tax incentives. Therefore, the GoB should continue in efforts to advance a competitive outward-oriented private sector that could see this through, but also ensure that there is full commitment to supporting and incentivising export-driven firms.

Whilst trade policy remains relatively open, Botswana's trade policy is largely influenced by its relationship with neighbouring South Africa (Zizhou, 2009). Given the small domestic market, and the close proximity to South Africa - Africa's largest and most developed industrial economy - developing a successful industry in Botswana has been difficult. This coupled with Botswana's membership in the Southern African Customs Union (SACU) resulted in a trade policy that is dependent and defined at SACU level (Zizhou, 2009). Despite this, Botswana still has some room to direct its trade policy towards advancing its export regime. Objectives of trade policy are centred around securing market access for Botswana exports with preferential treatment, efforts that have secured the country markets for its beef in Europe, diamonds in the United Kingdom and textiles to the US and SACU member states (Zizhou, 2009). In order for trade policy to be more effective, industrial policy needs to be advanced to improve the diversification of the country's export basket, in order to build increased opportunities to grow foreign exchange earnings. Opportunities exist through SACU's regional industrial policy, which is based on the development of regional value chains. World Bank (2015) suggests that Botswana could participate in the regional value chains in agribusiness, light

manufacturing and services, but so far, there has been little trade performed in this regard due to various barriers set by the member countries themselves.

Creating an enabling environment is a necessary step towards realising diversification goals in Botswana, however, it cannot alone be sufficient. In theory, these principles may work to ignite the growth of new industries, however, for developing countries, some government intervention is necessary to give industries an added boost to become internationally competitive.

5.2 Interventionist Approach

The interventionist approach outlines efforts and measures to diversify that will have a direct impact on the process. These include human capital development, the growth of the private sector and the development of institutional capital. Institutional capacity, in this case, differs to institutional variables listed earlier as it refers to the physical institutions established to advance economic diversification.

5.2.1. Private Sector Growth in Botswana

Neoclassical economics dictates that the growth of the private sector is something that should occur organically if countries follow a liberal free-market model (Lipsey & Chrystal, 2007). However, for most developing countries, some level of state intervention is required to help ignite growth in the private sector, particularly for mineral-rich economies that tend to be public sector heavy (Jefferis, 2014a). Botswana is no exception to the rule, with government representing a large share of GDP. According to the 2015-2016 World Economic Forum (WEF), Global Competitiveness Index (GCI), Botswana is ranked number 71 out of 140 countries, behind Mauritius (46) and South Africa (49). The index provides a measure of economic drivers of productivity and prosperity and therefore places Botswana relatively high in comparison to the rest of the continent, but it is the performance indicators that tell the true story. Botswana's score is driven up by the high rating assigned to its sound macroeconomic environment. However, the country scores poorly on innovation, market size, infrastructure, technological readiness and business sophistication, the tools required to boost productivity and prosperity towards the growth of the private sector with globally

competitive industries (WEF, 2016). The private sector is a pivotal element to economic diversification and growth, and the factors evaluated below are key inputs towards developing a robust and thriving private sector.

5.2.2. Infrastructure Development

Infrastructure development is another factor pivotal to private sector growth as it helps to facilitate the ease of doing business in a country. Infrastructure in Botswana is considered above average in comparison to the rest of the region (OECD, 2014). However, there is still much to be done to advance its quality such that it fosters and drives diversification forward. The country's internal infrastructure is generally well developed, however, challenges remain in terms of infrastructure connecting Botswana to regional and global markets (World Bank, 2015). Low levels of technology adoption in Botswana also hinder private sector growth. This affects innovation resulting in weak business sophistication (World Bank, 2015). Efforts have been made to improve upon technology development and innovation through the establishment of the Botswana International University of Science and Technology (BIUST) and the development of the Botswana Innovation Hub, which will spearhead the innovation drive and the goal of becoming a knowledge economy. However, given that the challenge is around adoption and the use of already existing technology, more needs to be done to ensure that Batswana are trained and skilled to use technology, before the movement to advance technology is advanced.

5.2.3. Developing the entrepreneurial mindset of Batswana

Batswana are said to lack a strong entrepreneurial mindset, which has affected private sector growth, the countries level of competitiveness and in turn, is a hindrance to the progress of economic diversification (GICO, 2008). The profile of existing enterprises is that they are small in scale, there are more microenterprises (employing less than 5 people) than there are SME's, most of these are informal enterprises that are not registered for tax purposes have very low productivity (World Bank, 2011). Pansiri and Yalala (2017) look at some of the challenges blocking entrepreneurial development in the country. These include; weak entrepreneurial culture, excessive and cumbersome laws and regulations, lack of access to finance with limited financial support offered by

commercial banks, and a lack of information on the available entrepreneurial support programmes.

Institutions[20] were established and financial schemes developed to cover this mandate, which involved the growth of small and medium enterprises as well as large-scale businesses (Sekwati, 2010). The Financial Assistance Policy (FAP) is one such scheme that was developed in 1982 to support enterprise development in the country (Sekwati, 2010). FAP was grant based, providing capital to start-up entrepreneurs and growth stage companies looking to expand their operations (Sekwati, 2010). The policy was largely unsuccessful – it was often abused due to the lack of a robust monitoring system, funds were invested into machinery that for the most part went unused, and it was discontinued in 2000 (Sekwati, 2010). CEDA was established to take over from the FAP. It was adapted to learn from the mistakes of its predecessor by providing debt capital as opposed to grants at subsidised rates and operating numerous schemes tailored to specific citizen interests (Sekwati, 2010). CEDA has managed to succeed better than the FAP as it provides loans which require entrepreneurs to have some skin in the game through interest repayments, and the institutional backing of having an agency as opposed to running one scheme in isolation has bolstered its success further. The Local Enterprise Authority (LEA) is another institution established for the purpose of entrepreneurial development. Established in 2004, their mandate is to provide business development services including training around developing a business plan and mentoring (LEA, 2017).

The GoB is accused of not implementing entrepreneurial support programmes effectively, the institutional support offered to programmes is often inadequate and government itself is biased when it comes to procurement, often purchasing through large firms (Pansiri & Yalala, 2017). Efforts must be made to ensure that enterprise development schemes reach the intended people and there should be greater institutional support. Further, the Botswana Excellence strategy outlines the need to improve business and technical skills of Batswana, it encourages the increased provision of tax incentives to generate investments and the acceptance that foreigners can aid in advancing skills of Batswana (GICO, 2008). Given the high unemployment rates in the

[20] See Appendix B for descriptions on the role and mandate of each institution highlighted

country, a growing entrepreneurial culture could be the key to job creation and in turn, if the enterprises grew in productivity, they could advance levels of diversification. Unfortunately, this does not appear to be promising in the short term as the issue with entrepreneurship is a cultural one where Batswana tend to be more risk-averse. There is a problematic culture in Botswana where citizens are complacent and dependent on government to provide jobs. The GoB therefore has to change this perception and its role as the principal employer by facilitating and encouraging increased private owned business in the country (MFDP, 2016). NDP 11 outlines the development of entrepreneurship culture as a key output (MFDP, 2016). The GoB has developed a National Entrepreneurial Policy and Strategy to realise this goal, which is expected to encourage more citizens to engage in entrepreneurship at a globally competitive level. Government should also be more open to foreign entrepreneurs setting up businesses in Botswana, employing and training Batswana, which could inspire more citizens to take the leap themselves. The GoB should also look to the education system, and what needs to be adjusted in order to produce graduates that are more driven and equipped to set up their own companies, and become employers as opposed to joining the already large pool of job seekers.

