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**Economic Development in Pre-Independence Botswana, 1820-1966:
Historical Trends, Contributing and Countervailing Factors**

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ABSTRACT

This paper examines the trajectory of economic development in Botswana between the years 1820 and 1966, when it achieved independence. First, I review the historical trends in the country's economic and social development indicators. I then proceed to analyze what factors have encouraged or hindered economic development in Botswana: In particular, I focus on the roles of physical geography, climate, disease ecology, economic and political institutions, geopolitical relations, demographic trends, as well as on ethnic divisions and cultural belief systems. Finally, I discuss how prepared Botswana was for modern economic growth when it gained independence in 1966.

INTRODUCTION

In this paper, I examine the trajectory of economic development in Botswana between the years 1820 and 1966, when it achieved independence. First, I review the historical trends in the country's economic and social development indicators. I then proceed to analyze what factors have encouraged or hindered economic development in Botswana: In particular, I focus on the roles of physical geography, climate, disease ecology, economic and political institutions, geopolitical relations, demographic trends, as well as on ethnic divisions and cultural belief systems. Finally, I discuss how prepared Botswana was for modern economic growth when it gained independence in 1966.

Throughout my discussion, I will draw comparisons between the conditions and factors present in Botswana and those in Western Europe. During 1820-1966, Western Europe was relatively wealthy and highly developed, and can therefore serve as a useful benchmark against which to judge Botswana's economic and social development performance.

HISTORICAL TRENDS OF ECONOMIC AND SOCIAL INDICATORS

INCOME PER CAPITA: According to data collected by Lindgren (2010), Botswana's per-capita gross domestic product (GDP), in 2005 international dollars at purchasing power parity (PPP), was about \$407 in 1820, compared to \$1,453 in Italy, \$1,508 in France, and \$1,946 in Germany. In 1820, Western Europe was, in terms of per-capita income, approximately four times richer than Botswana. By the time it achieved independence in 1966, Botswana's per-capita GDP rose to \$1,119. During the same period, Italy, France and Germany grew their per-capita incomes

to \$9,504, \$13,187 and \$14,731, respectively. By the mid-1960s, then, Western European GDP per capita was approximately eleven times as large as that of Botswana.

THE GREAT DIVERGENCE: Western European per capita incomes began diverging from those of Botswana rapidly sometime in the late 18th or early 19th century: The ratio of Western Europe's per capita GDP to that of Botswana went from about 4 in 1820 to about 11 in the year 1966 – a period of less than 150 years. The magnitude of Western Europe's relative economic rise becomes obvious when it is put into historical perspective: “Before 1800, income per capita varied across societies and epochs, but there was no upward trend,” argues Clark (2007) and adds that “the world's average person in 1800 was no better off in material terms than the average person of 10,000 or 100,000 BC.”

LIFE EXPECTANCY: During the early 19th century, the Botswana could expect to live, on average, approximately as long as the inhabitants of Western Europe: In 1820, life expectancy in Botswana is estimated to have been 34 years, compared to 38 years in Germany, 39 years in France, but only 29 years in Italy (Johansson, 2010). Although life expectancy in Botswana has improved over time and reached 53 years by 1966, the gap between Botswana and Western Europe has grown larger: In 1966, the French, Germans and Italians expected to live for approximately 71 years, almost 20 years longer than the Botswana. In addition to reducing the length of workers' productive lives, shorter life expectancies can discourage long-term investment in human and physical capital, as individuals may not expect to live long enough to collect the returns (Murphy and Topel, 2006).

HEALTH: Harvey and Lewis (1990) summarize the state of Botswana's health indicators and medical care shortly before independence: In 1965, Botswana had only one doctor per 26,000 people and one nurse for every 16,000 inhabitants. Although quite deplorable, the

statistic for doctors was slightly better than the average in sub-Saharan Africa, which was one doctor per 36,000. The average sub-Saharan country had, however, more nurses per capita than Botswana: the regional average was one nurse for every 5,700 people. One year before independence, Botswana had only 83 clinics, most without a resident staff. Preventive and curative medicine was largely in the hands of missionaries: In 1963, five out of the total nine hospitals were run by Christian missionaries. The country's dispersed population centers, furthermore, made it difficult for doctors to visit the clinics often. Botswana's hot and dry climate means that many of Africa's most debilitating illnesses occur in the country much less frequently than in other sub-Saharan countries. Its inhabitants, furthermore, had relatively good protein intake due to easy access to milk and meat from the country's livestock (Harvey and Lewis, 1990).

Botswana's health statistics at independence lagged significantly behind those of Western Europe. According to data collected by Lindgren and Johansson (2010), Botswana's infant mortality rate, which accounts for deaths during the child's first year of life, was at 108 per 1,000 live births in 1966, while that of Western European countries was more than three times lower at about 30 per 1,000 births. On the eve of independence, 14.9 percent of Botswana children died in the first five years of their lives, as opposed to only between 2 and 3 percent of Western European children. Botswana's child mortality rate in 1966 was similar to that of many European countries in the late 19th or early 20th century.

