Identifying Causes of Variation Among Per Capita Incomes of Sub-Saharan African States

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IDENTIFYING CAUSES OF VARIATION AMONG PER CAPITA INCOMES OF SUB-SAHARAN AFRICAN STATES

by
Vinod Kannathurai

A thesis submitted to the faculty of the University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College

Oxford
May 2014
ACKNOWLEDGEMENTS

The author would like to thank Dr. Carl Jensen and Dr. John Winkle for their work as readers for this work. In addition, the author would like to thank Dr. Susan Allen for her assistance in the development of the statistical model at the center of this work. Last, the author would like to thank Dr. Christian Sellar for his constant guidance as advisor of this thesis. Without his sound advice, gracious flexibility, and warm demeanor, this work could never have been completed.
ABSTRACT
VINOD KANNUTHURAI: Identifying Causes of Variation Among Per Capita Incomes of Sub-Saharan African States

In this work, the author utilized a statistical analysis to assess variations in per capita incomes among sub-Saharan African states. The factors tested include education and healthcare investment, mineral and oil dependence, agricultural dependence, landmass size, population size, level of instability, economic freedom, and political freedom. Although the author found mineral and oil dependence to be the most statistically significant factor in determining variations in per capita income, there was still a great deal of variation among sub-Saharan African countries with mineral and oil dependence. Thus, the author employed a case-study involving Botswana and Zambia, two commodity dependent states with entirely different outcomes. Botswana, employing the developmental state theory and prudent policy choices, utilized its mineral wealth for the greater good of the country. In contrast, Zambia, with a statist and later neoliberal development theory and poor policy choices, spent its mineral wealth mostly enriching a small elite, while excluding the vast majority of Zambia’s population from the benefits of this mineral wealth. Thus, the author determined that the growth of per capita incomes of sub-Saharan African countries relies mostly on intentional development and policy-related choices.
TABLE OF CONTENTS

CHAPTER I:
INTRODUCTION ................................................................. 1-10

RESEARCH QUESTIONS .......................................................... 3-5

CHAPTER II: DEVELOPMENT THEORIES
................................................................. 11-21

CHAPTER III: INDICATOR SELECTIONS ........................................... 22-34

CHAPTER IV: STATISTICAL MODEL ............................................... 35-41

CHAPTER V: BOTSWANA AND ZAMBIA CASE- STUDY
........................................................................................................ 42-55

CHAPTER VI:
CONCLUSION ........................................................................... 56-58

BIBLIOGRAPHY ........................................................................ 59-64
Chapter I: Introduction

In the past decade, sub-Saharan Africa has surprised much of the world through booming economic growth. Nothing characterizes this surprise better than examining the shift in tone of the magazine *The Economist*. In May 2000, the front cover of *The Economist* described Africa as “The Hopeless Continent.”¹ In contrast, the tone of its September 2011 cover matched the growing optimism of the rest of the world concerning sub-Saharan Africa with its title “Africa Rising.”² Another article in *The Economist*, published in December of 2011, noted, “Since *The Economist* regretfully labelled Africa ‘the hopeless continent’ a decade ago, a profound change has taken hold.”³

In the years following the independence of most sub-Saharan African states from their respective colonial powers in the 1950s and 1960s, the crises of economic decline, ethnic conflict, political violence, and diseases, such as HIV/AIDS quickly drowned the optimism of most of these newly founded African states. Since 2000, however, sub-Saharan African economies have surged, with a 6.5% growth rate overall from 2004-2008 and a 5% growth rate afterward.⁴ The IMF projected a 5.5% growth across sub-Saharan Africa in 2013.⁵ This is higher than the overall rate of global growth of 2.9% in 2013.⁶ In addition, per capita incomes for sub-Saharan Africa have grown 2% per year from 2001-2010, which is much better than the -0.4% growth of the previous decade.⁷ A major cause of the growth in sub-Saharan African economies has been the explosion in commodity prices.⁸ Oil prices rose from $20 a barrel in 1999 to over $145 a barrel in 2008.⁹ In addition, the value of crops, minerals, and other raw materials soared on the global markets. Considering that sub-Saharan Africa “…produces 90% of the world’s cobalt; 64% of its manganese; 50% of gold; 40% of platinum; 30% of uranium; 20% of
total petroleum; 70% of cocoa; 60% of coffee; over 80% of coltan and 50% of palm oil.” It is not difficult to imagine how increased prices in commodities have benefitted sub-Saharan African economies.  

Of course, the growth in commodity prices does not provide a complete solution for future growth of sub-Saharan African economies. Sub-Saharan African states possess imbalances that have troubling implications for future growth. First, the manufacturing sector remains very weak among sub-Saharan African states overall. Sub-Saharan Africa possesses a miniscule labor intensive light manufacturing industry, the same type of industry that have aided China and Vietnam in elevating hundreds of millions of their citizens to middle class backgrounds. Sub-Saharan Africa’s light manufacturing is less than 1% of global market share, even with preferential access to US and EU markets. Second and related, sub-Saharan Africa as a whole has a large youth bulge. Approximately 40% of the population is under the age of 15 and roughly 70% of the population is under 30. This presents troubling implications for future employment for youth across many sub-Saharan African states whose commodity dependent economies are not conducive for generating long-term stable employment needed to generate a thriving middle-classes. Even today, according to a study conducted by the Legatum Institute, only 35% of citizens across sub-Saharan Africa believe it is “a good time to find a job.” Nigeria’s finance minister Ngozi Konjo-Iweala has estimated that his country will need to grow its economy at an annual pace of 8-10% in order to meet the growing need for youth within Nigeria. Third, capital flight and corruption remain systemic problems within many sub-Saharan African economies, which cripple their potential growth. According to the 2012 Corruption Perceptions Index published by Transparency
International, 90% of sub-Saharan African states rate under 50 (out of 100 being the least corrupt) in terms of their corruption score. Briefly examining the effect corruption has had on the economy of Nigeria, one of the largest economies of sub-Saharan Africa in terms of overall GDP. For example, Nigeria currently loses an estimated $6 billion annually and has lost an estimated $400 billion since 1960 because of corruption in its oil industry.\textsuperscript{15}

In the near term, however, a more pressing issue is that some sub-Saharan African states have utilized economic growth much more effectively to raise the per capita incomes of their citizens than other states. This is a critical concern because higher per capita incomes have a correlation with better standards of living for the average citizen as noted by the Organization for Economic Development.\textsuperscript{16} I intend to address this issue through three central research questions.

**First, what is the range of disparity in GDP (PPP) among sub-Saharan African countries?** I intend to accomplish this goal by providing a comprehensive listing of per capita incomes for sub-Saharan African countries\textsuperscript{1}.

**Second, what are the factors correlated with this disparity, that are statistically significant?** Scholars across a wide variety of professions argue for the weight of many different causes for explaining successes and failures of sub-Saharan African states in boosting the per capita incomes of their citizens. First, scholars such as the authors of the comprehensive *African Economic Outlook 2013* report, sponsored by the African Development Bank, OECD Development Center, United Nations

\textsuperscript{1} In this study, I intend to narrow my focus on continental sub-Saharan Africa in order to create simpler comparisons of the data.
Development Program, and Economic Commission for Africa, credit high commodity prices for the growth of sub-Saharan African economies.\textsuperscript{17} Second, Acha Leke, Susan Lund, Charles Roxburgh, and Arend van Wamelen of the McKinsey Institute credit both political freedom and political stability for successes among sub-Saharan African economies in terms of per capita\textsuperscript{18}. Third, the Heritage Foundation and the Wall Street Journal’s \textit{2013 Index of Economic Freedom} asserts a relationship between degree of economic freedom and higher per capita incomes.\textsuperscript{19} Fourth, authors Jeffry Herbst and Greg Mills argue for a correlation between the size and population of African countries and the per capita income of their citizens.\textsuperscript{20} Through my research, I intend to contribute to the discussion regarding disparities of per capita income among sub-Saharan African states by utilizing a multivariate statistical analysis to weigh to what extent different factors play in determining the disparities of per capita income.

**Third, how are differences in per capita income connected with policy choices?** In order to understand this connection, I will analyze differences in policies among sub-Saharan African states relating to the factors mentioned above to find differences among sub-Saharan African states with stronger and weaker per capita incomes. I shall implement a case study in order to provide further elucidation to the connection between sound policy and higher levels per capita income.

