



Urbanization in sub-Saharan Africa

A Study of Contemporary Urban Population Growth in a Less Developed Region



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Abstract

This study investigates the contemporary urbanization process of sub-Saharan Africa. The region is predicted to experience a surge in urban population growth the forthcoming decades, yet why and how this is happening is not very clear. Theory often considers urbanization to be a part of a modernization process where people migrate from rural areas to urban. But depictions of reality suggest that rural-to-urban migration might be less significant than previously thought, and neither is it given that urbanization causes prosperity in sub-Saharan Africa.

This thesis tries to complement the gap of knowledge regarding the mechanisms of urbanization in sub-Saharan Africa. Statistical data is organized and assembled by using the structured, focused comparison method and then analyzed in order to create an understanding of urbanization and urban population growth in this particular region.

The result of this study suggests that the mechanisms for urban population growth change over time. Urban population growth is often thought to be driven by rural-to-urban migration. However, nowadays there is a correlation between urban population growth and population increase, which did not exist a couple of decades ago.

It is clear that urbanized countries are, typically, more advanced regarding economic growth, but it is unsure whether this factor affects socio-economic development.

The findings underscore the vast complexity of urbanization and urban population growth, as well as the heterogeneity of sub-Saharan Africa. Yet there is potential for a new theoretical framework that can provide explanations to the processes sub-Saharan Africa is expected to undergo.

Keywords: *Urbanization, Urban Population Growth, sub-Saharan Africa, Structured, Focused Comparison.*

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List of Abbreviations

GDP	<i>Gross Domestic Product</i>
GNI	<i>Gross National Income</i>
HDI	<i>Human Development Index</i>
POPG	<i>Population growth (annual %)</i>
RPG	<i>Rural population growth (annual %)</i>
UNDP	<i>United Nations Development Program</i>
UNFPA	<i>United Nations Population Fund</i>
UPG	<i>Urban population growth (annual %)</i>
UP%	<i>Urban population (% of total)</i>
UNSD	<i>United Nations Statistics Division</i>
WDI & GDF	<i>World Development Indicators & Global Development Finance</i>

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1. Introduction

Urbanization and urban population growth is nowadays taken for granted and even expected. It happened in Europe and in North America during the industrialization era, and it is now occurring in many less developed countries. The region of sub-Saharan Africa is expected to rapidly increase its urban population the forthcoming decades (State of the World Population, 2007, p. 8), and while some theories, such as the Lewis two-sector model, predicts economic development through urbanization, it is in fact the slum quarters that experience the most urban population growth (White et al, 2008, p. 307).

This study sets out to explore urban population growth and urbanization in sub-Saharan Africa with the intent to better understand the processes behind urban population growth as well as some of the consequences of urbanization in a less developed region.

1.1 Research problem

Sub-Saharan Africa is often referred to as the least urbanized region in the world (White et al, 2008, p. 301). Yet the region's total urban population is predicted to expand greatly during the forthcoming 20 years (State of the World Population, 2007, p. 8), and it is doubtful whether the region's urban areas can handle the explosive growth (White et al, 2008, p. 301). There is dissonance in the theoretical debate about urbanization and urban population growth in less developed countries. On the one hand, there are general theories designed to explain the mechanisms and outcome of urban population growth. On the other hand, some literature suggests that urbanization and urban population growth and their consequences are complex processes affected by various mechanisms, to the degree that the use of any theory is questioned.

Classic notions of urbanization mean that at one point or another, an economy transforms from an agrarian society into an industrialized, modern society with higher living standards as a result. The Lewis two-sector model is a prime example. The model assumes that the agricultural sector of a country has a surplus work force, and that people will readily migrate to urban areas as the wages are higher there, which then enhances an industrialization process (Todaro and Smith, 2009, p. 115). This is more or less what happened in Europe and North America (ibid, 2009, p. 118).

In the same line of thinking, some scholars argue that no country is as prosperous as those who have gone through a thorough urbanization process and thus, it is an important part of fuelling economic growth also for less developed countries (Annez and Buckley, 2009, p. 1). In this light, it is not strange why the process of urbanization and urban population growth often brings about a positive connotation. But can we really expect a less developed region like sub-Saharan Africa to follow the same process, with similar results, as Europe and North America did back in the days?

The mechanisms behind urban population growth and urbanization are not very clear. Aside

from the Lewis two-sector model, there is also, among others, the Harris-Todaro model on migration which explains that urban population growth is largely caused by rural-to-urban migration driven by *perceived* income gains, rather than actual (Todaro and Smith, 2009, pp. 344-345). But, then, there are also studies suggesting that rural-to-urban migration might not be the major driving force behind urban population growth at all, but, on the contrary, natural increase (White et al, 2008, p. 302).

In fact, it is not even certain that such general theories are at all applicable on sub-Saharan Africa. First of all, some literature stresses that, overall, less developed countries face a much different urbanization process than Europe and North America did (Henderson, 2002, pp. 89-90; State of the World Population 2007, p. 7, box 2). Secondly, it is argued that the preconditions for sub-Saharan African urbanization were set already during the colonization era which has several implications on the current urbanization process (Bocquier, 2004, p. 134; Boserup, 1985, pp. 384-385). Finally, in sub-Saharan Africa especially, it is not entirely clear as to who is an urban resident and who is not; seasonal and forced migrations tend to blur the image of population flows (*ibid*, p. 310, 302).

The problem, then, is multifaceted. Sub-Saharan Africa is about to experience rapid urban population growth, and it is unsure whether the region's urban areas can handle the massive increase. Yet, despite being a thoroughly researched subject, there seems to be no theoretical consensus that can explain the mechanisms of urban population growth and urbanization in sub-Saharan Africa, and theories are contradicted by depictions of reality. In this study, I will take a deep look into the urban population growth and urbanization of sub-Saharan Africa in order to try to understand what is really going on.

1.2 Purpose of the study

The purpose of this study is to investigate the processes of urbanization and urban population growth in sub-Saharan Africa in order to better understand what mechanisms lie behind. I will try to untangle some of the uncertainties of, firstly; the mechanisms of urban population growth and urbanization, and secondly; urban population growth's and urbanization's impact on socio-economic factors, if there are any.

As a first step, I will try to establish whether urban population growth in sub-Saharan Africa is a process which characteristics are shared among the countries of the region or if it is highly individual. I wish to find out how coherent this region really is when it comes to urban population growth and urbanization, and the dynamics behind it.

Secondly, I will elaborate upon the socio-economic consequences of urbanization and urban population growth. I will take a deep look into factors that can potentially indicate socio-economic statuses from the point of departure of urbanization.

Finally, combining these questions, I wish to briefly theorize the matter by trying to understand the degree of similarity of urban population growth and urbanization and its

consequences throughout the region: can urbanization and urban population growth be generalized for so many countries, or is a narrower scope preferable?

In order to deal with these matters, research questions have been outlined:

In sub-Saharan Africa,

- ... what does the distribution of urban population look like for the different countries?
- ... are the countries with the more urban population generally better off in terms of socio-economic development than countries with less urban population?
- ... what can be said about the mechanisms of urban population growth and urbanization, and, taken together, will the answer to these questions contribute to an explanation of to what extent the mechanisms of urbanization and urban population growth can be generalized for the region?

1.3 Relevance of the Study

First of all, this research will help understand the process of urbanization and urban population growth. It will indicate to what extent urbanization is following a homogenous pattern or if it is a rather heterogenic process.

Secondly, this thesis will evaluate the use of theory and generalizations in this particular issue. Theories were made to simplify complex matters and generate plausible predictions as for the future. Since theory is applied in so many corners of the scientific and academic world, it is important to evaluate the applicability of theory even in the scope of urbanization and urban population growth. It would also help future demographic estimations and predictions.

Thirdly, urbanization brings about different connotations; necessary for- or as a consequence of economic development on the one hand, but potentially harmful for individuals on the other hand. Since this thesis will investigate the socio-economic state of sub-Saharan Africa from the perspective of urbanization, it might help revealing some of the consequences the expected massive urban population increase might bring about.

1.4 Outline of Method

In order to try to untangle some of the complexities regarding urban population growth and urbanization in sub-Saharan Africa, I will perform a qualitative study based on statistical data, by analyzing statistics thoroughly in trying to gain understanding. Because it is not entirely sure what to look for in terms of urban population growth mechanisms, I will approach the matter from an inductive point of departure. This allows me to approach data in a flexible way which then boils down to a somewhat theorized conclusion; namely, to what degree the mechanisms of urban population growth and urbanization can be generalized.

I will use the method of structured, focused comparison, which is a theory-oriented method based on case studies. The core of structured, focused comparison is to gather and assemble data systematically so that it can be compared between cases (George and Bennett, 2005, p. 67). I believe that this method is the optimal for the type of problem presented in this study, because the problem in itself is very complex and is thought to have many components. Therefore, a very structured and systematic method might help me understand the mechanisms of urbanization and urban population growth. Furthermore, the research questions are outlined in such a way that they imply comparison between countries with a high degree of urbanization and countries with a low degree. In order to find out what the urban population distribution looks like, and whether urbanized countries are better off in terms of socio-economic development, I need to contrast cases (countries) to each other. Structured, focused comparison then helps me maintain a systematic focus and ensure that comparison between cases is as correct as it can get.

In order to complement findings, I will also perform correlation analyses with the coefficient of determination (r^2).

My study will be based on statistical data, mainly gathered from the World Bank's databank. In choosing to rely on statistical data, I hope to be able to cover as many aspects of urbanization and urban population growth as possible. Statistics have the advantage of being relatively available, which means that I can process plenty of data for several time periods. The strategy is to compile statistical data according to the structured, focused comparison method and then try to understand the urbanization process of sub-Saharan Africa.

1.5 Delimitations and Limitations

1.5.1 Delimitations

It is necessary to establish some boundaries to this thesis.

First of all, my study concerns sub-Saharan Africa only. This region is chosen partly because of its unique composition of overall low urbanization but expected rapid urban population growth, but also because of its reputation of being "poor". In this thesis, I will use a definition of sub-Saharan Africa from the United Nations Statistics Division (UNSD) but some countries have been excluded. The motivation of this as well as excluded countries are presented in Appendix I.

Because some variables are not available for all years, I had to set a time scope. Some variables were available from year 2011 the latest, but far from all. In order to gain consistency and cover as many variables as possible, I decided to *not* include any data past year 2009. On the other side of the scale, data will range as far back as to 1960. Even though no data is more recent than 2009, I will sometimes use expressions like "contemporary" and "nowadays" for the sake of convenience.

While this thesis claims to concern all of sub-Saharan Africa, I will establish two groups of countries that will serve as the focus. The two groups will represent those countries with the most and the least urban population (on a national level) and their status of other factors will be the tool of

comparison. However, the data used in this thesis includes all the other countries and the result of these countries will also be presented in the appendices. The other countries will also contribute to correlation analyses as a larger pool of samples generates more valid results.

Concerning the reference to literature in this thesis, I decided to present only two theories/models (Harris-Todaro/Lewis two-sector model) even though urbanization is such a thoroughly researched process. This is, firstly, because throughout my research, I have come across these two theories very often and they appear to constitute much of the core of urbanization research. Secondly, the intent of the thesis is to investigate and try to understand the incoherence between literature and reality, not to validate or refute theories.

1.5.2 Limitations

This thesis will investigate plenty of variables connected to urbanization and urban population growth. However, it is impossible to cover *all* variables that potentially impact said subjects. Several relevant variables turned out not to have data covering enough sub-Saharan African countries, in which case these variables were excluded because comparisons could not be made.

In a similar manner, not all variables were available from year 1960. Therefore, some variables will lack a historical scope.

1.6 Disposition

Chapter 2 presents a literature overview that further explains the dissonance and incoherence discussed in the research problem. Chapter 3 concerns methodology and outlines the research made in this thesis in accordance to the structured, focused comparison method. Chapter 4 contains the findings in accordance to the method of structured, focused comparison. In Chapter 5, analyses of the data from the foregoing chapter are presented, along with correlation analyses. Chapter 6 is the concluding chapter where concise answers to the research questions will be stated as well as various remarks.

2. Literature overview

The topic of urbanization and urban population growth is very vast, and much has been written throughout the years. This chapter will start off with a presentation of two well-known theories with a universal reach, and then I will assess literature suggesting that theories of urbanization need a narrower approach.

2.1 Two major theories

Although many theories and variations of theories have been outlined throughout the years, I have decided to bring up two that are often cited and referred to in relevant literature. They are both examples of the common notion that economic development and urbanization are interlinked and dependent on one another. Both theories are concerned with the origin of urbanization- and the rural-to-urban migration process.

2.1.1 The Lewis two-sector model

The Lewis two-sector model was developed by W. Arthur Lewis in an attempt to explain the dynamics of an “underdeveloped” economy through the migration from the rural sector to the urban (Todaro and Smith, 2009, p. 115-118). It describes the transformation of a traditional agricultural-based economy to a modernized, industrialized economy (ibid.).

The theory assumes a rural sector attributed by “surplus labor” which can be readily absorbed by the modern sector without disrupting the production output on the country-side (Todaro and Smith, 2009, p. 118). As long as there is surplus labor, the modern sector will provide minimum wages, although at a higher value than the profits extracted through agricultural labor (which makes urban labor attractive) (Mishra, 1969, p.879). The theory’s assumption is that the marginal profit from the modern sector will be reinvested to increase or improve the production which will, in turn, cause a demand for more employees (ibid). Eventually, urban labor force becomes scarcer as the surplus labor is gradually absorbed (ibid). This will, then, according to the model, cause higher wages as it is the necessary precondition for employing agricultural workers that do not qualify as “surplus labor” (ibid). Eventually, the entire traditional workforce is employed within the modern sector (now, a modern economy) which will then adopt capital-intensive actions in order to prevent demands for labor to increase (ibid).

2.1.1.1 Criticism against the Lewis two-sector model

Although the Lewis two-sector model appears good in theory, it has been criticized for not being applicable on today's less developed countries. In *Economic Development* by Michael P. Todaro and Stephen C. Smith, it is claimed that Lewis' model is merely a reflection of the industrialization process of the more developed countries (Todaro and Smith, 2009, p. 118). Further, Todaro and Smith dissect the theory and address the flaws.

As described in the above section, the Lewis two-sector model assumes that accumulated capital is reinvested in order to improve production. This assumption is questioned by Todaro and Smith who mean that reinvestments may first of all not happen at all (Todaro and Smith, 2009, p. 118). There is no guarantee that the owner of a company chooses to reinvest, he or she might as well transfer the profits to off-shore bank accounts, in which case it does not benefit the labor market at all (ibid). Secondly, reinvestments might be made through labor saving actions, such as purchasing machinery to replace laborers (ibid). Also in this second case, job seekers will suffer rather than gain.

Another questionable aspect of the Lewis two-sector model is the assumption of surplus labor in rural areas (Todaro and Smith, 2009, p. 119). According to Todaro and Smith, it is not at all certain that there is an available rural workforce ready to accept any job opportunity in the modern sector (ibid).

Several other examples of flaws are mentioned in *Economic Development*, but I will not bring them up here. The intent was to show that although the Lewis two-sector model is popular, it is not without critique. It is possible that this model inspired Todaro and Harris to develop their model on rural-to-urban migration; which will be elaborated in the next section.

2.1.2 The Harris-Todaro model on migration and the Todaro migration model

These two models are in fact two forms of the same model; therefore I will go through both of them at the same time. As described in *Economic Development* (Todaro and Smith, 2009, p. 345) the Harris-Todaro model on migration is the *equilibrium* form of the Todaro migration model.

In 1970, Harris and Todaro published a theory on rural-to-urban migration with the intent to explain the dynamics of this process. In their view, conventional economic theories on rural-to-urban migration are not sufficient and often misleading (Harris and Todaro, 1970, p. 126). The authors claim that former theories assume that migrants have access to waged employment and that this is the driving force behind migration (ibid.). Meanwhile, Harris and Todaro noticed that reality is different; plenty of rural-to-urban migrants end up unemployed; a situation that is, they argue, not covered for by other theories (ibid).

The setting for the Harris-Todaro theory is as follows: there is a rural area where agricultural goods are produced; either by using the entire labor force or by sacrificing production output by allowing labor force to migrate in order to seek waged labor (Harris and Todaro, 1970, p. 127).

Then, there is an urban area where manufactured goods are produced by waged employees (ibid). For analytical reasons, it is assumed that the rural migrants remain in touch with their rural family by means like remittances, while the “original” urban working force has no ties to the rural population (ibid).

The Harris-Todaro theory argues that migration from rural-to-urban areas will continue as long as the urban minimum-wage exceeds the profits of working in the agricultural sector (Harris and Todaro, 1970, p. 127). With this in mind, Harris and Todaro view the reason behind high unemployment rates as a consequence of state actions. The authors (Harris and Todaro, 1970, p. 129) argue that in developing countries, minimum wages are often set artificially by institutions in a way that is not compatible with the free market which then results in high unemployment rates (as migration occur on the basis of *expected* wages, not on guarantee of employment). As such, the end result will be an equilibrium state where the possibility of gaining a higher income through rural-to-urban migration is offset by the great risk of unemployment (Todaro and Smith, 2009, p. 825).

In *Economic Development* (2009), Todaro and Smith describe the Todaro Migration Model more thoroughly, from the point of view of the individual. The focus is on the very conscious rural resident who is well aware of the conditions of the labor market in cities (Todaro and Smith, 2009, p. 345). As such, before any rural-to-urban migration occurs, the individual carefully calculates the expected income gain combined with the prospects of getting employed at all, balancing the two factors against each other (ibid). Even though urban salaries (modern sector salaries) are often considerably higher than what is achievable on the country side, this is of little value if the chances of acquiring such an employment are very slim (ibid, p. 347). However, and this is a key issue, if the urban wages are much higher than the rural income opportunities, then rural-to-urban migration is likely to occur despite the risk of unemployment, because the chance of receiving a well-paid job outweighs the risk of being unemployed for a while (ibid, p. 345-349). Therefore, because of the uneven income distribution, rural-to-urban migration and high unemployment rates may continue to occur in less developed countries (ibid, p. 349).

2.1.2.1 Criticism against the Harris-Todaro model(s)

In his article *Equilibrium and Historical-Structural Perspectives on Migration*, Charles H. Wood refers to a specific model as *The Equilibrium Model on Migration*. This model encompasses all those that mean that rural-to-urban migration will eventually reach some sort of equilibrium and cease to exist; and the Harris-Todaro model is one version of this¹ (Wood, 1982, p. 301).

Wood (1982, pp. 303-304) mean that the individual’s rational decision to migrate might in fact reinforce regional inequalities rather than combat them. Wood refers to Myrdal when he claims that surplus labor migration does not always adapt to the predicted states of equilibrium (ibid, p. 304). In fact, rural-to-urban migration might continue even if an economy has reached the

¹ Although Woods (1982) does not mention it, it is possible that the Lewis two-sector model qualifies for some of this critique since it is also a theory based on a future equilibrium.

equilibrium these models describe (ibid).

According to Wood, these equilibrium-based theories neglect to address another very important factor: namely, ethics. Since these theories assume that rural-to-urban migration eventually will regulate itself, this discourages state actions aimed to interfere with the migration (Wood, 1982, p. 304). Wood means that the lack of control might lead to the exploitation of job seekers (ibid).

Furthermore, Wood criticizes the notion that people migrate solely because of potential income gains (Wood, 1982, p. 304-305). He finds it unrealistic that the capitalist settings required for this kind of process exists in every single country, implying that there might be other underlying reasons behind rural-to-urban migration (ibid, p. 305). For example, Wood explains that the development process in itself is constructed in such a way that it might force people away from the country side (ibid, p. 306). As such, the decision to migrate may not depend solely on the individual's rational choice, but is rather a consequence of many socio-economic factors (ibid).

In sum, then, both theories are concerned with rural-to-urban migration based on economic incentives; whether actual or perceived. While the Lewis two-sector model might be a reflection of the European and North American industrialization process, the Harris-Todaro model(s) is thought to be better adapted to less developed countries. Yet both theories face critique, especially regarding the notion that rural-to-urban migration will eventually level out and come to a halt. Both theories were also developed some decades ago. In the following sections, I will discuss research and literature that points out how the urbanization of less developed regions, sub-Saharan Africa in particular, is very different from that of Europe and North America. Finally, I will present literature that concerns the current conditions of urbanization and urban areas in sub-Saharan Africa.

2.2 Urbanization in less developed countries

An issue with the aforementioned theories is, as indicated, that they are expressed in a general manner. Is it likely that all countries follow the same pattern of urbanization? Lewis two-sector model was criticized as being outdated with little validity for today's less developed countries. The intent of the Harris-Todaro model (and Todaro migration model) was to cover up for some of these flaws. Yet it has been argued that also this theory, as mentioned above, is too generalizing.

2.2.1 Different urbanization processes?

As discussed, it is doubtful whether industrialization process theories like Lewis two-sector model are applicable on less developed countries. Aside from occurring during different time eras, the urbanization of less developed countries compared to more developed countries might differ significantly.

In an article called *Urbanization in Developing Countries* (2002), Vernon Henderson points

out two factors that differ between the urbanization process of today's less developed countries and that of more developed countries during their industrialization period. Firstly, Henderson (2002, p. 89) states that in general, the more developed countries had a much easier time urbanizing than what the less developed countries now have. Secondly, the urbanization process of the more developed countries was stretched over a very long time period, which allowed these countries to simultaneously develop necessary institutions and market instruments (ibid, pp. 89-90). Henderson (ibid, p. 90) means that since less developed countries are urbanizing very rapidly in comparison, they do not have the time to develop and/or adjust to the institutions and instruments needed ensure decent living standards.

The above mentioned differences are also stressed by the UNFPA report *State of The World Population 2007- Unleashing the potential of urban growth* (p. 7, box 2). Additionally, it is pointed out that Europe during its time of industrialization experienced a great population outflow of migrants to North America; an occurrence not present among contemporary urbanizing countries (ibid). This did not only relieve European cities of pressure, but it also helped fuelling the North American industrialization (ibid).

In their article called *Third World Urbanization: Dimensions, Theories, and Determinants*, the two authors John D. Kasarda and Edward M. Crenshaw also underscores a number of factors differentiating the European and North American urbanization from that of today's less developed countries. Firstly, Kasarda and Crenshaw (1991, p. 468) state that already during the time of their industrialization, the more developed countries possessed a comparatively high degree of economic development and secure income gains. This factor enabled the more developed countries to deal with issues caused by rapid urbanization (ibid). Secondly, Kasarda and Crenshaw (1991, p. 468) state that the natural population increase (or "natural increase")² is much greater in today's urbanizing countries than that of the more developed countries when they went through the same process. Finally, Kasarda and Crenshaw (1991, p. 468) point out the difference in market accessibility. Countries industrializing and urbanizing in the 19th Century did not face many economic competitors but were able to profit relatively easily (ibid).

To summarize; there are a number of factors and conditions brought up in literature that stresses the differences between European and North American urbanization and contemporary urbanization in less developed countries. First, European and North American urbanization was a stretched out process, whereas less developed countries urbanize rapidly. Secondly, less developed countries have a high population increase, while Europe decreased its population size through migration during its industrialization era. Finally, it is argued that Europe and North America was rather well off economically compared to the rest of the world, contrary to less developed countries today.

As such, there are plenty of arguments for why comparing the industrialization period of the 19th Century and the urbanization of less developed countries today is not feasible. But the term "less developed countries" encompasses a large region of the world, where sub-Saharan Africa is only a

² The UNFPA defines "natural increase" as "The difference between the number of births and number of deaths in a given population." (State of the World Population, 2007, p. 6, box 1).

portion of it. In the following sections, I will present literature suggesting that we not only need to differ between Europe's/North America's urbanization and that of less developed countries, but also between less developed countries and its various regions, in specific, sub-Saharan Africa. Finally, I will discuss the settings of sub-Saharan Africa's urban areas today.

2.2.2 Urbanization and sub-Saharan Africa

2.2.2.1 *The consequences of colonialism*

In the work called *New Forms of Urbanization – Beyond the Urban-Rural Dichotomy* (edited by Tony Champion and Graeme Hugo), Philippe Bocquier argues that the colonization has had a significant impact on the urbanization of sub-Saharan Africa. Bocquier (2004, p. 134) states that pre-colonial sub-Saharan Africa had almost no urbanization whatsoever, rather, the population density was very low in order to supply communities with resources. However, during the colonization, urban centers were set up on strategic spots (for example, near coasts) in order to simplify the extraction and export of raw material (ibid). According to Bocquier (ibid), the beginning of the urbanization of sub-Saharan Africa had very little to do with industrialization since the urbanization was mainly aimed to provide the colonial powers with goods through export. Hence, Bocquier (ibid) stresses that, unlike for many other countries, sub-Saharan Africa urbanized due to external actions – rather than because of internal dynamics.

In the article *Economic and Demographic Interrelationships in sub-Saharan Africa* (1985), Ester Boserup elaborates on the pre-colonial state of Africa³. Boserup (1985, p. 384) means that because of Africa's initial low population density, migrant workers were needed in order to maintain the facilities and infrastructure brought by colonization. Certain locations became favored due to their proximity to raw material and export possibilities (ibid). Boserup (1985, p. 384) claims that these locations got increased population densities; mostly consisting of the migrant labor force but also because of indigenous farmers who used the infrastructure to export agricultural goods (ibid). Boserup (ibid) then states that this occurrence caused income inequality throughout Africa; the peasants residing near colonial communities had far better chances to develop beyond subsistence farming.

Also Boserup (1985, pp. 384-385) stresses that the urbanization of Africa started out during the colonial period – but *not* as a domestic mechanism. Unlike the case for other regions, urbanization was not brought about (nor did it bring about) industrialization (ibid, p. 385). According to Boserup, these patterns still remain (that is, around 1985 when the article was published) in terms of low industrialization, poor infrastructure and little access to the global market (ibid).

2.2.2.2 *Sub-Saharan Africa's urban areas today*

³ Although the article's heading includes the term *sub-Saharan Africa*, Boserup often refers to *Africa* only in the text, which is why the latter term is used here.

Today, sub-Saharan Africa's urban population growth constitutes the highest growth rates in the world (White et al, 2008, pp. 301-302). While other regions have dropped below 2% annual urban population growth, it is predicted that sub-Saharan Africa will maintain a 3% growth until year 2030 (ibid, p. 302). Put in numbers, Africa's urban population is expected to increase by almost 450 million people between year 2000 and 2030 (State of the World Population, 2007, p. 8). This is interesting since sub-Saharan Africa is often considered to be the least urbanized region in the world (White et al, 2008, p. 301).

While urbanization and industrialization went hand in hand with economic growth and societal development for the more developed countries, it is doubtful whether this is true also for sub-Saharan Africa (White et al, 2008, p. 307). Estimations reveal that around 70% of the urban dwellers in sub-Saharan Africa in fact reside in slums⁴ (ibid). The urban population growth rate almost equals the slum population growth rate, meaning that a large portion of the urban population expansion occurs in slum areas (Todaro and Smith, 2009, p. 326, box 7.6; State of the World Population, 2007, p. 16). For sub-Saharan Africa, urban population growth is rather associated with urban poverty, and several health-indicating factors (such as child mortality) have deteriorated in urban areas (White et al, 2008, pp. 307-308).

This is a serious issue; even though the physical proximity to facilities such as pharmacies and hospitals may have increased, there are still socio-economic barriers to bypass (White et al, 2008, p. 308). A report issued in 2009 by the organization Population Reference Bureau describes the conditions in the slum areas of Nairobi. The report claims that mortality rates in slum areas are higher than in any other part of the country; partly because of how easily diseases transmit but also because of the difficulty for a slum dweller to gain access to healthcare (Montgomery, 2009, p. 7). The conclusion that some aspects of urban residence resemble that of rural residence is drawn in *State of the World Population 2007*. Poor urban women are, for example, less likely to use contraceptives than wealthier urban women (State of the World Population, 2007, p. 22).

Rural-to-urban migration and urban population increase is, on the whole, a rather complicated subject to define regarding sub-Saharan Africa. Seasonal migrations are not uncommon, and in some cases, people might be "forced" to migrate because of issues such as drought and famines (White et al, 2008, p. 310, 302). Economically, rural and urban settlements are often interlinked due to remittances being sent from family members engaged in waged labor to family members remaining on the country side (ibid, p. 310). But, White (et al, 2008, p. 302) suggests that rural-to-urban migration might not even be the general cause of urban population growth. Instead, natural increase appears to be the main driving force behind expanding cities in sub-Saharan Africa (ibid).

⁴ The UNFPA refers to UN-HABITAT when it defines the term "slum household": "...a group of individuals living under the same roof in an urban area who lack one or more of the following: durable housing, sufficient living area, access to improved water, access to sanitation and secure tenure." (State of the World Population, 2007, p. 16, box 4).

2.2.3 Where does this leave us?

Urbanization and urban population growth are two huge and interlinked processes that have puzzled researchers for decades. Now, the region of sub-Saharan Africa is predicted to experience rapid urban population growth, yet theory and previous research is inconsistent about the dynamics thereof. How can we explain urban population growth in this region; what are the mechanisms and what will be the outcome?

While Lewis and Harris-Todaro offer rational explanations behind rural-to-urban migration, it is not without critique. Furthermore, it is questioned whether rural-to-urban migration is at all very significant for contemporary urban population growth; as suggested by White (et al, 2008, p. 302), population increase might be the major driving force. Even though theory suggests that urbanization has brought about economic development historically, some researchers worry that this might not be the case for sub-Saharan Africa, and that it affects socio-economic development negatively.

In my study I will try to create an understanding of how this all fits together in sub-Saharan Africa; what drives urban population growth and how does it appear in urban settings?

3. Methodology

This chapter will be dedicated to the methodology used in this thesis. I will start out by presenting the method and how it will help me answer the research questions, and then go on to describe how the method is implemented in this study in a detailed fashion.

