

The Quasi Dutch Disease, The Mild Resource Curse and Botswana's Experience

By

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September 2019

Master's Thesis

Presented to

Ritsumeikan Asia Pacific University

In Partial Fulfilment of the Requirements for the Degree of

Master of Business Administration

Contents

CERTIFICATION PAGE	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	v
CHAPTER 1: INTRODUCTION.....	1
1.1 Study Background	1
1.2 Statement of the Problem	5
1.3 Importance of the Study	6
CHAPTER 2: LITERATURE REVIEW.....	8
2.1 Resource Curse	8
2.2 Dutch Disease	12
2.3 Dutch Disease Calmatives	19
2.4 Rent Seeking Behavior	21
CHAPTER 3: BACKGROUND INFORMATION-BOTSWANA.....	23
3.1 Overview: Botswana	23
3.1.2 Economic Context	24
3.1.3 Political & Socio-economic Context	30
3.2 National Development Plan.....	31
3.3 De Beers Partnership with Botswana	34
CHAPTER 4: THEORETICAL FRAMEWORK	36
4.1 Hypothesis	36
4.2 Research Questions	38

4.3 Expected Outcome of this study	39
CHAPTER 5: METHODS	40
5.1 Comparative Study of Botswana and Gabon.....	40
5.2 Background information: Gabon	42
5.3 Rent Seeking Reality: Botswana and Gabon	47
CHAPTER 6: FINDINGS & DISCUSSION	50
6.1 De-industrialization	50
6.2 Real Exchange Appreciation Rate	54
6.3 The Spending Effect	58
6.3.1 Government Debt	60
6.3.2 Foreign Exchange Reserves.....	60
6.4 Rent Seeking Outcomes.....	61
6.5 Summary.....	67
CHAPTER 7: CONCLUSION	69
7.1 Fiscal & Monetary Controls	69
7.2 Appropriation of Rents	71
7.3 Strict Budgetary Planning.....	71
CHAPTER 8: RECOMMENDATIONS	74
8.1 Limitation of the study	76
8.2 Future Research	77
Appendix	78
BIBLIOGRAPHY	81

CERTIFICATION PAGE

I, LATLHANG Maduo (Student ID 52117627) hereby declare that the contents of this Master's Thesis Study are original and true, and have not been submitted at any other university or educational institution for the award of degree or diploma.

All the information derived from other published or unpublished sources has been cited and acknowledged appropriately.

LATLHANG Maduo

2019/05/31

ACKNOWLEDGEMENTS

I would like to express my gratitude to Professor Yasushi Suzuki for his guidance and the advice he rendered throughout our seminars.

My sincere thanks to my seminar mates for their inputs and inspiration to complete this thesis.

ABSTRACT

Ongoing debate on the economic performance of Botswana in relation to the country's dependence on mining revenues makes it imperative to examine the country's economic situation to assess whether Botswana is suffering or has suffered or escaped the 'so called' Dutch Disease. This paper assesses the economy of Botswana, in a comparative manner, to test for the Dutch Disease by modelling Botswana's economic indicators against that of the Gabonese economy, an economy in which symptoms of the Dutch disease are evident. The findings reveal that policy responses have over the years mitigated the symptoms and effects of the Dutch Disease in Botswana, resulting in a varied form of Dutch disease prevailing in the economy of Botswana.

Another interesting finding was the positive effects and outcomes from rent seeking behaviour by Botswana's political leaders and bureaucrats, which resulted in a value reducing manner in Gabon.

CHAPTER 1: INTRODUCTION

In this chapter I will give an overview of the study, present some background information and the problem that I intend to address and lastly why it is important to conduct this research.

1.1 Study Background

Many African countries are dependent on the exploitation of natural resources or mineral resources as an engine for economic growth, fiscal revenues and overall national development. Over the years, we have witnessed that countries that are well endowed with natural resources are by no means guaranteed economic growth due to challenges that are unique to natural resource based economies. These challenges include market and price volatility of natural resources, Dutch disease mechanism, poor governance and a lack of foresight or planning. However, Botswana is one of the few natural resource based economies that is said to have avoided these challenges (Acemoglu & Robinson, 2012) (Gurbanov & Azerbaijan, 2010) (Jefferis, Viot, Mtegha, & Toigo, 2016).

The country is often applauded for avoiding the resource curse and the Dutch disease through appropriate governance structures and sound economic planning (Jefferis, Viot,

Mtegha, & Toigo, 2016) (Sekwati, 2010) (Bank A. D., 2002). By ensuring political stability, the country is said to have created an extractive environment in which the extractive sector is able to thrive by giving investors fair returns while meeting public expectations and having a positive development effect on overall society (Jefferis, Viot, Mtegha, & Toigo, 2016). The authors are of the view that this stable environment enabled by the government resulted in the commodity market prices not having an adverse effect on the economy as is usually the case in Dutch disease prone economies.

Despite the government of Botswana's attempts to develop other sectors of her economy, diamonds are and have been the backbone of the economy and they remain the largest contributor to the nation's gross domestic product (GDP) (see appendix A). Debswana, a joint-entity formed by the government of Botswana and South Africa's De Beers in equal partnership, is the largest mining operation in Botswana (Debswana, 2016). According to a report by Debswana, since the discovery of diamonds in the 1980's, there are currently four diamond mines operating in Botswana and the country is the largest producer of quality gems in the world (Debswana, 2016).

Diamond mining constitutes approximately a third of Botswana's gross domestic product and 80 percent of export earnings; this capital intensive industry however constitutes only 5 percent of private sector employment (Botswana S. , Gross Domestic Product: First Quarter of 2018, 2018). Due to its high capital intensive nature, this sector does not have strong linkages with other sectors of the economy. All outputs needed for the extraction of diamonds are exported and all major inputs are imported.

Since the mining operation began in Botswana, Debswana has had a contract that restricts her to sell all of her mined diamonds exclusively to De Beers. De Beers in turn dispatched the diamonds to London for aggregation and selling to its customers known as Sight holders (Sales Agreement , 2019). After much criticism from the public, this set up was changed in 2013 and the new agreement is that the sales and marketing will be conducted in Botswana to possibly allow the down streaming process to create development and employment locally (Sales Agreement , 2019) (Mokgoabone, 2019).

The biggest contribution of diamond mining to the economy of Botswana has been government revenues, followed by customs union and earnings on foreign exchange.

These three sources of government revenue (minerals revenue, customs union revenue and foreign exchange reserves) have formed a vicious cycle with a feedback loop that is enforced by diamond mining revenues. Various local state-enterprises and entrepreneurial assistance offered by the government is financed through diamond mining revenues. The entrepreneurs who are rendered assistance by the government (from mineral rents) are in turn able to import expensive machinery and mining equipment from outside the customs union region, this equipment is usually liable for custom duties.

Botswana has also been able to accumulate large foreign reserves due to substantial diamond mining rents and by international standards, Botswana has over the years accumulated significant reserves, relative to her total imports of goods and services (Botswana B. o., 2019).

Had Botswana never discovered diamonds, everything being equal, all other governmental revenues would have been lower and many initiatives by the government would not have been possible. This is reflected by surveys that were conducted prior to the discovery of diamonds in Botswana (Robert L. Curry, 1987). This study concluded

that there were no chances of Botswana ever achieving the rate of economic growth it has achieved. This reflects the significance and level of dependency on diamond revenues by the government of Botswana.

1.2 Statement of the Problem

There is a disagreement whether Botswana, a mineral led economy, boasts a success story or it is yet another case of the natural resource curse. There are books and articles that have been written on Botswana, applauding it and citing it as a good example of economic development especially in relation to the natural resource curse literature and what impact large dependency on natural resources tends to have on poor or undeveloped countries (Acemoglu & Robinson, 2012) (Badeeb, Lean, & Clark, 2017) (Brahmbhatt, Otaviano, & Vostroknutova, 2010) (Sekwati, 2010).

In the same light, Botswana has received some attention and criticism when evaluating if the country is truly an exception when talking about natural resource dependent economies and the impact that this dependency tends to have on the economic growth of said countries (Sekwati, 2010) (Robert L. Curry, 1987).

There are some authors and economists who are sceptical about this ‘model country’ and ask the question, - if Botswana is truly the exemplary of good mineral wealth management, then why has the country had little to no success in diversifying its economy? Why is the prevalence rate of unemployment so high in Botswana? Why is it one of the most unequal countries in the world, with a high GINI index of 60.5? Why is the economy heavily reliant on mineral exports? Why has there been no growth of the agricultural and manufacturing sectors over the years? What sense can we make from the country’s fluctuating trade of balance? These are some of the questions which the current study addresses.

1.3 Importance of the Study

It is important to analyse Botswana’s economy for a case of Dutch disease so that there is an understanding of what has hampered the governments’ economic diversification efforts, this will also enable the relevant authorities to come up with appropriate responses or strategies to alleviate the situation.

One of the most pressing issues in Botswana is for the reigning government to come up with policies that address the issues that mostly affect the youth like high unemployment rates. This demographic situation presents an opportunity to accelerate socioeconomic development by developing other sectors of the economy

Although it is quite common to separate the Dutch disease from the resource curse in the literature, the present study looks at the prevalence of the two phenomena in Botswana together. Due to recent events, Botswana's portrait of success in the natural resource curse literature is outdated and it is unlikely to be revived if there are no substantial improvements in the country's social, political and economic progress in the coming years.

CHAPTER 2: LITERATURE REVIEW

The first section of this literature review will discuss the resource curse and explain factors that drive it and the second part looks at the literature review on Dutch disease mechanism and the different concepts that have been discussed pertaining to it. The last part of the literature review discusses policy tools that have been employed or put in place to curb the main symptoms of the Dutch disease by certain countries. To facilitate in my argument and discussion later, I mostly focused on literature that looks at developing countries that may have similar development experiences to Botswana- growth backed by natural resources.

2.1 Resource Curse

The resource curse manifests itself in two main ways, in economic decline (which is discussed under the Dutch disease section below) and in democratic deficit. While the resource curse and the Dutch disease are both brought about by natural resource wealth, the two take different forms. A review of the natural resource curse literature posits that countries with abundant natural resources are ‘cursed’ with negative socio-economic and political outcomes (Brass, 2008) (Mehlum, Moene, & Torvik., Institutions and the

Resource Curse, 2006) (Ploeg & Poelhekke, 2009). Countries with an abundance of natural resources tend to not only fail to manage their resources and not achieve growth; but they also tend to be hampered to grow as a result of having abundant resources (Olters, 2007). This is in accord with Mehlum, Moene, & Torvik (2006), who state that it is a common consensus in the development economics literature that countries with abundant natural resources tend to grow slower when compared to countries without natural resources.

Research on the resource curse can be traced as far back as the 1970's when a negative correlation between natural resource dependent countries and economic growth was first discovered, and after many scholars published studies to explain this phenomenon. For instance, one of the significant contributions in this area is that of Karl (1997) in which the author explains that it is a common occurrence that commodity-led economic growth tends to bring about similar developmental experiences in countries with different socio-cultural backgrounds. The author went further to analyse economies of Nigeria, Venezuela, Algeria and Indonesia in order to illustrate this (Karl, 1997). The author's main argument was that, when it comes to natural resource endowed countries, natural

resources will often shape the institutions of the state, decision making and the policies implemented in the state (Karl, 1997).

It is however important to note that, this book makes a great contribution to the resource curse literature but some of the countries cited in the book have yielded different experiences over the years.

A study by International Monetary Fund (IMF) shows that living conditions in most oil producing states have over the years fallen below the average for sub-Saharan African countries as oil booms in these countries tend to be followed by temporary economic growth, however, in the long run it becomes apparent that the countries would have been well off without the resource discovery in the first place (Olters, 2007) (Shaxson, 2007).

This is in line with the ‘oil impedes democracy’ claim that is common in the literature. This effect of oil on democracy and growth can be used to account for absence and weakened democracy and or economic growth in mineral dependent states that is also the case in several other states in Africa, Latin America and Southeast Asia (Ross, 2001).