To measure levels of wealth, I intend to utilize per capita GDP based on purchasing power parity (PPP). It is a more refined measure than simply per capita GDP because PPP takes into account intricacies of domestic economies including the relative cost of living and inflation rates in order to make cross-country comparisons feasible. GDP (PPP) allows us to sift through numerous countries with high macroeconomic
growth in recent years in order to discover the countries that utilized macroeconomic growth to benefit its citizens. For example, although Nigeria and South Africa have enjoyed high macroeconomic growth in terms of GDP in recent years, their GDP (PPP) record is quite different. Nigeria’s citizens fare poorly with a per capita GDP (PPP of $2,722.00 while South Africa’s citizens fare relatively well with a per capita GDP (PPP)

In writing this assessment, the author has generated three primary reasons why this work holds a great deal of relevance for current US policymakers and those around the world. First, the depth of poverty within some sub-Saharan African states could pose a future security threat to the United States. Although this claim is far from garnering consensus (for example, Krueger and Maleckova argue that terrorists on average are just as likely to be well-educated and middle class as uneducated and desperately poor)\textsuperscript{21}, prominent American political officials such as John Kerry, Hilary Clinton, Colin Powell, and Robert Gates have publicly supported the relationship between poverty and terrorism.\textsuperscript{22} Harriman notes, “Hamas spends the majority of its resources providing “social, welfare, cultural, and educational activities” for the Palestinian people, and Hezbollah operates schools, hospitals, and agricultural services for poor Shiites in Lebanon.”\textsuperscript{23} With terrorist groups, such as Boko Haram, al-Shabaab, and Ansar Dine, thriving in Nigeria, Somalia, and Mali, three states with the majority of its citizens in dire poverty, one can understand why curbing poverty holds great deal relevance for bolstering the security of the region. Addressing poverty and reducing the base of support for terrorist organizations could also indirectly improve American national security in the long term because many of these groups have pledged allegiance to the central core of a-
Qaeda although they have not shown the capability to threaten the United States in the short term.

A second important motivation for understanding poverty within sub-Saharan Africa is its indisputable rise as a global region in this century. By 2050, Africa’s share of the global population is expected to increase to 20% of the global population, or an increase of one billion in fifty years.\textsuperscript{24} This relates to the poverty threat assessment in that it is unknown how already impoverished sub-Saharan African states will provide economic opportunities to a surging population of youth. In addition, sub-Saharan Africa is rapidly gaining global attention for its resource wealth. Turner notes, “With oil, gas, timber, diamonds, gold, coltan and bauxite, Africa is home to some of the largest deposits of natural resources in the world.”\textsuperscript{25} China has aggressively invested in this resource wealth in the last decade, with Chinese trade with sub-Saharan Africa increasing from roughly $10 billion to over $100 billion per year in the last decade.\textsuperscript{26} With nonrenewable resources seeming to dominate the energy market for the foreseeable future, sub-Saharan Africa from a resource perspective will have strategic value for the United States and the entire world for years to come.

A third motivation for understanding poverty within sub-Saharan African states is a moral obligation to improve the lives of hundreds of millions of people. For example, as of 2010, the UN Food and Agriculture Organization estimates that 239 million people, roughly 30% of sub-Saharan Africa’s population, is undernourished.\textsuperscript{27} This is coupled with 47% of sub-Saharan Africa’s population estimated to live on $1.25 or less as of 2012.\textsuperscript{28} Even with the successes of programs such as the US-created President’s Emergency Plan for AIDS Relief (PEPFAR), the proliferation of many
different diseases/illnesses still keeps sub-Saharan Africa in a grim condition. For example, roughly 70% of the global HIV/AIDS population lives in sub-Saharan Africa where an estimated 1.2 million adults and children died in the last year of the disease.\textsuperscript{29} Sub-Saharan Africa also accounts for 91% of the 627,000 deaths worldwide from malaria.\textsuperscript{30} The economic mismanagement of sub-Saharan African economies by political elites holds at least some responsibility for this widespread suffering in the region. By understanding the conditions that lead to sound governance like Botswana and facilitating sub-Saharan African governments to pursue smart, local development strategies tailored to the needs of the specific state, the United States could, at the very least, gain an image boost throughout the world while accomplishing a powerful moral deed.

With these thoughts in mind, the author will next review the literature of development theory to explore the primary strategies sub-Saharan African countries have used in recent decades to bolster economic development. Understanding development theory is critical to an understanding of economic growth in sub-Saharan Africa because it addresses the motivations behind specific policy choices African leaders have made that have guided the course of the economic growth of their countries.
## Per Capita GDP (PPP) Figures

<table>
<thead>
<tr>
<th>Sub-Saharan African States</th>
<th>GDP (PPP) in US Dollars</th>
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<tbody>
<tr>
<td>Gabon</td>
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<tr>
<td>Democratic Republic of the Congo</td>
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Source: International Monetary Fund World Economic Outlook Database, April 2012

2 Legatum Institute, *Insight on Africa: Special Report*, 5


12 Legatum Institute, *Insight on Africa: Special Report*, 7

13 Legatum Institute, *Insight on Africa: Special Report*, 9


28 “Africa Hunger and Poverty Facts,”

Chapter II: Development Theories

As noted in the introduction, there is an enormous disparity in the per capita incomes among the countries of sub-Saharan Africa. For example, the per capita income in Botswana is more than five times that of Zambia. Development theories are key to understanding this disparity in per capita incomes because they often directly apply, both consciously and unconsciously, to the decisions leaders make regarding the use of their economic resources.

Development itself, however, is a difficult term to define. Describing the difficulty of this issue, Jan Knippers Black states, “Development, it has been noted, is a user-friendly term, having virtually as many potential meanings as potential users.”¹ For the purposes of this work, a functional definition of development focuses on the following concepts: boosting national gross domestic product through the strengthening of national economies, raising per capita incomes for citizens of all social classes, especially of the impoverished, and improving the standards of living by creating stronger education, healthcare, and market conditions for a country’s citizens.² This section predominately covers two development theories: neoliberalism and the developmental state. The former is covered because of its dominance in the discourse of development in the past two decades; the latter because it has potentially positive lessons for many sub-Saharan African states.

Neoliberalism

In short, neoliberalism is the idea that human well-being can best be advanced by a system maximizing entrepreneurial freedoms with an emphasis on private property, free market, and free trade.³ Although neoliberal theory first grew in popularity among
academics, such as Milton Friedman and Friedrich Hayek, seeking to alter the dominance of Keynesian economic models, it first became employed in governance in a seemingly unlikely location: military dictator Augusto Pinochet’s Chile. Having overthrown the elected socialist government of Salvador Allende in 1973, Pinochet pursued a neoliberal economic policy, emphasized by the “Chicago Boys,” a group of Chilean economists taught at the University of Chicago by Milton Friedman and others promoting greater economic freedoms in government.4

However, outside of Chile, neoliberalism still had not replaced the theory of embedded liberalism for most developed economies in the early 1970s. Cerny describes the policies of these Western economies in the following manner: “…the key objectives of public policy were economic growth, the promotion of industrialization, full employment, and a certain amount of redistribution of wealth and income through the tax system and the welfare state.”5 However, four factors led to the decline of these economic policies in the 1970s and 1980s in the United Kingdom and the United States and later many other parts of the world. First, nationalized industries and social welfare policies emphasized in the 1950s and 1960s seemed to overwhelm the tax base.6 Second, the “social partnership” emphasizing the power of labor unions in negotiating wages and other concessions with companies and the state faced blame for stagnant economic growth.7 Third, various negative economic indicators including the decline in the growth of global trade and the rise of “stagflation,” or joint economic stagnation and rising inflation, lowered confidence in policies, guided by the theory of embedded liberalism. Fourth, breakdown of the gold standard and the 1970s oil crisis helped to create the worst economic crisis since the Great Depression.8
As mentioned previously, neoliberalism emphasizes an economic model that emphasizes the protection of private property, the free market and free trade. To expound upon this definition, one can derive three major policy initiatives from neoliberalism. First, neoliberal policies emphasize the reduction of barriers to trade and capital flows. Cerny notes, “This process has been accompanied by a growing consensus that new trade barriers lead to a vicious circle of retaliation, leaving all participants worse off--- whereas free trade… is a long-term, critical public good benefiting poor as well as rich countries by creating a virtuous circle of economic development and growth.” Both single-state and multi-state actors have either created various organizations or adjusted the goals of organizations to emphasize the reduction of trade barriers including the North American Free Trade Agreement (NAFTA), the World Trade Organization (WTO), and the Economic Community of West African States (ECOWAS), an African example of neoliberal policy goals. An important economic phenomenon that stems from the reduction of trade barriers is the rise of multinational corporations. Although Cerny notes that multinational corporations did not gain immunity from government intervention within their activities in the 1990s, their freedoms to conduct business across the vast majority of countries remain a huge part of the global economies.

Second, the state should reform fiscal and monetary policies in a way more favorable for economic growth. From a monetary perspective, the key goal is to control inflation. The importance placed on controlling inflation stemmed from the economic slowdown and oil crisis in the 1970s, which impeded the economic booms enjoyed by much of the developed and developing world. From a fiscal perspective, proponents of neoliberal policies emphasized lower corporate and personal taxation rates to free private
capital for investment. The idea behind these policies is that by freeing up investment for different businesses, they will use additional funding to expand business, improving the entire economy in the process. Another element of fiscal policy is to restrain government spending and to, especially, balance the budget whenever possible.