5.2.3. Investing in Human Capital Development

Studies show that there is a strong empirical link between the level of export diversification a country attains and the segment of the labour force that has completed post-primary school education (Page, 2008). Additional studies show that enterprises in Africa that are managed by university graduates tend to have a higher propensity to export, and where the graduates are indigenous to the country, they tend to show higher growth rates (Page, 2008). This points to the importance of investing in education in order to develop a thriving private sector, which can aid in driving the country's diversification efforts forward. Developing human capital requires the advancement of access to education for all in addition to the advancement of the quality of education offered. Botswana has invested significantly in education as earlier mentioned. Human capital investments are listed as one of the top priority areas for the 2017/2018 financial year, in addition to the priority areas for the NDP 11, effective since March 2017 (Matambo, 2017). However, the country is facing a rising number of unemployed graduates, the result of numerous factors led by the failure of the economy to create jobs

and the inefficiency of the education sector. The first issue is that the quality of education is poor and has failed to produce graduates that are job ready. The second is that historically, formal higher education in Botswana has been limited to universities with little focus given to technical and vocational training, which in turn provided for a limited kind of skillset (Moeti, 2017). This has translated into a poor national work ethic and a workforce that has not been well educated to be prepared for the job market, factors which result in consistently low global ratings for Botswana's labour productivity and levels of competitiveness (MFDP, 2016). The Botswana Excellence strategy acknowledges this by recommending for the reorientation of current education policies to ensure that education produces the skills required to grow and diversify the economy (GICO, 2008). It further states that there should be a reorientation of admission policy at universities and increased attention directed towards advancing vocational training. Finally, both universities and vocational training institutions must be refocused to produce job-ready graduates (GICO, 2008).

In recognition of the need to increase investment into human capital, the government enacted the National Human Resource Development Strategy (NHRDS). The strategy was designed to find effective ways of improving the use of human resources in the country, with a particular focus on the skills mismatch (MFDP, 2016). The Botswana Training Authority (BOTA) and the Tertiary Education Council (TEC) are institutions that were built to ensure quality assurance in education systems, building accountability for the quality and relevance of their programmes for vocational institutions and higher education respectively. BOTA and TEC have since been merged into one institution, the Botswana Qualifications Authority (BQA), which is currently working to transition the two programmes into one (Moeti, 2017). The goal is to build a framework that covers quality assurance across the education spectrum. BQA's mandate is to ensure that programmes on offer have been accredited, to ensure that programmes are relevant to provide the skills required in the economy and to advance the quality of programmes to meet international benchmark standards (Moeti, 2017).

5.2.4. Developing a knowledge economy

By improving the quality of education offered and the standard of graduates produced, Botswana could be well on its way to developing a knowledge economy. The

establishment of institutions such as the Botswana Innovation Hub and Botswana Institute for Technology Research and Innovation (BITRI) alongside the Botswana Excellence strategy are indicators of the GoB's intentions to develop a knowledge economy (Fessehaie et al., 2017). NDP 11 states the importance of collaboration between the education system and industry to ensure that higher education and skills development programmes meet the needs of the economy (MFDP, 2016). However, there are existing gaps that are blocking the development of a National System of Innovation much of which centres around the lack of sufficient R&D and R&D funding. BIH and BITRI have been established to address this challenge. BITRI undertakes basic research focusing on information and communications technology (ICT), chemistry, engineering and industry (Fessehaie et al., 2017). It is staffed with experts in the fields, 35 PhD's and expatriates in senior positions offering training to local junior staff members that will take over in the future. BITRI has already partnered with a Singaporean research institute to develop an application for solar technologies, it is establishing two pilot programmes for coal to liquid and coal beneficiation research projects with future plans to integrate their research projects with industries in soda ash, copper-nickel and gold (Fessehaie et al., 2017). BIH, on the other hand, focuses more on attracting FDI to innovation-based projects in ICT, mining technologies, energy and environment and biotechnology. It is entrepreneurially driven, establishing a range of incubators to support entrepreneurs in selected sectors. It is through these organisations that partnerships can be established to facilitate increased knowledge transfers from industry to industry and foreign countries.

There is scope in this regard for Botswana to follow Norway's example by developing knowledge around diamond mining processes, which would aid in taking full advantage of the resource. The country has competency in diamond mining and it is a matter of qualified professionals producing knowledge resources based on their skills and experience. These resources could be exported and Botswana could fast establish itself as the knowledge lead on diamond mining. Investing in this would involve building centres of excellence in diamond mining at universities that would go on to advance more R&D on how to improve upon existing mining practices. Research can focus on both industry-wide themes on diamond mining and processes specific to the location. This could help to advance the timeline on diamond production by exploring new mining techniques and would prepare the country to step into new processes as they potentially move to

underground mining extraction processes. Botswana is well placed to establish a region-wide centre of excellence in diamond mining engineering and geology (Page, 2008). It is not the sole producer of diamonds in southern Africa, however its central location, experience in diamond mining and the recent relocation of DeBeers processing operations to Gaborone present advantages for Botswana to become the regional knowledge hub. Similarly, Botswana could follow in the footsteps of Chile, which instead used resource revenues to invest in building knowledge on new business opportunities (Page, 2008). Whilst sectors have been identified as potential frontiers for economic diversification, not enough effort has been invested into intensive research on how to advance these sectors. Chile used public-private partnerships in their FCh programme to have private institutions develop their agricultural sector. They used these partnerships to learn from the private partner's expertise, and as the industry matured, research at universities intensified on how to make them more productive. Investing into the country's human capital is pivotal towards building the foundation from which linkages to other sectors can be formed. Developing a knowledge economy is one such avenue, which can bring rise to numerous other sector economies.

5.3 Sector-driven Approach

The sector-driven approach argues that in order for diversification to occur, countries should boost sectors in non-traditional exports and identify new segments of opportunity where untapped potential exists. Resource-based industrialisation on the other hand, suggests that new opportunities can be sourced through the exploration of upstream or downstream linkages from the resource base. Based on the goals outlined in Botswana's diversification strategies, this section will explore mining, agriculture and tourism as the potential next frontiers of Botswana's economic growth. Each sector will be evaluated according to the justifications for its priority status, the level of activity in each sector thus far, the potential for growth and potential constraints to growth.

5.3.1. Diamond Mining Beneficiation

As a measure to resolve the challenges associated with diamond dependence, the GoB has developed a mining beneficiation strategy, which aims to ensure that increasingly, more value is being realised locally from the country's mineral resources. Beneficiation develops value-adding linkages between production processes or stages in order to increase the potential benefits to be realized from a resource (Kaplinsky, Morris & Kaplan, 2011). The theory suggests that Botswana's diamond activity should go beyond resource extraction and expand into diamond cutting, sorting, valuation and even trading in order to truly exhaust the benefits from the resource (Kaplinsky et al., 2011). The country has for some time been involved in diamond cutting and sorting, however, the goal is to maximise on current diamond resources, in order to build industries that will remain beyond the exhaustion of extractive diamond mining in Botswana. DeBeers was for some time vehemently against beneficiation suggesting that economic realities in Botswana did not allow for Botswana to enter into new segments of the diamond value chain efficiently (Grynberg, 2013). Gary Ralfe, managing director of DeBeers in the 1990's is quoted as saying (Grynberg, 2013),

"Botswana's best interests are served precisely by having diamonds polished in the places where they can most economically be polished…what Botswana needs to do is ensure that diamonds reach the place where they can achieve the highest price and that gives by far and away the best returns in terms of fiscal revenue".

