

Botswana's modern economic history since 1966

Has Botswana reached the last stage of Modern Growth Regime?

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1. Introduction

The ‘Great Divergence’ in income per capita is of interest to many scholars. The gap in income between the West and the African countries South of Sahara (in this paper referred to as SSA or Africa) has grown since the industrialization in Europe. Despite some success stories in the 1960’s and early 1970’s, the average SSA country is poorer than the average low-income country.

Most African countries with an abundance of natural resource have experienced low growth rates and in the worst cases, such as DRC Congo, civil war financed by minerals with devastating socio-economic affects. Botswana is an almost unique case of a landlocked African country rich in natural resources with high economic growth rates from independence till today. In Botswana government has used revenue from mining to invest in education, health and infrastructure. Botswana is classified as an upper-middle income country with an estimated GNI per capita of US\$6,470 in 2008 (World Bank) and an international credit rating which in 2002 was higher than that of Japan (Moody’s international credit rankings), a low foreign debt and very little dependence on foreign aid. Many scholars agree that this is due to political stability and orthodox economic policies (Leith 2000 and Acemoglu et al 2001). However, despite the success, Botswana has a high unemployment rate at around 20 % and almost half of the population lives below the poverty line. This paper examines the growth process in Botswana in the light of the Unified Growth Theory (UGT).

Motivation

Economists such as Rodrik (2003) have shifted focus from cross-country empirical studies that try to explain sub-Saharan Africa’s problems to case studies, in the hope that by understanding the particulars of one nation, broader conclusions can be drawn. This paper is inspired by the “analytical narrative” turn in economics. An understanding of Botswana’s modern economic history may contribute to understanding development in resource rich African countries.

Working questions

Understanding the how and why to Botswana’s relative success as well as questioning the quality of Botswana’s development by applying the theories from unified growth theory (UGT) is the aim of this paper. The following questions are asked:

- Why and how did Botswana achieve a long sustained period of growth from independence and to today as one of the few countries in SSA?
- In terms of the three stages of UGT where does Botswana fit it?

Limitation

Most weight is put on the last 40 years, although in order to understand the economic history trends from earlier times are included. Focus is on the transition from Post-Malthusian epoch to the Modern Growth Regime and whether Botswana has reached the last stage. Focus is on four factors which according to Galor are closely linked: economic growth, human capital formation, technological progress and industrialization, and demographic transition. Topics from UGT such as time from Neolithic Revolution and Genetic Diversity are not part of analysis due to limitation. International trade, another important factor in UGT and the Great Divergence, is also left out of the analysis (see Galor and Mountford 2006).

Methodology

The paper starts with a presentation of the theoretical framework for UGT. Using this framework, the paper then presents an analysis of Botswana's economic performance: How and why did Botswana achieve this successful long period of growth? The analysis and the theoretical framework is the background for a discussion in terms of Unified Growth Theory: Has Botswana with its 40 years of high growth rates plus investment in human capital been able to reach the last stage – sustained modern growth? The analysis and the discussion are based on papers by the following scholars: Acemoglu (professor at MIT), Galor (founder of the UGT theory), Harvey and Lewis (advisers for Botswana from the mid 70s) – supported by Hillbom (Department of Economic History, Lund University) and Siphambe (Head of Department of Economics, University of Botswana).

2. Theoretic framework: Unified growth theory (from stagnation to growth)

2.1 The 1st stage: the Malthusian epoch

According to Galor, in early stages of development, economies were near a stable Malthusian equilibrium. Technology advanced slowly. Population increase and output due to technology advances were proportional. This interaction gradually increased the pace of technological progress, and due to the delayed adjustment of population, output per capita fluctuated around a very low (subsistence) level. Because the technological progress was slow, there was a limited need for human capital in the production process. Parents therefore had no incentive to reallocate resources towards investment in human capital of their children. This epoch took place in 100.000 BCE – 1750 for what is today developed countries and in 100.000 BCE – 1900 for the least developed countries of today (Galor 2004), (Galor 2009).