Third, neoliberal principles redefine state intervention in the economy. Following the Great Depression and World War II, Abdelal and Ruggie note that Western states pursued the following policy, known as embedded liberalism, in order to shelter their populations from the devastation of market collapses: “[t]he practices of domestic interventionism would tame the socially disruptive effects of markets…” They added that national societies would share the burden of the risks of the global market through a variety of safeguards including generous national insurance schemes. The idea here is that the state intervenes in the economy to achieve certain outcomes such as near-zero employment, better healthcare services, the promotion of industrialization, etc. However, after the economic stagnation of the 1970s, proponents of neoliberal policies have reasserted the dominance of the markets over the state in terms of economic activity and have redefined the role of the state. The new role of the state is to serve as an “arms’-length” regulator. In this role, Cerny notes that role of the state is not to produce a certain outcome but to instead “establish and enforce general rules applicable to a particular sector, industry, or service in order to make it work more efficiently in the economic sense of the term.” Although neoliberalism is popularly thought of as a theory promoting low government intervention, neoliberalism actually can entail of substantial government intervention in the economy to ensure the well-being of the markets. For example, government regulations against insider trading fall well within the parameters
of neoliberal theory, even if this practice involves government intervention in the economy.\textsuperscript{19} In a more violent sense, this can mean the elimination of political dissidents in Chile’s case or the breaking of strikes as in the United Kingdom and the United States.

With the collapse of the Soviet Union and the opening of China’s economy, neoliberal theory became the dominant development theory around the world because many leaders dismissed state-led development strategies with the collapse of the Soviet Union. Neoliberalism, therefore, became influential in the economic policies of many sub-Saharan African states in the late 1980s and 1990s, such as Ethiopia, South Africa, and Zambia.\textsuperscript{20} On the surface, it seems that the majority of sub-Saharan African states with high levels of per capita income emphasize neoliberal principles in their economic activities. For example, Botswana, Ghana, and South Africa, countries in the upper percentile of African per capita incomes, all rank as either free or moderately free in the 2014 Index of Economic Freedom. However, using the economic development of East Asian states such as South Korea to study economic growth in sub-Saharan Africa, Richard Dadzie explains that the economic success of these countries has not resulted from neoliberal policies but instead, have resulted in developmental policies enacted before these countries enacted neoliberal policies.\textsuperscript{21} This leads into the idea of the developmental state, which I shall discuss in the next section.

The Developmental State

Since the onset of the neoliberal era and especially after the fall of the Soviet Union, many economists have declared that “neoliberalism is the only game in town.”\textsuperscript{22} With widespread adoption by many of the world’s strongest economies as well as the International Monetary Fund and the World Bank, neoliberalism, on the surface, seems to
dominate the market of theories for international development. A closer look, however, yields a rich field of theories other than neoliberalism that have stronger applicability for improving per capita incomes within sub-Saharan African economies. One of these compelling theories is the developmental state.

The developmental state, especially in sub-Saharan Africa, has faced a large degree of criticism. Mkandawire notes that neoliberal actors believe that developmental states cannot succeed in sub-Saharan Africa. He provides a common characterization of sub-Saharan African elites as “…irredeemably greedy, corrupt and captured by rent seekers and economies of affection and African states as preternaturally disposed to predation…”23 In short, critics blame the systemic poverty that characterizes Sub-Saharan Africa on poor leadership by economic elites, who have led fiercely predatory states. From this perspective, it seems bizarre to increase the role of sub-Saharan African states within their economies because this will inevitably lead to further corruption and do little to lift African populations from a state of poverty. Commonly provided examples of this phenomenon include Zaire (currently Democratic Republic of the Congo) and Zimbabwe, in which centralization of power came with rampant corruption in which the elites of both states gained massive wealth while the living conditions of the states’ citizens declined rapidly.24 For Zaire in particular, corruption devastated Congolese society. Wages in the late 1970s were worth only 10% of their worth in 1960; in addition, hospitals closed, roads became impassable, and the population starved.25

Mkandawire notes the neoliberal perspective that development theories with high levels of state involvement will fail because of the high levels of corruption among sub-Saharan African states simply does not match historical fact.26 He found that in the 1967-
1980 period, often characterized as the post-independence period, ten African countries had growth rates of 6% or over; in fact, the top performers in Africa compared closely to the top Asian countries during this period. These include both a mix of resource and non-resource rich countries including Botswana, Gabon, Lesotho, Kenya, and Ivory Coast. Interestingly, Botswana topped the list at 14%, which was higher than Singapore and South Korea.

An additional argument against the neoliberal perspective is that current protectionist policies employed by developed states actually undermine sub-Saharan African economies, which have undergone structural adjustments. This raises troubling ethical implications considering many of these developed states employing protectionist policies that undermine African economies also pushed for the implementation of neoliberal reforms in sub-Saharan Africa. Specifically, Western states employ subsidies and tariffs worth more than $1 billion per day to make their industries more competitive than their African counterparts. Annually, this places the total at more than $400 billion, which places the figure of Western subsidies/tariffs even higher than the annual GDP of all of sub-Saharan Africa. Examining the cotton industry emphasizes the stark hurdles that African states must overcome to remain competitive on the global markets because of Western protectionist policies. In West Africa, cotton remains an integral part of economic activity with Benin, Burkina Faso, Chad, Mali, and Togo relying on cotton exports for 5-10% of GDP and more than 1/3 of agricultural income. The production cost of this cotton crop is roughly $.40 per pound. In contrast, production costs in the United States are more than twice as high; however, with a $3 billion subsidy to the cotton industry, American cotton producers can export cotton for 1/3 the cost of
production costs and have gained 1/3 of the global market. This has clearly damaged economic productivity for these West African states with cotton production rising by 14% from 1998-2002 but profits falling 31%. In fact, the World Bank estimates that eliminating all global cotton subsidies would raise export income in West Africa by $250 million annually.

With these trends in mind, the state in African economies potentially have an important role to play in boosting economic growth through assuming roles as developmental states. It is no coincidence that Botswana, one of the best success stories of the continent, is the prototypical example of a developmental state in sub-Saharan Africa. Castells notes that “a state is developmental when it establishes as its principle of legitimacy, its ability to promote and sustain development, understanding by development the combination of steady high rates of economic growth and structural change in the productive system, both domestically and its relationship to the international economy.” One can further define the developmental state in two primary ways. First, the state can serve as a catalyst for economic development, especially as an entrepreneur of last resort. Second, a state must develop effective bureaucracies that can forge strong relationships with the private sector. Dadzie states, “The developmental state has a strong and efficient bureaucracy that allows for exceptional delivery of services that engender, support and sustain private sector ingenuity to meet overarching developmental goals.”

The classic examples of developmental states are the East Asian Tiger economies of Taiwan and South Korea. Amsden describes South Korea as an economy that employed the state as an entrepreneur of last resort and achieved enormous economic
results for not only the public sector but also the private sector.\textsuperscript{40} For example, the creation of the Pohang Iron and Steel Company (POSCO) by the South Korean government was crucial in making South Korea a major economic power in steel production.\textsuperscript{41} This growth enabled the rise of South Korea’s automotive and shipbuilding industries.\textsuperscript{42} Taiwan also used the public sector to supplement, not detract, from the activity of the private sector. For example, Taiwanese institutions such as the Council on Economic Planning and Development (CEPD) brought together a wide variety of bureaucrats, planners, engineers, and technicians to coordinate public and private sector activity for the benefit of Taiwanese economic growth.\textsuperscript{43} These examples show that these East Asian states are not neoliberal success stories but rather success stories of the developmental state in which the state and the private sector can work together to foster economic growth.

In addition, it is important to note the applicability of the East Asian cases to sub-Saharan African economic development. Presbitero notes, “The optimistic message derived from the recent literature is that SSA is not ‘destined’ to this poor performance: the structural constraint has certainly the effect of slowing the development process, but they could be overcome by sensible economic policies implemented by good institutions.”\textsuperscript{44} Acemoglu and Robinson also emphasize the importance of strong economic and political institutions for successful economic development.\textsuperscript{45} Dadzie notes that many researchers counter the idea that sub-Saharan Africa can gain little from studying the East Asian success stories by stating, “...the notion that the experience of East Asia cannot be replicated because of country-specific institutions assumes that institutions are immutable and that countries such as Malaysia and South Korea somehow
invented their own policies rather than adopt, adapt and implement policies from neighbors such as Japan." He further notes that Malaysia replicated South Korea and Japan for its economic growth, and South Korea largely replicated Japan. As explained later in detail, a case-study of Botswana illustrates how a country has used developmental theory to foster strong economic and political institutions that have helped to generate one of the strongest economies on the African continent.

Understanding development theories holds a great deal of importance because it unlocks the motivations behind the specific policy choices African leaders have made regarding the use of their economic resources. In the next section, the author will examine several indicators, including specific economic resources, such as mineral and oil commodities, that scholars suggest have played a large role in determining per capita income growth among sub-Saharan African countries.

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3 David Harvey, A Brief History of Neoliberalism (Oxford: Oxford University Press, 2005), 2.


7 Ibid.

8 Ibid.


10 Ibid.


12 Ibid.

13 Ibid.


18 Ibid.


25 Ibid.

26 Thandika Mkandawire, "Thinking About Developmental States in Africa," 304.

27 Ibid.

28 Ibid.

29 Ibid.


31 Ibid.

32 Ibid.

33 Ibid.

34 Ibid.

35 Thandika Mkandawire, "Thinking About Developmental States in Africa," 290.


37 Ibid.


40 Ibid.

41 Ibid.

42 Ibid.

43 Ibid.


47 Ibid.
Chapter III: Indicator Selections

In the following section, I intend to provide a broad review on what scholars across multiple disciplines have ascertained as key reasons for the growth, or lack thereof, of sub-Saharan African per capita incomes. I have divided the review into sections including scholarship on colonial origin, size of states, commodity dependence, instability, economic freedom, and political freedom. Then, in the following chapter, I will push the arguments of these scholars a bit further by statistically comparing the indicators discussed by these authors to determine which factors are the most significant.