When assessing the antidemocratic effects of oil and if the same can be said about other commodities, Ross (2001) found out that the effects of these natural resources are roughly the same, even though with minerals the coefficient was somewhat larger than that of oil. Growth rate in resource rich nations has been found to be slower when comparing these countries to those without substantial resources. A comparison of resource rich countries (Nigeria, Zambia, Sierra Leone, Angola and Venezuela) to 'Asian tigers' - Hong Kong, Singapore and Korea was conducted and it was proved that the resource abundant countries lag behind countries whose economies are not based on natural resources (Mehlum, Moene, & Torvik, Institutions and the Resource Curse, 2006). This study also cites countries like Botswana, Canada and Norway as growth winners and it attempts to assess the extent to which this countries differ in terms of their institutions; the findings from this study is that institutions play a significant role in terms of the resource curse. (Mehlum, Moene, & Torvik, Institutions and the Resource Curse, 2006).

Natural resource dependency is found to have a negative effect on institutional development as rents from natural resources tend to weaken accountability and restraint. Many of the problems associated with natural resource dependent countries from weak institutions, unemployment, inequality, lack of political fairness, etc. ultimately stem

from an economic structure that is heavily based on external windfalls that could be from foreign aid, remittances to natural resources [Kolster, 2019].

2.2 Dutch Disease

The Dutch disease is in the simplest form a result of a resource boom's extra wealth causing a contraction to a nation's tradeable sector(s) by giving rise to a real appreciation of the nation's currency (Kojo, 2014) (Martins, 2009) (Priyati, 2009). This is in agreement with a definition by Corden & Neary (1982) who state that the Dutch Disease is the economic term used to describe the correlation between natural resources and economic growth in order to explain the negative economic influence that happens to a certain sector of the economy or the economy itself due to the failure in economic policy planning after a nation acquires windfall profits from discovery of natural resources. This boom could also be as a result of natural resource price increase, recent discovery of natural resources or decrease in cost of resource extraction (Ismail, 2010).

In the 1980's it became apparent that high but temporary streams of revenue stemming from natural resources may not always be beneficial to a country because a lot of third

world natural resources producing countries were having difficulties increasing their export base, West European oil and gas producers also showed a shrinkage in their tradeable goods sectors (Wijnbergen, 1984).

According to (Corden & Neary, 1982) the lack of growth in the tradeable goods sector is a result of spending resource wealth on the non-tradeable sector which leads to a real appreciation, i.e. a rise in the relative price of non-tradeable goods in comparison to tradeable goods. The authors first modelled the Dutch disease in an Economic paper in 1982 to explain how an export boom can result in a structural shift in an economy; the examples cited were that of the extraction of natural gas in Netherlands, the extraction of oil in the United Kingdom and minerals in Australia all hampered the manufacturing sectors (Corden & Neary, 1982).

The Dutch disease is typically modelled in an economy consisting of three sectors, the natural resource sector, and the tradeable sector (which is a non- natural resource), for example manufacturing or agriculture and the non-tradeable sector, for example construction and non-tradeable services (Corden & Neary, 1982) (Brahmbhatt, Otaviano,

& Vostroknutova, 2010). The Dutch disease will manifest itself in two ways, namely – the resource movement effect and the spending effect.

Assuming positive income elasticity of demand for non-tradeable goods and assuming that a part of the extra wealth generated by the resource boom is spent inside the resource-exporting country, initially the resource boom will lead to an excess demand for non-tradeable goods, which will drive appreciation (Corden & Neary, 1982). The rise in the relative price of non-tradeable goods increases the relative profitability of the non-tradeable goods sector and contracts the (non-resource) tradeable goods sectors and this is what is termed the spending effect (Brahmbhatt, Otaviano, & Vostroknutova, 2010) (Kojo, 2014) (Corden & Neary, 1982).

The resource movement effect occurs when a boom in the natural resource sector draws capital, labour and other factors of production away from other sectors of the economy and this usually results in reduced output in the rest of the national economy' sectors, reduced output in the non-tradeable sector causes the price of non-tradable goods and services to rise relative to the price of tradable goods, which are set in the world market (Corden & Neary, 1982) (Brahmbhatt, Otaviano, & Vostroknutova, 2010). As a result of

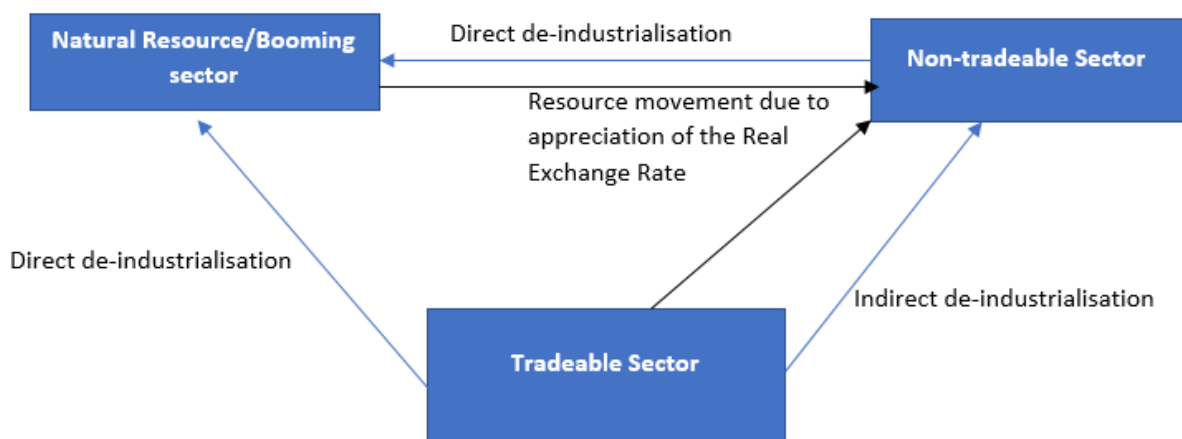
the resource movement effect, an economy will develop substantial expertise in the service sector, and in most cases, these luxury services are targeted at domestic consumption and are not easily exportable (Behzadan, Chisik, Onder, & Battaile, 2017). The authors also provide insights and explanations on what they termed ‘point source natural resource finds’, like diamonds, gold, etc. are likely to reduce economic growth in the long run (Behzadan, Chisik, Onder, & Battaile, 2017).

In their article, (Does inequality drive the Dutch disease? Theory and evidence (2017) the authors also emphasise the importance of resource rent distribution and how this can bring about the Dutch disease effects. This is in line with the prevailing school of thought that ‘point source resources’ are more valuable when being expropriated by the state as that is when they bring about irregular cash flows in societies that are mostly characterised by poor institutions (Acemoglu & Robinson, 2012) (Ploeg & J.Venables, 2013).

The resource movement effect is however said to be less likely to occur in low-income economies, where most inputs used in the natural resource extraction process are imported from outside the country (Corden & Neary, 1982) (Badeeb, Lean, & Clark, 2017).

The diagram below depicts how the Dutch disease is brought about as a result of the boom of a natural resource and further how the tradeable and non-tradeable sectors of the economy are affected. The blue arrows illustrate the resource movement effect. A boom in the natural resource sector, will move resources (capital, labour, etc.) away from the tradeable sectors sector (Silva, 1994). This is in line with Corden & Neary (1982), who states that the decline in output from the non-tradeable sector will result in excess demand, causing a price increase of non-tradeable goods, making them relatively more expensive than tradeable goods. This then causes a real appreciation of the exchange rate.

Figure 2: The Resource Movement Effect and the Spending Effect



The spending effect, illustrated by black arrows in the above diagram is brought about by the increased returns on commodity production which causes an extra inflow of foreign currency, and as a result an increase in the domestic supply of money, which represents

an increase in aggregate income (Corden & Neary, 1982). Tradeable' prices are determined on the world market, whereas the price of non-tradeable is determined by the productivity levels in the country therefore, only the price of non-tradeable increases due to the rise in spending which results in non-tradeable being relatively more expensive; the rise in the price of non-tradeable relative to tradeable constitutes an appreciation of the real exchange rate (Corden & Neary, 1982) (Kojo, 2014).

The available literature on the effects of an export boom and unemployment is contradictory. It is worth noting however that, in assessing the impacts of the Dutch disease on unemployment, a study conducted by Gaston & Rajaguru (2011) shows that for the selected sample in the study, labour market institutions, for example, unions are detrimental to offsetting the impacts that are brought about by this commodity boom. This findings are in agreement with an earlier publication by Nickell & Layard (1999) in which the authors discuss the interactions between labour markets and macroeconomic policies, and they are of the same sentiments that when it comes to matters of unemployment and commodity markets, having labour market institutions can really alter the situation.

Furthermore, there are theories and studies that demonstrate that countries that are less technologically advanced are more vulnerable to the Dutch disease (Cherif, 2013). This author suggests that the decline in the manufacturing sector is positively influenced by the technological gap that exists between the trading countries; with the country that receives windfalls from natural resources' technological gap widening over time (Krugman, 1979) (Krugman, 1987) (Cherif, 2013).

When discussing matters pertaining to inequality and the Dutch Disease, there are several studies that come to the conclusion that inequality is indeed significant in explaining mechanisms or prevalence of the Dutch Disease. When testing if the Dutch disease can be as a result of inequality in the distribution of natural resource rents, Behzadan, Chisik, Onder, & Battaile (2017) found that an unequal distribution of natural resource rents can indeed bring about the Dutch disease and hamper the growth of tradeable sectors- agriculture and manufacturing. Through an empirical analysis, this study found that countries with a high unequal distribution of rents, the higher the prevalence rate of the Dutch disease. This is in lieu with a study that was conducted by Farzanegan & Habibpour (2017), in which they found out that resource rents may have a 'significant decreasing effect on the household Gini index'.

2.3 Dutch Disease Calmatives

This section discusses policies that can be employed by resource rich countries in order to avoid poor economic performance that is as a result of a natural resource abundance.

A few countries are cited as a success story of avoiding the effects of the Dutch Disease, for example Indonesia, Norway and Botswana. These countries are said to have achieved economic development in the midst of a natural resource boom. These countries are said to have over the years lessened any real exchange rate appreciation within the economy, the resource movement effect from the tradeable sectors to the commodity sector has also been controlled as well as curbing their spending effect (Gurbanov & Azerbaijan, 2010).

In the case of Norway, the resource movement factor effect was curbed by the income coordination policy that was implemented, whereby productivity increases in the manufacturing sector were computed and the findings were used to determine ceilings on general wage increase (Gurbanov & Azerbaijan, 2010). To maintain fiscal discipline, the government ensured that it invested oil rents abroad and avoided an excess supply of foreign currency flowing in the economy (Dyrstad, 2016). The Norwegian government's

intervention in curbing the problems associated with the Dutch disease validates that well governed institutions play an integral role in how this problem manifests (Gurbanov & Azerbaijan, 2010) (Dyrstad, 2016).

The government of Botswana also provides an illustration of how governmental intervention can play a pivotal role in avoiding adverse effects of the Dutch disease as the government built up foreign exchange reserves which ultimately curbed the real exchange appreciation rate (Gurbanov & Azerbaijan, 2010). Relative to its imports, Botswana has accumulated reserves that are able to cover close to two years of imports (BoB, 2019).

The authors of 'Avoiding the Dutch disease: a comparative study of three successful countries' (2010) also discuss how Indonesia-through exceptional policy responses was able to avoid symptoms associated with the Dutch disease during its oil boom by resisting political pressures to borrow money and expand its budget. By analysing the Indonesian government budget the authors found that the government spent on agriculture, construction, building the industrial sector and social services (Gurbanov & Azerbaijan, 2010).

2.4 Rent Seeking Behavior

Rent seeking behaviour is increasingly discussed in an attempt to explain cases of Dutch disease as well as the resource curse. The concept of rent seeking refers to a broad scope of activities that are utilised to capture economic advantage through the political process [Parker, 1996]. In rent seeking, resource investments are utilised to generate and transfer rights on which certain rents are based, this activities range from briberies to lobbying [Fischer, 2006] [Khan Sundaram, 2000]. Rent here refers to unearned income which can be legal or illegal [Congleton, Hillman, Konrad, 2008].

Resource rents are said to be one of the impediments to economic growth as they increase the likelihood of social ills like corruption, political conflicts and further inequalities [Deacon Rode, 2012]. Rent seeking behaviour is distinguished from the Dutch Disease as it brings about lower growth due to the change in economic agents' incentives [Tinguiri, 2008]. According to Tinguiri [2008], rent seeking can occur even in countries that have managed to neutralise Dutch disease. There are some works that question and challenge the old fashioned stance that rent developmental success cannot be achieved in the presence of rent seeking behaviour [Khan Sundaram, 2000] [North, Wallis, Weingast, 2009]. By using evidence form Asian countries, the authors demonstrate that rent seeking

should be viewed as a process that is dependent of two components- ‘the overall outcome of the rent seeking process and the rent seeking cost’ [Khan Sundaram, 2000] and that the social benefit derived from these rents differs depending on these two components.