2.2 The 2nd stage: the Post- Malthusian Regime

The transition from the Malthusian epoch to the 2nd stage happened as the Malthusian (i.e. positive) interaction between technology and population accelerated the pace of technological progress and permitted a take-off to the Post-Malthusian Regime. The technological progress resulted in larger increase in output than population. The expansion of resources was partially counterbalanced by the enlargement of population and the economy was characterized by rapid growth rates of income per capita and population. Due to the acceleration in technological progress ultimately the demand for human capital increased. This generated two opposing effects on population growth. On one hand, it eased households' budget constraints, allowing the allocation of more resources for raising children. On the other hand, it induced a reallocation of resources toward child quality. Due to the modest demand for human capital, the first effect dominated and the rise in real income permitted households to increase the number as well the quality of their children. According to Galor this took place from the start of the first industrialization in Europe and until the beginning of the 2nd revolution in the late 19th century for developed countries (1750 – 1870). Countries in Asia, Latin America and Africa had a late take off around 1900. According to Galor most LDC countries are still in the Post-Malthusian Regime (Galor 2004), (Galor 2009).

2.3 The 3rd stage: The Modern Growth Regime (MGR)

The acceleration in technological progress and industrialization in the Post-Malthusian Regime and its interaction with the accumulation of human capital brought about a demographic transition. The demographic transition paved the way to a transition to an era of sustained economic growth. The transition of the developed regions of Western Europe and the Western Offshoots to the state of sustained economic growth occurred towards the end of the 19th century, whereas the transition of some less developed countries in Asia and Latin America occurred towards the end of the 20th century. Western Europe and Western Offshoots have had 200 years of sustained high growth rates in GDP per capita. Africa is still struggling to make this transition. Characterizing The Modern Growth Regime is: Accelerated technological progress, increase in the demand for human capital, the declining population growth (the demographic transition), gains in output are not counter-balanced by population growth and output per capita grows at a high sustainable level (Galor 2004).

In the following chapter UGT is used to analyze the quality of Botswana's development since independence in 1966.

3. Botswana's economic performance since 1966

The analysis of Botswana's economic performance since 1966 will focus mainly on four characteristics of the MGR (using the terminology of Galor's Kuznet lecture (Galor 2009) :

- Sustained growth in output per capita
- Demographic transition (i.e. decline in population growth)
- Human capital formation
- Technological progress and industrial development

After a description of the background for the conditions in 1966, the analysis of the period from 1966 until the present will be divided into three phases with their own challenges, economic policies and characteristics.

3.1 Initial conditions 1966

84 % of Botswana's land is desert and only 4 % is arable, with the most viable agricultural activity being cattle ranching. The present day Botswana was already from 17.000 BC populated by San and other hunter-gatherers. Simplistically speaking, the Neolithic Revolution was brought into Botswana by the cattle-herding Tswanas who came in the 18th century, absorbing the San and other peoples. The Tswana brought with them the custom of holding "town meetings" which still exists. Many agree that this form of consultation at all levels of public has had a positive effect on the development of Botswana (Acemoglu et al 2001). The Tswanas traded in cattle, skins etc. traded from the beginning of the 19th century with people at Orange River in South Africa and with European traders. In 1818 the Zulu kingdom started expanding, and the eight Tswana tribes fought together against the Zulus. In 1830s clashes started with the Boers, who were defeated in 1852. These fights against a common enemy might have increased the coherence between the Tswana peoples and may have played a later positive role in the social and political environment.

The British established Bechuanaland Protectorate in 1885. The population of that time is estimated to have been around 85.000 (see table 3 in appendix). The British had little economic interest in Botswana and ruled from South Africa, interfering very little. Very few Europeans settled in Botswana. When Botswana attained independence in 1966 it was one of the poorest countries in Africa with a GDP of US\$312 per capita in constant 2000 prices (Soest 2009) and with a minimal public service and a lack of skilled and educated adults. Life expectancy was low at around 53 years. Population was in 1964 estimated at 550.000. The main sector was agriculture. The British had in 1920s and 1930s established borehole drilling in order to advance cattle breeding, as beef exports was considered a comparative advantage.