A. Colonial Origin

As noted in the introduction, a factor that I am particularly interested in analyzing is the effect colonial origins have had on the per capita income of modern sub-Saharan African states. Scholars have contributed many viewpoints upon this subject. Many scholars, for various reasons, believe that former British colonies perform at least marginally better than former French colonies. Agbor, Fedderke, and Viegi argue for a slightly better growth for former British colonies as opposed to former French colonies based on colonial educational policies.\(^1\) Agabor notes that what made the British colonial model better than the French model was that the British offered instruction through village schools, hired native teachers, and used native languages within the school.\(^2\) In contrast, former French colonies sent children to distant boarding schools, hired French teachers, and only taught in French.\(^3\) Agabor notes that differences in the British and French education models were important because they had different repercussions on “post-independence human capital accumulation and development.”\(^4\)
Researchers Lee and Schultz also found a marginal benefit for British over French colonialism, using the case-study of Cameroon. Although Cameroon was originally a German colony, Great Britain and France split the colony between themselves (with France obtaining the majority of modern day Cameroon). In their study, they compare the following three factors across French and British colonies: direct versus indirect rule, civil versus common law, and labor policy. The French direct role model involved centralizing the colonial power structure into the hands of French officials. Oliver and Atmore note, “African chiefs were merely the ‘agents’ of the French administration, and there was no intention at all of allowing their powers to grow.” In contrast, the British model of indirect rule employed native power structures whenever possible. Frederick Lugard, credited with developing the model of indirect rule in Nigeria, explains indirect rule in Nigeria in the following quote: “The British role here is to bring to the country all the gains of civilisation by applied science… with as little interference as possible with Native customs and modes of thought.” Civil law refers to the French practice of using a codified legal system while the British utilized a legal system based on judicial precedent and traditions. In terms of labor policy, the British maintained a wage-labor system as opposed to the French system of prestatjon, which amounted to forced labor. With these factors in mind, the authors found that rural areas of Cameroon that were formerly colonized by Great Britain were better off than rural areas of Cameroon that were formerly colonized by France. Specifically, they found the rural former British areas had much better access to piped water than did the rural French areas (39.4% versus 14.7%, specifically). In addition, they found that these British areas were slightly wealthier as well. Interestingly, however, the authors found little difference between the former British and French urban areas of Cameroon. The authors explain this trend by hypothesizing that the post-independence government of Cameroon
overshadows the colonial effects in the case of urban areas because of the easy access of the government to these areas.\textsuperscript{13}

Some scholars, however, do not believe that colonial origins play an important factor in determining the outcomes of modern sub-Saharan African states. Acemoglu, Johnson, and Robinson argue, “In contrast to this approach which focuses on the identity of the colonizer, we emphasize the conditions in the colonies.”\textsuperscript{14} By “conditions”, they are referring to the mortality rates within the former sub-Saharan colonies in the initial stages of colonization.\textsuperscript{15} If high rates of disease raged within a potential colony, the authors argue that few Europeans settled the colony and instead, created extractive colonial structures.\textsuperscript{16} They refer to the case of Sierra Leone, one of the most war-torn countries and one of the countries with the worst standards of life in the world, where early European explorers and settlers had mortality rates of roughly 50\% on a good year.\textsuperscript{17} In contrast, they found that countries with lower incidents of disease had higher incidents of European settlement, which brought Western styles of institutions with private property rights and checks against government power.\textsuperscript{18} Grounding their research not only within sub-Saharan African countries but across multiple continents, the authors note, “Colonies where Europeans faced higher mortality rates are today substantially poorer than colonies that were healthy for Europeans.”\textsuperscript{19}

\textbf{B. Size of sub-Saharan African States}

Some researchers have pointed to the physical size of sub-Saharan African states as a major factor influencing per capita incomes. Herbst and Mills argue that a correlation does exist between the landmass size and the per capita income of their citizens for three reasons. First, scattered populations within a large state present an overwhelming logistical challenge in extending state authority over a large percentage of the population.\textsuperscript{20} Without inclusive
institutions, this often leads into the gathering of power by one ethnic group, at the expense of the others. This directly relates to ethnic fragmentation because a state’s institutions based on one ethnicity cannot indefinitely extend its authority over all ethnic groups, especially those who live in distinct regions within a state’s borders. Numerous examples of this include the Hausa-Fulani in northern Nigeria, the Kikuyu in central Kenya, and the Tigray in northern Ethiopia. Herbst and Mills note, “Thus, African states with difficult geographies face the continual problem of a relatively large number of outlying groups that are not only spatially distinct but can be mobilized around ethnic and cultural symbols that can compete with the state.”

Second, large states possess multiple centers of power as opposed to smaller states, which possess one center of power, which is usually the capital. Multiple centers of power include important provincial cities, ancient capitals, or even capitals of other states that often present themselves as attractive alternative sources of authority. For example, Nigerians in the north resort to state-level sharia laws as a source of authority while some rebels within the eastern part of the Democratic Republic of the Congo have appealed to the authority of Rwanda’s government as opposed to their own. The authors argue that this competition for influence among multiple states within the cities of one state often has ethnic motivations and leads to the ethnic tension and violence that have crippled per capita GDVs across many sub-Saharan African states. A third factor, which relates to the violence caused by multiple political centers, is that conflicts within large states are often prolonged compared to conflicts within smaller states. On the one hand, large countries have a hard time detecting insurgencies within their large borders. On the other hand, rebel groups cannot easily seize the capital of a state because rebel supply bases are far away from the capital. This leads to long-term internal conflicts, which cripple the opportunities for economic growth within their borders. A notable example of a large state
experiencing prolonged conflict within its borders is the Democratic Republic of the Congo, which also possesses the lowest per capita GDP and the worst living standards in sub-Saharan Africa.

C. Commodity Dependence

Some scholars credit commodity dependence with the remarkable performance of sub-Saharan African economies. Commodity dependence originates from a common colonial tendency to create colonies with “monoculture” economies, which were colonies that centered their economies on a single crop. Rodney Walter describes some monoculture economies of the colonial era in the following quote: “Liberia was a monoculture dependent on rubber, Gold Coast on cocoa, Dahomey and South-east Nigeria on palm production, Sudan on cotton, Tanganyika on sisal, and Uganda on cotton.”26 He adds, “In Senegal and Gambia, groundnuts accounted for 85% to 90% of money earnings.”27

Today, many sub-Saharan African states remain dependent on the production of one or two commodities although the specific commodities vary between different countries. The United Nations Development Programme noted in its Millenium Development Goals Report that sub-Saharan Africa has become more dependent on primary commodity exports in recent years, with commodities increasing from 72% in 1995 to 81% in 2009 as the total percentage of exports.28 This dependence on commodities is the 21st century rendition of the colonial extraction model mentioned earlier in this chapter. A small list of these commodities includes bauxite, coltan, diamonds, gold, gas, oil, and timber.29 Surging commodity prices, coupled with sub-Saharan Africa’s ample supply of agricultural and nonagricultural commodities (oil, diamonds, gold, etc.), created a macroeconomic boom among many sub-Saharan African states in the 2000s. The McKinsey Quarterly’s What’s Driving Africa’s Growth report notes, “Oil rose from less than $20
a barrel in 1999 to more than $145 in 2008… [p]rices for minerals, grain, and other raw materials also soared on rising global demand. This commodity boom has helped sub-Saharan African countries achieve an average growth rate of 6.5% from 2004-2008 and a 5.5% expected growth rate for 2013. With consumption for oil and hard minerals expected to rise by 25% and with high oil and mineral prices, sub-Saharan African economies can safely assume that macroeconomic growth will continue in the next five to ten years. Understanding crucial trends is important because sub-Saharan Africa’s success or failure in this model is held hostage to global commodity prices.

Scholars suggest that some sub-Saharan African countries have utilized their commodity dependence to provide their citizens high per capita incomes and decent living standards. One positive example of a commodity dependent economy is Botswana. Liam Anderson, author of *How Can Botswana Keep Its Sparkle without Its Diamonds?*, notes that Botswana, which depends on diamond wealth for 50% of government revenue and roughly 75% of export revenue, has utilized its diamond wealth to become a middle-income country with one of the highest per capita GDPs (PPP) in sub-Saharan Africa. A second positive example of a commodity dependent economy is Gabon. Gabon depends on its oil sector for 81% of its exports, 45% of gross domestic product, and 60% of budget revenue. Gabon, like Botswana, has utilized its resource wealth to become a middle income country as well as provide its citizens with one of the highest GDP per capita (PPP) figures in sub-Saharan Africa as well.