3.1 Structured, focused comparison

The method through which data will be processed is called *structured, focused comparison*. This method is described by Alexander George and Andrew Bennett in *Case Studies and Theory Development in the Social Sciences* (2005). The core of the structured, focused comparison method is to allow for fair comparison between *cases* in order to be able to theorize a particular phenomenon (George and Bennett, 2005, p. 67).

The research objective and research questions in this study are outlined in such a way that comparison between cases is necessary; for the first research question, to find out about the urban population distribution, it is necessary to compare different countries to each other.

The second research question, the evaluation of socio-economic standard from an urban perspective; also requires comparison. Because the research objective regards an entire region (sub-Saharan Africa) and plenty of factors (urban population growth, urbanization, socio-economic standard) I find it desirable to approach this matter from a very structured point of departure in order to detect potential correlations, or lack thereof, that will help answer the research questions.

The third research question, concerning mechanisms- and the degree of generalization of mechanisms of urbanization and urban population growth, depends on the results from the foregoing questions. In terms of the structured, focused comparison method, this research question touches upon the theory-oriented aspect of the method. The results from the previous questions will be concluded and theorized in a way as to answer the third research question. Therefore, the third research question relies on the foregoing two being answered systematically.

George and Bennett (2005, p. 67) explain how the structured, focused comparison method was originally designed to evaluate foreign policy issues. To conduct individual case studies was popular in the mid-20th Century, but soon enough scientists realized that individual case studies were not optimal for comparison (ibid, p. 68). From this, George and Bennett offer a couple of criteria that case studies should include in order to enable fair comparison between cases (although also relevant for single case studies); which then, is the core of the structured, focused comparison method.

George and Bennett (2005, p. 73) explain that in designing theory-oriented case studies, five crucial steps are necessary to complete. First, the researcher must formulate a clear *research objective* (ibid, p. 74). Then, the researcher must decide upon a *research strategy* which involves selecting dependent and independent variables (ibid, p. 79). The third step, George and Bennett (ibid, p. 83) state, is the selection of *cases*, which should be done carefully in accordance to the research

objective. Fourthly, the researcher must decide upon how to describe *variance* in the measured variables; by, for example, deciding how the particular variable should be divided or categorized in a way that can indicate variance (ibid, pp. 84-85). The final step, according to George and Bennett (ibid, p. 86) is to formulate *questions* to be asked to all of the cases. It is very important to be systematic; the same questions must be given to all cases in order to allow for comparison (ibid).

3.1.1 The research objective

The first criterion mentioned is the formulation of a clear research objective. George and Bennett (2005, p. 74) state that there are essentially 6 types of research objectives suited for theory-oriented case studies, and hence, the structured focused comparison method. The research objective of this thesis is what George and Bennett call a *heuristic case study*. George and Bennett (2005, p. 75) explain that heuristic case studies seek to "... inductively identify new variables, hypotheses, casual mechanics, and casual paths". Heuristic case studies are also suited for studying "'Deviant' or 'outlier' cases" (George and Bennett, 2005, p. 75). Because the research problem involves many uncertainties and the overall goal is to try to understand the mechanisms of urban population growth and urbanization, a heuristic approach seems appropriate. Urban population growth and urbanization are two complicated, interlinked, historical and also contemporary processes. There is dissonance in previous literature regarding urbanization and urban population growth. Hence, it is not crystal clear of what to look for when trying to understand these matters. In order to try to untangle some of these uncertainties, I need to approach data in an inductive way.

Based on this, my study will be qualitative. In *Research Design – Qualitative, Quantitative, and Mixed Methods Approaches* John W. Creswell (2009, p. 4) explains how qualitative studies is a way to try to understand and find meaning to complex matters. Creswell (2009, p. 4) also states that qualitative studies are in close connection to an inductive approach. I believe that this approach is the best suited for the purpose of this thesis; to try to understand the mechanisms of urbanization and urban population growth in sub-Saharan Africa.

3.1.2 The research strategy

The basis of the research strategy is to outline parameters and variables and determine what variable will serve as the dependent (George and Bennett, 2005, p. 79).

This study will use statistics the main source of data. I will assess plenty of variables in order to try to understand the mechanisms of urbanization and urban population growth. Handling plenty of data for plenty of cases can easily get overwhelming, but using the structured, focused comparison method then allows me to assemble the statistics in a concise way and to enable comparison between cases.

With this, I hope to gain as much insight as possible on the various mechanisms that are related to urbanization. By utilizing statistics, I hope to detect correlations (or lack thereof), but also

to strengthen or weaken them. Finally, the comparatively easy acquisition of statistical data enables me to process plenty of data during a short time period.

In order to maintain a high level of legitimacy and consistency, I have decided to acquire most of my data from the same source. This is to allow for greater options of comparing countries and statistics since as comparing between several sources could be difficult; given different methods and definitions. As such, the definitions of used variables are the definitions of the original source (for definition of variables: see Appendix I).

The major part of the data used in this thesis has been obtained from the databank issued by the World Bank (World Bank 2012a). The databank itself contains several databases. The database used in this thesis is called *World Development Indicators & Global Development Finance (WDI & GDF)*. All the variables are also available at the World Bank's webpage, but the databank allows for convenient usage and transfer of the data. The only other source of data is the United Nations Development Program (UNDP) from which I will gather the Human Development Index (HDI).

3.1.3 The cases

The selection of cases is very important and must be done in accordance to the research objective and the research strategy (George and Bennett, 2005, p. 83). The different cases must not be randomly chosen, but they have to be somehow connected to each other so that comparisons can be made (ibid).

First of all, this thesis concerns the region of sub-Saharan Africa. I have chosen to use a definition of sub-Saharan Africa issued by the United Nations Statistics Division (UNSD). The definition is as follows: "...the designation sub-Saharan Africa is commonly used to indicate all of Africa except northern Africa, with the Sudan included in sub-Saharan Africa." (UNSD, 2010). However, a couple of countries and entities have been excluded in order to attain as valid results as possible (see Appendix I for a thorough discussion about the definition of sub-Saharan Africa as well as motivation for excluded countries). The final definition of the region in this thesis encompasses 42 countries⁵.

Secondly, in order to address the research problem and answer the research questions, I will select a number of countries that will be used as a tool to manage data; focus countries. Because the intent of this study is to try to understand mechanisms of urban population growth and urbanization, the focus countries will be selected based on their respective urban population extent; some countries with a high extent of urban population, and some with a low. This, I hope, will yield some insight of the mechanisms of urban population growth, as the highly urbanized countries might have some properties that the rural lack, or vice versa. I will select these countries by ranking the variable *urban*

⁵ In this thesis, sub-Saharan Africa encompasses the following countries: *Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Togo, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.*

population (% of total)^{6,7}, for year 2009, from highest to lowest, and then split the table into five quintiles. Since the number of cases is 42, four quintiles will contain eight cases each, and one quintile will contain ten. The quintile with the additional number of cases will be the third quintile, that is, the middle one. This is to allow for flexibility, as will be discussed in the following section. The first quintile; the countries with the highest percentage of urban population, will become focus countries. The countries in the last quintile will also become focus countries. As such, the focus countries will constitute those with the highest- and the lowest percentage of urban population in sub-Saharan Africa.

A third, smaller, focus group of countries will also be determined; a control group. This group will consist of the middle countries in the table of urban population (% of total) mentioned above. These countries will then be located in quintile 3, but since it would be too large of a project to evaluate this entire quintile, I will select the four countries right in the middle.

Hence, the focus groups will consist of the countries with the highest percentage of urban population, the countries with the lowest, and the control group will consist of the countries with the median values. The purpose of this control group is to act as another element of determination wherever uncertainty can be found.

The focus countries will serve as a tool to answering the research questions. In selecting these two groups of countries, I hope to discover clues and patterns that can reveal the mechanisms of urbanization, urban population growth, and the consequences thereof. The focus groups will also be evaluated internally, that is, to find out if the countries of a given focus group are acting in coherence to each other. The reason for selecting focus countries based on data of year 2009 is because I want to compare countries that, currently, have a comparatively high extent of urban population to those with a low extent.

The focus countries with the highest percentage of urban population in 2009 will be referred to as the *urban focus countries*. Respectively, the countries with the lowest percentage of urban population are hence referred to as the *rural focus countries* (since little urban population equals a large rural population). Together, the two groups will be referred to as the *focus groups* or simply the *focus countries*. This is purely a method to avoid confusion later on when going through and analyzing the collected data, thus these labels should be viewed merely as a simplification without any attached values. The control group will be referred to as the *control countries* or simply the *control group*.

⁶ See: Appendix I for a complete definition of the variable.

⁷ The reason for choosing to use urban population (% of total) as a core proxy is very specific. One could argue that a more sensible variable to use would be one yielding actual numbers rather than percentages. However, the intent is to evaluate the mechanisms and consequences of urban population growth, and as such it is desirable to look at countries that have an intentional (or unintentional) concentration of urbanization. If I had instead used a variable presenting actual numbers then countries with massive populations would almost certainly have been regarded as those with the highest urban population even though their rural population might have been proportionally larger, simply because of the large population. In that case, conclusions could end up being misleading and inaccurate because results from tests based on these countries might stem from the rural situation rather than the urban.

3.1.4 Describing the variance

The fourth step in the procedure regards the researcher's approach towards variance in data; that is, how to categorize data in order to draw the correct conclusions (George and Bennett, 2005, pp. 84-85).

The strategy of this research is to evaluate plenty of variables, for given years, and compare the score of the different countries in order to get a deeper understanding of the mechanisms of urbanization and urban population growth. Similar to the way of the selection of the focus countries, variables/proxies used in this study will be ranked from the highest figure to the lowest, and then split into quintiles. I will then mark the focus countries and the control countries in order to establish their rank (in what quintile) for each of the variables. Doing this, I hope to detect patterns, or lack thereof, which can then explain how urbanization and urban population growth works. I will evaluate the result of each variable, and in the end, I will allocate all the answers for the focus countries into a table where the variable, the specific countries, and their quintile location will be presented. This table will yield a compressed outline of the result from the various variables, and it will be suitable for comparisons between and within the focus groups (see: Table 3.2).

In case that one (or more) countries lack data for a given variable; the country in question will be marked with "n/a" in order to acknowledge this. The missing entry will be made up by reducing the number of entries in quintile three (the middle quintile); hence why this quintile contains ten cases instead of 8 to begin with. For example, let us say that for a given factor, data for three countries is missing. Then quintile one, two, four and five will contain 8 cases each. Quintile three, however, will contain 7 cases.

These tables will serve the purpose of detecting correlations or lack thereof and to explore the constitution of different variables for the different countries. Based on the result of these tables, I will add two other means of processing data in order to increase the understanding of the matter. In connection to the tables, I will also create historical time lines of given data. This will allow me to see the growth/decline process of a certain proxy as well as compare it to other proxies and countries.

I will also perform correlation analyses. Data will be processed in the software program Statistics Package for the Social Sciences (SPSS). The tool will be the so called coefficient of determination, r^2 (see: Appendix I, section I.2.3 for a definition of the coefficient of determination). If any perceived correlation (or lack thereof) is doubtful or comes across as odd, I will run correlation analyses in order to evaluate the correlation further. As such, these analyses will be a complement to the results of the various aforementioned tables. I hope that by running correlation analyses I can increase the understanding of a particular phenomenon detected in the tables.

Correlation analyses are generally more plausible and trustworthy the more cases are used. Therefore, all countries of sub-Saharan Africa will be represented and not just the focus countries. This is also a way of including these other countries and taking them into account in the analysis, since after all, the purpose of this study concerns the entire region.

Chapter 4 will present the findings of the tables split in quintiles and the time line charts, and the correlation analyses will be brought up in chapter 5, along with the analyses of the findings.

3.1.5 The questions

The final step concerns the data specification, and how it is applied to the different cases (George and Bennett, 2005, p. 86). Basically, the data should take the form of questions then asked to all the cases in order to systematically generate answers be carefully selected in accordance to the previous steps and motivated with the research objective in mind (ibid).

In my study, plenty of variables from the WDI & GDF and the UNDP will be used and “asked” to all of the focus countries and the control group. This will, as stated above, take the form of ranked tables split in quintiles in order to create a comparable system. The proxies (or, the

Table 3.1 The proxies of this study

Age dependency ratio (% of working age population)
Arable land (% of land area)
Gross Domestic Product growth (annual %)
GDP/capita, ppp, constant 2005 international \$
Health expenditure/capita, ppp, constant 2005 international \$
Human Development Index
Labor participation rate (% of total population ages 15+)
Land area (square km)
Life expectancy (at birth, in years)
Mortality rate (under 5 years, per 1000)
Population growth (annual %)
Population in the largest city (% of urban population)
Prevalence of HIV (% of population, ages 15-49)
Rural population growth (annual %)
Total fertility rate (births per woman)
Total population
Urban population (% of total)
Urban population growth (annual %)

“questions”) are presented in table 3.1. Several variables are connected to demographics, and they will be used to try to evaluate the urban population distributions, the mechanisms and the level of generalization. Other variables were selected because they have the potential to reveal socio-economic status. However, the coverage of socio-economic variables is fairly scarce, which is why factors such as inequality indexes and poverty headcounts are not included. The variables were not selected at random, but through consideration of what they might yield. For a full motivation of each variable as well as their respective definitions, see Appendix I section I.2.1 and I.2.2. The variables

will be evaluated for year 2009, and in order to gain a historical perspective, some variables will also be evaluated from earlier time periods. Table 3.2 below shows how the data gathered from quintile positioning will be assembled in a structured way that allows for comparison between the cases. These tables will essentially present and summarize the result of the tables discussed in section 3.1.4. There will be two versions of this table; both presented in the following chapter.

First, the quintile positioning of every country for every variable will be plotted onto the table, with the intent to detect internal coherence or differences. Three tables of this kind will be made; one for the urban focus countries, one for the rural- and one for the control group. Then, I will make a table presenting the *average* quintile positioning for the urban focus countries, the rural- and the control group. This table will help discovering differences between the focus groups.

Table 3.2 Example of tables

	Case 1	Case 2	Case 3
Age dependency ratio 2009			
Arable land (%) 1961			
Arable land (%) 2009			
GDP growth (%) 2009			
GDP/cap ppp, const. 2005 int. \$ 1989			
GDP/cap ppp, const. 2005 int. \$ 2009			
Health expenditure/cap 2009			
Human Development Index 2009			
Labor participation rate 2009			
Land area (square km) 2009			
Life expectancy 1960			
Life expectancy 2009			
Mortality rate (< 5 years) 2009			
Pop. growth (annual %) 1960			
Pop. growth (annual %) 1985			
Pop. growth (annual %) 2009			
Pop. in the largest city 2009			
Prevalence of HIV 2009			
Rural population growth 1960			
Rural population growth 2009			
Total fertility rate 1960			
Total fertility rate 2009			
Total population 1960			
Total population 2009			
Urban population (% of tot) 1960			
Urban population growth 1960			
Urban population growth 2009			

3.1.6 The consequences of using the structured, focused comparison method

The bottom line of structured, focused comparison is to enable comparison between cases, but there are limitations to what the method can yield. Firstly, I will only be able to evaluate the cases I have chosen to focus upon, since they have been selected carefully to fulfill the purposes of the thesis. This means that cases outside of this boundary (such as other countries or regions) are not accounted for. Secondly, the proxies (or “questions”) have been selected keeping in mind that they must be answered by all of the cases and formulated in a comparable fashion. Due to this, the study will only encompass variables matching these criteria.

As for the sources and the statistical data acquisition, The World Bank states that although all data is scrutinized, much of it is acquired from national offices (World Bank 2012b). This means that data acquisition might differ between countries, depending on methodology et cetera. However, regarding the database WDI & GDF, the World Bank focuses on ensuring that the data is consistent and based on similar methodological measures (World Bank, 2012c).

4. Findings

In this chapter, the data and findings obtained from my research will be revealed. Following the method discussed in Chapter 3, I will present the result in sections. Firstly, I will present the results of the various tables split in quintiles for the focus countries and the control group. This will reveal patterns or lack thereof within the groups, mainly. Then, I will compare the two focus groups and the control group to each other, in order to reveal potential differences. Lastly, I will go through a number of time line charts.

4.1 The focus countries and the control countries

I used the method of assorting countries into quintiles in order to establish what sub-Saharan African countries have the highest and the lowest degree of urban population in relation to total population, respectively. As outlined in Chapter 3, all sub-Saharan African countries were ranked according to percentage of urban population and then divided into quintiles (see: Appendix II, table II.1). As such, given that the two extreme quintiles contain eight countries each, I was left with 16 focus countries that will be used to evaluate the state of urban population and urbanization in sub-Saharan Africa. The countries are presented in Table 4.1.

Between the focus countries, the difference in degree of urban population is huge. This is better illustrated in Figure 4.1. There is noticeable difference even within the two focus groups. Gabon has a much higher degree of urban population than the other countries in the urban focus group. Similarly, the urban population percentage of Eritrea is almost double the amount of Burundi. In other words, there is inconsistency within the two selected groups.

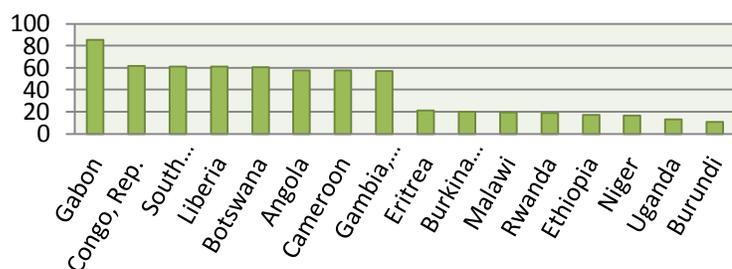
The control countries were extracted in a similar way, although instead of the two extreme quintiles,

Table 4.1 Urban population, % of total, year 2009: the urban- and rural focus countries

Urban focus c.	(%)2009	Rural focus c.	(%)2009
Gabon	85.52	Eritrea	21.16
Congo, Rep.	61.72	Burkina Faso	19.98
South Africa	61.22	Malawi	19.3
Liberia	60.82	Rwanda	18.62
Botswana	60.34	Ethiopia	17.3
Angola	57.6	Niger	16.62
Cameroon	57.58	Uganda	13.14
Gambia, The	57.26	Burundi	10.7

Source: WDI & GDF

Figure 4.1 Urban population, % of total, year 2009



Source: WDI & GDF

these countries are the four countries in the middle of the table (see Appendix II: table II.1). These countries are presented in Table 4.2. The countries in the control group have very similar degrees of urban population; with a maximum difference of less than 1%.

Table 4.2 The control countries

Urban population (% of total)	2009
Zimbabwe	37.82
Mozambique	37.62
Namibia	37.42
Somalia	36.96

Source: WDI & GDF

4.1.1 The geographical location

In order to get an idea of the geographical location, I added a map of the continent Africa and colored the 16 focus countries and the control group; Figure 4.2. Although the two focus groups are not visually clustered to a certain point of the map, they are not entirely mixed up geographically either. Several of the urban focus countries are aligned along the south western coast, and all of them but Botswana have access to the coast. The rural focus countries are more scattered, but mainly

Figure 4.2 The geographical location of the focus countries



Light gray: The urban focus countries.

Gray: The rural focus countries.

Dark gray: The control countries.

Thick black line = The area below the line constitutes sub-Saharan Africa according to the original UNSD definition.

(note: Because of difficulties to find a clear map, South Sudan is unfortunately not included here).

located in central- and northern sub-Saharan Africa. All of them except for Eritrea are landlocked. Three of the control countries are located in the most southern part of Africa; Namibia, Zimbabwe and Mozambique. Somalia is located on the horn of Africa. Three countries have a shoreline, while Zimbabwe is landlocked.

4.2 Evaluation of tables split in quintiles

In this section and the following, I will present the content and result of the variables I have ranked and split in quintiles. By examining several factors of the two focus groups and the control countries, I hoped to, firstly, discover whether they are internally coherent to each other regarding variables other than urban population extent. If so, this could potentially reveal something about the mechanisms of urbanization and urban population growth. Secondly, I wanted to find out whether there are any differences between the focus groups in certain factors. This could help establish whether urbanized countries can be said to have special properties that rural countries do not, and vice versa.

I will present the quintile location of the 16 focus countries and the control group and discuss any detectable patterns or lack thereof. I will present the findings in a concise way, including tables and descriptions of the observations. The tables contain the quintile positioning of every country for every tested variable. Appendix II contains all of the original tables split into quintiles and there, the focus countries and the control group are marked in distinct colors in order to reveal their position.

In Appendix III, I discuss the result of each variable much more detailed than here; and there I also bring up findings regarding *actual* values and not only the quintile positioning. This is significant because even though some countries might be located within the same quintile, the actual value of the variable might differ greatly.

When reading these tables, it is extremely important to keep in mind that the variables, and hence quintile positions, are always ranked from **highest** to **lowest**, *regardless of variable*. I will refer to the quintiles as quintile 1, 2, 3, 4 and 5. The figure “1” represents the top quintile; i.e. the highest value of that particular proxy. It may appear misleading as receiving a “1” in the variable of HDI brings about a positive connotation, whereas a “1” in Prevalence of HIV brings about a negative connotation. However, rearranging the variables according to the implicit value in socio-economic standard would have caused confusion and unintended judgment, which is not compliant with the purposes of this study. It would be difficult to, for example, motivate whether high population growth should be considered positive or negative.

Age dependency ratio (% of working age population), 2009: There is no apparent coherence within either of the focus groups, because they are distributed among all the quintiles.

Table 4.3 Quintile positioning of the urban focus countries

<i>Quintile positioning of⁸</i>	Table⁹	Angola	Botswana	Cameroon	Congo	Gabon	Gambia	Liberia	South Africa
Age dependency ratio 2009	II.27	1	5	4	4	5	2	3	5
Arable land (%) 1961	II.20	5	5	2	5	5	2	4	2
Arable land (%) 2009	II.19	4	5	2	5	5	1	4	2
GDP growth (%) 2009	II.16	4	5	4	1	5	1	2	5
GDP/cap, PPP, const. 2005 int. \$ 1989	II.18	1	1	2	1	1	3	3	1
GDP/cap, PPP, const. 2005 int. \$ 2009	II.19	1	1	2	1	1	3	5	1
Health expenditure/capita 2009	II.25	1	1	2	2	1	3	4	1
Human Development Index 2009	II.15	2	1	2	1	1	3	5	1
Labor participation rate 2009	II.24	2	2	4	3	3	2	3	5
Land area (square km) 2009	II.7	1	3	3	3	3	5	4	1
Life expectancy 1960	II.22	5	1	3	1	3	5	4	1
Life expectancy 2009	II.21	4	3	4	2	1	2	2	3
Mortality rate (< 5 years) 2009	II.23	1	5	2	4	5	3	3	5
Pop. growth (annual %) 1960	II.10	4	3	4	2	5	1	3	3
Pop. growth (annual %) 1985	II.9	2	2	3	3	3	1	5	4
Pop. growth (annual %) 2009	II.8	2	5	4	3	5	2	1	5
Pop. in the largest city 2009	II.28	2	5	5	1	2	2	3	5
Prevalence of HIV 2009	II.26	3	1	2	3	2	4	4	1
Rural population growth 1960	II.14	4	2	4	4	5	1	4	4
Rural population growth 2009	II.13	4	5	5	3	5	4	1	5
Total fertility rate 1960	II.12	1	3	5	5	5	5	3	3
Total fertility rate 2009	II.11	2	5	4	3	5	3	2	5
Total population 1960	II.6	2	5	2	4	5	5	4	1
Total population 2009	II.5	2	5	2	4	5	5	4	1
Urban population (% of tot) 1960	II.2	3	5	2	1	2	3	1	1
Urban population growth 1960	II.4	4	5	2	4	4	4	3	5
Urban population growth 2009	II.3	2	5	3	4	5	2	1	5

⁸ Concerning all of the quintile positioning tables: The variables have been somewhat abbreviated for layout reasons.

⁹ Concerning all of the quintile positioning tables: The tables referred to are found in Appendix II.

Table 4.4 Quintile positioning of the rural focus countries

<i>Quintile positioning of</i>	Table	Burkina Faso	Burundi	Eritrea	Ethiopia	Malawi	Niger	Rwanda	Uganda
Age dependency ratio 2009	II.27	2	5	4	3	1	1	3	1
Arable land (%) 1961	II.20	3	1	n/a	n/a	2	2	1	1
Arable land (%) 2009	II.19	2	1	4	2	1	3	1	1
GDP growth(%) 2009	II.16	3	3	2	1	1	5	2	1
GDP/cap, PPP, const. 2005 int. \$ 1989	II.18	4	5	n/a	5	5	4	4	5
GDP/cap, PPP, const. 2005 int. \$ 2009	II.19	3	5	5	4	5	5	4	3
Health expenditure/capita 2009	II.25	3	4	5	5	4	5	3	2
Human Development Index 2009	II.15	5	5	n/a	4	4	5	3	3
Labor participation rate 2009	II.24	1	1	3	1	2	5	1	1
Land area (square km) 2009	II.7	3	5	4	2	4	1	5	4
Life expectancy 1960	II.22	4	3	3	4	4	4	2	2
Life expectancy 2009	II.21	3	4	1	2	3	3	3	3
Mortality rate (<5 years) 2009	II.23	1	2	5	3	3	2	4	3
Pop. growth (annual %) 1960	II.10	5	4	2	3	3	2	1	1
Pop. growth (annual %) 1985	II.9	4	2	4	2	1	3	1	2
Pop. growth (annual %) 2009	II.8	1	2	1	4	1	1	1	1
Pop. in the largest city 2009	II.28	1	1	1	5	4	3	2	3
Prevalence of HIV 2009	II.26	4	3	5	n/a	2	5	3	2
Rural population growth 1960	II.14	4	3	2	3	2	1	1	1
Rural population growth 2009	II.13	1	1	2	3	1	1	1	1
Total fertility rate 1960	II.12	4	2	2	2	2	1	1	2
Total fertility rate 2009	II.11	2	4	4	4	1	1	2	1
Total population 1960	II.6	2	3	4	1	3	3	3	2
Total population 2009	II.5	2	4	4	1	3	2	3	1
Urban population (% of tot) 1960	II.2	4	5	3	4	5	4	5	5
Urban population growth 1960	II.4	5	5	3	3	4	4	3	1
Urban population growth 2009	II.3	1	1	1	3	1	3	2	2

Table 4.5 Quintile positioning of the control countries

<i>Quintile positioning for</i>	Table	Mozambique	Namibia	Somalia	Zimbabwe
Age dependency ratio 2009	II.27	2	5	2	4
Arable land (%) 1961	II.20	4	5	5	3
Arable land (%) 2009	II.19	4	5	5	3
GDP growth (%) 2009	II.16	1	3	n/a	2
GDP/cap, PPP, const. 2005 int. \$ 1989	II.18	5	1	n/a	n/a
GDP/cap, PPP, const. 2005 int. \$ 2009	II.19	4	1	n/a	n/a
Health expenditure/capita 2009	II.25	4	1	n/a	n/a
Human Development Index 2009	II.15	5	1	n/a	4
Labor participation rate 2009	II.24	1	5	4	4
Land area (square km) 2009	II.7	2	2	2	3
Life expectancy 1960	II.22	5	1	4	1
Life expectancy 2009	II.21	4	1	4	5
Mortality rate (< 5 years) 2009	II.23	2	5	1	4
Pop. growth (annual %) 1960	II.10	4	3	3	1
Pop. growth (annual %) 1985	II.9	5	2	5	1
Pop. growth (annual %) 2009	II.8	3	4	4	5
Pop. in the largest city 2009	II.28	5	2	3	3
Prevalence of HIV 2009	II.26	1	1	5	1
Rural population growth 1960	II.14	3	3	3	1
Rural population growth 2009	II.13	4	4	3	5
Total fertility rate 1960	II.12	4	3	1	1
Total fertility rate 2009	II.11	3	5	1	5
Total population 1960	II.6	1	5	3	2
Total population 2009	II.5	2	5	3	3
Urban population (% of tot) 1960	II.2	5	2	2	3
Urban population growth 1960	II.4	2	3	3	3
Urban population growth 2009	II.3	2	4	4	5

Arable land (% of land area): For **1961**, setting aside the internal differences of the groups, we see that there is some difference between the rural- and the urban focus countries. The rural focus countries appeared to have a larger amount of arable land year 1961.

For **2009**, there are internal differences within the focus groups, but there is a tendency for the rural focus countries to have a, generally, greater total of arable land, both in 1961 and in 2009.

GDP growth (annual %), 2009: In actual numbers, the differences between the countries (of both focus groups) are great. Some countries grow by a couple of percent while some have negative growth. Yet many of the rural focus countries have higher GDP growth than some of the urban-.

Gross Domestic Product (GDP), PPP (constant 2005 international \$): For **1989**, we see that the urban focus countries are dominating GDP/capita while the rural focus countries are far behind.

For **2009**, even though the rural focus countries on average seem to have caught up a little with the urban-, the urban focus countries are still excelling at GDP/capita.

Health expenditure/capita, PPP (constant 2005 international \$), 2009: On the whole, health expenditure/capita seems closely connected to GDP/capita as the quintile positioning of the countries is very similar. The urban focus countries excel at this proxy.

Human Development Index, 2009: Even though the urban focus countries seem to dominate also this variable, there are internal differences. Same goes for the control group. The rural focus countries are also dispersed but mainly located on the bottom half of the table.

Labor participation rate, total (% of total population ages 15+), 2009: It seems as if the rural focus countries have greater similarity between each other than the urban-, regarding this proxy. The rural focus countries are also the dominating ones.

Land area, km², 2009: The focus countries are scattered throughout the quintiles and there is no visible connection between urban population extent and land area. However, the differences in actual land area are massive between all of the countries.

Life expectancy, at birth (in years): For **1960**, some of the urban focus countries (and two of the control countries) have much higher life expectancy than the rest. The rural focus countries appear all over the table but mostly on the bottom half. Yet, it is difficult to see any patterns because most of the countries are very scattered.

In **2009**, the life expectancy for the focus countries appears very random, and there seems to be no difference (at least not much) between the focus groups. Hence, there is little coherence.