Schumpeterian rents- rents that are brought about as a result of innovation and new information generation from utilising new technology, are an example of rents that have a positive influence on economic development [Schwab Werker, 2018]. Studies have shown that development in the finance sector also depends a great deal on retained earnings that are used for reinvestment, hence rents in this sector are utilised to fund faster expansion [Schwab Werker, 2018] [Levine, 1977].

CHAPTER 3: BACKGROUND INFORMATION-BOTSWANA

In this chapter I present information about Botswana by highlighting some of her economic, social and political traits which will not only facilitate in detecting symptoms of both the Dutch Disease and Resource curse but also signal to the readers the contrasts that exist in the country that some applaud for escaping the resource curse.

3.1 Overview: Botswana

Botswana is a landlocked Sub-Saharan country that has become known for things like a stable economy, a good credit rating, a relatively low corruption rate, good systems and infrastructure in place and it is considered the most peaceful and stable African country (Leith, 2005). A lot of mineral exploration has been undertaken in Botswana- copper, diamonds, coal, etc. and the diamond mines to this day remain the biggest source of revenue for the nation. Until 2016, copper was mined in Botswana but due to the slump in copper prices, all the copper mines in the country were shut down [Reuters, 2018]. The mining of coal is conducted for domestic consumption as it used to supply power generation plants in the country, the government hopes to export some of this coal once the market conditions are favorable.

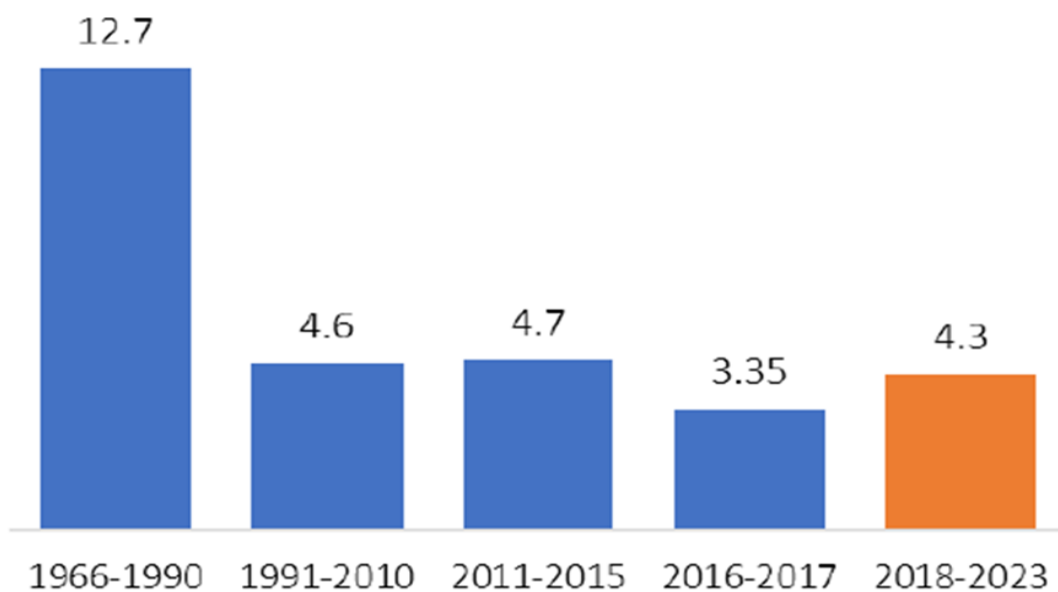
The country has been described as an ‘African miracle’ (Samatar, 1999); and there are publications that depict Botswana as an exception to the fate that most resource abundant economies have befallen (Sarraf & Jiwaji, 2006). Botswana, a former British protectorate became independent in 1996 and at the time the country was classified as one of the poorest countries in the world and had no developments in place (Parsons, 2019). At the time when Botswana became independent, the country’s economy was heavily reliant on foreign aid and small scale farming (Samatar, 1999).

3.1.2 Economic Context

Botswana has set the record as one of the world’s most rapid growing economies, averaging 5 percent per annum in the past decade (see Figure 3.2) (BoB, 2019). After diamonds were discovered, things took a twisted turn in the early 1970’s as Botswana sustained a high economic growth rate Botswana’s per capita GDP growth averaged more than nine percent in the period 1966 to 1999 and it was the highest in the world over that period of time (Leith, 2005) (Samatar, 1999). Thereupon, Botswana became classified as a high middle income country by the World Bank [The World Bank In Botswana, 2019].

When taking a closer look at the country's growth experience it is clear that this high economic growth rate is attributable to the diamond wealth that was discovered at the time. According to a study conducted by World Bank (2002), Botswana ranks fifth on the list of mineral dependent countries in the world, and it is the leading diamond producer by value and the second largest producer in the world, in terms of volume (Rusike, Young, & Gautam, 2017). In the period 2009-2016 gross domestic product actual average rate of growth stood at approximately 3.9 percent per annum.

Figure 3.1- Botswana GDP growth 5 year averages in %¹



¹ Government of Botswana and IMF projections cited by UNICEF Botswana Budget Brief, 2018.

Before diamonds were discovered in Botswana, Agriculture's share to GDP was 40 percent and according to recent government publications, this figure has shrunk significantly over the years and stood at 2 percent in 2017(see Appendix B) (Botswana S. , Statistics Botswana: Publications, 2019). In the last decade, mining sector's contribution to the country's GDP has decreased from 25 percent to 16 percent. The share of manufacturing has remained almost constant at 5 percent in the past four decades (see Appendix B).

As shown in Figure 3.1 and 3.2, exports are largely constituted by diamonds and the country's top import is diamonds as well. Non-industrial diamonds contribute a little above 80 percent to total exports, as illustrated in Figure 3. This exports are followed by non-industrial diamonds at 5.5 percent. Similarly, the top most imported commodity in Botswana is non-industrial diamonds, with a contribution of 22.3 percent to total imports, followed by unsorted diamonds with 5.3 percent contribution to total imports.

Most of the diamonds that the country imports are for aggregation purposes. Contribution of fuel and petrol to imports is 5 percent and 4.8 percent respectively [<http://www.statsbots.org.bw/>, 2019].

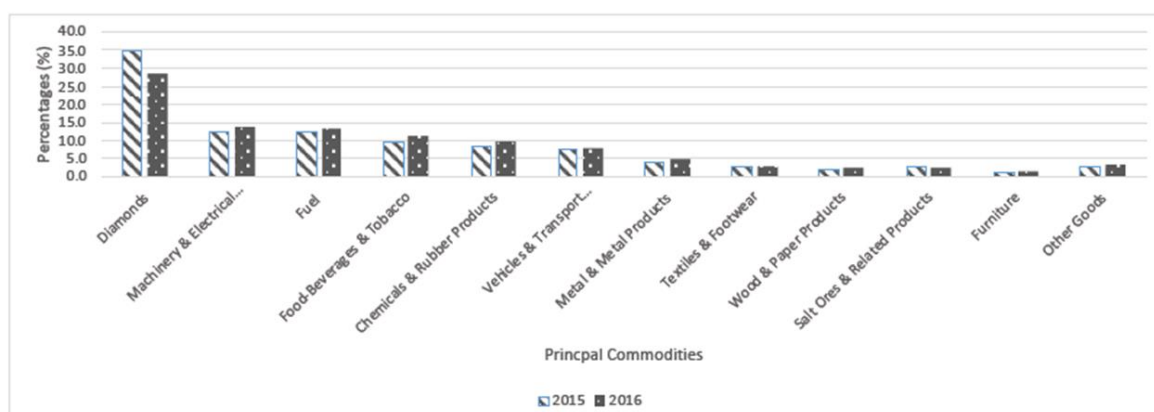
Botswana has failed to diversify and grow other sectors of her economy as diamonds account for more than 80 percent of total exports, and have attributed a large portion of exports for the past four decades. The mining sector contributes one third to the country's Gross Domestic Product (www.gov.bw, 2018). Agriculture's share to GDP has shrunk significantly from over 40 percent in the 1960s to 2 percent in 2018, although this figure has not reduced in absolute terms, it reflects on the growth rate of other economic sectors within Botswana's economy. The manufacturing sector's contribution to GDP remains small, it has remained at five percent in the past forty years. Mineral revenues accounted for thirty-five percent of total government revenues in the year 2017 [http://www.statsbots.org.bw/, 2019].

Being largely driven by fluctuations in the global diamond market, Botswana's trade balance tends to look depict a below pattern (see figure 3.4 and 3.5), being swayed by declining commodity prices and globally weak demand for diamonds. The combined value of exports and imports accounts for 97.1 percent of the total gross domestic product.

Figure 3.2- Export Commodities-by Group – 2015 and 2016 (Percentage Distributions)²



Figure 3.3- Import Commodities – 2016 and 2015 (Percentage Distributions)³



² Statistics Botswana Annual Publications, 2018

³ Source: Botswana Statistics Portal

Figure 3.4-Total Trade, 2012- 2016 (Millions of Pula)

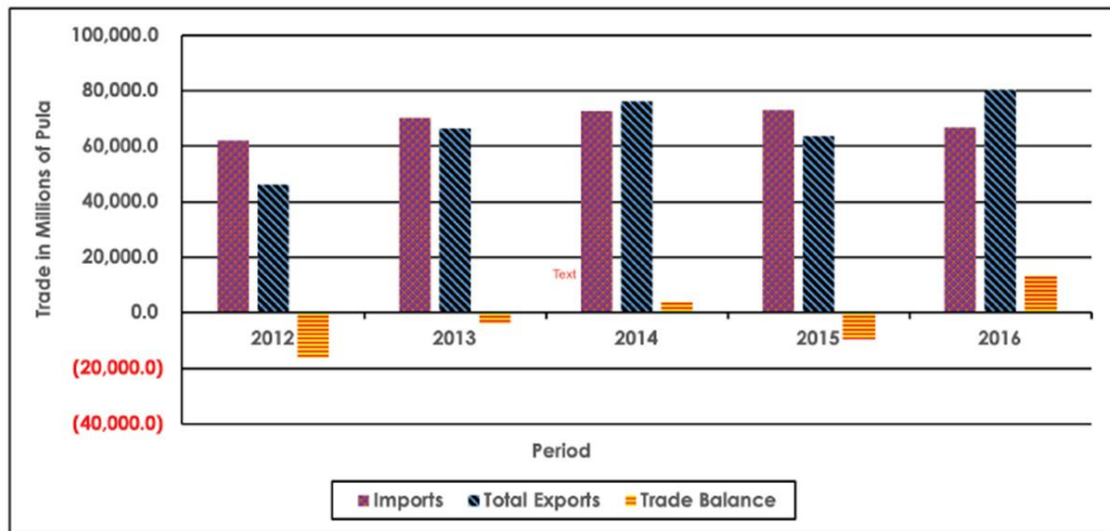
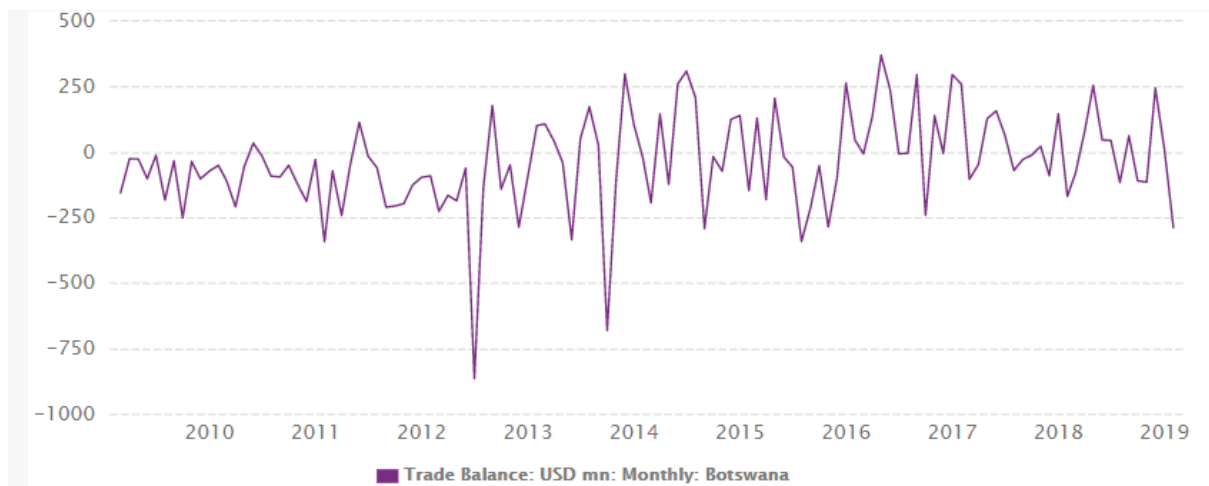


Figure 3.5: Botswana Trade Balance Pattern⁴



⁴ Source: CEIC Data, accessed from the CIEC website, 04/19.