EDUCATION: By the low standards of sub-Saharan Africa, Botswana had an above-average school enrollment of primary school age children at independence (Harvey and Lewis, 1990): In 1965, more than half of the children of primary school age were enrolled, as opposed to 37 for low-income countries in sub-Saharan Africa (World Bank, 1986). The education

quality, however, was very low: Primary schools had very large class sizes, usually did not offer the full seven-year course, and were often staffed by untrained teachers. Every fifth pupil was repeating a grade, and very few opportunities existed at the secondary and tertiary levels: Secondary schooling was not available in the country until twenty years before independence, and a full five-year secondary course was not offered until 1954 (Harvey and Lewis, 2010). At independence, Botswana was estimated to have only at most a few dozen university graduates, and only about a hundred people with a secondary school leaving certificate (Acemoglu et al. 2003; Harvey and Lewis, 2010).

In 1965, according to Barro and Lee's (2010) data on educational attainment, 72.7 percent of Botswana's inhabitants above the age of 25 had no schooling. 24.6 percent had received some primary schooling, but only 1.4 percent completed the full primary course. Completion rates for tertiary education were extremely low, at about 0.1 percent of the above-25 population. The average Botswana completed only 1.2 years of schooling. By contrast, the average German above 25 years of age completed more than 5.2 years of schooling. Less than one percent of Germans had no schooling, and more than 23 percent had at least some secondary education. Finally, completion rates for tertiary education in Germany were at 2.2 percent.

PHYSICAL GEOGRAPHY, CLIMATE AND THE DISEASE ECOLOGY

A country's geographical characteristics, climate, and its disease environment can have a significant influence on its economic development. The exact mechanisms through which geography and climate influence growth and human development have, however, been hotly debated in economic research: Some economists argue that geography affects incomes primarily through its effect on the choice of institutions (Acemoglu, Johnson, and Robinson, 2001; Rodrik et al., 2002; Easterly and Levine, 2002), whereas others believe it can also have significant direct effects (Sachs, 2003). Others still believe that the relative importance of these two accounts can differ from country to country (Kourtellos et al., 2009).

On the whole, Botswana's location is not as favorable to economic development as that of Western Europe, which lies in a temperate zone, has avoided some vector-borne diseases that plague sub-Saharan Africa, and has good access to the sea and to navigable rivers.

First of all, Botswana is landlocked: None of its population lies within 100 kilometers of an ice-free coast or a sea-navigable river, according to calculations by Mellinger, Sachs and Gallup (2000). This can be a disadvantage for economic development, as the costs of trade are higher in landlocked countries, and their access to world markets is limited. As a result, Botswana may find it more difficult to enjoy some of the benefits that flow from trade: These include increased specialization and productivity growth (Alcalá and Ciccone, 2004), greater technological diffusion (Keller, 2004), as well as access to more ideas that can spur innovation (Romer, 1994). Gallup, Sachs and Mellinger (1999) point out that nearly all of the world's landlocked countries are poor, with the exception of a few countries in Western and Central Europe which benefit from a deep and relatively low-cost integration into Europe's regional trade. In addition to relying on the availability of a trade corridor, landlocked countries' access to

markets also depends on a predictable transit system: Using recent evidence from the World Bank's projects in East and Central Africa, Arvis, Raballand and Marteau (2007) find that landlocked economies are affected not only by higher transportation costs, but also by a higher degree of unpredictability in the transport time.

Secondly, Botswana is characterized by a dry or semi-arid climate with irregular rainfall (*BWh* and *BSh* in the Köppen-Geiger climate classification system), rather than by a more predictable temperate climate (Köppen-Geiger *Group C*) that has predominated in Western Europe and other developed regions (Strahler and Strahler, 1992). The country's area consists mostly of semi-arid tablelands, with the Kalahari Desert in the south-west. Such conditions, and their accompanying soil types, are not very conducive to agricultural productivity, especially for staple foods such as potatoes (Sachs, Mellinger and Gallup, 2001). Nunn and Qian (2008), for instance, show that countries that have been able to adopt the potato have experienced large gains in agricultural productivity: Potato was, moreover, calorically and nutritionally superior to other staples, such as wheat or rice (Nunn, 2009). Only a few areas of Botswana are suitable for potato growing (DAR, 2006), and there is no evidence of potato production in the country before 1980 (Edwards, 1988).

Thirdly, Botswana's geography and climate provide an environment that allows some infectious diseases to flourish. Malaria occurs in the north-west of the country – primarily in the Okavango Delta in the north - while much of the south is spared, due to a dry climate. Even today, malaria is ranked as a major public health problem, and cases are routinely reported by the Ministry of Health (Thomson et al., 2005). In Botswana, the *Anopheles arabiensis* mosquito is the most important vector of the disease, although other species of *Anopheles* can also be found (WHO, 1989). *Plasmodium falciparum*, the protozoon associated with the most serious form of

the disease, represents more than ninety-five percent of parasites isolated in the country's malaria cases (Pridgeon, 1993). Other diseases that find a favorable environment in Botswana include infectious Hepatitis A, typhoid and even, albeit much more rarely, trypanosomosis (CDC, 2010). Since the 1980s, Botswana has suffered an HIV/AIDS epidemic with the world's highest adult HIV prevalence rates (Lamprey et al., 2002). As the disease was only discovered in the 1980s, little reliable data is available on the historical prevalence. It appears unlikely, however, that it played an important role in pre-independence Botswana, as "available data suggest that the current pandemic started in the mid- to late 1970s." (Mann, 1989; Pickrell, 2006)

Today, the diamond mining industry accounts for an important share of Botswana's national income. Diamonds, however, were not an important factor in Botswana's economic development between 1820 and 1966: They were not discovered until 1967, one year after independence (Good, 2008). Some economists have argued that natural resource abundance can be a "curse" for economic development (Sachs and Warner, 1999). The fact that diamonds were discovered relatively late may therefore have been a blessing, rather than a disadvantage for the country.