In 1954 beef was sold outside the region. In 1966, beef accounted for 85 % of total export earnings.

3.2 1960-1974 (independence 1966)

The phase from 1960 through independence in 1966 up to 1974 can be described as take-off years. The government relied highly on foreign assistance (aid and technical advice). The first President, Sir Seretse Khama, a former chief, established an accountable civil service, and a developmental orientation of government. The combination of the culture of participation and the little interference from the British led to good political institutions (Acemoglu et al 2001). Furthermore it was of importance that from the beginning of independence the political elite were closely integrated with the economic (cattle-owning) elite.

Economic growth

The growth rate of GDP per capita from 1965-69 was 10 %, increasing to 22 % from 1969-74 (Lewis and Harvey 1990). This rapid growth was mainly due to a low initial starting point, the end of a major drought in 1965, aid from donors, and the discovery and exploitation of diamonds and copper-nickel. The first important diamond mine was opened in 1971. As can be seen from table 1 in appendix, agriculture was, although declining in importance, the main sector, representing 42 % of GDP in 1966, and 21 % at the end of the period. Almost 90 % of the economically active population was engaged in agriculture (Lewis and Harvey 1990). The share of GDP of the manufacturing sector increased from 5.7 % in 1966 to 7.6 % in 1975/76.

Population

As can be seen from table 2 in appendix, the population grew rapidly, reaching 855.049 by 1974, showing a positive relationship between income per capita and population growth. In 1970-1975 the fertility rate was over 6 children per woman (see table 4 in appendix).

Human capital formation

The period saw massive expenditures on human capital (Maipose and Matsheka 2003). Health care and education was provided free of charge. Primary school enrollment increased from 66.100 in 1966 to 116.000 in 1975 - a growth rate of 6.3 % per year. University enrollment increased from 83 in 1966 to 465 in 1975, which underlines the need for foreign expertise in the period (Leith 2000). The government furthermore established Botswana Brigades

in order to provide training combined with productive work to primary school leavers, to cover for the lack of semiskilled workers (Cook 2008).

Technological progress and industrial development

Although agriculture was the main sector during the period, a rapid degree of urbanization took place as the mining industry expanded (Lewis and Harvey 1990). The diamond mining itself required little labor, but it provided the basis for growth in the manufacturing and service sectors. Due to the initial lack of skilled workers, the government searched internationally for professionals to fill positions in fields such as technology and engineering. The number of legal non-nationals living in Botswana was in 1971 almost 11.000 with an increasing trend (Migration Policy Institute).

The main manufacturing was meat and by-products of meat made mainly by the parastatal Botswana Meat Commission (BMC), established in 1965. Manufacturing received little protection or subsidy (compared to other SSA countries) and was mostly small-scale and private except from BMC.

3.3 1975-1989

This period was characterized by expansion of the mining sector and the state becoming one of the main growth promoting agents.

Economic growth

The first part of the period until 1978 saw a decline in growth to 8 % GDP per capita (post-boom years). When excluding mining the growth rate was only 2 % from 1974-78 (showing vulnerability of Botswana's economy to external shocks e.g. movements in international exchange rates). The period from 1978 up to 1989 was on the other hand a period of rapid economic transformation and growth. GDP per capita increased by 13 % per year. The main reasons were discoveries of new diamond fields, the use of public spending to promote growth in the post-boom years (using revenue from boom-years of discovery of new mines), access to the European Community for beef exports at prices above world prices in 1975 (via the Lomé convention), and a growth in the service sector as a response to construction and operation of mines (Lewis and Harvey 1990). Despite the high growth rates in GDP per capita, in 1985 59 % of the population could be described as poor.