Mortality rate, under-5 (per 1000 live births), 2009: Both the rural- and the urban focus countries are present in all quintiles, quite evenly distributed. Also the control countries are all in separate quintiles. As such, there is no apparent correlation at this point.

Population growth (annual %): In **1960**, all of the focus countries were located in all quintiles, and it is difficult to see any kind of pattern.

In **1985**, it seems as if the rural focus countries, generally, have higher population growth. However, the internal differences are great; while some rural focus countries had comparatively high population growth, some had comparatively low.

In **2009**, the rural focus countries are without a doubt dominating population growth. Meanwhile, the urban focus countries are distributed between all quintiles. Seemingly, there is a connection only applicable for the rural focus countries.

Population in the largest city (% of urban population), 2009: There is no obvious allocation of either of the focus groups, but three of the urban focus countries are in the fifth quintile, but only one of the rural. Overall, the countries are fairly scattered.

Prevalence of HIV, total (% of population ages 15-49), 2009: Quintile-wise, there is no obvious pattern for the focus groups. The control group, however, has three out of four countries represented in the 1st quintile. Nevertheless, the differences in actual numbers are huge, and Botswana and South Africa has by far the highest HIV prevalence out of the focus countries.

Rural population growth (annual %): In 1960, the rural focus countries appear to have, generally, higher growth rates. The rural focus countries are gathered on the top half of the table, while plenty of the urban focus countries are located in the fourth quintile.

In 2009, the rural focus countries are beyond doubt excelling at rural population growth. The urban focus countries are gathered around the bottom of the table.

Total fertility rate (births per woman): In 1960, the rural focus countries seem to have higher fertility rate than the urban-. Most of the rural focus countries are located within quintile 1 and 2, while the urban focus countries are more dispersed.

In 2009, there is not as strong of a connection, but the rural focus countries still seem to, typically, have higher fertility rates. That being said, the countries differ greatly between each other, in all groups.

Total population: In 1960, the different population sizes vary greatly in actual numbers. However, there are five urban focus countries that have smaller population sizes than all of the rural focus countries and three of the control countries.

In 2009, the quintile positioning looks pretty much the same; while five of the urban focus countries have comparatively small population sizes, the rural focus countries seem very scattered.

Urban population (% of total), 1960: While the urban focus countries seem quite dispersed, the rural focus countries are typically located within the bottom two quintiles. The control countries are also scattered.

Urban population growth (annual %): In 1960, there is no detectable pattern for either of the focus groups. Most of the rural-, as well as the urban focus countries are allocated in the bottom three quintiles.

In 2009, many of the rural focus countries have comparatively high urban population growth. Meanwhile, the urban focus countries and the control countries are rather scattered.

4.3 Comparing the focus countries and the control group

This section will put the focus countries and the control group against each other by comparing *average quintile positioning*. The average quintile positioning for the focus groups and the control group do in some cases suggest structures and patterns that are too prominent to be negligible. However, this type of average comparison may not be an ideal indicator due to the low number of cases, and as has been discussed in previous sections, internal differences. Nevertheless, a structured,

focused comparison of this type can serve as a tool to discover congruence, or lack thereof.

On the whole, scores on the variables are fairly even with only marginal differences. It is extremely difficult to tell whether these marginal differences are significant, keeping in mind lack of data for certain countries and the possible differentiation in data acquisition. On the other hand, merely *marginal* differences are in themselves interesting, since minor differences might indicate a lack of correlation to urbanization.

Table 4.6 Average quintile positioning for the focus countries and the control group

<i>Average quintiles of</i>	Table	Urban focus g.	Rural focus g.	Control group
Age dependency ratio 2009	II.27	3.625	2.5	3.25
Arable land (%) 1961	II.20	3.75	1.669** ¹⁰	4.25
Arable land (%) 2009	II.19	3.5	1.875	4.25
GDP growth (%) 2009	II.16	3.375	2.25	2*
GDP/cap PPP, const. 2005 int. \$ 1989	II.18	1.625	4.571*	3**
GDP/cap PPP, const. 2005 int. \$ 2009	II.19	1.875	4.25	2.5**
Health expenditure/cap 2009	II.25	1.875	3.875	2.5**
Human Development Index 2009	II.15	2	4.143*	3.333*
Labor participation rate 2009	II.24	3	1.875	3.5
Land area (square km) 2009	II.7	2.875	3.5	2.25
Life expectancy 1960	II.22	2.875	3.25	2.75
Life expectancy 2009	II.21	2.625	2.75	3.5
Mortality rate (< 5 years) 2009	II.23	3.5	2.875	3
Pop. growth (annual %) 1960	II.10	3.125	2.625	2.75
Pop. growth (annual %) 1985	II.9	3	2.375	3.25
Pop. growth (annual %) 2009	II.8	3.375	1.5	4
Pop. in the largest city 2009	II.28	3.125	2.5	3.25
Prevalence of HIV 2009	II.26	2.5	3.429*	2
Rural population growth 1960	II.14	3.5	2.125	2.5
Rural population growth 2009	II.13	4	1.375	4
Total fertility rate 1960	II.12	3.75	2	2.25
Total fertility rate 2009	II.11	3.625	2.375	3.5
Total population 1960	II.6	3.5	2.625	2.75
Total population 2009	II.5	3.5	2.5	3.25
Urban population (% of tot) 1960	II.2	2.25	4.375	3
Urban population growth 1960	II.4	3.875	3.5	2.75
Urban population growth 2009	II.3	3.375	1.75	3.75

Age dependency ratio (% of working age population), 2009: The average differs by about one quintile between the urban- and the rural focus countries. This suggests that the rural focus countries, altogether, have a higher dependency burden than their urban counterpart. The control group is located in between the two focus groups.

¹⁰* = one missing entry, ** = two missing entries

Arable land (% of land area): The average in **1961** indicates difference between the focus groups. Altogether, the urban focus countries had a much smaller extent of arable land than the rural focus countries. The control group, however, had even less arable land than the urban focus countries.

In **2009**, the arable land distribution is somewhat similar between the urban- and the rural focus countries as compared to 1961, with minor differences. The control group scores exactly the same value as in 1961.

GDP growth (annual %), 2009: For the rural focus countries, the average growth is higher than for the urban-. However, the growth rate for the control group is higher than that of the rural countries.

Gross Domestic Product (GDP), PPP (constant 2005 international \$): In 1989, the urban focus countries score very high, in contrast to the rural focus countries which are at the other end of the scale. This is one of the variables where the difference between the groups is the most prominent. The control group is located right in between the two other groups.

For **2009**, indicates that the difference between the urban- and the rural focus countries has been reduced. Although there is a significant gap between the two groups, it is not as large as in 1989. The average quintile for the urban focus countries is lower in 2009 than in 1989, but for the rural- and the control groups, the average quintile is now higher.

Health expenditure/capita, PPP (constant 2005 international \$), 2009: The average quintile positioning is surprisingly similar as that of the above mentioned variable. The urban focus countries have the same average score as for GDP/capita, and so does the control group. However, the rural focus groups have a higher quintile positioning for health expenditure than GDP/capita, hence there is less difference between the focus groups regarding this variable than for the former. Regardless of that, the differences are still substantial.

Human Development Index, 2009: The urban focus countries score, in average, two quintiles higher than the rural-. The control group is in between, although closer to the rural focus countries than the urban-.

Labor participation rate, total (% of total population ages 15+), 2009: The rural focus countries have greater labor participation than the urban-, with a difference of little more than one quintile. The control group does however have a lower average than the urban focus countries.

Land area, km², 2009: In average, the urban focus countries are larger than the rural-. The control group turns out to have the greatest land area of them all.

Life expectancy, at birth (in years): In **1960**, the life expectancy is marginally different between the focus countries. The urban focus countries did in average have higher life expectancy than the rural-, and in turn the control group had higher rates than the urban countries. The differences are less than one quintile.

In **2009**, the life expectancies for the various groups are even more converged and the difference between the urban- and the rural focus countries are minimal. Interestingly, though, both

groups have an average of greater than the total average for the whole of sub-Saharan Africa. Contrary to in 1960, the control group has the lowest score of the focus groups, in fact, lower than its 1960 value.

Mortality rate, under-5 (per 1000 live births), 2009: In average, the rural focus countries have a higher mortality rate than the urban-, although not by far. The control group has a middle positioning.

Population growth (annual %): In 1960, the urban focus group had less population growth than the rural- and the control group. The rural focus countries and the control group had very similar average positions.

In 1985, the average quintile for the rural focus countries is slightly higher than in 1960. Meanwhile, the urban focus countries and the control group lowered their score; the former by less than the latter.

In 2009, the rural focus countries again have a higher average quintile positioning than in 1985, and the urban- and the control group lowered theirs in comparison to 1985. In 2009, the difference between the urban- and the rural focus countries is significant, where the latter has a much higher growth rate. The control group has a lower average than both of the other groups.

Population in the largest city (% of urban population), 2009: The rural focus countries have slightly higher population in the largest city than the urban-, in year 2009. The control group has a lower average than the urban focus countries, but only marginally.

Prevalence of HIV, total (% of population ages 15-49), 2009: The urban focus countries have in average greater prevalence of HIV than the rural-. The difference is little less than one quintile. The control group has the greatest prevalence of them all.

Rural population growth (annual %): In 1960, the urban focus countries had a lower average rural population growth than the rural-. The difference is of slightly more than one quintile. The control group had a middle average score.

In 2009, the difference between the rural- and urban focus countries is much greater. Interestingly, the control group has the same average quintile positioning as the urban focus countries.

Total fertility rate (births per woman): In 1960, the rural focus countries had a higher total fertility rate than the urban focus countries, with a difference of almost two quintiles. The control group had a value in between the focus groups, but closer to the rural focus countries.

In 2009, the difference is less, although still noticeable. This year, the control group is closer to the score of the urban focus group than that of the rural-.

Total population: In 1960, the difference between the rural- and the urban focus group was approximately one quintile. The control group had a marginally lower average quintile position than the rural focus countries.

In **2009**, the difference between the rural- and the urban focus countries has expanded to exactly one quintile. Meanwhile, still maintaining a middle value, the control group resembles more of the urban focus countries.

Urban population (% of total), 1960: The urban focus countries were in comparison more urbanized (population-wise) than the rural focus countries; with a difference of about two quintiles. The control group had an average quintile positioning in between the two focus groups.

Urban population growth (annual %): In **1960**, there is not much difference between the focus groups.. Both groups had fairly similar values, while the control group had the highest growth rates.

In **2009**, however, the rural focus countries have in average a much higher urban population growth rate than the urban-. The control group, contrary to in 1960, has the lowest growth rates.

4.4 The time line charts

In this section I will present the time line charts for the 16 focus countries. I will discuss the different, observable patterns and compare the differences. The charts contain data of several relevant variables and most of them range from year 1960 to year 2009 (for certain variables the years differ due to unavailable data). All charts are available in Appendix II.

4.4.1 Urban population, % of total, years 1960-2009 (Appendix II, Figure II.1-II.4)

The time lines for the individual countries are very different. A few countries appear to have increased their urban population rather steadily over the years; their timeline constitutes of a rather straight line. Other countries have experienced a surge in urban population increase at one point or another.

Aside from the degree of urban population, there is no distinct difference between the time lines of the rural- and the urban focus countries. That is, there is no distinct pattern that either group appear to follow; the time lines of the countries are very individual regardless of their amount of urban population.

All countries, however, have one thing in common: their urban population has drastically increased over the years. Although this is more prominent for the urban focus countries, as they have grown to a much larger extent, it is valid even for the rural-.

The time lines reveal that the urban focus countries generally had a higher degree of urban population around 1960. Botswana is the only case of the urban focus countries that had an urban population of less than 10% in year 1960. Meanwhile, for the rural focus countries, no country had more than 10%, and Eritrea is the only close case with 9.8%.

4.4.2 Population, total, years 1960-2009 (Appendix II, Figure II.5-II.8)

All of the focus countries have had an increase to their total population from year 1960 to year 2009. However, the focus countries differ greatly in amount of total population.

As perhaps expected, the countries with the greatest population in 1960 are also the ones with the largest total population in year 2009.

In two cases, Liberia and Rwanda, the time lines are visibly distorted at certain points. They are the only two countries with such an apparent downturn in total population, most likely due to the genocide in Rwanda and the Liberian civil war(s). That being said, the other time lines are not altogether straight; small bumps and accelerations are visible.

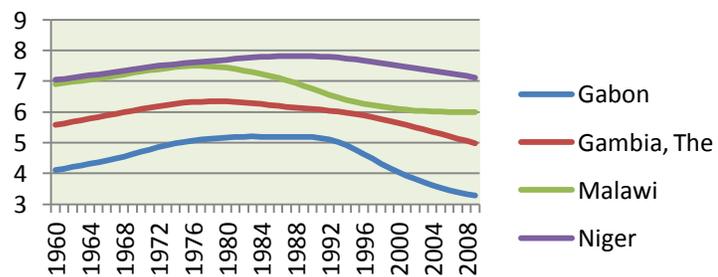
Unfortunately, it is difficult to evaluate potential patterns in population growth because of the huge differences in sizes. However, the time lines for many countries appear to get steeper around late 1970s- beginning of the 1980s.

4.4.3 Total fertility rate, births per woman, years 1960-2009 (Appendix II, Figure II.9-II.12)

All of the focus countries, apart from Niger, have a lower total fertility rate in 2009 than they did in 1960. However, the total fertility rate has not been reduced consequently throughout the years; in many cases, the total fertility rates have increased past 1960 only to decrease again, creating an arch-like shape on the time lines. Figure 4.3 below presents examples of this occurrence. The time lines clearly resemble of some kind of inverted u-curve.

While Figure 4.3 contains only four cases, this occurrence is visible also for other cases. Some time lines are of a different shape. Botswana, for example, might have been at a peak of an “inverted u-curve” in 1960, although because of lack of data it is impossible to know for sure. South Africa appears to have no resemblance of a u-curve. Even though most countries eventually decreased their respective total fertility rates, they did not do so simultaneously.

Figure 4.3 Example of total fertility rate timelines (1960-2009)



Source: WDI&GDF

4.4.4 Life expectancy, at birth (in years) 1960-2009 (Appendix II, Figure II.13-II.16)

Life expectancy has increased for all countries since 1960. For some countries this has happened through a steady increase, but for some it has been somewhat of a rocky road. For some

countries, it is possible to detect a similar arch shape as for total fertility rates (for example, Malawi, Uganda, Botswana and South Africa). This could be because of HIV and AIDS, since these countries also have a comparatively high HIV prevalence. Some countries have significant downturns in life expectancy, most predominately, Rwanda and Liberia. This is most likely due to the same reasons as stated in section 4.4.2.

Nowadays, all of the countries appear to have increasing life expectancy, regardless of previous downturns.

4.4.5 Labor participation rate, % of total population, years 1980-2009 (Appendix II, Figure II.17-II.20)

For most of the focus countries, the graph displays a rather straight line with little difference in labor participation rate over the last 29 years.

Out of the urban focus countries, all but South Africa have had a labor participation rate of over 60% of the total population during this time period. Angola is the only country out of the urban focus countries which participation rate exceeds 80%. On the other hand, South Africa is the only country that has increased its labor participation rate significantly (around 10%). The other countries have gone through minor upturns or downturns, but only by a percent or two at most.

The time lines for the rural focus countries are slightly more vivid. 5 countries have a current labor participation rate exceeding 80%. None of the countries have a figure lower than 60% and Niger is the only country that did during this time period (it crossed the threshold in 1996). Malawi had a downturn in labor participation rate, beginning around 1983. Malawi's downturn ended around 1987, and since then the country has maintained approximately the same degree of labor participation rate. Overall, the labor participation rate has not changed much during this period for most of the countries; Niger improved the most by around 6%.

Unfortunately, there is no data for labor participation rate going further back than 1980. Hence, the time scope for this particular variable is smaller than usual.

4.5 Summary of findings

The urban population distribution of sub-Saharan Africa in year 2009 is far from unanimous. As seen in Appendix II: table II.1 and section 4.1 of this thesis, urban population (% of total) ranges from about 10% to 85%. In my attempt to create two focus groups that could represent high and low degree of urban population, I realized that not even these two groups are conformed. At a first glance of urban population extent, it looks as if sub-Saharan Africa deserves to be recognized as a very diverse region, at least in this regard.

As for socio-economic factors, and to whom they favor, this turned out to be a particularly tricky question. For most of the applied variables, diversity was great among the countries, and even though averages might differ, there were sometimes still huge differences within the two focus groups, both in quintile positioning and in actual numbers. One of the idiosyncratic variables was GDP/capita (PPP, constant 2005 international \$) where the urban focus countries excelled remarkably. Also variables connected to the former; health expenditure/capita (PPP, constant 2005 international \$) and the Human Development Index showed great differences between the urban- and the rural focus countries. However, from this, it is not possible to tell what kind of connection there is between urbanization and economic development. For one, a major question is whether urbanization is a prerequisite for economic development; or the other way around. Secondly, it is not very clear what advantages there are with higher economic development; for many other socio-economic variables (if not most) I was unable to spot any clear cut, without-doubt patterns, as the average quintile positioning was less than one quintile. However, it is interesting to note that the rural focus countries, in average, have higher labor participation, something that Lewis in his two-sector model did not predict. These and many other questions and topics that will be deliberated in the following chapter.

As for the control countries, sometimes they did indeed end up right between the urban- and the rural focus countries, for instance in GDP/capita (PPP, constant 2005 international \$). This is however far from the rule, and every now and then they took on extreme positions; as either higher or lower than both of the focus groups. It is also important to point out that neither the control group was unanimous internally; the differences were great regarding many proxies.

In order to speak of the mechanisms of urban population growth, and the subsequent question of similarity of patterns in sub-Saharan Africa, more analyzing must be done. This will be a major topic in the following chapter. As far as one can tell by briefing through the data offered in this chapter, there appears to be some connection between low urban population and high population growth; urban-, rural- and total population growth. As discussed in section 4.2 and 4.3, there seems to be a correlation between the rural focus countries and population growth, but only in contemporary time. Meanwhile, there is no such distinguishable connection between population growth and the urban focus countries. The question is whether this perceived connection has to do with urban population extent, or perhaps with time period. This matter will be elaborated upon in the following chapter and complemented with correlation analyses in order to try to establish the mechanisms of urban population growth and how they relate to population growth.

5. Analysis

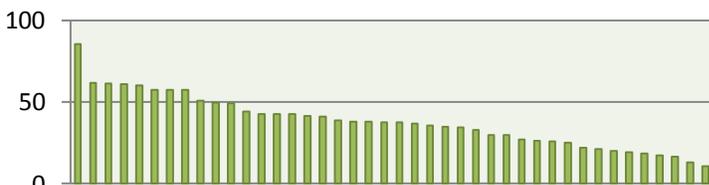
This chapter will evaluate the data presented in the previous chapter in an analytical way. The analyses will be presented in topic-wise sections, rather than directly answering each research question. This is because the findings have potential to yield much more information than is asked for in the research problem. In the next chapter, the Conclusion, the research questions will be brought up yet again, this time with concise and complete answers.

5.1 Urban population in sub-Saharan Africa

Sub-Saharan Africa is very diverse when it comes to contemporary extent of urban population, at least in year 2009 (see: Appendix II: table II.1 for the full range of urban population percentage in sub-Saharan Africa).

For all of sub-Saharan Africa, the total range of urban population (%) in year 2009 is 74.82. The standard deviation is 16.12, the median is 37.52 and the mean value is 37.95. All of this suggests a great diversity of urban population within sub-Saharan Africa. The range reveals the great extent as the maximum number would be 100 (as in 100% urban population). The standard deviation shows

Figure 5.1 Urban population (%) of total, 2009: all of sub-Saharan Africa



Source: WDI & GDF

that the countries are not closely clustered together on the scale.

Looking at Figure 5.1 and keeping the mean and the median in mind, one can tell that these numbers are fairly representative. Average values are sometimes misleading when a number of cases with extremely high values are added to a

number of cases with extremely low values. This is not the case for urban population extent in sub-Saharan Africa. Today, the region of sub-Saharan Africa is not uniform in terms of urban population.

Table 5.1 Values for urban population (% of total), 2009 and 1989

5.1.1 Urban population extent throughout the years

Contemporary sub-Saharan Africa is not uniform in its level of urban population. Therefore, it makes little sense to talk about the entire region's level of urbanization when countries are so diverse. Yet, generalizing the region has some grain of truth to it. As mentioned in

Variable	2009	Variable	1989
Mean	37.95	Mean	28.92
Median	37.52	Median	28.06
Range (total)	74.82	Range (total)	62.42
Standard deviation	16.12	Standard deviation	13.38

previous chapters, urbanization and urban population growth are expected to increase rapidly in sub-Saharan Africa, and have done so during the last 20 years. Table 5.1 presents some values of urban population (% of total) in sub-Saharan Africa from year 2009 and 1989 respectively. Compared to 2009, the mean and median values were nearly 10 units lower in 1989, the range was more than 10 units lower and the standard deviation differed by a little less than 3. This suggests that not only were the levels of urbanization much lower in 1989, but there was also greater conformity between the 42 countries. This means that urban population extent has become less conform throughout the years, it is not a linear process shared between all of the countries.

Table 5.2 Coefficient of determination (r^2): urban population (% of total), different years

Dependent:	UP%2009
Independent:	UP%xxxx
Year	r^2
UP % of tot. 1999	0.976
UP % of tot. 1989	0.858
UP % of tot. 1979	0.645
UP % of tot. 1969	0.430
UP % of tot. 1960	0.313

Source: WDI & GDF

Table 5.3 Coefficient of determination (r^2): urban population (% of total)

Dependent:	UP%xxxx
Independent:	UP%xxxx
Year	r^2
d: UP%2009/i: UP%1999	0.976
d: UP%1999/i: UP%1989	0.941
d: UP%1989/i: UP%1979	0.889
d: UP%1979/i: UP%1969	0.885
d: UP%1969/i: UP%1960	0.937

Source: WDI & GDF

In section 2.2.1, researchers argued that the more developed countries were in great advantage at the point where they urbanized. It was said that a country that begun its urbanization process a long time ago ought to have developed infrastructure and facilities enabling further urban population growth, in contrast to a country with very low levels of urbanization. The question is if this holds true even for sub-Saharan Africa, since some countries have a much greater extent of urban population. In order to evaluate this notion, I performed two correlation analyses.

The first one, Table 5.2, shows the correlation between urban population (% of total) in 2009 and urban population (% of total) of earlier years. There is a very strong correlation between urban population in 2009 and that of 1999, but for every other year the correlation ceases. Nevertheless, the result indicates that urban population growth is highly dependent on the already existing urban population, but only for approximately 20 years, after which the correlation deteriorates.

The second correlation analysis, Table 5.3, was made with the intent to put the same matter in a historical perspective.

The dependent variable is urban population (% of total) of a given year, and the independent value is urban population (% of total) dating 10 years back. For this analysis, the correlations are all very strong. The urban population degree in 1969 is strongly correlated to that of 1960, and so on. It is clear that the existing extent of urban population affects the growth of urban population, and that has apparently been the case for at least the last 50 years in sub-Saharan Africa.

All of this point to that urban population growth is indeed escalating, especially for those countries that already have a significant amount of urbanization. It is reasonable to assume that the

countries with a high degree of urban population in 2009 will experience an urban population increase the forthcoming years.

5.1.2 Does the geographical location matter?

Recall figure 4.2 displaying the geographical location of the focus countries. All of the urban focus countries except for one have access to sea, and vice versa for the rural focus countries. It is possible that this feature has some effect on the degree of urbanization. As discussed in chapter 2, section 2.2.2.1, both Phillippe Bocquier (2004, p. 134) and Ester Boserup (1985, p. 384) claim that colonialists strategically set up urban centers near coasts and other facilities of infrastructure and that these urban centers swelled to become cities today. As discussed in section 5.1.1, the extent of urban population seemingly depends upon the already existing amount of urban population.

Thus, it is possible that the urban focus countries begun developing cities in coastal regions during the colonial times and that these cities then expanded. Although urban centers ought to have existed even in regions and countries without direct access to the coast, it is possible that the urban focus countries were favored and in advantage because of their geographical location. As additional food for thought, in 1960, Botswana had the least urban population (% of total) of the urban focus group, and it is the only of the countries that is landlocked.

Although the control group consists of only four countries; three of these have access to sea: Namibia, Mozambique and Somalia. Zimbabwe, however, is land locked. This suggests that even though access to coast may have been an advantage when setting up urban centers, it cannot be the whole cause.

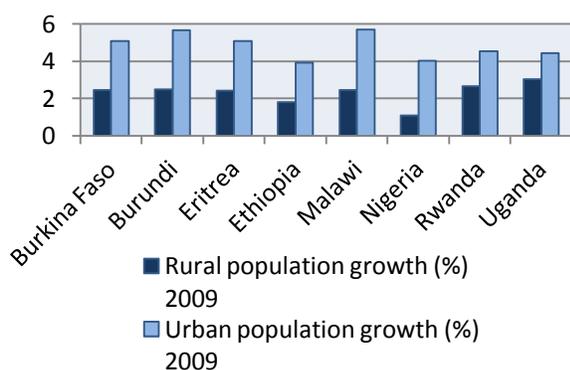
The actual size of the countries appears not to matter much in regards of urban population extent. As discussed in chapter 4 (and in Appendix III), the difference in actual land area is massive between the 16 focus countries. Although the rural focus countries on average have smaller land area than the urban, the countries differ greatly from within the two focus groups. Both the rural- and the urban focus group represent examples of both some of the largest and some of the smallest countries, area wise. Therefore, it is difficult to evaluate the impact of land area; should there be any.

5.2 The connection between urban population and population growth

As noted in section 4.2 and section 4.3, the rural focus group scores quite high on urban population growth as well as rural population growth. At a first glance, it does not seem very odd that the countries with the least urban population have a higher growth in percentages than those countries with a greater urban population. Realistically, a smaller population needs less in order to grow by a couple of percent than a larger population. However, this is contested by the fact that the rural focus countries also have comparatively high rural population growth rates. It suggests that the urban population growth of the rural focus countries is not solely driven by rural-to-urban migration. If that

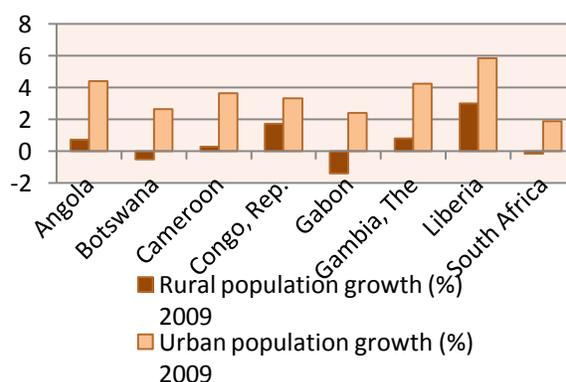
was the case, then the rural focus countries ought to have a (much) lower rural population growth. On the other hand, the urban population growth rates are generally higher than rural population growth rates. This, then, implies that both rural-to-urban migration as well as a steady urban natural increase might result in the increasing urban population for the rural focus group. To illustrate this, I created diagrams displaying rural- and urban population growth in 2009 for the two focus groups (Figure 5.2 and 5.3).

Figure 5.2 Rural- and urban population growth for the rural focus countries



Source: WDI&GDF

Figure 5.3 Rural- and urban population growth for the urban focus countries



Source: WDI&GDF

As we can see, the rural focus countries have steady growth rates for both variables. The urban focus countries, on the other hand, experience urban population growth but not necessarily rural population growth.

In three cases of the urban focus countries, the rural population growth is even negative. Could it be that the reason behind urban population growth differs between the two focus groups? As it turns out, the rural focus countries excel at total population growth in 2009 (with the exception of Ethiopia).

The time lines for population growth were evaluated in section 4.3.2., and they indicated increased total population for all focus countries since 1960. However, for many countries the timelines appeared steeper after the beginning of the 1980s. Many of the urban focus countries had already by 1980 a comparatively large urban population (see: section 4.3.1). Hence, the urbanization of the urban focus countries ought to have been less dependent on increase in total population. The two regression analyses presented in table 5.4 and 5.5 support this notion.

Table 5.4 Coefficient of determination (r^2): Urban- and total population growth (annual %)

Dependent:	UPG
Independent:	POPG
Year	r^2
UPG/POPG 2009	0.660
UPG/POPG 1999	0.774
UPG/POPG 1989	0.308
UPG/POPG 1979	0.271
UPG/POPG 1969	0.295
UPG/POPG 1960	0.050

Source: WDI&GDF

Table 5.4 shows that urban population growth correlates with population growth

strongly during the most recent decades, only to diminish gradually back in time. Only during the last 20 years, there seem to be a very strong connection between urban population growth and total population growth. However, this data does not differentiate between the rural- and the urban focus countries, it only shows that urban population growth is likely to be fuelled by population growth today, but not back in time.

That being said, we know that the urban focus countries have a greater urban population and that some of them had a relatively high urban population extent already in 1960.

Table 5.5 reveals some kind of correlation between urban-and rural population growth during the last decade. Further back in time, there appears to be no correlation whatsoever. Similarly to the previous correlation analysis, the correlation ceases into nothingness further back in time than 20 years. This means that, nowadays, urban population growth occurs simultaneously with rural population growth. Although, the r^2 values are not particularly strong which means that this interpretation should be taken with a grain of salt. Nevertheless, there seems to be some kind of correlation today that did not exist before.

Table 5.5 Coefficient of determination (r^2): Urban- and rural population growth (annual %)

Dependent:	UPG
Independent:	RPG
Year	r^2
UPG/RPG 2009	0.349
UPG/RPG 1999	0.383
UPG/RPG 1989	0.006
UPG/RPG 1979	0.033
UPG/RPG 1969	0.085
UPG/RPG 1960	0.015

Source: WDI&GDF

In sum, this may indicate that today's mechanisms of urban population growth differs from that of earlier time periods. Up until very recently, there was no connection between population growth (total population growth and rural population growth) and urban population growth. Yet the urban focus countries urbanized during this period, which then ought to depend heavily on rural-to-urban migration. Today, there is a great connection between population growth and urban population growth, and the rural focus countries dominate urban population growth. This could indicate a change in mechanism, where today urban population growth depend on population growth, while before it was driven by rural-to-urban migration. Yet, it could also be an indication of different mechanisms depending on at what *stage* of urbanization a country is. Perhaps the mechanisms of urban population growth is different in the beginning of an urbanization process than when a country is already fairly urbanized.