Finally, Botswana is located far from the world's core markets (Gallup, Sachs and Mellinger, 1999), which during the 1820-1966 time period comprised primarily countries in Western Europe and some of the "western offshoots," especially the United States (Maddison, 1996). Botswana's large distance from consumers and producers in the world's major markets reduced its ability to integrate itself into the world economy: Gallup, Sachs and Mellinger (1999) argue that "countries near to core economies (such as the main capital-goods providers) will have lower transport costs than distant economies."

GEOPOLITICAL RELATIONS

Geopolitical considerations have shaped Botswana's fortune in an important way during its colonial period. In 1885, Britain established the Bechuanaland protectorate, today's Botswana, in a move that was motivated by geostrategic consideration: The Brits aimed to prevent the Boers in the Transvaal (part of modern-day South Africa) and the Germans in the South West Africa (today's Namibia) from interfering with the route from the British Cape Colony to territories under British control in central Africa (Harvey and Lewis, 1990).

The British government was not interested in the territory or its inhabitants for their own sake, but rather thought of Bechuanaland as a strategic "buffer zone." Cecil Rhodes, Britain's foremost colonialist in Africa's south, once described it as the "Suez Canal into [Africa's] interior." (Gann and Duignan, 1967) The colonial rule was characterized by neglect: Scholars have described the British rule in Bechuanaland as "light rule" (Acemoglu et al., 2001) or "benign neglect." (Dale, 1995; Beaulier, 2003) Acemoglu et al. (2003) quote the British High Commissioners's 1885 statement: "We have no interest in [Bechuanaland], except as a road to the interior; we might therefore confine ourselves [...] to preventing that part of the Protectorate [from] being occupied either by filibusters or foreign powers doing as little in the way of administration or settlement as possible." (Seidler, 2010) A poignant symbol of Britain's neglect was the fact that Bechuanaland was administered from outside its territory: first from Vryburg, and since 1896 from Mafeking in today's South Africa (Harvey and Lewis, 1990).

Britain's neglect was further exacerbated by uncertainty about the protectorate's status: The Act that established the Union of South Africa in 1910 stated that the Bechuanaland Protectorate would eventually be incorporated into the Union. However, the conditions of the transfer, which included land and civil rights for the population, were not acceptable to a series

of South African governments, and were also opposed by chiefs of the locally predominant Tswana tribes. The British government has, furthermore, long refused to transfer Bechuanaland to the Union. As a result of the uncertainty about Bechuanaland's transfer, neither the British nor the South African governments had an incentive to develop the territory: The British did not want to invest in an area that they might soon lose, while the South Africans would not invest while Bechuanaland was still under British control (Harvey and Lewis, 1990).

As a result of Britain's very light colonial rule, Botswana's economy was, by 1966, underdeveloped even by the standards of sub-Saharan Africa. The British did not show any interest in Bechuanaland's natural resources, and did not build much infrastructure either (Seidler, 2010). The only major infrastructure project was a railway, built in the 1890s to connect the Cape Colony in the south with Southern Rhodesia in the north: Largely by coincidence, the railway crossed through the country's most heavily populated regions (Harvey and Lewis, 1990). Despite improved access, the share of British settlers in the protectorate remained below one percent of its total population (Seidler, 2010).

On the other hand, British neglect and limited settlement has left many of the pre-colonial Tswana institutions intact (Seidler, 2010). Martin (2008) argues that some Tswana chiefs may have even benefited from Britain's light colonialism: "Tswana chiefs gained protection from external aggression, at the cost of only minimal loss of their power to govern," he writes. The continuance of Tswana political institutions was, Acemoglu et al. (2003) and Martin (2008) argue, crucial for Botswana's rapid growth after independence. In the next section, I describe the Tswana political and economic institutions in greater detail.

POLITICAL AND ECONOMIC INSTITUTIONS

Many economists argue that political and economic institutions – for instance, the rule of law and the protection of private property – hold the key economic development (Beaulier, 2003). North (1981), North and Thomas (1973) and Rodrik et al. (2002), for instance, have argued that that good institutions allowed Western Europe and its offshoots to grow more prosperous than the rest of the world. Acemoglu et al. (2001) argue that institutions are a more powerful explanation of cross-country variation in per capita income than geographic characteristics, although Sachs (2003) challenges this view (Martin, 2008). They have, in fact, highlighted Botswana as a success story where good institutions, developed in the pre-independence era, enabled sound economic policy after 1966, and ultimately led to rapid economic growth (Acemoglu et al., 2003).

During the 1820-1966 period, Botswana's political organizations and institutions built upon the influence of both the pre-colonial Tswana culture,² and the British colonial administrators (Robinson and Parsons, 2006). After the establishment of the Bechuanaland Protectorate in 1885, the pre-colonial institutions were not directly challenged by Britain's light colonial rule (Englebert, 2000; Seidler, 2010), unlike in many other colonial holdings in Africa. This is not to say, however, that British rule had no effect on Botswana's institutions: The colonial administrators have, for instance, introduced taxation and a cash currency.