In 1975 Botswana and the diamond cartel De Beers established a joint venture company, in which both held 50 % of the shares. De Beers could, through its control of diamond

trade, control the diamond price. In 1975/76 mining represented 17.5 % of GDP. In 1988/9 mining had reached 53 % of GDP, replacing agriculture as the lead sector. Although agriculture was no longer the lead sector in terms of GDP, more than half of the population still had employment/self-employment in the agricultural sector as a source of income (Lewis and Harvey 1990). The share of manufacturing was small throughout the period (5-7 % of GDP).

Population

According to UNICEF the population annual growth rate was 3.4 % from 1970 to 1990. Policies with the aim of reducing population growth were successfully pursued in the 1980s and 1990s. The policies included efforts to improve access to education and employment particularly for women and promotion of a health care system that incorporated family planning. According to Rutenberg and Diamond 53 % of urban women in a union (formal or informal partnership) reported in 1984 that they had used a modern method of family planning - a sign that a sustained decline took place in the late 80s. It should be noted that the fertility rate remained high for rural women – 6 children per woman (declines were seen during droughts but not due to modern use of contraception) (Rutenberg and Diamond 1993).

Human capital formation

The government's efforts in provision of universal primary education resulted in doubling of primary school enrollment in this period. University enrollment increased from 465 in 1,975 to 3,677 in 1990 (Leith 2000). The Botswana Brigades continued offering vocational training, but according to Cook, were losing importance due to lack of ability to adapt to the demands of the increasing globalization (Cook 2008).

Technological progress and industrial development

As mentioned above, the manufacturing sector did not increase in terms of % of GDP from 1975 – 1989. Beverages and meat had the largest share (value added). Government attempted to improve and increase the manufacturing sector by importing foreign capital and technology. In mid 80s government introduced the Financial Assistance Program (FAP) with incentives to foreign investors. Due to the program, Botswana attracted more foreign direct investment into the manufacturing sector. However, many foreign investors closed their operations again, and others did not fully develop (BIDPA 2005). The main obstacles for manufacturing growth were according to Lewis and Harvey lack of infrastructure such as water, power connections etc. Drought also had a negative effect. While manufacturing stagnated, services such as banking and finance started to play an increasing role in the 1980s. Due to the

continuing lack of skilled professionals, the labor market remained open to foreign skilled workers whose number at the end of the period had reached around 29,000 (Migration Policy Information).

Leith finds a high productivity measured as Total Factor Productivity (TFP) growth in 1974/5 up to the mid 80s – 4% growth per year. He interprets this as a sign that the governments investment in human capital and infrastructure had high pay offs (Leith 2000).

3.4 The 1990s – today

The third period is characterized by more moderate growth. The period has been marked by major re-orientation in economic development strategy and efforts towards enhancing private sector led development.

Growth

As table 1 and 2 in appendix shows, Real GDP growth decreased during this period. In 2008 the growth rate was 4 %. Mining accounted for around 30 % of GDP but 70 % of export revenue. In March 2009 the diamond price fell significantly. The growth rate in GDP in 2009 was as a consequence for the first time in 40 years negative. The service sector was in 2008 the largest sector with 45 % of GDP, and more than 60 % of employment. The services export capacity is mostly in tourism, contributing 5 % of GDP. Income divides have despite the long growth period been reported to be very high, and 47 percent live below the national poverty line (Hillbom 2008).

Population

The present population is 1.7 million. The annual population growth rate was 2.4 % from 1990-2000, decreasing to 1.4 % from 2000-2008 (UNICEF). The fertility rate is 2.9 children per woman (the average SSA country has a fertility rate of 6 births per woman). In the early 1990s life expectancy was 65 years and infant mortality was 45 out of 1000 births. In 1997, life expectancy in Botswana had due to the spread of HIV/AIDS decreased to 48 years - comparable to life expectancy in Ivory Coast with a much lower GDP per capita (Robinson 2009).