Either way, as stated in section 2.2.2.2, urban population growth in sub-Saharan Africa is thought to be fuelled by high nativity rather than by rural-to-urban migration. According to the findings in this thesis, this claim appears to be correct.

5.2.1 Will the populations continue to increase?

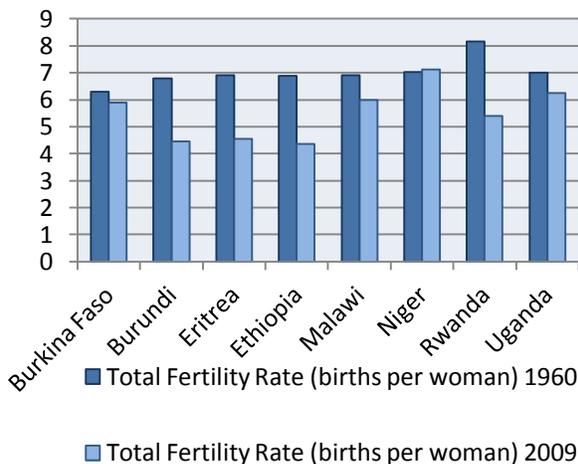
In Chapter 2, section 2.2.2.2, the topic of fertility and natural increase was discussed. Some researches claim that sub-Saharan African urban population growth is mostly driven by natural increase and that fertility rates are not necessarily lower in urban areas compared to rural. As shown

in the sections above, this might very well be accurate, since there appears to be a connection to total population- and urban population growth.

As discussed in sections 4.2 and 4.3, most of the rural focus countries have comparatively high total fertility rates in 2009, while some of the urban focus countries have very low. It is also possible to see a greater distinction between the focus groups in year 1960 than 2009. That being said, all of the focus countries (in fact, all sub-Saharan African countries) but Niger have a lower total fertility rate in 2009 than they had in 1960 (see: Figure 5.4 and 5.5). At a first glance, then, despite high numbers, total fertility rates appear to be decreasing.

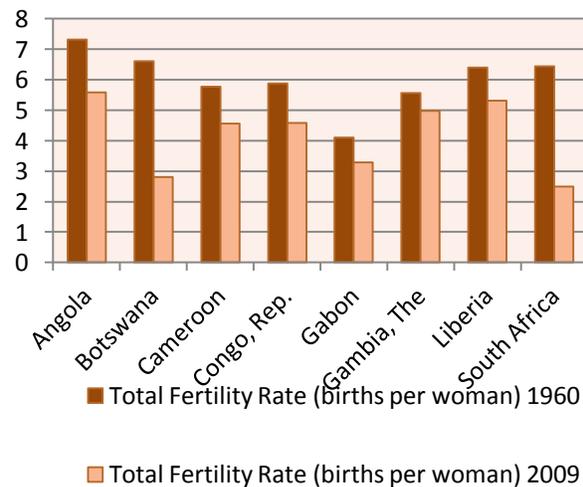
In section 4.4.3, total fertility rate timelines were evaluated. There it was shown that although total fertility rates have generally been decreased since 1960, it was usually not a steady decrease. In several cases, the fertility rates increased at first only to shape an arch on the timeline which then lead to a steady decrease. Even Niger, which currently has a higher total fertility rate than in 1960, appears to have crossed its total fertility rate threshold and is now decreasing (see: Appendix II: Figure II.12). Hence, a decrease in total fertility rate for sub-Saharan Africa might be on its way, however, the pace is yet undetermined.

Figure 5.4 Total Fertility Rate (births per woman) for the rural focus countries



Source: WDI & GDF

Figure 5.5 Total Fertility Rate (births per woman) for the urban focus countries



Source: WDI & GDF

On the other hand, life expectancy is increasing. As discussed in section 4.4.4, despite downturns and the like, the life expectancy rates for all of the 16 focus countries appear to be increased. One could argue, then, that decreasing fertility rates mean little when life expectancy is on the upturn. However, ageing can not be improved indefinitely, despite improved living conditions people will die eventually. Therefore, as long as fertility rates are decreasing, total population growth might eventually slow down.

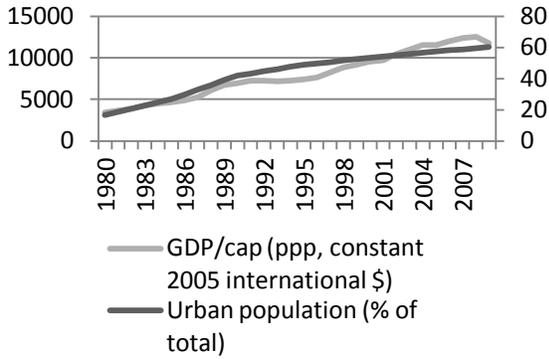
5.3 Urban population growth and economic growth

It was mentioned in the introductory chapter and in the literature overview that urbanization is often associated with economic development. As shown in chapter 4 it is true that the urban focus countries on average have higher GDP per capita (PPP, constant 2005 international \$) than the rural focus countries, and the control group. Nevertheless, the question is just how strongly economic growth is connected to urbanization; or the other way around. The previously mentioned author Vernon Henderson writes in the article *Urbanization in Developing Countries* (2002) that, typically, urban population growth occurs in the beginning of economic development, only to phase out and become stagnant later on (2002, p. 98). It is not entirely clear what Henderson considers to be the “beginning of economic development”, but he mentions the shift from agriculture to industry (ibid, p. 90) which suggests that he might be inspired by traditional economic theories such as Lewis two-sector model.

Patricia Clark Annez and Robert M. Buckley in *Urbanization and Growth: Setting the Context* state that, historically, urbanization and economic growth appears to be strongly connected to one another as the most wealthy nations have a significant degree of urban population (2009, pp. 3-4). However, their research shows that the process of urbanization is not enough to yield economic growth for today's less developed countries (ibid, pp. 4-6). Figure 4.2 displayed how the majority of the urban focus countries have sea access, while the majority of the rural focus countries are landlocked. As stated in section 2.2.2.1, many urban centers in sub-Saharan Africa were conveniently located in junctions of various means for infrastructure (Phillipe Bocquier, 2004, p. 13; Ester Boserup 1985, p. 384). This could have an impact on economic growth because countries with a shoreline have another means of transportation and infrastructure that those without do not, and could, to some extent, explain why the urban focus countries have better economic progress. It is important to distinguish between the *variables* GDP per capita (PPP, constant 2005 international \$) and GDP growth (%), both which were evaluated in the previous chapter. While the urban focus countries excelled in GDP per capita, they were inferior to the rural focus countries in terms of GDP growth (%). This is not so strange, considering that the rural focus countries with their smaller economies require less real economic growth in order to grow in percentages (similar to the discussion in section 5.2). What is more interesting is that three of the urban focus countries have negative GDP growth rates. What comes first, urbanization or economic growth?

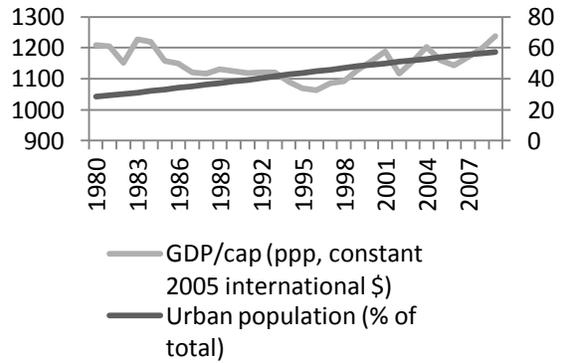
In order to shed some light to this, I created charts displaying both urban population (% of total) and GDP per capita (PPP, current 2005 international \$) for some of the urban focus countries. In figure 5.6 presenting the data for Botswana, we see that the country's urban population and its economic growth (in terms of the aforementioned variable) appears to increase more or less simultaneously. It is also clear that the value of GDP/capita increases by quite a lot, during the presented years. In figure 5.7, the same data is presented, but for another urban focus country: Gambia. For Gambia, there is no visible congruence between urban population growth and GDP/capita. The GDP/capita has not increased by nearly as much as for Botswana either. Same goes for Gabon and Cameroon, at least partially. Both countries increase their urban population steadily

Figure 5.6 Botswana: Urban population and GDP/cap



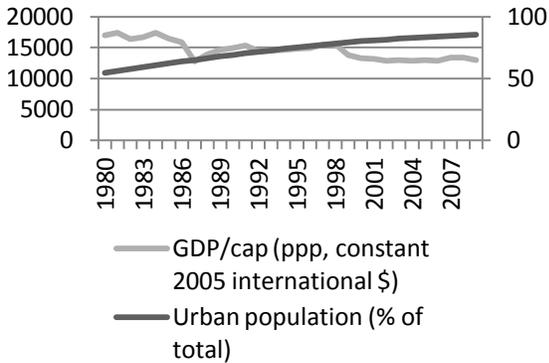
Source: WDI&GDF

Figure 5.7 Gambia: Urban population and GDP/cap



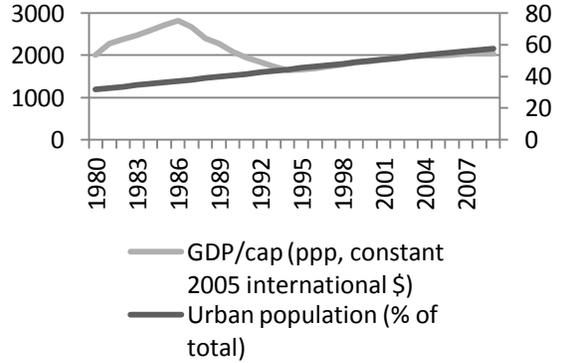
Source: WDI&GDF

Figure 5.8 Gabon: Urban population and GDP/cap



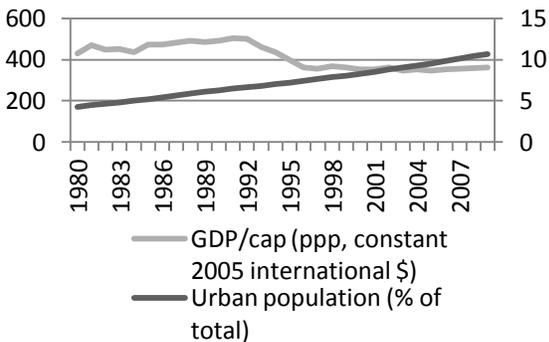
Source: WDI&GDF

Figure 5.9 Cameroon: Urban population and GDP/cap



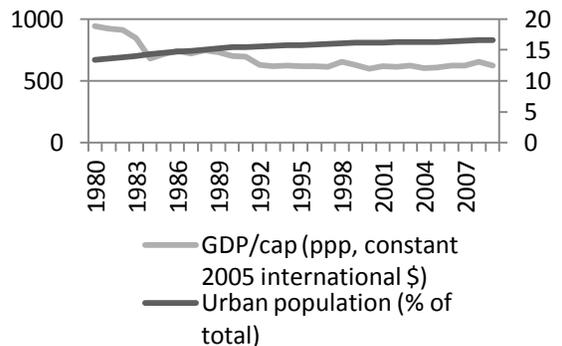
Source: WDI&GDF

Figure 5.10 Burundi: Urban population and GDP/cap



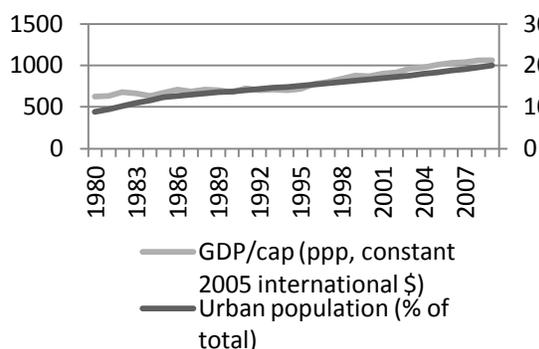
Source: WDI&GDF

Figure 5.11 Niger: Urban population and GDP/cap



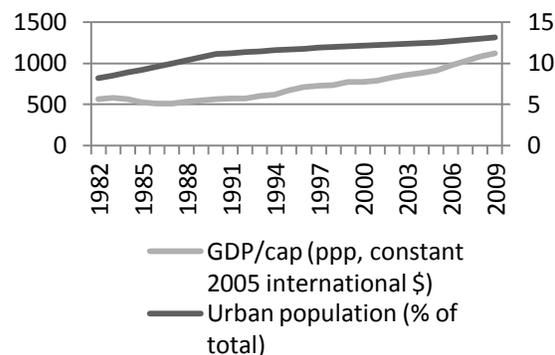
Source: WDI&GDF

Figure 5.12 Burkina Faso: Urban population and GDP/cap



Source: WDI&GDF

Figure 5.13 Uganda: Urban population and GDP/cap



Source: WDI&GDF

throughout the years, but GDP/capita does not increase that smoothly, and sometimes not at all. Although regarding Cameroon, the two variables appear to increase somewhat simultaneously after the early 90s.

Yet, evaluating economic development is a difficult task. First of all, there are plenty of variables available, each with advantages and disadvantages. Unfortunately, this study cannot cover them all. Furthermore, GDP/capita (PPP, constant 2005 international \$) does not cover years further back than 1980, at which point many countries already had a fairly large extent of urban population. Hence, we cannot know what this relationship looked like earlier. However, the rural focus countries might yield some insight. At 1980, these countries had lower urban population extent than the urban focus countries, which might make them more interesting to evaluate. For two of the presented rural focus countries, GDP/capita appears to increase along with urban population increase; Burkina Faso and Uganda. Urban population has increased also for Burundi and Niger, but these countries' GDP/capita has not followed the same pattern. In other words, from these simple timeline graphs, one cannot conclude that GDP/capita and urban population growth always occur simultaneously, and likewise, it is not possible to establish what occurs first.

5.3.1 Urban population and proxies connected to economic growth

Looking at the average quintile positioning in section 4.3, it is very clear that the urban focus countries excel also in variables connected to GDP/capita; namely, health expenditure/capita (PPP, constant 2005 international \$) and the Human Development Index¹¹. These three variables are also some of the few where the urban focus countries, the rural- and the control group are aligned

¹¹ However, HDI is calculated using *Gross National Income per capita* and not GDP per capita, therefore the connection is not direct. However, GDP/capita as an indicator of economic wealth can be used to estimate on what level of economic development a country is. See: Appendix I: section I.2.1 and I.2.2 for detailed information of how these variables are calculated.

according to expectation: urban focus countries have the highest values, control group the middle, and the rural focus countries have the lowest values.

Despite the higher averages in health expenditure and HDI, there are differences among the urban focus countries, and some have less values than some of the rural focus countries (see: section 4.2), and this is important because it shows that high urban population may not always be connected to high GDP/capita and other variables based on the former.

Nevertheless, in spite of the high averages in aforementioned two proxies, this is not a guarantee for better socio-economic standard. As we shall see later, the urban focus countries are not at (great) advantage regarding some of the socio-economic proxies included, which creates doubt as to what causes health expenditure and HDI to be so high. It is possible that these two proxies are heavily influenced by the urban focus countries' greater economic development which consequently improves their health expenditure/capita and HDI in comparison.

5.3.2 Why do the urban focus countries excel at economic development?

As stated in the previous sections, it is not possible to tell which of urbanization or economic development that occurs first, from the data processed in this thesis. It is somewhat of a “hen or the egg”-issue. However, there is plenty of literature concerned with this particular matter. Some of the authors already mentioned in this study stress the impact of “agglomeration economies”. In *Economic Development* (2009) Todaro and Smith writes that cities are often formed *because* of an agglomeration of economy; that is, there is an advantage to both producers and consumers if everything is allocated and concentrated to one area (Todaro and Smith, 2009, p. 327). Vernon Henderson states that agglomeration economies benefit companies because of “spillover effects” where one company can in one way or another use the knowledge accumulated by another company (Henderson, 2002, p. 91). He means that countries with low economic development must focus on developing one area (agglomeration/city) at a time (ibid, p. 99).

If this holds true for the urban focus countries, it makes sense that they excel at economic development. Recall the variable *population in the largest city*, which is evaluated in the previous chapter. In section 4.3, it is shown that the urban focus countries have a lower average quintile positioning than the rural-, regarding this variable. This means that, on average, the rural focus countries have cities with larger population. This is in contrast to what agglomeration economies describe; the urban focus countries with their comparatively high GDP/capita ought to have developed one or two large cities. Likewise, the rural focus countries with high population cities ought to have better economic development.

However, as shown in Table 4.3, there are four urban focus countries located in quintile 1 and 2 for population in the largest city; Angola, Congo, Gabon and Gambia. Three of these countries (all but Gambia) are also found in the 1st quintile of GDP/capita, meaning that they might be subjects to agglomeration of economies after all. Yet, this does not explain why the rural focus countries on average have cities with larger populations. In section 4.2, Table 4.4, it is shown that also the rural focus countries have four countries in quintile 1 and 2 for the variable *population in the largest city*;

Burkina Faso, Burundi, Eritrea and Rwanda. But these countries do not do well regarding GDP/capita. For GDP/capita, Burkina Faso is found in the 3rd quintile, Burundi and Eritrea in the 5th and Rwanda in the 4th. As such, the data indicates that while some of the urban focus countries might follow the logics of agglomeration economies, the rural focus countries do not.

That being said, this topic is gigantic and would on its own constitute a large thesis, if not a volume. There are plenty of factors regarding this matter, and this study is not merely concerned with agglomeration economics, let alone economic development. In order to properly evaluate this issue, one would have to access data much older than 1980, for many more proxies. It would also be necessary to evaluate all cities and their respective population size for all concerned countries. It could also be that all of the urban focus countries have in fact gone through and surpassed agglomeration of economies. Vernon Henderson (2002, p. 99) means that once a country has gained capital from one focused urban center, it is possible to develop more remote areas and hence even out the urban population concentration (urban deconcentration). In short, this is a far too complicated matter to be determined in this study. Yet indicies show that even though agglomeration of economies might explain the comparatively high GDP/capita for some urban focus countries, this is not the case for all, and we cannot apply this reasoning to the rural focus countries.

5.3.3 Lewis two-sector model and The Harris-Todaro model on migration

Recall Lewis two-sector model. In short, Lewis' means that a traditional economy would eventually become modern through labor force migrating from rural to urban areas. We know for sure that a couple of sub-Saharan African countries have a large urban population (the urban focus countries), but have they fulfilled and gone through the other mechanisms of Lewis two-sector model? The Harris-Todaro model on migration (and the Todaro migration model) suggested that urban population growth might occur without the expected development, since in some cases unemployment rates are unreasonably high. Based on the data acquired and the research done in this study, what can be said about the applicability of these two theories?

Because the urban focus countries have higher GDP/capita than the rural-, it suggests that some sort of modernization process has occurred. But as noted in previous section, the origin of this economic development is somewhat hazy. The average quintile positioning for *arable land*, section 4.3, shows that the urban focus countries had less arable land than the rural-, both in 1961 and in 2009. The control group, however, has less arable land than both focus groups. This speaks in favor of both Lewis two-sector model and Harris-Todaro, as less arable land could indicate a greater focus on urban employment. (It is not an infallible claim however, since this variable says nothing about produced goods or efficiency thereof.)

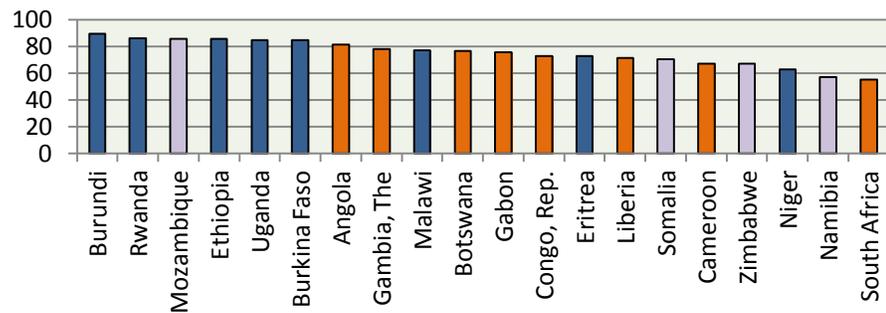
Yet, out of the urban focus countries, three are found in quintile 5 of arable land (2009) (meaning little arable land); Botswana, Congo and Gabon. All these three countries are in the first quintile of GDP/capita. While this is also in accordance to Lewis' and Harris-Todaro, South Africa is

also found in the 1st quintile of GDP/capita, but in the 2nd quintile of arable land; meaning comparatively much arable land. Recall that South Africa in 1960 had by far the largest percentage of urban population, nearly 50%. With such a history of urbanization, South Africa ought to have much less arable land today if Lewis' and Harris-Todaro's theories were completely applicable. Moreso, the control group, those with the middle-values of urban population, have less arable land than both the rural- and the urban focus group, both in 1961 and in 2009. In fact, their average quintile positioning for arable land is exactly the same in 1961 as in 2009. As such, some countries behave as if they might have gone through, or are going through, a modernization process as suggested by (mostly) Lewis, while others do not, assuming that a modernization process would mean to downsize the agricultural sector.

Both Lewis two-sector model and the Harris-Todaro model on migration are concerned with employment and the labor force. Lewis' means that the profits gained will be reinvested and in turn cause more job opportunities, while Harris-Todaro mean that the amount of job opportunities is vastly overestimated, yet causes urban population growth because of the perception of available labor. The results from the testing of the variable *labor participation rate* is slightly in favor of Harris-Todaro on this matter.

The average quintile positioning of labor participation rate was higher for the rural focus countries than the urban-. The control group had the lowest average quintile positioning. This is interesting, because

Figure 5.14 Labor participation rate (%) 2009: The urban-, rural- and control countries



Source: WDI&GDF

that can only mean that unemployment is generally greater among the urban focus countries, as predicted by Harris-Todaro. However, labor participation for the control group ought then to be higher than that of the urban focus countries.

Figure 5.14 displays the labor participation rate for the two focus groups and the control group. Clearly, there are some differences, both between the groups and within the groups.

Another factor connected to this is the *age dependency*. The age dependency ratio calculates the amount of people of working age to people under- or over working age (under 15 and over 64), i.e. *dependants*. Meanwhile, the labor participation rate includes the entire population except for people under the age of 15. In other words, the labor participation rate includes seniors, while the age dependency ratio does not. As discussed in section 4.3, the rural focus countries on average have a higher age dependency ratio, meaning that these countries have a greater share of dependants than the urban focus countries. This is particularly interesting because it means that the rural focus countries, in percent, have an even *lesser* labor force than indicated by the labor participation rate.

Either that, or the rural focus countries have a greater share of working seniors. As such, the rural focus countries not only have to support a greater amount of people, their share of working age citizens may also be smaller in comparison to the urban-.

Recall section 4.4.5 evaluating the timelines of labor participation rate. For most of the urban focus countries, the timelines were rather static, with only minor up's and down's, where South Africa was among the countries that had improve the most during the time period. Most of the rural focus countries have also had rather static timelines, although with some mobility. This is interesting because it indicates that nothing (or very little) has changed regarding labor opportunity during the last 30 years; despite continuous urban population growth for both of the focus groups. Regardless of if we want to apply Lewis' or Harris-Todaro's theories, we would expect at least some noticable change to labor participation. In the case of Lewis, it would be assumed that labor activity increases as more job opportunities emerge. For Harris-Todaro, labor participation ought to decrease along with urban population growth. As such, the labor participation time lines created in this thesis confirm neither of the theories. On the other hand, nor do they refute them. After all, labor participation rates includes all *economically active* citizens, and can as such refer to farmers as well as employed urban citizens and even people working in the informal sector. Yet, it is interesting to note that the rural focus countries in general have a higher labor participation, especially when confronted with the inferior GDP/capita. If the urban focus countries' (comparatively) high GDP/capita was indeed reinvested to yield job opportunities and increase production as suggested by Lewis, then why do they have stagnant labor participation rates?

5.4 The socio-economic situation

As is known from previous sections, the urban focus countries excel considerably in terms of GDP/capita as well as health expenditure and HDI. The two latter are indicators of socio-economic standard, and as such, it seems as if the urban focus countries are better off regarding this matter than the rural-, and the control group. However, this is confronted by the fact that the urban focus countries have less labor participation; where in fact the opposite would be plausible given the better economic development. In this section, I will bring up the remainder of the tested variables in order to find out whether they can shed some light on this complicated and contradicting matter.

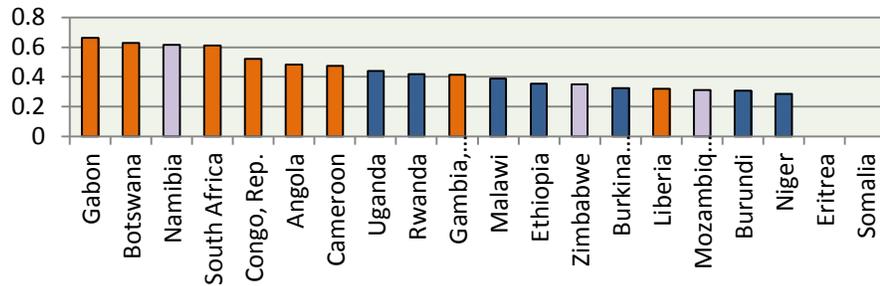
5.4.1 HDI

The Human Development Index has already been analyzed to some extent in connection to GDP/capita and health expenditure. As discussed in previous sections of this chapter, the urban focus countries have, on average, a higher HDI than the rural-, and the control group; but it is not entirely clear as to what exactly this indicates. It has been stated that the urban focus countries are at advantage concerning economic development (measured in GDP/capita), something that can affect

the corresponding HDI value ¹². The other components of HDI are life expectancy at birth and mean- and expected years of schooling (UNDP, 2012a). Unfortunately, I was unable to acquire statistics of the two former due to bad coverage.

As for life expectancy (at birth), it is known from chapter 4 that the urban focus countries on average had higher life expectancy than the rural in 1960. In 2009 however, the two focus groups have almost identical life expectancy. The control group, in contrast to the others, has lower life expectancy in 2009 than in 1960 (although, there is no data for Somalia for this proxy). As such, the higher HDI values for the urban focus countries (and the control group) cannot stem from life expectancy (at least not for all countries). While unfortunately this study does not cover the educational aspect of HDI, the similar life expectancy values indicates that the HDI values may be under great influence of economic development, rather than societal.

Figure 5.15 HDI 2009: Ranked from highest to lowest:
The urban-, rural- and control countries



Source: UNDP

5.4.2 Life expectancies, mortality rates and more

The similar life expectancy values indicate that an urban residence does not guarantee improved health, despite proximity to institutions issuing health care. This matter has been discussed by authors and researchers (as outlined in section 2.2.2.2) with the conclusion that there are plenty of socio-economic barriers in cities which may be difficult to overcome. That being said, it is interesting to note that both the urban- and the rural focus countries on average have higher life expectancies than half of sub-Saharan Africa. This suggests that neither an urban- nor a rural concentration of people may have anything to do with this matter.

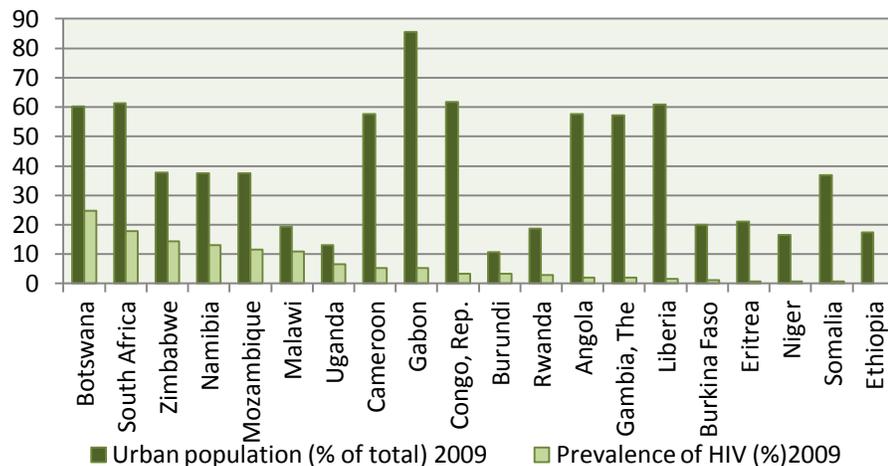
However, as has been the case for plenty of other variables, the internal differences in the two focus groups are huge regarding life expectancy. Therefore, it is really difficult, if not unfair, to speak of averages, because they cannot be said to be very representative. Yet the differences are in themselves quite telling; why does one urbanized country have high life expectancy while another does not?

¹² Again, HDI is calculated by values of *Gross National Income per capita*. See: Appendix I.

Tim Dyson has written an article called *HIV/AIDS and Urbanization* (2003) which, as the title suggests, is concerned with the correlation between HIV/AIDS and urban areas, in particular in sub-Saharan Africa. Dyson (2003, pp. 428-429) states that almost always, HIV prevalence is higher in urban areas than in rural, and he gives several examples of countries who are among the focus countries of this thesis. Dyson (ibid, p. 430) points out that this does most likely not mean that countries with a large urban population ultimately have greater prevalence of HIV, rather that HIV prevalence is likely to be greater in urban areas regardless of the urban population size. The reason for this is because of the population density; more people to get in touch with, more sexual interactions, greater use of drugs et cetera (ibid, p. 429). Dyson (ibid, p. 432-433), states that the impacts of HIV/AIDS can be disastrous for a country; especially in terms of mortality rates, birth rates, basically population growth overall. He (ibid, p. 433) means that HIV/AIDS may have a negative effect on urbanization; not only does it reduce the population size overall, it may also alter the migration patterns, he argues, and people who fall ill often move back to a family member's settlement in rural areas.