In contrast to many other African ethnic groups, the pre-colonial Tswana tended to settle in major towns, which served as the economic and political centers of each tribe (Palmer and Parsons, 1977; Seidler, 2010). Urbanization, along with the relatively high population density in cities, can contribute to early institutional development: In addition to expanding markets and

² The Tswana were the most populous and widespread of Botswana's tribal/ethnic groups during the pre-colonial era.

promoting technological growth (Sachs, Mellinger and Gallup, 2001), it allows for the relatively inexpensive provision of public services such as justice, education or tax collection (Platteau, 2000).

CONSTRAINTS ON TRIBAL CHIEFS' POWER: Tswana tribes were ruled by chiefs who enjoyed broad legal, judicial and executive powers. There was, however, an implicit social contract between the tribal chief and his people (Seidler, 2010), which imposed some constraints on his decision-making authority: Although the chief was entitled to make final decisions on public matters, he had to consult a traditional assembly (*kgotla*) and would typically try to seek consensus (Lewis, 2006).³ All adult males could, furthermore, freely express disapproval with the chief's proposals or decisions (Ayittey, 1992). The Tswana consensus-based arrangements and traditional constraints on the chief's rule stood in sharp contrast with other polities in sub-Saharan Africa, most of which have developed political institutions with powerful ruling and warrior classes (Robinson, 2009).

After the protectorate was established, rule by the traditional authority was not altered, although the chief's role changed somewhat: Although the chief still presided over tribal courts at the *kgotla*, the British colonial administration would try the most severe criminal cases, such as murder. When the British introduced the hut tax in 1899, the chiefs became tax collectors for the colonial administrators, and saw their personal incomes increase (Seidler, 2010; Good, 1999). On the whole, the political institutions in pre-independence Botswana had some outstanding characteristics: Political elites, including tribal chiefs, "faced constraints on their rule, and were accountable to their people," and there was "a tradition of public participation [and] consultation [...] in the policy process." (Martin, 2008)

³ Seidler (2010) cites a Tswana proverb: "Kgosi ke Kgosi ka batho," or "A chief is a chief by the grace of his tribe." (Schapera, 1955).

PROPERTY RIGHTS: Communal and private property ownership co-existed in pre-colonial Tswana tribes. Unused land, which was abundant, was communal, although the chief could allocate it to individual members of his tribe for cultivation, settlement or grazing (Seidler, 2010; Schapera, 1955). Private property rights, enforced by the chief, existed for some cultivated land, for personal articles, and especially for cattle (Martin, 2008; Seidler, 2010).

Heads of cattle were the most important assets the Tswana possessed: They formed the basis of Botswana's economy in the pre-colonial era. As most chiefs were large cattle owners, they had an incentive to make sound economic decisions that would not only increase the value of their herd, but also benefit the tribe as a whole (Beaulier, 2003). The Tswana property rights regime was not significantly affected by the establishment of British colonial rule (Seidler, 2010).

TAXATION: Of all the changes that Britain's colonial administration made after the Bechuanaland Protectorate was established, the introduction of taxation had the strongest impact on Tswana institutions (Seidler, 2010). The protectorate was created as a geopolitical buffer zone, and the British were not interested in the exploitation of its economic or natural resources. In order to make Bechuanaland's colonization self-financing in the absence of exploitable resources (Mogalakwe, 2006; Massey, 1977), the British administration levied the Hut Tax in 1899, and complemented it with the Native Tax in 1919.⁴ They required payment from all Botswanan families that owned a hut (Beaulier, 2003), and as such were essentially "imposed on persons simply because they are [...] in the society, and not because of any income [or] ability to pay." (Mogalakwe, 2006)

⁴ According to Mogalakwe (2006), "in 1932, the Hut Tax and Native Tax were amalgamated and were called the African Tax, payable by every African male of an 'apparent age of 18 or above.'" (Schapera, 1947).

In addition to strengthening the political and economic power of tribal chiefs, who could now earn commissions of about ten percent on what they collected (Good, 1999), taxation gradually introduced a cash-based economy into Botswana (Seidler, 2010). There were, however, additional important effects of the newly introduced taxes: increased labor migration, and an exacerbation of economic inequality.

The introduction of the Hut Tax and the Native Tax had a momentous impact on Botswana's labor markets: Because much of Botswana's economy was based on subsistence agriculture, a large portion of the country's population could not afford to pay the taxes (Mogalakwe, 2006). While some Botswana chose not to comply with the tax, others have entered the formal labor market (Beaulier, 2003): Many Tswana males looked for jobs in the Transvaal and South Africa, and provided a steady supply of cheap labor primarily to these countries' mining industry (Seidler, 2010; Mogalakwe, 2006). According to Acemoglu et al. (2003) and Schapera (1993), almost half of Botswana males between the ages of 15 and 45 worked away from the Bechuanaland Protectorate. Labor migration from Botswana to South Africa increased from a few hundred to more than 50,000 between 1990 and 1960 (Colclough and McCarthy, 1980).

The British administration's introduction of taxation worsened the trend of rising economic inequality in Botswana. The distribution of cattle, the Botswana's most prized asset, had been growing more unequal for a long time: Colclough and McCarthy (1980) note that periodic droughts and frequent outbreaks of the foot-and-mouth disease in the first half of the 20th century, as well as an epidemic of rinderpest in 1895, disproportionately hurt farmers on marginal lands with thin pasture, and those who owned only a few heads of cattle.