However, the majority of citizens of resource-rich sub-Saharan African states does not benefit from the macroeconomic wealth of their countries. This results from many sub-Saharan African states developing a resource curse. The African Development Bank’s provides the following definition of the resource curse: “It describes a situation whereby an export-oriented
natural resources sector in a country generates large revenues for government but leads paradoxically to economic stagnation and political instability.\textsuperscript{35} In practical terms, resource-curse plagues countries suffer from political instability, a weak rule of law, rampant corruption, and few opportunities for citizens to provide input on the course of their government.\textsuperscript{36} A notable example of a country afflicted by the resource curse is Nigeria. Although Nigeria’s has had a growth rate of over 7% since 2010 and produced over $100 billion in oil revenue annually, little benefit of this oil wealth have reached most Nigerians.\textsuperscript{37} Former World Bank vice-president for Africa Oby Ezekwili estimated that at least $450 billion of oil revenue has been stolen or misspent since Nigeria’s independence in 1960.\textsuperscript{38} At the same time, analysts estimate that as many as 90% of Nigerians live on less than $2 per day of income.\textsuperscript{39}

D. Instability

Some scholars suggest that rates of instability among sub-Saharan African states play a large role in determining economic potential. For example, Alesina, Ozler, Roubini, and swagel note instability and economics directly affect each other by saying, “On the one hand, the uncertainty associated with an unstable political environment may reduce investment and the speed of economic development...[o]n the other hand, poor economic performance may lead to government collapse and political unrest.”\textsuperscript{40}

High levels of ethnic interference by colonial powers in ethnically diverse states often led to disastrous consequences for the stability of post-independence states. Vincent Khapoya, author of \textit{The African Experience}, notes, “One significant political consequence of indirect rule was that it reinforced separate ethnic identities and stunted the development of a national or colonywide political consciousness.”\textsuperscript{41} For example, the British in Kenya intentionally pitted ethnic groups against each other to maximize colonial stability. They worked to promote
divisions between the Kikuyu and the Luo, Kenya’s largest ethnic groups. In fact, Britain permitted political organizations at the regional level only, which further isolated ethnic groups from one another and impeded efforts to create a national vision for Kenya. When withdrawing its colonial presence from Kenya, Britain even manipulated the electoral boundaries to limit the representation of ethnic groups they viewed as hostile to their interests. Unsurprisingly, after Kenya’s independence from Britain, the Kikuyu and Luo fell into disfavor with each other, and the Kikuyu, led by Jomo Kenyatta, formed a one-party state that provided patronage for Kikuyu citizens. When Daniel Arap Moi, a member of the Kalenjin ethnic minority, became dictator in 1978, the pendulum of state largess swung toward other minority groups. Although Kenya has maintained some macroeconomic growth, its ethnic tension has hurt it per capita GDP growth by concentrating wealth in the hands of the elites of the ethnic groups in power. Even in recent years, ethnic violence remains a significant problem in Kenya with 1,100 people killed in the 2007 Presidential elections.

This ethnic violence prompted by colonial interference has played a decisive role in undermining the stability of sub-Saharan African citizens. However, ethnic tensions are not the only factors that have led to stability issues within sub-Saharan Africa. Another rising threat to stability within parts of sub-Saharan Africa is Islamist extremism. Incidents of Islamist extremism have occurred in Cote d’Ivoire, Ethiopia, Kenya, Mauritania, Niger, Nigeria, Senegal, and Tanzania, to name a few countries. The most notable examples of Islamist violence include the seizure of northern Mali by Ansar Dine and other allied Islamist groups associated with al-Qaeda in the Islamic Maghreb, bombings of businesses, churches, and government buildings in Nigeria by Boko Haram, and the seizure of most of Somalia by al-Shabaab. Violence generated by Islamic extremists has led to tens of thousands of lost lives across sub-Saharan Africa and
staggered economic growth, which has negative implications for the per capita incomes and living standards of sub-Saharan African citizens. For example, Dr. Patterson Ekeocha of the African Institute for Economics notes that Islamist violence in Nigeria threatens the creation of jobs by companies such as Coca Cola and Heineken within Nigeria. Considering these jobs have larger wages than sustenance agriculture, the creation of these jobs holds powerful implications for raising citizens’ per capita incomes.\(^49\) Another example is the decline of the tourism industry in Kenya because of terrorist related violence. In Kenya, the tourism sector declined from $1 billion dollars to $894 million from 2011 to 2012 in response to al-Shabaab kidnappings of tourists as well as terrorist attacks against major Kenyan cities.\(^50\) In addition, first quarter reports for 2013 insinuate a continuation of the decline of the tourism industry as well. This presents troubling implications for Kenyan citizens GDP (PPP) per capita because the tourism industry employs hundreds of thousands of Kenyans.\(^51\)

**E. Economic Freedom**

Other scholars credit economic freedom as the key to per capita income growth among sub-Saharan African states. In a general case for case for economic freedom, Robert Lawson, writing for the Concise Encyclopedia of Economics, notes, “Indeed, the stark differences in the standards of living of people in economically freer systems compared with those in less-free systems have become more and more obvious: North versus South Korea, East versus West Germany, Estonia versus Finland, and Cubans living in Miami versus Cubans living in Cuba are examples.”\(^52\) He further notes that residents of countries with freer economies are often better off in most ways than those in less-free economies.\(^53\) In addition, contributors from the Heritage Foundation and the Wall Street Journal also emphasize the importance of economic freedom by noting, “The ideals of economic freedom are strongly associated with healthier societies, cleaner
environments, greater per capita wealth, human development, democracy, and poverty elimination.” The Index of Economic Freedom particularly credits the economic success of Botswana to its economic freedom.

However, other scholars argue that some countries have had low degrees of economic freedom in order to facilitate the development of per capita incomes in their countries. For example, David Henley notes that countries such as Taiwan, Singapore, and South Korea utilized state economic interventions such as the protection of infant industries and state controls of food prices in order to strengthen their export sectors, which also played a pivotal role increasing per capita incomes for their citizens. Using a case-study of Hong Kong and Singapore, Newman Lam speculates that either a free-market approach (in the case of Hong Kong) or a state interventionist approach (in the case of Singapore) can lead to massive economic growth and improvement in per capita incomes. He argues that economic success depended on specific policies passed by the two governments and a growing hybridization between economic freedom and state interventionist approaches. In the African context, Osei Hwedidi argues that economic successes in Botswana and Mauritius stem from a combination of free market practices, sound economic policies employed by the state, and smart development philosophies.

F. Political Freedom

In addition to economic freedom, some scholars also credit political freedom as a pivotal part of promoting high levels of per capita income among countries. Yi Feng notes, “Democracy tends to have a positive effect on economic growth by inhibiting extra-constitutional political change and favoring constitutional political change.” Manuel Vega-Cordillo and Jose L. Alvarez-Arce of the Cato Institute do not provide quite as strong as an endorsement for the
connection of political freedom and high levels of per capita income, but they do dismiss the argument that democratization must wait for economic development within developing states. However, other scholars criticize the establishment of a positive relationship between political freedom and per capita economic growth in developing states by noting that authoritarian states have had enormous success in boosting per capita incomes in the 20th and 21st centuries. For example, Fareed Zakaria notes that Chinese officials, employing an undoubtedly authoritarian government, has employed economic policies that have listed 400 million people out of poverty since the late 1970s, which is the fastest economic growth in human history. Citing the case of the East Asian Tigers, Francis Fukuyama also supports the success of authoritarian modernization states in boosting per capita income growth among their citizens. Peter H. Smith notes that in many cases, such as in Latin American states from the 1950s-1970s, the per capita incomes among authoritarian and democratic governments were roughly the same, indicating his belief that other factors played a more important role in determining per capita incomes.

Conclusion

As seen in this chapter, there are a variety of explanations for variations in per capita income among sub-Saharan African countries. In the next chapter, the author will employ a statistical analysis in order to determine which of these factors is the most significant in determining variations in per capita income.

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4 Ibid.


17 Ibid.


19 Ibid.


22 Ibid.

23 Ibid.

24 Ibid.

25 Ibid.


34

39 "Africa Debate: Will Africa Ever Benefit From Its Natural Resources?"

45 Caroline Elkins, "What's Tearing Kenya Apart? History, for One Thing.,"
46 Ibid.
53 Ibid.
57 David Henley, "Chalk and Cheese? Africa and the Lessons of Asian Development," August 2007, 2,
58 Ibid.
Chapter IV: Statistical Model

In order to determine the primary influences affecting per capita incomes throughout sub-Saharan Africa, the author has assembled eight predictors. These include education and healthcare investment, mineral and oil dependence, agricultural dependence, landmass size, population size, level of instability, economic freedom, and political freedom. Using these factors, the author performed a multivariate statistical analysis using IBM’s SPSS Statistics program in order to weigh which of these factors most significantly impacts per capita incomes among sub-Saharan African countries.

The data for education and healthcare investment originates from the United Nations Development Program’s (UNDP) Human Development Report 2013. Specifically, education measures mean years of schooling while also accounting for government spending on education, percentage of primary school teachers trained to teach, primary school dropout rates, and other factors; health measures the life expectancy at birth while also accounting for the percentage of government spending on public health and the under-five mortality rate. The UNDP measures a combined education and healthcare statistic on a scale between 0 and 1.