3.1.3 Political & Socio-economic Context

Botswana is widely applauded as an ‘African success story’ because in addition to its rapid economic growth the country has managed to set prudent macroeconomic policies and good governance structures in place that have enabled it to attain its economic standing today, especially looking at where the country is coming from-being one of the poorest countries in the world in 1966 [Maipose, 2008]. [Acemoglu Robinson, 2012].

Botswana, one of the least corrupt nations in Africa has had the longest liberal democracy in Africa as it avoided the authoritarian ruling and has had a multi-party democratic system in place since its independence [Maipose, 2008].

However, due to recent events, cracks are beginning to emerge and the country’s democracy and low corruption rates and high levels of transparency are being questioned.

There has been an alarming number of cases where government officials have embezzled public funds unnoticed over the years.

The rapid mineral lead growth that Botswana has enjoyed has hidden some structural weaknesses and vulnerability in the economy as inequalities and poverty are inherent in

the socio-economic structure. Poverty and high levels of income inequality persist as Botswana's level of income inequality remains one of the world's highest with a Gini coefficient of 0.65 (World Bank, 2019).

As common with natural resource dependent economies, there is also limited private sector job creation and unemployment remains at 20 percent in Botswana, with the youth being the most affected [Botswana G. o., 2017]. Trends show that the country's level of inequality has been on an increase over the years and this high level of inequality is linked to the country's mineral led growth [Bolt Hillbom, 2017].

3.2 National Development Plan

Upon realising that the country's heavy dependence on diamond revenues is not sustainable in the long term, the Botswana government developed its national development strategies, with the overall aim to diversify the economy away from diamonds. National Development Plan's central goal since inception has been to develop other sectors of the economy, to end the nation's heavy reliance on minerals and to reduce

the role of government expenditure in the economy (www.gov.bw, 2018) [Botswana G. o., National Development Plan 11, 2017].

The current national development plan is set to run from 2011 to 2023. It is in these development plans that the relevant ministries report the nation's past economic performance, economic growth and other socio-economic indicators. It is the National development plan that sets out a holistic plan of what is to be achieved in the short term and long term and how revenues are to be utilised on national projects [Botswana G. o., National Development Plan 11, 2017].

As a result of sluggish growth of employment opportunities in Botswana, unemployment rate is currently estimated at 20 percent, with a high proportion of this being the youth and women. As a priority area in the current National Development Plan (and many other development plans that came before it), the government has set out initiatives that will improve the investment climate in the country by attracting local and foreign investors and ultimately bring down the country's high unemployment rates (Botswana G. o., National Development Plan 11, 2017). This is also said to facilitate the fast growth of the

private sector, which will reduce the government's heavy dependence on minerals revenues.

When assessing the major changes and initiatives that the government has been trying to achieve with previous National Development Plans, the major focal point has always been to reduce the role of government expenditure (that is largely backed by diamond revenues) and to make the private sector the main driver of economic growth.

Due to its heavy dependence on minerals, Botswana is particularly prone to external shocks, for example, in 2008/2009 the country was particularly hit by the global economic recession as this shrunk its economic production by nearly 8 percent (Botswana G. o., National Development Plan 11, 2017). This is just one of the many examples that demonstrate how diamond revenues are not sustainable, therefore the government has to come up with ways to meet funding obligations in the future as well as ensure economic growth.

In addition to this, we have witnessed a global decrease in the demand of diamonds worldwide, this is a result of conflict diamonds and the introduction of synthetic diamonds. The volatile nature of minerals also poses a threat to the nation's economy (Project, 2016).

3.3 De Beers Partnership with Botswana

The government of Botswana has been involved in a public-partnership with De Beers- the world's leading diamond mining company since the mining operation began in Botswana. De Beers had been in business since the 1800's and it is the leading diamond mining company in the world. It is owned by Anglo American (85 percent stake) and the remaining 15 percent is owned by the Government of Botswana (Beers, 2019).

To begin mining operations in the country, De Beers established De Beers Botswana Mining Corporation, which is now known as Debswana and is a fifty/fifty joint venture between the government of Botswana and De Beers [Companies, 2019]. Historically, De Beers was a diamond monopoly as it owned 85 percent share of the diamond market and controlled and fixed diamond prices, controlled distribution and as a result had control of the global supply of diamonds [Yu, 2019]. Although the situation has drastically changed

and diamond prices are now to a certain extent controlled by market dynamics, the government of Botswana's reliance on a single commodity- diamonds, benefited a lot from this monopoly. Botswana through its partnership with De Beers was a direct collaborator of this anti- competitive practices set by its partner. As already mentioned, diamonds constitute well over 80 percent of Botswana's foreign exchange earnings and approximately half of the government's revenue therefore the government was to a large extent certain of its future revenues from mining.

There are some experts who state that in 2013 when De Beers relocated its aggregation centre to Gaborone from London, this helped increase the liquidity of the Bank of Botswana as a lot of money began to flow through the bank, guaranteeing the liquidity of the central bank. Diamonds mined in Botswana make up a large bulk of De Beers' overall production (Sharife, 2016). It is this unique private-sovereign partnership that has left Botswana's over dependency on minerals at the helm of a monopoly and with a certain amount of leverage in controlling market prices (Sharife, 2016).

CHAPTER 4: THEORETICAL FRAMEWORK

This chapter will demonstrate the argument developed based on the literature, recent developments in Botswana as well as mirroring countries that have encountered similar experiences as Botswana. Based on this, the following hypothesis are developed.

4.1 Hypothesis

From the literature review, in order to ascertain if Botswana has contracted a case of Dutch disease, or a non-traditional case of the disease, below are my hypotheses:

1. There exist the *resource movement effect* from the tradeable sectors of the economy to the diamond mining sector and the non-tradeable sectors of the economy. As an effect of a boom in the diamond mining sector, capital and labour from the tradeable sectors has been drawn away from to the natural resource sector. This concentration of economic activities in mining led to a decline and collapse of the agriculture and manufacturing sectors of the economy.
2. Under the expected *spending effect*, domestic income from the diamond sector increases, while having an effect on the aggregate demand and spending by both

the public and private sectors of the economy. After the boom, there was an increase of wealth in Botswana and this led to an increase in consumption in the non-tradeable and tradeable sectors of the economy; tradeable goods were supplied by large imports.

3. The increased demand for non-tradeable services results in higher prices and increased output. The economy has a dilemma such that the rise of wages in the natural resource and non-tradeable sectors hampers the potentials of manufacturing and agricultural sectors of the economy, where prices are set in international markets.

For the purpose of this research, the two tradeable sectors that I have chosen to look at are the Agricultural sector and the Manufacturing sector as these are the two main sectors whose growth and output are likely to be affected by a discovery of minerals.

Below are the conditions that are necessary for the resource curse to be prevail in an economy. The following are proposed as explanations of the resource curse and as such the form the basis of the second hypothesis.

1. Misallocation of revenues from mining, government officials engaging in rent seeking behaviour, and poor institutional quality are some of the conditions that will be assessed in Botswana to see if the country is truly the exception to the resource curse as it is said to be.

To explain my hypothesis in detail, I have attached a diagram that illustrates the potential outcomes of the mining sector boom (see Appendix C).

4.2 Research Questions

1. What is the nature of the Dutch disease in Botswana compared to her counterparts?
2. How has the mining of diamonds impacted other industries in Botswana?
3. How has the rent-seeking behaviour affected the economy of the two countries?

4.3 Expected Outcome of this study

The present study argues for developing a rich multi-layered, but rigorous evaluation of the current economic standing of Botswana, and go further to look at other social indicators and assess how Botswana has fared in matters pertaining to the Dutch disease.

This paper will contribute to the debate on the precise nature of the Dutch disease in Botswana by analysing Botswana's economic performance in comparison to Gabon.

Botswana has been regarded as a potential exception when discussing mineral endowed economies and the presence of the Dutch disease. This thesis puts forward the argument that Botswana is suffering from a special variation of the Dutch disease, by mirroring the economic situation of Botswana to that of Gabon-a country whose ill performance and mismanagement of natural resources has been documented and it is known to suffer from the Dutch disease.

From this study, I expect to show that contrary to popular belief, Botswana suffers from a Dutch disease though not similar to that of most nations, but a Dutch disease nonetheless, hence the title '*quasi*-Dutch Disease' and mild resource curse.

CHAPTER 5: METHODS

As mentioned above in Chapter 4, this study will assess the nature of the Dutch Disease in Botswana by comparing her experience to Gabon-a country that has been proven to be suffering from the worst case of the Dutch Disease and the Resource Curse. Since some background information about Botswana is provided in chapter 3, this chapter will present information on Gabon and compare what aspects differ and what aspects are similar to Botswana per subject matter. When the two countries became independent in the 1960's, they started off with similarly poor conditions, population size, etc.; except Gabon's economy had a more vibrant agricultural sector then and since the discovery of oil the country has been unable to revive this sector, resulting in a severe case of the Dutch disease.

5.1 Comparative Study of Botswana and Gabon

To search for evidence of Dutch disease in Botswana, the present study compares Botswana's economic situation to that of Gabon. Looking at a pool of natural resource based economies in the Sub Sahara region, Botswana and Gabon are similar in terms of population size, their level of natural resource dependency, their human development index as well having as a similar timeline for development.

According to [Capri Egger, 2019], a comparative study aims to decipher the possibility of a relationship amongst two or more variables by looking at differences and similarities between two or more subjects. The authors go further to say that, a comparative study should involve a systematic evaluation of variables of the subjects concerned [Capri Egger, 2019].

This section therefore discusses the similarities between Gabon-a country that is known to suffer from the Dutch disease with Botswana, a country that has been applauded to escape the resource curse and the Dutch disease to assess the extent to which this may be possible.

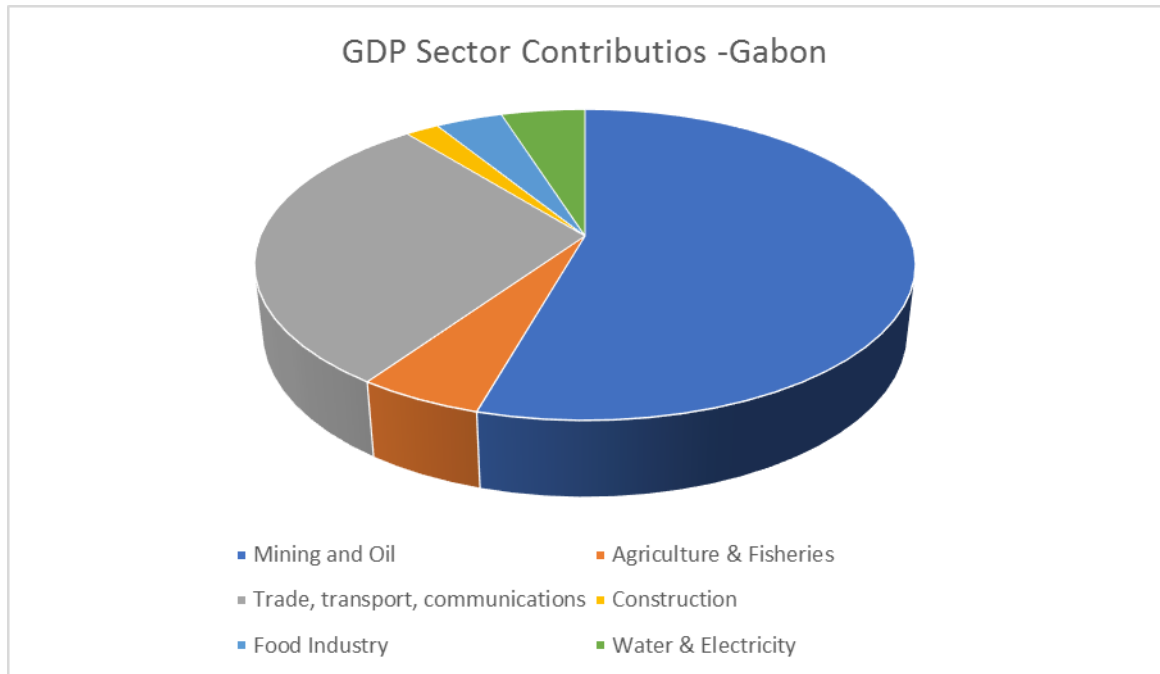
A comparative study between Botswana and Gabon is utilised to answer the research questions and understand how Botswana has fared on the Dutch disease over the years. This study relies on the use of secondary data (governmental publications) that is readily available. The research questions can be answered with the data set that is already available in government archives and data that other researchers have compiled before. Utilising secondary and readily available data is becoming more prevalent especially in situations where there are vast amounts of data collected and archived (Johnston, 2014).