Although there were constraints on their rule, the Tswana tribal chiefs' decisions could have a strong influence on cattle ownership: Their subjects were, on occasion, required to pay levies for public construction projects, or to make good on their personal debts to the chief. To be able to afford these payments, the poorer subjects often had to sell some of their cattle. The imposition of taxes by the British colonial administration had a similar effect on the poor: In order to be able to afford the Hut and the Native Tax, those with few cattle and little income often had to sell the little they possessed (Colclough and McCarthy, 1980)

CULTURAL PATTERNS, ETHNIC DIVISIONS AND BELIEF SYSTEMS

ETHNIC DIVISIONS: Most of the tribes in Botswana belong to the Tswana, one of the Bantu peoples that are believed to have migrated into the area in the 18th century from modern-day South Africa (Tlou, 1985). Upon arrival, the Tswana conquered the indigenous San tribes, and assimilated them into their own culture. In addition to the Tswana, the country was, during 1820-1966, inhabited by many smaller tribes that have, for the most part, lived under the authority of Tswana chiefs (Colclough and McCarthy, 1980). Over time, the Tswana have incorporated ever more tribes, as well as spread their language, culture and institutions across the territory of modern-day Botswana. The result was a relatively homogeneous population with shared cultural and political institutions (Martin, 2008).

The first half of the nineteenth century was marked by conflict between Botswana's tribes and various external forces: In the 1820s and 1830s, as the Zulu Kingdom was expanding, the Tswana tribes fought to protect their lands, and consolidated their hold on Botswana. Until the 1850s, furthermore, the tribes of Botswana clashed with Afrikaners (Acemoglu et al., 2003). Conflict can harm economic growth not only through direct destruction of productive capacity,

but also through its effects on investment: As Brunschweiler and Bulte (2009) point out, countries that suffer from conflict or instability may be less able to attract investment or develop various industries. Tlou and Campbell (1997) note, however, that “the most important result of the wars was the uniting of the Batswana against a common enemy.”

Clashes with neighbors, furthermore, have dispersed the Tswana tribes over Botswana’s territory: As land was plentiful and their most important assets (heads of cattle) mobile, “they had the opportunity to move instead of fighting over a specific territory.” (Martin, 2008) Indeed, conflict between individual tribes within Botswana was relatively rare between 1820 and 1966: No Tswana tribe was powerful enough, in any case, to subdue the others, and “disputes [therefore] had to be negotiated rather than dictated by a dominant individual tribe.” (Leith, 2005; Martin, 2008). The preference for negotiation over conflict is even reflected in a Setswana proverb, according to which “the big battle should be fought with words.” In times of drought, furthermore, survival depended on cooperation between tribes. There was an understanding that tribes with resources should help those who lacked them (Lewis, 2010).

PERCEPTION OF TIME: The pre-colonial Tswana tribes held a cyclical view of time based on the repetition of work duties (Seidler, 2010). Such perceptions of time can have an impact on economic growth: A cyclical perception of time can impede the use of time itself as an economic resource. Today’s time is not, in other words, seen as something that can be traded against future benefits: Since individuals are less willing to undertake long-term investment, economic growth may suffer (Seidler, 2010).

The influence of colonial Britain, along with the inclusion of migrant workers into South African labor markets, forced many Batswana to adapt to the European’s linear perception of time (Schapera, 1933). Such a view can encourage investment, as individuals become

comfortable with the idea of reaping future rewards of today's sacrifices. In addition, the standardization of time units can help reduce transaction costs in the labor markets (Seidler, 2010): Working hours could, for instance, now be regulated, and workers could sell units of their time to employers.

RELIGION: With the growing influence of colonial powers in Southern Africa, missionaries expanded their work in Botswana, and Christianity mixed to an ever greater extent with traditional Tswana religious beliefs. The religion's emphasis on divine rather than secular authority could undermine the tribal chiefs' rule. For pragmatic and political reasons, Tswana chiefs mostly adopted Christianity, and cooperated with missionaries in the same way that they had collaborated with sorcerers earlier (Seidler, 2010). In addition, the chiefs were often able to enlist the Christian missionaries as allies in their negotiations with the British colonial administration (Acemoglu et al., 2003).

POLITICAL CULTURE: The British policy of "benign neglect" (Dale, 1995; Beaulier, 2003) may have had a positive effect on Botswana's political culture: Unlike other colonies and protectorates in sub-Saharan Africa, Botswana did not experience "the colonial attitudes, the hierarchies based on status in the civil service, the large residences for senior officials, the bands of government clerks who lorded it over their fellow citizens who they were supposed to serve." (Harvey and Lewis, 2010) In this way, the legacy of British colonial neglect may not have been all negative: In addition to allowing the strong pre-colonial institutions to survive, Britain's light rule benefitted Botswana's post-independence political culture by "the distinct absence of bad examples from the past." (Harvey and Lewis, 1990).

ROLE OF DEMOGRAPHIC TRENDS AND MIGRATION

DEMOGRAPHIC TRENDS: Historical population statistics collected by Lahmeyer (2010) suggest that Botswana experienced significant and increasingly rapid population growth during the pre-independence period. In 1890, he estimates, Botswana had about 85,000 inhabitants, compared to 535,000 inhabitants at independence in 1966. According to the World Bank (2010), the population growth rate would keep rising until it reached its peak in 1978.