The recent decline of the DeBeers cartel opened the door for Botswana's beneficiation prospects as DeBeers' corporate strategy changed and the mining contract was renegotiated. Renegotiated terms required DeBeers to help the GoB establish a viable cutting and polishing industry in Botswana. The result was the establishment of the cutting and polishing industry which saw 16 cutting and polishing companies, also known as sightholders, setting up factories in Botswana (Mbayi, 2011). The local industry is driven by the supply of locally produced rough diamonds[21] to the sightholder factories. Targets have been set for the industry regarding the level of rough diamond sales to the factories and the number of jobs expected. Government expects DTCB to sell US $500

[21] Rough diamonds are required in the cutting and polishing production process of gemstone diamonds

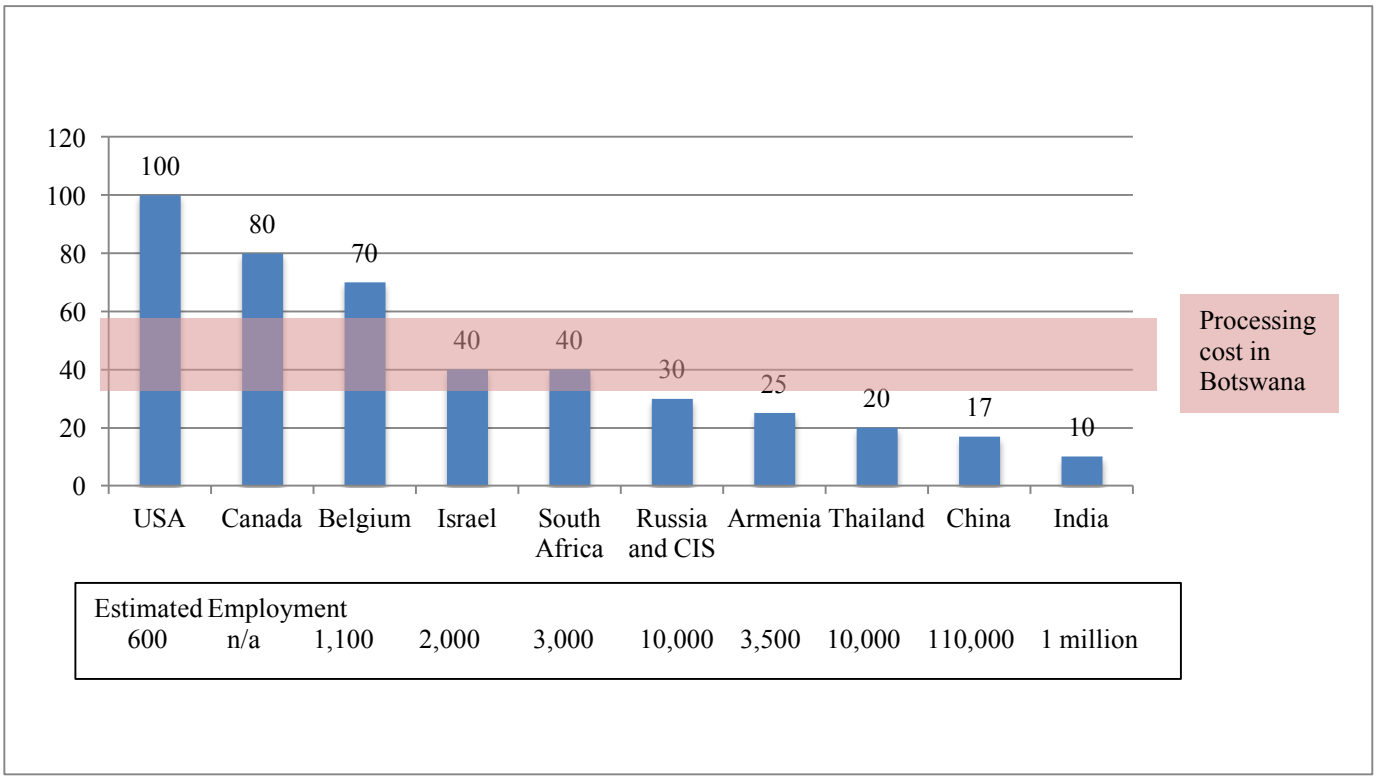
million worth of rough diamonds to the local industry each year and for this value to grow over time (Mbayi, 2011). Additionally, the industry is expected to produce at least 3000 jobs or more. To ensure that industry advances human capital in Botswana, the allocation of rough diamonds to sightholders is tied to them meeting the requirement to hire and train locals with cutting and polishing skills (Mbayi, 2011). DeBeers is contracted to ensure that the industry is a success with penalties in place should targets not be met, and therefore, they have a vested interest to see it thrive.

New institutions were established specifically to support the growing industry. Diamond Trading Company Botswana (DTCB) was established in 2008 to perform the sorting and valuing of Debswana's production and administer support, local sales and marketing of the 16 sightholders and industry overall (Mbayi, 2011). Additional institutions include the Diamond Office, which manages and facilitates the diamond diversification process and the Diamond Technology Park that houses all diamond industry related organisations. As of 2013, all of the DTC international sales have been relocated to Gaborone, and all diamonds from DeBeers mines are now aggregated and sold in Botswana (Weldon & Shor, 2014). Diamonds from DeBeers mines across the world are brought together in Gaborone (in what used to be referred to as the "London Mix") before they are then exported to sightholders across the world (Mbayi, 2011). The sale of diamonds at "sights" - buyers from across the world convene to buy rough diamonds – has also been relocated to Gaborone and stands to bring in increased foreign exchange, investment and increased number of visitors. Furthermore, DTC international moved 60% of its London staff down to Botswana, which is an opportunity for skills transfer to ensure that Batswana are trained to run the industry themselves.

The cutting and polishing industry is the first step in the GoB's plans for diamond beneficiation as they look to develop competencies further downstream on the value chain. However, the challenge with diamond beneficiation is that: (1) it remains dependent on an exhaustible resource; and (2) the industry remains highly capital-intensive (Harvey, 2015). One could argue that diamond beneficiation does not do much to aid diversification efforts as it simply perpetuates a dependence on diamonds. This is however untrue as beneficiation has brought about job creation, though not to the extent expected. Batswana are being trained in new skills, the country is building new industries in productive sectors, and opportunities for foreign investment have risen through the

expansion of the production process for diamonds in Botswana. The other potential benefit is to be realized if Botswana can indeed establish itself as the diamond hub of the world, such that the cutting and polishing industry can continue beyond the end of diamond mining which is expected in the 2030's. Should Botswana succeed in developing a significant comparative advantage in downstream processes of the diamond value chain - rough trading, cutting and polishing, polished trading, jewellery manufacturing and retail – it could at a later stage import rough diamonds from elsewhere to keep the industry going.