The Central Statistics Office, the Bank of Botswana and other international organizations like International Monetary Fund, World Bank and African Development Bank maintain a database of all the required data that is needed to answer the research questions in this study.

5.2 Background information: Gabon

Gabon is a country located in Western Africa and is said to be the fifth largest producer of oil in the Sub-Saharan region after Nigeria, Angola, Sudan, Uganda and South Sudan (Council, 2019). Gabon has a mixed economic system with a heavy reliance on oil, combined with relatively weak centralized economic planning and government regulation (Global Edge, 2019). This country is similar to Botswana in many ways- a small population of a little above two million, an abundance of natural resources, coupled with high foreign private investment (Publications, 2004). Despite the country's natural resources wealth- crude oil, timber, manganese, uranium, etc.; due to heavy reliance on oil, Gabon's economic base still remains underdeveloped (Outlook, 2019).

Figure 5



Oil was discovered in the 1970's in Gabon and it constitutes about 46 percent of the country's Gross Domestic Product (see Figure 7 above). This heavy reliance on natural resources and the volatile nature of oil have become major sources of economic instability in the country.

According to a study conducted by the International Monetary Fund (IMF), agriculture which was a major contributor to Gabon's Gross Domestic Product before the oil production began has been largely affected by the oil boom and the sector's output and share of GDP steadily declined (Publications, 2004).The country enjoys a per capita

income higher than that of most Sub-Saharan countries, despite its weak economic standing.

Unlike Botswana, Gabon's natural source endowment has been said to be coupled with poor fiscal management policies and far more unstable commodity fluctuations resulting in a severe case of Dutch Disease, the government has also been said to over spend on off budget items. In a study that was conducted in 2017, unemployment rate in Gabon is said to be 19.66 percent, a figure not so distant from Botswana's unemployment rate which is 20 percent (Global Edge, 2019).

Gabon is characterised by high cost of production factors that results from underdeveloped infrastructure (poor supply of electricity, water and transport), government services account for approximately 50 percent of GDP in Gabon, while agriculture represents approximately 5 percent and the mining and construction represent 44 percent of total GDP (Global Edge, 2019). This is a clear indication that the agriculture sector of the economy has weakened over the years. The country has over the year's

accumulated high levels of domestic and external debt and in terms of corruption it is ranked no. 117/178 countries.

The tables that follow in the next page summarize the economic and socio economic comparison discussed about Botswana in Chapter 3 and about Gabon above.

GOVERNMENT INDICATOR	GABON	BOTSWANA
GROSS DOMESTIC PRODUCT	14,922 M\$	17,383 M\$
GDP PER CAPITA	7,368\$	7,585\$
DEBT AS A % OF GDP	58.19%	12.92%
GOVERNMENT BUDGET DEFICIT	249 M\$	-598 M\$
EDUCATION EXPENDITURE % OF BUDGET	11%	20%
HEALTH EXPENDITURE % OF BUDGET	9.20%	9.15%
STANDARD & POORS RATING	Not rated	A-

POPULATION INDICATORS	GABON	BOTSWANA
POPULATION SIZE	2,025,137	2,291,661
HUMAN DEVELOPMENT INDEX	0.702	0.717
GINI INDEX	42.20	50.2

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5.3 Rent Seeking Reality: Botswana and Gabon

This section presents a rent seeking analysis of Botswana and Gabon utilizing theoretical framework by Khan and Jomo [2000] in the book '*Rents, Rent-Seeking and Economic Development: Theory and Evidence in Asia*'. The authors extend the literature on rent seeking by taking into account the inputs that go into rent seeking as well as the overall outputs or outcome from the process [Khan Sundaram, 2000]. In this section, I present the case of Botswana and Gabon to evident if rent seeking behavior has resulted in a positive outcome or not in the two countries.

In Botswana, an analysis of the rent seeking situation shows that the country's past rate of growth and development has been shaped by value-enhancing exploitation of mineral rents. In Botswana we see a situation where rent seeking is led by the state. Having often been praised for her good governance and systems, we can say that this was detrimental in allowing the state to be a good conduit of mineral rents whilst simply responding to pressure from the society.

Whereas, in Gabon, the rent seeking process (led by the state) has left the country with one of the worst cases of the resource curse and Dutch disease in the region, ultimately

with value-reducing rents. Rent seeking by political elites, coupled with flawed resource laws fueled to Gabon's resource curse [Wily, 2012].

The rent seeking process between the two countries cannot be measured in statistical terms but based on readings about Botswana and Gabon, I came to the conclusion that having efficient institutions that limit predatory behavior, as well having a participatory society resulted in a better and more efficient allocation of rents in Botswana as opposed to in Gabon.

When Botswana became independent in 1966, agriculture-particularly cattle farming was the only promising sector for economic growth, therefore cattle owners (they were the political elites at the time) had a significant degree of economic influence (Daron Acemoglu; Simon Johnson; James Robinson, 2001). The political elites stood to benefit a great deal from the state designing well-enforced property rights as well as investing in infrastructure to facilitate cattle farming and exports of beef to international markets (Samatar, 1999) (Daron Acemoglu; Simon Johnson; James Robinson, 2001). For instance, implementing policies that ensured exchange rate control was in the interest of the

political elites as they were cattle farmers. This are some of the reasons that separate Botswana's case of Dutch disease from many other countries, including Gabon.

By the time diamond revenues became available, Botswana had already established sound institutions and the ruling party was able to distribute rents (through free public education, free healthcare, etc.) without undermining the already existing rules, a development constraint that Gabon was not able to overcome even before oil wealth started flowing in the economy.

CHAPTER 6: FINDINGS & DISCUSSION

This chapter will look at each symptom of the Dutch disease and discuss how each country has fared in relation to the symptom. First, I look at de-industrialisation as it is the main indicator that points towards a Dutch disease followed by an appreciation of the currency and the spending effect in both countries. I also assess the extent to which both governments have accumulated debt as well as foreign reserves over the years. In this way, I present the empirical and theoretical contributions that the study makes.

6.1 De-industrialization

De-industrialisation is usually the first symptom that points towards a Dutch disease however, empirical studies have shown cases of a Dutch disease with no contraction of the tradeable goods sectors (in absolute terms). An example of a country that has gone through this is Colombia. In 2013, Colombian coffee farmers were strongly affected by the appreciation of the local currency when there was a huge influx of foreign direct investments as well as an exploitation of natural resources that was met with increasing commodity prices [Botta, Godin, Missaglia, 2015] [Arguello Jimenez, 2015].

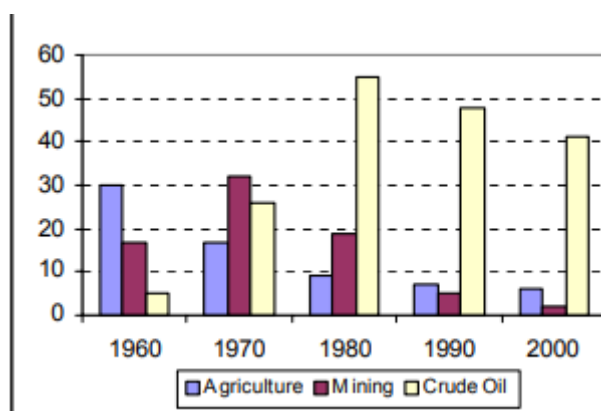
In the case of Botswana, the rise of the mining sector relied on Foreign Direct Investments that were aimed at developing mines and as such hurt growth prospects of both the manufacturing and agricultural sectors of the economy. As illustrated in appendix B, the mining, manufacturing and agricultural sectors growth differentials with respect to GDP are shown. When compared to the agricultural sector, the mining sector's volatility is higher than that of the manufacturing sector. In fact, there is no distinct trend in the manufacturing sector other than that after 1994, the sector's contribution to GDP fell below 5 percent and stayed stagnant thereafter.

Similarly, the same is true for the manufacturing sector of the economy, while the sector has not declined in absolute terms there are other indicators that as a result of the diamond boom, growth in this sector was hampered. At the time of the boom, Botswana already had a high unemployed and unskilled labour force. In a study conducted by Mogotsi [2005], the author tested for resource movement effects between the manufacturing sector and the non-tradeable sector and found evidence of a decline in employee wages of the manufacturing sector, relative to the non-tradeable sectors of the economy. This finding affirmed that a commodity sector indeed drew away labour from a tradeable sector. Over the period under the study, the study found that the manufacturing sector over the period

under the study had the highest growth rate, in terms of the number of employees while at the same time the sector had the least growth rate in terms of wages (Mogotsi, 2005). This study found that in relative terms, wages per worker declined in the manufacturing sector as compared to the non-tradeable sectors; this is an indication of resources being drawn away from the tradeable sector as the Dutch disease model hypothesises (Mogotsi, 2005).

In Gabon, there was a clear movement of labor and capital away from the traditional sectors towards the oil sector after the boom. The agricultural sector's contribution to GDP registered a downtrend after the oil boom in the 1970's (see Figure 6.1 below). According to a publication by African Development Bank (2004), in 1964 the agricultural sector's contribution to Gabon's GDP was 16 percent and this figure went as low as 4% in 2002. This was as a result of the loss of interest by the public and the government after oil was discovered. This situation is similar to what occurred in Botswana, due to the attractive wages offered by the mining sector, there was labor migration from the agricultural sector and as the Dutch disease model hypothesis, this results in reduced outputs in the traditional sectors of an economy.

Figure 6.1 -Gabon Sectoral Contribution to GDP-1960-2000⁵



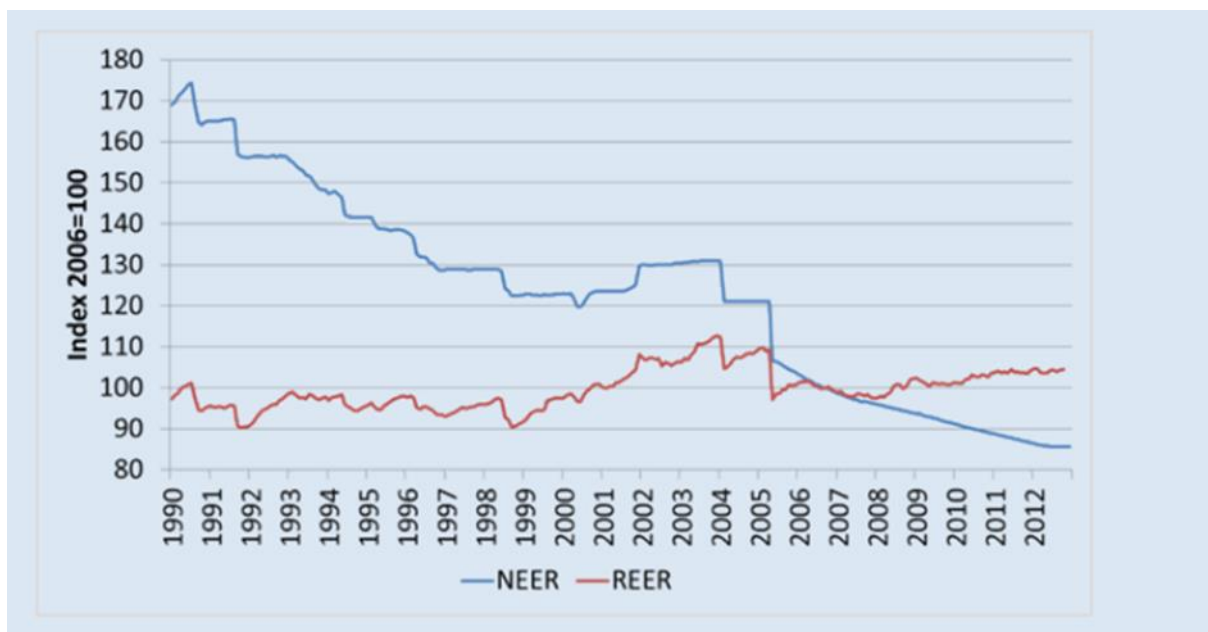
The observation and conclusion made here is that labor and capital movement from the traditional sectors of the economy to the natural resource sector in both countries is indeed consistent with the Dutch Disease phenomenon. However, in Botswana, there was no decline in absolute terms because there was already unskilled labor and high levels of unemployment in the beginning of the boom, the boom only drew away skilled labor as previous studies demonstrate this in a relative wage increase that is coupled with low number of employees in the non-tradeable sectors.