Economic theory suggests that the effect of rapid population growth on economic development can be ambiguous: On the one hand, a larger population can put more pressure on limited natural and economic resources. Labor productivity may decrease, as the average worker has less capital available to work with. On the other hand, endogenous growth models (e.g., Romer, 1986, 1994) have stressed the role of innovation in promoting long-term economic growth: A larger population can generate new ideas, and thus contribute to technological progress. Technological progress, in turn, is the most important determinant of economic growth in the long run (Solow, 1962).

It is, therefore, difficult to assess what the net effect of Botswana's rising population was on its per capita income and other development indicators. Available reviews of Botswana's economic performance before independence (e.g. Acemoglu et al. 2003; Martin, 2008; Seidler, 2010) do not, however, point to demographic changes, apart from labor migration patterns, as a major factor in the country's economic development.

MIGRATION: The migration of as many as half of Botswana's adult males, mostly in search of jobs in South Africa, that followed the imposition of the Hut Tax in 1899 damaged the country's physical, economic and social infrastructure: "Generations of children were raised without a male influence at home. Skilled artisans and entrepreneurs were no longer able to

service the missing male population. [...] The fabric of civil society was also strained, and women [took on] a larger role in the household.” (Beaulier, 2003) The country’s political institutions also suffered, “with up to half of the adult male population spending up to 11 months of each year in South Africa.” (Beaulier, 2003) Mogalakwe (2006) and Beaulier (2003) argue that the aftermath of colonial taxation was so negative as to belie the widespread perception of Britain’s “benign neglect” of Botswana.

The erosion of social capital made it difficult to achieve economic growth. Whiteley (2000), for instance, finds that the positive effects of social capital on growth can be as large as those associated with increases in human capital and education. Based on their study of regional differences in Italy, Helliwell and Putnam (1995) find that the regions with greater endowments of social capital were, over the centuries, able to achieve and maintain higher levels of per capita income than other regions. It appears Botswana’s growth rate during the pre-independence era was, in significant part, depressed because such a large proportion of its population was unable to participate in domestic labor and consumers markets, or in social institutions.

WAS BOTSWANA READY FOR MODERN ECONOMIC GROWTH?

Botswana’s prospects for modern economic growth seemed rather poor in 1966. A landlocked, underdeveloped country with a history of colonial rule (albeit of a ‘light’ variety), Botswana had seen its living standards rise somewhat since 1820, but not nearly as much as Western Europe did. “When Botswana achieved full independence,” Hartland-Thunberg (1978) notes, “informed opinion was unanimous in assessing the country’s economic prospects as dismal.” Harvey and Lewis (1990) concur: In 1966, “Botswana was listed as one of the world’s

poorest countries. Most observers thought there was little hope of Botswana becoming less dependent on international aid to maintain a minimum of public services,” they write.

For geopolitical reasons, Botswana was neglected to an extraordinary degree by Britain, its colonial administrator (Harvey and Lewis, 1990). The British government has even stated that it would do “as little in the way of administration and settlement as possible.” (Colclough and McCarthy, 1980) Despite more than eighty years of colonial rule, then, Botswana had inherited very little by the time it became independent in the mid-1960s: Acemoglu, Johnson, and Robinson (2003) note that “[w]hen the British left, there were 12 kilometers of paved road, 22 Botswana who had graduated from University and 100 from secondary school.” Botswana’s economic and social conditions did not, in other words, appear favorable to growth in 1966.

Underneath these first impressions, however, lay an important, yet silent, development: Botswana had been able to retain its pre-colonial political and economic institutions – ones that were conducive to limited government, the rule of law, and the protection of private property rights. Britain’s colonial neglect allowed traditional Tswana institution to survive with only minor adaptations, such as the adoption of Christianity by the tribal chiefs. This fact enabled much of the extraordinary growth in the post-independence era (Acemoglu et al., 2003).

Despite its benign appearances, the effects of Britain’s colonial administration during the 1820-1966 could be quite harsh at times: Britain’s taxes have, for instance, forced much of the adult male labor force to seek jobs in South Africa. As a result, domestic social and economic infrastructure was in shatters throughout the first half of the 20th century. Interaction with the colonial power and with the formal labor market in South Africa may have brought more efficient time management and work habits, but their effects would not be fully seen until the domestic economy revitalized.

All in all, in 1966, Botswana's prospects for modern economic growth, of the kind seen in Western Europe since the 1820s, seemed bleak on the surface. Britain's colonial neglect, however, has allowed some crucial political and economic institutions to survive. At Botswana's independence in 1967, one could reasonably expect faster economic growth and development, if dependence on the South African labor market could be reduced so that workers can return home, and if the government put in place sound policies that took advantage of the country's strong institutions.