Chart 1. Cost of diamond processing, by country (US$ per polished carat)



Source: Adapted from Grigorian, 2012[22]

Grynberg (2013), Harvey (2015) and Weldon and Shor (2014) are not hopeful in this regard, given that costs of diamond processing are relatively high in Botswana compared to countries such as Thailand, China and India. *Chart 1* above illustrates the cost of diamond processing across 10 countries in comparison to Botswana. It is clear that it is

[22] As cited in Weldon and Shor, 2014

cheaper for firms to establish their cutting and polishing factories in Asian countries where the costs range from US $10 – 20 than it would be in Botswana where average costs are just under US $40 – 60 (Weldon & Shor, 2014). However, the cutting and polishing firms still choose to come to Botswana due to the guaranteed supply of high value rough diamonds that are important for processing. Being a DeBeers sightholder is an added advantage as it gives firms access to the primary diamond market versus the secondary or non-mined rough diamond market, and above that, DeBeers sells rough diamonds at a cost 20-30% cheaper than the price in the secondary market (Grynberg, 2013). For now, Botswana remains a commercially viable choice for firms despite the high operation costs (Grynberg, 2013). It is clear that cost is not the only factor that firms take into account as the US, Canada, Belgium and Israel are some of the largest diamond processing centres in the world despite the high costs reflected on *Chart 1* above. This is because they have the necessary infrastructure to support their diamond processing industries, they are highly skilled and experienced in the industry and they have the location benefit of being closer to the customers (Weldon & Shor, 2014). Botswana therefore has a lot to contend with before it can become the centre of choice for international buyers, and will need to develop the industry further towards reduced costs, increased efficiency or alternative means to lure in more sightholders and buyers. This will require significant investment on the part of the GoB.

It is still relatively early to measure the impact and overall success of the cutting and polishing industry in Botswana. However, one can say that the efforts thus far have been successful to move Botswana further downstream into the diamond value chain. With the development of the diamond and cutting industry, Botswana has now positioned itself to succeed at becoming the diamond hub it sets out to be. Furthermore, establishing a comparative advantage in a new industry requires time and Botswana is unfortunately starting the process at too late a stage where other countries are already well practised in doing the same. Despite this, Botswana has been a key player in the global diamond market and has a well-established export market for diamonds, which it can use as a base to drive its expansion into diamond beneficiation. The move by and support offered by DeBeers has given credence to this, and in the short space of time that the industry has been established, it has made great strides advancing jobs creation in a productive industry and has brought in investments into ancillary businesses which will only continue to grow. Diversifying diamond mining offers potential to support the

country's external and fiscal balances (Jefferis, 2014b). However, it cannot be the solution to the diversification challenge as it will continue a dependence on a single exhaustible resource. The GoB will need to continue investments in alternative sectors that will be competitive internationally, provide jobs on a wide scale and ensure that growth and development will be sustainable for generations to come.

5.3.2. Scaling up mining in alternative minerals: Building the coal industry

Whilst the resource has yet to be fully explored, Botswana is known to have extensive coal deposits with potential reserves estimated at 212 billion tonnes (Grynberg, 2012). This figure is merely an estimate as there has not been much exploration into all prospective coalfields. It is, however, largely agreed that there are significant deposits in the eastern and central regions of Botswana (Harvey, 2015). Due to the lack of data and minimal exploration, the greater portion of estimated reserves measured at 77% remains in hypothetical and speculative status (Grynberg, 2012). Assuming that these estimated figures are accurate, it places Botswana in a great position, as it holds approximately two-thirds of total coal reserves on the continent, providing the country with a strong competitive advantage (Grynberg, 2012). Furthermore, it highlights that there could be enough coal reserves to justify the development of a coal exporting industry, which could provide the GoB with a much-needed additional source of income.

According to Harvey (2015), there are 11 coalfields that have been identified in Botswana but at present, there is only one coalmine operating, the Morupule Coal Mine (MCM). Established in 1973, MCM is a Debswana owned company. It was developed to primarily fulfil local needs, supplying coal to the Botswana Power Corporation (BPC) owned power station of the same name, Morupule, the Bamangwato Concessional Limited (BCL) copper-nickel mine and the soda ash and salt producer, Botswana Ash (BotAsh) (Harvey, 2015). Outside of MCM, Mmamabula is the only other coalfield that has been fully explored for mining, though the site has never been fully developed for operations. The company interested in mining at Mmamabula has indicated that it would have the capacity to export 16 million tonnes of coal should the GoB succeed in constructing a railway to the coast to transport the coal for export (Grynberg, 2012).

Effectively, there exists great potential for coal in Botswana and yet little has been done to exploit the resource.

The benefits of developing the coal industry in Botswana centre on the need for new sources of economic growth. Mining and exporting coal would reduce the country's overreliance on diamonds (McCammon et al., 2013). It would also relieve the country from a dependence on South Africa as the source for electricity, though this would be tied to the successful operation of BPC's Morupule B. The GoB expects that, with current deposits, coal exports could reach 90mpta (Grynberg, 2012), the benefits of which would be realised through the production of coal for energy for the local, regional and international market (Paya, 2012). Government further believes that they could produce coal-based products in efforts to fully exploit the resource including coal-to-liquid fuels, coal-to-gas and coal bed methane for power generation as well as fertilisers.

The GoB has placed coal as a priority sector for economic diversification. In doing so, they have developed a national strategy on the development of the coal sector, in the form of the Coal Roadmap. It was launched in 2012, in recognition of the fact that much of the constraints, internal and external, that had made coal mining an unfeasible project were no longer as prominent (Paya, 2012). In his speech presented at the Coal Roadmap Pitso, President Seretse Khama Ian Khama is quoted as saying (Office of the President, 2012),

> "For a long time economic situations have conspired against significant exploitation of these coal resources. It is gratifying to observe that the situation has changed, and Botswana coal is in demand outside the borders of this country. In particular a number of emerging economies have led the growth in demand for coal internationally and represent potential markets for Botswana coal. The limiting factor now is the necessary infrastructure to transport the coal to these markets".

Khama's words sum up the coal story in Botswana whereby a potential market has been identified, but challenges remain to transport the coal to the export markets in addition to environmental challenges. The President's words also reference the increasing pressure for countries across the globe to reduce their carbon emissions (Harvey, 2015). Coal produces a lot of greenhouse gases through electricity generation. Despite the rising

pressures, countries like China and India continue to build coal-fired power stations resulting in a growing demand for coal. This, as Khama alluded, presents a growing potential market for Botswana's coal exports. Demand is being driven by continued subsidies on fossil fuels, which far surpasses the support offered to renewable energy globally.[23] Additionally, with increasing advances in technologies, the coal sector is experiencing hyper-innovation as the search continues for cleaner coal technologies that are more efficient and environmentally friendly (Harvey, 2015). The biggest markets for coal are the US, China and India. However, China and the US are coal producers themselves with significant reserves that ensure a reliable supply stream, they are therefore not the ideal export market for Botswana. India, on the other hand, presents potential as they produce less coal than they consume, producing at 228.8 million in 2013 whilst they consumed 324.3 million tonnes (Harvey, 2015). Botswana could act as India's long-term import partner, exporting coal as a raw material to cover their supply shortfall. Indian investors have indeed taken an interest in Botswana's coal industry (Grynberg, 2012). It is not ideal to establish an entire industry on the basis of one export market; however, it is an opportunity that could lead to an additional benefit to the country in the long run, particularly given the pressures to find alternative sources of income with the looming diamond depletion.