In the statistical analysis, the author divided commodity dependence into two categories: agricultural and mineral & oil commodities. The purpose of this division is to provide further differentiation in the data in order to better assess what truly impacts per capita incomes in sub-Saharan Africa. The statistics for commodity dependence originates from the United Nations Conference on Trade and Development’s The State of Commodity Dependence 2012 Report. The mineral and oil dependence statistic analyzes
whether countries depend on a single non-agricultural commodity for a large portion of its exports. Examples of non-agricultural commodities include aluminum, gold, natural gas, and oil. The author weighed a country relying on a single commodity for more than 50% of its exports as substantial dependence while he weighed a country relying on a single commodity for 35%-50% of exports as simply dependent.

The data for agricultural dependence stems from the United Nations Committee on Trade and Commerce’s (UNCTAD) *The State of Commodity Dependence 2012* Report. The agricultural dependence statistic measures whether countries rely on a single agricultural commodity for a substantial portion of its exports. Examples of agricultural commodities include cocoa, coffee, palm nuts, and many other agricultural products. The author weighed a country relying on a single crop for more than 50% of its exports as substantial dependence while he weighed a country relying on a single crop for 35%-50% of exports as simply dependent.

The data for landmass size originates from the CIA World Factbook; the measurement utilized for landmass size is square kilometers. The data for population size also originates from the CIA World Factbook, as well.

The data for level of instability stems from four indices of Foreign Policy’s 2013 Failed States Index. These four indices are group grievance, legitimacy of the state, security apparatus, and factionalized elites.

The data for economic freedom originates from the Heritage Foundation and Wall Street Journal’s 2013 Index of Economic Freedom. The economic freedom measurement seeks to measure the degree that sub-Saharan African countries honor the “…fundamental right
of every human to control his or her own labor and property.” Providing one overall score, the Index of Economic Freedom uses the categories of rule of law, limited government, regulatory efficiency, and open markets to describe economic freedom.

The data for political freedom stems from Freedom House’s measurements of degrees of freedom within states. Specifically, Freedom House measures the categories of civil liberties and political rights and then takes the average of the two ratings as the Freedom Rating. Freedom House divides political rights into the categories of electoral process, political pluralism and participation, and functioning of government while it divides civil liberties into freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights.7

Performing a regression analysis, the author derived a R² value of .638, which means these eight factors explain roughly 64% of the variation in per capita income among sub-Saharan African states. The regression found that the factor that is the most significant in affecting per capita incomes among sub-Saharan African states is mineral and oil dependence. Mineral and oil dependence had a significance rating of .003, which indicates that mineral and oil dependence is over 99% significant in explaining variation in per capita incomes. The regression shows that states that rely on mineral and oil for a sizeable section of their exports have per capita incomes roughly $3500 higher than those without sizeable commodity exports. Education and healthcare investment also had a strong significance as well although not quite as much as mineral and oil dependence. In contrast, landmass size, level of instability, and economic freedom had weaker levels of significance in explaining variations in per capita incomes of sub-Saharan African states with roughly 93%, 89%, and 88% significance levels, respectively, which fall below the
normal acceptable standards in a statistical work. The significance of political freedom, population size, and agricultural commodity dependence proved even weaker with significance levels of approximately 72%, 60%, and 49%.
Model Summary

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<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
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</thead>
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<td>.799</td>
<td>.638</td>
<td>.541</td>
<td>2652.727</td>
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Coefficients

<table>
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<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
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<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
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<td></td>
<td>Education and Healthcare Investment</td>
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<td></td>
<td>Mineral and Oil Dependence</td>
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<td></td>
<td>Level of Instability</td>
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<td>-.332</td>
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<td>69.676</td>
<td>.237</td>
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<td></td>
<td>Political Freedom</td>
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<td>393.539</td>
<td>.166</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Per Capita Income
In short, according to the statistical analysis, mineral/oil dependence is the factor that most strongly related to differences in per capita incomes among sub-Saharan African countries. However, there is still a great deal of variation in per capita incomes of mineral/oil dependent states. Although it is true that the countries, such as Gabon and Botswana, with the highest per capita incomes in the region, do have mineral/oil dependence, there are many other countries within sub-Saharan Africa that are mineral/oil dependent but still have low per capita incomes. These include Nigeria, Chad, Sudan, Zambia, and most famously, the Democratic Republic of the Congo. This is consistent with the existing literature on mineral/oil dependence, which expresses that mineral/oil exporters have either achieved greater income levels or fallen into a resource trap. For example, Atsushi Iimi of the International Monetary Fund (IMF) notes, “Significantly, it might be true that many resource-rich countries have failed to transform their natural wealth into growth, but not all of them.”\textsuperscript{8} For example, he quotes Botswana as an example of a country that has used mineral dependence for strong economic growth while he notes that for other countries, mineral/oil dependencies “…tend to bring about not only conflict but also corruption, undermining political institutions.”\textsuperscript{9}

In the next chapter, I intend to use case-studies involving Botswana and Zambia in order to compare and contrast policies implemented by one country that used its mineral wealth to boost economic growth for its citizens to another country that failed to effectively utilize its mineral wealth to promote economic growth for its citizens.


4 "Botswana," Central Intelligence Agency


Chapter VI: Botswana and Zambia Case-Study

In this work, the author is attempting to determine the prominent factors that affect the amount of per capita incomes in sub-Saharan Africa. The statistical model found that the presence of commodities within states is a key determinant of per capita wealth in sub-Saharan Africa. This is true on the surface. Data presented in the last chapter showed that the mean per capita income of sub-Saharan African states with a vast amount of commodity dependence is higher than those without a strong commodity dependence. However, these findings are incomplete because there is still a great deal of variation in the per capita incomes among countries with commodity dependence. For example, Gabon has a per capita income of roughly $17,000 while the Central African Republic and Eritrea have per capita incomes under $1000. A full table of commodity dependent states has been included in the following table in order to illustrate the range of outcomes for these states:

<table>
<thead>
<tr>
<th>Sub-Saharan African States</th>
<th>GDP (PPP) in US Dollars</th>
<th>Commodity Dependence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabon</td>
<td>$17,053.47</td>
<td>81% crude petroleum</td>
</tr>
<tr>
<td>Botswana</td>
<td>$16,578.59</td>
<td>75% diamonds</td>
</tr>
<tr>
<td>Angola</td>
<td>$6,356.02</td>
<td>97% crude petroleum</td>
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<td>Republic of Congo</td>
<td>$4,656.67</td>
<td>85% crude petroleum</td>
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<td>Nigeria</td>
<td>$2,722.25</td>
<td>78% crude petroleum</td>
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<td>Lesotho</td>
<td>$2,072.87</td>
<td>99% precious stones</td>
</tr>
<tr>
<td>Chad</td>
<td>$1,969.91</td>
<td>95% crude petroleum</td>
</tr>
<tr>
<td>Zambia</td>
<td>$1,714.61</td>
<td>61% refined copper (additional 12% to raw copper)</td>
</tr>
<tr>
<td>Country</td>
<td>GDP</td>
<td>Main Export</td>
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<tr>
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<td>Burkina Faso</td>
<td>$1,524.06</td>
<td>71% gold</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>$1,184.24</td>
<td>68% Mixed nuts</td>
</tr>
<tr>
<td>Mozambique</td>
<td>$1,149.96</td>
<td>50% aluminum</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>$789.21</td>
<td>52% diamonds</td>
</tr>
<tr>
<td>Eritrea</td>
<td>$776.98</td>
<td>96% gold</td>
</tr>
</tbody>
</table>

Sources: Massachusetts Institute of Technology’s *Observatory of Economic Complexity* and United Nations Conference on Trade and Development *The State of Commodity Dependence 2012 Report*.

Thus, the data from the statistical model suggest there must be a larger factor, which determines whether or not sub-Saharan African states develop higher levels of per capita incomes. Existing literature suggests that there is a strong difference between countries that were able to increase their population standard of living, and countries falling into a resource curse. For example, Torvik notes, “When the current political system ensures that the interests of the population at large are well represented, resource abundance may generate reform which ensures that the resource wealth is managed in a way that benefits the broad segments of society.” In the case of a country that mismanages its resource wealth, however, he notes, “… if the current political system is not checked in such a way that it represents the interests of the general population, reform may be undertaken with the aim of preserving and strengthening old privileges.” A consequence of this reasoning, which has yet to be fully explored by the literature, is that differences in institutions matter. The hypothesis put forward in this chapter is that the presence of strong institutions is the difference between a resource rich country that prospers and a resource rich country that falters. North defines institutions in the
following manner: “Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction.”

Seeking answers for economic development, I am particularly focused on the quality of economic institutions, which govern crucial economic functions of any society including the structure of property rights and the presence and quality of the markets.

Well-developed economic institutions play a crucial factor in the economic development of a state. Concerning economic institutions, Acemoglu states, “…they help to allocate resources to their most efficient uses, they determine who gets profits, revenues, and residual rights of control.”

Also well-developed institutions, to which the vast majority of the members of a society adhere, promote economic development because they present stable conditions in which potential domestic and international economic participants can safely start invest in profitable sectors, start/expand businesses, or conduct other forms of economic activity. Meanwhile, weakly developed institutions detract from economic development. Acemoglu notes, “When markets are missing or ignored (as they were in the Soviet Union, for example), gains from trade go unexploited and resources are misallocated.”