REFERENCES

- Acemoglu, Daron, Simon Johnson and James A. Robinson. (2001). "The Colonial Origins of Comparative Development: an Empirical Investigation," *American Economic Review*, Vol. 91, No. 5, 1369-1401.
- Acemoglu, Daron, Simon Johnson and James A. Robinson. (2003). "Botswana: An African Success Story," In Dani Rodrik (Ed.), *In Search of Prosperity: Analytical Narrative on Economic Growth*, Princeton, NJ: Princeton University Press.
- Alcalá, Francisco and Antonio Ciccone. (2004). "Trade and Productivity," *Quarterly Journal of Economics*, Vol. 119, No. 2, 613-646.
- Arvis, Jean-François, Gael Raballand and Jean-François Marteau. (2007). "The Cost of Being Landlocked: Logistics Costs and Supply Chain Reliability," *World Bank Policy Research Working Paper*, No. 4258, Washington, DC: World Bank.
- Ayittey, George B. N. (1992). *Africa Betrayed*. New York, NY: St. Martin's Press.
- Barro, Robert J. and Jong-Wha Lee. (2010). "A New Data Set of Educational Attainment in the World, 1950-2010," *NBER Working Paper*, No. 15902, Cambridge, MA: National Bureau of Economic Research. Data set available at: <http://www.barrolee.com/>
- Beaulier, Scott. (2003). "Explaining Botswana's Success: The Critical Role of Post-Colonial Policy," *Cato Journal*, Vol. 23, No. 2.
- Brunschweiler, Christa N. and Erwin H. Bulte. (2009). "Natural Resources and Violent Conflict: Resource Abundance, Resource Dependence and the Onset of Civil Wars," *Oxford Economic Papers*, Vol. 61, No. 4, 651-674.
- Center for Disease Control. (2010). "Health Information for Travellers to Botswana." Available at: <http://wwwnc.cdc.gov/travel/destinations/botswana.aspx>
- Colclough, Christopher and Stephen McCarthy. (1980). *The Political Economy of Botswana: A Study of Growth and Distribution*. Oxford University Press: New York, NY.
- Dale, Richard. (1995). *Botswana's Search for Autonomy in Southern Africa*. Westport, CT: Greenwood Press.
- Department of Agricultural Research (DAR). (2006). *Manual for Vegetable Production in Botswana*. Government of Botswana, Ministry of Agriculture: Gaborone, Botswana.
- Easterly, William and Ross Levine. "Tropics, Germs and Crops: How Endowments Influence Economic Development," *NBER Working Papers*, No. 9106, Cambridge, MA: National Bureau of Economic Research.

- Edwards, R. (1988). "Notes on Potato Production in Botswana," Typescript, International Potato Center: Lima, Peru.
- Gallup, John Luke, Jeffrey D. Sachs and Andrew D. Mellinger. (1999). "Geography and Economic Development," *CID Working Paper*, No. 1, Harvard University: Center for International Development.
- Gann, Lewis H. and Peter Duignan. (1967). *Burden of Empire*. Stanford, CA: Hoover Institution Press.
- Good, Kenneth. (1999). "The State and Extreme Poverty in Botswana – the San and Destitutes," *Journal of Modern African Studies*, 37.
- Good, Kenneth. (2008). *Diamonds, Dispossession & Democracy in Botswana*. Boydell & Brewer Ltd.
- Hartland-Thunberg, Penelope. (1978). *Botswana: An African Growth Economy*. Boulder, CO: Westview Press, Inc.
- Helliwell, John F. and Robert D. Putnam. (1995). "Economic Growth and Social Capital in Italy," *Eastern Economic Journal*, Vol. 21, No. 3, 295-307.
- Harvey, Charles and Stephen R. Lewis, Jr. *Policy Choice and Development Performance in Botswana*. St. Martin's Press: New York, NY.
- Johansson, Klara. (2010). "Documentation for Life Expectancy at birth (years) for countries and territories," *Gapminder Documentation*, Version 2. Stockholm, Sweden: The Gapminder Foundation. Available at:
<http://www.gapminder.org/documentation/documentation/GD004/Gapminder%20documentation%20004%20Life%20Expectancy%2020100528.pdf>
- Keller, Wolfgang. (2004). "International Technology Diffusion," *Journal of Economic Literature*, Vol. 42, No. 3, 752-782.
- Kourtellos, Andros, Thanasis Stengos and Chih Ming Tan. (2009). "Do Institutions Rule? The Role of Heterogeneity in the Institutions vs. Geography Debate," *Economics Bulletin*, Vol. 300, No. 3, 1710-1719.
- Lahmeyer, Jan. (2010). *POPULSTAT – Population Statistics*. Available at: <http://www.populstat.info/>
- Lampthey, Peter, Merywen Wigley, Dara Carr and Yvette Collymore. (2002). "Facing the HIV/AIDS Pandemic," *Population Bulletin*, Vol. 57, No. 3, 1-39.
- Leith, J. Clark. (2005). *Why Botswana Prospered*. Montreal, Canada: McGill-Queen's University Press.

Lewis, Stephen R. (2006). "Explaining Botswana's Success," In Harrison, Lawrence and Peter Berger, *Developing Cultures*, New York, NY: Case Studies.

Lewis, Stephen R. (2010). "Explaining Botswana's Success: The Importance of Culture." Available at:
http://apps.carleton.edu/campus/president/slewis/speeches_writings/botswana_success/

Lindgren, Mattias. (2010). "Documentation for GDP Per Capita by Purchasing Power Parities for countries and territories," *Gapminder Documentation*, Version 8. Stockholm, Sweden: The Gapminder Foundation. Available at:
<http://www.gapminder.org/wp-content/uploads/2008/10/gapdoc001.pdf>

Lindgren, Mattias and Klara Johansson. (2010). "Documentation for Infant Mortality Rate (per 1,000 born) for countries and territories," *Gapminder Documentation*, Version 1. Stockholm, Sweden: Gapminder Foundation. Available at:
<http://www.gapminder.org/documentation/documentation/gapdoc002.pdf>

Maddison, Angus. (1996). *The World Economy*. Organization for Economic Cooperation and Development: OECD Publishing.