As noted in section 4.3, the urban focus countries have on average greater prevalence of HIV than the rural focus countries (although the

Figure 5.16 Urban Population (% of total) 2009 and Prevalence of HIV 2009 (ranked from highest to lowest Prevalence of HIV)



Source: WDI&GDF

control group has a greater average than both of them). Yet the differences in HIV prevalence differs greatly between the urban focus countries (see: Table 4.3) where Botswana and South Africa have much higher rates. Figure 5.16 displays both urban population and prevalence of HIV for year 2009, where countries are ranked from highest level of HIV prevalence to lowest. Even though the urban focus countries had a higher average quintile positioning regarding this variable, there is no clear visible connection in figure 5.16. Furthermore, the control group had higher average (greatest HIV prevalence) than any of the focus groups, despite their lesser amount of urban population. Additionally, the rural focus group lacked an entry (Ethiopia) which might have contributed to a lower average. As such, it appears as Dyson is right when he stated there is probably no correlation between urbanization and HIV prevalence on an aggregate level. However, the countries with a great HIV prevalence might suffer great consequences thereof.

Dyson (2003, p. 432-433) mentions birth rates as a declining factor due to HIV/AIDS, and true enough, Botswana and South Africa are both in the fifth quintile of total fertility rate (i.e. very low fertility rate). Likewise, Namibia and Zimbabwe are also located in the fifth quintile, while Mozambique is in the third.

On the other hand, Botswana and South Africa are in the third quintile of life expectancy; some kind of mid-value of sub-Saharan Africa. Zimbabwe is in the 4th quintile and Mozambique in the fifth, indicating very low life expectancy. Namibia, however, is in the first quintile and has, as such, one of the highest life expectancies of all of sub-Saharan Africa. This is interesting, then, because while there might be a connection between HIV/AIDS and fertility rates based on the studies conducted in this thesis, the same cannot be said (as clearly) for life expectancy. Nevertheless, there could be plenty of reasons for why these countries have comparatively low fertility rates, it surely does not only depend on the HIV prevalence.

One factor that might affect fertility rates is the mortality rate of children and infants. Mortality rates of children and infants are also good indicators of a country's distribution of health care, mainly maternal health care. As noted in section 4.3, the rural focus countries have, on average, the highest mortality rates, second comes the control group and third, the urban focus countries. Yet there are great differences of the actual life expectancy.. As such, the averages are hardly useful, and mortality rates are likely to depend on something other than level of urban population.

5.5 Summary of analyses

If anything, this study has shown how extremely complex and multifaceted this process is. It is questionable whether it is *one* process or in fact *several* interacting processes. In a way, the findings of this study suggests that the process of urbanization and urban population growth must be seen from more than one point of view. On the one hand, it is possible to discuss and possibly theorize the actual mechanics of urban population growth; how it happens. On the other hand, it is much more difficult to evaluate the actual impacts of urbanization and urban population growth, and its consequences.

5.5.1 What has urbanization lead to?

The two factors where the rural- and urban focus countries differ the most are population growth and economic development. Yet even for these variables nothing is set in stone. As the findings and analyses have shown, there may be averages pointing one way or the other, but within the focus groups there are differences too huge to overlook.

Regarding the socio-economic variables, there were very few cases where one group or the other appeared to have an advantage or disadvantage of some sort. As discussed in previous sections, the

urban focus countries do excel at HDI and health expenditure, but it is unclear as to what this truly means; one would expect more funded health care to lead to higher life expectancy, but as the data has shown, there is no such indication. Likewise, a greater GDP/capita suggests better working opportunities, but neither that could be confirmed. From the results of this study, then, it is not possible to tell whether urban population growth and urbanization directly causes improvement in living standards.

As for pure economic development, yes, it is true that the urban focus countries on average have higher GDP/capita than the rural. Yet the greatest question of them all remains: why is that? Despite involving a multitude of factors such as historical data, labor participation, geographical location et cetera, I was unable to pinpoint a convincing enough reason. Most of all, the great differences in actual GDP/capita of the focus countries causes some doubt as to if there is a strong connection at all. Everything suggests that urbanization is an extremely complicated process dependent on a multitude of factors, circumstances, conditions and even time.

The reality is that sub-Saharan Africa is extremely diverse regarding most proxies tested in this thesis. Averages have been used, focus groups were selected, but as the findings and analyses show, these were rarely representative. From the very beginning when the focus groups were selected according to urban population (%) rank, it was clear that the degree thereof differed by a lot even within the urban- and rural focus countries.

When a couple of countries scored similar quintile positionings, the actual values often differ greatly. Even in those cases where the majority of the countries belonging to one focus group have roughly similar values and positionings, they do not *all* do; there is always one or two countries breaking the pattern.

Regarding the urban focus countries, Liberia often stands out by being somewhat misplaced in comparison to the other countries. For example, Liberia scores high on nearly all variables connected to population growth (in contemporary time) a property which, as we know, is mostly connected to the rural focus countries. For proxies where the urban focus countries tend to excel (GDP/capita, HDI, health expenditure), Liberia scores remarkably low in comparison and often lower than many rural focus countries. As such, Liberia is a bit of an exception; not only does the country lower the averages for the urban focus countries but it also questions the few factors that actually appeared to be affected by/impacted urbanization.

Likewise, despite being part of the control group, Namibia often follows the same “pattern” the urban focus countries do, but also with “better” scores in many socio-economic proxies. In contemporary time, Namibia has low population growth, low fertility rate, high HDI, low GDP growth, high GDP/capita, high life expectancy, low mortality rate and high health expenditure.

All of this suggests that if one seek to understand the impacts of urbanization and urban population growth, a very detailed and encompassing studied must be made. And even so, it is doubtful that there will be clear indicies of advantages or disadvantages. It could simply be that while urbanization occurs in many countries, the consequences thereof are extremely individual and dependent on so many more factors than just urban population growth.

This study has shown that these kind of generalizations of sub-Saharan Africa are often misleading, because while the region on a global level might be “poor” or “less developed”, the countries within the region often differ greatly between each other. The findings and analyses suggest that, in order to understand the socio-economic factors of urbanization, one must look beyond Lewis two-sector model, Harris-Todaro model on migration and other theories that do not allow for national differences. Furthermore, the time perspective of this study has indicated that the very dynamics of urbanization change over time, and therefore, older theories might not be very useful in trying to understand contemporary dynamics.

5.5.2 The contemporary mechanics of urban population growth

The result of this study suggests, that, while it is difficult to find any connection between urbanization and socio-economic development, it might be possible to theorize the process of urban population growth, on a rather general level. As discussed in Chapter 2, researchers and authors have debated the fact that urban population growth is no longer mainly constituted by rural-to-urban migration, and the findings of this thesis supports this claim. Nowadays, urban population growth correlates with both total population growth and rural population growth. Some decades ago, this synergy did not exist. It could be that in the beginning of an urbanization process, the mechanisms for urbanization and urban population growth differ from that when a country is already fairly urbanized. It could also be that, nowadays, the mechanisms of urban population growth depend mostly on population increase while some decades ago, it relied mostly on rural-to-urban migration.

Section 5.1.1 revealed that urban population growth is highly dependent on pre-existing urban population growth. All data point to a continuing increase in urban population for rural- and urban focus countries alike, there seems to be no threshold where urban population growth somehow becomes saturated. Both Lewis two-sector model and Harris-Todaro are examples of theories suggesting that urbanization will at one point or another reach an equilibrium where rural-to-urban migration stops occurring (see: section 2.1.2.1). While this might in part be true, it overlooks the fact that cities and urban areas grow from within; people reproduce. As such, urban population growth might just have much more to do with regular demographic than socio-economic incentives, at least in contemporary time.

That being said, this conclusion is yet again dependent on the scores from a majority of the countries, but not all of them. There are differences concerning population growth; Ethiopia, for example, stands out by scoring comparatively low in comparison to the other rural focus countries regarding most demographic variables. Liberia has significantly high ratings on demographic variables, despite being part of the urban focus countries.

6. Conclusion

In the final chapter of this thesis, I will return to the research problem and the research questions to see if the objective of this thesis has been met, and if the findings of this study yielded enough information to untangle some of the complexities of urbanization and urban population growth.

6.1 The research questions

In the beginning of this thesis, I formulated three research questions that captured the research problem. In this section, I will review the questions one by one.

In sub-Saharan Africa,

- *what does the distribution of urban population look like for the different countries and what can be said about the mechanisms of urban population growth and urbanization?*

In contemporary time, the urban population differs greatly between the countries of sub-Saharan Africa. Some countries have approximately 10% urban population, while another has nearly 80%. Figure 5.1 displays urban population (% of total) in year 2009 for all sub-Saharan African countries, and it is clear that the region is very diverse in this regard.

Even as far back as in 1960, the urban population extent was very different for the countries. While the rural focus countries had relatively low urban population extent even in the 1960's, there was no such distinguishable pattern for the urban focus countries. While some of the urban focus countries had comparatively high urban population extent already back then, some had relatively low rates; and Botswana had even lower urban population extent than some of the rural focus countries.

In sub-Saharan Africa,

- *... are the countries with the more urban population generally better off in terms of socio-economic development than countries with less urban population?*

The urban focus countries typically have higher HDI and health expenditure/capita than the rural-. However, it is not clear if this truly indicates higher socio-economic standard. The reason for this doubt is, as discussed in section 5.4, the fact that the urban countries have much higher values of GDP/capita while still having roughly similar values of life expectancy and mortality rate (under-5) as the rural focus countries. Because life expectancy is one component of HDI, it is safe to say that life expectancy is *not* what causes the urban focus countries to have average HDI values.

The labor participation rate is actually higher for the rural focus countries than the urban-, and according to the time line charts, it has not changed much last few decades. This means that even though the urban population has continuously increased, labor opportunities have not necessarily done so.

The urban focus countries have, on average, greater prevalence of HIV (although the control countries have the highest average of them all). Tim Dyson (2003, pp. 429-430) claims that urban centers typically have greater prevalence of HIV because of the close proximity to people. However, as the control countries also have great HIV prevalence and since two of the rural focus countries also have comparatively high rates, it could just mean that there is a greater *likeliness* for the urban focus countries to have greater prevalence of HIV because of their greater urban population extent.

In sum, it is not possible to detect any socio-economic advantage or disadvantage in relation to urban population extent. The urbanized countries excel at the economic variables, but it is not clear what this actually means in terms of socio-economic development.

In sub-Saharan Africa,

- ... what can be said about the mechanisms of urban population growth and urbanization, and, taken together, will the answer to these questions contribute to an explanation of to what extent the mechanisms of urbanization and urban population growth can be generalized for the region?

It was suggested in the literature overview, Chapter 2, that urban population growth in sub-Saharan Africa today is mostly driven by high nativity (White et al, 2008, p. 302). The analyses made in this thesis support this claim, which is then in contrast to both the Lewis two-sector model and the Harris-Todaro model on migration that both consider urban population growth to depend on rural-to-urban migration. That being said, as discussed in section 5.2, it seems as if rural-to-urban migration still contributes to urban population growth, but to a smaller extent.

The Lewis two-sector model describes the perceived transition from a traditional society to a modern. Urbanization and urban population growth is thought to bring about economic growth and job opportunities. It is true that the urban focus countries generally excelled at GDP/capita and proxies connected to economic development. Yet there are many questions left unanswered. Figure 5.6-5.13 presented time lines of GDP/capita and urban population growth, and only for a few countries did these two proxies grow simultaneously. The data of labor participation rate showed that the rural focus countries in fact had higher averages than the urban-.

Likewise, the timelines of labor participation revealed little change on the labor market last few decades. This is, however, in line with the reasoning of the Harris-Todaro model on migration which predicts that urban population growth might lead to high rates of unemployment.

However, both the Lewis two-sector model and the Harris-Todaro model on migration are theories that predict an eventual end to rural-to-urban migration. While they might be somewhat correct in this regard, they overlook the fact that cities grow from within; that population increase alone contributes to urban population growth. The findings of this thesis reveal no signs of a halt to urban population growth.

As such, it is very difficult to evaluate the mechanisms of urban population growth and urbanization. While it appears to be mostly fuelled by nativity nowadays, it is not given what this leads to. The

urban focus countries generally have higher GDP/capita, but it is not clear whether urbanization or economic development comes first. Finally, there have hardly been any differences on the labor market for the urban focus countries lately, and they have, on average, inferior labor participation rate to the rural focus countries. Hence, it is neither sure what a comparatively high GDP/capita truly means.

Overall, two aspects of urbanization has the potential to be generalized and theorized. The first is the question of what drives urban population growth. The second is the connection between urbanization and economic growth.

Nowadays, there is a connection between urban population growth and regular population growth. In section 5.2, it was concluded that there is a correlation between these two factors and that this correlation did not exist a couple of decades ago.

In other words, the urban focus countries experienced their urban population growth without this covariation to population growth. Today the rural focus countries represent the highest urban population growth rates, as well as the highest total population growth and rural population growth. At the same time, also the urban focus countries continuously increase their urban population, and as the correlation analyses has shown, this is also likely to depend on total population growth rather than rural-to-urban migration. That being said, rural-to-urban migration is not at all obsolete; as stated in section 5.2, rural-to-urban migration exists, but it is probably not the driving force behind urban population growth.

It is possible that rural-to-urban migration used to fuel urban population growth, but that nowadays it has been replaced in favor of intra-city population growth. Yet it could also be that the mechanisms of urban population growth changes as the urban population extent increases; while the urban focus countries might have begun their urbanization process mainly through rural-to-urban migration, it could nowadays be driven mainly by natural increase.

This recent connection between population growth and urban population growth and how it relates to rural-to-urban migration could be the foundation of a new theoretical platform regarding urbanization. With further studies, it would be possible to shed further light on this matter and further explore the dynamics.

The urban focus countries turned out to dominate economic factors (GDP/capita, HDI and health expenditure). That is in line with the classic notion of urbanization as a modernization process. Yet, it was not possible to establish whether urbanization enables economic development, or the other way around. Likewise, increase in GDP/capita did not necessarily occur simultaneously with urban population growth.

While it is possible to say that urbanized countries generally have higher GDP/capita, it is not given what impact this has on socio-economic development. The urban focus countries were not convincingly superior in any of the socio-economic variables aside from HDI and health expenditure.

On the whole, sub-Saharan Africa is a very diverse region, not only in regards of urban population. For nearly every variable tested, the differences were great country-wise; both in actual numbers and in quintile positioning. Not even the focus groups, that were deliberately selected in order to be representative, were very unanimous in their extent of urban population.

Even when the focus groups appeared to stand out as being at either one end of the scale or the other, there were still one or more country breaking the pattern. For example, most of the urban focus countries were located in one of the top quintiles of HDI, but Liberia was located in the fifth, hence last quintile. Even though there are indicies of properties belonging to either of the focus groups, there are exceptions of countries not following the rule.

In sum, one could say that while urban population growth and economic growth appear generalizable, socio-economic- status and development does not.

In the end, I believe that the most important finding of this thesis is that urbanization and urban population growth is a very complex process. Despite analyzing a multitude of variables for several time periods, only a few correlations could be detected. And even for these correlations, not all countries followed the pattern.

6.2 What could have been done differently?

In hindsight, I realize that some of the procedures used in this thesis could have been done differently in order to obtain a different and perhaps more satisfying result.

First of all, instead of selecting my focus countries based on *urban population (% of total)*, I could have used the variable *urban population growth (annual %)* as the determining factor. That way, it is possible that I would have gained greater insight on the mechanisms of urban population growth. Based on the results of this thesis, I could, for example, have selected the countries with the highest urban population growth in year 2009 and compared them to the fastest growing countries in 1970. This would have been an excellent complement to the findings regarding total population growth versus rural-to-urban migration. Table 6.1 shows the urban population growth (annual %) of year 2009 and 1960. As we can see, the growth rates are much higher in 1970 than in 2009 and it would be extremely interesting to dig deeper into this.

Secondly, I used average quintile positioning as a means to compare the two focus groups (and the control group) to each other. While this lead to some insights, the averages were often questionable because many times, the countries were very scattered on the table. While some countries of a focus group had a high quintile positioning, some had low, causing the average to end up somewhere in the middle. In a sense, the focus countries were much less coherent to each other than expected.

Thirdly, despite my attempt to investigate as many proxies as possible, for as many years as possible, I realized that it would have been beneficial to evaluate many more factors. Urbanization is such a complex process with so many factors involved and interlinked, and it is near impossible to determine what factor affects the other and in what way. I would have liked to examine many more socio-economic variables. This would have granted further insights both in the relation between

socio-economic development and urbanization and urban population growth, and also pure economic development. Inequality indexes and income distribution values would have been very interesting to incorporate.

Finally, there are several variables I would have like to examined for more years. As table 6.1 suggests, perhaps I should have examined urban population growth for more years than 2009 and 1960.

Table 6.1 Countries with the highest Urban Population Growth (annual %) 2009 and 1970

Highest Urban Pop. Growth (annual %)	2009
Liberia	5.86
Malawi	5.70
Burundi	5.67
Burkina Faso	5.10
Eritrea	5.10
Mali	4.79
Tanzania	4.64
Sudan	4.54
Highest Urban Pop. Growth (annual %)	1970
Botswana	14.00
Togo	9.92
Swaziland	9.59
Mauritania	9.23
Tanzania	8.06
Zambia	7.97
Gambia	7.95
Chad	7.91

Source: WDI & GDF

6.3 Future studies of urbanization and urban population growth

Despite my attempt to try to understand the mechanisms of urban population growth and increase the understanding of the urbanization process in sub-Saharan Africa, this study has, if anything, underscored the complexity of these matters.

In this thesis, I have found indicies that urban population growth nowadays might be driven mainly by population growth and not rural-to-urban migration. The latter still occurs, but likely to a lesser extent than previously expected. How these two mechanisms fit together is yet unknown. What I found is that only during the two most recent decades, there is a strong correlation between urban population growth and regular population growth. Future studies inspired by these findings have the potential to yield

great insights and possible the formulation of a new theoretical framework.

Furthermore, the connection between economic development, socio-economic development and urbanization is very unclear in sub-Saharan Africa. The region is expected to increase its' urban population rapidly, and the findings in this thesis supports that. Studies regarding this aspect might prove to be very useful because it is so uncertain what urbanization and urban population growth actually causes.

6.4 Concluding remarks

The objective of this study was to try to untangle some of the complexities regarding urban population growth and urbanization in sub-Saharan Africa.

In the introductory chapter of this thesis, I discussed the lack of a theoretical consensus to explain urbanization and urban population growth in sub-Saharan Africa, and it was my intention to

try to shed some light on this matter. Yet I have found that urbanization and urban population growth are so complicated and intertwined with several other factors, and that the region of sub-Saharan Africa is very diverse regarding so many things. I have learned that even though patterns might be spotted and traces of correlations can be seen, there will always be another factor; another country; or another time period which questions that perception, and it appears near impossible to discover them all.

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Appendix I

In this appendix I offer a more thorough explanation of definitions of concepts and variables used in this thesis; as well as how and why they were selected and derived.

I.1 The definition of sub-Saharan Africa

I.1.1 The original definition of sub-Saharan Africa

In this thesis, sub-Saharan Africa is defined according to the definition outlined by the United Nations Statistics Division (UNSD). The UNSD defines sub-Saharan Africa in the following way “...the designation sub-Saharan Africa is commonly used to indicate all of Africa except northern Africa, with the Sudan included in sub-Saharan Africa.” (UNSD, 2010). According to UNSD’s site, sub-Saharan Africa then comprises the following countries and entities: *Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Côte d’Ivoire, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mayotte, Mozambique, Namibia, Niger, Nigeria, Réunion, Rwanda, Saint Helena, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.*

I.1.2 Excluded countries

Although this thesis bases its definition of sub-Saharan Africa on the above mentioned definition, some countries and entities are excluded. First of all, the overseas- departments and territories have been excluded: that is, *Réunion, Saint Helena* and *Mayotte*. Secondly, since this thesis assesses data

Table I.1 Countries with less than 1 million inhabitants

Country name	Population
Cape Verde	491,621
Comoros	715,774
Djibouti	872,090
Equatorial Guinea	681,115
Sao Tome and Principe	162,515
Seychelles	87,298

Source: WDI & GDF

from 2009 the latest and because of the country’s recent establishment, *South Sudan* is not included either (although technically, it is part of Sudan because of the old statistics).

Thirdly, I have applied a delimitation based on total population. A great part of this thesis will include variables consisting of- or depending on demography, and therefore too small populations might distort the result. As such, all countries with *less* than 1 million inhabitants in year 2009 are excluded. The affected countries are presented in Table 3.1.

I.1.3 The final definition of sub-Saharan Africa

Thus, the original UNSD definition has been reduced, and the final definition of sub-Saharan Africa used in this thesis consists of 42 countries: *Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Togo, Uganda, United Republic of Tanzania, Zambia and Zimbabwe*. In Figure 3.1, the region below the red border constitutes sub-Saharan Africa according to the original UNSD definition.

Figure I.1 Border marking sub-Saharan Africa



I.2 Definition of variables

In this sub-section I will define and explain the various variables used in this thesis and their respective sources.

I.2.1 Variables obtained from the WDI & GDF

Urban population (% of total) is defined as “...people living in urban areas as defined by national statistical offices.” (World Bank, 2012d). It is measured with data from the World Bank and the United Nations World Urbanization Prospects (ibid).

This variable will constitute the core of this thesis as it is the dependent factor. Countries based on their urban population (% of total) will be analyzed. See section 1.4, 1.5.2 and chapter 4 for further elaboration. Even though it is not directly measured in this thesis, it is worth mentioning that *rural population (% of total)* is the remaining percentages of urban population (% of total) (World Bank, 2012f). Therefore, the percentage of rural population can easily be estimated whenever a number revealing urban population is given.

Urban population growth (annual %) is defined and calculated in the same way as urban population (% of total) (World Bank, 2012e).

The growth rate will be used to understand the dynamics of urbanization and urban population growth; both in the present and in the past.

Rural population growth (annual %) is defined and calculated in the same way as rural population (% of total) (World Bank, 2012g).

Although this thesis focuses on urban areas, evaluating its rural counterpart can reveal information of, for example, population flows. As such, this variable is a complement to urban population growth.

Population, total includes “...all residents regardless of legal status or citizenship--except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin.” (World Bank, 2012h).

Since this thesis is concerned with populations and population flows, it seems relevant to widen the scope a little further. It is possible that urban population growth is connected to total population.

Population growth (annual %) is based on the same definition as total population and is calculated in the following way “ [the] ... rate for year t is the exponential rate of growth of midyear population from year t-1 to t, expressed as a percentage .” (World Bank, 2012i).

Similar to that of urban- and rural population growth rate, this variable might possibly yield information about the dynamics of urban population growth and extent.

Land area (square kilometers) refers to the “...country's total area, excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones.” (World Bank, 2012j).

Geography overall is rarely included in research concerning urbanization. But as suggested in section 2.2.2.1, urban centers might have been installed at very specific locations with good infrastructure. Land area might not be able to verify this notion, but there might be a connection after all.

Fertility rate, total (births per woman) is defined as “... the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates.” (World Bank, 2012k).

Evaluating fertility rates has a twofold purpose: first, it is connected to demographics, and second, it might be connected to socio-economic status, as indicated in section 2.2.2.2. There are plenty of variables available that measures level of fertility or children born. Total fertility rate was chosen because it is a recognized variable and often used in research.

Gross Domestic Product (GDP), PPP (constant 2005 international \$) (World Bank 2012l). GDP is defined as “[the]... sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.” (World Bank, 2012m).

Purchasing Power Parity (PPP) means that goods and services of a certain country is calculated according to US prices and in \$ (Todaro and Smith, 2009, p. 47). This allows for more

just comparisons, since even though GDP might be much lower in a less developed country, so is probably the cost of commodities (ibid). The constant value of the \$ in this variable means that the numbers are not subjects of inflation, which further validates comparisons.

Out of many variables indicating economic prosperity, this one was chosen for its properties mentioned above; mainly for the sake of as fair comparison as possible.

GDP growth (annual %) is defined according to the definition of GDP as described above (World Bank, 2012n).

Although not as ideal as above mentioned variable, it still yields an indication of the increase in GDP. Because it lacks purchase power parity and since it is not protected for inflation, this variable will be critically analyzed, and it will not be compared to the GDP measurement above.

Arable land (% of land area) comprises "...land defined by the FAO [*authors edit: Food and Agriculture Organization*] as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow." (World Bank, 2012o).

It seems reasonable to assume that countries with a large rural population ought to have plenty of arable land, but do they really? Countries with a large urban population might require plenty of arable land to supply its population with food stuffs. This particular variable is relevant concerning the Lewis two-sector model in particular, given that the model assumes a transformation from a traditional economy to a modern.

Life expectancy, at birth, total is "... the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life." and is calculated by adding together life expectancy for males and for females (World Bank, 2012p).

Life expectancy ratings are thought to reveal some information of the living conditions in the various countries. While urbanization is connected to prosperity and development, some facts indicate that conditions might be subpar in urban areas, as suggested in the previous chapter.

Mortality rate, under-5 (per 1000 live births) represents "the probability per 1,000 that a newborn baby will die before reaching age five, if subject to current age-specific mortality rates." (World Bank, 2012q).

Mortality rates of children might indicate living conditions in the various countries. Similar to life expectancy, this variable will be used to evaluate health conditions. There are several mortality rates of children (e.g. infant mortality rate); this one was chosen because it includes the most ages.

Labor participation rate, total (% of total population ages 15+) is defined as the "... proportion of the population ages 15 and older that is economically active: all people who supply labor for the production of goods and services during a specified period." (World Bank, 2012r).

This variable is thought to indicate if countries with a large urban population truly have greater job opportunities (as suggested by Lewis two-sector model, mainly). Following that, it could

help explain urban population growth, as well as indicating socio-economic status. There are several variables connected to employment, such as employment to population ratio. However, I decided to use labor participation rate because it estimates informal work as well, something that might be wide-spread in sub-Saharan Africa.

Health expenditure per capita, PPP (constant 2005 international \$) encompasses “... public and private health expenditures as a ratio of total population. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.” (World Bank, 2012s).

Health expenditure was chosen because it might indicate socio-economic standard and availability of healthcare.

Prevalence of HIV, total (% of population ages 15-49) is the percentage of HIV positive people in the given country (World Bank 2012t). The data originates from UNAIDS and WHO (ibid).

HIV and AIDS is no doubt a problem in sub-Saharan Africa, and probably more so in specific countries. I do not know if HIV is generally more common in urban centers than in rural; urban centers have a higher population density but on the other hand, access to healthcare and information ought to be more available. Therefore, in terms of living conditions, it is an important variable to include.

Age dependency ratio (% of working age population) shows the ratio of age dependent population (people <15 years and people >64 years) per 100 working age people (people between 15 and 64 years old) (World Bank, 2012u).

This variable is thought to grant some understanding of the demographics in sub-Saharan Africa.

Population in the largest city (% of urban population) is the “... percentage of a country's urban population living in that country's largest metropolitan area.” (World Bank 2012v).

As mentioned in section 2.2.2.2, it is claimed that urban residents often live in smaller cities rather than large metropolitan areas. As such, this variable will be used to evaluate the distribution of urban residents in sub-Saharan Africa.

I.2.2 Human Development Index

The Human Development Index (HDI) is an index consistent of several variables and its purpose is to reveal a unit's social and economic status (UNDP, 2012a). The index yields a number between 0 and 1 where the higher the number – the better the status (ibid).

The HDI consists of three components which all make up a third of the total value: Health, education and living standard (UNDP, 2012a). Health is based on *life expectancy at birth*, and living standard is derived from *gross national income per capita (PPP)* (ibid). Education is a twofold component, consisting of *mean years of schooling* and *expected years of schooling* (ibid).

The HDI used in this thesis originates from an online database issued by the UNDP (see: UNDP, 2012b).

I.2.3 Pearson's r and r^2

The coefficient of correlation, r , indicates a correlation between variables through a regression analysis (Djurfeldt et al, 2010, pp. 160-161). Squaring this coefficient yields r^2 , the coefficient of determination, which explains more accurately how much of the variation in the dependent variable that can be explained by the independent variable (ibid). r^2 yields a number between 0 and 1, where 1 represents 100% correlation (variations in the dependent variable (Y) is explained by the independent variable (X) (ibid). In my thesis I will use r^2 .

I.3 Definition of concepts

In this sub-section, I will discuss a couple of concepts used in this thesis. Some concepts in this these are often used in very broad terms and might therefore be subjects to different pre-understandings.

I.3.1 The concepts of urbanization and urban areas

According to Todaro and Smith (2009, p. 842) the term *urbanization* is defined as "... the economic and demographic growth process of the urban centers". With this definition in mind, it is important to differentiate between *urbanization* on the one hand and *urban population size* on the other, especially in this thesis. In many cases, the two terms appear to be used interchangeably, an action I will try to avoid. Since the basis for this thesis will be urban population ratio it is necessary to keep in mind that this might not reflect the true level of *urbanization* since it reveals nothing of the economic component of the term.

It is important to stress that the term "urban area" does not only refer to large cities. In sub-Saharan Africa, only 6% of the urban population resides in cities equal to or larger than 5 million inhabitants (White et al, 2008, p. 302). In fact, 57% of the urban residents live in cities of less than 500,000 inhabitants (ibid). Although smaller cities are often attractive to migrants, some factors such as fertility level and mortality rates often reflect those in rural areas (ibid). According to *State of the World Population 2007* (p. 11-12) the abundance of "smaller" cities and low population density is a feature unique to sub-Saharan Africa.

The rather vague definition of the term urbanization has caused some problem for researchers. Mark Montgomery (2008, pp. 26) explains that urban projections and estimations are made difficult due to the various understandings of what the "urban" terms truly encompass. The UN differentiates

between the terms *city proper*, *urban agglomeration* and sometimes *metropolitan region*, all which represent demographics in cities but including different areas (for example: city proper refers to the area within the boundaries decided by the state) (Montgomery, 2008, p. 27). Although asked to provide data for *urban agglomerations* only, the UN noted that very few countries actually did so (ibid).