⁵ Source: International Monetary Fund Report 2002

6.2 Real Exchange Appreciation Rate

During the period 1982-1987, which is the diamond boom period in Botswana, the real exchange rate did appreciate significantly. However, the government of Botswana has been quick to react to this currency appreciations with devaluations that are meant to promote the competitiveness of the non-mining sectors and not hamper growth in those sectors.

Figure 6.2: Index of nominal and real Pula exchange rate, 1990-2012 (2006=100)



To avoid hurting other sectors of the economy, the real exchange rate (REER) was carefully managed to fluctuate within a relatively narrow range over this time. Below is a summary of the governmental intervention between the periods 1972-2014.

Summary of Policy Interventions by Government of Botswana

Date	Activity	Reasons by Central bank
1976	Introduction of the national currency, pegged against the USD	
1977	5% pula revaluation	Anti-inflation measure
1980	Introduction of pula basket comprising SDR and rand.	To reduce volatility of rand/pula exchange rate
	5% pula revaluation.	Anti-inflation measure
1982	10% pula devaluation	Balance of payments crisis.
1984	5% pula devaluation	Rapid pula appreciation
1985	15% pula devaluation	Pula appreciation
1989	5% pula revaluation	Anti-inflation measure
1990	5% pula devaluation	Competitiveness measure
1991	5% pula devaluation	Competitiveness measure
2004	7.5% devaluation	Pula has appreciated, Competitiveness measure

Management of Botswana currency (summarised above) shows mixed devaluations to increase export competitiveness and counter inflationary pressures that were brought about by the mining sector.

Commodity prices, especially in the oil sector are associated with volatility, which in the end has an overall effect on the macroeconomic performance of a country (Zafar, 2004).

The author demonstrates this in a publication about the way Gabon has responded to oil

windfalls, and how these windfalls impacted the industrial sectors of the economy in Gabon (Zafar, 2004). An analysis done to demonstrate how Gabon responded or adjusted to terms of trade shows that the Gabonese government's response was poor- the government responded by printing more money which only fuelled to inflation; increasing its borrowings which also increased the country's spending effect. Gabon is considered amongst the worst countries in Africa to be hit by the Dutch disease as well as an example of poor fiscal mismanagement as a result of how the country handled its natural resource boom as well as the resource movement to the oil sector away from the mining and agricultural sectors (Alby, 2018).

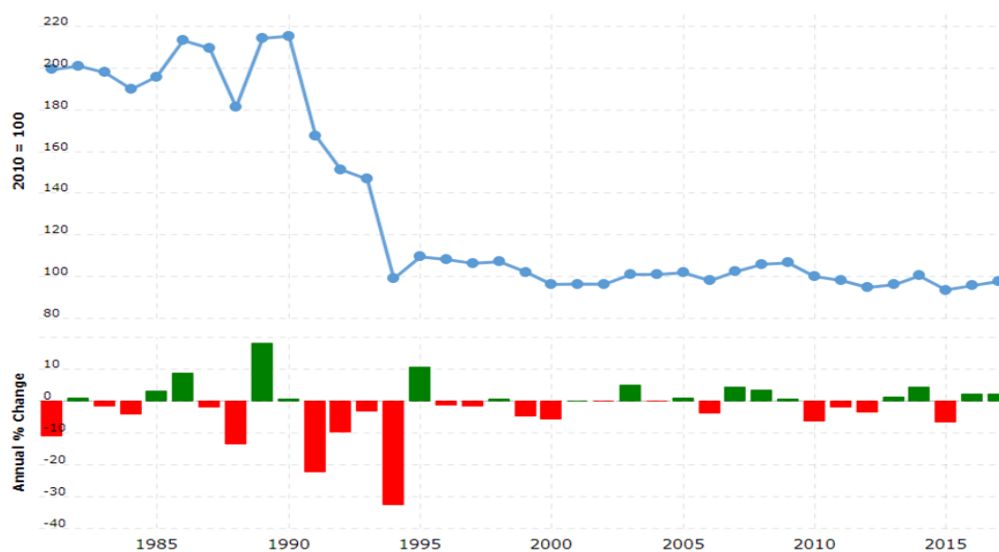
Gabon is a member of the CFA (*Communauté Financière Africaine*) Franc zone, a common currency and trade union that utilizes a fixed exchange rate pegged to the euro. The CFA Franc zone is an economic and monetary zone that consists of 14 African countries and France.

Using a common exchange rate mechanism in the region is regarded as a source of stability while on the other hand it is a hindrance to monetary and economic freedom as it pegged to the euro. The CFA franc currency exists in two monetary unions, the West Africa Economic and Monetary Union (WAEMU) for countries - Burkina Faso, Mali,

Bissau Guinea, Ivory Coast, Niger, Senegal and Togo and the Central Africa Economic and Monetary Community (CEMAC) monitoring six countries, namely-Gabon, Cameroon, Equatorial Guinea, Congo, Central African Republic and Chad. The two unions have a central bank which limits each country's independence and response to economic shocks (Zafar, 2004) (Alby, 2018).

Botswana had freedom and independence pertaining to how it reacted to trading shocks- through its monetary policies and its exchange rate regime influenced the extent to which the economy from suffered from a Dutch disease whereas Gabon's management or reactions were limited due to its currency being pegged to the euro.

Figure 6.3: Gabon Real Effective Exchange Rate Index⁶



⁶ Source: <https://www.macrotrends.net>

6.3 The Spending Effect

As shown in the literature, a natural resource boom is associated with excessive spending which can either be private or public expenditure and is a symptom of a Dutch Disease. Some countries are able to design careful strategies to optimise natural resource revenues and manage windfalls efficiently, while others fall an ad-hoc and short-sighted approach that results in economic turmoil [Zafar, 2004].

In Botswana and Gabon, the government plays a major economic role through its spending, which has historically been well above 40 percent of GDP. There are difficulties cutting down recurrent government spending, since the boom of the natural resource sector began because of the commitments that the government had already entered into during a boom period. However, the nature of the spending effect differs in the two countries as spending generally increased in Gabon during oil booms and the government failed to curb spending during oil slumps and instead increased its borrowings (see [appendix](#)). During oil slumps, the government of Gabon adjusted its budget by borrowing loans from commercial banks and other creditors [Zafar, 2004].

On the other hand, Botswana employed fiscal discipline and avoided taking in excessive debt and spending windfalls on off budget items [Magombeyi Odhiambo, 2017] .

Figure 6.4: Gabon's Oil revenues & Total Expenditure as % of GDP

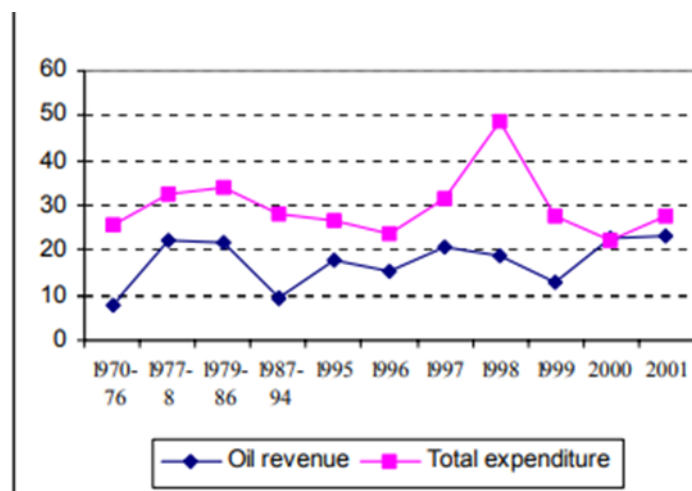
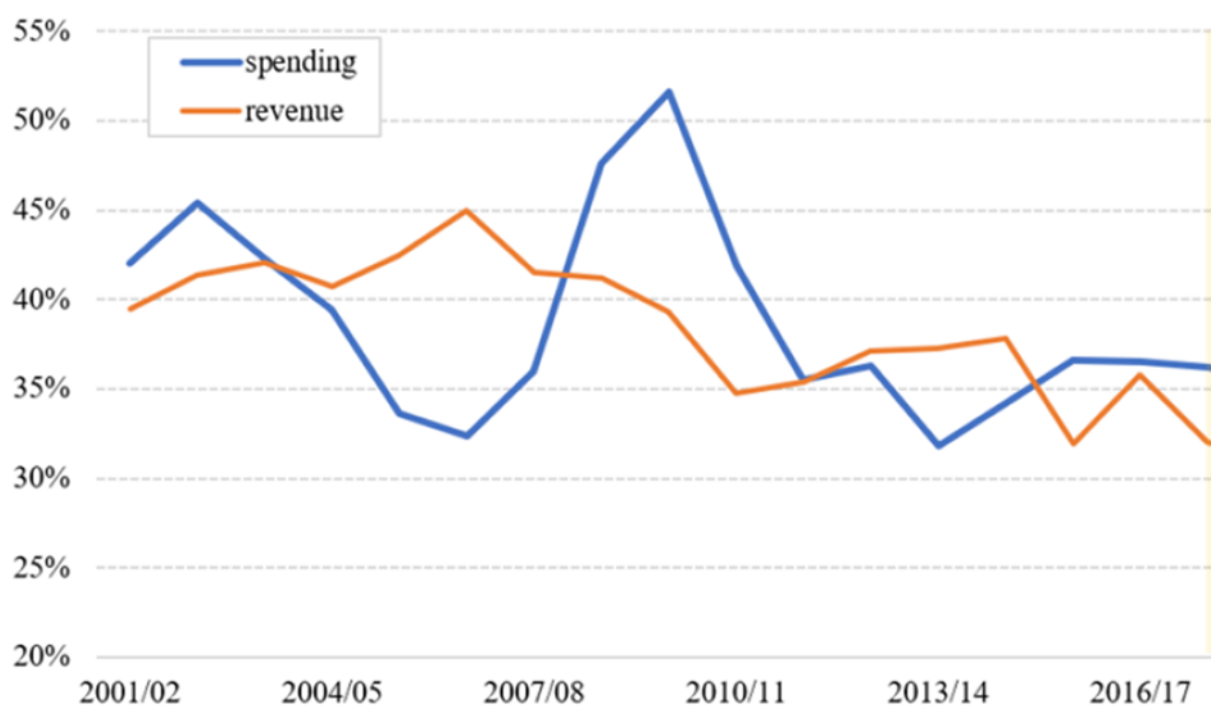


Figure 6.5: Total revenues/Spending as % of GDP in Botswana



6.3.1 Government Debt

A country is considered to be over indebted when a large part of its revenue is public debt.

Gabon is one of the African countries that have mismanaged their commodity related shocks poorly and as a result have a high ratio of public debt to public revenue [Bidzo, 2018]. Gabon has a medium-term unsustainable debt and because of its ‘middle income’ status it is not eligible for aid as a form of debt relief but it has been receiving technical assistance from the International Monetary Fund that is aimed at helping the country reduce its public debt and external arrears [Report, 2018].

6.3.2 Foreign Exchange Reserves

The government of Botswana took a cautionary approach towards its mining revenues and ensured that these revenues were spent on developmental projects like education, infrastructure and healthcare, windfalls were invested in foreign reserves and therefore consumption was avoided [Poteete Gramajo, 2005]. Botswana’s budget allocation took into consideration fiscal savings, as well as heavy government investment in infrastructure and education.

In Gabon, public investment was of very poor quality and to a certain extent ineffective as some off budget items like parliamentary elections were sometimes have been accompanied by excessive spending.