The challenges that remain for the development of the coal sector in Botswana are internal. These include the lack of infrastructure, geographic location and political constraints (Harvey, 2015). Thus far, coal has not been economically viable as an export due to the challenges associated with transporting it to potential export markets. Botswana is landlocked, with poor transport infrastructure, particularly when it comes to rail transport. To resolve this, the GoB explored multiple rail infrastructure projects. The first would be the Trans-Kalahari Railway via Namibia, the second option is a line connecting Botswana to Mozambique through Zambia and Zimbabwe and the final option would be connecting to the existing Waterburg line in South Africa. The Trans-Kalahari is the option that has been explored the furthest, with the government of Namibia signing an agreement in 2014, to jointly pursue the development of the Trans-Kalahari Railway (TKR) with Botswana (Harvey, 2015). The line will run from Mmamabula in Botswana through to the port in Walvis Bay, Namibia. It is a huge capital

[23] According to Harvey (2015), global subsidies to fossil fuels were recorded at US $523 billion which was reportedly six times greater than global subsidies to renewable energy.

investment, estimated to cost US $10 billion for construction with maintenance costs at US $27 billion over 30 years (Grynberg, 2012). The project is to be financed through a private-public partnership (PPP) and a Canadian company, CIC Energy Corporation has taken the lead interest to finance this project. The TKR has been in numerous feasibility studies since the 1970's and has been continuously delayed due to the sheer size of investment it would require. The GoB needs to be certain about the prospects of the coal export sector before investing in what could become an expensive white elephant. In order to build the justification for the line, the GoB should consider exporting resources other than coal on the route. Grynberg (2012) suggests that there are copper-nickel and iron ore deposits in the west of Botswana, close to Namibia, which could be transported on the line, increasing the potential for its future use. As of 2015, both governments have agreed to expand the scope of the railway as fluctuating coal prices threatened the viability of a single-commodity driven business corridor (African News Agency, 2016). The project will now become a regional development corridor, which will incorporate industries in agriculture, mining, transport and logistics, real estate as well as manufacturing.

Water is another constraint. As part of the coal mining process, coal needs to be washed following extraction and before it is exported (Harvey, 2015). Washing is required to remove the dirt, rock and sulphur on the coal in preparation for electricity generation, which reduces the level of less sulphur dioxide released as the coal is burnt for energy. Water is also needed for cooling and cleaning of the plant and equipment in the mine amongst other functions (Grynberg, 2012). This requires a significant amount of water, which Botswana does not have.

The water considerations only drive the cost associated with coal mining higher, which raises the question whether the costs may outweigh the benefits of developing this sector further. Demand and the overall market for Botswana's coal exports are not certain. The world is moving towards more environmentally friendly industries and whilst new technologies are being developed to bring down carbon emissions from fossil fuels such as coal, it remains a significant contributor. The indication from major coal and energy producers is that coal will continue to be relevant for at least the next 20-30 years (Harvey, 2015), which is promising for Botswana.

5.3.3. Building the services sector: Tourism

According to Muchapondwa and Stage (2013), tourism has over the past six decades become one of the largest and fastest growing economic sectors globally. Developing countries are increasingly looking to their tourism sectors for growth opportunities as it is believed to be relatively easy to set up, with low start-up costs given that it is reliant on a country's natural assets and attractions. Furthermore, tourism can drive up socio-economic development through export revenue, the development of supporting infrastructure and job creation resulting from ancillary businesses such as hotels and restaurants (Muchapondwa & Stage, 2013). Essentially, tourism presents a clear opportunity to build a comparative advantage in an industry that is built on natural resources and has the potential for high labour absorption.

With the shift in the spread of tourist arrivals internationally, Botswana is one of the African countries that has benefited and has consistently registered over 1 million visitors annually (Muchapondwa & Stage, 2013). The country has large numbers of wildlife that have been secured in national parks, game reserves and wildlife management areas (MFDP, 2016). Much of the wildlife is concentrated in the North West district's Chobe National Park and the Okavango Delta, which has been declared one of UNESCO's world heritage sites (MFDP, 2016). Botswana also boasts parks in the central district such as Central Kgalagadi Game Reserve and the Makgadikgadi National Park which have seen growing numbers of visitors each year (Muchapondwa & Stage, 2013).

The tourism sector has grown over time to become the second highest contributor to GDP after mining. In the final quarter of 2016, Statistics Botswana (2017) records that trade, hotels and restaurant contributed 18.3% to GDP, second to the mining sector at 19.6% and significantly greater than government and finance at 13.9% and 13.8% respectively. In terms of employment creation, the sector directly employed 32,000 people in 2014, which formed 4.6% of total employment (World Travel and Tourism Council (WTTC), 2015). Indirectly, tourism supported 10.1% of total employment, indicating its importance to the country's economic growth. Botswana's tourism policy is characterised as a 'High Value – Low Volume' (HVLV) strategy (Saarinen, Moswete & Monare, 2014). This strategy has been in place since the 1990s with the aim to attract a limited number of visitors with high expenditure levels. The tourism policy centres on

wildlife, emphasising the provision of a 'touch of wilderness' to the country's visitors, and it has for the most part been largely successful. However, if the GoB would like to use and target the tourism industry as a driver of economic diversification, they will need to adapt the strategy to allow for a wider, more diverse range of visitors, to extract the most benefit.

Challenges associated with the tourism sector

The current positioning of Botswana's tourism policy does not allow for the full economic benefit to be exploited from their abundance in wildlife and natural heritage resources because: (i) HVLV presents too much of a focus on wildlife tourism exclusively, which creates too narrow an opportunity to advance the industry further (Saarinen et al., 2014); (ii) The main attractions, the Okavango Delta, Chobe National Park and Moremi Lodge located in the north of the country are often very congested, indicating a spatial need to spread tourist activity across the country; (iii) HVLV discourages citizen participation in tourist activities as they are priced at high costs with the foreign market in mind (Mbaiwa, 2005). Most citizens feel alienated from tourist facilities as they feel that they have not been tailored to the local market, and others shy away from starting tourist-related businesses because they would be in competition with foreign companies that have greater access to capital and infrastructure to start and run such a business (Mbaiwa, 2005). Additionally, Massyn (2008) highlights that the nature of HVLV is that it finds its market in the developed north countries and is therefore reliant on linkages that run across different countries and not necessarily within the country of attraction. This limits the GoB's capacity to operate a successful tax regime for the tourism sector as much of the revenues are repatriated outside of Botswana's border, making it difficult to manage and collect taxes sufficiently (Mbaiwa, 2005).

Social equity is vital in the tourism sector in order to realise economic development. It creates equal access to resources for all user groups, ensuring equity in the distribution of costs, benefits, decision-making and management of the resource. The tourism sector in Botswana is far from being socially equitable. Government has allowed the private sector to provide the facilities, expertise and marketing in this sector quite freely in order for the services to be available. However, this has resulted in foreign domination of the sector, with foreigners winning the majority of the concessional rights to wildlife and tourism areas (Mbaiwa, 2005). *Table 5* below reflects data from the Department of Tourism, on

the ownership of tourist enterprises in the Ngamiland region, where much of the country's tourist activity is located. The data shows that the number of tourist enterprises operating nearly doubled over the five-year period from 2000 to 2005, with citizen owned companies making a massive growth increase of almost 300% (Massyn, 2008). Despite this, foreign-owned companies remained dominant in the sector, and given the 59 joint venture companies, foreigners had greater influence, owning 69% of the tourism businesses in the region.

Table 5. Ownership of tourism businesses in Ngamiland (by number)

Ownership	2000	2005	Change	% Change
Citizen	16	62	46	287,5
Joint-venture	36	59	23	63,9
Foreign owned	51	80	29	56,8
TOTAL	103	201	98	95,1

Source: Adapted from Massyn, 2008

The imbalance in ownership between citizen-owned and foreign-owned businesses is not economically efficient or sustainable. It limits the ownership capability for locals, silences their voices and influence over what happens on their own land and diminishes the benefit available to them from the resources (Mbaiwa, 2005). Government should work to incorporate clauses on citizen participation in the regulation on the leasing of land to foreigners, in the ownership of tourist enterprises. The GoB has indicated the start of efforts to increase citizen participation, as they look into the sub-division of concessions in tourist areas, to allow more Batswana to participate (Keakabetse, 2017). The Ministry of Wildlife, Environment and Tourism hopes that in doing so, it would further encourage Batswana to visit the tourist attractions as they are to be offered at cheaper and more affordable rates for locals (Keakabetse, 2017).