Even worse, domestic and international investors often limit their business activities in states with weak economic institutions because these states often negatively change business conditions against investors or even seize assets from private businesses or corporations and award them to the state.

In order to illustrate the importance of economic institutions upon economic development among sub-Saharan African states, I shall use a case-study of Botswana and Zambia. Botswana serves as an example of the benefits of well-developed economic institutions while Zambia serves as an example of the negative effects of a state with
weakly-developed economic institutions. I chose these two countries for a couple of reasons. First, they are both commodity dependent and yet have drastically different per capita incomes, which illustrates something beyond the presence of commodities as a major economic influence. Specifically, Botswana, with a dependence on exporting diamonds, has a per capita income of roughly $16,500 while Zambia, with a dependence on exporting copper, has a per capita income of roughly $1700. Second, both Botswana and Zambia are located in southern Africa and share similar colonial histories as British protectorates. In the following section, I shall explore why Zambia has had a poor rate of economy development. I shall then explore why Botswana’s economic development has had much more success.

Zambia Case-Study

Upon independence from Great Britain in 1964, Zambia had daunting challenges to address in terms of its economic development. Upon independence, Zambia only had roughly 100 university graduates, which signaled a huge shortage of manpower with the skillsets needed to create economic growth for brand new states. In addition, Zambia faced the common challenge of reconstructing a colonial economy, focused on exports to Britain rather than improving the lives of citizens within the country. However, Zambia also had some factors in its favor the first few years after independence. First, Zambia, with fertile land and reliable rainfall, had great agricultural potential. Second, Zambian economic policies immediately after independence were prudent. President Kenneth Kaunda implemented a copper revenue stabilization fund, and it also managed the economic shock that occurred when Rhodesia (modern Zimbabwe) declared independence from the United Kingdom in 1965 and severed Zambia’s transportation
artery.\textsuperscript{11} Third, Zambia did not face ethnic/tribal divisions in its path to independence like most other African states because most Zambians viewed independence as a struggle of color (white versus black) as opposed to an ethnic/tribal conflict.\textsuperscript{12}

However, Zambia quickly began a path to severe economic decline. With the Mulungushi Reforms of 1968, Zambia’s government began to seize large holdings of private firms.\textsuperscript{13} Kinney notes, “To justify these policies, Kaunda argued that the foreign companies that dominated mining and manufacturing were exploitative…”\textsuperscript{14} By the early 1970s, Zambia’s government owned a 51% stock held in the Zambian copper industry and nationalized the copper industry, in what eventually became Zambia Consolidated Copper Mines (ZCCM).\textsuperscript{15} This nationalization policy also extended to large state-owned industries outside of copper mining and even into the subsidization of Zambia’s farming industry.\textsuperscript{16} In fact, this transition resulted in Zambia’s economy transitioning from one of predominately private businesses into one in which the public sector held more than 50% of Zambia’s economic activity in the span of only 1968-1972.\textsuperscript{17}

This nationalization of the economy signaled the creation of weakly developed institutions called extractive institutions in Zambia. Extractive institutions use the wealth of the state to benefit the elites while leaving the vast majority of citizens to remain in poverty.\textsuperscript{18} A budget report in Zambia noted that housing for the elite and their servants amounted up to 77% of the government budget on urban housing while only 4.7% of the housing budget went to housing for the poorest of Zambian society.\textsuperscript{19} In addition, Auty notes, “The government regarded mining as a source of revenue and patronage, which it used to extract rent and boost employment at the expense of competitiveness.”\textsuperscript{20} In fact,
President Kaunda owned an estimated 40,000 patronage positions in Zambia’s capital Lusaka alone.\textsuperscript{21}

With this sort of economic mismanagement, it is unsurprising that Zambia suffered dramatically during the crash of copper prices on the global market in 1975. Depending on copper for more than 90\% of the country’s foreign exchange earnings, Zambia incurred heavy debt when copper prices suddenly were a fraction of what they were worth earlier in the decade.\textsuperscript{22} In order to maintain its agricultural subsidies and state-owned industries, Zambia had to borrow from international markets, which had devastating effects. For example, by 1987, every Zambian citizen had an average of $600 in debt versus $470 in GDP.\textsuperscript{23} These market effects, combined with Zambia’s extractive policies, had several devastating effects upon Zambian citizens and the Zambian economy for the next two decades. First, Zambia, which had a self-sufficient agricultural system at independence, was forced by the 1980s to become a net importer of food because of its inefficient subsidy policies, which further exhausted its budget.\textsuperscript{24} Second, through mismanagement of the state-owned copper mines, copper production fell from 698,000 tons in 1972 to 260,000 tons in 2000.\textsuperscript{25} Third, Zambian per capita incomes plunged. Although Zambia had one of the highest per capita incomes in the region at independence, its GDP in the 1980s was one-third less than it was in 1964.\textsuperscript{26} According to the classification of the World Bank, Zambia fell from the ranks of the middle-income countries into the ranks of the low-income countries.\textsuperscript{27}

In the past decade, the Zambian economy has improved from a combination of better economic institutions and a surge in global copper prices in the last decade with a 6\% growth in GDP annually.\textsuperscript{28} However, the majority of Zambia’s citizens continue to
live in conditions of utter poverty. Over 60% of Zambians live on less than $1 per day and 40% do not have access to clean drinking water. Unfortunately, Zambia remains a clear example of a state in which weakly-developed institutions have disrupted economic development, at the expense of most of Zambia’s citizens.

Botswana Case-Study

After receiving its independence from Great Britain in 1966, Botswana was indisputably one of the poorest countries in sub-Saharan Africa; in fact, it was much worse off than Zambia. The vast majority of Botswana’s land was not suitable for agriculture; it had to spend as much as 10% of its GDP on food production and rely on Great Britain for 50% of its government expenditures. Botswana had only one international industry, which was beef production. Furthermore, Acemoglu, Johnson, and Robinson note, “When the British left, there were 12 kilometers of paved road, 22 Batswana who had graduated from University and 100 from secondary school.” Researchers Harvey and Lewis noted “it was about as bad a start as could be imagined.”

However, prudent economic policies guided by sound institutions led Botswana’s economy in a much brighter direction than Zambia’s economy. In the case of Botswana, sound institutions carried two primary meanings. First, countries must ensure that private property rights are secured so that one who makes a productive investment should expect profitable returns from his/her investment. Second, a broad cross-section of society should have the opportunity to invest. Interestingly, enough, this does not mean Botswana’s policies espoused all free market principles, as espoused by indices such as the Index for Economic Freedom. Kinney notes, “Interestingly, Botswana avoided the
regulatory syndromes despite government planning, regulation, and control that exceeded what free-marketeers usually recommend.”  

Although Botswana is one of the freest economies in the region today, its development did not arise from a set of neoliberal inspired policies but instead from those inspired by a strategy of development led by a partnership between the state and the private sector.

The first of the factors leading to Botswana’s economic development is its history of open and prudent institutions, even in the precolonial era. In the mid-19th century, before British possession of colonial Botswana, a king and four major subsidiary chiefs ruled over the people of Botswana. Although the king and his chiefs held the respect of their people and possessed powers such as determining the usage of land or resolving internal and external tribal conflicts, the people regarded chiefs as equals rather than as superiors. The tribal kgotlas, or public assemblies, solidified this relationship between the people and their elders. In these kgotlas, men of the tribe provided input for the elders and even criticized their policies without fear of retribution. In addition, these kgotlas enabled different tribes within the borders of Bechuanaland to work together against foreign threats. For example, different tribes within Bechuanaland banded together against invasions from Zulu tribes in the early 1810s and 1820s as well as the Boers in the early 1850s.

From this legacy of sound institutions emerges the second reason for Botswana’s economic development: an incorporation of the elite into government without endangering the national interests of Botswana as a whole. After independence, Botswana’s government focused on maintaining the private property of the tribal chiefs and their relatives. Botswana invested heavily into the infrastructural development for
cattle raising, the primary resource of the tribal chiefs, and entered into the Custom Union with South Africa to boost the profits of these tribal chiefs.\textsuperscript{38} In addition, Botswana’s first president Seretse Khama included these tribal chiefs and independent cattle owners into Botswana’s political system.\textsuperscript{39} However, Botswana’s leaders were careful to also take steps to empower all of Botswana’s citizens as opposed to creating winners and losers among the chiefs, which deterred future violence that has disrupted the economic development of numerous countries in the region. For example, the first President of Botswana Seretse Khama transferred the property rights for Botswana’s diamond mines away from the tribes to the national government, which averted serious tribal tension within Botswana and enabled the prudent use of funds from the diamond industry toward national economic development.\textsuperscript{40}

The prudent use of funds from Botswana’s diamond mines suggests the third and most important reason for Botswana’s economic development: Botswana’s sound institutions guided by a constant mindset of smart development. From the discovery of Botswana’s mines, Botswana’s government has made prudent decisions that have allowed it to reap the most benefit from the wealth of the diamond mines. For example, rather than nationalizing the mines without the expertise to make the most of their wealth like in Zambia, Botswana worked out a favorable partnership with the private sector. In fact, Botswana negotiated a historic 50/50 joint venture in its diamond mines with De Beers, the world’s largest diamond mining company, with the understanding that Botswana’s government would respect De Beer’s right to the mines.