6.4 Rent Seeking Outcomes

The two countries' differing response to resource rents (excess income from natural resources) can be best explained by looking at Khan & Sundaram [2000] rents theory, the authors talk about rent seeking behavior and how it can on one hand, create inefficiencies in an economy and hamper growth and on another, rent seeking can be an important aspect of growth and development. Rent seeking behavior in natural resource dependent economies like Botswana and Gabon can therefore signal efficiency or contribute to social conflict and fuel the resource curse.

Historically, Botswana has had success in managing her diamond wealth as a result of rent seeking equilibrium between Botswana's relatively homogenous population and the political elites. From the beginning, the government ensured that there was a sharing

formula in place and the flow of rent transfer was not disturbed. There were governance structures in place that ensured stability while at the same time delivering social and economic benefits resulting in efficient client-patron relationships. Botswana's historic growth can be compared with Indonesia's impressive growth during the Soerhato era-. Both countries' impressive growth from the world's poorest economies to where they are today has been well documented in the literature. In his chapter contribution to 'Economic Development: Theory and Evidence in Asia' [2000], Andrew Magintyre [2000] talks about how Indonesia, amongst other countries 'succeeded in achieving sustained rapid economic growth in the midst of what was widely regarded as a sea of rent-seeking activity'.

Looking at Botswana's income inequality disparities and its past economic growth, the same conclusion can be drawn about Botswana. The author goes on to say that, 'under certain conditions, a highly centralized political framework may produce more satisfactory economic outcomes than some more decentralized alternatives' [Magintyre, 2000]. Botswana, although a multi-party state has had one party dominate the political landscape since independence, and this is attributed to its people's homogenous nature.

Over the years, this equilibrium of rent sharing has eroded and there has been a significant increase in the number of corruption scandals that indicate patrons may not have been as efficient in distributing natural resources as the clients (public) thought. How these events play out in the future will reveal the extent to which rent seeking behavior has been politicized in the past and if the current leaders are able to realize their past mistakes and recover.

There are instances where the presence of natural resources can bring about vulnerability to clients leading to a local resource curse

In contrast, on matters of corruption and rent seeking behavior, Gabon fared worse than Botswana. According to Transparency International, as quoted by an International Monetary Fund report [2006], Gabon's oil revenues were characterized by increasing rent seeking behavior and high corruption perception indices. Weak governance was found to be a contributing factor in explaining the rising levels of corruption.

There has been reports where Gabonese government officials, (notably the former late president and his son who took over at the end of his father's term in office) are alleged

to have used public funds for private gain and illegal enrichment. Whereas in Botswana corrupt government officials have been known to be dealt with harshly, Gabon's high levels of corruption have been coupled with weak judicial oversight. The legitimacy of democracy in Gabon has been eroded over the years after there were problem encountered in the 2006 elections, causing some instability in the country [Fall, 2007].

Based on a framework developed by Mushtaq Khan & Kwame Sundaram Jomo [2000] to identify conditions that are necessary for rent seeking behavior to result in value enhancing or value reducing outcomes, I considered the rent seeking behavior between the two countries. The table below highlights the two countries' experience in relation to rent seeking behavior and how they fared in terms of the essential conditions necessary for rents to be value enhancing.

Table 6.1- Rent Seeking Conditions & Outcomes in Botswana

Country & Rent Seeking Scenario	Rent Seeking Outcome & Conditions that Enabled it	
	Value-Enhancing Rents	Value reducing Rents
1 Botswana	✓	✗
1.1 Rent seeking is led by the State.	<ul style="list-style-type: none"> Historically, leadership in Botswana has been associated with transparent and anti-corrupt practices. Leaders had good motives, and ensured that corrupt practices were not tolerated. (Questionable acts by new leadership have been unveiled recently, motives of these leaders may not be aligned with state interest). The transaction costs of collecting bribes has historically been high in Botswana due to stringent governance policies, e.g. whistleblowing has always been encouraged. Highly centralized government- with one party leading since independence. Discretionary authority over how mineral rents have been allocated. Homogenous society with little power to resist the current government. 	

Table 6.2- Rent Seeking Conditions & Outcomes in Gabon

	Rent Seeking Outcome & Conditions that Enabled it	
Country & Rent Seeking Scenario	Value-Enhancing Rents	Value reducing Rents
2 Gabon	✗	✓
2.1 Rent seeking by influencing the state.	<ul style="list-style-type: none"> The current president Ali Bongo Ondimba took over from his father after forty years in office. He holds strong political power through a pervasive patronage system and certain restrictions that prevents the opposition to act/speak up. 	<ul style="list-style-type: none"> In Gabon, bureaucrats take the initiative in rent-seeking initiatives, the state merely governs the process to ensure that contracts and obligations are met. Past leaders have been known to act in ways that are self-serving, resulting in value-reducing rent seeking behavior. It is common in Gabon to hear of the reigning government being involved in illegal transactions with multi-national companies to award them land or resources for commercial use-often with no backlash from the authority or society. Creation of value enhancing rents failed because of the power that political leadership holds in Gabon. The presidential term in Gabon is not limited, with a generally unfair electoral framework, resulting in large rent seeking costs.

6.5 Summary

The two tables below summarizes the main findings of the study and show the severity of Botswana's Dutch disease in comparison to Gabon after looking at the above economic indicators.

Table 6.3-Dutch Disease Presence

Indicator	Gabon	Botswana
Dutch Disease	Severe	Mild
1.1 Real Exchange Rate Appreciation	Severe	Mild (due to policy interventions)
1.2 Non-tradeable sector Wages	Severe	Severe
1.3 Spending Effect	Severe	Mild
1.3.1 Government Consumption	Severe	Mild
1.4 Manufacturing & Agricultural Sector		
1.4.1 Labor Movements	Severe	Severe
1.4.2 Relative Wage Rates	Severe	Severe
1.5 Non-Tradeable Sector	Severe	Severe
1.6 De-industrialization	Severe	Severe

Table 6.4-Resource Curse Presence

Indicator	Gabon	Botswana
Misallocation of revenues	Severe	Mild
Rent seeking behaviour	Severe	Mild
Poor institutional quality	Severe	Low
Dependency on commodity	Severe	Severe

The main conclusion drawn from this chapter is that the two countries have similar experiences that point towards a Dutch disease, however the only difference is the country's monetary and exchange rate regime, the policies that were implemented in Botswana as a response mechanism to the Dutch disease symptoms and lack thereof in Gabon, and most last the rent seeking behaviour of political agents in each country. This is what contributed to the acceptable and manageable levels of the disease in Botswana whereas in Gabon, contraction was rapid and one of the worst cases in Africa. This is discussed in detail in Chapter 7.

CHAPTER 7: CONCLUSION

The main objective of this study was to prove that there is a Dutch disease in Botswana's economy, and analyse what the precise nature of the disease is in Botswana. To achieve the goal, I looked at indicators of the Dutch disease and compared how the two countries (Botswana and Gabon) have performed pertaining to each indicator. The results indicate that both Botswana and Gabon have contracted the Dutch disease but due to fiscal policies, the severity or levels of the disease differ in the two countries.

The results therefore confirm that many aspects of Botswana's economy indicate that there are symptoms of a *quasi*-Dutch Disease present. Botswana did not avoid the Dutch disease, it instead kept symptoms of the disease under manageable levels. The level of contraction between Botswana and Gabon differs due to management of trade shocks, fiscal policies and the rent seeking outcomes. This chapter discusses these in more detail.

7.1 Fiscal & Monetary Controls

Movements in terms of trade, capital influxes and commodity prices are known to have an effect on stability and more times than often shapes the developmental paths for developing nations [Zafar, 2004] [Alesina Giavazzi, 2013]. The impacts of fiscal policy

on the real exchange rate and ultimately on a country's economic growth has been illustrated above by comparing Botswana's management of its exchange rate to that of Gabon. By constantly devaluating its currency, the government recognized the risks that come with real currency appreciation.

There exist many response mechanisms that can be employed to manage commodity related volatility but a lot of African countries, including Gabon have failed to do this (Zafar, 2004). The government of Gabon relinquished its monetary policy to the central bank of a union that it is a member of and as such it could not respond exchange rate variabilities. This is one of the factors that affected the severity of the Dutch disease in the two countries.

Membership in the CFA franc currency's union has had a negative impact as it reduced competitiveness of the traditional sectors and these sectors of the economy were exposed to competition from countries with devalued currencies.

Gabon handled its oil-related shocks poorly, when demand for oil slowed and government revenues declined, the government responded by printing more money which in the end fuelled inflation, this is illustrated in a study by IMF that reviews how Gabon responded to its commodity shocks (Zafar, 2004).

7.2 Appropriation of Rents

Another important aspect that differentiated Botswana's case of Dutch disease from that of many other countries in the region is the rent seeking behaviour and outcomes. Botswana's political leaders and bureaucrats were committed to ensuring that development policies are followed whilst avoiding misuse of public office. Therefore a large aspect of Botswana's economic growth in the past was triggered by a successful exploitation of natural resource rents, with little to no industrialisation.

A significant amount of mining rents generated in Botswana were used for human resource development- this is evident from Botswana's education expenditure, health expenditure and infrastructure development as well as savings funds for future use. Finally, the government's (as a custodian of mining rents) appropriation was successful in leading the country towards a good economic growth path, whereas in most natural resource based economies this has been met with conflict.

7.3 Strict Budgetary Planning

Adherence to the National Development Plans was a success because it is illegal to implement any projects that are not in the outlined national Development plan for that

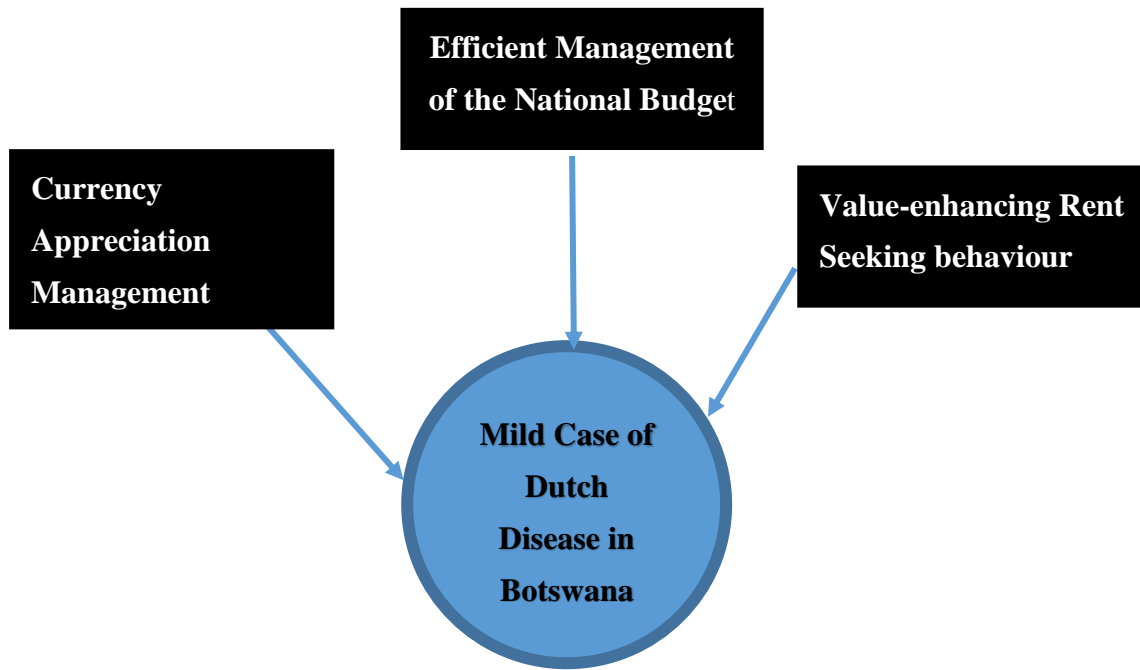
period, without consulting Parliament once a plan has been approved and implemented.

In order to ensure sustainable budgeting, policies that outlined how mineral revenue were invested were implemented in Botswana, an analysis of other countries that are struck with worse cases of the Dutch disease and or resource curse shows that natural resource revenues were mainly used for consumption.

The government's ability to implement prudent revenue/expenditure controls was critical to keeping the Dutch disease and resource curse at manageable levels. By avoiding unnecessary spending on off budget items outside the National Developmental Plan, avoiding accumulating debt and ensuring transparency when it comes to government expenditure curbed the Dutch disease in Botswana. Botswana was able to save and invest its diamond windfalls on foreign reserves and avoid an extreme case of the Dutch disease.