Human capital

In 2005 almost 10 % of GDP was spent on education. In comparison, the OECD average in 2005 was 4.8 % (OECD; UNICEF). There was almost universal access to primary and junior secondary school. 5 % of the population had tertiary education (UNICEF). In spite of the

education effort, the unemployment rate was almost 18 % according to the World Bank (the unofficial rate may be even higher). The unemployed were primarily youths and persons with little education (Hillbom 2008). Cook argues that the government in its education policy has been conservative in addressing the demand for skilled labor, and the problem of a surplus of unskilled labor (Cook 2008). Siphambe also argues that the government's planning has not been able to guide the education sector adequately and that even some graduates risk unemployment (Siphambe, 2007).

Technological progress and industrial development

In the 90s, an industry of manufacturing vehicles/vehicle parts grew in Botswana, accounting for almost 14 % of the export in 1996, making it the second largest export commodity after diamonds. However, the share of export fell to less than 3 % in 2002 (BIDPA 2005)¹. An analysis of the companies in the vehicle industry showed that the firms did not rely on local technology capacity, as they imported technology in a packaged form, and employed foreign expatriates for the high technology professions (BIDPA 2005). Apart from the vehicle industry, most of the manufacturing sector could be characterized as small-scale, with little increase in productivity and little technological advance.

According to Maipose and Makthesa one of the reasons for the slow development in the manufacturing sector was the competition from South Africa. Another reason might have been high costs in transportation, water, power and telecommunications (estimated by the IMF to be twice as high as those in South Africa)². Also wage costs were too high to be a comparative advantage. Leith finds that Total Factor Productivity (TFP) declined from the beginning of the 1990's, and explains this (besides the before mentioned barrier in telecommunications) with adverse incentives (among others the FAP) (Leith 2002).

The rapid urbanization continued, with the majority of the population now living in urban areas. In 2006 agriculture accounted for 2.5 % of GDP employing less than 9 % of the population. Government spending in agriculture was low compared to spending in the urban areas, and low levels of technology, productivity and capital formation characterize the agricultural sector (Hillbom 2008). A study showed signs of a dual economy with a large technology gap between traditional agriculture and the commercial agriculture sector. The productivity of poor smallholders declined while the commercial sector, which specializes in cat-

¹ Mainly due to the closure of a big Hyundai plant

² In a survey by the World Bank 5 firms listed transportation costs as the main disadvantage of doing business in Botswana. High utility costs and high costs of capital came 2nd and 3rd (BIDPA 2005)

the ranching, progressed (Irzi & Hadley 2003). This may also be the case for the manufacturing sector where the informal sector employment has risen very rapidly.

3.5 Summary

The period 1966 – today has been characterized by:

- High economic growth rates due to mining. Good deals between government and investors and good management of rent from mining. Investment in education, health and infrastructure.
- Decline in population growth due to policy choices and the decision of educated, urban women to use modern contraception.
- Growth and technological progress low in manufacturing and agriculture.
- Unemployment and a large part of the population living below the poverty line.

4. Discussion: Botswana and Unified Growth Theory – the quality of Botswana's development

Botswana is often mentioned as an example of successful development. In the following discussion I will, on the basis of chapter 3, examine if the most important criteria for modern growth in the UGT (see chapter 2) have been fulfilled.

In the MGR *economic growth rates* are high and at a sustainable level. Seen in the long run, Botswana has experienced a transition from a very low growth measured in GDP per capita (near stagnation) at the time of independence to high growth rates in GDP per capita. However, in the last decade the growth rates have slowed down (and the growth rate for the first time was negative in 2009 following the world economic crisis). Botswana has not experienced the same industrialization as other parts of the World. The growth is narrow-based and comes mostly from mining, making the economy very vulnerable as the necessary diversification has not taken place. The impact of the recently fluctuating diamond prices has shown the danger. The chances of sustained growth without further technological advance can be questioned. Furthermore the growth is highly unequal with a large part of the population living in poverty.