As stated in section 3.2.1, the data issued by the World Bank is generated mostly from national offices. Therefore, there is a risk that different definitions of urban areas and demography have been used. Since this thesis will compare data between countries it is important to know that there might be slight variations.

I.3.2 The concept of development

To define the term “development” is not an easy task. It is a highly subjective term and in some cases it might concern the market only while in others it encompasses plenty of socio-economic variables. In this thesis, I will distinguish between *economic development* and *development*. The term “economic development” refers to the increase of GDP per capita only. “Development”, on the other hand, is a much broader concept and refers to several socio-economic factors, but mainly relying on the Human Development Index. Granted, the definitions are still fairly vague, but it is close to impossible to pin-point the exact measurements without disregarding too many aspects.

In a similar manner, it is sometimes necessary for the sake of convenience to classify countries according to their developmental status. On several occasions, I will refer to either *less developed countries* or *more developed countries*. These terms are taken from Todaro and Smith in *Economic Development*. In short, the *less developed countries* constitute what is often referred to as the “developing countries” and the *more developed countries* are the “developed countries” (Todaro and Smith, 2009, p. 820). I prefer these labels as other similar terms such as “underdeveloped countries versus developed countries”, “the core versus the periphery” are subjective, historical and attached with values and pre-understandings which is not the intention of my usage of these labels.

Appendix II

Table II.1
Urban population, % of total
Year: 2009

Quint.:	Urban population, % of total	2009
1	Gabon	85.52
	Congo, Rep.	61.72
	South Africa	61.22
	Liberia	60.82
	Botswana	60.34
	Angola	57.6
	Cameroon	57.58
	Gambia, The	57.26
2	Ghana	50.76
	Cote d'Ivoire	49.44
	Nigeria	49.08
	Sudan	44.32
	Togo	42.7
	Senegal	42.64
	Mauritius	42.54
	Benin	41.6
3	Mauritania	41.2
	Central African Republic	38.74
	Sierra Leone	38.08
	Zimbabwe	37.82
	Mozambique	37.62
	Namibia	37.42
	Somalia	36.96
	Zambia	35.56
Guinea	34.92	
Congo, Dem. Rep.	34.58	
4	Mali	32.74
	Guinea-Bissau	29.92
	Madagascar	29.86
	Chad	27.14
	Lesotho	26.18
	Tanzania	25.96
	Swaziland	25.22
	Kenya	21.9
5	Eritrea	21.16
	Burkina Faso	19.98
	Malawi	19.3
	Rwanda	18.62
	Ethiopia	17.3
	Niger	16.62
	Uganda	13.14
	Burundi	10.7

Source: WDI & GDF

Table II.2
Urban population, % of total
Year: 1960

Quint.:	Urban population, % of total	1960
1	South Africa	46.6
	Mauritius	33.2
	Congo, Rep.	31.6
	Ghana	23.3
	Senegal	23
	Congo, Dem. Rep.	22.3
	Central African Republic	20.1
	Liberia	18.6
2	Zambia	18.1
	Namibia	17.9
	Cote d'Ivoire	17.7
	Gabon	17.4
	Sierra Leone	17.4
	Somalia	17.3
	Nigeria	16.2
	Cameroon	13.9
3	Guinea-Bissau	13.6
	Zimbabwe	12.6
	Gambia, The	12.1
	Mali	11.1
	Sudan	10.7
	Madagascar	10.6
	Guinea	10.5
	Angola	10.4
Togo	10.1	
4	Eritrea	9.8
	Benin	9.3
	Kenya	7.4
	Mauritania	6.9
	Chad	6.7
	Ethiopia	6.4
	Niger	5.8
	Tanzania	5.2
Burkina Faso	4.7	
5	Malawi	4.4
	Uganda	4.4
	Swaziland	3.9
	Mozambique	3.7
	Lesotho	3.4
	Botswana	3.1
	Rwanda	2.4
	Burundi	2

Source: WDI & GDF

Table II.3
Urban population growth, annual %
Year: 2009

Quint.:	Urban pop. growth, annual %	2009
1	Liberia	5.86
	Malawi	5.70
	Burundi	5.67
	Burkina Faso	5.10
	Eritrea	5.10
2	Mali	4.79
	Tanzania	4.64
	Sudan	4.54
	Congo, Dem. Rep.	4.54
	Rwanda	4.54
	Uganda	4.45
	Mozambique	4.42
	Angola	4.40
	Chad	4.33
	Gambia, The	4.23
3	Madagascar	4.06
	Niger	4.03
	Nigeria	3.98
	Kenya	3.96
	Ethiopia	3.92
	Benin	3.87
	Ghana	3.85
	Lesotho	3.81
	Togo	3.79
	Cameroon	3.63
4	Guinea	3.48
	Namibia	3.44
	Somalia	3.39
	Congo, Rep.	3.32
	Senegal	3.29
	Cote d'Ivoire	3.24
	Zambia	3.14
	Sierra Leone	3.08
	Mauritania	2.96
	5	Swaziland
Botswana		2.63
Gabon		2.42
Guinea-Bissau		2.33
Central African Republic		2.29
South Africa		1.86
Zimbabwe		1.46
Mauritius	0.65	

Source: WDI & GDF

Table II.4
Urban population growth, annual %
Year: 1960

Quint.:	Urban pop. growth, annual %	1960	
1	Lesotho	10.90	
	Swaziland	10.45	
	Mauritania	9.71	
	Cote d'Ivoire	8.95	
	Togo	8.24	
	Uganda	7.21	
	Nigeria	7.02	
	Zambia	6.92	
	2	Ghana	6.82
		Benin	6.72
Sudan		6.37	
Tanzania		6.02	
Kenya		5.81	
Mozambique		5.80	
Cameroon		5.73	
Chad		5.72	
Liberia		5.63	
Eritrea		5.59	
3	Guinea	5.55	
	Rwanda	5.54	
	Ethiopia	5.42	
	Senegal	5.30	
	Madagascar	5.23	
	Namibia	5.09	
	Somalia	5.08	
	Zimbabwe	4.82	
	4	Congo, Rep.	4.75
		Angola	4.71
Gambia, The		4.66	
Central African Republic		4.64	
Niger		4.55	
Malawi		4.55	
Sierra Leone		4.47	
Gabon		4.35	
5		Mauritius	4.26
		Congo, Dem. Rep.	4.00
	Mali	3.81	
	Burkina Faso	3.68	
	Botswana	3.57	
	South Africa	3.41	
	Guinea-Bissau	3.38	
Burundi	2.81		

Source: WDI & GDF

Table II.5
Population, total
Year: 2009

Quint.:	Population, total	2009
1	Nigeria	154488072
	Ethiopia	81187751
	Congo, Dem. Rep.	64204304
	South Africa	49320150
	Tanzania	43524738
	Sudan	42478309
	Kenya	39462188
	Uganda	32367909
2	Ghana	23824402
	Mozambique	22858607
	Madagascar	20124150
	Cote d'Ivoire	19350026
	Cameroon	19175028
	Angola	18555115
	Burkina Faso	15984479
	Niger	14972257
3	Mali	14909813
	Malawi	14442290
	Zambia	12723746
	Zimbabwe	12473992
	Senegal	12106865
	Chad	10937089
	Rwanda	10311275
	Guinea	9761217
4	Somalia	9119848
	Benin	8601771
	Burundi	8170853
	Togo	5901859
	Sierra Leone	5739293
	Eritrea	5097998
	Central African Republic	4318128
	Congo, Rep.	3941454
5	Liberia	3835929
	Mauritania	3377630
	Namibia	2242078
	Lesotho	2149201
	Botswana	1981576
	Gambia, The	1681734
	Guinea-Bissau	1484120
	Gabon	1477514
	Mauritius	1275323
	Swaziland	1168345

Source: WDI & GDF

Table II.6
Population, total
Year: 1960

Quint.:	Population, total	1960
1	Nigeria	45926253
	Ethiopia	22553350
	South Africa	17396000
	Congo, Dem. Rep.	15367539
	Sudan	11561784
	Tanzania	10074485
	Kenya	8105435
	Mozambique	7647298
2	Uganda	6788219
	Ghana	6742107
	Cameroon	5409083
	Mali	5247877
	Madagascar	5103652
	Angola	4963068
	Burkina Faso	4881947
	Zimbabwe	3752373
3	Cote d'Ivoire	3638385
	Guinea	3540756
	Malawi	3525246
	Niger	3249965
	Senegal	3047804
	Zambia	3044733
	Chad	2954088
	Burundi	2940498
4	Somalia	2819246
	Rwanda	2771018
	Benin	2419644
	Sierra Leone	2187240
	Togo	1577708
	Central African Republic	1503509
	Eritrea	1423599
	Liberia	1115736
5	Congo, Rep.	1013581
	Mauritania	854167
	Lesotho	851594
	Mauritius	659351
	Namibia	602545
	Guinea-Bissau	593289
	Botswana	523997
	Gabon	485732
Gambia, The	372625	
Swaziland	349181	

Source: WDI & GDF

Table II.7
Land area, square kilometers
Year: 2009

Quint.:	Land area, sq. km.	2009	
1	Sudan	2376000	
	Congo, Dem. Rep.	2267050	
	Niger	1266700	
	Chad	1259200	
	Angola	1246700	
	Mali	1220190	
	South Africa	1214470	
	Mauritania	1030700	
	Ethiopia	1000000	
	Nigeria	910770	
2	Tanzania	885800	
	Namibia	823290	
	Mozambique	786380	
	Zambia	743390	
	Somalia	627340	
	Central African Republic	622980	
	Madagascar	581540	
	Kenya	569140	
	Botswana	566730	
	Cameroon	472710	
3	Zimbabwe	386850	
	Congo, Rep.	341500	
	Cote d'Ivoire	318000	
	Burkina Faso	273600	
	Gabon	257670	
	Guinea	245720	
	Ghana	227540	
	Uganda	199810	
	Senegal	192530	
	Benin	110620	
4	Eritrea	101000	
	Liberia	96320	
	Malawi	94280	
	Sierra Leone	71620	
	Togo	54390	
	Lesotho	30360	
	Guinea-Bissau	28120	
	5	Burundi	25680
		Rwanda	24670
		Swaziland	17200
Gambia, The		10000	
Mauritius		2030	

Source: WDI & GDF

Table II.8
Population growth, annual %
Year: 2009

Quint.:	Population growth, annual %	2009	
1	Liberia	4.74	
	Niger	3.55	
	Uganda	3.23	
	Malawi	3.07	
	Mali	3.06	
	Rwanda	3.02	
	Eritrea	3.00	
	Burkina Faso	2.98	
	Tanzania	2.93	
	Madagascar	2.91	
2	Benin	2.90	
	Angola	2.83	
	Burundi	2.82	
	Gambia, The	2.75	
	Zambia	2.74	
	Congo, Dem. Rep.	2.73	
	Congo, Rep.	2.70	
	Senegal	2.68	
	Chad	2.62	
	Kenya	2.58	
3	Sudan	2.53	
	Nigeria	2.51	
	Mauritania	2.47	
	Ghana	2.38	
	Mozambique	2.33	
	Sierra Leone	2.24	
	Cameroon	2.19	
	Somalia	2.19	
	Ethiopia	2.17	
	Togo	2.14	
4	Guinea	2.09	
	Guinea-Bissau	2.07	
	Cote d'Ivoire	1.89	
	Namibia	1.88	
	Central African Republic	1.87	
	Gabon	1.86	
	Swaziland	1.55	
	5	Botswana	1.36
		South Africa	1.07
		Lesotho	1.02
Mauritius		0.51	
Zimbabwe		0.18	

Source: WDI & GDF

Table II.9
Population growth, annual %
Year: 1985

Quint.:	Population growth, annual %	1985
1	Gambia, The	4.44
	Malawi	4.23
	Cote d'Ivoire	3.93
	Zimbabwe	3.82
	Kenya	3.72
	Rwanda	3.71
	Swaziland	3.65
	Togo	3.41
2	Uganda	3.34
	Namibia	3.30
	Botswana	3.30
	Burundi	3.26
	Ethiopia	3.24
	Ghana	3.23
	Zambia	3.14
	Angola	3.12
3	Tanzania	3.09
	Gabon	3.09
	Senegal	2.94
	Cameroon	2.90
	Congo, Rep.	2.87
	Congo, Dem. Rep.	2.86
	Sudan	2.86
	Niger	2.76
4	Chad	2.76
	Benin	2.75
	Mauritania	2.74
	Central African Republic	2.66
	Madagascar	2.63
	South Africa	2.60
	Eritrea	2.57
	Burkina Faso	2.56
5	Guinea	2.55
	Nigeria	2.52
	Sierra Leone	2.51
	Lesotho	2.31
	Mali	1.80
	Guinea-Bissau	1.78
	Liberia	1.46
	Mozambique	1.02
Mauritius	0.67	
Somalia	-0.87	

Source: WDI & GDF

Table II.10
Population growth, annual %
Year: 1960

Quint.:	Population growth, annual %	1960
1	Cote d'Ivoire	3.61
	Zimbabwe	3.22
	Gambia, The	3.16
	Ghana	3.14
	Kenya	3.07
	Uganda	3.04
	Rwanda	3.01
	Tanzania	2.89
2	Mauritius	2.86
	Zambia	2.86
	Niger	2.81
	Mauritania	2.81
	Senegal	2.66
	Congo, Dem. Rep.	2.55
	Congo, Rep.	2.51
	Eritrea	2.48
3	South Africa	2.46
	Swaziland	2.44
	Namibia	2.37
	Sudan	2.36
	Madagascar	2.36
	Liberia	2.36
	Botswana	2.27
	Somalia	2.27
4	Malawi	2.25
	Ethiopia	2.25
	Nigeria	2.09
	Chad	2.08
	Cameroon	2.07
	Mozambique	1.94
	Burundi	1.80
	Angola	1.78
5	Lesotho	1.67
	Central African Republic	1.61
	Sierra Leone	1.55
	Burkina Faso	1.53
	Guinea	1.47
	Togo	1.27
	Mali	1.26
	Benin	1.20
Guinea-Bissau	0.55	
Gabon	0.49	

Source: WDI & GDF

Table II.11Total fertility rate, births per woman
Year: 2009

Quint.:	Total fertility rate	2009
1	Niger	7.12
	Somalia	6.36
	Mali	6.36
	Uganda	6.24
	Zambia	6.23
	Chad	6.07
	Malawi	5.99
	Congo, Dem. Rep.	5.90
	Burkina Faso	5.89
2	Angola	5.58
	Nigeria	5.56
	Tanzania	5.56
	Rwanda	5.40
	Benin	5.37
	Guinea	5.33
	Liberia	5.31
	Guinea-Bissau	5.14
	Sierra Leone	5.08
3	Mozambique	4.99
	Gambia, The	4.98
	Senegal	4.90
	Kenya	4.76
	Madagascar	4.72
	Central African Republic	4.72
	Mauritania	4.60
	Congo, Rep.	4.58
	Cameroon	4.56
4	Eritrea	4.54
	Cote d'Ivoire	4.52
	Sudan	4.48
	Burundi	4.47
	Ethiopia	4.35
	Ghana	4.24
	Togo	4.16
	Swaziland	3.45
	Zimbabwe	3.36
5	Namibia	3.29
	Gabon	3.29
	Lesotho	3.27
	Botswana	2.80
	South Africa	2.50
	Mauritius	1.50

Source: WDI & GDF

Table II.12Total fertility rate, births per woman
Year: 1960

Quint.:	Total fertility rate	1960
1	Rwanda	8.17
	Kenya	7.95
	Cote d'Ivoire	7.35
	Angola	7.32
	Madagascar	7.30
	Somalia	7.25
	Zimbabwe	7.16
	Niger	7.04
	Zambia	7.02
2	Uganda	7.00
	Malawi	6.91
	Eritrea	6.90
	Ethiopia	6.88
	Tanzania	6.81
	Burundi	6.80
	Mauritania	6.78
	Ghana	6.75
	Swaziland	6.72
3	Mali	6.70
	Senegal	6.64
	Sudan	6.63
	Botswana	6.62
	Mozambique	6.60
	Togo	6.52
	South Africa	6.45
	Liberia	6.41
	Guinea	6.37
4	Nigeria	6.35
	Burkina Faso	6.29
	Benin	6.28
	Chad	6.25
	Mauritius	6.17
	Namibia	6.15
	Sierra Leone	6.03
	Congo, Dem. Rep.	6.00
	Congo, Rep.	5.88
5	Central African Republic	5.84
	Lesotho	5.84
	Guinea-Bissau	5.83
	Cameroon	5.77
	Gambia, The	5.57
Gabon	4.11	

Source: WDI & GDF

Table II.13Rural population growth, annual %
Year: 2009

Quint.:	Rural pop. growth, annual %	2009
1	Niger	3.45
	Uganda	3.05
	Liberia	3.02
	Rwanda	2.68
	Zambia	2.52
	Burundi	2.49
	Malawi	2.46
	Burkina Faso	2.46
	Eritrea	2.44
2	Madagascar	2.43
	Tanzania	2.34
	Mali	2.23
	Senegal	2.22
	Benin	2.22
	Kenya	2.20
	Mauritania	2.13
	Chad	2.00
	Guinea-Bissau	1.95
3	Ethiopia	1.81
	Congo, Dem. Rep.	1.79
	Sierra Leone	1.73
	Congo, Rep.	1.72
	Central African Republic	1.61
	Somalia	1.49
	Guinea	1.36
	Swaziland	1.18
	Nigeria	1.10
4	Mozambique	1.08
	Sudan	0.97
	Namibia	0.95
	Togo	0.93
	Ghana	0.89
	Gambia, The	0.80
	Angola	0.73
	Cote d'Ivoire	0.60
	Mauritius	0.40
5	Cameroon	0.28
	Lesotho	0.05
	South Africa	-0.16
	Botswana	-0.54
	Zimbabwe	-0.59
	Gabon	-1.40

Source: WDI & GDF

Table II.14Rural population growth, annual %
Year: 1960

Quint.:	Rural pop. growth, annual %	1960
1	Zimbabwe	2.99
	Gambia, The	2.96
	Rwanda	2.95
	Kenya	2.85
	Uganda	2.85
	Tanzania	2.73
	Niger	2.71
	Cote d'Ivoire	2.50
	Mauritania	2.31
2	Botswana	2.23
	Mauritius	2.17
	Eritrea	2.15
	Malawi	2.14
	Congo, Dem. Rep.	2.14
	Swaziland	2.13
	Ghana	2.06
	Ethiopia	2.03
	Madagascar	2.02
3	Zambia	1.98
	Sudan	1.89
	Senegal	1.88
	Chad	1.82
	Mozambique	1.80
	Namibia	1.79
	Burundi	1.78
	Somalia	1.69
	South Africa	1.64
4	Liberia	1.62
	Congo, Rep.	1.49
	Cameroon	1.49
	Angola	1.45
	Burkina Faso	1.42
	Lesotho	1.36
	Nigeria	1.16
	Guinea	1.00
	Sierra Leone	0.95
5	Mali	0.94
	Central African Republic	0.86
	Benin	0.65
	Togo	0.51
	Guinea-Bissau	0.11
	Gabon	-0.31

Source: WDI & GDF

Table II.15
Human Development Index
Year: 2009

Quint.:	HDI	2009
1	Mauritius	0.722
	Gabon	0.664
	Botswana	0.626
	Namibia	0.617
	South Africa	0.61
	Ghana	0.527
	Congo, Rep.	0.523
	Swaziland	0.515
2	Kenya	0.499
	Madagascar	0.483
	Angola	0.481
	Cameroon	0.475
	Tanzania	0.454
	Senegal	0.453
	Nigeria	0.449
	Mauritania	0.447
3	Lesotho	0.44
	Uganda	0.438
	Togo	0.429
	Benin	0.422
	Rwanda	0.419
	Zambia	0.419
	Gambia, The	0.413
	Sudan	0.403
4	Cote d'Ivoire	0.397
	Malawi	0.387
	Ethiopia	0.353
	Mali	0.352
	Zimbabwe	0.349
	Guinea-Bissau	0.348
	Guinea	0.341
	Central African Republic	0.334
5	Sierra Leone	0.329
	Burkina Faso	0.326
	Chad	0.323
	Liberia	0.32
	Mozambique	0.312
	Burundi	0.308
	Niger	0.285
	Congo, Dem. Rep.	0.277
Eritrea	n/a	
Somalia	n/a	

Source: UNDP, 2012b

Table II.16
Gross Domestic Product growth, annual %
Year: 2009

Quint.:	GDPg, annual %	2009
1	Ethiopia	8.79
	Malawi	7.60
	Congo, Rep.	7.47
	Uganda	7.25
	Nigeria	7.00
	Mozambique	6.45
	Zambia	6.40
	Gambia, The	6.16
2	Tanzania	6.02
	Zimbabwe	6.00
	Ghana	4.66
	Liberia	4.59
	Mali	4.50
	Rwanda	4.10
	Sudan	3.96
	Eritrea	3.88
3	Benin	3.80
	Cote d'Ivoire	3.75
	Burundi	3.50
	Burkina Faso	3.50
	Togo	3.23
	Sierra Leone	3.20
	Lesotho	3.06
	Mauritius	3.03
4	Guinea-Bissau	3.00
	Congo, Dem. Rep.	2.83
	Kenya	2.59
	Angola	2.40
	Senegal	2.22
	Cameroon	2.00
	Central African Republic	1.70
	Swaziland	0.40
5	Guinea	-0.28
	Namibia	-0.70
	Niger	-1.20
	Mauritania	-1.22
	Gabon	-1.41
	Chad	-1.60
	South Africa	-1.68
	Madagascar	-4.58
Botswana	-4.93	
Somalia	n/a	

Source: WDI & GDF

Table II.17
GDP/capita, ppp, constant
2005 international \$
Year: 2009

Quint.:	GDP/cap ppp	2009
1	Gabon	13007.97
	Mauritius	11847.65
	Botswana	11771.84
	South Africa	9339.95
	Namibia	5642.94
	Angola	5389.87
	Swaziland	4731.00
	Congo, Rep.	3591.78
2	Cameroon	2038.36
	Nigeria	2030.46
	Sudan	1986.20
	Senegal	1711.83
	Mauritania	1701.12
	Cote d'Ivoire	1686.97
	Kenya	1440.65
	Benin	1422.29
3	Ghana	1401.46
	Lesotho	1349.86
	Zambia	1322.80
	Gambia, The	1238.22
	Tanzania	1237.12
	Chad	1209.64
	Uganda	1120.60
	Burkina Faso	1062.48
4	Guinea-Bissau	1049.95
	Rwanda	1000.21
	Guinea	981.49
	Mali	942.05
	Togo	884.58
	Madagascar	880.60
	Ethiopia	866.29
	Mozambique	806.62
5	Malawi	762.31
	Sierra Leone	722.51
	Central African Republic	698.18
	Niger	621.81
	Eritrea	493.77
	Liberia	370.70
	Burundi	361.84
	Congo, Dem. Rep.	298.30
Somalia	n/a	
Zimbabwe	n/a	

Source: WDI & GDF

Table II.18
GDP/capita, ppp, constant
2005 international \$
Year: 1989

Quint.:	GDP/cap ppp	1989
1	Gabon	14669.28
	South Africa	8164.69
	Botswana	6705.48
	Mauritius	5748.51
	Namibia	4044.72
	Congo, Rep.	3617.15
	Angola	3393.49
	Swaziland	3329.57
2	Cameroon	2281.83
	Cote d'Ivoire	1998.26
	Mauritania	1620.01
	Senegal	1533.22
	Kenya	1410.93
	Nigeria	1342.98
	Zambia	1289.49
	Guinea-Bissau	1161.44
3	Gambia, The	1130.26
	Benin	1116.37
	Sudan	1114.99
	Madagascar	1035.06
	Liberia	992.30
	Togo	942.53
	Ghana	902.32
	Chad	882.26
4	Guinea	864.26
	Central African Republic	857.41
	Tanzania	828.73
	Rwanda	742.33
	Niger	732.70
	Burkina Faso	703.32
	Congo, Dem. Rep.	700.13
	Mali	690.31
5	Sierra Leone	690.13
	Malawi	558.36
	Ethiopia	548.77
	Uganda	547.36
	Burundi	485.92
	Lesotho	426.60
	Mozambique	400.99
	Eritrea	n/a
Somalia	n/a	
Zimbabwe	n/a	

Source: WDI & GDF

Table II.19Arable land, % of land area
Year: 2009

Quint.:	Arable land, % of land area	2009	
1	Rwanda	52.70	
	Mauritius	42.86	
	Togo	40.45	
	Gambia, The	40.00	
	Malawi	38.18	
	Nigeria	37.33	
	Burundi	35.05	
	Uganda	33.03	
	2	Benin	22.15
		Burkina Faso	21.56
Senegal		20.00	
Ghana		19.34	
Sierra Leone		15.15	
Ethiopia		13.95	
Cameroon		12.61	
South Africa		11.82	
3		Niger	11.79
		Guinea	11.60
	Tanzania	11.29	
	Lesotho	11.03	
	Zimbabwe	10.81	
	Guinea-Bissau	10.67	
	Swaziland	10.17	
	Kenya	9.49	
	Cote d'Ivoire	8.81	
	Sudan	8.48	
4	Eritrea	6.83	
	Mozambique	6.42	
	Mali	5.21	
	Madagascar	5.07	
	Zambia	4.51	
	Liberia	4.15	
	Chad	3.41	
	Angola	3.21	
	5	Central African Republic	3.13
		Congo, Dem. Rep.	2.96
Somalia		1.59	
Congo, Rep.		1.46	
Gabon		1.26	
Namibia		0.97	
Botswana		0.44	
Mauritania	0.38		

Source: WDI & GDF

Table II.20Arable land, % of land area
Year: 1961

Quint.:	Arable land, % of land area	1961	
1	Mauritius	44.33	
	Togo	33.09	
	Nigeria	28.99	
	Burundi	26.29	
	Rwanda	19.66	
	Uganda	15.76	
	Senegal	15.23	
	Guinea	14.33	
	2	Malawi	13.79
		Gambia, The	11.80
Lesotho		11.79	
Cameroon		10.58	
South Africa		9.88	
Niger		9.08	
Guinea-Bissau		8.36	
Benin		8.32	
3		Burkina Faso	7.76
		Ghana	7.47
	Swaziland	7.21	
	Kenya	6.15	
	Tanzania	5.87	
	Cote d'Ivoire	5.28	
	Sierra Leone	4.96	
	Zimbabwe	4.87	
	4	Sudan	4.53
		Liberia	3.92
Zambia		3.43	
Madagascar		3.31	
Mozambique		3.11	
Congo, Dem. Rep.		2.82	
Central African Republic		2.70	
Chad		2.30	
5		Angola	2.14
		Congo, Rep.	1.52
	Somalia	1.42	
	Mali	1.34	
	Namibia	0.78	
	Botswana	0.70	
	Gabon	0.35	
Mauritania	0.26		
Eritrea	n/a		
Ethiopia	n/a		

Source: WDI & GDF

Table II.21Life expectancy, at birth (in years)
Year: 2009

Quint.:	Life expectancy, at birth	2009
	Mauritius	72.88
	Madagascar	66.19
	Ghana	63.39
1	Gabon	61.85
	Namibia	61.62
	Sudan	60.79
	Eritrea	60.56
	Senegal	58.63
	Ethiopia	58.12
	Mauritania	57.92
	Gambia, The	57.84
2	Tanzania	56.59
	Congo, Rep.	56.56
	Togo	56.20
	Kenya	55.84
	Liberia	55.48
	Benin	55.17
	Rwanda	54.67
	Burkina Faso	54.47
	Cote d'Ivoire	54.06
3	Niger	53.82
	Guinea	53.17
	Uganda	53.07
	Botswana	53.01
	Malawi	52.68
	South Africa	51.61
	Nigeria	50.95
	Somalia	50.63
	Cameroon	50.58
4	Mali	50.54
	Angola	50.25
	Burundi	49.42
	Mozambique	49.28
	Chad	48.89
	Zimbabwe	48.45
	Swaziland	47.89
	Zambia	47.81
5	Congo, Dem. Rep.	47.80
	Guinea-Bissau	47.31
	Sierra Leone	46.96
	Central African Republic	46.88
	Lesotho	46.67

Source: WDI & GDF

Table II.22Life expectancy, at birth (in years)
Year: 1960

Quint.:	Life expectancy, at birth	1960
	Mauritius	58.75
	Zimbabwe	51.54
	Botswana	50.54
1	South Africa	49.04
	Congo, Rep.	48.58
	Namibia	46.88
	Lesotho	46.50
	Kenya	46.36
	Ghana	45.98
	Zambia	45.11
	Swaziland	44.24
2	Uganda	43.98
	Tanzania	43.65
	Mauritania	42.23
	Rwanda	42.22
	Sudan	41.59
	Cameroon	41.52
	Burundi	41.24
	Congo, Dem. Rep.	41.02
	Cote d'Ivoire	40.42
3	Chad	40.24
	Madagascar	39.88
	Gabon	39.57
	Togo	39.56
	Eritrea	39.11
	Senegal	38.93
	Nigeria	38.50
	Ethiopia	38.41
	Niger	37.90
4	Malawi	37.77
	Liberia	37.65
	Central African Republic	36.48
	Somalia	35.99
	Burkina Faso	35.86
	Benin	35.58
	Mozambique	35.00
	Guinea-Bissau	34.51
5	Gambia, The	33.54
	Angola	32.99
	Guinea	32.36
	Sierra Leone	31.46
	Mali	30.31