There are other challenges hindering the growth of the sector, which include a lack of specialised tourism skills, the lack of air transport, difficulties of visa access for tourists from new emerging markets and land allocation issues for foreign investors. The skills shortage within the sector arises from there not being specialised tourism training centres in the country which creates a skills gap in certain core functions such as business management and tourism-related technology (World Bank, 2015). Air travel is a

challenge as there are no direct, long-distance connections to Botswana and regional connections are very expensive which raises the cost of travelling to Botswana even further. Finally, emerging markets such as China and India are still required to attain a visa to visit the country, which can be a deterrent in the selection of their holiday destination, limiting the potential of new visitors coming into the country (World Bank, 2015). Thus, the GoB will have to invest in developing a tourism strategy, which works to resolve the aforementioned challenges and revitalises the sector to increase tourist attractions and tourist visitors.

Opportunities for the sector going forward

The tourism sector in Botswana is still relatively in its infancy stage. It is however evident that there is still much potential to be tapped in various facets of the sector. Opportunities exist in the spatial development of the sector. The GoB should look into exploring the existing attractions across the country and developing new ones based on communities, culture, space and language. This, in addition to reforms on visa policy and advanced air travel, would potentially extend the duration of stay in the country for wildlife lovers, but would also draw in a different type of tourist into the country, increasing revenue potential from the sector. Saarinen et al. (2014) suggest that the GoB should look beyond wildlife as the main tourist attraction and diversify the industry to create more community-oriented activities. Cultural tourism is one way to do this. It highlights a country's cultural heritage through museums, galleries, heritage zones or cultural activities, presenting knowledge on the lifestyles of the people, their beliefs, languages, religion, traditional dress, style of architecture and crafts. This will not only encourage Batswana people to take pride in their cultural heritage, it will present increased opportunities for local people to get involved in commercial tourism, further creating employment opportunities (Saarinen et al., 2014).

Improvements in the regulation and tourism strategy will be vital in order to ensure that the GoB is better able to extract a tax on revenues accrued in the sector locally and those repatriated abroad and also to ensure that the sector is transformed, increasing citizen participation and ownership. Despite the challenges highlighted, tourism is Botswana's most important services export and holds the potential to become one of the key drivers of economic diversification and sustainable development in the country. However, the

sector has suffered a lack of sufficient funding deployed to the Department of Tourism and there is no clear policy framework to advance the sector and this has been an impediment to the sector's growth (BIDPA-World Bank, 2006). It is therefore imperative that the GoB invests in the tourism sector's growth if it is to realise its goals of developing private sector-led competitive industries. Tourism may not be able to replace diamond mining as the driving force of the economy, but will surely be able to produce significant revenue, particularly through linkages into the rest of the economy driven by increased citizen participation.

5.3.4. Advancing the Agriculture Sector

Agriculture is cited as being the base industry for growth in developing countries due to its direct and indirect linkages to other sectors. Henley (2012) shows that whilst export-led industrialisation has been hailed as the driver for the East Asian Tigers economic success in recent years, the boom of the export years was preceded by significant investments into developing a sound agricultural base. The roots of industrial development in countries such as Malaysia and Indonesia can be found in agricultural and rural development. Whilst both countries have since moved away from agriculture to industry, the argument presented is that they would not have realised the high industry-driven growth without establishing a base of pro-rural, pro-poor economic growth (Henley, 2012). It is expected that through the growth of agriculture, demand for industry will also grow given that it produces inputs and materials needed in the agricultural sector. Furthermore, developing pro-poor agriculture and broad-based rural development will lead to self-sufficiency in food and increased surplus wealth for all people, resulting in a more stable economy. Governments would, in this case, be able to invest in non-traditional exports without concern for the stability of the domestic prices. African countries such as Botswana looking to industrialise may be skipping a crucial step in their efforts to emulate aspects of the Asian export-led industrialisation growth model, where they should invest in agriculture as the primary sector first and industry shall follow.

Agriculture has been identified as one of the projects to drive diversification in Botswana, with a focus on rebuilding and restructuring the livestock sector and increased support to encourage the growth of more high-value agricultural products and agro-

processing projects (GICO, 2008). However, despite multiple strategies and financial schemes to inspire increased activity and growth in the sector, its contribution to GDP has consistently declined over time. Historically, agriculture has been of great importance to the country. In 1964 just prior to independence, it was estimated that over 89% of the economically active population was engaged in agriculture, with the majority in subsistence farming (Harvey & Lewis, 1990). By 1966, agriculture was the dominant sector in the economy, contributing 40% to GDP, but with the discovery of minerals soon after, its importance would drastically decline, reaching levels below 3% by 2000 (Seleka, 2004). Whilst it performs poorly in its contribution to GDP, agriculture is a large employer in Botswana responsible for over 150,000 jobs in 2015 (World Bank, 2015). Much agricultural activity is concentrated in the rural areas, and is largely subsistence-based farming. As a result, the sector holds the potential to advance poverty alleviation in Botswana towards increased sustainable development. The section further explores the growth potential of the agricultural sector.

Restructuring livestock farming

Livestock farming and cattle farming, in particular, is central to life in Botswana. This sector has fared relatively well in comparison to its counterpart in the form of crop production. The beef industry has continuously contributed positively to the country's GDP, making up more than 60% of the value added in agriculture (World Bank, 2015). Beef is a lucrative industry for Botswana given that it is a sustainable and reproductive resource, associated with increasing global demand given rising population growth (Farmers Weekly, 2016). The Botswana Meat Commission (BMC) is the key institution in the beef sector, responsible for the slaughtering, deboning and freezing facilities for beef (Good, 2008). BMC's primary export market is the EU market, followed by South Africa, and it holds the monopoly over Botswana's beef exports. Botswana has an agreement with the EU, which allows Botswana beef unlimited preferential access, exports free of duties and quotas at a price that is 60% higher than the price offered in the secondary export market found in South Africa (Farmers Weekly, 2016). Unfortunately, Botswana has continuously failed to meet international market demands. Not only does the country have a limited number of cattle reared to cover the domestic and export market annually, only 20% of the total cattle produced and presented to the BMC meet the EU's standards, indicating that there is an opportunity to improve the

standards and quality of Botswana cattle in order to take full advantage of the EU export market and possible expansion into other international markets.

Thus far, supply has been limited by a number of factors. Whilst a large number of Batswana are farmers, they remain on a subsistence level, with too few cattle being raised for commercial and export purposes (BIDPA-World Bank, 2006). Furthermore, the cattle sector receives heavy support from government in the form of subsidies, a lenient tax system, infrastructure and trade protection. This artificially drives up the prices in the domestic market making it more attractive to produce for the domestic market than it would be to prepare cattle for export (Farmer's Weekly, 2017). Additional challenges exist in the pricing of beef exports. BMC prices are relatively fixed and are not adjusted according to changes in the rates that the EU pays. This further diminishes the incentives to local producers to meet beef export demands, never mind increasing production to help Botswana meet international market demand, thus limiting the potential of the beef export market under the BMC monopoly.