With surging prices for diamonds on the global market for the past few decades, Botswana has used surging profits to prudently spur economic growth. For example,
Botswana’s government has avoided spending revenues on poorly designed, wasteful projects for the most part; policies must stick with national development plans approved by Botswana’s legislature. Kinney notes, “This constraint prevented influential groups and politicians from implementing their own plans at whim, as happened in Zambia where the projects stipulated in the national plans were usually ignored by bureaucrats and politicians, including President Kaunda.” Also, when considering economic policies, Botswana’s government selected plans on the basis of a strict cost-benefit analysis with an emphasis on not only the benefits for development on the national scale but also development for the rural areas of Botswana as well. Botswana’s institutions even took recurrent costs, or the expected future costs (such as buying new textbooks or making repairs for a newly built school), into its development projects as well. Finally, Botswana did not hesitate to consult international advice for its planning projects from sources such as the World Bank or the private sector although it did not stray from its development model.

Starting from such a position of disadvantage, Botswana has become one of the most economically prosperous per capita economies in sub-Saharan Africa. Acemoglu, Johnson, and Robinson note, “In general nearly every aspect of Botswana economic performance is spectacular…inflation has rarely been above 10%, investment has been between 20% and 30% of GDP, and there has been significant investment in human capital.” With a per capita income of roughly $16,500 (adjusted for purchasing power parity), Botswana’s per capita income is much higher than the mean per capita for the region, which is less than $2000 (and many countries have per capita incomes much lower than this). It is important to note, however, that Botswana is not perfect. Although
little recent data exists for this measure, Botswana probably has a fairly high rate of
inequality. In addition, it has a relatively short average life-span of fifty-three years old
on average, mostly as a result of having one of the highest percentages of HIV/AIDS
infections in the world. However, Botswana’s economic development has had clear
benefits for its citizens. In terms of its living standards, the United Nations’ Human
Development Index indicates that Botswana’s economic development has led it to
provide its citizens with some of the best living standards in Sub-Saharan Africa,
specifically in the fields of education and healthcare. In terms of HIV/AIDS, Botswana
has done arguably more than any other African country to aggressively treat the disease
as the first country to offer retroviral drugs to anyone who needed them.46 Botswana,
without dispute, is an African economic development success story.

Conclusion from Case-Study

A comparison between Botswana and Zambia has yielded two important
conclusions for connecting economic theory to economic development in sub-Saharan
Africa. First, Zambia shows that a purely state-led model, without a vibrant private
sector, does not promote effective economic development. Whether it is inefficiency
through the misallocation of resources or outright corruption, Zambia shows that a statist
model with repression of the private sector does not yield positive results for economic
development in the long-run, especially as globalization has made economic activity
around the world more fluid. However, Zambia also teaches us that neoliberal policies by
themselves also do not promote economic development. For example, even though
Zambia has liberalized its agricultural markets and has passed ownership of its copper
mines from the state to the private sector, Zambia’s citizens remain among the poorest in the world.

In Botswana, the theory of the developmental state, or a state that uses both the public and private sector to spur economic development, has proved an enormous success for several reasons. First, Botswana applied a developmental state strategy that fitted with its pre-colonial, existing social structure, which improved the probability of its successful economic development. For example, after independence, President Khama ensured that he included the prominent tribal chiefs into the system of the new national government and protected their traditional interests. This is a markedly different approach than Zambia, in which elites captured the resources of the state without representation of pre-colonial social structures. Second, and more importantly, Botswana’s institutions have consistently made prudent choices since its independence that must receive credit for its economic success. Establishing working relationships with private sector companies such as De Beers while also using the state’s resources pragmatically to develop its rural population, Botswana is a model for the potential success of the developmental state. On the other hand, Zambia’s political elite, using both neoliberal and statist strategies, have consistently made poor economic decisions and embraced corrupt practices, which have resulted in systemic poverty within the country. The fundamental lesson that the story of Botswana and Zambia suggests is that economic development derives from a series of intentional choices guided by prudent development philosophies, as opposed to a wide variety of uncontrollable factors. This implies that African countries have a great deal of control over their development destiny.
4 Ragnar Torvik, International Monetary Fund/The Political Economy of Reform in Resource Rich Countries, 3.
7 Acemoglu, Johnson, Robinson, Institutions as Fundamental Cause of Long-Run Growth, 2
8 Ibid.
14 Ibid.
15 Ibid.
16 Ibid.
17 Ibid.
23 Roland A. Oliver and Anthony Atmore, Africa Since 1800, 331.
24 Ibid.
27 Ibid.
33 Ibid.
34 Laura P. Kinney, Sub-Saharan African “Syndromes”: The Differing Experiences of Zambia and Botswana, 29
Ibid.
Laura P. Kinney, Sub-Saharan African “Syndromes”: The Differing Experiences of Zambia and Botswana, 29
Ibid.
Ibid.
Oliver and Atmore, Africa Since 1800, 372
Conclusion

In this work, the author sought to explain the high degree of variability in per capita incomes among sub-Saharan African countries. This variability is an important question for US policymakers to consider for both geopolitical and moral reasons. For example, conditions of dire poverty in which many earn less than a $1 per day has led to the rise of extremist groups in parts of sub-Saharan Africa, such as Mali, Nigeria, and Somalia.

In order to address how per capita incomes have varied among sub-Saharan African states, the author divided the analysis in the form of three central research questions. With a wide variety of qualitative and quantitative research, these questions can now be addressed. The first of these was “what is the range of disparity in GDP (PPP) among sub-Saharan African countries?” Examining the per capita incomes of sub-Saharan African states, one notices that there is a great deal of disparity among sub-Saharan African states. For example, Botswana and Gabon are at the top with per capita incomes over $15000 while countries like Sierra Leone and Zimbabwe are at the bottom with per capita incomes well under $1000. Strikingly, Gabon, the country with the highest per capita income in sub-Saharan Africa, has a per capita income roughly 40 times higher than the Democratic Republic of the Congo, the country with the lowest per capita income in sub-Saharan Africa.

The second of these research questions was “what are these factors correlated with this disparity, that are statistically significant?” The author began to answer this question by reviewing two of the primary development theories employed by sub-Saharan African countries in recent decades: neoliberalism and the developmental state.
A discussion of development theories holds great relevance for the variability of per capita incomes in sub-Saharan Africa because an understanding of a country’s development theory helps to explain the motivations behind the choices made by its policymakers. On the one hand, the gradual shift toward privatization of resources in some sub-Saharan African countries, such as Zambia, was guided by neoliberal ideas promoted by the economic elite and international institutions to address economic issues. On the other hand, the choices of some sub-Saharan African countries to promote strategies combining state-led and private resources into economic development, such as in Botswana, were guided by the idea of the developmental state.

Using a statistical model, the author tested for a wide variety of factors including education and healthcare investment, mineral and oil dependence, agricultural dependence, landmass size, population size, level of instability, economic freedom, and political freedom. Explaining 64% of the variation among the per capita incomes of sub-Saharan African states, the author found that the presence of a vast amount of mineral/oil commodities was the largest factor in the variation of per capita incomes among sub-Saharan African states. However, the author found that there is still a great deal of variation in the per capita incomes of mineral/oil dependent states. Scholars have explained this variation by noting that some countries that have utilized their mineral/oil wealth prudently for economic development while others have wasted this wealth through poor economic practices in addition to outright corruption.

This leads to the third research question, which was “how are differences in per capita income connected with policy choices?” Using Botswana as a case-study, the author found that a developmental state philosophy coupled with prudent policy choices,
such as using a 50/50 public and private sector partnership with the diamond corporation De Beers, held merit as an effective development strategy to boost per capita incomes. In contrast, Zambia, using a combination of state-dominated and later neoliberal growth philosophy, made poor policy choices that enriched a small elite and left the vast majority of the population in dire policy. Thus, a combination of smart development philosophies and sound economic institutions making prudent policy choices seems to be the largest difference between sub-Saharan African states with high per capita incomes and sub-Saharan African states with low per capita incomes.

Hopefully, this work will inspire future works that will further develop the gap in the literature that addresses specific policy choices made by sub-Saharan African states that have succeeded in providing higher levels of per capita income for their citizens. Ideally, future policymakers will use some of these solutions and adapt them using a custom developmental philosophy crafted for the specific state that the policymakers represent. The most positive finding of this work is that sub-Saharan African states can control their own destinies in terms of their development outcomes. Although it is true that some sub-Saharan African states because of the presence of mineral/oil wealth or specific colonial legacies had advantages over other states, smart development theory combined with prudent policy choices have resulted in states overcoming steep odds to provide their citizens with relatively high per capita incomes. Botswana, arguably one of the poorest countries in the region after independence, illustrates this point. Thus, one can hold at least a degree of optimism that one day, sub-Saharan Africa will become a prosperous region in its own right, in which a wide range of its citizens will finally have a decent standard of living.
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