Source: WDI & GDF

Table II.23

Mortality rate, under 5 years
(per 1,000 live births)
Year: 2009

Quint.:	Mortality rate, under 5	2009
1	Mali	181.6
	Sierra Leone	180
	Somalia	180
	Burkina Faso	178
	Chad	175.1
	Congo, Dem. Rep.	172.1
	Angola	164.3
	Central African Republic	160.5
	Guinea-Bissau	151.6
2	Niger	150
	Nigeria	146.7
	Burundi	143.1
	Mozambique	139.6
	Cameroon	137.6
	Guinea	134.2
3	Cote d'Ivoire	125.3
	Benin	118.1
	Zambia	116.1
	Mauritania	111.5
	Liberia	108.9
	Ethiopia	108.8
	Togo	105.7
	Sudan	104.2
	Uganda	102.6
	Gambia, The	101.1
	Malawi	98.1
	Rwanda	97.5
4	Congo, Rep.	93.6
	Lesotho	92
	Kenya	87
	Zimbabwe	83
	Swaziland	81.8
	Tanzania	80.4
	Senegal	78.5
	Ghana	76.6
5	Gabon	74.9
	Madagascar	65.4
	Eritrea	63.2
	South Africa	60.9
	Botswana	49.4
	Namibia	44.1
	Mauritius	15.3

Source: WDI & GDF

Table II.24

Labor participation rate, % of total
Year: 2009

Quint.:	Labor participation rate (%)	2009
1	Burundi	89.3
	Tanzania	88.4
	Madagascar	86.4
	Rwanda	86
	Mozambique	85.8
	Ethiopia	85.4
	Uganda	84.5
	Burkina Faso	84.4
	Guinea	84.2
2	Kenya	82.2
	Angola	81.3
	Central African Republic	79
	Gambia, The	77.8
	Malawi	76.8
	Botswana	76.6
	Senegal	76.4
	Gabon	75.5
	Ghana	74.6
	Togo	74.4
3	Lesotho	74
	Benin	72.7
	Congo, Rep.	72.7
	Eritrea	72.6
	Guinea-Bissau	71.5
	Liberia	71.1
	Congo, Dem. Rep.	70.8
	Chad	70.4
4	Somalia	70.3
	Mauritania	70
	Zambia	69.2
	Cameroon	67
	Cote d'Ivoire	66.9
	Zimbabwe	66.8
	Sierra Leone	66.4
	Swaziland	63.6
5	Niger	62.7
	Mauritius	57.5
	Namibia	57.1
	Nigeria	56.2
	South Africa	55
	Sudan	52.3
	Mali	51.9

Source: WDI & GDF

Table II.25

Health expenditure, per capita (constant 2005 international \$)

Year: 2009

Quint.:	Health expenditure per capita	2009
1	Botswana	1340.69
	South Africa	861.56
	Mauritius	730.50
	Gabon	512.52
	Namibia	383.93
	Angola	316.00
	Swaziland	312.21
	Sudan	161.08
2	Nigeria	136.22
	Lesotho	132.81
	Congo, Rep.	126.09
	Cameroon	121.58
	Uganda	114.91
	Sierra Leone	106.24
	Ghana	103.85
	Senegal	102.10
3	Rwanda	101.91
	Chad	94.43
	Burkina Faso	87.60
	Cote d'Ivoire	86.25
	Gambia, The	84.47
	Zambia	68.31
	Kenya	68.15
	Tanzania	67.53
4	Mali	65.98
	Benin	64.73
	Guinea	61.16
	Togo	57.12
	Liberia	52.54
	Malawi	50.27
	Mozambique	50.08
	Burundi	48.70
5	Mauritania	46.53
	Madagascar	40.91
	Niger	40.08
	Ethiopia	39.87
	Guinea-Bissau	34.66
	Central African Republic	32.34
	Congo, Dem. Rep.	30.51
	Eritrea	13.45
Somalia	n/a	
Zimbabwe	n/a	

Source: WDI & GDF

Table II.26

Prevalence of HIV, total (% of population ages 15-49)

Year: 2009

Quint.:	Prevalence of HIV	2009
1	Swaziland	25.9
	Botswana	24.8
	Lesotho	23.6
	South Africa	17.8
	Zimbabwe	14.3
	Zambia	13.5
	Namibia	13.1
	Mozambique	11.5
2	Malawi	11
	Uganda	6.5
	Kenya	6.3
	Tanzania	5.6
	Cameroon	5.3
	Gabon	5.2
	Central African Republic	4.7
	Nigeria	3.6
3	Chad	3.4
	Congo, Rep.	3.4
	Cote d'Ivoire	3.4
	Burundi	3.3
	Togo	3.2
	Rwanda	2.9
	Guinea-Bissau	2.5
	Angola	2
4	Gambia, The	2
	Ghana	1.8
	Sierra Leone	1.6
	Liberia	1.5
	Guinea	1.3
	Benin	1.2
	Burkina Faso	1.2
	Sudan	1.1
5	Mali	1
	Mauritius	1
	Senegal	0.9
	Eritrea	0.8
	Niger	0.8
	Mauritania	0.7
	Somalia	0.7
	Madagascar	0.2
Congo, Dem. Rep.	n/a	
Ethiopia	n/a	

Source: WDI & GDF

Table II.27

Age dependency ratio (% of working age population)
Year: 2009

Quint.:	Age dependency ratio	2009
1	Niger	104.75
	Uganda	104.25
	Mali	97.62
	Angola	97.38
	Zambia	97.31
	Congo, Dem. Rep.	96.93
	Malawi	95.78
	Chad	94.00
2	Tanzania	91.44
	Somalia	91.01
	Burkina Faso	91.01
	Mozambique	90.47
	Benin	88.33
	Madagascar	87.19
	Gambia, The	86.62
	Guinea	86.56
3	Liberia	86.15
	Senegal	86.13
	Nigeria	85.88
	Ethiopia	83.19
	Rwanda	82.28
	Kenya	82.25
	Sierra Leone	81.69
	Cote d'Ivoire	81.51
4	Guinea-Bissau	81.28
	Central African Republic	80.63
	Congo, Rep.	79.82
	Cameroon	79.38
	Eritrea	78.77
	Sudan	78.24
	Zimbabwe	76.73
	Togo	76.71
5	Mauritania	74.86
	Ghana	74.03
	Swaziland	73.35
	Lesotho	72.85
	Burundi	70.23
	Namibia	68.20
	Gabon	67.63
	Botswana	58.34
South Africa	53.65	
Mauritius	41.07	

Source: WDI & GDF

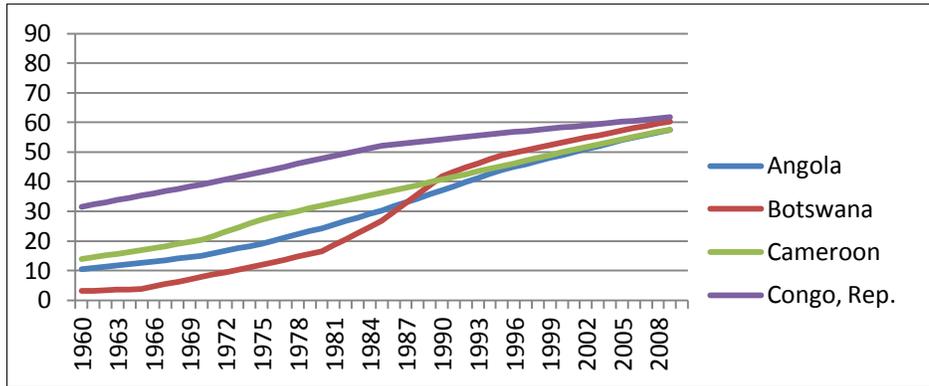
Table II.28

Population in the largest city (% of urban population)
Year: 2009

Quint.:	Population in the largest city	2009
1	Guinea-Bissau	67.97
	Togo	63.20
	Eritrea	60.16
	Burkina Faso	55.64
	Senegal	53.79
	Congo, Rep.	53.13
	Burundi	52.03
	Mauritania	50.93
2	Gabon	48.98
	Rwanda	47.33
	Guinea	46.86
	Gambia, The	45.32
	Angola	42.20
	Central African Republic	41.94
	Cote d'Ivoire	41.91
	Namibia	40.73
3	Niger	40.36
	Somalia	40.13
	Sierra Leone	40.06
	Lesotho	39.10
	Kenya	39.06
	Congo, Dem. Rep.	37.84
	Liberia	37.83
	Uganda	36.09
4	Zimbabwe	34.05
	Mali	33.34
	Zambia	31.22
	Madagascar	30.22
	Malawi	29.45
	Tanzania	28.38
	Mauritius	27.52
	Chad	27.24
5	Sudan	26.67
	Swaziland	25.05
	Benin	22.78
	Ethiopia	20.38
	Ghana	18.76
	Cameroon	18.60
	Mozambique	18.48
	Botswana	16.38
Nigeria	13.46	
South Africa	11.95	

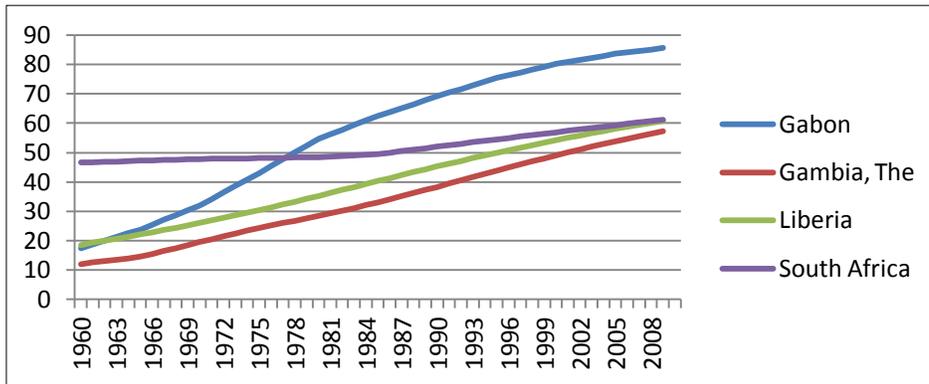
Source: WDI & GDF

Figure II.1 Urban population, % of total (1960-2009)



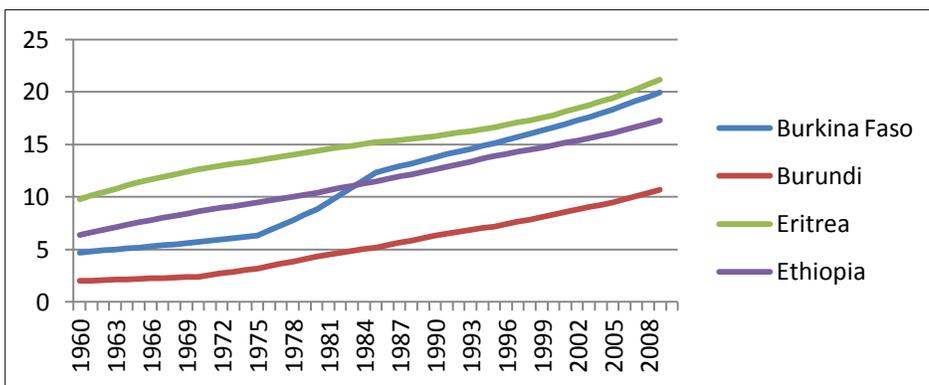
Source: WDI & GDF

Figure II.2 Urban population, % of total (1960-2009)



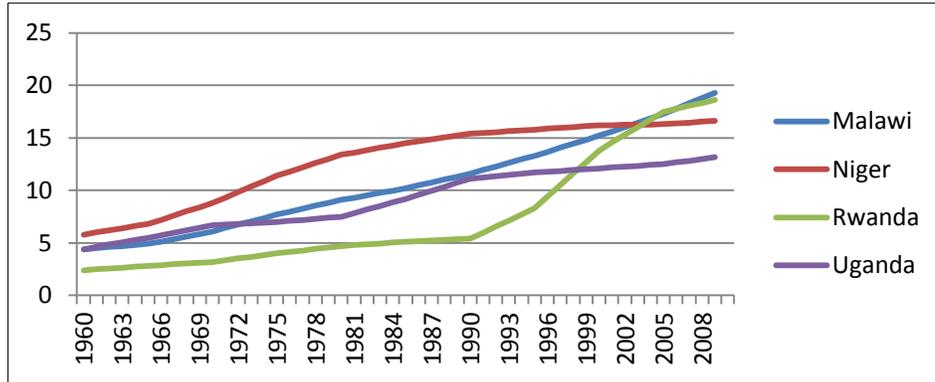
Source: WDI & GDF

Figure II.3 Urban population, % of total (1960-2009)



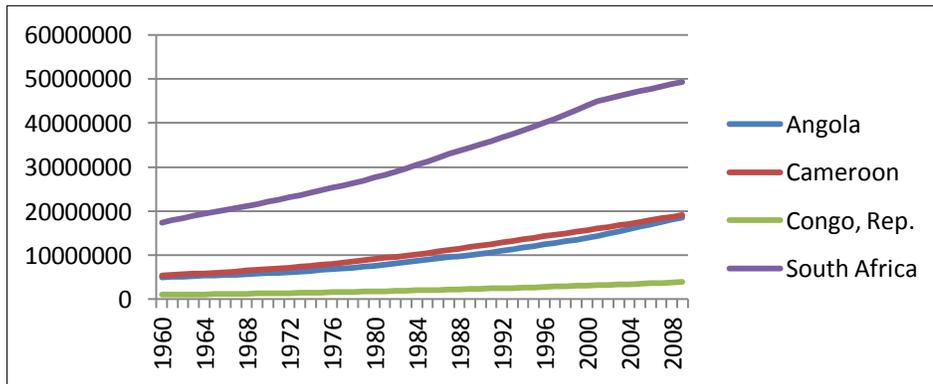
Source: WDI & GDF

Figure II.4 Urban population, % of total (1960-2009)



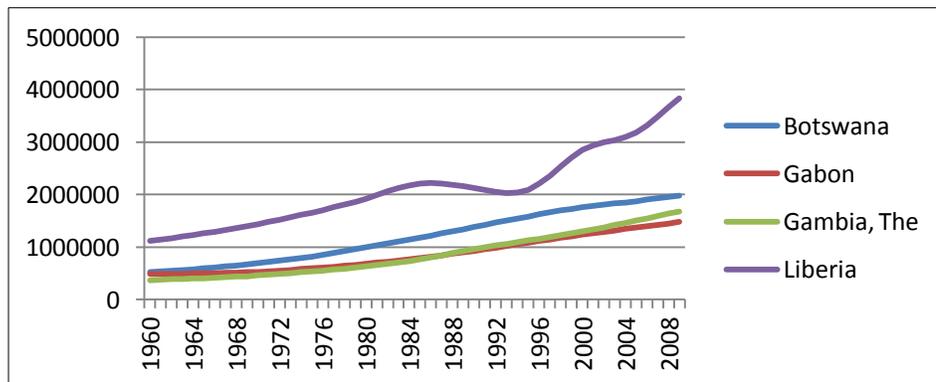
Source: WDI & GDF

Figure II.5 Population, total (1960-2009)



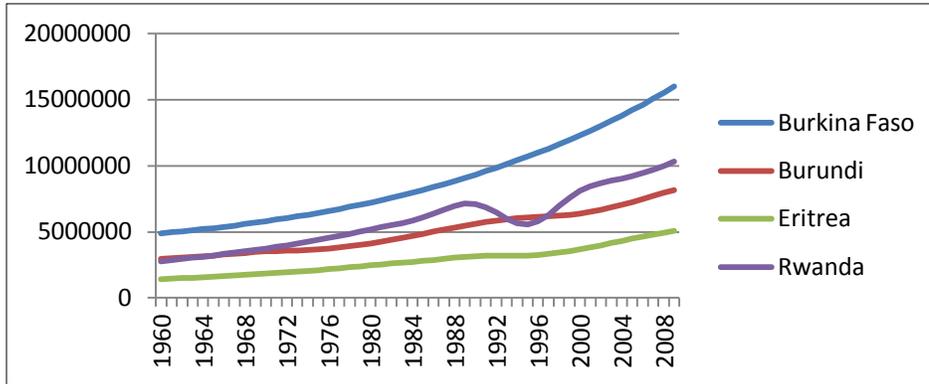
Source: WDI & GDF

Figure II.6 Population, total (1960-2009)



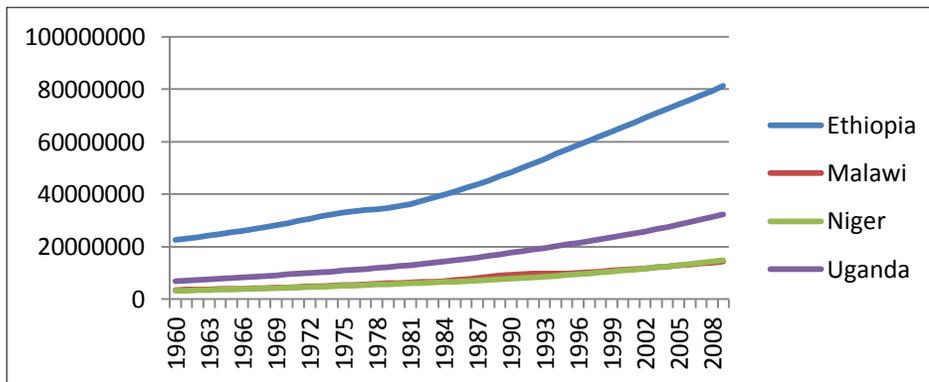
Source: WDI & GDF

Figure II.7 Population, total (1960-2009)



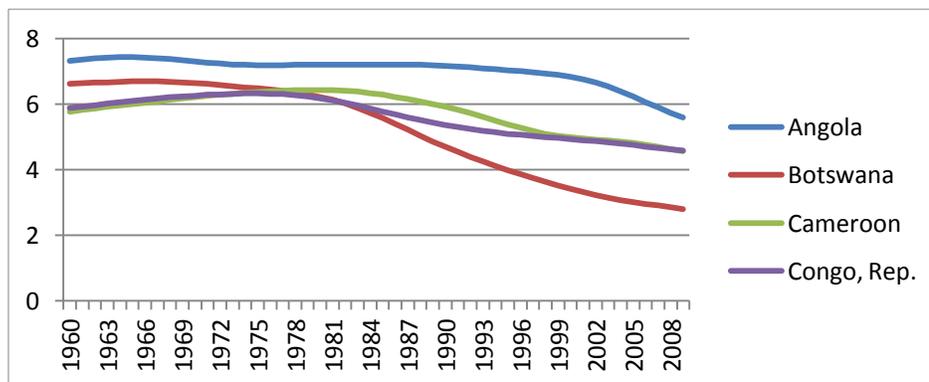
Source: WDI & GDF

Figure II.8 Population, total (1960-2009)



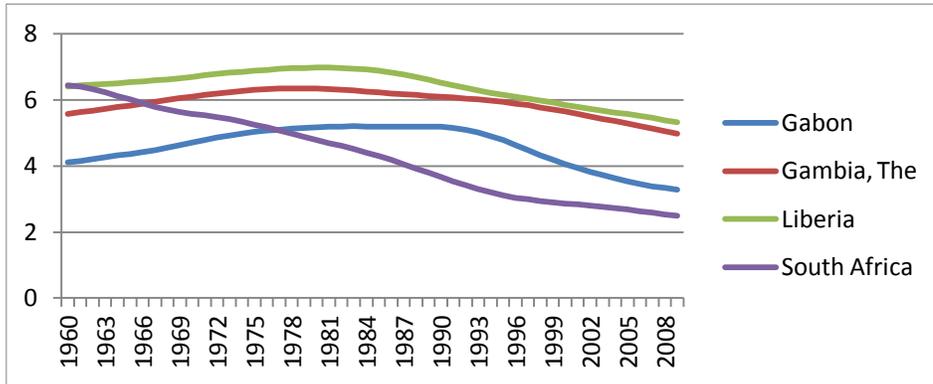
Source: WDI & GDF

Figure II.9 Total fertility rate, births per woman (1960-2009)



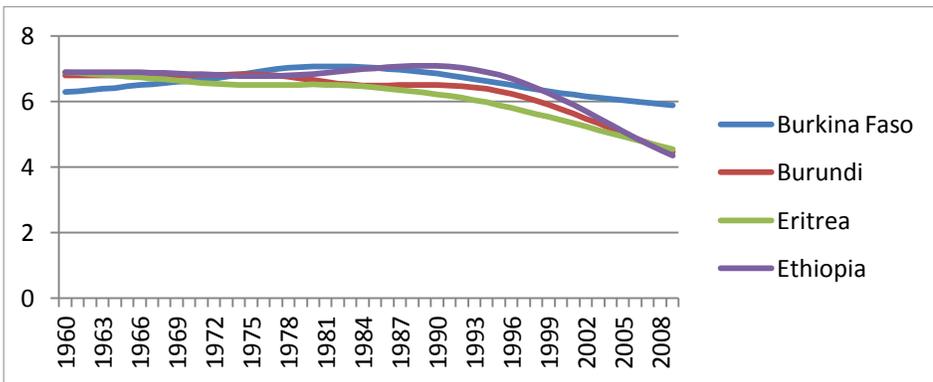
Source: WDI & GDF

Figure II.10 Total fertility rate, births per woman (1960-2009)



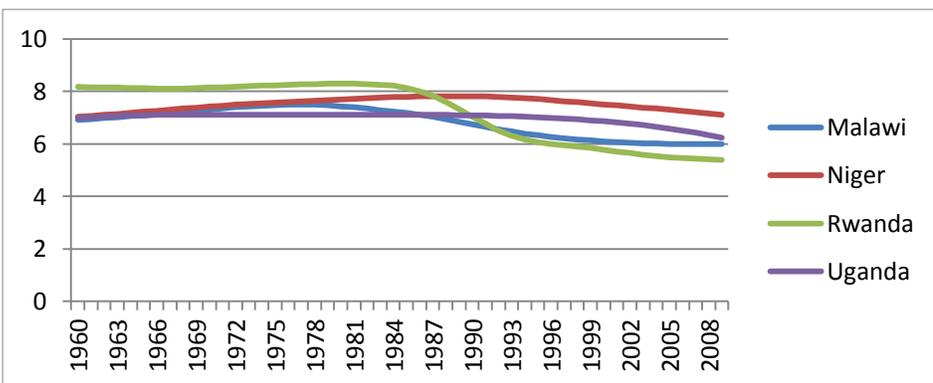
Source: WDI & GDF

Figure II.11 Total fertility rate, births per woman (1960-2009)



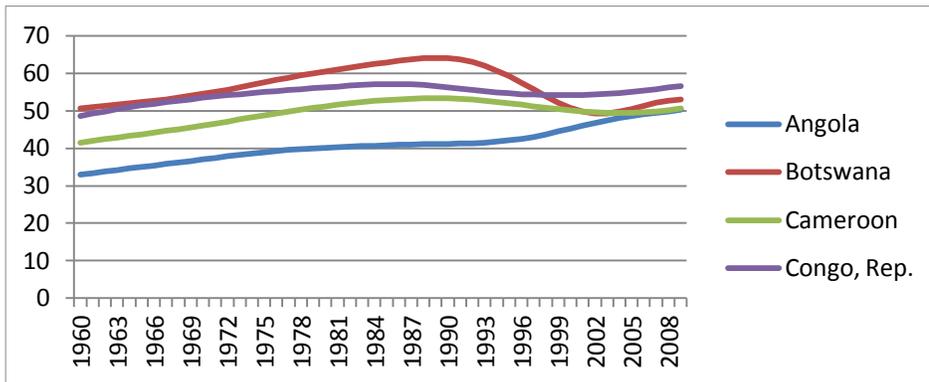
Source: WDI & GDF

Figure II.12 Total fertility rate, births per woman (1960-2009)



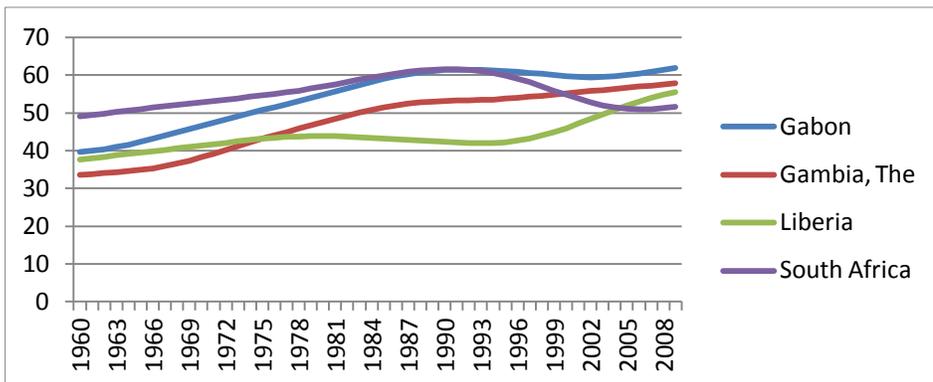
Source: WDI & GDF

Figure II.13 Life expectancy, at birth (in years) (1960-2009)



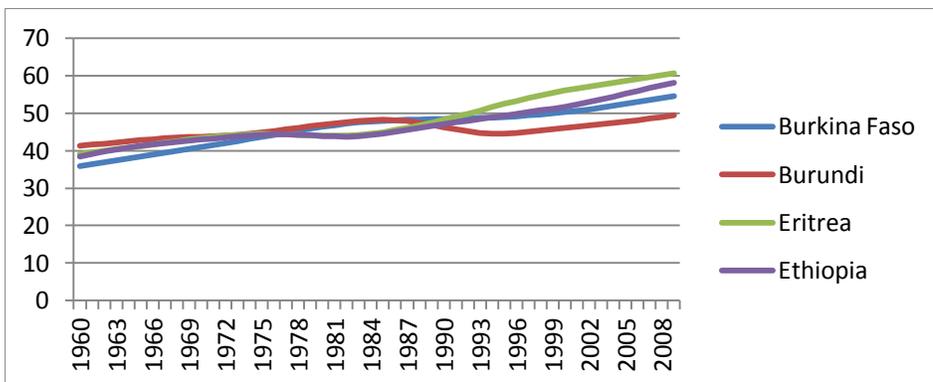
Source: WDI & GDF

Figure II.14 Life expectancy, at birth (in years) (1960-2009)



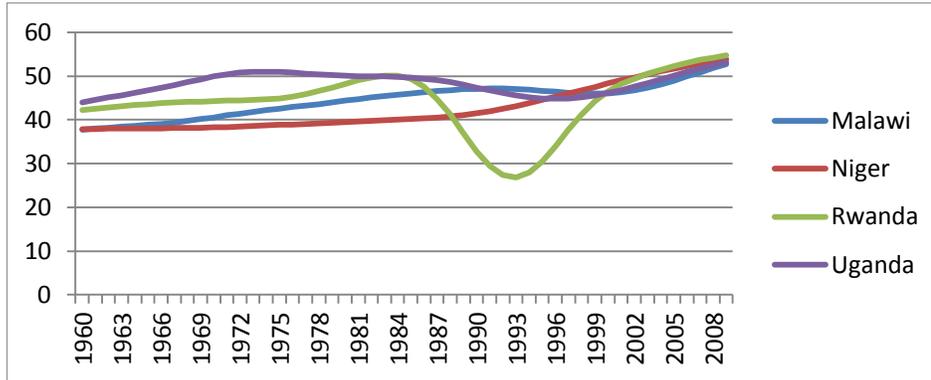
Source: WDI & GDF

Figure II.15 Life expectancy, at birth (in years) (1960-2009)



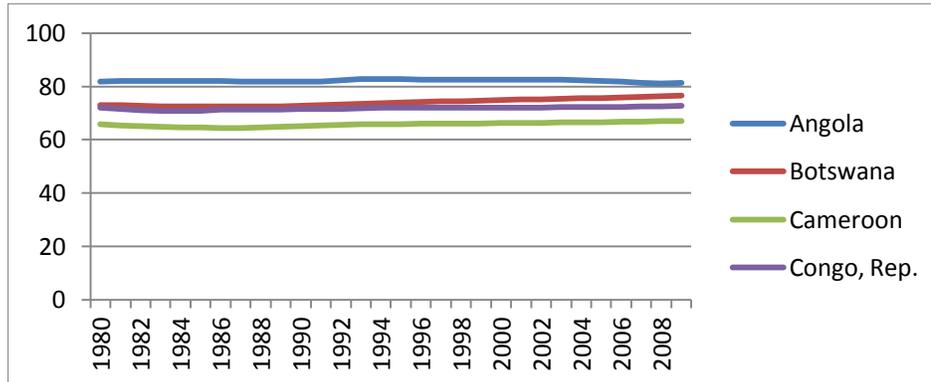
Source: WDI & GDF

Figure II.16 Life expectancy, at birth (in years) (1960-2009)



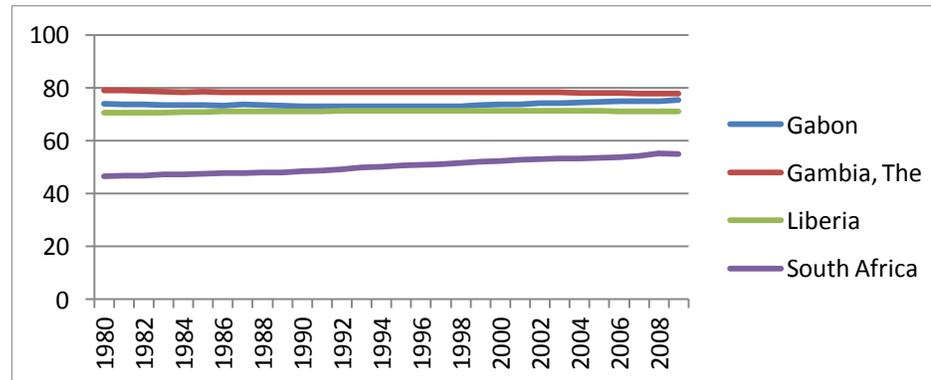
Source: WDI & GDF

Figure II.17 Labor participation rate, % of total (1980-2009)



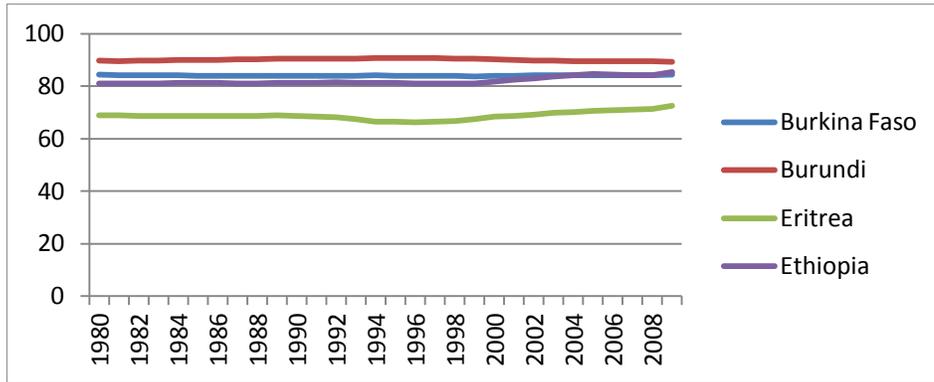
Source: WDI & GDF

Figure II.18 Labor participation rate, % of total (1980-2009)



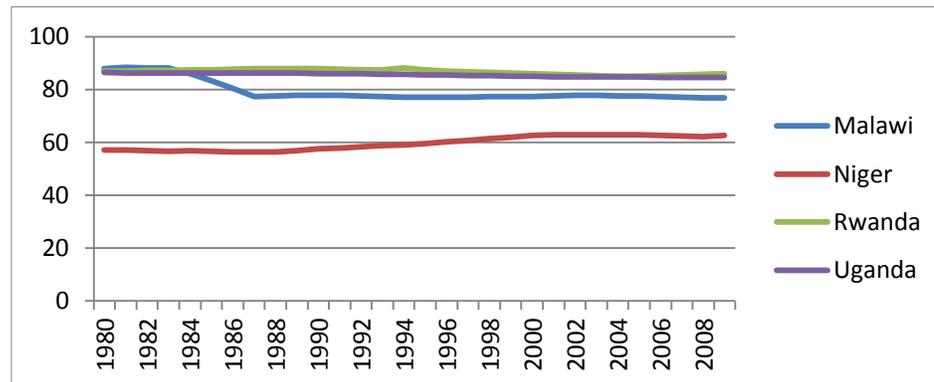
Source: WDI & GDF

Figure II.19 Labor participation rate, % of total (1980-2009)



Source: WDI & GDF

Figure II.20 Labor participation rate, % of total (1980-2009)



Source: WDI & GDF

Appendix III

This appendix offers a more thorough presentation of the result of the tables that were split in quintiles (Appendix II). Each and every variable is gone through carefully to reveal the positioning of the focus groups and the control groups. Moreover, the sections offer some discussions around the *actual* values of the variables, rather than only the quintile positioning. This is very important because although some countries are allocated in the same quintile, they might still differ greatly in actual values.