In order to see growth in the beef sector, the GoB needs to look into the restructuring of the BMCs monopoly over the beef value chain in addition to challenges limiting the scope to scale the industry. Removing the BMC's monopoly would create room for private individuals to step into the sector, at different levels of the chain, encouraging increased competition amongst producers and leading to better standards in the quality of the cattle presented for sale. It would also open up the market for opportunities existing in the cattle value chain to be explored by private individuals, an area which BMC has never fully exploited. Opportunities exist in developing expertise in other segments of the cow value chain, for example using skins, hides and tallows that may be considered waste to the abattoirs in more efficient, growth-enhancing ways (UNDP, 2012).

The status of crop farming

Crop farming and production remain important to Batswana, as illustrated by the fact that 70% of rural households were still dependent on agriculture and subsistence farming for their livelihoods and as their source of income in 2012 (UNDP, 2012). The crops most farmed are cereals such as sorghum and maize because the majority of the land in Botswana is dryland, where these particular crops flourish (Seleka, 2004). The downside

is that dryland arable farming is known to be highly vulnerable due to its dependence on rainfall (UNDP, 2012). Botswana's low and erratic rainfall patterns have thus created an unstable crop sector, which is further limited by poor soil, a lack of skills and access to the market and poor adoption of new technologies. This sub-sector, therefore, remains unproductive. Studies have shown that there is potential for crop products in sorghum, millet and groundnuts to grow beyond 1,600kg/hectare – a figure that reflects high productivity crops in comparison to maize, which averaged 300 kg/hectare over the period 1979 – 2007 (UNDP, 2012). The report, therefore, suggests that Botswana should focus on the crops it produces most productively, increasing policy support directed at the products and facilitating increased market access.

In order to advance the sector beyond cereal crops and cattle farming, the GoB has invested significant support into the growth of alternative products, particularly non-traditional goods. Non-traditional farming products include horticulture, dairy, pig and poultry products (Seleka, 2004). The promotion of these goods has been vital towards helping the country supply its own food to cover domestic demand. Seleka (2004) measures the growth of each product from 1974 – 2000. Whilst Botswana has made strides in horticulture - producing its own fruit, vegetables and starchy roots – the country remains a net importer of these food products. The same goes for pig meat and milk in the period examined. Poultry farming made the most successful shift, as it expanded faster than imports of chicken and eggs (Seleka, 2004). The growth in domestic production was inspired by the FAP grants, which encouraged increased business activity in farming. More recently, it is the National Masterplan for Arable Agriculture and Dairy Development (NAMPAAD) that has been driving non-traditional product growth and has seen successes largely in the fruit and vegetable production (UNDP, 2012).

The conclusion on the agricultural sector in Botswana is that it has a lot of potential for growth. However, this will require a dynamic change in systems in order to improve upon the quality and standards of crops and livestock, the efficiency on the production processes of both and a better use of land and irrigation systems. There is a need to diversify into other value-adding product lines, particularly in the beef industry, in order to expand foreign exchange earnings and create increased employment opportunities stemming from the sector, beyond farming (Seleka, 2004). The use of beef by-products such as skins, horns and bones could be used to develop leather-based manufacturing

industries and yet little has been done to advance this. There is an existing small meat-processing industry however it has been constrained by the inability to trade their products across borders. The growth of both industries is dependent on whether BMCs hold over the cattle monopoly will be re-evaluated. Liberalising the market would allow for new entrants into the industry, either in meat, meat processing or leather manufacturing, who would have the opportunity to produce for export. The challenges to meet international standards remain, with questions around whether leaving it to private companies may put the country's export market into jeopardy (Seleka, 2004). However, privatisation of the industry may, in fact, create for more efficient industries that produce better quality goods and so the GoB would have to weigh the risks of privatisation against the benefits.

Prospects in crop farming appear to be less promising than livestock, given its dependence on rainfall. However, with increased efforts to utilise more waste-water irrigation systems and diversification of crops farmed, there may be opportunities for local production targeted at the local market, which would enhance food security and reduce pressures on food imports. Whilst it remains largely subsistence, the case of Indonesia has shown that agricultural development can be realised by focusing on small-scale farming (Henley, 2012). The sector remained private and market-mediated, however, the state played a key role to provide new technologies and increase investments to drive the sector forward. The GoB thus needs to look into adopting new technologies to help advance crop farming despite the lack of rainfall and poor soil land, be it in the form of advanced inputs; seed and fertiliser or new farming processes which will help the country become self-sufficient in food production. In addition to new technologies, the government will have to invest in improving rural infrastructure, which will enable the success of the agricultural sector. In cases where this has been successful such as Indonesia, agriculture was always given a significant share of the national budget (Henley, 2012) therefore, this will require a significant investment and the political will to see it through. The funding required for the investment could be sourced from current diamond revenues.

Conclusions on the prospects for diversification

The sector-driven approach is where the most promise lies in Botswana's economic diversification goals. It provides the vehicles through which government policy and the facilitation of a growing private sector can be driven as it highlights the potential areas of opportunities to be exploited. The diversification of the mining sector in the form of beneficiation presents a great opportunity for Botswana to broaden its diamond mining industry and expand into diamond manufacturing. As a high-productivity industry, diamond processing presents an opportunity for Botswana to increase its comparative advantage in diamonds beyond the extraction process. The downside is that the lifecycle on the industry remains dependent on an exhaustible resource, however, should the country succeed in its efforts to establish itself as a regional diamond hub, this will extend the period in which it can depend on diamond revenues. Coal presents similar benefits and challenges as it will keep Botswana stuck in its dependence on the mining sector, with greater risks given the uncertainty of the coal export market at present. Furthermore, the mining industry is not sufficient to aid in alleviating poverty or advancing living standards, as it remains an enclave industry with low labour absorption levels.

The mining-driven economy has served Botswana well and will continue to do so, however, it will have to be supported by alternative industries in manufacturing or high productivity services in order for growth and development to occur. Agriculture, on the other hand, has large employment capacity, with the potential to improve poverty levels in rural Botswana. However, it has failed to succeed on commercial levels despite large financial investments and support to the industry by the GoB. It cannot be the driver of internationally competitive industries that Botswana needs in order to establish an outward-oriented growth model. Tourism presents a real opportunity for growth. It has an already established international market which can be expanded further. It is for the GoB to dedicate more investment into growing the sector further, diversifying it's offering and increasing citizen participation and ownership such that more revenue will accrue to Botswana directly.

Chapter 6. Conclusion

This paper has sought to provide a comprehensive overview of economic diversification literature and the diversification challenges in Botswana. The literature shows that whilst there is no single clear path to developing a diversification strategy, there are some common factors to be considered. The drivers of diversification were categorised under three approaches, the enabling environment, the interventionist and the sector-driven approach. The enabling environment approach argues that governments should ensure that they implement policies that create a conducive environment for private industries to thrive. This includes sound macroeconomic policy management that prioritises saving resource revenues in times of excess and using those savings in times of economic slumps. It also involves reinvestment of resource revenues into alternate wealth accumulating assets and the management of the exchange rate to avoid Dutch disease. The evidence presented highlights that Botswana was successful in its management of the resource and resource revenues accrued. The GoB developed a sound public investment programme which ensured that revenues were re-invested into human and physical capital early. The government has also invested revenues into a sovereign wealth fund, the Pula Fund, which will be beneficial to future generations. These efforts have ensured consistently high investment ratings for Botswana, yet despite this, the economy has not responded adequately. This is an indication that there are structural challenges beyond the macro-environment which Botswana has to resolve.