This links to another criteria for MGR mentioned in this paper: *technological progress*. According to Garol, when economies take off from the Malthusian stagnation, technological progress accelerates and results in larger increase in output than in population. In the MGR, technological progress further accelerates. As shown in chapter 3, Botswana still lacks technological progress in the manufacturing and agricultural sector. The technological develop-

ment has mainly taken place in the mining sector (which employs a very small fraction of the population) (Lewis and Harvey 1990).

In the UGT *human capital formation* is a key factor in the transition from stagnation to growth. By spending the rent from mining on education, Botswana has achieved an increase in human capital formation from a very low point in 1966. The process of human capital formation seems to have taken place at the same time as the investments in physical capital, which is in contrast to the historical growth path of the currently developed economies. According to Galor human capital accumulation may be the prime engine of economic growth in some LDCs, even in early stages of development, due to the importation of capital and skilled-biased technologies, which was also the case in Botswana as the economy grew more capital-intensive due to mining (Galor and Moav 2003). Unfortunately the present day Botswana has a surplus of unskilled labor, and the present policy does not seem to solve this problem, thus hindering the transition to MDG.

The link between human capital formation and *demographic transition* is another main pillar in UGT. Human capital formation played a role in the demographic transition in Botswana as it was mainly the urban educated women who started using modern contraception. Galor explains that the demographic transition is one of the main driving forces in the transition from stagnation to growth. In the MGR population growth declines and gains in output are thus not counterbalanced by population growth. As chapter 3 has shown, the population growth in Botswana is declining, and it is one of the few African countries that have experienced a sustained demographic transition (i.e. sustained fertility decline). This is partly due to the different policies pursued in the 1980s and 1990s (see chapter 3).

Using the criteria of the UGT it can be seen that Botswana since the take-off years has achieved high growth rate, demographic transition and invested heavily in human capital. It might be concluded that Botswana is no longer as clearly placed in the post Malthus era as it was in the late 1970s. On the other hand, as many African countries, Botswana has a large part of the population living in poverty and unemployment with lack of skills. Furthermore the economy is vulnerable with export depending on mining. The transition, as mentioned by Galor, where technological progress and industrialization accelerates, has not happened. According to Galor the aggregate return to investment in human capital is maximized if investment in human capital is widely spread among individuals in society. In Botswana inequality and poverty rates are high. Structural changes in terms of inequality and poverty might be needed in order to achieve sustained growth.

Galor sees economic development in the long perspective. To Galor, the time of 'Neolithic Revolution' has long-lasting effects on contemporary development. In line with this, it might be important that the Neolithic Revolution was brought into Botswana as recently as the 18th century. Botswana might with further human capital formation, technological development in agricultural and manufacturing sectors and a structural change of the economy away from dependence on mining be on the way towards MDG. However, as Galor says in an interview it is "difficult to orchestrate a sustained simultaneous move whereby both the demand and supply of human capital will be present leading to a virtuous circle of development and technological progress. The process of development is a gradual one and convergence is particularly difficult for less developed economies in an interdependent world." (Snowdon 2008 p.141). This can be seen in Botswana which during the take off years had to import skilled professionals while today graduates might find it difficult to find employment.

5. Conclusion

Botswana has since 1966 achieved many of the characteristics of modern growth. The economic growth rates have been high. As one of few African countries public investment in human capital is high and a demographic transition has taken place allowing resources not to be absorbed by population growth. Botswana might thus be closer to reaching the final stage of MGR in 2010 than it was in 1966, due to clever management of rent from mining and the policies in regard to education, infrastructure and population. Still the technological level of manufacturing and agriculture is low, and productivity has not increased significantly with the exception of the mining sector. Galor states that a faster rate of technological progress is one of the main components when moving to the MGR. Botswana still lacks that part. I therefore argue that Botswana still has not made the transition to the MGR, largely due to little technological progress in manufacturing and agricultural sectors and the lack of diversification which casts doubt on the sustainability of the high economic growth rates.