In conclusion, figure 7 below helps us understand the factors that led to a less severe case of the Dutch disease in Botswana. These are: Currency appreciation management, efficient budget control-by strictly adhering to National Development Plans and value-enhancing rent seeking behaviour by leaders and bureaucrats.

Figure 7-Mapping Botswana' contributing factors to a quasi- Dutch disease



CHAPTER 8: RECOMMENDATIONS

Based on the findings of this study and what many others have written on the issue at hand, I acknowledge the importance that the choice of policies that a country implements sets the tone of its developmental path. To avoid the adverse effects of the Dutch disease, the government ensured that it did not spend on off budget items and it carefully monitored its public spending. Although these mechanisms could not aid in the diversification of the economy, they helped curb the Dutch disease in Botswana. It is important that countries that have windfalls from minerals are not easily coerced into spending the money, rather save the money for future generations or invest in into developmental projects that will benefit future generations.

In order to continue on the path of sustained growth, the government of Botswana should formulate a strategic plan that identifies areas that have led to failure of economic diversification in the past and based on those, identify and implement key projects that will move the country's economy forward. The issue of a Dutch disease prevailing in Botswana's economy has not been explored, so the government should consider this as one of the constraints that have impeded economic diversification and growth in Botswana.

Strategies that are aimed at developing and nurturing entrepreneurship-that is not dependent on the mining sector should be devised. It is evident that economic growth in Botswana, (post mineral rents) is not viable if no sectors of the economy are developed.

Having a transparent political system also limits corruption and increases the likelihood that governments consult the intended beneficiaries on how mineral rents are utilized. This system, though it is to a certain extent not being followed anymore avoids having conflicts over natural resources as we have witnessed in cases of Sierra Leone.

Governance plays a crucial role in the conduit of mineral rents. Although corruption is on the rise now in the country, low levels of corruption in the past have been crucial in setting the tone for the country's developmental path. These factors have contributed to the sustainability of the diamond mining sector whereas in other countries minerals mining has had less impressive outcomes.

8.1 Limitation of the study

Given the nature of natural resources, and their impact on institutions, politics and the economy, this paper underscores the need to look further into the two countries' perspectives from a historical point of view and blend together these different perspectives when making a comparison. The origins, developmental experiences of the two countries though similar to a certain extent need to be examined in further detail.

Another weakness is related to the availability of data. The Gabonese national statistical system did not have some consistent data, which led the author find data from other sources that may not be accurate. Until recently, in Botswana the financial information regarding diamond mining was a closely kept secret. This information regarding the financial details was only released in 2014, and even then figures pertaining to some key financial aspects are not published. This makes it difficult to have information pertaining to the structure of the deal between the government of Botswana and De Beers.

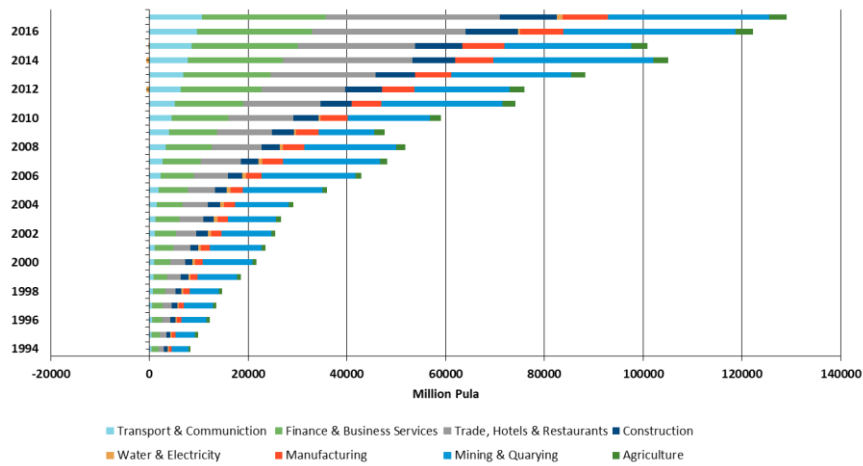
8.2 Future Research

From the study findings and the conclusions drawn in the current study, I make the following suggestion that should be taken into consideration when conducting future research in this two countries.

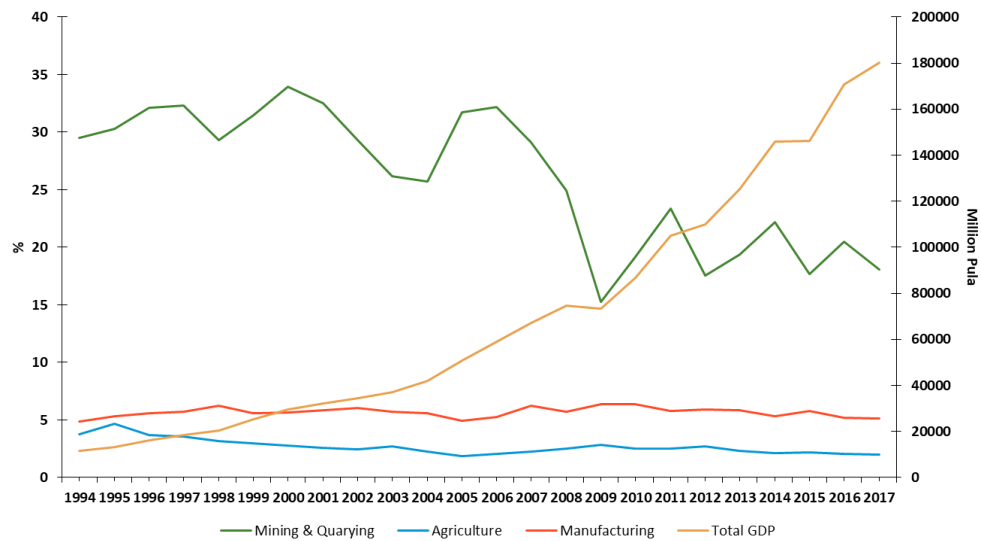
A look at international and regional experiences shows that Botswana and Gabon, given their economic ranking should have better conditions that foster economic growth than there currently are. Yet when comparing these countries to other developing economies, they are far from having an enabling environment that allows other sectors of the economy to grow and develop. It is against this backdrop that I suggest that comparison with other countries be done to shed more light on the paradox that is Botswana and Gabon's development experiences. This way, the external validity of the findings can be identified.

Appendix

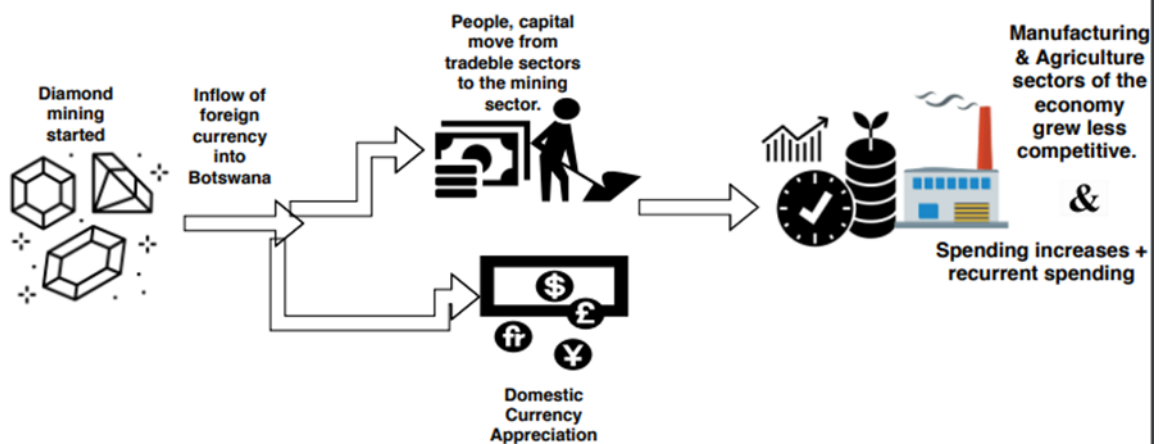
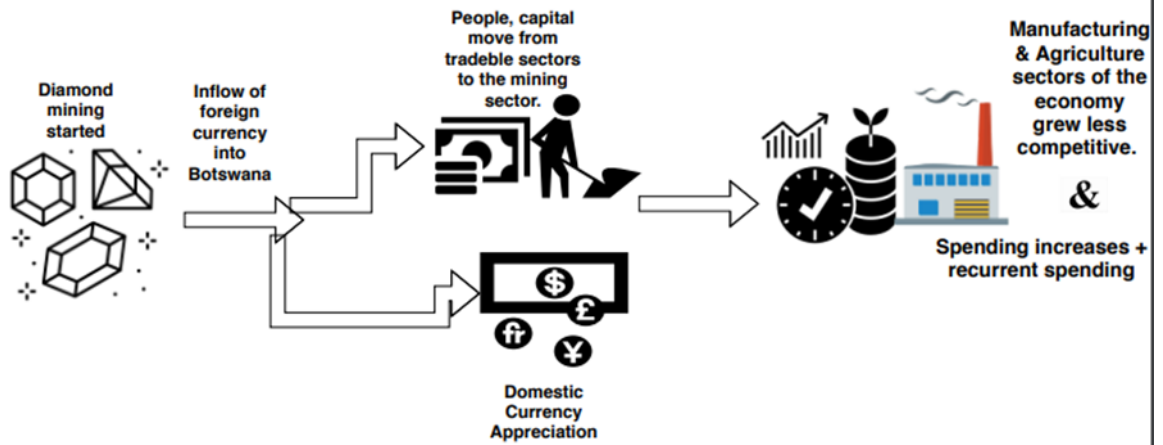
Appendix A-Value Added by Economic Activity to Botswana's GDP-2016



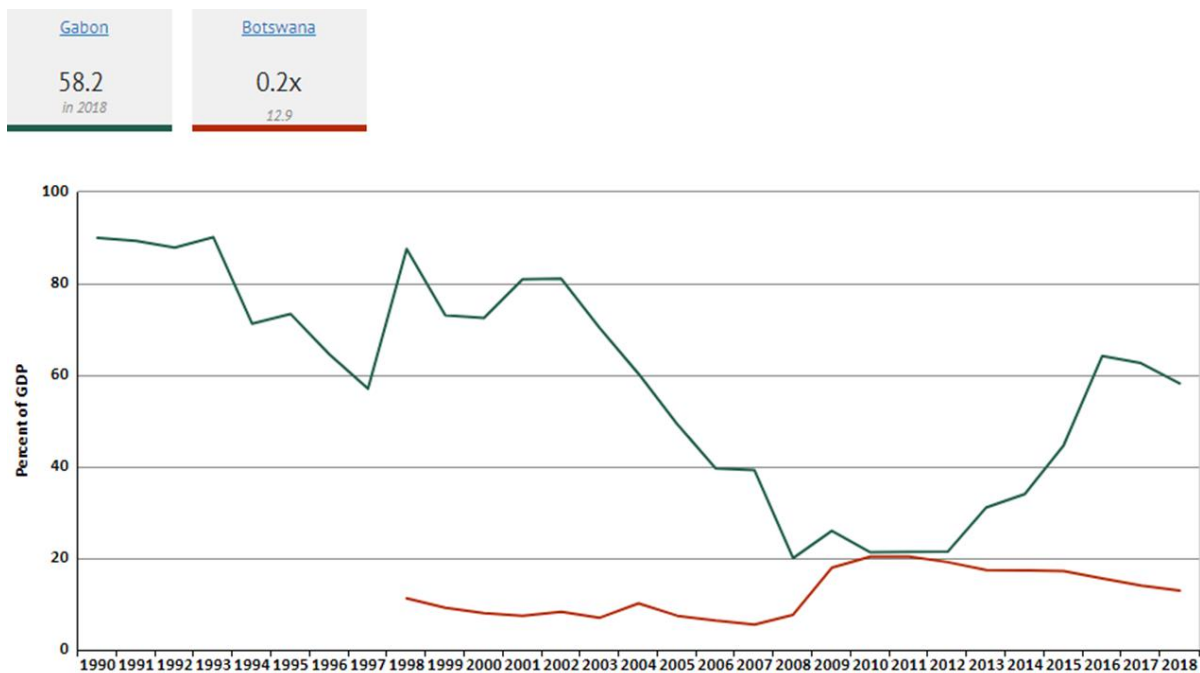
Appendix B- Total GDP Growth Differential comparison within all three sectors



Appendix C- Illustration of Hypothesis



Appendix D-Government gross debt as a share of GDP (%) for Botswana and Gabon



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