The interventionist approach centres on human and physical capital, institutional capital, and entrepreneurial development towards private sector growth. Whilst Botswana has invested significantly in physical infrastructure over time, there are still challenges when it comes to transport infrastructure (road, air and rail), ICT and internet connectivity, as well as service delivery provision in water and electricity. These factors are crucial to the growth of private industries and make it difficult to conduct business in Botswana. In terms of human capital, efforts have been made to invest in education; however, the growing levels of unemployment are an indication that these investments have largely been inefficient. Much focus has been given to human resources development in recent years, through the NHRDS, the BIH and BIUST, thus there is increased hope that the country will increase its human capital levels towards achieving its goals to develop a knowledge economy. The establishment of these institutions is encouraging. The GoB is

following the growing international trend of building science and technology parks to encourage increased innovation and they are building research centres that are integrated into industry development. However, the GoB needs to reduce its role as principal investor and make room for private sector growth. Entrepreneurial schemes such as CEDA continue to advance citizen empowerment, however, government should aim to create a balance between promoting inward-looking strategies, whilst advocating for an outward-driven economy. Citizen empowerment is vital to diversification and overall economic growth, however, it needs to be in line with the country's goals to develop more export focused industries. Entrepreneurial development and citizen empowerment strategies should be better aligned with the outward-oriented growth model.

Finally, the sector-driven approach encourages the identification of sectors with a competitive advantage that will act as the anchors of economic growth and development. These are sectors where a country has natural resource abundance, sectors that have clear market potential and those in which a country can develop adequate skills to produce goods and services most efficiently. For a small country like Botswana, with a small domestic market and limited skills base, these opportunities were not so obvious. Traditional economic theory would suggest efforts to move into manufacturing industries, however, Botswana does not have the skills, market, or capacity to develop a competitive manufacturing industry at this stage. Manufacturing as a share of GDP has been stagnant for years showing no sign of growth. Economists tend to place too strong a focus on manufacturing but for small developing countries like Botswana, with structural challenges affecting the growth of manufacturing, they have look to other options such as resource-based industrialisation, services and the knowledge economy. Options in the resources sector were evaluated to show that there is still value to be extracted in the diamond industry and many opportunities still to be explored in coal. Mining promises to continue to be a large contributor to Botswana's GDP for some time, though at significantly lower margins. Agriculture continues to be important to Batswana and will continue to be a high employer. However, given the harsh semi-arid environmental conditions and the slow rate of innovation in the sector, it does not have huge promise. Services, particularly tourism, are growing in Botswana and should receive increased support from the GoB in order for the sector to be fully exploited.

Having evaluated Botswana's prospects for diversification against the analytical framework, some final reflections come to mind. Economic diversification is not a simple process to achieve, nor is it the final goal or outcome for many countries. Diversification is the means through which countries hope to achieve sustainable economic development. It is vital to ensuring that countries are never dependent on a single resource, particularly resources that are exhaustible, non-renewable and as volatile as minerals. The country examples evaluated have shown the difficulty in diversifying away from a single resource or sector. The successful countries evaluated; Mauritius, Norway and Chile, highlight the political will required to drive the diversification agenda forward. Botswana's looming threat of diamond depletion and the challenges associated have been the main inspiration behind increased focus and efforts to diversify the economy. Efforts have however only intensified in recent years as the mounting pressure of looming depletion continues to rise and the economic growth rates continue to decline.

Whilst many countries have moved towards manufactured goods and services in their diversification efforts, the dissertation has shown that this route is not feasible for every country, particularly small developing countries like Botswana. For these countries, perhaps the focus should be on building small sources of economic growth, which together can drive sustainable development. Botswana has been so focused and dependent on a single resource it appears they are stuck in trying to find the treasure in a single pot - a sector or resource strong enough to replace diamonds. The likelihood of this happening is small given there is not a single resource, as valuable, and in as high demand. Therefore it is imperative at this juncture for Botswana to consider developing competencies in multiple areas.

Appendices

Appendix A: About Botswana

Map of Botswana[24]

Capital City:	Gaborone
Head of State:	Lieutenant General Seretse Khama Ian Khama
Currency:	Pula
Population:	2,214,858 (July 2017)
Nationality:	Motswana (singular) Batswana (plural)
Official Languages:	English & Setswana
GDP per capita:	$16,900 (2016)

[24] *Source:* CIA Factbook, 2017

Appendix B: Key institutions developed to support diversification in Botswana

Key Institutions for Economic Diversification in Botswana		
Mandate	**Name**	**Mission & Responsibilities**
Development Driven Institutions	**Ministry of Finance & Development Planning (MFDP)**	Driver of national development planning and manages financial and economic resources. Develops economic and financial policies for sustainable economic development.
	Botswana Development Corporation (BDC)	Main agency for commercial and industrial development. Provides financing (debt and equity) to commercially viable projects in industries including manufacturing, agriculture, property and infrastructure.
Export & Investment-centred Institutions	**Botswana Export & Development Investment Authority (BEDIA)**	Private sector led institution developed to promote export-oriented industries. Activities included identification of investment opportunities in the country, facilitation for investors to access BW markers and increased market access for BW products. Merged with IFSC to form BITC in 2012.
	Botswana International Financial Services Centre (IFSC)	Regional gateway for global finance flows into SSA. Involved the elimination of exchange rate controls, providing tax incentives to IFSC registered companies, and the establishment of the Botswana IFSC marketing agency, to promote the IFSC framework abroad. Merged with BEDIA to form BITC in 2012.
	Botswana Investment & Trade Centre (BITC)	Investment promotion and export development towards economic growth. Custodian of "Brand Botswana", BITC promotes locally manufactured products to regional and international markets, encourages citizen participation in the economy and encourages enabling environment through policy advocacy.
	Ministry of Investment, Trade and Industry (MITI)	Provides a conducive environment for economic growth. Houses the Economic Diversification Unit, Doing Business Unit and Department of Industrial Affairs.
Entrepreneurial Schemes & Incentives	**Financial Assistance Policy (FAP)**	Grant based financing to support start-up entrepreneurs.
	Citizens Entrepreneurial Development Agency (CEDA)	Provides subsidised loans to citizen owned businesses.
	Local Enterprise Authority (LEA)	Established in 2004, LEA promotes and facilitates entrepreneurship and SMME development. Mandate is to provide business development services including training around developing a business plan and mentoring.

Diversification Centred Institutions	**Botswana Economic Advisory Council**	Advisory group commissioned to assist government in advancing national goals on sustainable growth and economic diversification. Members include local and international experts. Developed the Botswana Excellence strategy in 2008.
	National Economic Diversification Council	Mandated to drive economic diversification strategy and is the overseer of the EDD. Chaired by the MITI, members include LEA, CEDA, BITC and other institutions with an interest in realising diversification in Botswana. NEDC provides strategic council to the EDD Unit.
	EDD Unit	Secretariat of the NEDC, hosted under MITI. The unit manages the implementation of EDD activities
Sector Specific Institutions	**Human Resource Development Council**	The HRDC is responsible for planning and funding of education and training in Botswana. It is the key advisor to government on human capital development. Coordinates between the private and public sector, along with civil society to drive implement the National Human Resource Development Strategy (NHRDS).
	Botswana Innovation Hub	Develop a science and technology park to aid in economic diversification. Goals: developing a knowledge economy, promoting research and innovation. Focus: ICT, Mining, Bio Technology, Energy & Environment.

Source: Authors own research

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