The lesson from Botswana may be applied to other African countries which have experienced high growth rates due to export of resources. It is possible to achieve development in infrastructure and human capital from a low starting point. Good governance, sound macro-economic policies and a high degree of public expenditure on education seem to be necessary but not sufficient conditions in achieving sustained economic growth. Technological progress need to be part of the development, however, as mentioned in the discussion, for developing countries it can be difficult to get the right conditions in terms of supply and demand for human capital to foster this technological progress.

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<http://www.populstat.info/Africa/botswanc.htm>

Datafinder, World Bank, <http://datafinder.worldbank.org/>

World Bank Key Development Data and Statistics. Website:

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285~menuPK:1192694~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

Appendix:

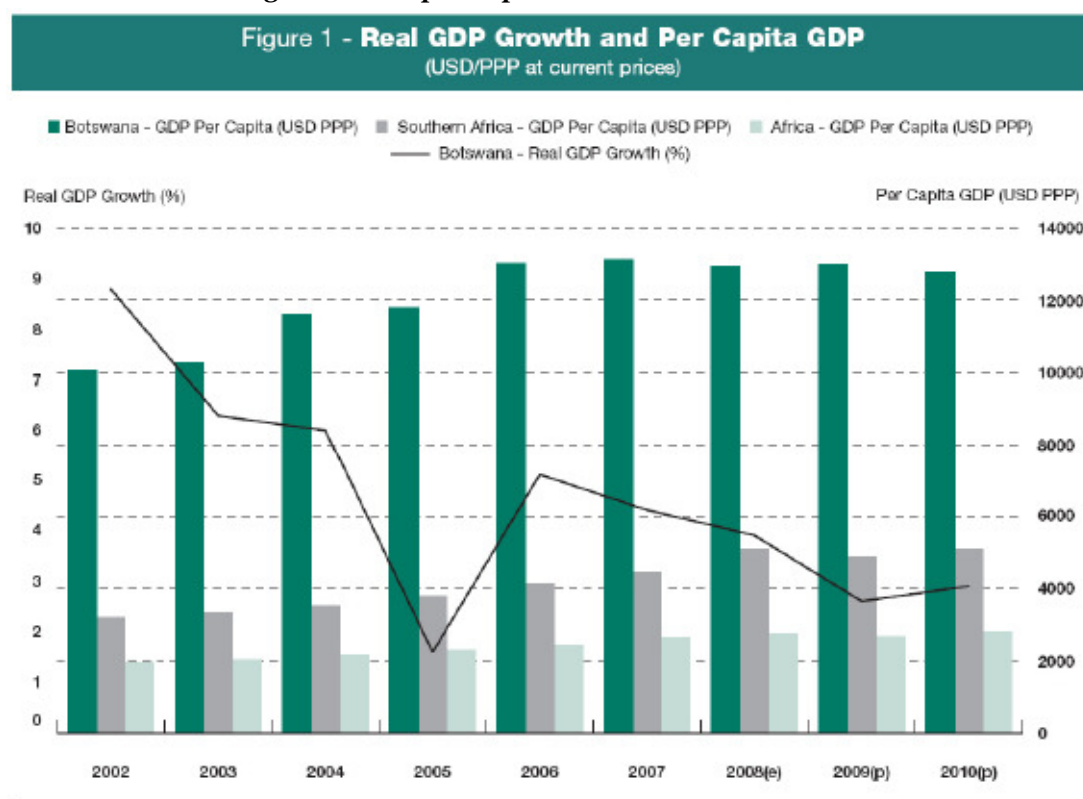
Table 1: GDP by economic activity in selected years