III.1 Urban population, % of total, year 1960 (Appendix II, Table II.2)

All of the rural focus countries are located on the bottom half of the table. This means that already in 1960, these eight countries had comparatively low urban population in relation to total population. However, there is still a difference of a couple of percentages between the country with the least urban population (Burundi, 2%) and the country with the most (Eritrea, 9.8%) out of the rural focus countries.

While the rural focus countries are seemingly allocated rather close to each other, this is not the case with the urban focus countries. The eight urban focus countries can be found in quintile 1, 2, 3, and 5. As such, they represent both the top and the bottom of urbanized sub-Saharan African countries in 1960.

South Africa was by far the country with the highest degree of urban population in 1960 with its 46.6%. Out of the urban focus countries, Botswana had the least urban population in 1960, merely 3.1%. Hence, the urban focus countries started out on uneven grounds in 1960.

The control countries are dispersed in three different quintiles; quintile 2, 3 and 5.

III.2 Urban population growth, annual %, year 2009 (Appendix II, Table II.3)

The rural focus countries are all located on the top half of the table; that is, among the sub-Saharan African countries with the most rapid urban population growth. Four countries are found in the first quintile: Malawi, Burundi, Burkina Faso and Eritrea. The remaining four countries are found in quintile two and three respectively.

The urban focus countries are found within all five quintiles. South Africa, Gabon and Botswana are located in the fifth quintile; in other words, among the countries with the least urban population growth. Interestingly, Liberia is not only found in the first quintile, but is also the country with highest urban population growth of all sub-Saharan African countries. Again, there is no apparent consistency among the urban focus countries; their properties differ greatly.

Three of the control countries are found in quintile 4 and 5 respectively, in other words, quite low urban population growth. The remaining country however, is located in quintile 2.

III.3 Urban population growth, annual %, year 1960 (Appendix II, Table II.4)

The rural focus countries are located in quintile 1, 3, 4 and 5. As such, there is no directly detectable coherence. Burundi had an urban population growth of 2.81% while Uganda’s corresponding figure was 7.21%. The remaining countries had a growth rate located in between these two examples. Interestingly, some countries had a higher urban population growth in 1960 than in 2009; Uganda, Eritrea, Rwanda, Ethiopia and Niger.

The urban focus countries are located in quintile 2, 3, 4 and 5. The gap between them is not as great as was the case for the rural focus countries. South Africa had a growth of 3.41% compared to Cameroon’s 5.73%.

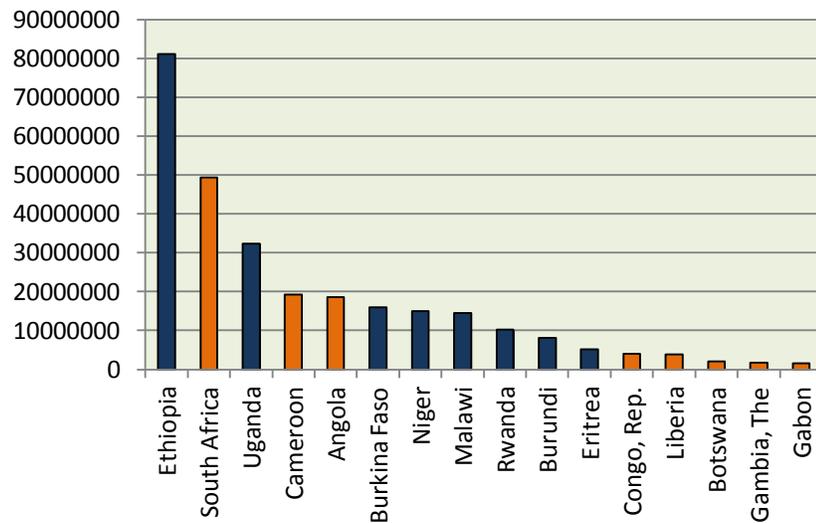
The control countries are located in two quintiles; number 2 and 3. As such they are allocated in the middle of the table.

III.4 Population, total, year 2009 (Appendix II, Table II.5)

The rural focus countries are located in quintile 1, 2, 3 and 4. They are not allocated closely together, but none of the countries has a population of less than 5 million inhabitants.

The urban focus countries are located in quintile 1, 2, 4 and 5, where South Africa has by far the largest population. However, it is interesting to note that five out of these eight countries have less than 4 million inhabitants and three countries have less than 2 million. As such, the population size differs notably between the two focus groups.

Figure II.I Total population of the focus countries (2009)



Source: WDI&GDF

The control countries are found in quintile 2, 3 and 5, with two countries in quintile 3. Only one of them, Namibia, has less than a total of 5 million inhabitants.

The difference in total population is illustrated in Figure II.I where the rural focus countries are marked in blue and the urban focus countries are marked in orange.

III.5 Population, total, year 1960 (Appendix II, Table II.6)

Similarly to the outline above, the rural focus countries are found in quintile 1, 2, 3 and 4. Position-wise, the difference is not great between 2009 and 1960. However, all countries have experienced a huge population increase.

The same applies to the urban focus countries. Those countries that in 2009 had less than 4 million inhabitants have less than 1.5 million in 1960.

The control countries are found in quintile 1, 2, 3 and 5, so there has been some mobility compared to 2009. Similarly to the focus countries, the control group countries have experienced a large increase in total population.

III.6 Land area, square kilometers, year 2009 (Appendix II, Table II.7)

The rural focus countries are found within all five quintiles. The land area difference is massive; from Niger with 1,266,700 km² to Rwanda with 24,670 km². However, six countries out of eight are located on the bottom half of the table. Only Niger and Ethiopia are above.

Similarly, the difference in land area is great also among the urban focus countries, from Angola with 1,246,700 km² to Gambia with 10,000 km². Four of the eight countries are found in the mid-quintile, that is, quintile 3.

Contrary to the focus countries, the control countries are located quite close to each other on the table; three countries in quintile 2 and one in quintile 3. The differences between the countries are in other words less for the control countries.

III.7 Population growth, annual %, year 2009 (Appendix II, Table II.8)

Six out of the eight rural focus countries are in the quintile of the highest population growth, that is, quintile 1. A seventh country; Burundi, is found in quintile 2. Ethiopia, however, is found in quintile 4. The majority of the rural focus countries hence possess among the highest population growth rates in all of sub-Saharan Africa.

The urban focus countries are less coherent with each other. They can be found in all five quintiles, where three out of the eight countries are located in the fifth quintile. Liberia stands out as being the country with the highest population growth rate in all of sub-Saharan Africa.

The control countries are located in quintile 3, 4 and 5. As such, their population growth is in many cases lower than both rural- and urban focus countries.

The rural focus countries appear to follow some sort of pattern in this particular variable, whilst the urban focus countries do not.

III.8 Population growth, annual %, year 1985 (Appendix II, Table II.9)

Compared to 2009, the table and the location of the focus countries look slightly different. The rural focus countries are no longer in close proximity to each other, but represented in four out of five quintiles. However, although the positioning is different, some countries had a higher population growth in 1985 than in 2009.

The positioning of the urban focus countries in 1985 differs also from that of 2009. Most of them can be found somewhere around the middle of the table. However, two countries stand out as being located far away from the other. The first one is Gambia, which in 1985 has the greatest population growth of all of sub-Saharan Africa. The second country is Liberia, which, surprisingly, is in 1985 found in the fifth (last) quintile. Recall that Liberia in 2009 was the country with the greatest population growth. The country has, in other words, progressed from the bottom to the top in a matter of less than 25 years.

Also the control countries have quite different quintile positioning compared to in 2009. One country is found in quintile 1, one in quintile 2 and two countries in quintile 5. Zimbabwe is the country in quintile number 1, while in 2009 the country's position was in quintile 5.

It should be noted that the other countries (both the rural focus countries and the urban) have not experienced such surges or downfalls in population growth (as compared to Liberia, Gambia and Zimbabwe). Most countries' population growth differs by some 10th of a percent up to around 1% - not more.

III.9 Population growth, annual %, year 1960 (Appendix II, Table II.10)

The rural focus countries can be found in all of the five quintiles. This is interesting when compared to the previously examined years; 1985 and 2009. Seemingly, these eight countries have moved closer and closer together (at least the majority of them).

Likewise, the urban focus countries are also located within all five quintiles. Gambia is again the only country out of the eight that is represented in the first quintile. Although it does not possess the highest population growth of sub-Saharan Africa, it is within top 3. At the very bottom, however, we find Gabon. As such, the most urbanized countries are represented all over the chart with countries both at the bottom and in the top.

The control countries are found in quintile 1, 3 and 4. Zimbabwe is once again located in the first quintile.

III.10 Total fertility rate, births per woman, year 2009 (Appendix II, Table II.11)

Five of the eight rural focus countries are found in quintile 1 and 2. The remaining three are located in the fourth quintile. Niger has the leading position of all of sub-Saharan Africa with a total fertility

rate of 7.12, while Ethiopia has the lowest rate of the rural focus countries (4.35).

The urban focus countries are found in all of the quintiles but the first. The total fertility rate differs between 5.58 (Angola) and 2.5 (South Africa).

It is worth noting that in the first quintile, that of highest total fertility rate, three of the rural focus countries are represented – but none of the urban focus countries. In the fifth quintile, however, three of the urban focus countries are found – but none of the rural.

The control countries are present in quintile 1, 3 and 5, where two countries are in the latter quintile. As such, these countries are quite dispersed.

III.11 Total fertility rate, births per woman, year 1960 (Appendix II, Table II.12)

Seven of the eight rural focus countries are located in the two top quintiles; two countries are in the first quintile and five in the second. Burkina Faso is the country not following this pattern; it is found in the fourth quintile.

The urban focus countries are found in quintile 1, 3 and 5. Angola is the one country represented in the first quintile. Four countries are in the fifth quintile Gabon, Gambia and Cameroon together constitute the three countries with the least total fertility rate of sub-Saharan Africa in 1960.

As such, the rural focus countries generally had a higher total fertility rate than the urban focus countries. However, this is not a clear cut case since not all countries follow this pattern. Interestingly, this division between the urban and the rural focus countries might appear visible in 1960, but not in the above mentioned figures for year 2009.

The control countries are quite scattered also in 1960; two countries in quintile 1, one country in quintile 3 and one in the 4th.

III.12 Rural population growth, annual %, year 2009 (Appendix II, Table II.13)

Seven out of the eight rural focus countries are closely located to each other. Six countries are represented in the first quintile and one country in the second quintile. Ethiopia is the country located further away; namely in the third quintile.

Six of the eight urban focus countries are located in the bottom two quintiles; four countries in quintile 5 and two countries in quintile 4. Republic of Congo is in quintile 3, and Liberia is in quintile 1. Three countries (South Africa, Botswana and Gabon) experienced negative rural population growth in 2009.

The control countries are located in quintile 3, 4 and 5, where Zimbabwe is the only country with negative rural population growth. As such all control countries have less urban population growth than all the rural focus countries.

III.13 Rural population growth, annual %, year 1960 (Appendix II, Table II.14)

The rural focus countries are not as closely located in 1960 as in 2009. However, three countries are still found in quintile 1. The remaining are in quintile 2, 3 and 4.

Five of the urban focus countries are found in close proximity in quintile 4. Two countries, Botswana and Gambia, are found in quintile 2 and 1, respectively. Gabon has the least rural population growth of all of sub-Saharan Africa and is also the only country (in the entire region) to have a negative rural population growth.

Three of the control countries are located in quintile 3, and one, Zimbabwe, in quintile 1.

III.14 Human Development Index, year 2009 (Appendix II, Table II.15)

The rural focus countries are distributed in the lower three quintiles; that is, quintile 3, 4 and 5. Two countries are in quintile 3, another 2 in quintile 4, and three countries in quintile 5. Eritrea has no available data so it has not been ranked. There is some internal difference; Niger has the lowest HDI of the rural focus countries, namely 0.285. Uganda has the highest HDI of the rural focus countries: 0.438. Since HDI is a comparatively encompassing variable, it is clear that the rural focus countries are not identical in certain factors.

Six out of the eight urban focus countries are located in quintile 1 and 2. Gambia is found in quintile 3 and Liberia in quintile 5. While the majority of the urban focus countries are evidently among the sub-Saharan African countries with the highest HDI ranks, there is noticeable difference between the countries. 3 countries have over 0.6 HDI and 4 countries have less than 0.4. Liberia has 0.32 HDI; a number lower than most of the rural focus countries.

Generally spoken, the urban focus countries are located higher up on the table than the rural focus countries.

For the control countries, Namibia is found in the first quintile and has as such comparatively high HDI. Zimbabwe and Mozambique are found in quintile 4 and 5 respectively, while Somalia lacks data altogether.

As previously mentioned; Eritrea lacks data of HDI for this year, and so does Somalia. This means that, in this particular table, quintile 3 has 8 entries instead of 10.

III.15 Gross Domestic Product growth, annual %, year 2009 (Appendix II, Table II.16)

Seven out of the eight rural focus countries are located on the top half of the table. Three countries are found in quintile 1; two countries are in quintile 2 and two countries in quintile 3. Niger is located in quintile 5, and it is also the only country (out of the rural ones) to have a negative figure. It is worth nothing that Ethiopia and Malawi are the two countries with the highest growth in all of sub-Saharan Africa.

The urban focus countries are located all over the table: two countries in quintile 1, one

country in quintile 2, two countries in quintile 4 and three countries in quintile 5. Gabon, South Africa and Botswana are all in quintile 5, all with a negative figure. The growth difference between the urban focus countries is huge; from Botswana with a value of -4.93% to Republic of Congo with a corresponding value of 7.47%.

Only three control countries had data available for this variable. Out of those, Mozambique is located in the 1st quintile, Zimbabwe in the 2nd and Namibia in the 3rd.

There was no data available for Somalia and as such the division of the quintiles is slightly skewed (quintile 3 has only 9 entries instead of its usual 10).

III.16 GDP per capita, PPP, constant 2005 international \$, year 2009 (Appendix II, Table II.17)

All of the rural focus countries are on the bottom half of the table. That being said, two countries are in quintile 3, two countries in quintile 4 and four countries in quintile 5. Even so, the numbers are nowhere similar. Burundi has a GDP per capita of 361.84 while Uganda's corresponding value is 1120.60. The other countries are in between these two figures.

Five of the urban focus countries are found in quintile 1. One country is found in quintile 2, in close proximity to those previously mentioned. Gambia is found in the 3rd quintile and Liberia in the 5th. Once again, Liberia differs from the other urban

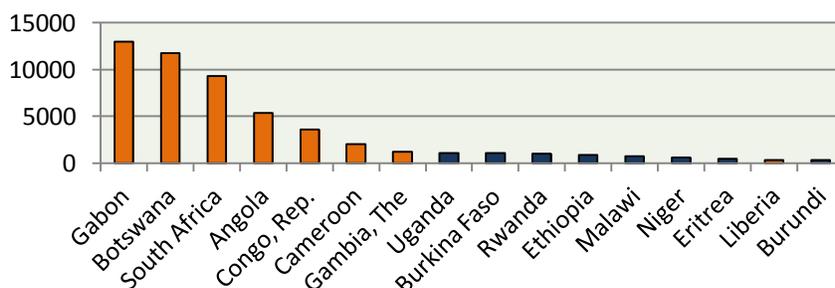
focus countries by having a value that resembles of that of the rural focus countries. Although several countries are closely located on the table, the difference in GDP per capita is great.

Despite the internal differences within the two focus groups, the urban focus countries have higher GDP per capita than the rural focus countries (with the exception of Liberia). Figure II.2 displays the values; the urban focus group marked in orange and the rural in blue.

Only two control countries are presented here because of data infrequency. Mozambique is located in the 4th quintile while Namibia is in the 1st.

Two countries lacked data; Somalia and Zimbabwe. Therefore quintile 3 contains only 8 entries.

Figure II.2 GDP/cap, ppp, constant 2005 international \$ (2009)



Source: WDI&GDF

III.17 GDP per capita, PPP, constant 2005 international \$, year 1989 (Appendix II, Table II.18)

Seven of the rural focus countries are either in quintile 4 or quintile 5. There is no data for Eritrea and therefore it is not accounted for in this particular variable. For 1989, the difference between the rural focus countries is less than in 2009. Recall the range between Uganda and Burundi from 4.2.16. In 1989, Burundi still has the lowest GDP per capita (482.95) and Rwanda has the highest (742.33). In other words, there was greater coherence in 1989. Since that year, some countries have experienced an increase in GDP per capita which has then stretched the range.

The urban focus countries that in 2009 were in quintile 1 (there were five of them) were also in quintile 1 year 1989, although with slightly different positions and different values. Cameroon is located in quintile 2; same quintile as in 2009. Gambia is located in quintile 3, also the same quintile as in 2009. Liberia, on the other hand, is just like Gambia found in quintile 3, and not in quintile 5 as in 2009. While the other countries have maintained rather similar positions in year 1989 and 2009, Liberia stands out.

The GDP per capita differs for the rural- and urban focus countries for year 1989 and 2009 alike. But it is worth noting that the quintile positioning remained quite static for the urban focus countries during these two years. For the rural focus countries there has been some mobility, but even so they are inferior to the urban focus countries in terms of GDP per capita even in 1989.

As with the foregoing variable, data for the control countries is only available for Mozambique and Namibia. The former is found in quintile 5 and the latter in quintile 1.

Three countries did not have any data available; Eritrea, Somalia and Zimbabwe. Therefore quintile 3 contains only 7 entries and the rural focus countries lacked one member compared to the urban.

III.18 Arable land, % of land area, year 2009 (Appendix II, Table II.19)

Four of the rural focus countries are found in quintile 1. Two countries are in quintile 2, one in quintile 3 and one in quintile 4. The arable land percentage difference is huge between these countries. The extreme values are 6.83% for Eritrea and 52.70% for Rwanda. While the majority of the rural focus countries are located on the upper half of the chart, this is mooted by the great discrepancy between the countries.

Three of the urban focus countries are found in quintile 5, two in quintile 4, two in quintile 2 and one in quintile 1. As such, there is a varying degree of arable land among the urban focus countries. As with the rural focus countries, the extreme values differ greatly. While Gambia has 40% arable land, Botswana has 0.44%.

One of the control countries is found in quintile 3, one in quintile 4 and two in quintile 5.

III.19 Arable land, % of land area, year 1961 (Appendix II, Table II.20)

All of the rural focus countries are on the top half of the table: three countries in quintile 1, two countries in quintile 2 and one country in quintile 3. There is no data for Eritrea and Ethiopia; therefore, they are not accounted for here. Compared to the figured of 2009, most countries have had a great increase in arable land. For example, the country with the highest percentage in 2009 was Rwanda with 52.70%. In 1961, Rwanda's arable land constituted 19.66% of its total land area.

Of the urban focus countries, 3 are located in quintile 2, one in quintile 4 and the rest in quintile 5. Compared to the rural focus countries, the urban focus countries have not had as great of an increase in arable land since 1961. There is one exception, however. Gambia's arable land increased from 11.80% in 1961 to 40% in 2009.

The control countries have exactly the same quintile positioning as for year 2009; one country in quintile 3, one in 4 and two in quintile 5.

There was no data available for neither Eritrea nor Ethiopia. Hence, quintile 3 consists of 8 entries and the rural focus countries were reduced to a total of 6 countries in this particular table.

III.20 Life expectancy at birth, in years, year 2009 (Appendix II, Table II.21)

The rural focus countries are distributed in four quintiles; 1, 2, 3 and 4. One country in quintile 1, one in quintile 2, five countries in quintile 3 and one country in quintile 4. However, they are by no means equal in terms of amount of years. The life expectancy in Burundi is 49.42 years while the respective number for Eritrea is 60.56. Thus, there is a difference of, at most, roughly 10 years between the countries.

The urban focus countries are also located in quintile 1, 2, 3 and 4: one country in quintile 1, three countries in quintile 2, two countries in quintile 3 and two countries in quintile 4. Also here the extreme value difference is of approximately 10 years: life expectancy in Angola is 50.25 years compared to 61.85 in Gabon.

Out of the control group, one country is found in quintile 1, two in quintile 4 and one in quintile 5. The country in quintile one is Namibia and as such there is quite some difference between this country and the other part of this group.

III.21 Life expectancy at birth, in years, year 1960 (Appendix II, Table II.22)

Two of the rural focus countries are found in quintile 2, two in quintile 3 and four in quintile 4. Although the life expectancy was generally lower in 1960 as compared to in 2009, the extreme value difference is still around 10 years. The life expectancy in Burkina Faso is 35.86 while the corresponding amount for Uganda is 43.98.

Of the urban focus countries, three are found in quintile 1, two in quintile 3, one in quintile 4 and two in quintile 5. Here the difference in life expectancy is greater than in 2009. The life

expectancy in Angola in 1960 was 32.99 years while Botswana's was 50.54.

For the control group, two countries are found in quintile 1, one in quintile 4 and one in quintile 5. Namibia and Zimbabwe are the ones in quintile one, as such, Namibia has maintained its comparatively high life expectancy while Zimbabwe's has been lowered.

III.22 Mortality rate, under-5 (per 1000 live births), year 2009 (Appendix II, Table II.23)

The rural focus countries are represented in all five quintiles. One country is in the first quintile, two countries in the 2nd, three countries in the 3rd, one country in the 4th and one in the 5th. Hence, there is no apparent consistency among the rural focus countries. In fact, the mortality rate differs by quite a bit. The country in quintile 5, Eritrea, has a mortality rate of 63.2 per 1000. The country in quintile 1, Burkina Faso, has a mortality rate of 178 per 1000.

The urban focus countries are also present in all quintiles. One in quintile 1, one in quintile 2, two countries in quintile 3, one in quintile 4 and three countries in quintile 5. The extreme values are very different also for the urban focus countries. Angola has a mortality rate of 164.3 per 1000 while Botswana has a mortality rate of 49.4 per 1000.

There is no apparent division between the rural- and the urban focus countries. They are all present in every quintile, although with slight differences.

The control countries are present in 4 quintiles, in other words, also quite dispersed. One country is in quintile 1, one in the 2nd, one in the 4th and then, one in the 5th.

III.23 Labor participation rate, % of total, year 2009 (Appendix II, Table II.24)

Five of the rural focus countries are in quintile 1. One country is in quintile 2, one in quintile 3 and one in quintile 5. As such, the majority of the rural focus country has a comparatively high percentage of labor participation. However, the extreme values are 62.7% (Niger) compared to 89.3% (Burundi), which reveals incoherence among these eight countries. Of the urban focus countries, three are found in quintile 2, three in quintile 3, one in quintile 4 and one in quintile 5.

The location of the urban focus countries is not as concentrated as for the rural, but the extreme values are quite different also for the urban focus countries. South Africa has a labor participation rate of 55% while Angola's corresponding figure is 81.3%. The majority of the rural focus countries are located in the first quintile, but none of the urban focus. As such, five of the rural focus countries have a higher labor participation rate than the country with the highest rate of the urban focus countries.

The control countries are located in quintile 1, 4 and 5, where two countries are in the 4th quintile. As such, the majority of the control countries also have quite low labor participation, where Mozambique stands out by being in the 1st quintile.

III.24 Health expenditure per capita, PPP, constant 2005 international \$, year 2009 (Appendix II, Table II.25)

The rural focus countries are found in quintile 2, 3, 4 and 5. One country is in quintile 2, two in quintile 3, two in quintile 4 and three in quintile number 5. Thus, five of the eight countries are among the 50% countries with the least health expenditure. Eritrea has the lowest value of all of sub-Saharan Africa, \$13.45. Uganda has the highest value of the rural focus countries: \$114.91. Evidently, the health expenditure differs greatly between the countries.

Four of the urban focus countries are located in quintile 1. Two countries are in the 2nd quintile, one in the 3rd quintile and one country in the 4th. The health expenditure differs even more between the urban focus countries than was the case for the rural focus countries. Liberia spends \$53.54 on health expenditure while Botswana's corresponding number is \$1340.99.

Despite the differences within the two focus groups, the urban focus countries generally invest more in health expenditure than the rural. Six of the urban focus countries have *higher* health expenditure per capita than Uganda, which is the country with the highest value of the rural focus countries. Five of the rural focus countries have *less* health expenditure per capita than Liberia, which is the country with the lowest value of the urban focus countries.

Only two countries out of the control group have data available; Mozambique and Namibia. The former is in the 4th quintile and the latter in the 1st.

Two countries, Somalia and Zimbabwe, are excluded in this table because of unavailable data. Therefore, quintile 3 consists of 8 entries instead of 10.

III.25 Prevalence of HIV, total (% of population ages 15-49), year 2009 (Appendix II, Table II.26)

The rural focus countries appear in quintile 2, 3, 4 and 5. Two countries are in quintile 2, two in quintile 3, one in quintile 4 and two countries in quintile 5. Ethiopia is excluded from this particular variable due to lack of data. Between the countries, the prevalence of HIV ranges from 0.8% to 11% indicating little conformity in this matter.

The urban focus countries are found in quintile 1, 2, 3, and 4. Two countries are in the first quintile, two in the 2nd, two in the 3rd and two in the 4th. The percentage between the countries differs greatly. The prevalence of HIV in Liberia is reported to be 1.5% while in Botswana the corresponding figure is 24.8%.

Although Botswana and South Africa stand out with a much higher HIV prevalence than any other country, this is not the case for the remaining urban focus countries. In fact, disregarding Botswana and South Africa, Uganda and Malawi are the countries with the highest prevalence of HIV.

Three of the control countries are found in quintile 1, and one, Somalia, in the 5th quintile. As such, the majority of the control countries are affected by high HIV prevalence.

Democratic Republic of the Congo and Ethiopia are not accounted for in this table because of absence of data. Therefore, quintile 3 is reduced to three entries.

III.26 Age dependency ratio (% of working age population), year 2009, (Appendix II, Table II.27)

The rural focus countries are represented in all quintiles. Three countries are in the 1st quintile, one in the 2nd, two in the 3rd and one country in quintile 4 and 5 respectively. Niger and Uganda have the two highest ratios of all of sub-Saharan Africa, which is more than double the amount of the country with the lowest ratio. The rural focus country with the lowest ratio is Burundi: 70.23; and the highest is Niger: 104.75. Hence, there is quite some difference between the countries in this focus group.

The urban focus countries have a similar constellation to the rural-, although mirrored. The countries appear in each of the quintiles, but three are located in the 5th. Two countries appear in the 4th quintile, and one country in each of the remaining quintiles. The range is 43.73 between the highest and the lowest ratio of the urban focus countries; Angola and South Africa. Hence, there is little coherence among these focus countries.

The control group countries are spread in three quintiles; two countries in quintile 2, one in quintile 4 and one in quintile 5.

III.27 Population in the largest city (% of urban population), year 2009, (Appendix II, Table II.28)

Three of the rural focus countries appear in the 1st quintile; one country in quintile 2, two countries in quintile 3, and one country in quintile 4 and 5 respectively. The percentage differs between the countries; Eritrea has the highest number of 60.16% and Ethiopia has the lowest, 20.38%.

One urban focus country is present in the 1st quintile, three countries in the 2nd, one in the 3rd and three countries in the fifth. As such, there are some disparities also within this focus group. The lowest degree is 11.95% and the highest is 53.13%.

It is interesting to note that the urban focus countries are allocated around two points on the table, while the rural focus countries are more evenly distributed.

The control countries are found in quintile 2, 3 and 5, where two countries are in the 2nd quintile.