Mann J. M (1989). "AIDS: A worldwide pandemic," in *Current topics in AIDS*, Volume 2, Eds. Gottlieb M.S., Jeffries D.J., Mildvan D., Pinching, A.J., Quinn T.C.. John Wiley & Sons.

Massey, David. (1977). "The Hut Tax and Migrant Labor in Botswana." Paper presented to the National Migration Study Workshop. Gaborone, Botswana.

Mellinger, Andrew D., Jeffrey D. Sachs, and John Luke Gallup. (2000). "Climate, Coastal Proximity, and Development," *Oxford Handbook of Economic Geography*, Eds. Gordon L. Clark, Maryann P. Feldman, and Meric S. Gertler, Oxford University Press.

Mogalakwe, Monageng. (2006). "How Britain Underdeveloped Bechaunaland Protectorate: A Brief Critique of the Political Economy of Colonial Botswana," *Africa Development*, Vol. 31, No. 1, 66-88.

Murphy, Kevin M. and Robert H. Topel. (2006). "The Value of Health and Longevity," *Journal of Political Economy*, Vol. 114, No. 5.

North, Douglass C. (1981). *Structure and Change in Economic History*. New York, NY: W.W. Norton.

North, Douglass C. and Robert P. Thomas. (1973). *The Rise of the Western World: A New Economic History*. New York, NY: Cambridge University Press.

Nunn, Nathan. (2009). "The Importance of History for Economic Development," *Annual Review of Economics*, No. 1, 65-92.

- Nunn, Nathan and Nancy Qian. (2008). "Columbus's Contribution to World Population and Urbanization: A Natural Experiment Examining the Introduction of Potatoes," *Mimeo*, Harvard University.
- Palmer, Robin H. and Neil Parsons. (1977). *The Roots of Rural Poverty in Central and Southern Africa*. University of California Press.
- Pickrell, John. (2006). "Timeline: HIV & AIDS," *New Scientist*, 4 September 2006.
- Platteau, Jean-Philippe. (2000). *Institutions, Social Norms and Economic Development*. Psychology Press.
- Pridgeon, J.M. (1993). "Malaria Prophylaxis and Treatment," *South African Medical Journal*, Vol. 83, 692-693.
- Robinson, John Alan and Q. Neil Parsons. (2006). "State Formation and Governance in Botswana," *Journal of African Economies*, Vol. 15, AERC Supplement 1, 100-140.
- Rodrik, Dani, Arvind Subramanian and Francesco Trebbi. (2002). "Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development," *NBER Working Papers*, No. 9305, Cambridge, MA: National Bureau of Economic Research.
- Romer, Paul M. (1986). "Increasing Returns and Long-Run Growth," *Journal of Political Economy*, Vol. 94, No. 4, 1002-1037.
- Romer, Paul M. (1994). "The Origins of Endogenous Growth," *Journal of Economic Perspectives*, Vol. 8, No. 1, 3-22.
- Sachs, Jeffrey D. (2003). "Institutions Don't Rule: Direct Effects of Geography on Per Capita Income," *NBER Working Papers*, No. 9490, Cambridge, MA: National Bureau of Economic Research.
- Sachs, Jeffrey D., Andrew D. Mellinger and John Luke Gallup. (2001). "The Geography of Poverty and Wealth," *Scientific American*, March 2001.
- Sachs, Jeffrey D. and Andrew M. Warner. (1999). "The Big Rush, Natural Resource Booms and Growth," *Journal of Development Economics*, Vol. 59, No. 1, 43-76.
- Schapera, Isaac. (1936). "The Contributions of Western Civilisation to Modern Kxatla Culture," *Transactions of the Royal Society of South Africa*, Vol. 24, Part 3.
- Schapera, Isaac. (1947). *Migrant Labour and Tribal Life*. Oxford, UK: Oxford University press.
- Schapera, Isaac. (1955). *A Handbook of Tswana Law and Custom*. London, UK: Oxford University Press for the International African Institute.

Seidler, Valentin. (2010). "Why did Botswana end up with Good Institutions: The Role of Culture and Colonial Rule," Working Paper, Vienna University for Economics and Business: Institute for Economic and Social History.

Solow, Robert M. (1962). "Technical Progress, Capital Formation, and Economic Growth," *American Economic Review*, Vol. 52, No. 2, 76-86.

Strahler, Alan H. and Arthur N. Strahler. (1992). *Modern Physical Geography*. 4th Edition. New York: John Wiley and Sons.

Thomson, Madeleine C., Simon J. Mason, Thandie Phindela and Stephen J. Connor. (2005). "Use of Rainfall and Sea Surface Temperature Monitoring for Malaria Early Warning in Botswana," *American Journal of Tropical Medicine and Hygiene*, Vol. 73, No. 1, 214-221.

Tlou, Thomas. (1985). *A History of Ngamiland 1750 to 1906: The Formation of an African State*. Gaborone, Botswana: Macmillan.

Tlou, Thomas and Alec Campbell. (1997). *A History of Botswana*. Gaborone, Botswana: Macmillan.

Whiteley, Paul F. (2000). "Economic Growth and Social Capital," *Political Studies*, Vol. 48, No. 3, 443-466.

World Bank. (1986). *World Development Report*. World Bank: Washington, DC.

World Bank. (2010). *World Development Indicators*. World Bank: Washington, DC.

World Health Organization (WHO). (1989). *Geographical distribution of arthropod-borne diseases and their principal vectors*. Unpublished document WHO/VBC/89.967. Geneva: World Health Organization.