Economic activity	1966	1975/76	1985/86	2000/01	2004/05
Agriculture, %	42.0	20.7	5.6	2.6	2.4
Mining, %	0	17,5	48.9	36.5	35.9
Manufacturing, %	5.7	7.6	3.9	4.1	3.9
Water and electricity, %	0.6	2.3	2.0	2.4	2.5
Construction, %	7.8	12.8	4.6	5.8	5.6
Hotel, restaurants and trade, %	9	8.6	6.3	10.3	10.5
Transport, %	4.3	1.1	2.5	3.8	3.5
Banks, insurance and business services, %	20.1	4,7	6.4	10.9	10.9
Central government, %	9.8	14.7	12.8	16.0	16.4
Social and personal services, %	0	2.8	2.5	4.0	4.0
Real GDP growth, %	0	18.4	11.6	8.4	5.6
Real GDP growth excl. mining, %	0	11.8	7.7	4.0	4.3

Central Statistics Office

Source: (Yaremye, 2008)

Table 2: Real GDP growth and per capita GDP 2002 - 2010

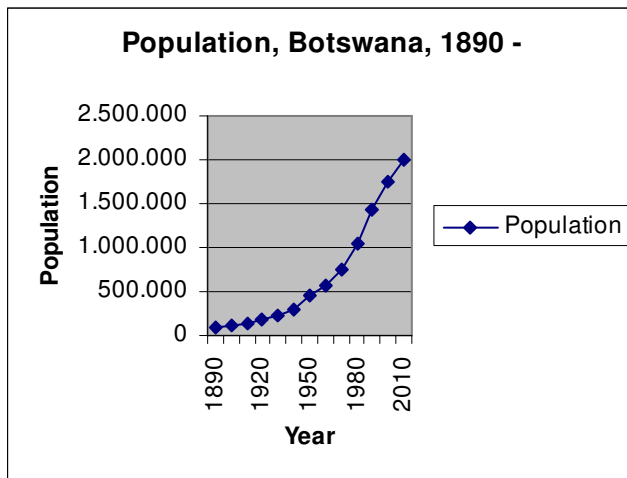


Source: IMF and local authorities' data; estimates (e) and projections (p) based on authors' calculations.

Source:

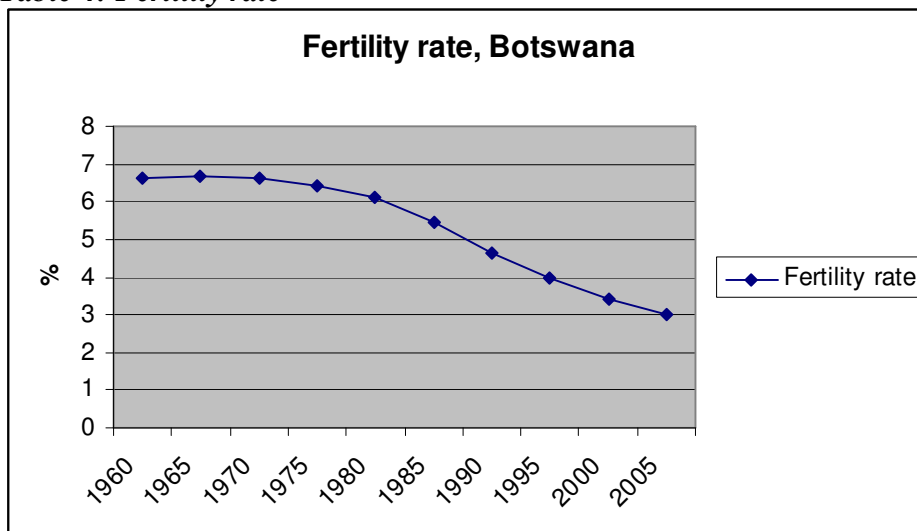
http://www.africaneconomicoutlook.org/uploads/tx_llaecountries/Botswana1.jpg

Table 3: Population



Source: <http://www.populstat.info/Africa/botswanc.htm>

Table 4: Fertility rate



Source: Datafinder, World Bank, <http://datafinder.worldbank.org/>